



# Compartment Review Presentation

## Grayling Forest Management Unit

Compartment 231

Entry Year 2015

Acreage: 1,647

County Crawford

Management Area: Ogemaw Hills

**Revision Date:** 07/17/2013

**Stand Examiner:** Patrick Potter

### **Legal Description:**

T25N R03W Sections 11, 12, 13 and 14. East part of Beaver Creek Township

### **Identified Planning Goals:**

To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management.

### **Soil and topography:**

The soils consist of Grayling, Graycalm and Pere cheney sand. The terrain is level to slightly rolling hills in section 13.

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

The compartment is a mix of state land and private property within and around the Compartment. Most of the private property is in small acreage (10 acre parcels) and many have dwellings. There is a large private gravel pit located just south of the Compartment. A narrow strip of private property (136 -200 feet wide) surrounds three sides of the ghost town of Pere Cheney. The Pere Cheney cemetery is located along the railroad tracks on the west on private property. A pipeline bisects the compartment. The Lake States corporation railroad bisects the compartment.

### **Unique Natural Features:**

There is potential for rare dry prairie plants and insects to occur in grassy openings.

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

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

### **Special Management Designations or Considerations:**

None at this time

### **Watershed and Fisheries Considerations:**

There are no water courses in the Compartment

### **Wildlife Habitat Considerations:**

The compartment's aspen, oak and upland brush cover types provide good habitat for grouse, deer and turkey.

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

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Michigan Formation, quarried for gypsum elsewhere in the State. A gravel pit is located in Section 23 and potential is thought to be good on the upland areas. The entire Compartment is leased for oil and gas development. The Beaver Creek Field is located seven miles to the west. The field has produced over 21 MBO from the Devonian Richfield and over 5 Bcf gas from the Ordovician Prairie du Chien.

### **Vehicle Access:**

County roads that provide access to the compartment include 5-Mile, Staley Lake, Pere Cheney and Billman Roads, in addition Beasley Ave, Cemetery Xing Trail, East Railroad Trails and Wilbur Lane are also part of the county road system. A network of two-track roads provide access to the interior. The Lake States Corporation Railroad which leases the rail line from MDOT bisects the compartment and there are only two places to cross the tracks: one at 7-Mile Road and the other at the snowmobile trail in the middle of section 11.

### **Survey Needs:**

Several proposed treatments are adjacent to private property and surveys will need to be conducted to determine the property lines. A survey request has been submitted.

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

One designated snowmobile trails (#489) runs through the compartment, along with the Beaver Creek MCCCT trail. The compartment's main forms of dispersed recreation is hunting. The State (MDOT) owns the rail line and that runs through this compartment.

**Fire Protection:**

Access to the compartment is good. Access within the compartment is not so good. Many of the interior roads are poor dirt roads that are narrow and consist of loose sand. The northwest part of the compartment is mainly jack pine. There are a number residences in and around the compartment. Consideration for structure protection is important.

**Additional Compartment Information:**

At this time we do not have legal access off of 5-Mile & Beasely Road.

**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:**

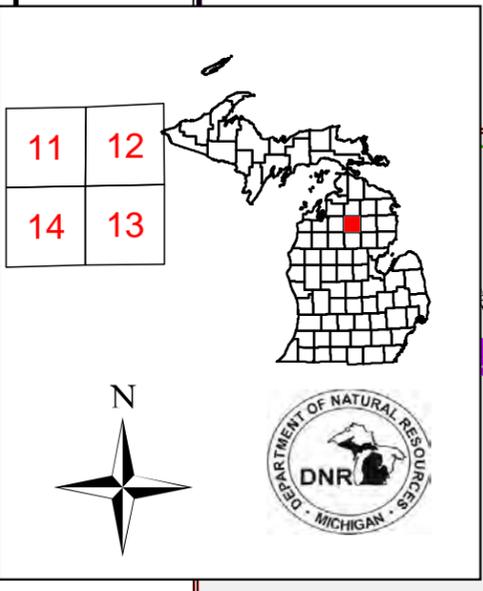
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatment Map

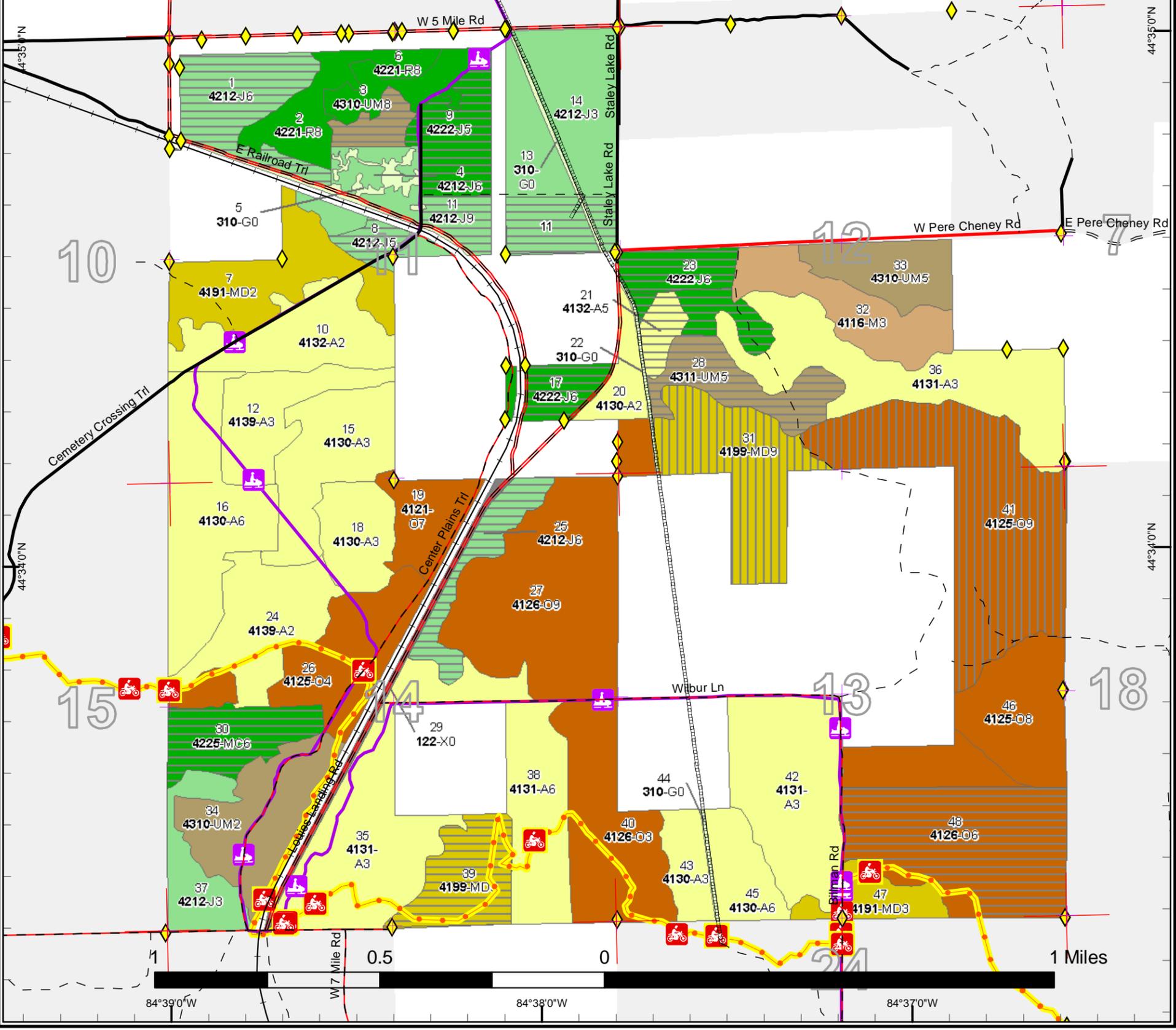
Compartment: 231  
 T25N R03W Sec. 11-14  
 County: Crawford  
 Unit: Grayling  
 YO: 2015  
 Acres: 1,647 GIS Calculated  
 Examiner: Patrick Potter  
 Map Revised: 09/05/2013  
 Map Phase: Pre-Review

## Legend

- ◆ PLSS Corner
- ◆ GPS Point
- Miris Corners
- + Remonumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- = Gravel Roads
- - Poor Dirt Roads
- County Poor Dirt Roads
- - - Trail (Non-Recreation)
- - - Closed Roads
- ✕ Gate
- Pipeline
- MCCCT Trail
- Snowmobile Trail
- Motorcycle (DNR Sticker)
- - - Hiking Trail
- - - Horse Trail
- 🏍️ Motorcycle Trails (DNR License)
- 🚶 Hiking Trails
- 🐎 Horse Trails
- 🏍️ MCCCT Trails
- 🏍️ Snowmobile Trails
- Stream
- - - Intermittent Stream
- Lakes and Rivers
- State Forest Land
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
- Shelter Wood (w/Reserves)
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- Non-Forest Stands**
- Level 3**
- 122 - Road/Parking Lot
- 310 - Herbaceous Openland



**Stand #**  
23  
**(412)0 - A7**  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

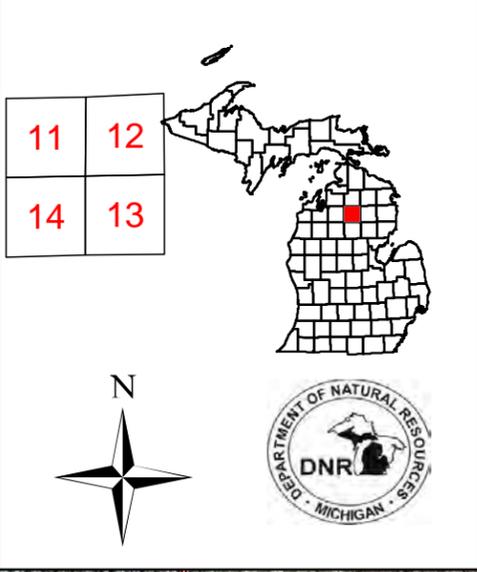


# Stand Boundary Map

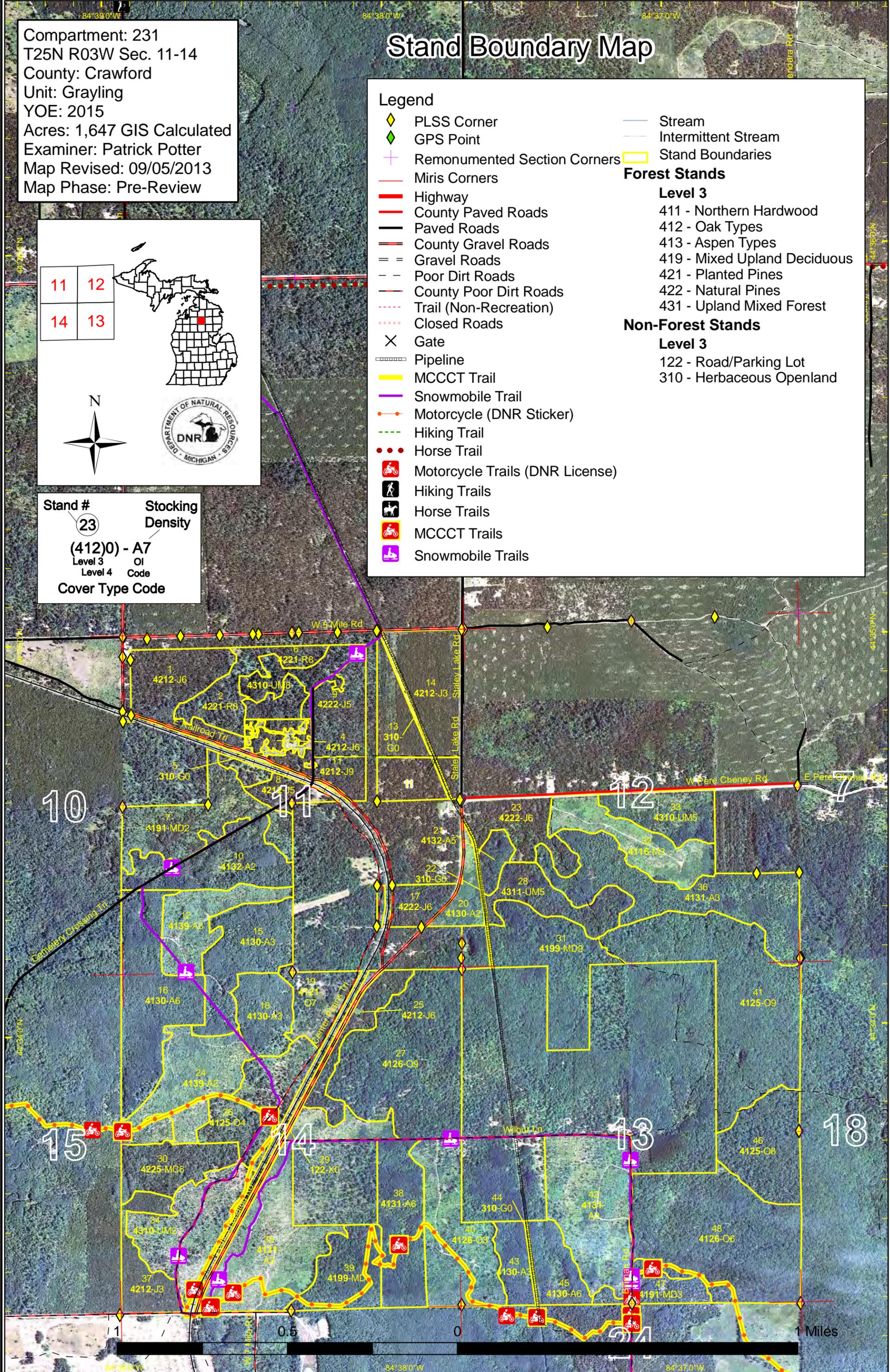
Compartment: 231  
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  - GPS Point
  - Remonumented Section Corners
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**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



Compartment: 231  
 T25N R03W Sec. 11-14  
 County: Crawford  
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 YOE: 2015  
 Acres: 1,647 GIS Calculated  
 Examiner: Patrick Potter  
 Map Revised: 09/05/2013  
 Map Phase: Pre-Review

# Special Conservation Areas & Site Conditions Map

**Legend**

- Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
  - 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
  - 3D: Recreational / Scenic values
  - 3L: Other wildlife concerns
- Dedicated Special Conservation Areas
  - Essential Habitat (Kirtland Warbler)

44°36'0"N

84°39'0"W

84°38'0"W

84°37'0"W

44°36'0"N

N

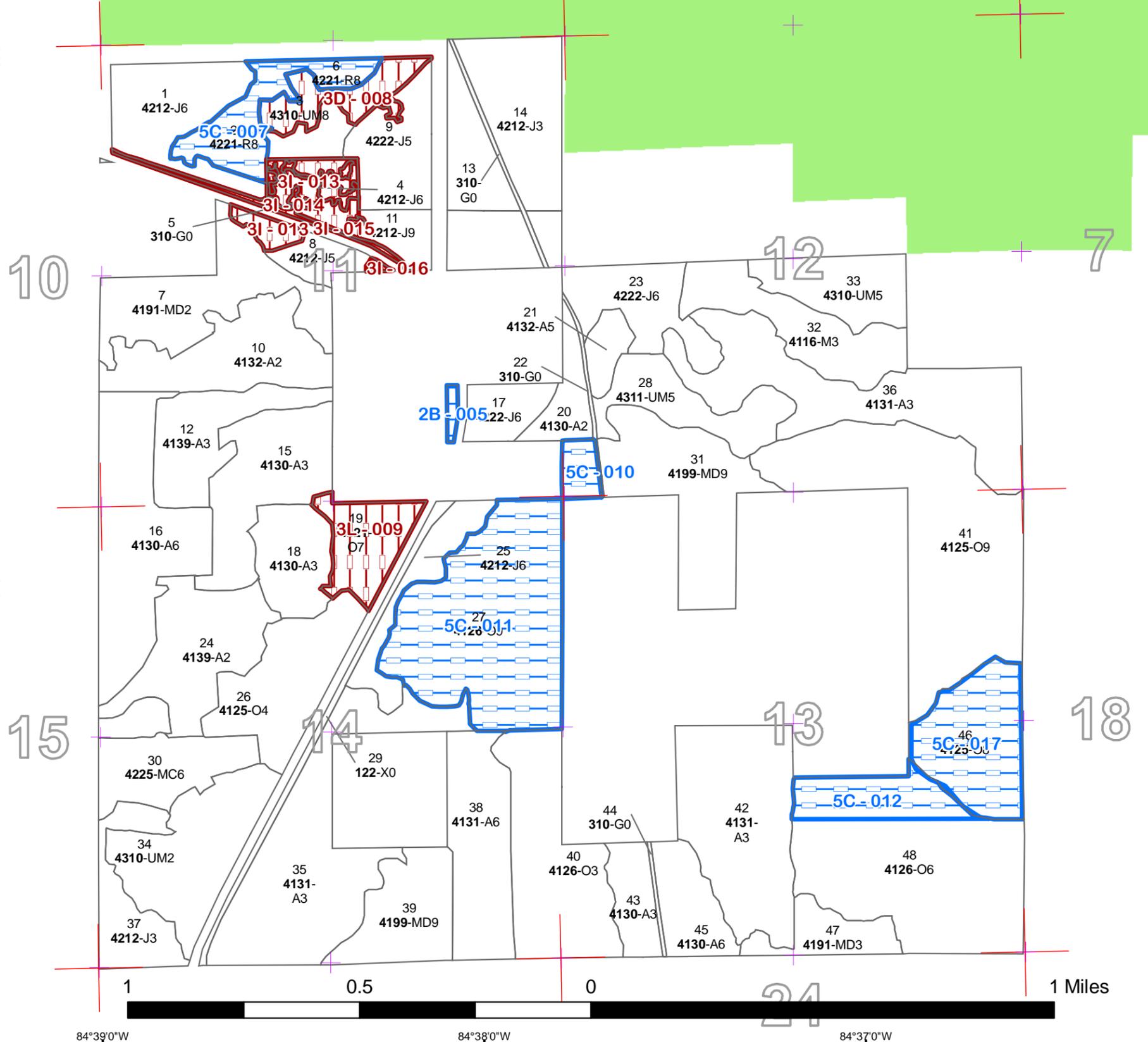
**Stand #** **Stocking Density**

**23**

**(412)0 - A7**

Level 3 OI  
 Level 4 Code

**Cover Type Code**



Report 1 – Total Acres by Cover Type and Age Class



	Age Class													Total	
	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 +		Uneven Age
Aspen	225	114	201	0	0	8	0	0	0	0	0	0	0	0	548
Herbaceous Openland	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Jack Pine	0	0	23	57	47	86	45	0	0	0	0	0	0	0	257
Mixed Upland Deciduous	0	16	45	0	0	0	0	0	30	52	0	0	0	0	142
Natural Mixed Pines	0	0	0	0	27	0	0	0	0	0	0	0	0	0	27
Northern Hardwood	35	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Oak	53	0	0	47	0	0	0	0	137	226	0	0	0	0	464
Red Pine	0	0	0	0	0	0	0	0	0	42	0	0	0	0	42
Upland Mixed Forest	46	0	25	0	0	27	0	0	0	0	9	0	0	0	107
Urban	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
<b>Total</b>	<b>383</b>	<b>130</b>	<b>295</b>	<b>104</b>	<b>74</b>	<b>121</b>	<b>45</b>	<b>0</b>	<b>167</b>	<b>319</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1647</b>



## Report 2 – Proposed Treatment Summaries

**Grayling Mgt. Unit**  
**Year of Entry 2015**

**Compartment 231**  
**Total Compartment Acres: 1,647**

### Acres by Treatment Type

Commercial Harvest - 489    Tree Planting - 211    Other - 0  
 Habitat Cut - 0    Opening Maintenance - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
<b>Aspen Types</b>	8	0	0	0	0	0	8
<b>Mixed Upland Deciduous</b>	30	0	0	52	0	0	81
<b>Natural Pines</b>	93	0	0	0	0	0	93
<b>Oak Types</b>	76	0	0	105	0	0	180
<b>Planted Pines</b>	90	0	0	0	0	0	90
<b>Upland Mixed Forest</b>	36	0	0	0	0	0	36
<b>Total</b>	<b>333</b>	<b>0</b>	<b>0</b>	<b>156</b>	<b>0</b>	<b>0</b>	<b>489</b>



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1 72231001-Cut	35.8	42120 - Planted Jack Pine	High Density Pole	52	81-110	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Final harvest with reservers . Leave 5% of the stand for retention.

Specs:

Other Comments: Heavy heart rot in the older (62 year old) and visible rot from core sample starting the younger 52 year old jack pine. Both age classes of jack pine are being heavily impacted by jack pine budworm. I added seven years to DBH age for stand year of origin. Kotar shows Habitat Type PArVHa PArVVb. Stand a little drier north edge along 5 mile road. A small ~one acre of quaking aspen southeast corner of the stand.budworm. Lots of dead and down jack pine with many broken tops on the remaining

Next Steps: Replant stand to red pine and monitor the success of regeneration Regeneration survey. Allow site prep.

Proposed Start Date: 10/01/2014

3 72231003-Cut	9.2	4310 - Pine, Oak Mix	Medium Density Log	104	81-110	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Final harvest with reservers leaving all red pine 18 inches and larger for retention.

Specs:

Other Comments: Stand is part of the Pere Cheney original plat dating back to 1874. There are areas of natural red pine ranging 90-100 years old with natural red pine regeneration averaging the mid-70's in age. Also there are pockets of planted red pine averaging in mid-50's.

Next Steps: After harvest allow site prep as needed to allow for successful planting of red pine. Replant stand to red pine and Monitor the success of the regeneration

Proposed Start Date: 10/01/2014

8 72231008-Cut	6.8	42120 - Planted Jack Pine	Medium Density Pole	57	81-110	Harvest	Clearcut	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Final harvest with no retention because of the small acres

Specs:

Other Comments: Stand is planted jack pine stand which is starting to break apart. About 1/3 of stand is already dead, with a 1/2 inch growth in the last 10 years remaining live trees. The stand does have a few pockets/areas with nice oak regeneration.

Next Steps: Allow site prep as needed prior to planting. Replant stand to red pine, and monitor the success of the regeneration.

Proposed Start Date: 10/01/2014

9 72231009-Cut	26.3	42220 - Natural Jack Pine	Medium Density Pole	66	1-50	Harvest	Clearcut with Reserves	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Harvest all species with the exception of the retention patches. Leave 10% of stand for retention along the snowmobile trail. Protect the advance oak regeneration. Replant jack pine around the advance oak.

Specs:

Other Comments: Heavy budworm activity. Many down and dead jack pine, density switches every few chains. In addition there is evidence of jack pine being planted and old TS records show that parts of this stand was salvaged. In 1971 (NWNE section 11) all jack pine 12 inches and over and all jack pine damaged in ice storm was harvested. Also 1971, (E1/2NW section 11). All jack pine ten inches and over were harvested.

Next Steps: Allow site prep as needed before replanting jack pine around the oak regen

Proposed Start Date: 10/01/2014



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
11	72231011-Cut	28.8	42120 - Planted Jack Pine	High Density Log	43	81-110	Harvest	Clearcut with Reserves	42121 - Planted Jack Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Harvest all species with the exception of oak. Leave all oak for retention. Treat with stand 23 and harvest summer time.

Specs:

Other Planted 1970 after wildfire in 1960's. Stand has some scattered mature oak trees and areas with dense oak regeneration. The stand has areas  
Comments: of dead and down jack pine trees with heart rot starting to occur. Stand is being hit hard by jackpine budworm.

Next Allow site prep as needed. Replant stand to jackpine, and monitor the success of regeneration  
Steps:

Proposed  
Start Date: 10/01/2014

17	72231017-Cut	12.7	42220 - Natural Jack Pine	High Density Pole	48	81-110	Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal
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Prescription Final harvest reserves. Leave the stand west of the railroad tracks for retention.

Specs:

Other Stand is mostly Jack pine pole size stand with some reaching log size (10 inches at DBH). The jack pine is breaking up, lots of broken top  
Comments: showing heart rot, dead and down jack pine. There is currently a heavy infestation of jackpine budworm. The stand has some scattered large diameter oak mostly on the west side, with pockets of red maple regeneration again on the west side of the railroad tracks. Heavy heart-rot and black canker in the aspen.

Next Do site prep if needed. Replant stand to jack pine, and monitor the success of regeneration.  
Steps:

Proposed  
Start Date: 10/01/2014

21	72231021-Cut	8.1	4132 - Aspen, Jack Pine	Medium Density Pole	50	51-80	Harvest	Clearcut	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Final harvest with no retention because of the small acreage

Specs:

Other Stand is a mix of quaking aspen with a few strips of planted jack pine. Heavy heart rot and black canker in the aspen, a lot of the jack pine has  
Comments: broken tops. Found an old fire plow line, records indicate wild fire occurred in the late 60's.

Next Monitor success of regeneration the next treatment period. Acceptable regeneration mix of aspen, jack pine and oak.  
Steps:

Proposed  
Start Date: 10/01/2014

23	72231023-Cut	15.4	42220 - Natural Jack Pine	High Density Pole	57		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal
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Prescription Final harvest with reserves leaving 3-5% retention along Pere Cheney road. Treat at the same time with stand 11, and harvest in summer.

Specs:

Other Jackpine stand mixed with other deciduous species. Pole/log in the north along Pere Cheney Road and Staley Lake Road. The east side has  
Comments: more aspen and northern pin oak, mortality and broken tops exist in the jackpine.

Next Do site prep as needed then replant stand to jack pine, monitor the success of regeneration.  
Steps:

Proposed  
Start Date: 10/01/2014



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
23 72231023-Cut_small	12.0	42220 - Natural Jack Pine	High Density Pole	57		Harvest	Clearcut	4190 - Mixed Upland Deciduous with Cedar	Cmpt. Review Proposal

Prescription Specs: Final harvest with not retention because of the small acreage. Allow natural regeneration. Treat at the same time with stand 11, and harvest in summer.

Other Comments: Jackpine stand mixed with other deciduous species. Pole/log in the north along Pere Cheney Road and Staley Lake Road. The east side has more aspen and northern pin oak, mortality and broken tops exist in the jackpine.

Next Steps: Monitor the success of regeneration the next treatment period. Acceptable regeneration would be a mix of aspen, oak and conifers. Plant red pine only in the areas that regeneration is consider not acceptable.

Proposed Start Date: 10/01/2014

25 72231025-Cut	18.5	42121 - Planted Jack Pine, Mixed Deciduous	High Density Pole	61	51-80	Harvest	Clearcut	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Specs: Harvest all species. No retention

Other Comments: Narrow strip of planted jack pine along east side of Staley Lake Road.

Next Steps: Monitor the success of regeneration the next treatment period. Acceptable regeneration is a mix of aspen, oak, and conifers. Plant red pine in areas where regeneration not acceptable

Proposed Start Date: 10/01/2014

28 72231028-Cut	27.0	4311 - Pine, Aspen Mix	Medium Density Pole	50	81-110	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Specs: Harvest all species two inches and larger except for retention patches. Leave 3-5% in patches along the pipeline and replant rest of stand back to red pine

Other Comments: Planted jackpine with dense pockets of red maple regeneration salvaged after the wildfire. Found the old fire plow line, and records indicate wild fire occurred in the late 60's. Heavy heart rot and black canker in the aspen, a lot down and dead jack pine scattered throughout the stand.

Next Steps: Allow site prep as needed prior to planting operation. Monitor the success of regeneration the next treatment period.

Proposed Start Date: 10/01/2014

30 72231030-Cut	26.9	42250 - Pine, Oak	High Density Pole	45	81-110	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Specs: Harvest all species two inches or larger except for the retention patches. Leave one retention patch along the snowmobile trail. Protect the advance oak regeneration and allow natural regeneration.

Other Comments: Mixed stand of Oak, Aspen, and Jack pine with mixed ages. The stand has pockets of dense oak regen open area with just service berry and scattered throughout very mature oak and jack pine trees. In 1964 all merchantable dead oak was harvested, and in 1967 all merchantable jackpine 12" and over at a six inch stump height and all other dead jackpine was havevested. Based on our timbersale records and aerial photos this was the last havest to occur in this stand. The addition BA swings are (20,70,100 and 80).

Next Steps: Monitor the success of regeneration the next treatment period. Acceptable regeneration is a mix of oak, conifers, red maple and aspen. Plant red pine in the areas where regeneration is unacceptable

Proposed Start Date: 10/01/2014



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
31 72231031-Cut	51.6	4199 - Other Mixed Upland Deciduous	High Density Log	93	81-110	Harvest	Shelterwood	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Prescription Harvest all trees two inches or larger with the exception of red maple, white oak, red & white pine trees and protect all advance regeneration.  
Specs:

Other Comments: Stand is a mix of mostly oak red maple and aspen with a few pockets of red and white pine scattered. Most of the stand is a mix of oak, mainly (red/black hybrid), with some white oak and northern pin oak. Some of the white oak tree are being used as den trees. Found an old fire plow line, which help explains the pockets of regeneration.

Next Steps: Monitor the success of regeneration the next treatment period. Acceptable regeneration would be a mix of aspen, oak and conifers. Plant red pine only in the areas that regeneration is consider not acceptable.

Proposed Start Date: 10/01/2014

39 72231039-Cut	29.7	4199 - Other Mixed Upland Deciduous	High Density Log	86	111-140	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Final harvest all species two inches and larger with the exception of the retention islands. Leave 3-5% retention in islands along the trail.  
Specs:

Other Comments: A mixed stand of oak, aspen and red maple. The terrain rolling with more aspen on top of ridges and in pockets the red maple is throughout the stand. A MCCT trail runs thru the stand. In 1960 all jack pine 10 inches and over was harvested, and all dead oak and live oak trees 12 inches and larger were harvested. Also in 1964-65 all merchantable dead oak was cut.

Next Steps: Monitor the success of regeneration the next treatment period. Acceptable regeneration would be a mix of oak, conifer, aspen and red maple

Proposed Start Date: 10/01/2014

41 72231041-Cut	104.6	4125 - Black, N. Pin Oak	High Density Log	93	111-140	Harvest	Shelterwood	4129 - Mixed Oak	Cmpt. Review Proposal
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Prescription Final harvest all trees except for white oak, red maple and all red/white pine over 20 inches DBH.  
Specs:

Other Comments: Stand is a mix of mostly oak & red maple with a few pockets of red and white pine scattered. Most of the stand is a mix of oak, mainly (red/black hybrid), with some white oak and northern pin oak. Some of the white oak tree are being used as den trees.

Next Steps: Monitor the success of regeneration the next treatment period. Acceptable regeneration would be oak, aspen, red maple and conifers. Plant red pine in the areas where regeneration is consider unacceptable.

Proposed Start Date: 10/01/2014

48 72231048-Cut	75.6	4126 - White, Black, N. Pin Oak	High Density Pole	90	81-110	Harvest	Clearcut with Reserves	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Final harvest all trees two inches or larger except, for the retention patches. The retention patches will be one acre islands marked around the advance white oak seedling 1-3 feet tall. The retention patches with the advance white oak regeneration must be at least 5% of the treated area. Within the retention patches the mature trees will be cut, but the advance oak regeneration must be protected, and not planted. As agreed upon at the pre-reveiw. In addition to the retention patches, use the ORV trail as the boundary treating one side of the trail only

Other Comments: It was agreed not treat the north part of this stand at this time, because of the amount of oak being harvested in this and the adjacent compartment. Stand is to be treated next YOY with the adjacent stand 46. The oak is poor quality throughout with a few trees making it to log size diameter. There are lots of white oak seedling 1-3 feet tall. The stand is currently being defoliated by gypsy moth (at least 80% of the stand is 100% defoliated)

Next Steps: Herbicide or roller-chop stand if need for site prep before planting. Plant red pine and do post release if needed. Monitor the success of the planting

Proposed Start Date: 10/01/2014

**Total Treatment  
Acreage Proposed: 489.1**



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Type! #Type!

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Type!

Limiting Factor

**Total Treatment Acreage Proposed: 0.0**

## Report 5 – Site Conditions

Grayling Mgt. Unit  
Patrick Potter : Examiner

Compartment 231  
Year of Entry 2015

### Availability for Management

Total Acres	Acres		Dominant Site Conditions	Dominant Site Conditions					
	Available	Not Available		No	5C	3L	3I	3D	2B
548	548		<b>Aspen</b>	548					
257	240	17	<b>Jack Pine</b>	238			17		2
142	142		<b>Mixed Upland Deciduous</b>	142					
27	27		<b>Natural Mixed Pines</b>	27					
35	35		<b>Northern Hardwood</b>	35					
464	443	21	<b>Oak</b>	286	157	21			
42	25	17	<b>Red Pine</b>		25			17	
107	107		<b>Upland Mixed Forest</b>	107					
1,621	1,566	55	Total Forested Acres	1,383	182	21	17	17	2
	97%	3%	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
005	Available	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	2				
<b>Comments:</b> A small 2 acres stand with not legal access. Should consider disposal.							
007	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	25				
<b>Comments:</b> Stand is part of the Pere Cheney original plat dating back to 1874. There are areas of natural red pine ranging 90-100 years old with natural red pine regeneration averaging the mid-70's in age. Also there are pockets of planted red pine averaging in mid-50's.							
008	Not Available	<b>3D: Recreational / Scenic values</b>	17				
<b>Comments:</b> Stand is part of the Pere Cheney original plat dating back to 1874. There are areas of natural red pine ranging 90-100 years old with natural red pine regeneration averaging the mid-70's in age. Also there are pockets of planted red pine averaging in mid-50's.							

## Report 5 – Site Conditions

Grayling Mgt. Unit  
Patrick Potter : Examiner

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009	<b>Not Available</b>	<b>3L: Other wildlife concerns</b>	21	
<p><b>Comments:</b> Most of the mature oak between the railroad and the two-tract to the west is dead, but there are some very nice dense pockets of oak regeneration scattered throughout the stand. Stand appears to have been homesteaded, there is some jack pine, oak and aspen encroachment into the open areas, with areas of black cherry and service berry</p>				
010	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	
<p><b>Comments:</b> In 1960 in the south half of this stand all jack pine 10 inches and over was harvested, all dead oak and live oak trees 12 inches and larger were harvested. Also in 1964-65 all merchantable dead oak was cut. Starting from the south the stand is mostly mature white oak with a few small pockets of planted jack pine. The understory is all white oak regen 3-10 feet tall, but then the stand switches to most red maple regeneration with a white oak overstory. At the northern end of the stand you start picking up more mixed oak (hybrid). Stand also has a few bigtooth aspen trees scattered throughout the stand.</p>				
011	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	91	
<p><b>Comments:</b></p>				
012	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	21	
<p><b>Comments:</b> Decided at the compartment pre-review to not treat the north part of stand 48 this YOY, along with stand 46 because of the amount of oak being harvest in this and the adjacent compartment 296.</p>				
013	<b>Not Available</b>	<b>3I: Historical / archeological (add locked comments)</b>	13	
<p><b>Comments:</b> See locked comments</p>				

Report 5 – Site Conditions

Grayling Mgt. Unit  
Patrick Potter : Examiner

Compartment 231  
Year of Entry 2015

014	Not Available	3I: Historical / archeological (add locked comments)	9
<b>Comments:</b> See locked comments			
015	Not Available	3I: Historical / archeological (add locked comments)	4
<b>Comments:</b> See locked commets			
016	Not Available	3I: Historical / archeological (add locked comments)	1
<b>Comments:</b> See locked comments			
017	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	39
<b>Comments:</b>			



### 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>Comments</b>				



**Report 7 – DEDICATED CONSERVATION AREA DETAILS**

\* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

Conservation Area	Type	Description
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42120 - Planted Jack Pine	High Density Pole	35.8	52	81-110	Heavy heart rot in the older (62 year old) and visible rot from core sample starting the younger 52 year old jack pine. Both age classes of jack pine are being heavily impacted by jack pine budworm. Lots of dead and down jack pine with many broken tops on the remaining standing trees.
2	42210 - Natural Red Pine	Medium Density Log	24.7	96	81-110	Stand is part of the Pere Cheney original plat dating back to 1874. There are areas of natural red pine ranging 90-100 years old with natural red pine regeneration averaging the mid-70's in age. Also there are pockets of planted red pine averaging in mid-50's. Interspersed between the red pine pocket is a mix of Northern pin oak, jack pine and up-land brush (black cherry). There is a very nice understory of mix oak regeneration. In addition there is evidence of jack pine being planted in which large areas failed or was salvaged. In 1971 (NWNE section 11) all jack pine 12 inches and over and all jack pine damaged in ice storm was harvested. Also 1971, (E1/2NW section 11) All jack pine ten inches and over were harvested.
3	4310 - Pine, Oak Mix	Medium Density Log	9.2	104	81-110	Stand is part of the Pere Cheney original plat dating back to 1874. There are areas of natural red pine ranging 90-100 years old with natural red pine regeneration averaging the mid-70's in age. Also there are pockets of planted red pine averaging in mid-50's. Interspersed between the red pine pocket is a mix of Northern pin oak, jack pine and aspen. The aspen is showing signs of heart rot and is hit with black canker. There is a very nice understory of mix oak regeneration. In addition there is evidence of jack pine being planted in which large areas failed or was salvaged. In 1971 (NWNE section 11) all jack pine 12 inches and over and all jack pine damaged in ice storm was harvested. Also 1971, (E1/2NW section 11) All jack pine ten inches and over were harvested.
4	42120 - Planted Jack Pine	High Density Pole	12.5	55	51-80	Planted jack pine, based on core sample planted mid-50s.
6	42210 - Natural Red Pine	Medium Density Log	16.8	96	111-140	A few open area of grass, Dense pockets of very large nature red pine 16-20 inches DBH, but also have areas of red pine that were planted back in the 1960.
7	4191 - Mixed Upland Deciduous with Conifer	Medium Density	45.5	28		Stand treated under TS# 72-010-85-01. All trees which were four inches or larger were harvested. Stand has dense jack pine regeneration along the skid trail, the rest of the stand is a mix of individual regen of jack pine, black cherry, quacking aspen, service berry, some hawthorn, and small open grassly areas.
8	42120 - Planted Jack Pine	Medium Density Pole	9.9	57	81-110	Planted jack pine, stand is starting to break apart. About 1/3 of stand is already dead, with a 1/2 inch growth in the last 10 years remaining live trees. The stand does have a few pockets/areas with nice oak regeneration.
9	42220 - Natural Jack Pine	Medium Density Pole	26.3	66	1-50	Heavy budworm activity. Many down and dead jack pine, density switches every few chains. In addition there is evidence of jack pine being planted in which some was salvaged. In 1971 (NWNE section 11) all jack pine 12 inches and over and all jack pine damaged in ice storm was harvested. Also 1971, (E1/2NW section 11). All jack pine ten inches and over were harvested.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
10	4132 - Aspen, Jack Pine	Medium Density	41.9	27	1-50	Stand harvested under timbersale 72-010-85-01. Sale was issued 6/85 & closed 5/86. All trees 4 inches and larger were harvested. In addition in 1970 (NESW section 11). All jack pine with a stump diameter over fourteen inches were harvested. Stand is a mix of aspen clones with areas of cherry brush, red maple, and a small pocket of pole size white pine. The aspen is slowly filling in the U-type.
11	42120 - Planted Jack Pine	High Density Log	32.7	43	81-110	Planted 1970 after wildfire in 1960's. Stand has some scattered mature oak trees and areas with dense oak regeneration. The stand has areas of dead and down jack pine trees with heart rot starting to occur. Stand is being heavily impacted by jackpine budworm.
12	4139 - Aspen, Mixed Deciduous	High Density Sapling	30.1	6		Stand treated under TS # 72-040-05-01, and completed in 2009. All trees except for oak under 4 inches was cut.
14	42120 - Planted Jack Pine	High Density Sapling	56.9	30		Planted jack pine stand, with some scattered oak and black cherry sapling. East side of stand borders Staley Lake Road and the north end border 5 Mile road. A pipeline traverses through the stand. There is a strip on the west side that is a little less dense.
15	4130 - Aspen	High Density Sapling	42.2	16		Stand was treated under timbersale # 72-16-95-01, all trees larger than two inches was harvested. Snowmobile trail runs thru this stand.
16	4130 - Aspen	High Density Pole	61.3	28		Stand treated under TS# 72-011-85-01, all trees four inches and larger were harvested. Snowmobile trail runs thru the stand. The oak sutmps sprouts and staying up with the aspen and red maple regeneration.
17	42220 - Natural Jack Pine	High Density Pole	14.8	48	81-110	Stand is mostly Jack pine pole size stand with some reaching log size (10 inches at DBH). The jack pine is breaking up, lots of broken top showing heart rot, dead and down jack pine. There is currently a heavy infestation of jackpine budworm. The stand has some scattered large diameter oak mostly on the west side, with pockets of red maple regeneration again on the west side of the railroad tracks. Heavy heart-rot and black canker in the aspen.
18	4130 - Aspen	High Density Sapling	23.4	26		Stand harvested under TS # 72-031-86-01. All trees that were two inches or more in diameter at one foot in height were harvested. Snowmobile trail runs thru this stand.
19	4121 - Oak, Aspen	Low Density Log	20.9	98	1-50	Most of the mature oak between the railroad and the two-tract to the west is dead, but there are some very nice dense pockets of oak regeneration scattered throughout the stand. Stand appears to have been homesteaded, there is some jack pine, oak and aspen encroachment into the open areas, with areas of black cherry and service berry



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4130 - Aspen	Medium Density	12.6	6		Stand was treated last 2007 under TS #72-040-05-01. There is a nice mix of species regenerating, with a large pocket of quaking aspen in the center of the stand, with mostly oak and black cherry occurring in the north & south ends of the stand. In addition a few jack pine have seeded in. Stand is filling in but there are still a few open areas of sedge & bracken fern only.
21	4132 - Aspen, Jack Pine	Medium Density Pole	8.1	50	51-80	Stand is a mix of quaking aspen and with a few strips of planted jack pine. Heavy heart rot and black canker in the aspen, a lot of the jack pine has broken tops. Found an old fire plow line, records indicate wild fire occurred in the late 60's.
23	42220 - Natural Jack Pine	High Density Pole	27.4	57		Jackpine stand mixed with other deciduous species. Pole/log in the north along Pere Cheney Road and Staley Lake Road. The east side has more aspen and northern pin oak, mortality and broken tops exist in the jackpine.
24	4139 - Aspen, Mixed Deciduous	Medium Density	42.5	7		Stand was treated last YOE TS # 72-038-05-01.
25	42121 - Planted Jack Pine, Mixed Deciduous	High Density Pole	18.5	61	51-80	Narrow strip of planted jack pine along east side of Staley Lake Road.
26	4125 - Black, N. Pin Oak	Low Density Pole	47.0	34	51-80	Stand of Oak/pine mixed of two age classes. Pole size oak scattered with pole size red pine. Undrestory is medium stocking of oak saplings. Stand was harvested in 1997-1999 under contract 72-017-95-01 all trees 4 inches and larger were harvested.
27	4126 - White, Black, N. Pin Oak	High Density Log	97.4	89	81-110	In 1960 in the south half of this stand all jack pine 10 inches and over was harvested, all dead oak and live oak trees 12 inches and larger were harvested. Also in 1964-65 all merchantable dead oak was cut. Starting from the south the stand is mostly mature white oak with a few small pockets of planted jack pine. The understory is all white oak regen 3-10 feet tall, but then the stand switches to most red maple regeneration with a white oak overstory. At the northern end of the stand you start picking up more mixed oak (hybrid). Stand also has a few bigtooth aspen trees scattered throughout the stand.
28	4311 - Pine, Aspen Mix	Medium Density Pole	27.0	50	81-110	Planted jackpine with dense pockets of red maple regeneration. Found an old fire plow line, records indicate wild fire occurred in the late 60's. Heavy heart rot and black canker in the aspen, a lot down and dead jack pine scattered throughout the stand.
30	42250 - Pine, Oak	High Density Pole	26.9	45	81-110	Mixed stand of Oak, Aspen, and Jack pine with mixed ages. The stand has pockets of dense oak regen open area with just service berry and scattered throughout very mature oak and jack pine trees. In 1964 all merchantable dead oak was harvested, and in 1967 all merchantable jackpine 12" and over at a six inch stump height and all other dead jackpine was harvested. Based on our timbersale records and aerial photos this was the last harvest to occur in this stand. The addition BA swings are (20,70,100 and 80).



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
31	4199 - Other Mixed Upland Deciduous	High Density Log	51.6	93	81-110	Stand is a mix of mostly oak & red maple and aspen with a few pockets of red and white pine scattered. Most of the stand is a mix of oak, mainly (red/black hybrid), with some white oak and northern pin oak. Some of the white oak tree are being used as den trees. Found an old fire plow line, which help explains the pockets of regeneration.
32	4116 - Mixed N. Hardwood - Aspen	High Density Sapling	34.6	6		Stand treated under TS # 72-040-05-01. All trees except for oak under 4 inches was cut. Nice aspen regen along road and south portion of stand the rest is mostly black cherry regeneration. No visible oak regeneration.
33	4310 - Pine, Oak Mix	Medium Density Pole	25.4	27	1-50	Stand treated under TS # 72-010-86-01. All trees two inches and larger at a foot above ground were harvested. Found and old fire plow line. Good oak regeneration from stump sprouts. Most of the aspen regeneration is located in the east half of stand.
34	4310 - Pine, Oak Mix	Medium Density	45.7	7		Stand was treated under timbersale # 72-038-05-01 this unit was finished in the fall of 2006 the sale was closed 9/19/08. All trees 2 inches and larger were harvested except for oak trees 4 inches and less in diameter. Stand is a nice mix of regeneration going from heavy aspen to sparse aspen, to red maple/black cherry with oak stump sprouts. Some of the pole size oak has died.
35	4131 - Aspen, Oak	High Density Sapling	75.1	5		Stand treated under TS # 72-038-05-01. All trees except for oak under 4 inches was cut.
36	4131 - Aspen, Oak	High Density Sapling	71.8	17	1-50	Stand harvested under TS # 72-013-95-01. All trees that were greater than 4 inches except for oak 10 inches or larger were harvested. In 1961 in the SWSE all jack pine trees marked with yellow paint were cut. In 1960, SESE all jack pine 10 inches and larger were cut, and some of the oak was cut in 70's.
37	42120 - Planted Jack Pine	High Density Sapling	22.5	26		Stand was treated under TS # 72-001-86-01 (No Arrest Block). Planted jack pine 1987, sapling size over all. Stand extends into the compartment to the west. South end of stand borders 7 Mile Road, southeast part of the stand borders snowmobile trail
38	4131 - Aspen, Oak	High Density Pole	40.8	26		Stand was final harvested in 1987, timbersale # 72-030-86-01 (Michcon Line Block) all trees taht were 2 inche or more were harvested. An ORV trail, and two-track runs thru the stand.
39	4199 - Other Mixed Upland Deciduous	High Density Log	29.7	86	111-140	A mixed stand of oak, aspen and red maple. The terrain rolling with more aspen on top of ridges and in pockets the red maple is throughout the stand. A MCCT trail runs thru the stand. In 1960 all jack pine 10 inches and over was harvested, and all dead oak and live oak trees 12 inches and larger were harvested. Also in 1964-65 all merchantable dead oak was cut.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	4126 - White, Black, N. Pin Oak	High Density Sapling	53.2	5		Stand was treated under timbersale # 72-038-05-01 and closed 9/19/08. All trees 2 inches and larger were harvested except for oak trees 4 inches and less in diameter. Stand now has a component of pole timber standin with the majority of it being white oak (4-7" DBH) scattered throughout stand. North side borders Wilbur Road and a protion of the east side borders private property. Stand is a nice mix of regeneration going from heavy aspen to sparse aspen, to red maple/black cherry with oak stump sprouts.
41	4125 - Black, N. Pin Oak	High Density Log	104.6	93	111-140	Stand is a mix of mostly oak & red maple with a few pockets of red and white pine scattered. Most of the stand is a mix of oak, mainly (red/black hybrid), with some white oak and northern pin oak. Some of the white oak tree are being used as den trees.
42	4131 - Aspen, Oak	High Density Sapling	64.5	5		Stand was treated under timbersale # 72-038-05-01 and closed 9/19/08. All trees 2 inches and larger were harvested except for oak trees 4 inches and less in diameter. Stand is a nice mix of regeneration going from heavy aspen to sparse aspen, to red maple/black cherry with oak stump sprouts.
43	4130 - Aspen	High Density Sapling	14.2	26		Stand was final harvested in 1987 under contract 72-030-86-01 Michcon Line Block. An ORV trail traverse through south corner of the stand. Aspen/Red Maple stand with some scattered Oak throughout stand. East side of stand borders Michcon Gas Pipleing. Two-track traverse through stand. East side more Quaking Aspen
45	4130 - Aspen	High Density Pole	19.9	26		Stand was final harvested in 1987, timbersale # 72-030-86-01 (Michcon Line Block) all trees taht were 2 inche or more were harvested.
46	4125 - Black, N. Pin Oak	Medium Density Log	40.1	89	51-80	Stand us harvested in 1998 under contract 72-015-95-01, all aspen and red maple. Stand has heavy red maple regeneration and nice pockets of white oak and BTA regeration.
47	4191 - Mixed Upland Deciduouous with Conifer	High Density Sapling	15.6	17		Stand harvested under TS # 72-014-95-01. All trees four inches or more in diameter were harvested. ORV trail treaverses through stand. Oak/jack pine3 sapling stand with some scattered pole size trees. West side of stand borders Billman Road.
48	4126 - White, Black, N. Pin Oak	High Density Pole	100.6	90	81-110	The stand has a south slope aspect, with rolling terrain with short slopes the stand is mostly mixed oak with little to no red maple visible along my route. The oak is poor quality throughout with a few trees making it to log size diameter. There are lots of white oak seedling 1-3 feet tall. The stand is currently being defoliated by gypsy moth (at least 80% of the stand is 100% defoliated)



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	3105 - Mixed Upland Herbaceous	9.1	No	Low	Stand has native grasses and forbs with a few disturbed areas with sedge and spotted knapweed.
13	3102 - Grass	2.9	No	Unspecified	
22	3105 - Mixed Upland Herbaceous	2.0	No	Unspecified	
29	122 - Road/Parking Lot	9.5	No	Unspecified	
44	3105 - Mixed Upland Herbaceous	1.3	No	Unspecified	