



# Compartment Review Presentation

## Grayling Forest Management Unit

Compartment 228

Entry Year 2016

Acreage: 1,244

County Crawford

Management Area: AuSable Outwash

**Revision Date:** 08/19/2014

**Stand Examiner:** Matthew Foster

### Legal Description:

T25N R3W Sections 25, 26, and 27

### Identified Planning Goals:

The emphasis of management shall be on retaining and enhancing the natural beauty and biological diversity of the area. All management should focus on enhancing wildlife habitat for both hunting and wildlife observation purposes while maintaining forest health, productivity, sustainability, and species and structural diversity while accounting for visual management and multiple uses.

### Soil and topography:

The upland is Rubicon sand and the lowland is Lupton muck. The center of the compartment is level and low. The east and west portions are gently rolling upland.

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

This compartment consists of contiguous state ownership intermixed with private in-holdings along boundaries.

### Unique Natural Features:

Hill's thistle (*Cirsium pumilum* var. *hillii*) is found in this compartment.

### Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

### Special Management Designations or Considerations:

This area is a winter deer yard and has important wildlife habitat. Wildlife management should take priority in the area.

### Watershed and Fisheries Considerations:

The compartment contains Mud Lake, a small warm water pond that provides excellent wildlife habitat. The compartment also contains Beaver Creek, a designated trout stream.

### Wildlife Habitat Considerations:

A lot of swamp area and wetlands are located in the center of this compartment. Adjacent uplands should be managed to provide food and cover.

### 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. The Michigan is quarried for gypsum elsewhere in the State. A gravel pit is located in Section 23 and potential is good on the upland areas. The nearest production is Beaver Creek Field, located six 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. There are no current leases within the Compartment.

### Vehicle Access:

The County Roads of Johnson Road, Billman Road, and Pioneer Road run along the boundaries of the compartment. Access to the east and west ends of the compartment is easily obtained off county roads and trail roads. The center of the compartment is relatively inaccessible due to wet conditions. I-75 is located just to the west of the compartment.

### Survey Needs:

A survey will be needed to determine the property line along the north boundary of stands 4 and 30.

### Recreational Facilities and Opportunities:

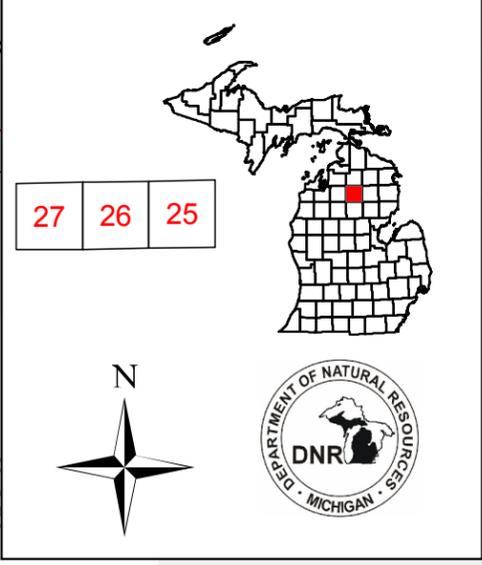
There are no designated trails or facilities in the compartment. Dispersed recreational opportunities include hunting, bird watching, hiking, and trapping.

### Fire Protection:

The County Roads of Johnson Road, Billman Road, and Pioneer Road run along the boundaries of the compartment. Access to the east and west ends of the compartment is easily obtained off county roads and trail roads. The center of the compartment is relatively inaccessible due to wet conditions. The center of the compartment is level and lowland with the east and west portions are gently rolling upland. The upland consists mostly of gently rolling hills. Wet conditions have resulted in low hazard fuel types throughout compartment.

**Additional Compartment Information:**

Compartment: 228  
 T25N R03W Sec. 25,26,27  
 County: Crawford  
 Unit: Grayling  
 Management Area: AuSable Outwash  
 YOE: 2016  
 Acres: 1,244 GIS Calculated  
 Examiner: Matthew Foster  
 Map Revised: 08/29/2014  
 Map Phase: Pre-Review



# Cover Type & Treatment Map

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

### Legend

- Remonumented Section Corners
- PLSS Corner
- GPS Point
- Miris Corners
- Interstate Highway
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Motorcycle Trails (DNR License)
- Snowmobile Trails
- MCCCT Trail
- Motorcycle (DNR Sticker)
- Snowmobile Trail
- Pipeline
- Stream
- Intermittent Stream
- Railroads
- Lakes and Rivers
- State Forest Land

### Treatments w/ Site Condition

- Treatments w/ Site Condition
- Treatments
- Clearcut (w/Reserves, Patch/Strip)
- Mowing

### Forest Stands

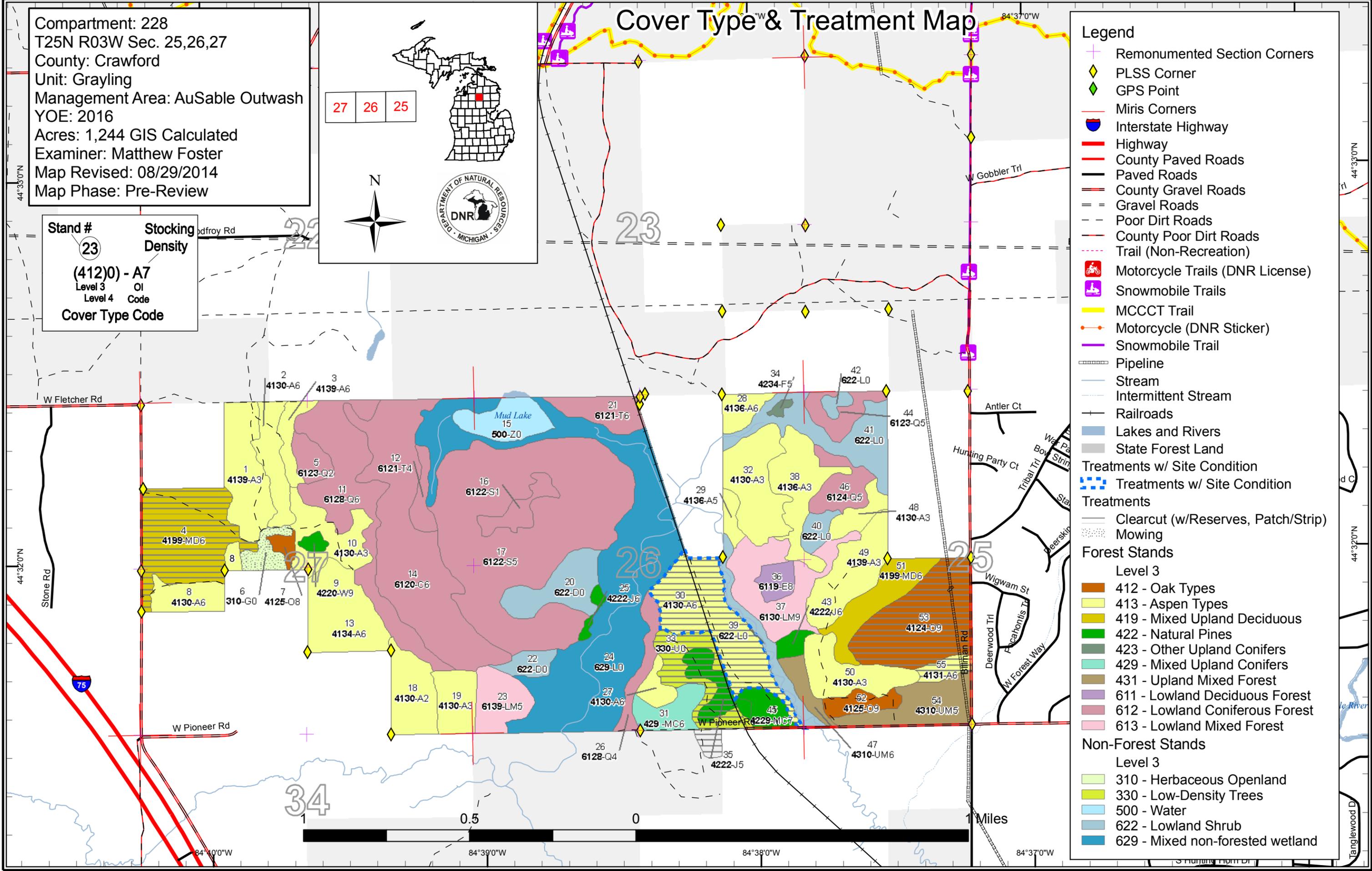
Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

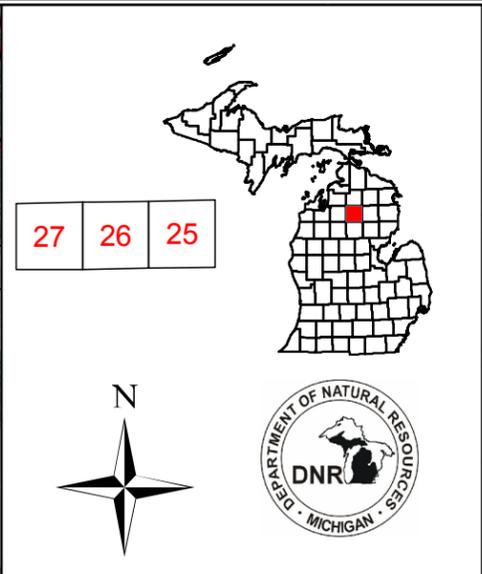
### Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland



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# Stand Boundary Map

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 Level 4 Code  
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**Legend**

- ✚ Remonumented Section Corners
- Miris Corners
- ◆ PLSS Corner
- ◆ GPS Point
- 🛞 Interstate Highway
- 🛣 Highway
- 🛣 County Paved Roads
- 🛣 Paved Roads
- 🛣 County Gravel Roads
- 🛣 Gravel Roads
- 🛣 Poor Dirt Roads
- 🛣 County Poor Dirt Roads
- ⋯ Trail (Non-Recreation)
- 🏍 Motorcycle Trails (DNR License)
- 🛷 Snowmobile Trails
- 🏍 Motorcycle (DNR Sticker)
- 🟡 MCCCT Trail
- 🛷 Snowmobile Trail
- 🚂 Railroads
- 🛡 Pipeline
- 🌊 Stream
- 🌊 Intermittent Stream
- 🟡 Stand Boundaries

**Forest Stands**

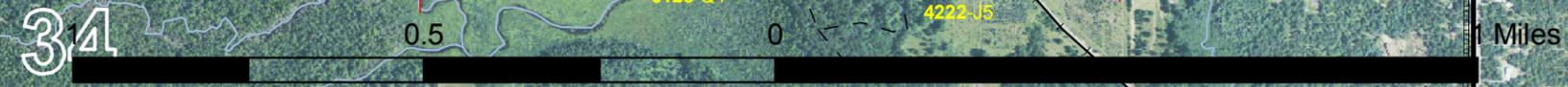
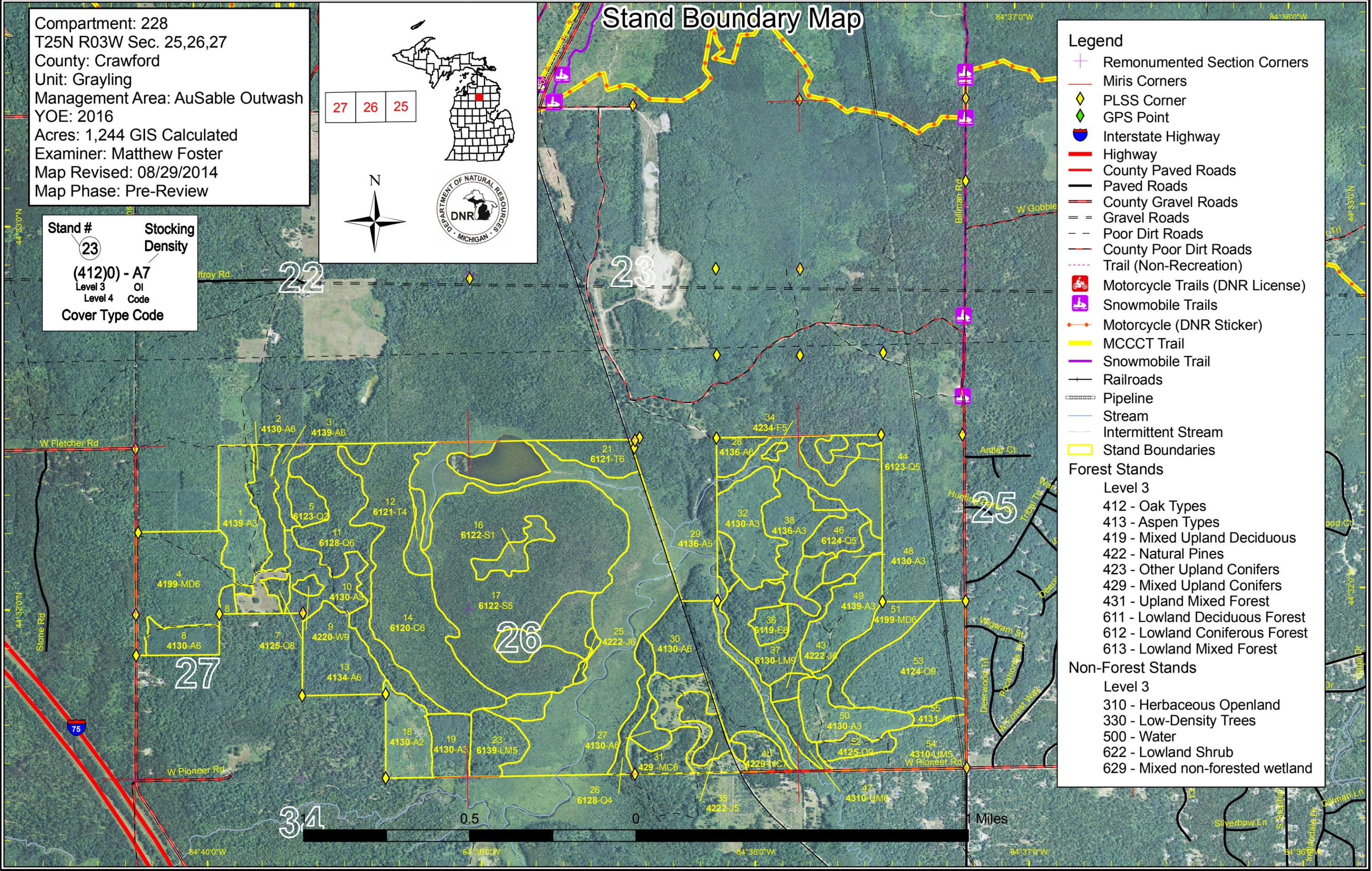
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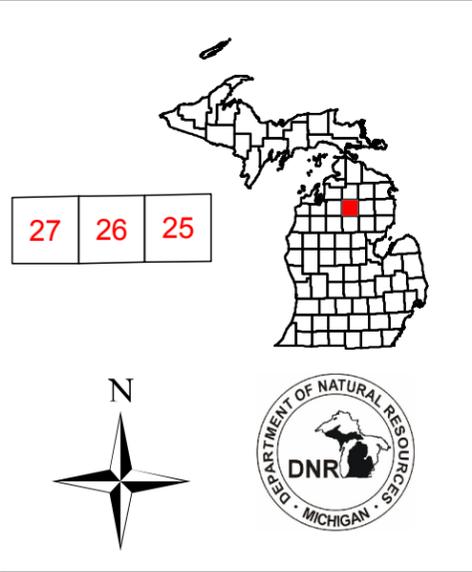
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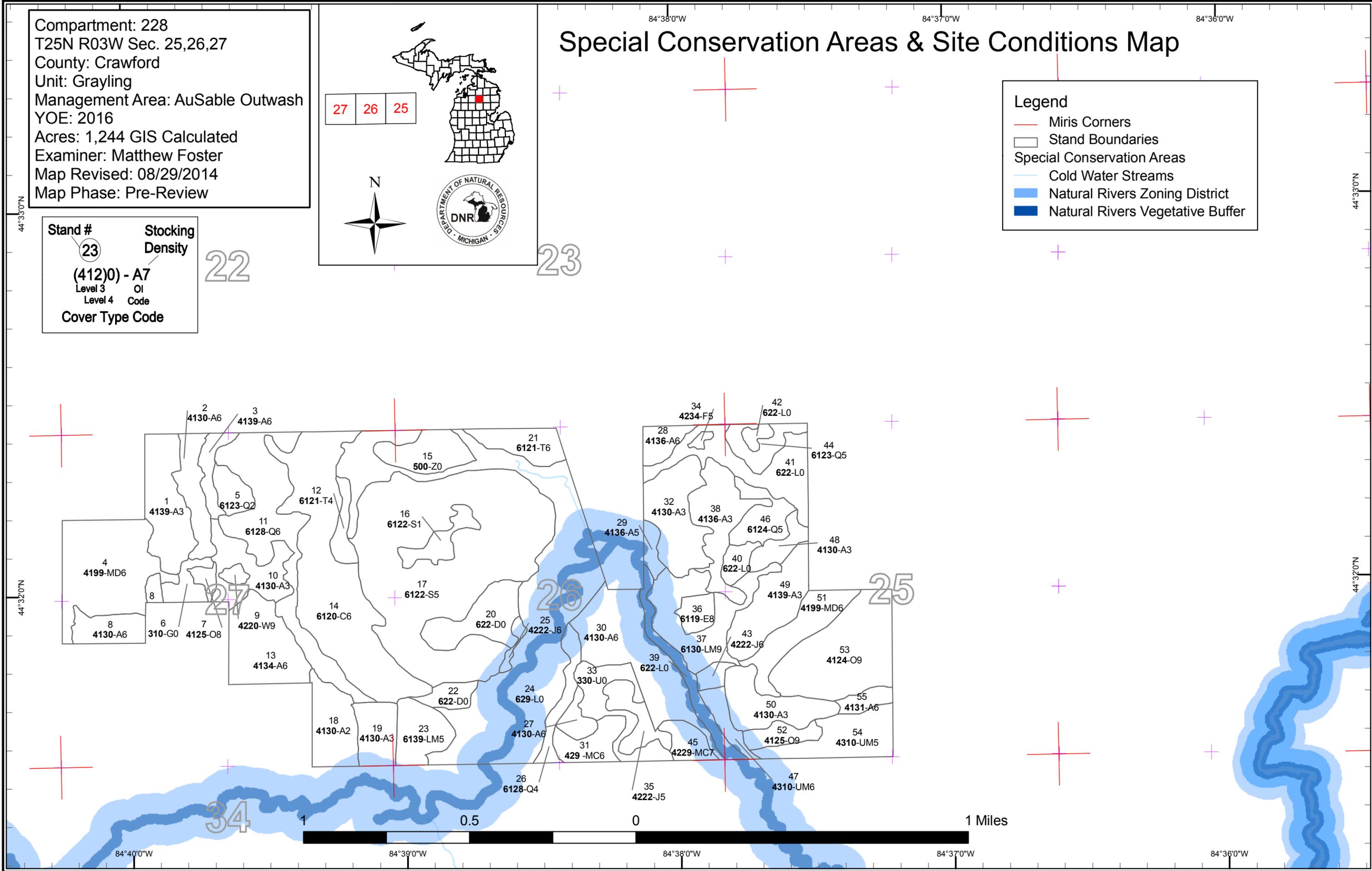


# Special Conservation Areas & Site Conditions Map

## Legend

-  Miris Corners
-  Stand Boundaries
- Special Conservation Areas**
-  Cold Water Streams
-  Natural Rivers Zoning District
-  Natural Rivers Vegetative Buffer

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



27 26 25

22

23

25

26

34

1

0.5

0

1 Miles

84°40'0"W

84°39'0"W

84°38'0"W

84°37'0"W

84°36'0"W

44°33'0"N

44°32'0"N

44°33'0"N

44°32'0"N

84°38'0"W

84°37'0"W

84°36'0"W

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	130	49	36	40	6	81	0	0	0	0	0	0	0	0	341
Cedar	0	0	0	0	0	0	0	0	0	90	0	0	0	0	90
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Jack Pine	0	0	0	12	7	0	0	0	0	0	0	0	0	0	18
Low-Density Trees	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Lowland Conifers	0	0	0	8	0	0	10	10	14	0	0	54	0	0	97
Lowland Deciduous	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7
Lowland Mixed Forest	0	0	0	0	0	17	33	0	0	0	0	0	0	0	50
Lowland Shrub	189	0	0	0	0	0	0	0	0	0	0	0	0	0	189
Lowland Spruce/Fir	0	0	0	0	0	0	0	10	0	157	0	0	0	0	167
Mixed Upland Deciduous	0	0	0	0	21	51	0	0	0	0	0	0	0	0	72
Natural Mixed Pines	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
Oak	0	0	0	0	0	0	0	8	0	55	0	0	0	0	63
Tamarack	0	0	0	0	0	14	7	0	0	0	0	0	0	0	21
Treed Bog	28	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Upland Conifers	0	0	0	0	12	0	0	0	0	0	0	0	0	0	12
Upland Mixed Forest	0	0	25	0	0	0	7	0	0	0	0	0	0	0	32
Upland Spruce/Fir	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Water	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
White Pine	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
<b>Total</b>	<b>391</b>	<b>49</b>	<b>61</b>	<b>60</b>	<b>46</b>	<b>163</b>	<b>59</b>	<b>37</b>	<b>21</b>	<b>304</b>	<b>0</b>	<b>54</b>	<b>0</b>	<b>0</b>	<b>1244</b>



## Report 2 – Proposed Treatment Summaries

**Grayling Mgt. Unit**  
**Year of Entry 2016**

**Compartment 228**  
**Total Compartment Acres: 1,244**

### Acres by Treatment Type

Commercial Harvest - 188    Tree Planting - 0    Other - 0  
 Habitat Cut - 0    Opening Maintenance - 7

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
<b>Aspen Types</b>	53	0	0	0	0	0	53
<b>Low-Density Trees</b>	22	0	0	0	0	0	22
<b>Mixed Upland Deciduous</b>	51	0	0	0	0	0	51
<b>Natural Pines</b>	10	0	0	0	0	0	10
<b>Oak Types</b>	52	0	0	0	0	0	52
<b>Total</b>	<b>188</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>188</b>



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	72228004-Cut	50.7	4199 - Other Mixed Upland Deciduous	High Density Pole	50	81-110	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Final harvest stand using standard retention. Protect hawthorn during harvest. Leave some retention along the adjacent wildlife opening.

Specs:

Other Survey needs to be done to establish NE corner of the stand.

Comments:

Next Regeneration survey. Will accept aspen or an aspen/oak mix.

Steps:

Proposed

Start Date: 10/01/2015

35	72228035-Cut	10.5	42220 - Natural Jack Pine	Medium Density Pole	38		Harvest	Clearcut	310 - Herbaceous Openland	Cmpt. Review Proposal
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Prescription Final harvest jack pine on the west side of the railroad tracks. Harvest with adjacent stand 33 and stand 48 in compartment 227 to manage for pine barrens.

Specs:

Other

Comments:

Next Prescribe burn with stand 33 for pine barrens management. Also burn part of stand 48 in compartment 227.

Steps:

Proposed

Start Date: 10/01/2015

53	72228053-Cut	51.6	4124 - Red with White Oak	High Density Log	91	51-80	Harvest	Clearcut with Reserves	412 - Oak	Cmpt. Review Proposal
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Prescription Final harvest stand using standard island retention. Protect pipeline with proper specs. Harvest with stand 55.

Specs:

Other

Comments:

Next regeneration survey

Steps:

Proposed

Start Date: 10/01/2015

55	72228055-Cut	5.7	4131 - Aspen, Oak	High Density Pole	53		Harvest	Clearcut	4131 - Aspen, Oak	Cmpt. Review Proposal
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Prescription Final harvest with stand 53. Leave no retention due to small stand size. Protect pipeline with proper specs.

Specs:

Other Stand will regenerate well to aspen and oak.

Comments:

Next Regeneration survey

Steps:

Proposed

Start Date: 10/01/2015



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
33 NF_72228033-Cut	22.1	330 - Low-Density Trees				Harvest	Clearcut	310 - Herbaceous Openland	Cmpt. Review Proposal

Prescription Harvest remaining trees and clear stand for pine barrens management. Treatment extends into stand 48 in compartment 227. Treat with stand  
Specs: 35.

Other Hill's thistle and other pine barren indicator plants are found in the stand.  
Comments:

Next Prescribe burn stand for pine barrens management.  
Steps:

Proposed  
Start Date: 10/01/2015

6 NF_72228006-NonFor	7.5	310 - Herbaceous Openland				Non-Forest Management	Mowing	3102 - Grass	Cmpt. Review Proposal
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Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing,  
Specs: brushing, burning and herbicide application.

Other  
Comments:

Next  
Steps:

Proposed  
Start Date: 10/01/2015

**Total Treatment  
Acreage Proposed: 148.2**



S  
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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
30 72228030-Cut	47.3	4130 - Aspen	High Density Pole	55		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal

Prescription Specs: Final harvest all species, leave standard island retention focusing around supercanopy white pine. Follow the natural topography, using the top of the ridge as the sale boundary. Do not harvest or run equipment over the top of the ridge. Add drumming log spec, protect railroad corridor.

Other Comment: Survey may need to be done to establish north boundary. Approved to cut within standard buffer to edge of ridge following BMP's. Looked for Alleghany Plum but could not find it.

Next Steps: regeneration survey

Proposed Start Date: 10/01/2015

Limiting Factor 3J: Water quality / BMPs (stream, river, or lake)

**Total Treatment Acreage Proposed: 47.3**

## Report 5 – Site Conditions

Grayling Mgt. Unit  
Matthew Foster : Examiner

Compartment 228  
Year of Entry 2016

### Dominant Site Conditions

	No	5C	3J	2H	2G
Aspen	306	28	8		
Cedar					90
Jack Pine	15		1	2	
Lowland Conifers	28	68	1		
Lowland Deciduous		7			
Lowland Mixed Forest	47		3		
Lowland Spruce/Fir					167
Mixed Upland Deciduous	72				
Natural Mixed Pines	8				
Oak	63				
Tamarack	14				7
Upland Conifers	12				
Upland Mixed Forest	30		2		
Upland Spruce/Fir	1				
White Pine	2				
Total Forested Acres	599	103	15	2	263
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
002	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16				
<b>Comments:</b>							
003	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	54				
<b>Comments:</b>							

## Report 5 – Site Conditions

Grayling Mgt. Unit  
Matthew Foster : Examiner

Compartment 228  
Year of Entry 2016

004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	2B: Unknown if access through adjacent landowner(s) is possible	
<b>Comments:</b>					
005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14		
<b>Comments:</b>					
006	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5		
<b>Comments:</b>					
007	Not Available	2G: Too wet (sensitive soils, does not include access issues)	263	3H: Deer Wintering Areas	
<b>Comments:</b>					
008	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2		
<b>Comments:</b>					
009	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7		
<b>Comments:</b>					

# Report 5 – Site Conditions

Grayling Mgt. Unit  
Matthew Foster : Examiner

Compartment 228  
Year of Entry 2016

010	Not Available	3J: Water quality / BMPs (stream, river, or lake)	27
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**Comments:**

150ft natural rivers buffer

011	Not Available	3J: Water quality / BMPs (stream, river, or lake)	34
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**Comments:**

150ft natural rivers buffer



### 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
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Comments



**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	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.
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4139 - Aspen, Mixed Deciduous	High Density Sapling	29.2	7		Stand was cut in 2007 (72-012-06-01). Good aspen regeneration mixed with red maple and oak stump sprouts. There are a couple of small sparse areas where the regeneration didn't come back as well, but overall stand is fully regenerating. Stand was supposed to be planted with an oak management objective, but we are dropping the planting and oak objective and accepting the current regeneration.
2	4130 - Aspen	High Density Pole	15.6	51		Mixed aspen stand, some canker noticed throughout the stand. Some older more mature trees on the west side of stand excluded from adjacent harvest. Leave stand for another 10 years then look to harvest.
3	4139 - Aspen, Mixed Deciduous	High Density Pole	7.7	35		Stand is just entering pole size class, looks to be wet in a couple areas. Has a nice conifer component especially in the far north part of the stand.
4	4199 - Other Mixed Upland Deciduous	High Density Pole	50.7	50	81-110	Oak-Aspen stand in which all aspen was removed in 1964. Oak looks to be declining, there is more of an oak component in the north half of the stand and aspen is more dominant in the south half of the stand, red maple is fairly consistent throughout. Gypsy moth egg masses were noticed on the oak and aspen. This is a borderline log/pole stand.
5	6123 - Lowland Fir	Medium Density	8.2	39		Stand was harvested in 1975. Thick balsam fir with quaking aspen and some red maple mixed in. A few open areas in the stand filled with tag alder. Much of the understory is filled with thick balsam fir.
7	4125 - Black, N. Pin Oak	Medium Density Log	3.2	96	81-110	Overmature oak mixed with red maple and aspen. Oak is declining, red maple and aspen are naturally filling in the gaps. Stand serves as cover for the adjacent wildlife opening.
8	4130 - Aspen	High Density Pole	14.8	27		Stand was cut in 1987 (72-16-87-01). Aspen dominated stand with some red maple and oak. Stand is now just entering pole size class.
9	42200 - Natural White Pine	High Density Log	2.4	96	171-200	Nice pocket of supercanopy white pine with a few red pine, understory is filling in with red maple. This small stand adds to the diversity and canopy structure of the area.
10	4130 - Aspen	High Density Sapling	21.2	27		Stand was cut in 1987. Overall size of stand is borderline sapling/pole, average diameter of stand grows as you get closer to the swamp. Stand has a nice conifer component. A few spots look to be wet and filled with tag alder.
11	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	54.4	118	171-200	Variable stand, has some pockets of pure cedar and some pockets of spruce/fir. Where there is all cedar there is little to no understory, in canopy gaps and underneath spruce/ fir pockets it is thick with balsam fir and spruce regeneration. Red maple and aspen are scattered throughout the stand, but are more prominent at the north end of the stand. A couple of supercanopy white pine pockets are also in the stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	6121 - Tamarack	Low Density Pole	7.1	62		Small, sparse stand close to drainage into Mud Lake. Scattered tamarack, spruce and cedar with the understory full of tag alder and other lowland shrubs.
13	4134 - Aspen, Spruce/Fir	High Density Pole	32.3	35		Stand was cut in 1979. Nice aspen/conifer mixed stand, has some wet areas throughout. East half of the stand looks to be more wet than the west half.
14	6120 - Lowland Cedar	High Density Pole	89.5	92	111-140	Mostly a cedar dominated stand, small diameter, has a couple of spruce/fir pockets. Most of the stand has a very thick balsam fir understory.
16	6122 - Black Spruce	Low Density Sapling	9.7	71		Pocket of sapling sized trees in the middle of the spruce bog. Stand is very old for only being sapling sized. A few white pine have seeded in the stand.
17	6122 - Black Spruce	Medium Density Pole	157.1	91	51-80	Spruce dominated stand, small diameter. Tamarack also found in the stand, more concentrated on the east end. This stand looks to be a wet, boggy area. Spruce is the only species found in the understory. Some areas the canopy is closed and some areas it is more open.
18	4130 - Aspen	Medium Density	20.9	5		A few sparse areas where landing and skid trails were, but overall stand is regenerating well. Majority of regeneration is aspen and red maple, a few aspen saplings look to be developing black canker already.
19	4130 - Aspen	High Density Sapling	14.5	18		Final harvested in 1996 (72-031-96-02). Dense aspen stand with a small conifer component, balsam fir throughout stand is being used by wildlife. Pockets of aspen look to be developing black canker.
21	6121 - Tamarack	High Density Pole	14.0	52	81-110	Almost a pure tamarack stand with a couple of black spruce scattered throughout. Tag alder and tamarack make up most of the understory, the closer you get to beaver creek the more tag alder is present. A few balsam fir saplings are also scattered throughout the understory.
23	6139 - Mixed Lowland Forest	Medium Density Pole	17.0	50	81-110	Mixed stand with a few canopy gaps throughout. Some low spots filled with tag alder and some cattail, supercanopy red pine and white pine scattered in stand. The cedar is mostly concentrated in the north half of the stand.
25	42220 - Natural Jack Pine	High Density Pole	2.5	43		Two small upland islands in the middle of the lowland. Jack pine dominated with a few red pine. Sparse understory with only a few balsam fir.
26	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	10.4	72	51-80	Mixed stand along the Beaver Creek corridor, has some sparse areas where the canopy is open. Thick understory of balsam fir and black spruce, southern portion of stand has full coverage of balsam.
27	4130 - Aspen	High Density Pole	6.0	41		Small stand of mostly pole sized quaking and bigtooth aspen, has a dense balsam fire understory.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	4136 - Aspen, Mixed Conifer	High Density Pole	7.8	51		Mostly aspen, a small pocket of spruce is included along the north border of the stand. Aspen is in pretty good shape, maybe look to harvest in 10 years. A couple of low, wet spots, stand borders a lowland shrub drainage.
29	4136 - Aspen, Mixed Conifer	Medium Density Pole	4.6	58		Aspen with thick balsam fir understory in spots. A small portion of the stand is a lowland shrub area near Beaver Creek.
30	4130 - Aspen	High Density Pole	47.3	55		Nice aspen stand, has a heavy conifer component throughout stand in the understory. Average stand diameter increases the farther north you go in the stand. West side of railroad tracks has a pocket of basswood and red maple. At the north end of the stand some of the aspen has large cankers.
31	429 - Mixed Upland Conifers	High Density Pole	12.4	44	111-140	Red pine, aspen, and jack pine mix. Jack pine is more dominant in the north half of the stand and red pine is more abundant in the south half. Thick balsam and spruce understory, the few red maple regen pockets that were found were being heavily browsed by deer.
32	4130 - Aspen	High Density Sapling	29.8	7		Final harvested in 2007 (72-012-06-01). Great aspen regeneration, a few red pine and white pine scattered throughout the stand that were left from the harvest.
34	42340 - Upland Spruce/Fir	Medium Density Pole	1.4	68	81-110	Small upland island surrounded by lowland shrub area. The canopy consists of mostly balsam fir and spruce, Nice stand for wildlife to use.
35	42220 - Natural Jack Pine	Medium Density Pole	11.8	38		Mostly jack pine, a small pocket of white spruce is included at the southern end of the stand. The north half of the stand is more open grown than the south half. Jack pine are seeding in the open areas. This stand borders what looks to be a wildlife opening.
36	6119 - Mixed Lowland Deciduous Forest	Medium Density Log	6.9	88	81-110	Mixed stand with mostly basswood and red maple. Canopy gaps are filled with ironwood and red maple.
37	6130 - Fir, Aspen, Maple	High Density Log	32.8	65	81-110	Very variable stand, made up of pockets of aspen, red maple, hemlock, and supercanopy red pine and white pine. Understory varies from no regeneration to thick balsam fir.
38	4136 - Aspen, Mixed Conifer	High Density Sapling	25.8	16		Stand was cut in 1998 (72-024-96-01), very dense looks to be pretty wet. Has nice conifer component, looks like most of the pine and balsam was left from the previous harvest.
43	42220 - Natural Jack Pine	High Density Pole	4.0	48		Small jack pine stand with some oak mixed in. Understory has some white pine seeding in along with a few balsam fir.
44	6123 - Lowland Fir	Medium Density Pole	10.5	62	81-110	Mostly balsam fir with some spruce and aspen mixed in. Where there are canopy gaps they are filled with tag alder and other lowland shrubs.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	42290 - Natural Mixed Pine	Low Density Log	8.5	78	1-50	Poor quality, open grown pole sized jack pine and log sized white pine, many of the white pine are multi-stemmed. Looks like this may have been a wildlife opening that has not been maintained and has grown in.
46	6124 - Lowland Spruce- Fir	Medium Density Pole	14.0	83	111-140	Mixed conifer stand with a few canopy gaps throughout. Young aspen is filling in around the edges from adjacent cutting in 1996. Good wildlife cover.
47	4310 - Pine, Oak Mix	High Density Pole	7.4	65	111-140	Mixed stand with oak, white pine and jack pine. Pole sized white pine is growing up underneath supercanopy white pine.
48	4130 - Aspen	High Density Sapling	8.3	16		Cut in 1998 under same sale as stand 37. A small pocket of larger white pine is included in the stand, scattered balsam fir is also found throughout.
49	4139 - Aspen, Mixed Deciduous	High Density Sapling	27.1	7		Final harvested in 2007 (72-012-06-01), great aspen regeneration mixed with oak and red maple.
50	4130 - Aspen	High Density Sapling	22.7	7		Final harvested in 2007 (72-012-06-01), great aspen regeneration throughout most of the stand. The southwest portion of the stand is a little more sparse where there is less aspen and more oak/red maple stump sprouts.
51	4199 - Other Mixed Upland Deciduous	High Density Pole	21.1	48	51-80	Pole sized oak mixed with pockets of aspen. A few larger, log sized trees in the southern end of the stand,
52	4125 - Black, N. Pin Oak	High Density Log	8.3	76	81-110	Oak stand with a couple of aspen pockets. Nice conifer component of white pine and balsam fir are seeding in some parts of the understory.
53	4124 - Red with White Oak	High Density Log	51.6	91	51-80	Stand was thinned to 61BA in 1998, they harvested mixed oak and red maple. Understory now has a mix of oak and red maple.
54	4310 - Pine, Oak Mix	Medium Density Pole	24.8	26	1-50	Final harvested in 1988 (72-11-87-01). Nice mix of oak, jack pine, and aspen pockets. Stand has some sparse areas throughout, trees are just reaching pole size. Deer browse is occurring on oak seedlings that are in the understory.
55	4131 - Aspen, Oak	High Density Pole	5.7	53		Aspen stand, western portion of stand is more dominated by oak and red maple. Stand has a good amount of red maple in the understory, a lot of it is being browsed.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
6	310 - Herbaceous Openland	7.5	Yes	Low	Maintained wildlife opening with a small pocket of jack pine and a few scattered oak trees.
15	50 - Water	16.8	Unspecified	Unspecified	Mud Lake
20	6224 - Treed Bog	21.6	No	Unspecified	Ground cover under snow is leatherleaf. Sparse tamarack and spruce scattered throughout.
22	6224 - Treed Bog	6.8	No	Unspecified	Wet stand with lowland shrubs and scattered spruce, tamarack, and a few cedar.
24	629 - Mixed non-forested wetland	138.0	No	Unspecified	Cattail and tag alder swamp. Stand surrounds Mud Lake and has Beaver Creek running through the middle of it.
33	330 - Low-Density Trees	18.9	Unspecified	Unspecified	Scattered, open grown jack pine mixed with a couple of white pine and red pine. Not sure if this is a maintained opening or not.
39	622 - Lowland Shrub	13.1	No	Unspecified	Lowland shrub area full of tag alder, beaver creek runs through middle of stand.
40	622 - Lowland Shrub	5.8	No	Unspecified	Lowland shrub area with a few scattered mature aspen and a pocket of balsam fir.
41	622 - Lowland Shrub	29.6	No	Unspecified	Large lowland shrub area, some aspen is filling in around the edges where there have been adjacent harvests.
42	622 - Lowland Shrub	2.9	No	Unspecified	Stand is full of lowland shrubs along with a few cattails. A few pole/sapling sized balsam fir scattered throughout.