



# Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32273

Entry Year 2016

Acreage: 1593.56070000

County Marquette

Management Area: Sands Plains

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**Revision Date:** 2014-09-18

**Stand Examiner:** Tom Seablom

**Legal Description:**

T47N R25W Sec's 22, 23, 26, & 27

**Identified Planning Goals:**

Compartment 273 is within the Sands Plains Management Area. Goals for this management area are to provide a variety of timber products; maintain or enhance wildlife habitat; protect areas with unique characteristics; and provide for forest based recreational uses.

**Soil and topography:**

Soils within the compartment are generally sandy in nature, belonging to the Garlic-Alcona-Voelker Association. The dominant soil type is Rubicon sand. The eastern most edge of the compartment, however, is made up of Rousseau-Ocqueoc fine sands. Topography is fairly flat to rolling with some steeper ridges and valleys in the eastern portion of the compartment.

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

Ownership around the compartment is primarily private individual with some County land holdings. Land use is residential on the private and recreational on the County and State. The Marquette County Fair Grounds are located immediately to the west of the compartment.

**Unique Natural Features:**

No Unique Natural Features known.

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

No Archeological, Historical, or Cultural Features known.

**Special Management Designations or Considerations:**

The Blueberry Ridge Ski Trail is located entirely within this compartment. Consideration has been given to this when developing treatments.

**Watershed and Fisheries Considerations:**

Fisheries Values: Excellent

Fisheries Concerns: Bordering the eastern edge of this compartment is Cedar Creek, a designated trout stream. This stream contains a decent population of brook trout and receives a run of Coho salmon and steelhead. Fisheries surveys have found Cedar Creek to serve as a nursery area for juvenile Coho salmon and steelhead. A premium should be placed on maintaining the integrity of this stream by buffering all aspen clear-cuts a minimum of 300 feet. Stands 32 and 33 are aspen stands with clear-cuts prescribed. Treatments in both stands should buffer the creek at a minimum of 300 feet.

**Wildlife Habitat Considerations:**

Compartment 273 is found within the Sands Plains Management Area is on an Outwash Plain in central Marquette County. The dominant Natural Communities are dry mesic northern forests and dry northern forests. Wildlife considerations in this Management Area include increasing stand size and striving to accommodate many species associated with xeric forest habitat such as Kirtland's warbler, upland sandpiper, black backed woodpecker, eastern bluebird, and spruce grouse. Wildlife management issues in the management area are: large open land complexes; habitat fragmentation; mature forest (jack pine, black and white spruce and tamarack); and early successional forest.

The following have been identified as featured species for the Sands Plains Management Area: Kirtland's warbler, spruce grouse, and upland sandpiper.

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

Sections 13 -15 & 22 - 24, T47N-R25W, Marquette Co.

Surface sediments consist of lacustrine (lake) sand and gravel and glacial outwash sand and gravel and postglacial till. The glacial drift thickness varies between 100 to 200 feet. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was previously used as a building stone. Gravel pits are located in the area, and potential appears to

be good. The Empire iron mine is located nine miles to the west. This area has not been previously leased for metallic exploration. There is no economic oil and gas production in the UP.

**Vehicle Access:**

There is good vehicle access to the compartment via County Road's 553, 480, and NAP. The compartment itself is closed to any motorized vehicle use.

**Survey Needs:**

H 10 and South 1/16 corner of section 27 are needed. Survey records are not present even though they are indicated as such on the map.

**Recreational Facilities and Opportunities:**

This area is a developed cross country ski area.

**Fire Protection:**

This compartment falls within the boundary of the Sands Plains Zone Dispatch. There is adequate access to this compartment for fire suppression.

**Additional Compartment Information:**

Since the last entry period for this compartment, it was decided to change the compartment boundaries of compartments 273 and 274 to encompass the Blueberry Ridge Ski Trail within one compartment. Compartment 273 is now only south of Co. Rd. 480 and houses, in its entirety, the Blueberry Ridge Ski Trail. It was decided to do this to make management of the timber around the ski trail within the same year of entry rather than having two separate entry periods.

**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**

87°25'0"W

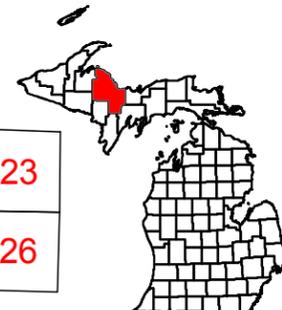
87°23'0"W

# Cover Type & Treatment Map

Compartment: 273  
 T47N R25W Sec. 22, 23, 26, 27  
 County: Marquette  
 Unit: Gwinn  
 YOY: 2016  
 Acres: 999 GIS Calculated  
 Examiner: Tom Seablom  
 Map Revised: 05/22/2014  
 Map Phase: Pre-Review

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

22	23
27	26



**Legend**

- Miris Corners
- Survey Grade
- Remonumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- State Highway
- Snowmobile Trail
- Ski Trail
- Horse Trail
- Horse Trails
- Ski Trails
- Snowmobile Trails
- Stream
- Intermittent Stream
- State Forest Land
- Lakes and Rivers

**Treatments**

- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)

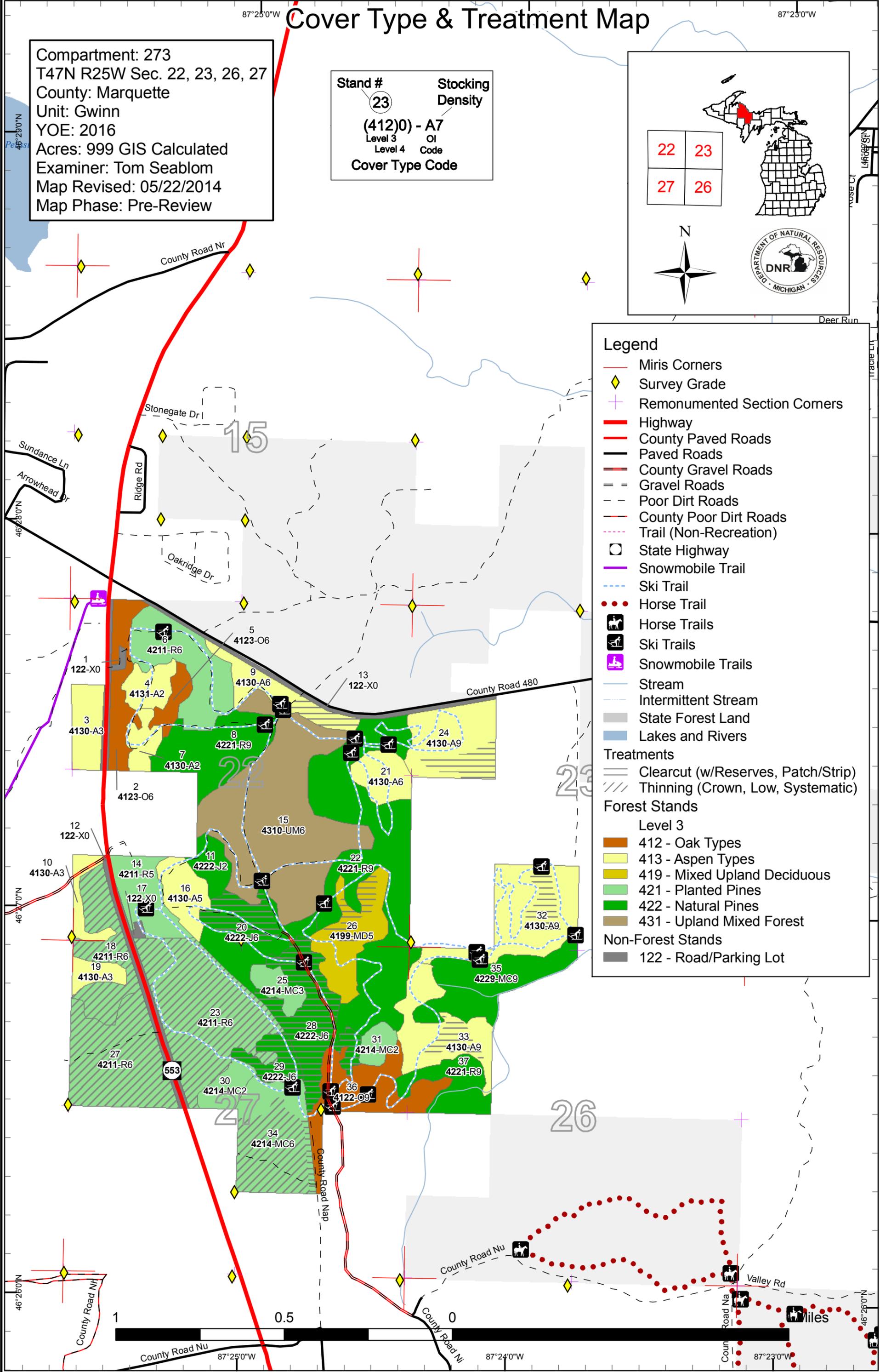
**Forest Stands**

**Level 3**

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest

**Non-Forest Stands**

- 122 - Road/Parking Lot

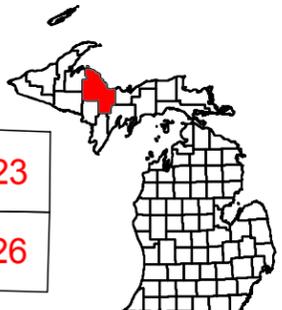


46°28'0"N  
 46°27'0"N  
 46°26'0"N  
 87°25'0"W  
 87°24'0"W  
 87°23'0"W  
 46°26'0"N

# Stand Boundary Map

Compartment: 273  
 T47N R25W Sec. 22, 23, 26, 27  
 County: Marquette  
 Unit: Gwinn  
 YOE: 2016  
 Acres: 999 GIS Calculated  
 Examiner: Tom Seablom  
 Map Revised: 05/22/2014  
 Map Phase: Pre-Review

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



22	23
27	26

N




**Legend**

- Survey Grade
- Remonumented Section Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
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- Intermittent Stream
- Snowmobile Trail
- Ski Trail
- Horse Trail
- Horse Trails
- Ski Trails
- Snowmobile Trails
- Stand Boundaries

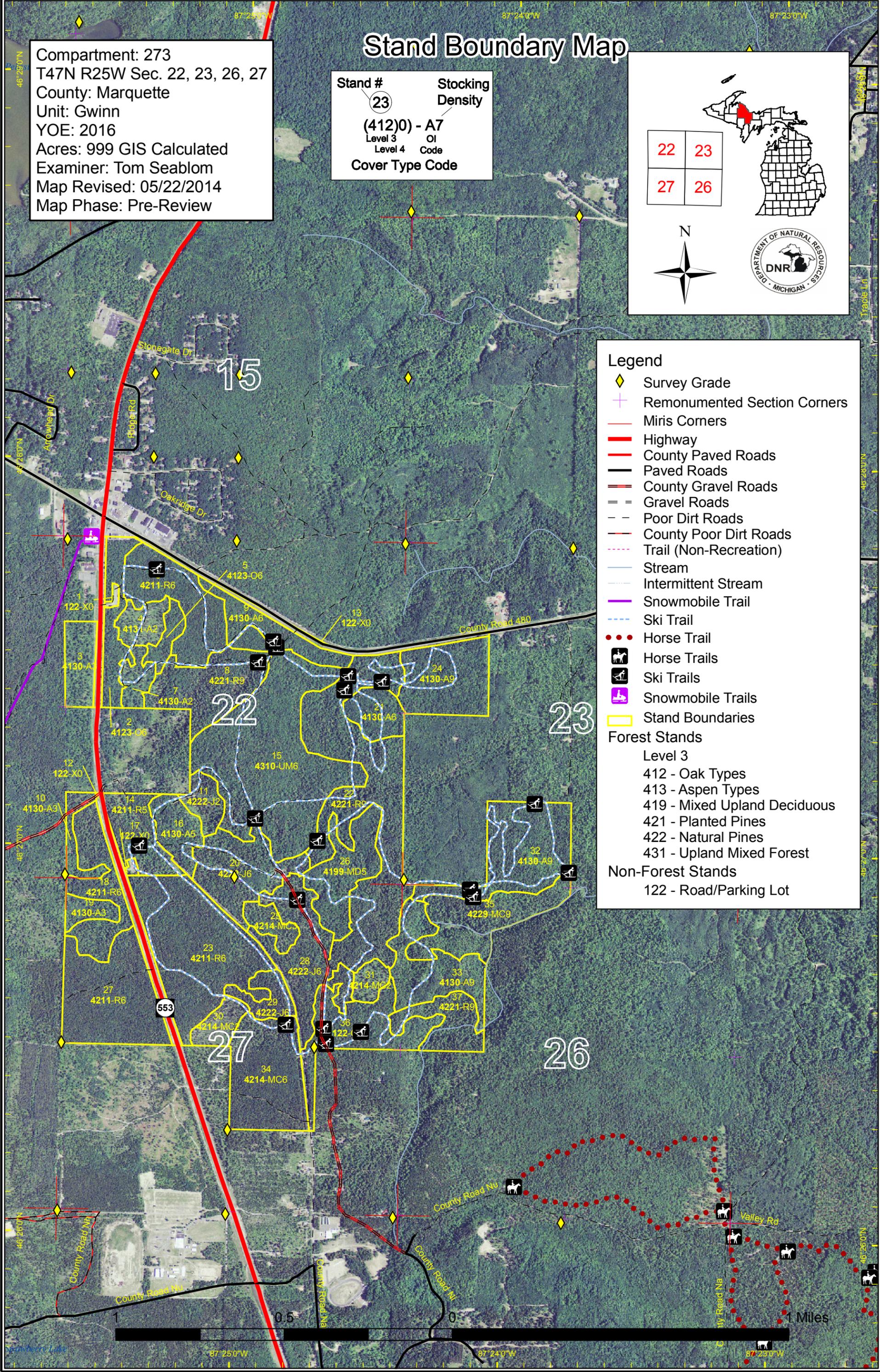
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Level 3

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- 422 - Natural Pines
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**Non-Forest Stands**

- 122 - Road/Parking Lot



# Special Conservation Areas & Site Conditions Map

Compartment: 273  
 T47N R25W Sec. 22, 23, 26, 27  
 County: Marquette  
 Unit: Gwinn  
 YOE: 2016  
 Acres: 999 GIS Calculated  
 Examiner: Tom Seablom  
 Map Revised: 05/22/2014  
 Map Phase: Pre-Review

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

22	23
27	26



## Legend

Remonumented Section Corners  
 Miris Corners  
 Stand Boundaries

### Reviewable SCAs

Proposed SCA  
 SCA Removal

### 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

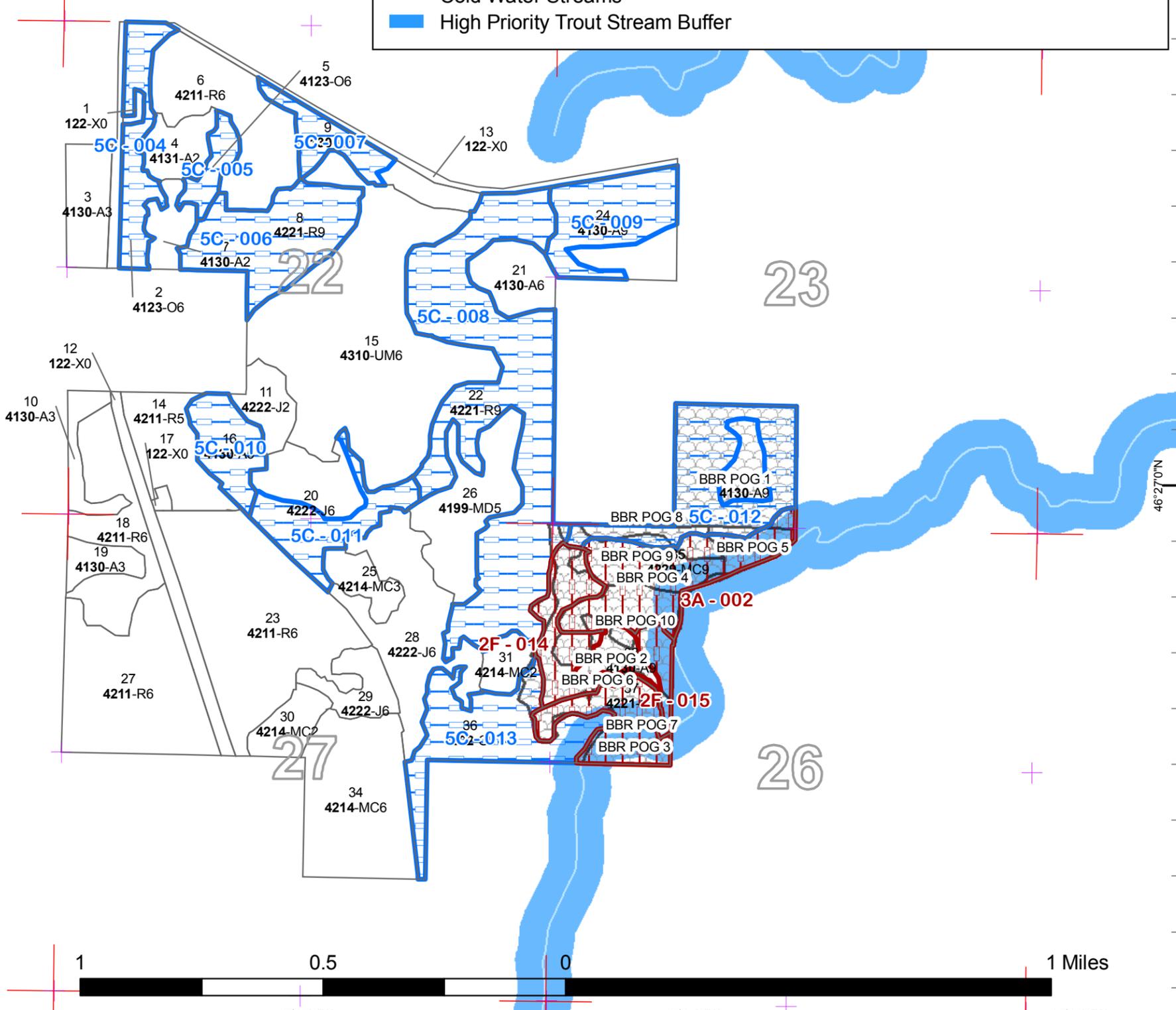
#### Unavailable Factors

2F: Too steep

3A: Potential old growth / biodiversity

### Special Conservation Areas

Cold Water Streams  
 High Priority Trout Stream Buffer



1 0.5 0 1 Miles

87°25'0"W

87°24'0"W

87°23'0"W

H 10 and South 1/16 corner of section 27 are needed. Survey records are not present even though they are indicated as such on the map.

**Recreational Facilities and Opportunities:**

This area is a developed cross country ski area.

**Fire Protection:**

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**Additional Compartment Information:**

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- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
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- Details on the road access system**

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

Gwinn Mgt. Unit

Compartment 273 Year of Entry 2016

Thomas Seablom : Examiner



	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	34	15	0	0	14	0	0	0	0	146	0	0	0	0	209
Jack Pine	0	10	0	0	0	0	0	0	49	34	0	0	0	0	93
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	29	0	0	0	0	29
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	36	0	0	0	0	36
Oak	0	0	0	0	0	0	0	0	0	26	35	0	0	0	61
Planted Mixed Pines	0	16	8	0	0	46	0	0	0	0	0	0	0	0	70
Red Pine	0	0	0	0	36	173	0	0	0	153	0	0	0	0	362
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	109	0	0	0	0	109
Urban	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30
<b>Total</b>	<b>64</b>	<b>41</b>	<b>8</b>	<b>0</b>	<b>50</b>	<b>219</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>533</b>	<b>35</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>999</b>



## Report 2 – Proposed Treatment Summaries

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

**Compartment 273**  
**Total Compartment Acres: 999**

### Acres by Treatment Type

Commercial Harvest - 339    Tree Planting - 0    Other - 0  
 Habitat Cut - 0    Opening Maintenance - 0

### Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
<b>Aspen Types</b>	34	0	0	0	0	0	34
<b>Mixed Upland Deciduous</b>	8	0	0	0	0	0	8
<b>Natural Pines</b>	64	0	0	13	0	0	77
<b>Oak Types</b>	4	0	0	0	0	0	4
<b>Planted Pines</b>	2	0	0	0	184	0	186
<b>Upland Mixed Forest</b>	0	0	0	30	0	0	30
<b>Total</b>	<b>112</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>184</b>	<b>0</b>	<b>339</b>



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
9	32273009_sm all-Cut	6.4	4130 - Aspen	High Density Pole	91		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal

Prescription Stand is on contract: 32-303-11-01 BBR North Sale. Harvest is removing all aspen, maple, and white birch. Any conifer and oak are being retained.

Other  
Comments:

Next  
Steps: Regen survey as per work instructions.

Proposed  
Start Date: 10/01/2010

15	32273015- Cut_small	29.8	4310 - Pine, Oak Mix	High Density Pole	99	81-110	Harvest	Shelter Wood with Reserves	4311 - Pine, Aspen Mix	Cmpt. Review Proposal
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Prescription Shelterwood harvest: Remove aspen, birch, jack pine, oak (necessary for operations), and enough red and white pine to bring the residual basal area to around 40 sq. ft/ac. Create gaps up to 1/2 acre in size where appropriate in the heavy pine areas.

Other  
Comments: The goal here is to start regenerating portions of this stand. Since it is a mixed stand we will try to maintain the diversity while increasing the pine component through scarification.

Next  
Steps: Anchor chain where appropriate. Regen survey as per work instructions.

Proposed  
Start Date: 10/01/2015

18	32273018-Cut	28.3	42110 - Planted Red Pine	High Density Pole	51	141-170	Harvest	Crown Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Thin areas of higher density, north and middle lobe primarily, to a residual basal area of 90-100 sq. ft./ac. Concentrate removals on overtopped and trees less than 7" dbh.

Other  
Comments:

Next  
Steps:

Proposed  
Start Date: 10/01/2015

20	32273020_sm all-Cut	15.0	42220 - Natural Jack Pine	High Density Pole	93	81-110	Harvest	Clearcut with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal
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Prescription Clearcut this stand reserving all red pine over 8" dbh and white pine, and oak.

Other  
Comments: Leave a one chain buffer along the east side where it borders the Wolverine loop and retain the patch of big tooth aspen at the south end of the stand, otherwise follow the treatment boundary.

Next  
Steps: Follow up treatment will be to herbicide, trench, and plant red pine.

Proposed  
Start Date: 10/01/2015



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
22	32273022- Cut_small	13.3	42210 - Natural Red Pine	High Density Log	91	81-110	Harvest	Shelter Wood with Reserves	4221 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Shelterwood/seedtree harvest: Create gaps within the treatment area as well as heavily thin the red pine (30-40 sq. ft.) to begin regenerating the stand										
<u>Specs:</u>										
<u>Other</u> Objective is to begin the regeneration process in select parts of the stand.										
<u>Comments:</u>										
<u>Next</u> Anchor chain or scarify using dozer following harvest. Regen survey as per work instrucionts.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
23	32273023-Cut	71.8	42110 - Planted Red Pine	High Density Pole	51	141-170	Harvest	Crown Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin stand to a residual basal area of 100-120 sq ft/ac. Remove the majority of the white birch and aspen, leaving 2-3 trees per acre where they are present. Thin through the red and jack pine leaving it as a mixed stand. Concentrate removal on stems less than 7" dbh and those that are suppressed. Do not cut any white pine or oak.										
<u>Specs:</u>										
<u>Other</u> The Lighted loop traverses through this stand.										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2015										
24	32273024_sm all-Cut	9.4	4130 - Aspen	High Density Log	99	81-110	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Treatment area is already on contract 32-303-11-01 BBR North Sale.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Regen survey as per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2010										
26	32273026-Cut	7.7	4199 - Other Mixed Upland Deciduous	Medium Density Pole	99	51-80	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Treatment is on contract 32-303-11-01 BBR North Sale.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Regen survey as per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2010										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
27	32273027-Cut	52.2	42110 - Planted Red Pine	High Density Pole	51	111-140	Harvest	Crown Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal

Prescription Thin stand to a residual basal area of 100 sq. ft/ac. Leave any white pine, red oak and aspen.

Specs:

Other This stand could either be row thinned, as they are still discernable, or traditionally marked. If it is row thinned, remove every third row and every third tree within leave rows. Also remove suppressed red pine.

Comments:

Next Steps:

Proposed Start Date: 10/01/2015

28	32273028-Cut1	38.4	42220 - Natural Jack Pine	High Density Pole	82	111-140	Harvest	Clearcut with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal
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Prescription Currently on contract: 32-112-09-01 Blueberry Pine Sale.

Specs:

Other Last prescription called for direct seeding of jack pine, no herbicide was to be used.

Comments:

Next Steps: Trench and plant to a mix of red and jack pine.

Proposed Start Date: 10/01/2008

29	32273029-Cut1	10.8	42220 - Natural Jack Pine	High Density Pole	82	81-110	Harvest	Clearcut with Reserves	429 - Mixed Upland Conifers	Cmpt. Review Proposal
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Prescription Currently on contract 32-112-09-01 Blueberry Pine Sale.

Specs:

Other Previous prescription was no herbicide, trench and plant jack pine.

Comments:

Next Steps: Trench and plant a mix of red and jack pine.

Proposed Start Date: 10/01/2008

32	32273032_island-Cut	9.2	4130 - Aspen	High Density Log	93	81-110	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
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Prescription Clearcut this stand reserving any white pine, hemlock, and cedar that may be present as well as 2-3 maple/ac where their density allows.

Specs:

Other No trail buffer should be used her. Use the trail as the treatment boundary.

Comments:

Next Steps: Followup regen survey as per work instructions.

Proposed Start Date: 10/01/2015



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
32	32273032_island-Cut_small	2.1	4130 - Aspen	High Density Log	93	81-110	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clearcut this stand reserving any white pine, hemlock, and cedar that may be present as well as 2-3 maple/ac where their density allows.										
<u>Specs:</u>										
<u>Other Comments:</u> No trail buffer should be used her. Use the trail as the treatment boundary.										
<u>Next Steps:</u> Followup regen survey as per work instructions.										
<u>Proposed Start Date:</u> 10/01/2015										
33	32273033_island-Cut	6.8	4130 - Aspen	High Density Log	91	141-170	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Treatment is currently on contract 32-112-09-01 Blueberry Pine Sale.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> Regen survey as per work instructions.										
<u>Proposed Start Date:</u> 10/01/2008										
34	32273034_small-small-Cut	2.3	42140 - Planted Mixed Pine	High Density Pole	51	141-170	Harvest	Clearcut	4222 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut this stand removing all jack pine.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> Followup treatment with either anchor chaining or trench and seed. If enough scarification takes place during harvest there may be enough of a natural seed source from the adjacent stand that will seed in here over time.										
<u>Proposed Start Date:</u> 10/01/2015										
34	32273034-Cut	31.7	42140 - Planted Mixed Pine	High Density Pole	51	141-170	Harvest	Crown Thinning	429 - Mixed Upland Conifers	Cmpt. Review Proposal
<u>Prescription</u> Thin stand to a residual basal area of 100-120 sq. ft/ac. Concentrate removal on supressed trees and those with diameters less than 6" dbh.										
<u>Specs:</u>										
<u>Other Comments:</u> Do not discriminate against jack pine. It is desired to manage this as a mixed stand.										
<u>Next Steps:</u>										
<u>Proposed Start Date:</u> 10/01/2015										
36	32273036-Cut_small	3.7	4122 - Oak, Pine	High Density Log	103	81-110	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Clear the east side of old county road 553 from the road to the property line. Cut all trees regardless of merchantability. No retention.										
<u>Specs:</u>										
<u>Other Comments:</u> There is no intention on actively regenerating this portion of the stand. We will accept whatever comes back here.										
<u>Next Steps:</u>										
<u>Proposed Start Date:</u> 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
Total Treatment Acreage Proposed:		338.8							



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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

Gwinn Mgt. Unit

Compartment 273

Thomas Seablom : Examiner

Year of Entry 2016

### Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	5C	3A	2F
	Available	Not Available					
209	184	25	<b>Aspen</b>	98	86	25	25
93	93		<b>Jack Pine</b>	74	19		
29	29		<b>Mixed Upland Deciduous</b>	29			
36		36	<b>Natural Mixed Pines</b>			36	
61	61		<b>Oak</b>	4	57		
70	70		<b>Planted Mixed Pines</b>	70			
362	343	19	<b>Red Pine</b>	223	120		19
109	109		<b>Upland Mixed Forest</b>	109			
969	890	80	Total Forested Acres	607	282	36	44
	92%	8%	Relative Percent				

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	3A: Potential old growth / biodiversity	36				
<b>Comments:</b> SCA=>Potential Old Growth. Stand is in old forest condition, has a cold water trout stream that runs through it and the majority of it is very steep hillsides.							
004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19				
<b>Comments:</b> Buffer along Co. Rd. 553 and the Blueberry Ridge Ski Trail.							
005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7				
<b>Comments:</b> Delaying treatment due to Blueberry Ridge Ski trail.							

Report 5 – Site Conditions

Gwinn Mgt. Unit

Compartment 273

Thomas Seablom : Examiner

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006	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	35	
<b>Comments:</b> Delaying treatment due to Blueberry Ridge Ski trail.				
007	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	
<b>Comments:</b> Delaying treatment due to Blueberry Ridge Ski trail.				
008	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	85	
<b>Comments:</b> Delaying treatment due to Blueberry Ridge Ski trail.				
009	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	
<b>Comments:</b> Delaying treatment due to Blueberry Ridge Ski trail.				
010	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15	
<b>Comments:</b> Delaying treatment due to Blueberry Ridge Ski trail.				
011	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19	
<b>Comments:</b> Delaying treatment due to Blueberry Ridge Ski trail.				

## Report 5 – Site Conditions

Gwinn Mgt. Unit

Compartment 273

Thomas Seablom : Examiner

Year of Entry 2016

012	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	34
<b>Comments:</b> Delaying treatment due to Blueberry Ridge Ski trail.			
013	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	31
<b>Comments:</b> Delaying treatment due to Blueberry Ridge Ski trail.			
014	Not Available	2F: Too steep	25
<b>Comments:</b> Majority of stand is inoperable due to steep terrain and impact on ski trail.			
015	Not Available	2F: Too steep	19
<b>Comments:</b> Majority of stand is inoperable due to steep terrain and impact on ski trail.			



## 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>BBR POG 8</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	6.3
<b>BBR POG 5</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	7.2
<b>BBR POG 10</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	15.0
<b>BBR POG 9</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	16.9
<b>BBR POG 3</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	19.1
<b>BBR POG 7</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	20.4
<b>BBR POG 6</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	27.6
<b>BBR POG 2</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	31.9
<b>BBR POG 4</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	35.5
<b>BBR POG 1</b> <b>Comments</b>	Potential Old Growth		<b>SCA Removal</b>	46.4



**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:
2	4123 - Red Oak	High Density Pole	18.5	99	111-140	Stand borders Co Rd 553 and also houses the north parking lot. Trees in the stand are at or are approaching maturity. This stand is acting as a buffer for the ski trail from 553 at the present time. When adjacent stands (pre-inventory 5 & 6) are providing an adequate wind break along the trail, this stand should be harvested using a heavy thinning or a shelterwood to regenerate the oak. Planting a pine component in this stand would help to provide a future windbreak for the ski trail from 553.
3	4130 - Aspen	High Density Sapling	14.7	6		Stand harvested in spring of 2008 by Roy Nelson, Jr. & Son's, #32-319-07-01, BBR Trail Sale. All oak was left. The southern part of the stand was scarified with a Brakke patch scarifier and planted with red and jack pine at a rate of approx. 600 tpa.(FTP 32-718).
4	4131 - Aspen, Oak	Medium Density	10.8	6	1-50	Stand harvested in spring of 2008 by Roy Nelson, Jr. & Son's, #32-319-07-01 (BBR Trail Sale). All oak were left. Stand was patch scarified in spring of 2009 with a Brakke patch scarifier and planted @ a rate of approx. 600 tpa with 2-0 jack and red pine. The red pine were planted along the trail, the jack pine in the remainder. Aspen and red maple sprouts are scattered throughout the stand. A survival survey completed in May 2010 found 228 live seedlings per acre of the planted pine.
5	4123 - Red Oak	High Density Pole	7.1	99	51-80	Mixed stand of oak and aspen, with some white birch and jack pine scattered within the stand. Oak and aspen are poor quality. The CrossRoads loop is within this stand.
6	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	36.3	48	81-110	Stand was disked and seeded to red pine between 1964-66 as a pilot project for hardwood to red pine conversion. Stand is a mix of red pine, oak, and big tooth aspen. Jack pine and red maple are present in the stand but are lesser components. There are pockets in this stand that could be thinned now, however, it would be better to wait another 10 years and thin the entire stand.
7	4130 - Aspen	Medium Density	8.7	6	1-50	Stand harvested in spring of 2008 by Roy Nelson, Jr. & Son's #32-319-07-01 (BBR Trail Sale). All oak were left. Some jack pine were planted in the northern part of this stand as well as red pine along the ski trail.
8	42210 - Natural Red Pine	High Density Log	35.0	99	81-110	This is a natural red pine stand with some small areas that were seeded back in 1964-1966. The Husky loop is within this stand.
9	4130 - Aspen	High Density Pole	17.8	91		A portion of this stand will be treated in 2011 YOE to aid in balancing the POW.
10	4130 - Aspen	High Density Sapling	7.7	16		Stand harvested in 1998, Comp 273, (TS #025-96-02). All trees that would yield one or more 100" pulp stick, except oak, cherry, and red and white pine, were cut. There are now pole size big tooth aspen, oak, and some pine over an aspen understory.
11	42220 - Natural Jack Pine	Medium Density	9.6	13		Stand harvested in 1998, Comp 273, (TS #25-96-02). This stand is essentially a bowl. Only jack pine containing 3 or more 100" pulp sticks were cut. Stand is now a jack pine sapling stand with pockets of poles. The Wolverine loop is within this



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	42110 - Planted Red Pine	Medium Density Pole	21.2	51	81-110	The majority of this stand was planted in 1963. A jack pine removal cut was done in 1998, Comp 273, (TS #25-96-02). There are groves of remnant red and white pine here. The trail head for the lighted loop is located within this stand.
15	4310 - Pine, Oak Mix	High Density Pole	109.4	99	81-110	Stand is very mixed, though dominated by upland conifers. Where aspen occurs, it is mainly as clones. Where white pine understory is present it is quite heavy, primarily in the north central part of the stand, red pine understory is more in the south. Oak and red maple understory is scattered throughout the entire stand.
16	4130 - Aspen	Medium Density Pole	15.3	93	51-80	Small aspen stand. Lighted and Wolverine loops within the stand. Aspen is beginning to fall apart.
18	42110 - Planted Red Pine	High Density Pole	28.3	51	141-170	This stand was planted in 1963 and has scattered areas of remnant red pine. The jack pine, aspen, and birch were cut from this stand in 1998, Compartment 273 (TS #25-96-01) and 2000 Compartment 274 (TS #118-99-01). It appears that an old railroad grade runs east-west through this stand. Density is quite varied. Where patches of older red pine are, the basal area is much higher than in the plantation portion.
19	4130 - Aspen	High Density Sapling	7.0	14		Stand was harvested in 2000 (TS #118-99-01) in which the aspen, birch, and jack pine were harvested to release the red pine that was planted in 1963. There are a few scattered red pine within this stand, but it is predominantly big tooth aspen.
20	42220 - Natural Jack Pine	High Density Pole	34.2	93	81-110	Stand is heavy to jack pine with pockets of big tooth aspen and some larger red pine. Red pine is mainly on north end where the stand's change. The Lighted and Wolverine loop's will be affected by any harvests.
21	4130 - Aspen	High Density Pole	13.8	45		Stand was harvested in 1969 by Unto Makela, permit 26-68. Stand is big tooth aspen with scattered oak poles and logs, remnant red and white pine. Heavy balsam understory on east end, this is also where the white birch is present. White pine understory increases as you move east.
22	42210 - Natural Red Pine	High Density Log	98.4	91	81-110	The predominant species in this stand is red pine. Red oak, white birch, big tooth aspen and jack pine are mixed in as well (mainly in pockets) with some white pine and red maple present as well. The southern portion of this stand is almost pure red pine. White pine regen is present throughout the stand but stocking is quite variable. Some areas it is only 3 feet tall, in other areas (primarily north) it ranges from 5-15 feet. There is also some white spruce and balsam regen present as well throughout the stand. Oak regen is scattered and is primarily in the north and is 3-5 ft. in height. There are standing dead jack pine throughout the stand. Some large red pine snags are present also.
23	42110 - Planted Red Pine	High Density Pole	71.8	51	141-170	Stand was planted in 1963 to red pine. There is a fair amount of jack pine mixed throughout this stand; white birch, red oak, some red maple and white pine are present also. Density and diameter vary across this stand. Some areas of poles are well over 200 sq. ft and diameters around 8 inches, others are around 100 sq. ft. and diameters at 6 inches. The Lighted loop is within this stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	4130 - Aspen	High Density Log	35.0	99	81-110	Mixed stand of mature log and pole size aspen with red pine, oak, and white birch mixed in. A portion of this stand is being treated YOE 2011. Part of the Spartan loop is within this stand. The treatment will be south of the trail with a 50 foot buffer left along the trail.
25	42140 - Planted Mixed Pine	High Density Sapling	8.4	23		Stand harvested in 1990, permit #035-89-1 and planted in the spring of 1991 to red pine FTP C-31-225 at a rate of 900 tpa. Stand is now a mix of red pine and jack pine. Wolverine loop.
26	4199 - Other Mixed Upland Deciduous	Medium Density Pole	29.2	99	51-80	An oak understory is present throughout the entire stand as are white and red pine. The white birch and aspen are starting to fall apart. A portion of this stand (northern area) will be treated during the 2011 YOE in an effort to balance the Plan of Work and to aid in balancing the aspen age class in this general area. Superior loop.
27	42110 - Planted Red Pine	High Density Pole	52.2	51	111-140	Planted in 1963 and is located west of M-553. Stand is ready to be thinned.
28	42220 - Natural Jack Pine	High Density Pole	38.4	82	111-140	Stand is currently on proposal. All red and white pine and oak are being left, remainder of trees are being harvested. Lighted loop and Wolverine loop.
29	42220 - Natural Jack Pine	High Density Pole	10.8	82	81-110	Stand was planted in 1963 to red pine but it was deemed a failure. Jack pine has taken over and there is some surviving red pine in the understory. This stand is currently on proposal to be cut. Lighted loop.
30	42140 - Planted Mixed Pine	Medium Density	9.6	13		Stand was planted to red pine in 2001. FTP was for jack pine. Natural jack pine is present throughout the stand and is somewhat more prevalent than the planted red pine. Lighted loop.
31	42141 - Planted Mixed Pine, Mixed Deciduous	Medium Density	6.7	13	1-50	Stand harvested in 2001 #119-01-01. FTP C31-430 called for a jack pine planting, however the stand was planted to red pine. There is moderate survival of the red pine. Natural jack pine make up the majority of the stand however, with some red oak and red maple regenerating as well. Red and white pine as well as red oak were left in this stand and are scattered throughout. Superior loop.
32	4130 - Aspen	High Density Log	46.4	93	81-110	Stand is heavy to aspen (both big tooth and quaking), two pockets of hardwood in the southeast part of the stand. There is a pocket of white pine in the southwest that was it's own stand during previous inventories. The entire Wildcat loop is within this stand and part of the Superior loop is as well.
33	4130 - Aspen	High Density Log	31.9	91	141-170	A portion of this stand is currently on proposal to be bid out. Some of this stand is very steep terrain and will likely not be harvested. Hemlock's are scattered throughout this stand. The Superior loop is within this stand.

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Gwinn Mgt. Unit

## Report 8 – Forested Stands

Compartment: 273

Year of Entry: 2016



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	42140 - Planted Mixed Pine	High Density Pole	45.7	51	141-170	Stand was planted to red pine in 1963. Natural jack pine also regenerated in this stand and is well mixed throughout. The east edge off of the old highway is pure jack pine, however, it was stated in the FTP not to plant w/in 105 feet of the highway. The jack pine being in a band along the edge is probably a result of this. Lighted loop and Wolverine loop.
35	42290 - Natural Mixed Pine	High Density Log	35.5	99		SCA=>Dry mesic on steep slopes (old FMD comments) and movement corridor for mammals, amphibians, reptiles, birds, and aquatic fauna (old WLD comments). Stand was proposed as POG to promote habitat elements such as supercanopy trees, large snags, large diameter downed trees, and for natural processes. This stand is very steep (>40% slope) and the Cedar Creek is at the bottom. Both the Superior and Wildcat loops are on the boundary of this stand.
36	4122 - Oak, Pine	High Density Log	34.9	103	81-110	Mixed stand of red oak and pine. Aspen and white birch are minor components. White pine is in the understory, though its density is quite varied. Estimated age is 25-30 years based on counting whorls. The extreme east end of this stand is more aspen with a slope of 40% rendering this portion inoperable. This stand encompasses portions of both the Wolverine and Superior loops.
37	42210 - Natural Red Pine	High Density Log	19.1	99	111-140	SCA=>Potential Old Growth for water quality protection and wildlife habitat. Stand is fairly steep (slopes 35-40%). A portion of the Superior loop is within this stand. This stand is heavy to red pine with an established understory of red maple, spruce/fir, hazel, white pine and some oak. There is a trace of jack pine within the stand as well.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	122 - Road/Parking Lot	1.1	No	Unspecified	
12	122 - Road/Parking Lot	18.7	No	Unspecified	
13	122 - Road/Parking Lot	9.1	No	Unspecified	
17	122 - Road/Parking Lot	1.0	No	Unspecified	