



# Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32269

Entry Year 2023

Acreage: 1,052

County Marquette

Management Area: Chain Lakes Moraine

**Revision Date:** 2021-08-03

**Stand Examiner:** Jason Caron

**Legal Description:**

T45N R27W Sec 30 except NWNW and Sec 31.

**Identified Planning Goals:**

Goals within this compartment are timber production, wildlife habitat management and protection of water quality. Timber management is primarily for fiber production using even age techniques, with some sawlog and old forest condition management where appropriate. Managing the timber in this manner continues to provide for both early and late successional wildlife habitat. Applying proper Best Management Practices (BMP's) during timber harvests and road work ensures water quality protection. Aspen is the dominant cover type within this compartment and surrounding landscape. For this entry period a clearcut in a mixed aspen and jack pine type will be prescribed.

**Soil and topography:**

Soil associations within this compartment include Grayling, Kalkaska-Carbondale-Deford (KCD), Rubicon-Keweenaw (RK), and Sagola-Rubicon (SR). These soils are very deep and range from very poorly drained muck to excessively drained sandy soils, with some well drained fine sandy loam included as well. The Grayling Association is located in the northern portion of this compartment and extends to the north and east. Soil quality improves moving south through the compartment. Topography ranges from fairly level in the north to gently undulating and very hilly progressing south. This compartment is on the southwest edge of a larger sandy outwash plain.

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

Ownership is predominantly state with small private parcels scattered throughout. The Michigan Northwoods Club is located approximately a mile to the north. Land use is in both timber production and recreation. Camps exist on the majority of the private parcels and are primarily used for hunting and fishing.

**Unique Natural Features:**

Potential for red-shouldered hawk and goshawk. Potential for osprey, eagle, and great blue heron rookery. Potential for moose and wolf. Potential for wood turtle in Camp 11 Creek. Potential for northern blue in openings in jack pine stands if dwarf bilberry is present. Potential for dwarf bilberry, wild oat grass, and Canada rice-grass in grassy openings and in clearings in jack pine. Potential for auricled tway-blade and linear-leaved gentian along riparian areas. Potential for Farwell's water-milfoil and alternate-leaved water-milfoil in shallow lakes. Potential for Assinboia sedge, male fern, and goblin moonwort in mature northern hardwoods.

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

A portion of the abandoned ELF ROW is on the northern border of this compartment.

**Special Management Designations or Considerations:**

**Watershed and Fisheries Considerations:**

This compartment contains Camp Eleven Creek and headwater areas of Big Brook. Camp Eleven Creek is designated a Type 1 trout stream less than 50' width and has a predicted mean July temperature of 62.2 °F (cold stream). Big Brook is designated a Type 1 trout stream less than 50' width and has a predicted mean July temperature of 58.5 °F (cold stream). 300' buffers are recommended for Camp Eleven Creek and Big Brook in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, 100' plus 5' per 1% increase in slope; buffers are recommended to protect these areas in accordance with Best Management Practices.

**Wildlife Habitat Considerations:**

Compartment 269 is found within the Chain Lakes Moraine Management Area; on a Disintegration Moraine in Southwestern Marquette County. The dominant Natural Communities are dry mesic northern forests, poor conifer swamps, and mesic northern forests. This management area offers opportunities to increase diversity and perhaps long-term oak sustainability through under planting white and red pine. Another priority is to maintain or increase wildlife corridors especially along riparian corridors. Wildlife management issues in the management area are: mast (hard and

soft); habitat fragmentation; mature forest conditions; mesic conifer; coarse woody debris; and retention or development of large living and dead standing trees (for cavities). This management area represents approximately ¼ of the oak resource on WUP state forest.

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

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

No known potential exists for commercial oil & gas production in this part of the state. No active sand/gravel pits occur in the area. There is good potential for sand & gravel in the compartment on the uplands. There is no known potential for metallic minerals beneath the compartment. However, little information is available, and there is some history of metallic mineral leasing in the area. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

### **Vehicle Access:**

Kates Grade, the Camp Eleven Truck Trail and Tower Road provide the main access to this compartment. Several woods roads branch off of these providing internal access.

### **Survey Needs:**

No survey needs exist for this YOE.

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

No recreational facilities exist nor is there any opportunity for development.

### **Fire Protection:**

This compartment is on the border of southern Marquette County and northern Dickinson County. The northern edge of the compartment is on the southern edge of a large sandy outwash plain dominated by jack pine and a large wildlife opening, aka the Bryan Creek Opening Complex, while the south is dominated by northern hardwood and aspen. There are adequate water sources throughout the area as well as adequate road access for fire suppression activities.

### **Additional Compartment Information:**

The following reports from the Inventory are attached:

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

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

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

Report 1 – Total Acres by Cover Type and Age Class

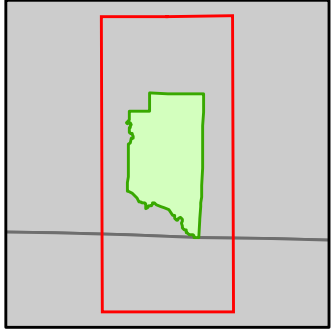


Age Class

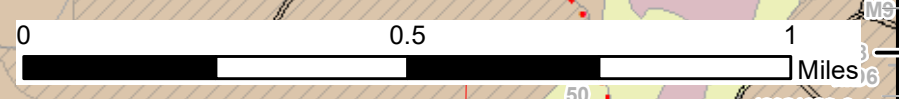
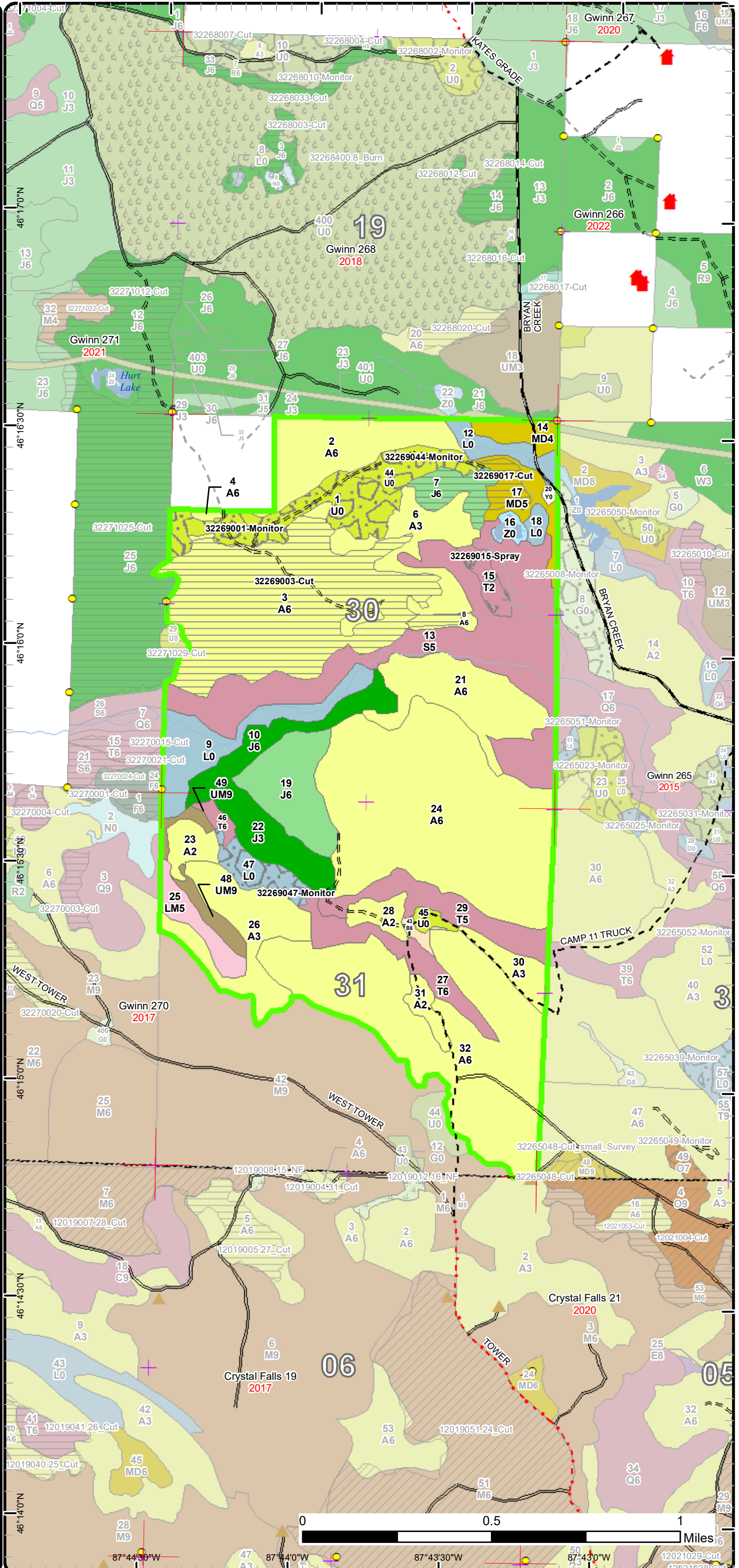
	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	23	40	40	300	185	0	0	0	0	42	0	0	0	0	0	0	0	630
Jack Pine	0	0	23	33	0	0	13	0	0	22	0	0	0	0	0	0	0	0	90
Low-Density Trees	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12
Lowland Shrub	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	0	110	0	0	0	0	0	110
Mixed Upland Deciduous	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	25
Paper Birch	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Tamarack	0	0	7	0	0	0	0	0	0	0	49	0	0	0	0	0	0	0	56
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10
Water	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
<b>Total</b>	<b>115</b>	<b>23</b>	<b>70</b>	<b>73</b>	<b>300</b>	<b>185</b>	<b>13</b>	<b>0</b>	<b>25</b>	<b>22</b>	<b>115</b>	<b>0</b>	<b>110</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1049</b>

# Cover Type & Treatments Map

Compartment: 269  
 T45N, R28W, Sec. 25  
 T45N, R27W, Sec. 30, 31  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
 YOE: 2023  
 Acres: 1052.1 GIS Calculated  
 Examiner: Jason Caron  
 Map Revised: 8/13/2021  
 Map Phase: Review



- Miris Corners
- Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- ▲ Cabin
- ▲ Berms
- Compartment Boundary
- Pesticide
- Clearcut (w/Reserves)
- Regeneration Survey
- 413 - Aspen Types
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 710 - Sand/Soil

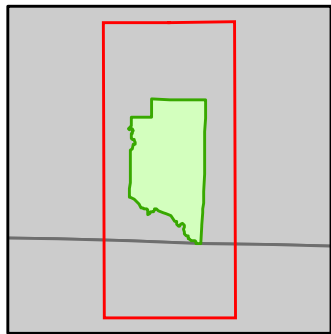


87°44'30"W 87°44'0"W 87°43'30"W 87°43'0"W

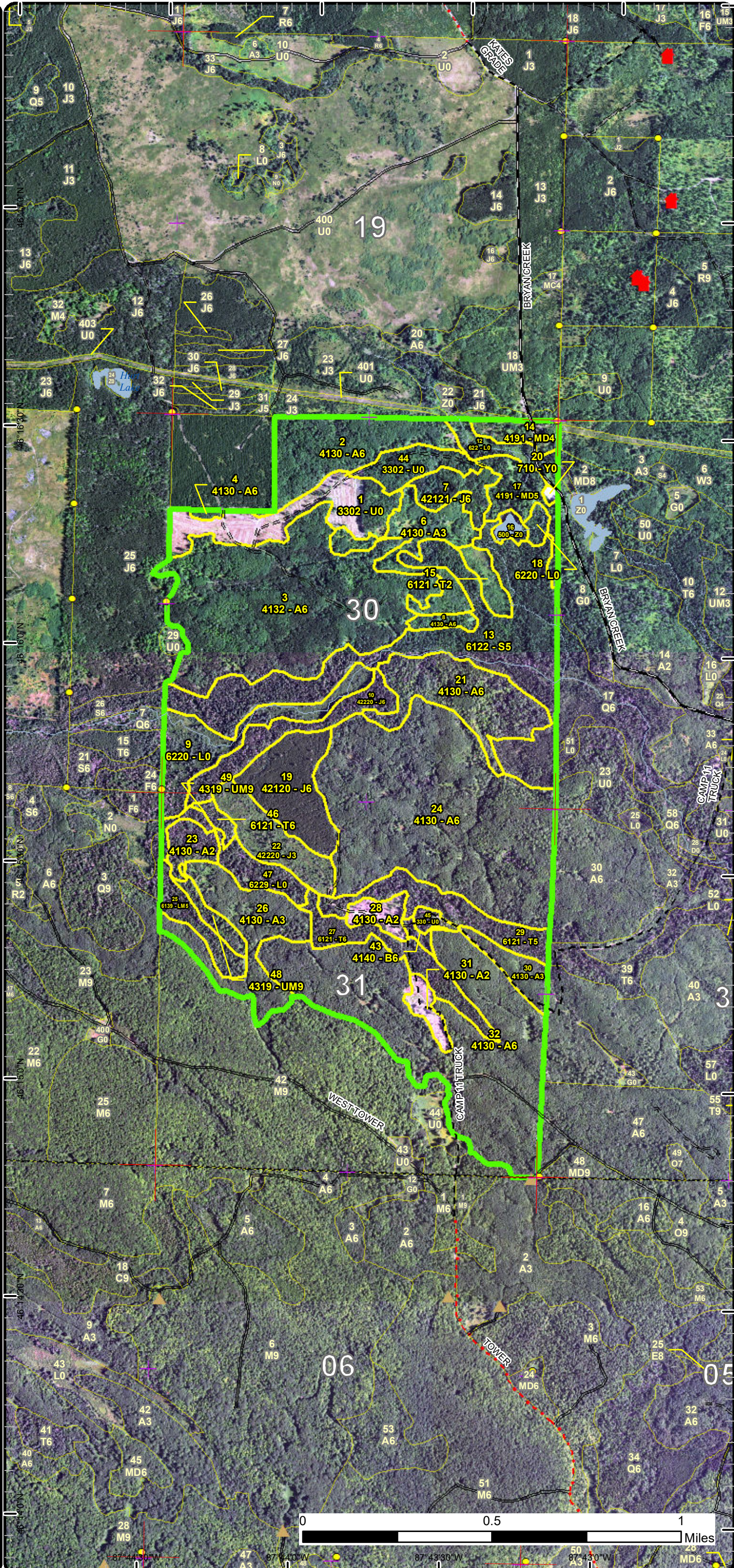


# Stand Boundary Map

Compartment: 269  
 T45N, R28W, Sec. 25  
 T45N, R27W, Sec. 30, 31  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
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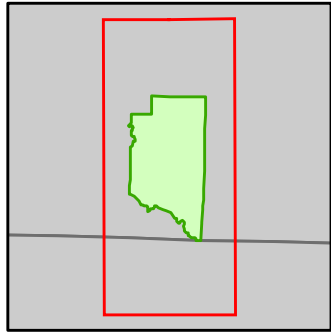
- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
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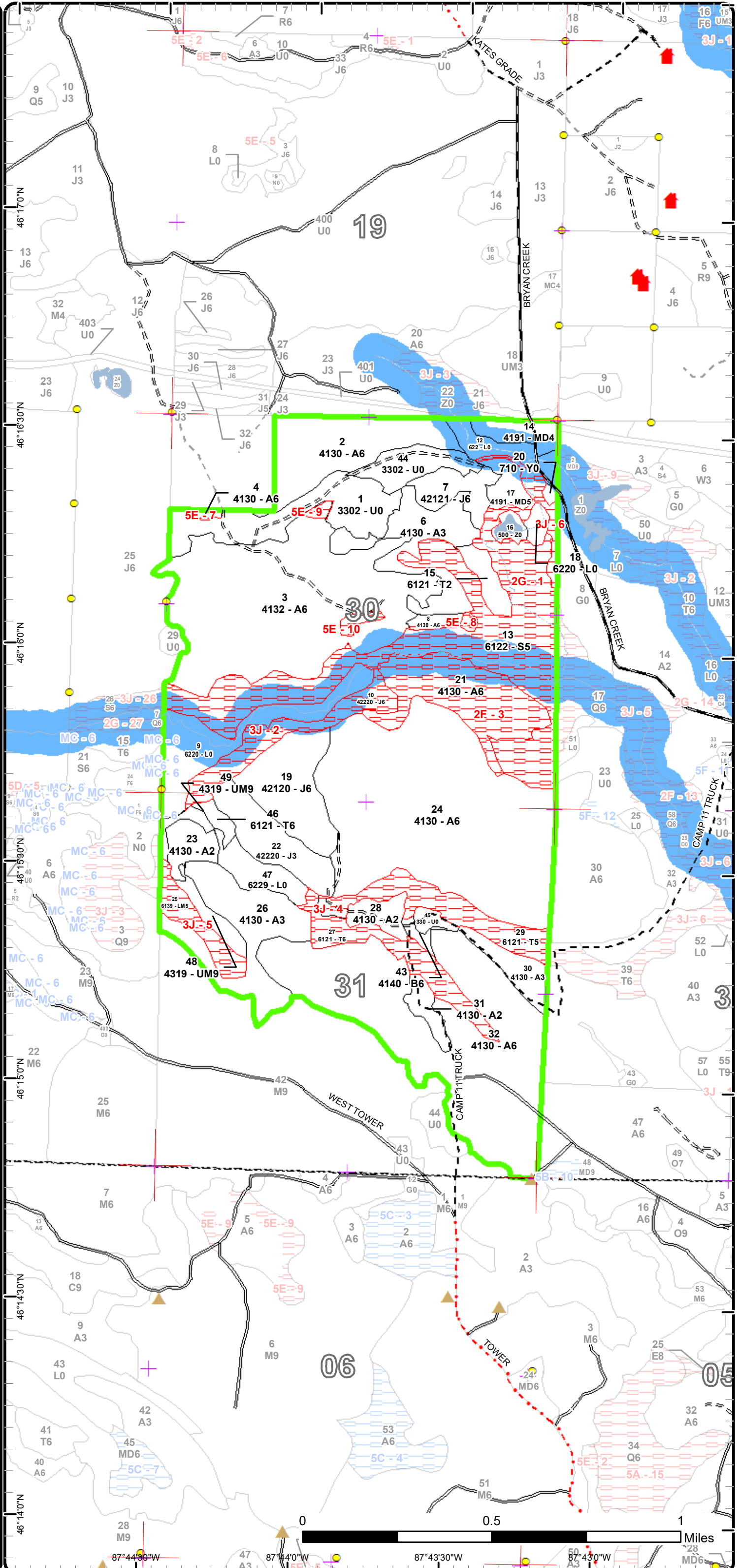


# Special Conservation Areas

Compartment: 269  
 T45N, R28W, Sec. 25  
 T45N, R27W, Sec. 30, 31  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
 YOE: 2023  
 Acres: 1052.1 GIS Calculated  
 Examiner: Jason Caron  
 Map Revised: 8/13/2021  
 Map Phase: Review



- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- ▲ Cabin
- ▲ Berms
- Compartment Boundary
- Unavailable
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer





## Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2023

Acres of Harvest

Compartment 269  
Total Compartment Acres: 1,052

Commercial Harvest - 157  
Harvests with Site Condition - 0  
Next Step Harvest - 0  
Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	137	0	0	0	0	0	0	0	0	137
Jack Pine	13	0	0	0	0	0	0	0	0	13
Mixed Upland Deciduous	7	0	0	0	0	0	0	0	0	7
<b>Total</b>	<b>157</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>157</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	157	0	0	0	0	7	62	0	0	226
Next Step	0	157	157	169	0	157	164	0	0	803
<b>Total</b>	<b>157</b>	<b>157</b>	<b>157</b>	<b>169</b>	<b>0</b>	<b>164</b>	<b>226</b>	<b>0</b>	<b>0</b>	<b>1029</b>



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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**Proposed Treatments:**

<b>3</b>	<b>32269003-Cut</b>	136.6	4132 - Aspen, Jack Pine	Poletimber Well	47	81-110	Harvest	Clearcut with Retention	4212 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> Clearcut with reserves. Treatment boundary adjusted for Long Term Retention. Do not cut oak if it exists within the stand.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Seeding, Machine Seed; Pesticide, Skidder - Site Prep; Planting, Initial Plant; SitePrep, Trenching; Monitoring, Artificial Regen(1yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Jack Pine</p> <p><u>Regen:</u></p> <p><u>Other</u> Regenerate to jack pine either with hand planting or seeding. Monitor after harvest to see if herbicide is necessary.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
<b>7</b>	<b>32269007-Cut</b>	12.9	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Well	51	51-80	Harvest	Clearcut with Retention	4212 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> Clearcut with reserves. Red line out a patch of the parent stand to meet retention guidelines. Also, do not harvest oak, if it exists.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Pesticide, Skidder - Site Prep; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Seeding, Machine Seed</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Jack Pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Regenerate to jack pine either with hand planting or seeding. Monitor after harvest to see if herbicide is necessary.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
<b>15</b>	<b>32269015-Spray</b>	7.4	6121 - Tamarack	Sapling Medium	18	Immature	Pesticide	Hand Application	613 - Lowland Mixed Forest	Even-Aged	No
<p><u>Prescription</u> Treat the 1/2 acre patch of invasive Phragmites that currently exists within the stand. CISMA coordinator Elise Desjarlais is coordinating a treatment plan.</p> <p><u>Specs:</u></p> <p>GPS Coord: 46.270164 87.723539</p> <p><u>Next Step</u> Monitoring, Herbicide Use</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 8 /16/2021</p>											



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Treatment ID	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
17	32269017-Cut	7.2	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	70	51-80	Harvest	Clearcut with Retention	4212 - Planted Jack Pine	Even-Aged	No
<p><u>Prescription</u> Clearcut with reserves. Treatment boundary was reduced to exclude wetland buffers and steep terrain. This will serve as the retention. Also, do not harvest oak, if it exists.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Pesticide, Skidder - Site Prep; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Seeding, Machine Seed</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Jack Pine</p> <p><u>Regen:</u></p> <p><u>Other</u> Regenerate to jack pine either with hand planting or seeding. Monitor after harvest to see if herbicide is necessary.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
44	32269044-Monitor	13.9	3302 - Low Density Conifer Trees	Nonstocked	0	Unspecified	Monitoring	Artificial Regen(1yr)	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Stand was sprayed with marginal results. Most of the planted red pine is being outcompeted. Conduct a regen survey to see if stand needs further treatment.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Jack pine &amp; Red pine.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											
47	32269047-Monitor	12.1	6229 - Mixed lowland shrub	Nonstocked	0	Unspecified	Monitoring	Natural Regen (Intermediate)	6139 - Mixed Lowland Forest	Even-Aged	No
<p><u>Prescription</u> Monitor to see how the stand is regenerating.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Seeding, Machine Seed</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> tamarack, black spruce</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											

**Approved Treatments:**

1	32269001-Monitor	35.5	3302 - Low Density Conifer Trees	Nonstocked	0	Unspecified	Monitoring	Artificial Regen(3yr)	4222 - Natural Jack Pine	Even-Aged	No
<p><u>Prescription</u> Count Jack Pine</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Jack Pine</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>											



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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Total Treatment Acreage Proposed: 225.6



## Report 4 – Site Conditions

Gwinn Mgt. Unit  
Jason Caron : Examiner

Compartment: 269  
Year of Entry: 2023

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	2F	2G	3J	5E
		With Condition	Not Available					
631	583	0	49	Aspen	42			7
90	68	0	22	Jack Pine			22	
53	52	0	0	Low-Density Trees				0
12	0	0	12	Lowland Mixed Forest			12	
57	57	0	0	Lowland Shrub				
110	0	0	110	Lowland Spruce/Fir		110		
26	16	0	9	Mixed Upland Deciduous			9	
2	2	0	0	Paper Birch				
1	1	0	0	Sand, Soil				
57	11	0	46	Tamarack			46	
10	10	0	0	Upland Mixed Forest				
4	4	0	0	Water				
1,052	804		248	Total Forested Acres	42	110	89	7
	76%		24%	Relative Percent				

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	110	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	22	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
3	Unavailable	2F: Too steep	42	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Very steep terrain. May be able to cut a small portion of the southern portion of the stand when stand 24 to the south is prescribed.							

**Report 4 – Site Conditions**

Gwinn Mgt. Unit  
Jason Caron : Examiner

Compartment: 269  
Year of Entry: 2023

4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	46	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Feeder streams of the Camp 11 creek flow through these stands.							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Feeder stream of the Camp 11 creek flows through this stand.							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	9	2F: Too steep	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
7	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
8	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
9	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
10	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							



Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments
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## Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
SCA	Cold Water 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.
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	Managed Site	General Comments																																						
1	3302 - Low Density Conifer Trees	Nonstocked	35.6	0	Unspecified	4222 - Natural Jack Pine	Cut in the summer of 2016 by Lafleur Forest Products LLC. under 32-117-13-01 Bryan Opening Jack Pine. Under FTP C32-823. Site was trenched in 2017 for cost info see FTP 269. Site was planted in 2018 Regen count showed a failed planting with 300-400 Trees per acre remaining in many areas. Stand was replanted in the spring of 2019. Stand has passed a regeneration walkthrough.																																						
2	4130 - Aspen	Poletimber Well	41.1	47	1-50	N/A	Stand was commercially clearcut in 1974 by Earl St. John, permit #T-72 and followed up by a noncommercial KG dozer shearing of residual trees by Wildlife Division (mostly smaller red maple) in May/June 1975 (see FTP W3-547, or forestry no. 136-V-22). Red pine remnant trees are scattered throughout the stand. Red and white pine saplings and poles are scattered throughout the stand as well. Jack pine occurs as individual trees and also as scattered pockets. 2021 Inventory - With the amount of aspen being harvested within the compartment in this YO E I am going to hold this stand as it is still healthy and viable. Most of the aspen is big tooth and it is holding up well despite it's age.																																						
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3	4132 - Aspen, Jack Pine	Poletimber Well	138.6	47	81-110	N/A	Stand was commercially clearcut in 1974 by Earl St. John, permit #T-72 and followed up by a noncommercial KG dozer shearing of residual trees by Wildlife Division (mostly smaller red maple) in May/June 1975 (see FTP W3-547, or forestry no. 136-V-22). Aspen quality and diameter varies throughout the stand. Some locations the aspen is very poor quality while other areas the aspen is larger diameter and looks good. Jack pine exists throughout the stand in pockets and is in poor condition with individual tree mortality.																																						
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4	4130 - Aspen	Poletimber Well	1.3	47	51-80	N/A	Small stand of aspen that was left for long term retention. Aspen is in good condition.																																						
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6	4130 - Aspen	Sapling Well	29.4	18		N/A	Stand harvested in Dec. 2003 by Roy Nelson, Jr (Camp 11 Creek Sale) #32-123-03-01. All oak, cherry, red and white pine and spruce less than 2 sticks were left. Stand contains fully stocked healthy aspen.																																						
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7	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Well	13.0	51	51-80	N/A	Majority of this stand was planted and/or seeded in May 1970 (see planting form #126). Jack pine is starting to decline due to age. Aspen is in decent condition.																																						
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
8	4130 - Aspen	Poletimber Well	4.4	47	81-110	N/A	Stand was commercially clearcut in 1974 by Earl St. John, permit #T-72 and followed up by a noncommercial KG dozer shearing of residual trees by Wildlife Division (mostly smaller red maple) in May/June 1975 (see FTP W3-547, or forestry no. 136-V-22). Aspen quality and diameter varies throughout the stand. Some locations the aspen is very poor quality while other areas the aspen is larger diameter and looks good. Jack pine is in poor condition with individual tree mortality.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Quaking Aspen		55	Pole	8	47	Balsam Fir		Low	5 - 10 feet	Sapling	
Bigtooth Aspen		35	Pole	8		White Spruce		Low	< 5 feet	Sapling	
Jack Pine		10	Pole	7		White Pine		Low	< 5 feet	Sapling	
9	6220 - Alder/willow	Nonstocked	30.7			No	Lowland brush with scattered lowland conifer trees. Camp 11 Creek flows through this stand.				
10	42220 - Natural Jack Pine	Poletimber Well	21.8	85	111-140	N/A	Stand is part of a corridor along the Camp 11 creek.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Balsam Fir		5	Pole	1		Balsam Fir		Medium	5 - 10 feet	Sapling	
White Spruce		10	Log/Pole	10							
Black Spruce		10	Pole	6							
Jack Pine		75	Log/Pole	12	85						
12	622 - Lowland Shrub	Nonstocked	11.0			No	Lowland brush with a few trees along a small creek that flows into the Camp 11 creek.				
13	6122 - Black Spruce	Poletimber Medium	109.7	116	81-110	N/A	Stand is part of a corridor along the Camp 11 creek and contains numerous feeder streams throughout. Overall the stand is in poor shape due to age and wet ground conditions. The majority of the mature black spruce is in poor condition. Pockets of cedar exist within the stand. Tag alder, fir, and red maple dominate the understory.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Black Spruce		60	Pole/Sapling	6	116	Black Spruce		Low	5 - 10 feet	Sapling	
Northern White Cedar		10	Log/Pole	10		Tag Alder		Low	< 5 feet	Tall Shrub	
Tamarack		30	Pole/Log	7		Balsam Fir		Medium	Variable	Sapling	
						Red Maple		Medium	Variable	Sapling	
14	4191 - Mixed Upland Deciduous with Conifer	Poletimber Poor	9.2	70	1-50	N/A	Very sparse stand on a hillside.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		50	Pole	8	70	Red Maple		Low	< 5 feet	Sapling	
Red Oak		10	Log/Pole	10							
Balsam Fir		5	Pole/Sapling	6							
Red Pine		5	Log/Pole	12							
Jack Pine		30	Pole	8							
15	6121 - Tamarack	Sapling Medium	7.4	18	Immature	N/A	Stand harvested in Dec. 2003 by Roy Nelson, Jr (Camp 11 Creek Sale) #32-123-03-01. Stand contains very low ground with flowing water existing within the middle of it. Tamarack is starting to fill in. Scattered black spruce regeneration exists but overall the dominant regeneration is tamarack.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Tamarack		90	Sapling	2	18	Black Spruce		Low	< 5 feet	Sapling	
Black Spruce		10	Sapling	1							
16	500 - Water	Nonstocked	3.6		Unspecified	No	Unique shallow pond. Small stream flowing into it from the West side.				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																									
17	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	16.3	70	51-80	N/A	Very mixed stand with variable density throughout. Some areas are void of trees. The east part of the stand is a north south ridge that is very steep on both sides.																																																									
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18	6220 - Alder/willow	Nonstocked	3.3		Unspecified	No	Small creek flows through this stand and into adjacent pond which eventually drains into Camp 11 Creek.																																																									
19	42120 - Planted Jack Pine	Poletimber Well	32.5	26	Unspecified	N/A	Stand was harvested in 1994 by DeShambo Forest Prod. permit #2-93. Stand was then herbicided, trenched and handplanted (FTP C31-03-95). Stand is just starting to grow into the pole sized class. Some individual tree damage exists due to the heavy snow from 2019.																																																									
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20	710 - Sand, Soil	Nonstocked	1.0			No	Kate's Grade Gravel Pit.																																																									
21	4130 - Aspen	Poletimber Well	41.9	93	81-110	N/A	Stand is growing on very steep slopes and cannot be harvested. Slopes are part of the Camp 11 Creek watershed. The hill sides are quite steep (>45%) and the ridges are very narrow. Paper birch and aspen is in very poor condition due to age and fir is nearly dead due to the budworm outbreak.																																																									
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22	42220 - Natural Jack Pine	Sapling Well	22.9	11	Immature	N/A	Stand was herbicided, trenched and seeded to jack pine. Seeding took place in June 2009. Scattered pockets of fir throughout the stand. Stand is well established and healthy. 2021 Inventory - Stand was hit hard by the heavy snows of 2020. A fair amount of tree damage within the stand with bent over trees and broken branches.																																																									
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23	4130 - Aspen	Sapling Medium	9.2	5	Immature	N/A	Stand was cut in the winter of 2017 under TS # 106-13. Stand has regenerated back to aspen. Stand will be fully stocked by the next YOY.																																																									
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
<b>24</b>	4130 - Aspen	Poletimber Well	163.5	35	1-50	N/A	Stand harvested between 1980-1986 first by Lowell White and later by Mark Johnson under permit #8-78. All oak, red and white pine, and spruce were left. Stand has grown into the pole class. Fir is in very poor condition due to the budworm outbreak and will soon fall out of the stand due to it's current condition. A few pockets of jack pine exist within the stand but have been damaged by the heavy snows in the winter of 2019.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Quaking Aspen		55	Pole/Sapling	6	35	Balsam Fir		Low	5 - 10 feet	Sapling
Bigtooth Aspen		38	Pole/Sapling	6		White Pine		Low	< 5 feet	Sapling
Balsam Fir		5	Pole/Sapling	5		Red Pine		Low	< 5 feet	Sapling
Jack Pine		2	Pole/Sapling	6		Jack Pine		Low	5 - 10 feet	Sapling
<b>25</b>	6139 - Mixed Lowland Forest	Poletimber Medium	12.2	94	51-80	N/A	Mixed lowland forest. Tamarack, spruce, white birch, aspen, fir and ash. A creek flows east to west in this stand that eventually enters Camp 11 creek.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Paper Birch		30	Log/Pole	10	94	Balsam Fir		Low	< 5 feet	Sapling
Quaking Aspen		15	Log	14		Black Spruce		Low	5 - 10 feet	Sapling
Balsam Fir		20	Pole	6		Black Ash		Medium	10 - 20 feet	Sapling
White Spruce		10	Log	12		Hazelnut (Beaked)		Low	5 - 10 feet	Tall Shrub
Tamarack		15	Log/Pole	10		Leatherwood		Low	< 5 feet	Tall Shrub
Black Ash		10	Pole/Sapling	6						
<b>26</b>	4130 - Aspen	Sapling Well	40.3	27	Immature	N/A	Stand harvested in 1994 by DeShambo Forest Products, permit #2-93. Birch seed trees were left as well as all oak, red and white pine). No significant birch regen. was found in Oct. 2001. Some lower stocking in areas that had been heavy to birch. In 2011 some birch regen was found along the border of the upland hardwood stand. Very little regeneration is present where birch stocking was heavier before the cut. These pockets amount to 15-20% of the stand and have scattered spruce fir in them. They are in the west, center, and east parts of the stand. The 2009 imagery clearly shows these spots.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Quaking Aspen		67	Sapling	4	27	Balsam Fir		Low	< 5 feet	Sapling
Bigtooth Aspen		20	Sapling	4		White Spruce		Low	< 5 feet	Sapling
Balsam Poplar		5	Sapling/Pole	5		Leatherwood		Low	< 5 feet	Tall Shrub
Balsam Fir		5	Pole/Sapling	6		Pin Cherry		Low	< 5 feet	Sapling
White Spruce		3	Pole/Sapling	6						
<b>27</b>	6121 - Tamarack	Poletimber Well	21.0	94	111-140	N/A	This is a mixed stand of tamarack, spruce-fir, aspen and birch. The aspen and birch are primarily along the edges where it transitions to upland. There is a pocket of cedar in the middle of this stand. This stand is very wet with an underground creek on the east end of the stand.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Paper Birch		10	Pole/Log	8		Balsam Fir		High	10 - 20 feet	Sapling
Quaking Aspen		15	Log	12		Tag Alder		Medium	< 5 feet	Tall Shrub
Balsam Fir		5	Pole	6						
White Spruce		5	Pole/Log	8						
Black Spruce		5	Pole	6						
Northern White Cedar		10	Log/Pole	10						
Tamarack		50	Log/Pole	10	94					
<b>28</b>	4130 - Aspen	Sapling Medium	7.8	5	Immature	N/A	This stand was harvested under Camp 11 High Low sale 32-106-13-01. Sale was cut by Minerick FP in the spring of 2016, and winter of 2016-2017. Stand is regenerating back to aspen and should be fully stocked by the next YOE.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>					
Quaking Aspen		100	Sapling	1	5					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																			
<b>29</b>	6121 - Tamarack	Poletimber Medium	25.4	94	81-110	N/A	Narrow stand of tamarack and black spruce. There is a small feeder creek that flows west to east through this stand ending in the Camp 11 creek. Pockets of dead tamarack now exist within the stand. A heavy understory of tag alder exists throughout most of the stand.																																			
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<b>30</b>	4130 - Aspen	Sapling Well	10.8	18	Immature	N/A	Stand harvested October 2003 by St. John Forest Products, #32-124-03-01 (Camp 11 Truck Trail Sale). Stand has regenerated back to a fully stocked stand of aspen.																																			
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<b>31</b>	4130 - Aspen	Sapling Medium	6.3	5	Immature	N/A	This stand was harvested under Camp 11 High Low sale 32-106-13-01. Sale was cut by Minerick FP in the spring of 2016, and winter of 2016-2017. Stand has regenerated back to aspen. Stocking should improve as the stand matures.																																			
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<b>32</b>	4130 - Aspen	Poletimber Well	136.9	36	1-50	N/A	West part of stand was harvested by Mark Johnson, permit #9-83, east portion was cut by St. John Forest Products, permit #1-78. Western part of stand had a maintained hunter walking trail through it at one time. In the eastern portion of the stand, oak were marked to save as well as birch clumps w/in 100ft of the Camp 11 Truck Trail. 2021 Inventory - Stand has grown into the pole size class. Stand is healthy and dense.																																			
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<b>43</b>	4140 - Other Upland Deciduous	Poletimber Well	2.2	94	51-80	N/A	Mixed stand of birch, aspen, red maple, spruce-fir with traces of red and jack pine. This stand is a ridge of high ground between two spruce-tamarack stands. The east end of the stand is a steep hillside (40% slope). A creek flows through this stand and into the adjacent tamarack stand eventually ending at Camp 11 creek.																																			
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<b>44</b>	3302 - Low Density Conifer Trees	Nonstocked	13.9	0	Unspecified	4211 - Planted Red Pine	Cut in the summer of 2016 by Lafleur Forest Products LLC. under 32-117-13-01 Bryan Opening Jack Pine. Stand trenched in the summer of 2017 for costs see FTP.(32-774) Stand was commercially clearcut in 1974 by Earl St. John, permit #T-72 and followed up by a noncommercial KG dozer shearing of residual trees by Wildlife Division (mostly smaller red maple) in May/June 1975 (see FTP W3-547, or forestry no. 136-V-22). Red pine remnant trees are scattered throughout the stand. Red and white pine saplings and poles are scattered throughout the stand as well. Jack pine occurs as individual trees and also as scattered pockets. Stand trenched in 2017 and planted in 2018. Site counted in 2018 passed regen check will need a release spray. C32-8929-10-20: release spray complete on 13.5 acres. 2021 Inventory - Release spray completed in 2020 appears to only have minimal results. Red pine is suppressed in most portions of the stand and aspen is still outcompeting the planted red pine.																																			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>45</b>	330 - Low-Density Trees	Nonstocked	3.0	0	Unspecified	4199 - Other Mixed Upland Deciduous	This stand was harvested under Camp 11 High Low sale 32-106-13-01. Sale was cut by Minerick FP in the spring of 2016, and winter of 2016-2017. 2021 Inventory - Stand is slow to regenerate but should fill in with a mix of species by the next YOY. A clump of mature red pine was retained and is within the west side of the stand.
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<b>46</b>	6121 - Tamarack	Poletimber Well	3.4	94	111-140	N/A	This is a mixed stand of tamarack, spruce-fir, aspen and birch. The aspen and birch are primarily along the edges where it transitions to upland. There is a pocket of cedar in the middle of this stand. This stand is very wet with an underground creek on the east end of the stand.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Paper Birch	10	Pole/Log	8		Balsam Fir	High	10 - 20 feet	Sapling
Quaking Aspen	15	Log	12		Tag Alder	Medium	< 5 feet	Tall Shrub
Balsam Fir	5	Pole	6					
White Spruce	5	Pole/Log	8					
Black Spruce	5	Pole	6					
Northern White Cedar	10	Log/Pole	10					
Tamarack	50	Log/Pole	10	94				

<b>47</b>	6229 - Mixed lowland shrub	Nonstocked	12.1	0	Unspecified	612 - Lowland Coniferous Forest	This stand was harvested under Camp 11 High Low sale 32-106-13-01. Sale was cut by Minerick FP in the spring of 2016, and winter of 2016-2017. Stand should come back to a mix of tamarack and spruce. 2021 Inventory - Stand is very slow to regenerate given the wet soils and species involved. A fair amount of tag alder and cattail currently within the stand. I did notice a few black spruce and tamarack that are starting to regenerate.
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<b>48</b>	4319 - Mixed Upland Forest	Sawtimber Well	6.3	94	51-80	N/A	Transitional stand. Mix of red maple, white birch and spruce-balsam. Some scattered aspen. Birch is falling apart. Northern lobe is almost pure spruce-fir.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	15	Log/Pole	10		Balsam Fir	Medium	5 - 10 feet	Sapling
Paper Birch	30	Log/Pole	10	94	White Spruce	Medium	5 - 10 feet	Sapling
Balsam Fir	30	Pole	6					
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<b>49</b>	4319 - Mixed Upland Forest	Sawtimber Well	3.3	94	51-80	N/A	Transitional stand. Mix of red maple, white birch and spruce-balsam. Some scattered aspen. Birch is falling apart. Northern lobe is almost pure spruce-fir.
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