



Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32260

Entry Year 2027

Acreage: 798

County: Marquette

Management Area: Suomi Till and Outwash Plain

Stand Examiner: Kyle Gould

Legal Description:

T45N, R27W, Sec. 13, and 14.

Identified Planning Goals:

Vegetative management in the Chain Lake management area will 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:

Topography ranges from relatively level creek bottoms, swamp conifer, tag alder, and bog/ marshlands, to upland which is only rolling to moderately hilly (a few steep slopes in west end).

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

State ownership here is generally blocked in quite well to the north and east, but does border some relatively small private forest holdings on the southwest side of the compartment, mostly non-industrial private owners with recreational objectives. Also this compartment is bordered on the west by the Michigan Northwoods Club with holdings of approx 10,000 acres. In addition to being a hunting club, they actively manage their forest resource with professional advisement and management. Development is very limited with a few seasonal cottages or hunting camps widely distributed.

Unique Natural Features:

Hay Lake and it's outlet creek and other tributaries, creeks, and beaver ponds all emptying into the Middle Branch of the Escanaba River, make up the unique natural features on State land here.

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

None Known.

Watershed and Fisheries Considerations:

This compartment contains headwater reaches of Bear Creek which serves as a tributary to the Cataract Basin within the Middle Branch Escanaba River. Bear Creek is a designated Type 1 trout stream less than 50-ft wide and has a predicted mean July water temperature of 61.2°F (cold stream). A 300-ft buffer is recommended for headwater reaches of Bear Creek in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, a minimum 100-foot, plus 5 feet per 1% increase in slope, Riparian Management Zone is recommended to protect these areas in accordance with Best Management Practices.

Wildlife Habitat Considerations:

This compartment is found within the Suomi Till and Outwash 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 underplanting 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; course 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 Suomi Till and Outwash Management Area: Blackburnian Warbler, Golden-winged Warbler, Kirtland's Warbler, Red Crossbill, Black-backed Woodpecker, Ruffed Grouse, American Marten, White-tailed Deer, Black Bear.

Mineral Resource and Development Concerns and/or Restrictions

Sections 13-14, T45N R27W, Marquette County No known potential exists for commercial oil & gas production in this part of the state. No active sand/gravel operations are known to exist in the area. There is some potential for production of sand & gravel within the compartment on the uplands, but the compartment may be too far from populated areas (commercial markets) for any aggregate resources to have significant value beyond use for local road maintenance. No past metallic

mineral mining has occurred in this area, and there has been no known ground-based exploration. Potential for metallic and/or critical minerals beneath the compartment is relatively unknown but is considered low at this time. There is no current mineral leasing activity involving State-owned mineral rights in the area. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, the surface owner must provide the owner of the mineral rights reasonable access to the surface for mineral exploration and development.

Vehicle Access:

The Hemmings Lake Road to the north and the Chain of Lakes Road (Co.Rd PX–gravel, leading east to M-35) to the southeast, are the two main access routes to reach this compartment. Various internal two track, narrow roads (some of which are bermed), complete the access network for this compartment. Temporary roads are established for timber removal, but these are bermed, and often seeded for wildlife, or obliterated following timber sale completion.

Survey Needs:

None needed for this inventory cycle.

Recreational Facilities and Opportunities:

The Bass Lake ORV Trail passes through the southeast portion of this compartment. In addition to this, recreational opportunities for activities such as hunting, trapping, hiking, mushroom & berry picking, etc. exist in this compartment.

Fire Protection:

This area is dominated by aspen, with fair access. Large fire potential is low as a result. There are some camps in the area that would provide added complexity to fire suppression.

Additional Compartment Information:

The following reports from the Inventory are attached:

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

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

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

Cover Type & Treatments Map

32260

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DNR

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Miles

Compartiment: 32260

T45N R27W Sec 13 & 14

County: Marquette

Unit: Gwinn

Mgmt. Area: Suomi Till and Outwash Plain

YOE: 2027

Acres: 798 GIS Calculated

Examiner: Kyle Gould

Date Exported: 11/17/2025

Map Phase: Post Review

Survey Grade Corners

County - Gravel Road

County - Dirt Road (Seasonal)

Private - Dirt / Gravel Road

Streams

Lakes and Rivers

Compartment Boundary

Clearcut

Selection

Berm

Gate

Designated Motorcycle Trails

DNR - Secondary Forest Road

DNR - Forest Access Route

Shelterwood

Thinning

Treatments with Site Conditions

411 - Northern Hardwood

413 - Aspen

419 - Mixed Upland Decidous

422 - Natural Pines

430 - Upland Mixed Forest

500 - Water

612 - Lowland Coniferous Forest

310 - Herbaceous Openland

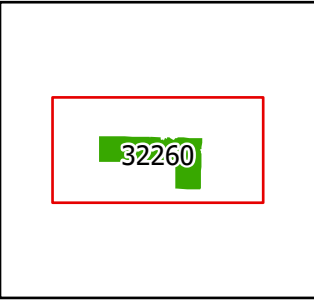
320 - Upland Shrub

330 - Low Density Trees

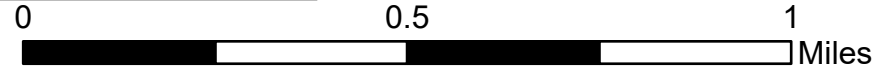
622 - Lowland Shrub

This map displays the land cover and planned treatments for compartment 32260, located in T45N R27W Sec 13 & 14, Marquette County, Gwinn Unit. The map is overlaid on a topographic background showing elevation contours. The compartment boundary is highlighted in green. Various land cover types are color-coded: 500 (Water), 612 (Lowland Coniferous Forest), 310 (Herbaceous Openland), 320 (Upland Shrub), 330 (Low Density Trees), 622 (Lowland Shrub), 411 (Northern Hardwood), 413 (Aspen), 419 (Mixed Upland Decidous), 422 (Natural Pines), and 430 (Upland Mixed Forest). The map also shows planned treatments, including clearcuts (hatched areas) and selections (cross-hatched areas). Key features include Big Bass Lake, Hoy Lake, Boot Lake, and Chain Lakes. A network of roads is shown, including County Gravel Roads (red dashed), County Dirt Roads (Seasonal) (red dashed), Private Dirt/Gravel Roads (black dashed), DNR Secondary Forest Roads (thick black solid), and DNR Forest Access Routes (thin black solid). Designated Motorcycle Trails are marked with red lines and motorcycle icons. The map includes a legend, a north arrow, a scale bar (0 to 1 mile), and a title block with project information.

Stand Boundary Map



Compartment: 32260
T45N R27W Sec 13 & 14
County: Marquette
Unit: Gwinn
Mgmt. Area: Suomi Till and Outwash Plain
YOE: 2027
Acres: 798 GIS Calculated
Examiner: Kyle Gould
Date Exported: 11/17/2025
Map Phase: Post Review

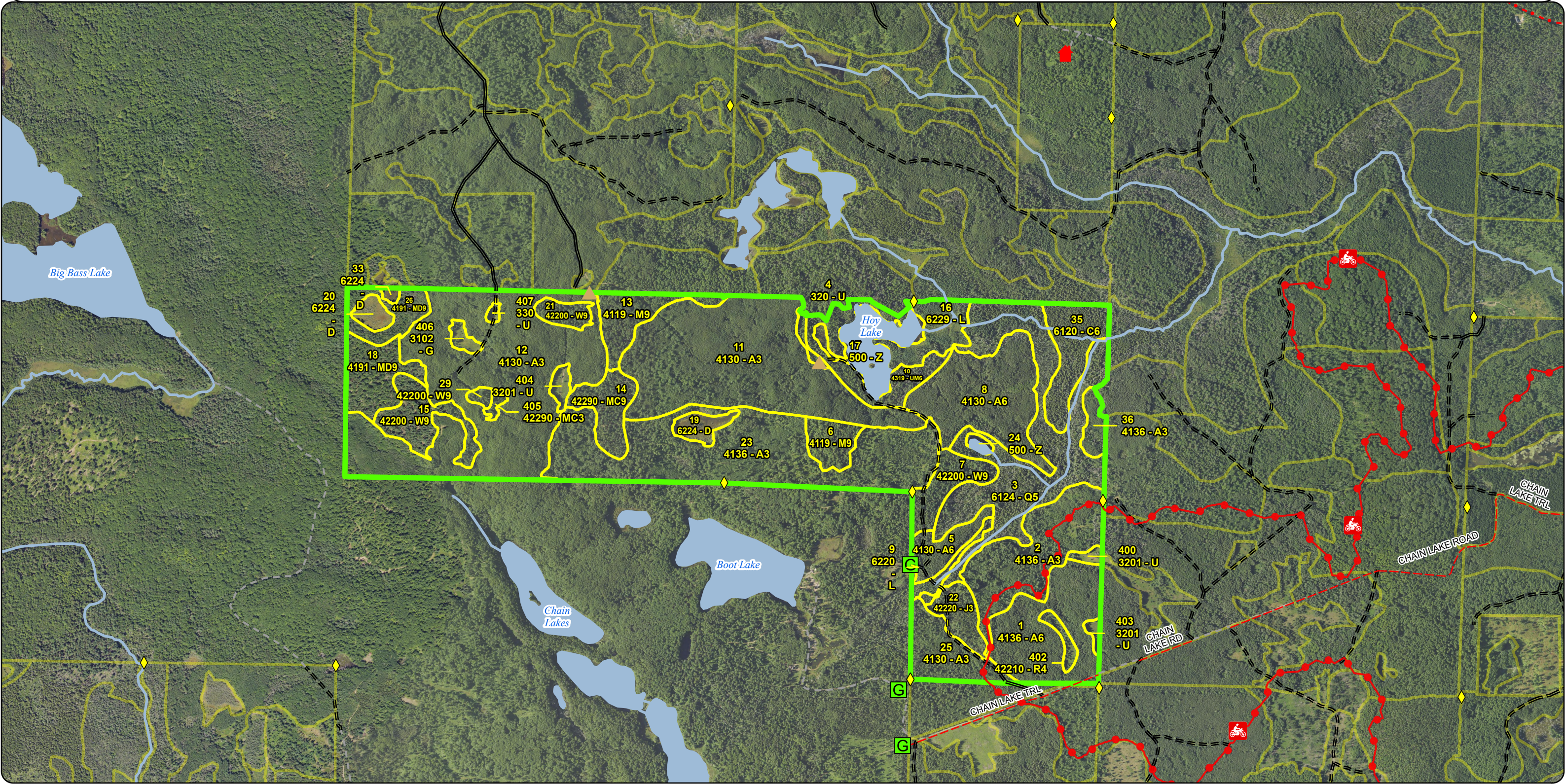


- Survey Grade Corners
- Berm
- Gate
- Designated Motorcycle Trails
- DNR - Secondary Forest Road

- DNR - Forest Access Route
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Streams
- Lakes and Rivers

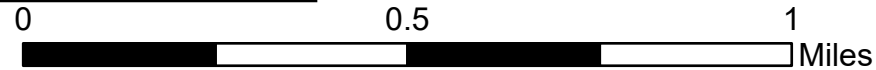
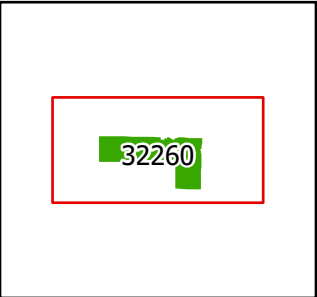
- Compartment Boundary
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 430 - Upland Mixed Forest

- 500 - Water
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub

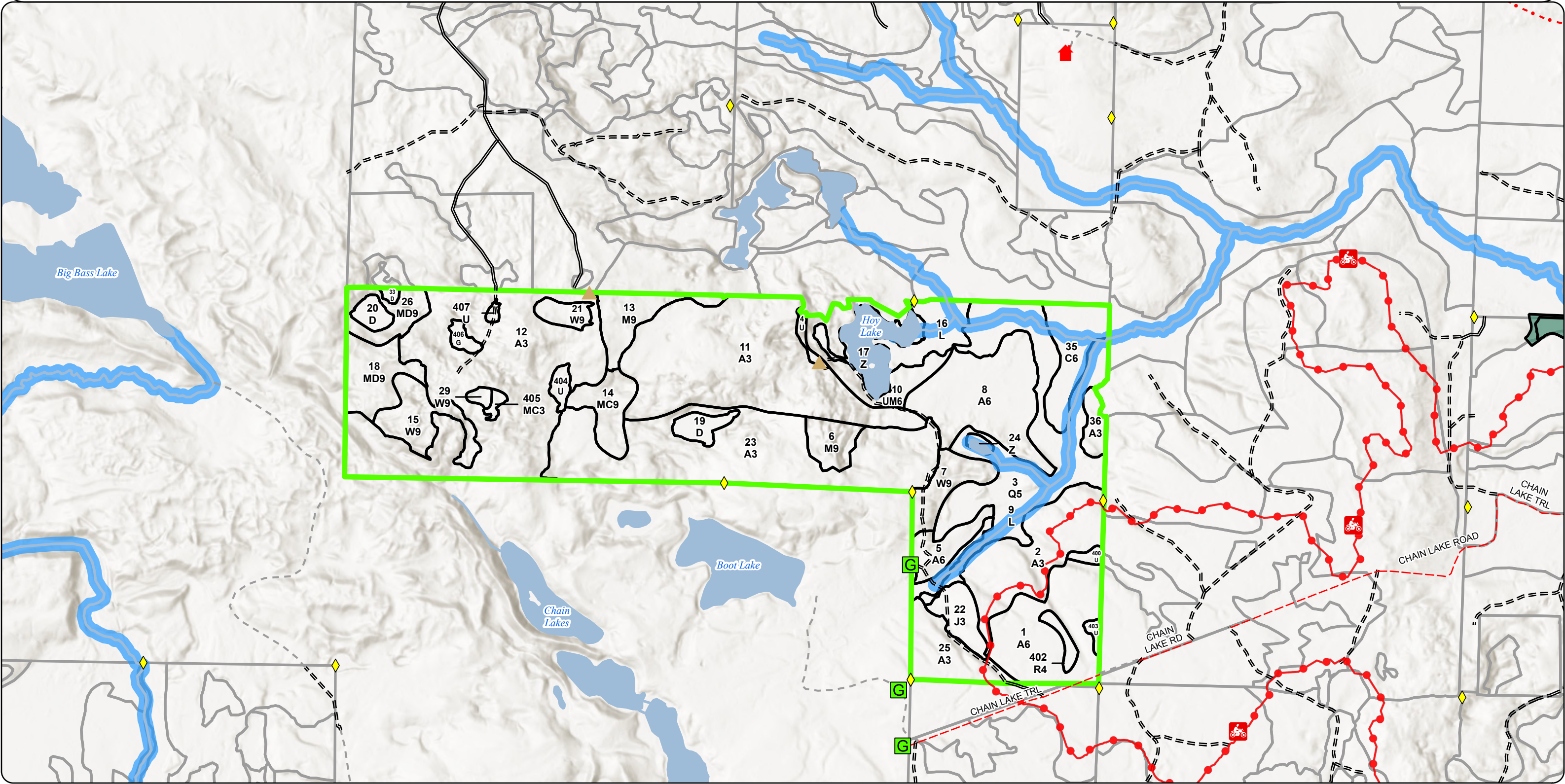


**Special Conservation Areas
& Site Conditions Map**

Compartment: 32260
T45N R27W Sec 13 & 14
County: Marquette
Unit: Gwinn
Mgmt. Area: Suomi Till and Outwash
Plain
YOE: 2027
Acres: 798 GIS Calculated
Examiner: Kyle Gould
Date Exported: 11/17/2025
Map Phase: Post Review



- | | | |
|------------------------------|-------------------------------|-----------------------------------|
| Survey Grade Corners | DNR - Forest Access Route | Compartment Boundary |
| Gate | County - Gravel Road | Stand Boundaries |
| Berm | County - Dirt Road (Seasonal) | SCA |
| Gate | Private - Dirt / Gravel Road | Cold Water Streams |
| Designated Motorcycle Trails | Streams | High Priority Trout Stream Buffer |
| DNR - Secondary Forest Road | Lakes and Rivers | Vernal Pool |



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	0	147	120	228	0	0	0	0	0	0	0	0	0	0	0	0	0	495
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	20
Herbaceous Openland	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Jack Pine	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Low-Density Trees	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	76
Lowland Shrub	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	12	31
Natural Mixed Pines	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	14	16
Northern Hardwood	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	15	25
Red Pine	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Treed Bog	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Upland Mixed Forest	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	21
Upland Shrub	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Water	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
White Pine	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	37	39
Total	64	0	147	132	231	0	0	21	0	2	29	0	0	0	0	0	0	175	799



Report 2 – Treatment Summary

Gwinn Mgt. Unit
Year of Entry: 2027

Acres of Harvest

Compartment 260
Total Compartment Acres: 798

Commercial Harvest - 176
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
Lowland Conifers	15	0	0	0	0	0	0	0	0	15
Mixed Upland Deciduous	0	0	0	0	0	13	0	0	0	13
Natural Mixed Pines	0	15	0	0	0	0	0	0	0	15
Northern Hardwood	0	15	0	0	6	0	0	0	0	21
White Pine	0	26	0	0	0	9	0	0	0	34
Total	15	56	0	0	6	22	0	0	0	98

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	98	0	0	0	0	0	0	0	0	98
Next Step	0	0	0	0	0	0	77	0	0	77
Total	98	0	0	0	0	0	77	0	0	175



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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Approved Treatments:

3	32260003-Cut	15.4	6124 - Lowland Spruce-Fir	5	45	1-50	Harvest	Clearcut	613 - Lowland Mixed Forest	Planting Record	No
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Prescription Clearcut leaving only Cedar and Hemlock

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable a mix of current species

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2016

6	32260006-Cut	5.8	4119 - Mixed Northern Hardwoods	9	97	111- 140	Harvest	Shelterwood	411 - Northern Hardwood	Planting Record	No
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Prescription Leave 50-60 sq. ft. of hardwood for seed quite hilly site leave the steepest slopes as retention. look at doing overstory removal next entry period. Favor oak and white pine though tree selection.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Maple, birch, oak, basswood, aspen, white pine , and red pine

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2016

7	32260007-Cut	8.8	42200 - Natural White Pine	9	88	141- 170	Harvest	Thinning	4220 - Natural White Pine	Planting Record	No
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Prescription Thin stand to about 100 sf mark for best tree in place. Favor hemlock though tree selection, retain some white spruce. Retain legacy trees where they exist within the stand.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
13	32260013-Cut	15.0	4119 - Mixed Northern Hardwoods	9	88	81-110	Harvest	Selection	4119 - Mixed Northern Hardwoods	Current	No
<u>Prescription</u> Mark stand using complete marker as guide. Leave as much oak as possible for wildlife. Do not cut hemlock or white pine. favor yellow birch <u>Specs:</u> though selection. <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> A mix of maple, oak, yellow birch, hemlock, and white pine <u>Regen:</u> <u>Other</u> Consider cutting stand 33 in compartment 258 with this stand. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2016											
14	32260014-Cut	15.1	42290 - Natural Mixed Pine	9	88	141- 170	Harvest	Selection	4220 - Natural White Pine	Current	No
<u>Prescription</u> Cut using a selection system. Cut high risk trees, as well as trees of poor form. Mark all trees for harvest. Release advanced white pine <u>Specs:</u> regeneration and create some new gaps. leave some aspen for cavity trees. Target BA including gaps is 90 square feet. <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> White pine, red pine, oak <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2016											
15	32260015-Cut	21.0	42200 - Natural White Pine	9	88	51-80	Harvest	Selection	4220 - Natural White Pine	Current	No
<u>Prescription</u> Cut using a selection system. Cut high risk trees, as well as trees of poor form. Mark all trees for harvest. Release advanced white pine <u>Specs:</u> regeneration and create some new gaps. leave some aspen for cavity trees. Target BA including gaps is 90 square feet <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> White pine, oak, red pine <u>Regen:</u> <u>Other</u> This treatment will encourage the white pine regeneration allowing for future refuge trees for young black bears. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2016											
18	32260018-Cut	12.7	4191 - Mixed Upland Deciduous with Conifer	9	93	51-80	Harvest	Thinning	412 - Oak Types	Planting Record	No
<u>Prescription</u> Thin to release best tree in place. Mark all trees for removal do not cut all aspen as the goal is to reduce aspen in the stand. Reduce stand <u>Specs:</u> to around 80 square feet. <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2016											



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
21	32260021-Cut	3.7	42200 - Natural White Pine	9	88	141- 170	Harvest	Selection	4220 - Natural White Pine	Current	No
<u>Prescription</u> Cut using a selection system. Cut high risk trees, as well as trees of poor form. Mark all trees for harvest. Release advanced white pine regeneration and create some new gaps. leave some aspen for cavity trees. Target BA including gaps is 90 square feet. <u>Specs:</u> <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> White pine, red pine, and oak <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2016											
29	32260029-Cut	0.9	42200 - Natural White Pine	9	88	111- 140	Harvest	Selection	4220 - Natural White Pine	Current	No
<u>Prescription</u> Cut using a selection system. Cut high risk trees, as well as trees of poor form. Mark all trees for harvest. Release advanced white pine regeneration and create some new gaps. leave some aspen for cavity trees. Target BA including gaps is 90 square feet <u>Specs:</u> <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> White pine, red pine, and oak <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2016											

Total Treatment 98.4
Acreage Proposed:



Availability for Management

Total Acres Acres Available Acres With Condition Acres Not Available

Dominant Site Conditions

3A 3J

495	495	0	0	Aspen		
20	0	0	21	Cedar	21	
3	3	0	0	Herbaceous Openland		
10	10	0	0	Jack Pine		
1	1	0	0	Low-Density Trees		
64	0	0	64	Lowland Conifers		64
20	20	0	0	Lowland Shrub		
30	19	0	12	Mixed Upland Deciduous		12
16	16	0	0	Natural Mixed Pines		
25	25	0	0	Northern Hardwood		
3	3	0	0	Red Pine		
11	11	0	0	Treed Bog		
21	0	0	21	Upland Mixed Forest		21
8	9	0	0	Upland Shrub		
20	20	0	0	Water		
39	39	0	0	White Pine		
786	669		117	Total Forested Acres	21	96
	85%		15%	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	3J: Water quality/BMPs (stream, river, or lake)	21	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gwinn Mgt. Unit
Kyle Gould: Examiner

Compartment: 260
Year of Entry: 2027



3	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	1	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	64	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	3A: Conservation values incompatible with harvest at this time	21	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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
Comments				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																
1	4136 - Aspen, Mixed Conifer	Poletimber Well	42.4	37	51-80	N/A	2025 - aspen looks good and healthy. The west end of the stand has a moderate concentration of jack pine. Was commercially cut in Fall 1988 by John Kirkpatrick of Gwinn, permit #015-87-01, "Chain Lake Road Block". All oak & cherry was left. Stand has both quaking & bigtooth aspen, but quaking seems more abundant.																																																
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Quaking Aspen</td><td>50</td><td>Pole</td><td>6</td><td>37</td></tr><tr><td>Bigtooth Aspen</td><td>25</td><td>Pole</td><td>7</td><td></td></tr><tr><td>Balsam Fir</td><td>5</td><td>Pole/Sapling</td><td>5</td><td>37</td></tr><tr><td>White Spruce</td><td>5</td><td>Pole/Sapling</td><td>5</td><td></td></tr><tr><td>White Pine</td><td>3</td><td>Sapling/Pole</td><td>4</td><td></td></tr><tr><td>Jack Pine</td><td>12</td><td>Pole</td><td>6</td><td></td></tr></table>		Canopy Species	% Cover	Size Class	DBH	Age		Quaking Aspen	50	Pole	6	37	Bigtooth Aspen	25	Pole	7		Balsam Fir	5	Pole/Sapling	5	37	White Spruce	5	Pole/Sapling	5		White Pine	3	Sapling/Pole	4		Jack Pine	12	Pole	6		<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>White Pine</td><td>Low</td><td>5 - 10 feet</td><td>5 - 10 feet</td></tr><tr><td>Balsam Fir</td><td>Low</td><td>5 - 10 feet</td><td>5 - 10 feet</td></tr><tr><td>Red Pine</td><td>Low</td><td>5 - 10 feet</td><td>5 - 10 feet</td></tr></table>		Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Low	5 - 10 feet	5 - 10 feet	Balsam Fir	Low	5 - 10 feet	5 - 10 feet	Red Pine	Low	5 - 10 feet	5 - 10 feet
Canopy Species	% Cover	Size Class	DBH	Age																																																			
Quaking Aspen	50	Pole	6	37																																																			
Bigtooth Aspen	25	Pole	7																																																				
Balsam Fir	5	Pole/Sapling	5	37																																																			
White Spruce	5	Pole/Sapling	5																																																				
White Pine	3	Sapling/Pole	4																																																				
Jack Pine	12	Pole	6																																																				
Sub-Canopy Species	Density	Avg. Height	Size																																																				
White Pine	Low	5 - 10 feet	5 - 10 feet																																																				
Balsam Fir	Low	5 - 10 feet	5 - 10 feet																																																				
Red Pine	Low	5 - 10 feet	5 - 10 feet																																																				
2	4136 - Aspen, Mixed Conifer	Sapling Well	43.2	16	Immature	N/A	2025 - Stand is sapling/small pole sized. Stand is coming back ok it was cut under TS#32-117-07-01, Boot Lake Sale. Cut by Gazan Timber Contracting, Inc., November/December 2008.																																																
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Red Maple</td><td>8</td><td>Sapling</td><td>3</td><td></td></tr><tr><td>Paper Birch</td><td>2</td><td>Log/Pole/Sap</td><td>10</td><td></td></tr><tr><td>Quaking Aspen</td><td>54</td><td>Sapling/Pole</td><td>4</td><td>16</td></tr><tr><td>Bigtooth Aspen</td><td>10</td><td>Sapling</td><td>4</td><td></td></tr><tr><td>Balsam Fir</td><td>13</td><td>Sapling/Pole</td><td>4</td><td></td></tr><tr><td>White Spruce</td><td>4</td><td></td><td>3</td><td></td></tr><tr><td>White Pine</td><td>2</td><td>Log/Pole/Sap</td><td>10</td><td></td></tr><tr><td>Red Pine</td><td>4</td><td>Log/Pole</td><td>12</td><td></td></tr><tr><td>Jack Pine</td><td>3</td><td>Sapling</td><td>3</td><td></td></tr></table>		Canopy Species	% Cover	Size Class	DBH	Age		Red Maple	8	Sapling	3		Paper Birch	2	Log/Pole/Sap	10		Quaking Aspen	54	Sapling/Pole	4	16	Bigtooth Aspen	10	Sapling	4		Balsam Fir	13	Sapling/Pole	4		White Spruce	4		3		White Pine	2	Log/Pole/Sap	10		Red Pine	4	Log/Pole	12		Jack Pine	3	Sapling	3				
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3	6124 - Lowland Spruce-Fir	Poletimber Medium	75.6	45	1-50	N/A	Small creek flows northeasterly though stand. Some areas have heavy budworm kill. There are BMP issues with water throughout the stand. The stand is in poor condition with not much merchantable timber. There is a small pockets of spruce and tamarack in the southeast and the northwest end that are merchantable and harvestable. The rest is small timber with lots of dead conifer. There is a small portion of the stand under contract #32-103-17 with Holli FP. Hay Lake Selection timber sale.																																																
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4	320 - Upland Shrub	None	2.1			No	The stand is filling in with aspen and conifer to the point it is nearly forested. There is a road running through the stand.																																																
5	4130 - Aspen	Poletimber Well	10.7	35	51-80	N/A	2025 - fully stocked stand of medium, pole-sized aspen. The stand looks healthy. There is a fairly dense understory of fir. Was commercially cut 1989/91 by Milo Palm of Negaunee, permit #016-87-01, "Hay Lake Block". All oak, cedar, hemlock, & cherry was left.																																																
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
6	4119 - Mixed Northern Hardwoods	Sawtimber Well	9.7	97	111-140	N/A	Very steep slopes in the stand. The operable portion of the stand is marked and under contract. Old aspen type that is converting over to hardwood. This stand is currently under contract #32-103-17 with Holli FP.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Sugar Maple		25	Pole/Log	8		White Pine		Low	5 - 10 feet	5 - 10 feet
Red Maple		30	Log/Pole	10	97	Balsam Fir		Low	5 - 10 feet	5 - 10 feet
Basswood		8	Log/Pole	12		Ironwood		Low	5 - 10 feet	5 - 10 feet
Red Oak		3	Log	14						
Paper Birch		10	Log/Pole	13						
Quaking Aspen		10	Log/Pole	10						
Bigtooth Aspen		7	Log/Pole	12						
Balsam Fir		2	Pole	8						
White Pine		2	Log	16						
Red Pine		3	Log	14						
7	42200 - Natural White Pine	Sawtimber Well	13.7	88	141-170	N/A		2025 - stand is currently under contract #32-103-17 with Holli FP. The stand has not been cut yet. Stand is mostly a white pine overstory with aspen and red maple underneath and some other species mixed in.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height
Red Maple		4	Pole	8		White Pine	Low		5 - 10 feet	5 - 10 feet
Paper Birch		6	Log	10		Balsam Fir	Low		5 - 10 feet	5 - 10 feet
Quaking Aspen		6	Pole	8		Red Pine	Low		5 - 10 feet	5 - 10 feet
Balsam Fir		2	Pole	8		White Spruce	Low		5 - 10 feet	5 - 10 feet
White Spruce		2	Pole	8						
White Pine		60	XLog/Log	18	88					
Red Pine		15	Log/XLog	16	88					
Hemlock		5	Log	12						
8	4130 - Aspen	Poletimber Well	47.2	35	51-80	N/A	2025 - The eastern central part of the stand is wetter soil and there is a higher concentration of balsam poplar there and along the northern edge. Was commercially cut in 1989/91 by Milo Palm of Negaunee, permit #016-87-01, "Hay Lake Block". All oak, cedar, hemolck, & cherry was left.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Quaking Aspen		50	Pole	6	35	Balsam Fir		High	10 - 20 feet	10 - 20 feet
Bigtooth Aspen		25	Pole	6						
Balsam Poplar		15	Pole	6						
Balsam Fir		7	Pole/Sapling	5						
White Spruce		3	Pole/Sapling	6						
9	6220 - Alder/Willow	None	4.5			No	2025 - narrow strip of tag alder with a small stream running through.			
							OPIC - FMD: Was commercially cut 1989/91 by Milo Palm of Negaunee, permit #016-87-01, "Hay Lake Block". All oak, cedar, hemlock, & cherry was left.			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																
10	4319 - Mixed Upland Forest	Poletimber Well	21.0	60	81-110	N/A	This stand is on a steep slope dropping down to the shores of Hay Lake. As a result this area will be factor limited for BMPs and water quality. The birch is slowly falling out of the stand and being replaced by fir and red maple.																																																																
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11	4130 - Aspen	Sapling Well	100.5	25	Immature	N/A	2025 - stand is small pole sized. Mix of quaking and bigtpoth aspen and all looks to be good quality. There's a few large pine and oak that were left during the last harvest. The stand has some good terrain in areas but operable. Was commercially cut in summer of 1999/2000 by St.John Forest Products, Inc. permit #003-97-01, "Hay Lake Sale". All oak, red & white pine, all other softwoods, and birch marked with greenpaint were left.																																																																
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12	4130 - Aspen	Sapling Well	127.7	34	Immature	N/A	2025 - most trees look good and healthy and are in the 6-8" DBH range. There are some scattered spots with a little oak and pine. Some red maple and white pine in the understory. The stand will likely be ready for harvest next rotation. Was commercially cut in 1990/91 by Escanaba Paper Co. permit #023-87-01, "Boot Lake Aspen Block". Oak were marked with green paint to leave (approx 5 trees /acre). Terrain has some steep slopes and potholes. Gravel present in places. Access was from the north off Hemmings Lake Road.																																																																
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13	4119 - Mixed Northern Hardwoods	Sawtimber Well	15.2	88	81-110	N/A	2025 - Stand was cut using a selection system under the Hay Lake Selection contract # 32-103-17. Was commercially cut in 2000 by St.John Forest Products, Inc., permit #003-97-01, "Hay Lake Sale". All aspen , paper birch, and fir were cut out of this. All other hwdws were left. Access was from the northwest. The residual stand has good species diversity which includes some hemlock & white pine, yellow birch & ironwood. Oak is a dominant component, nearly all of sawlog size. The ground is covered with sugar maple seedlings, and leatherwood shrub is present also.																																																																
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
21	42200 - Natural White Pine	Sawtimber Well	5.6	88	141-170	N/A	2025 - stand was selectively cut recently by Holli under the Hay Lake Selection contract #32-103-17. The pine regeneration is a little light but may fill in. The red maple will likely fill in the gaps in the understory. Overall the overstory looks healthy. Selectively cut in 2000 by St. John Forest Products Inc., permit #003-97-01, "Hay Lake Sale".			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Maple		5	Log/Pole	10		White Pine		Medium	10 - 20 feet	10 - 20 feet
Red Oak		5	Log/Pole	12		Red Maple		Low	5 - 10 feet	5 - 10 feet
Paper Birch		5	Pole/Log	9		Red Oak		Medium	10 - 20 feet	10 - 20 feet
Quaking Aspen		5	Log/Pole	11		Hazelnut (American)		Low	5 - 10 feet	5 - 10 feet
White Pine		70	Log/XLog	17	88	Quaking Aspen		Low	5 - 10 feet	5 - 10 feet
Red Pine		10	Log	16		Red Pine		Medium	10 - 20 feet	10 - 20 feet
22	42220 - Natural Jack Pine	Sapling Well	10.2	24	Immature	N/A	2025 - stand appears healthy. It is not as well stocked as a planted stand but it is filling in with volunteer jack pine and a few other species. Overall the stand looks healthy. Stand was commercially cut during Feb/March of 2001 by Minerick Logging under permit #04-97-01, "Chain Lakes Road Sale". All oak, red & white pine was left. Followed by herbicide treatment on 8/17/2001 by Steve Arkens under FTP #C31-429 using liquid Tordon 101 at the rate of 5 qts/acre. This followed by disk trenching and simultaneous seeding of jack pine on 10/5/2001. See FTP and completion form for details.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Quaking Aspen		5	Sapling/Pole	3		Red Maple		Low	5 - 10 feet	5 - 10 feet
White Pine		5	Pole	6						
White Pine		5	XLog	20						
Red Pine		5	Sapling/Pole	3						
Red Pine		10	XLog	18						
Jack Pine		70	Sapling/Pole	4	24					
23	4136 - Aspen, Mixed Conifer	Sapling Well	97.8	14	Immature	N/A	2025 - fully stocked aspen stand with a mix of other species. Some oak and pine were left in the overstory. East part of stand slopes down to the north. Note that the 1/4 corner between Sec 14/13 is located beneath the east-west private fence line. 2011 Treated by LaFleur under contract # 116-07-01.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Maple		6	Sapling	2		Red Pine		Low	5 - 10 feet	5 - 10 feet
Red Oak		5	Log	14		White Pine		Low	5 - 10 feet	5 - 10 feet
Paper Birch		8	Sapling	3						
Quaking Aspen		25	Sapling	3	14					
Bigtooth Aspen		28	Sapling	1	14					
Balsam Fir		15	Sapling	3						
White Spruce		2	Sapling	1						
White Pine		5	Log/Pole	12						
Red Pine		5	Log	10						
Black Cherry		1	Sapling	2						
24	500 - Water	None	1.6			No		2025 - no beaver house visible. Pond looks fairly deep on the CIR photo. Tiny swamp pond. Beaver house present in June 2005. Hydrology map shows an outlet creek on east side, but field check found none. Possibly flows subterraneously through swamp on east side.		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
25	4130 - Aspen	Sapling Well	19.7	24	Immature	N/A	2025 - poor to moderate quality aspen stand. The quaking aspen is a little rougher in the stand than some to the north in the compartment. Stand is fully stocked and is doing well. There are some large pine and oak in the overstory still that were left during the previous harvest. Stand was commercially cut under permit #104-97-01, "Chain Lake Road Sale", by Minerick Logging Inc. during Feb/March 2001. All oak, red & white pine were left, and the Gwinn Unit ORV trail was preserved.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Paper Birch		5	Sapling	3		Witch Hazel		Medium	< 5 feet	< 5 feet	
Quaking Aspen		55	Sapling/Pole	4	24	Balsam Fir		Low	5 - 10 feet	5 - 10 feet	
Bigtooth Aspen		25	Sapling/Pole	4							
Balsam Fir		3		4							
White Pine		5	Log	14							
Red Pine		5	Log	14							
Jack Pine		2	Sapling	4							
26	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	11.6	88	51-80	N/A	Steep right off the high ground to the bog at the bottom. Too steep to operate equipment and good buffer for the lowland.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Paper Birch		35	Log/Pole	10	88	White Pine		Medium	5 - 10 feet	5 - 10 feet	
Quaking Aspen		15	Log/Pole	10	45	Balsam Fir		Low	5 - 10 feet	5 - 10 feet	
Bigtooth Aspen		10	Log/Pole	10		White Spruce		Low	5 - 10 feet	5 - 10 feet	
Balsam Fir		3	Pole	8							
White Spruce		3	Pole	8							
Black Spruce		3	Pole	8							
White Pine		26	Log	14							
Red Pine		3	Log/Pole	12							
Jack Pine		2	Log/Pole	10							
29	42200 - Natural White Pine	Sawtimber Well	1.7	88	111-140	N/A	2025 - Stand was cut recently under contact 32-103-17 Hay Lake Selection. White pine advanced regeneration should grow nicely. Nice quality pine residual trees. Was selectively (mostly pine- high risk) cut in 2000 by St. John Forest Products, Inc., permit #003-97-01, "Hay Lake Sale".				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		5	Log	10		Red Maple		Low	5 - 10 feet	5 - 10 feet	
Red Oak		15	Log	14		Red Oak		Medium	5 - 10 feet	5 - 10 feet	
White Pine		70	XLog/Log	18	88	White Pine		High	10 - 20 feet	10 - 20 feet	
Red Pine		10	Log/XLog	16							
33	6224 - Treed Bog	None	1.1			No					
35	6120 - Lowland Cedar	Poletimber Well	20.5	88	141-170	N/A		Log sized cedar stand. A mix of other lowland species occur where the cedar is more open. Many of the other species are in bad condition or have fallen out due to age.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size	
Red Maple		4	Pole	8		Black Spruce			Low	5 - 10 feet	5 - 10 feet
White Ash		3	Pole	8		Balsam Fir			Low	5 - 10 feet	5 - 10 feet
Paper Birch		3	Pole	8		Tag Alder			Medium	5 - 10 feet	5 - 10 feet
Balsam Fir		15	Pole	8							
Black Spruce		10	Pole	7							
Northern White Cedar		60	Log/Pole	11	88						
Tamarack		5	Pole/Sapling	7							

