



# Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32267

Entry Year 2020

Acreage: 851

County Marquette

Management Area: Chain Lakes Moraine

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**Revision Date:** 2018-08-06

**Stand Examiner:** Jason Caron

**Legal Description:**

T45N-R27W, Sections 8,16,17, and 18.

**Identified Planning Goals:**

Manage the aspen and jack pine resource on an even aged basis to promote numerous age classes and to improve wildlife habitat.

**Soil and topography:**

Soils vary from loamy to course sand. Organic mucks and peats occur within the riparian areas. Topography is fairly level to rolling.

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

The Michigan Northwoods Club owns a large chunk of property to the north of this compartment. One 40 acre parcel exists within this compartment and would be ideal to acquire at some point.

**Unique Natural Features:**

The Bryan Creek flows through this compartment.

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

No know archeological, historical, or cultural features known of in this compartment.

**Special Management Designations or Considerations:**

None known.

**Watershed and Fisheries Considerations:**

The southwest region of this compartment contains Bryan Creek. Bryan Creek is a designated Type 1 trout stream less than 50' width. A 300' buffer is recommended for Bryan Creek 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 267 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; 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 Chain Lakes Management Area: black bear, gray jay, pileated woodpecker, Northern goshawk, red crossbill.

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

Recent sand/gravel pits are not located in the area. There appears to be some gravel potential within the compartment but there is also abundant clay. There is no known metallic mineral potential within the compartment, though there has been metallic mineral leasing in the area in the past. There is no potential for economical oil and gas production in the UP. The state does not own any of the mineral rights beneath the compartment. Private mineral rights owners must be allowed reasonable access to the land should they choose to explore and/or develop the minerals.

**Vehicle Access:**

Vehicle access is good within this compartment for forest management work. The two track that exists within the northern

part of this compartment is gated on private land by the Northwoods Club. Public access is good within the southern part of this compartment with County Road PW & PPZ providing access.

**Survey Needs:**

The northern portion of this compartment will require a survey due to the timber prescribed.

**Recreational Facilities and Opportunities:**

No recreational facilities exist. Recreational opportunities consist of hunting, fishing, berry & mushroom picking, hiking and biking.

**Fire Protection:**

High fire risk within this compartment due to the jack pine forest type. Vehicle access is good for fire suppression.

**Additional Compartment Information:**

The following reports from the Inventory are attached:

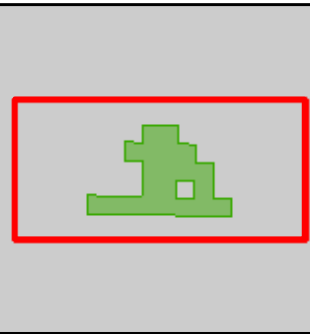
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

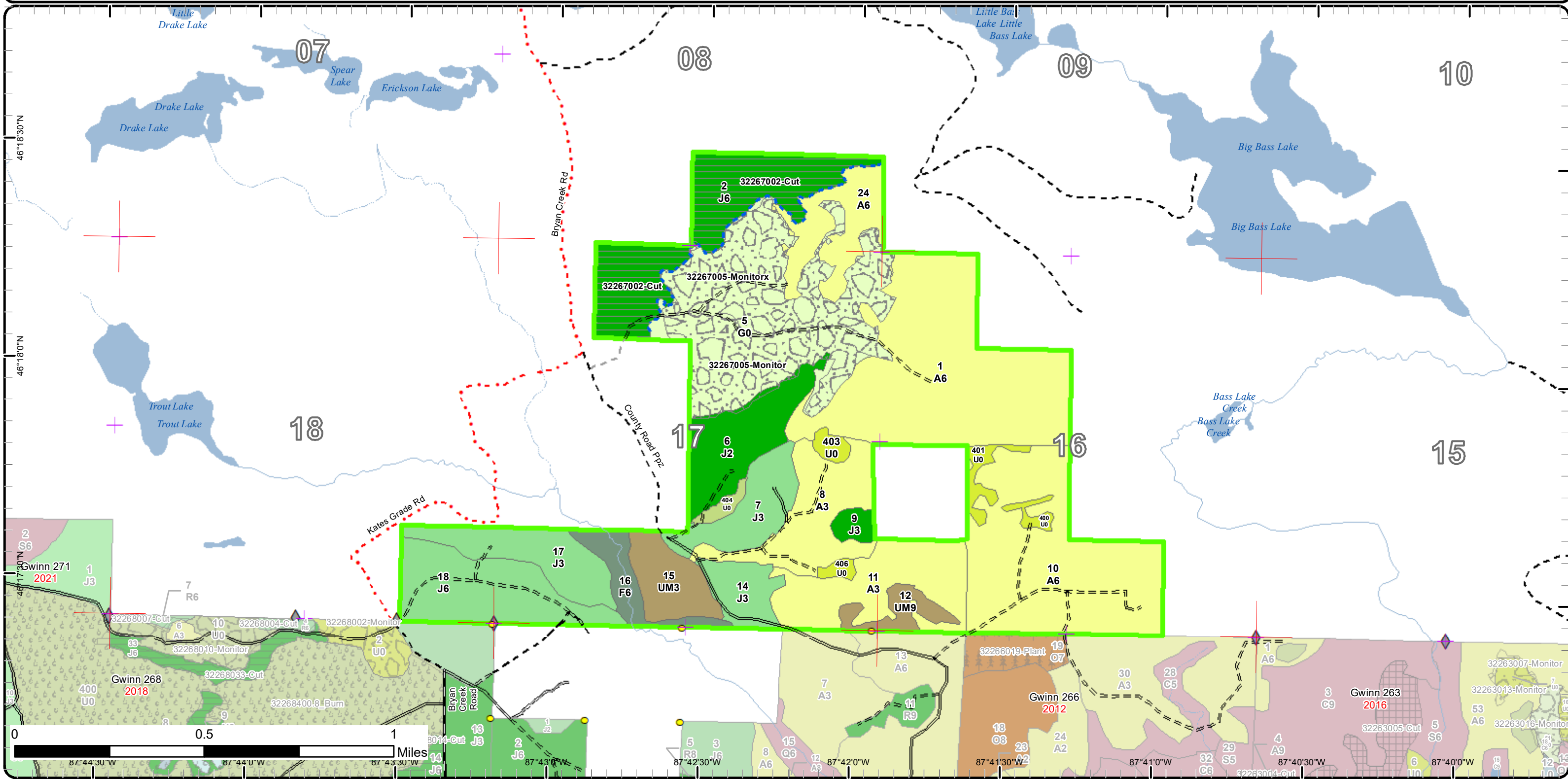
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

# Cover Type & Treatments Map

Compartment: 267  
 T45N, R27W, Sec: 16, 17, 18  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
 YOE: 2020  
 Acres: 851 GIS Calculated  
 Examiner: Jason Caron  
 Map Revised: 10/18/2018  
 Map Phase: Pre-Review

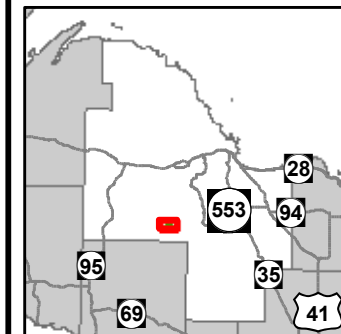


- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- ◆ Field Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Treatments with Site Conditions
- Clearcut (w/Reserves)
- Regeneration Survey
- 413 - Aspen
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- Lakes

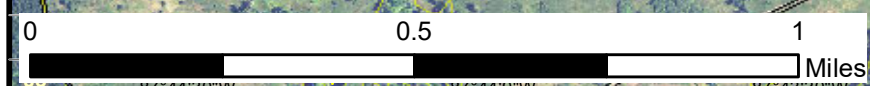
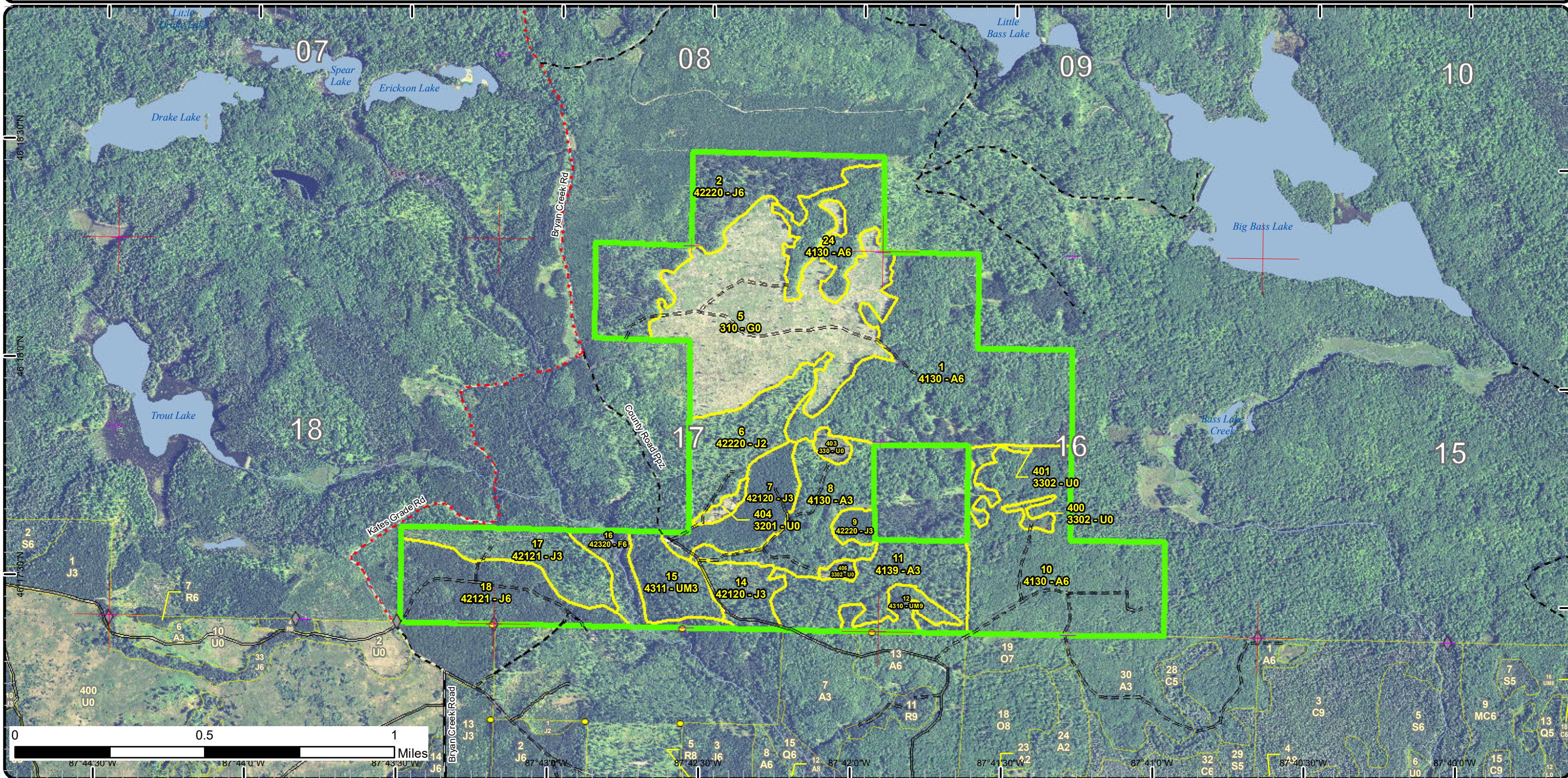


**Stand Boundary Map**

Compartment: 267  
 T45N, R27W, Sec: 16, 17, 18  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
 YOE: 2020  
 Acres: 851 GIS Calculated  
 Examiner: Jason Caron  
 Map Revised: 8/24/2018  
 Map Phase: Web-Post



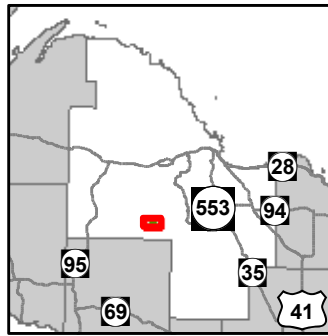
- |  |                             |
|--|-----------------------------|
| — Miris Corners                        | — Perennial River           |
| + Remonumented Section Corners         | ■ Lakes and Rivers All      |
| ● Survey Grade Corners                 | ▭ Compartment Boundary      |
| ◆ Field Grade Corners                  | ▭ Stand Boundaries          |
| ▭ Counties                             | 413 - Aspen                 |
| — DNR - Primary Forest Road            | 421 - Planted Pines         |
| — DNR - Secondary Forest Road          | 422 - Natural Pines         |
| — DNR - Forest Access Route            | 423 - Other Upland Conifers |
| — Federal / State - Dirt / Gravel Road | 430 - Upland Mixed Forest   |
| - - - County - Gravel Road             | 310 - Herbaceous Openland   |
| - - - Private - Dirt / Gravel Road     | 320 - Upland Shrub          |
| — Intermittent Stream                  | 330 - Low Density Trees     |
| — Island in Lake or River              |                             |
| — Lake/Pond                            |                             |



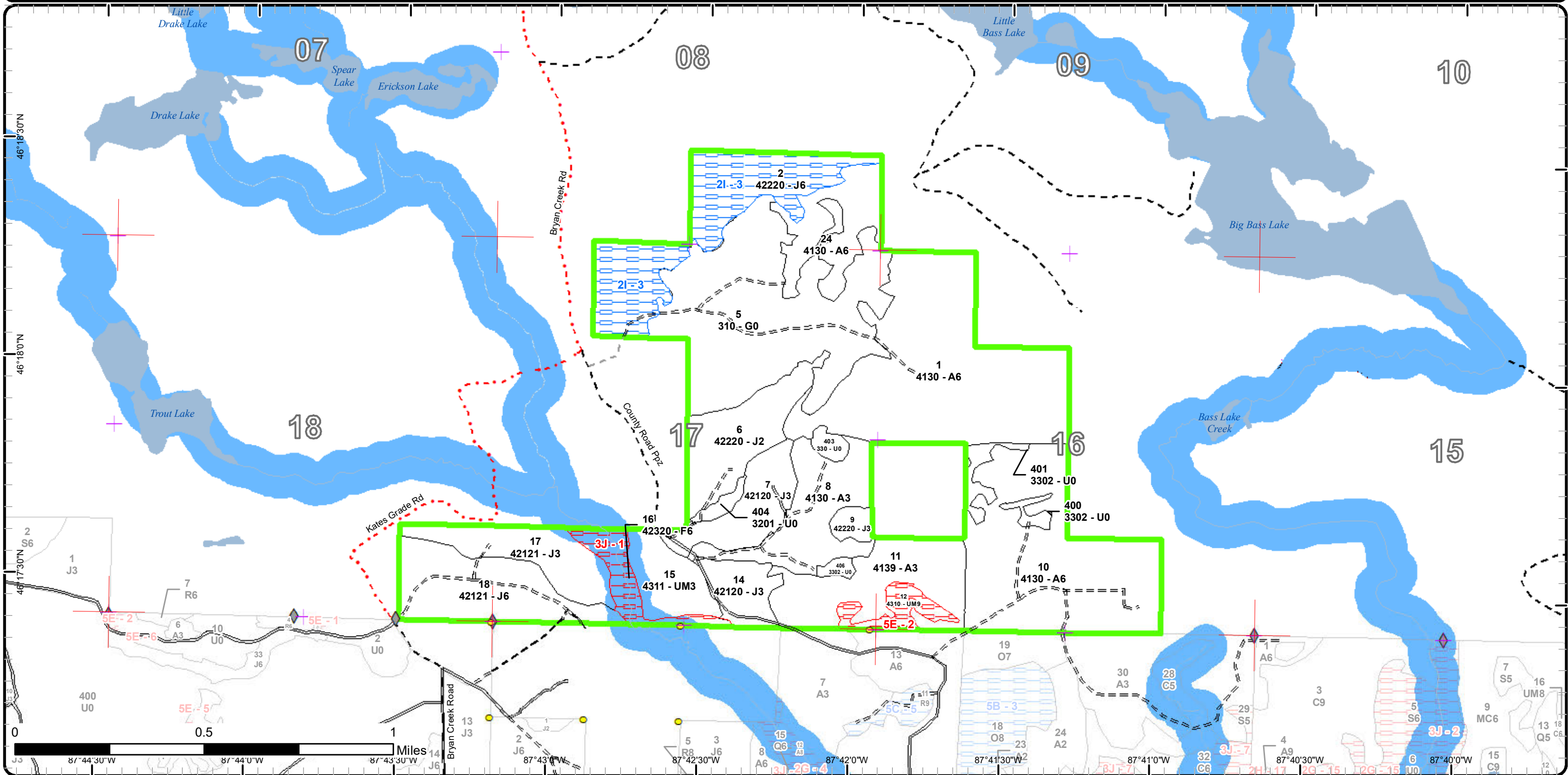
87° 44' 30" W 87° 43' 30" W 87° 42' 30" W 87° 42' 0" W 87° 41' 30" W 87° 41' 0" W 87° 40' 30" W 87° 40' 0" W

# Special Conservation Areas & Site Conditions Map

Compartment: 267  
 T45N, R27W, Sec: 16, 17, 18  
 County: Marquette  
 Unit: Gwinn  
 Mgmt Area: Chain Lakes Moraine  
 YOE: 2020  
 Acres: 851 GIS Calculated  
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 Map Revised: 8/24/2018  
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- Miris Corners
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- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 2I: Survey needed
- 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 1 – Total Acres by Cover Type and Age Class

Gwinn Mgt. Unit  
Jason Caron : Examiner

Compartment 267 Year of Entry 2020



## 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	52	45	116	176	0	0	0	0	0	0	0	0	0	0	0	0	389
Herbaceous Openland	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137
Jack Pine	0	0	91	35	53	0	0	73	0	0	0	0	0	0	0	0	0	0	252
Low-Density Trees	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Upland Mixed Forest	0	0	0	24	0	0	0	0	0	0	0	12	0	0	0	0	0	0	36
Upland Shrub	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Upland Spruce/Fir	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	17
<b>Total</b>	<b>158</b>	<b>0</b>	<b>143</b>	<b>104</b>	<b>169</b>	<b>176</b>	<b>0</b>	<b>73</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>851</b>



## Report 2 – Treatment Summary

Gwinn Mgt. Unit

Year of Entry: 2020

Acres of Harvest

Compartment 267

Total Compartment Acres: 851

Commercial Harvest -  
 Harvests with Site Condition - 73  
 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
Jack Pine	73	0	0	0	0	0	0	0	0	73
<b>Total</b>	<b>73</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>73</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	73	0	0	0	0	134	0	0	0	207
Next Step	0	73	73	0	57	207	207	0	0	616
<b>Total</b>	<b>73</b>	<b>73</b>	<b>73</b>	<b>0</b>	<b>57</b>	<b>207</b>	<b>341</b>	<b>0</b>	<b>0</b>	<b>823</b>



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
2	32267002-Cut	72.7	42220 - Natural Jack Pine	Poletimber Well	66	51-80	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Draft Proposal

**Habitat Cut: No**      **Site Condition: Survey Needed**

Prescription Clearcut. The only retention should be under-represented trees such as oak and large diameter white pine (if they exist).

Specs:

Next Step Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)

Treatments:

Acceptable Red pine

Regen:

Other Green up concerns were addressed during review. It was decided that the poor condition of the timber within stand 2 and the retention pockets within the stand will suffice for the requirement.

Comment:

Wildlife - Retention should also include some large aspen – Goshawk and cavity nesters –State Game Fund Purchased

Proposed Start Date: 10/01/2019

5	32267005-Monitor	56.8	310 - Herbaceous Openland	Nonstocked			Monitoring	Artificial Regen(1yr)	42120 - Planted Jack Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription

Specs:

Next Step ; ; Burn, Slash; Pesticide, Skidder/Mechanical; Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable Jack Pine.

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 12/05/2017

1	32267005-Monitorx	77.3	4130 - Aspen	Poletimber Well	42	81-110	Monitoring	Artificial Regen(1yr)	42120 - Planted Jack Pine	Even-Aged	Draft Field Boundary
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**Habitat Cut: No**

**Site Condition:**

Prescription See below

Specs:

Next Step ; ; Pesticide, Aerial; Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable Jack Pine.

Regen:

Other Percent to Treat = 100%

Comment: Wildlife - No herbicide used on this stand, allow aspen to regenerate with Jack Pine. The TMS stated there was 476 jack pine per/acre north of the road and 1/3 is fully stocked. South the road is stocking is much better; replanting would not be necessary (recheck in 2020) –State Game Fund Purchased

Proposed Start Date: 12/05/2017

**Total Treatment Acreage Proposed: 206.8**



## Report 4 – Site Conditions

Gwinn Mgt. Unit  
Jason Caron : Examiner

Compartment: 267  
Year of Entry: 2020

### Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available	Dominant Site Conditions			
		With Condition			2I	3J	5E	
389	389	0	0	0	Aspen			
137	137	0	0	0	Herbaceous Openland			
253	180	73	0	0	Jack Pine	73		
16	16	0	0	0	Low-Density Trees			
36	24	0	12	12	Upland Mixed Forest			12
4	4	0	0	0	Upland Shrub			
17	0	0	17	17	Upland Spruce/Fir		17	
851	750	73	29	29	Total Forested Acres	73	17	12
	88%	9%	3%	3%	Relative Percent			

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Riparian corridor for Bryan Creek.							
2	Unavailable	5E: Long-Term Retention	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Surrounding stands on state ownership are young and mostly an aspen type. Hold this stand for diversity and manage when adjacent stands are prescribed in the future.							
3	Available	2I: Survey needed	73	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
<b>Comments</b>				



## 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 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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Poletimber Well	142.2	42	81-110	Stand of healthy aspen, both big tooth and quaking. Mature oak and red maple mixed throughout the stand. A few inclusions of jack pine exist as well. The overall aspen diameter is small.
2	42220 - Natural Jack Pine	Poletimber Well	73.1	66	51-80	A poor quality jack pine stand. Stand should of been harvested in the last entry period. A fair amount of dead standing jack pine exist.
6	42220 - Natural Jack Pine	Sapling Medium	39.4	17	Immature	Cut in July 2001: TS# 123-99-01, "Bryan Creek Northwest Sale". FTP #C31-431 was written on 10/16/01 to cover site prep & seeding jack pine. Reforestation effort has failed probably due to heavy bracken fern ground cover. This stand will be reforested with stand 5 when it is cut. FTP 32-777 was dropped in 2016 by TMS..... 2018 - stand consists of poorly stocked jack pine with pockets of aspen regeneration throughout. Mature birch scattered throughout the stand but most of it is near dead. A few scattered red pine and oak exist as well.
7	42120 - Planted Jack Pine	Sapling Well	29.0	25	Immature	Stand harvested in 1991. TS # 001-90-1. Stand consists of healthy jack pine. Stem quality is on the poorer side. No plantation information but it appears the stand was either seeded or hand planted.
8	4130 - Aspen	Sapling Well	45.3	27	Immature	Stand cut in 1991. TS #001-91-1. Stand consists of well stocked aspen. Contains both big tooth and quaking aspen. Red maple is dense within the understory.
9	42220 - Natural Jack Pine	Sapling Well	5.7	27	Immature	Stand harvested in 1991. TS # 001-90-1. No plantation information but it appears the stand was either seeded or hand planted.
10	4130 - Aspen	Poletimber Well	115.8	32	Immature	Stand was harvested in 1986 & 87 under TS # 12-83. Stand currently consists of decent quality aspen, especially the big tooth. A heavy red maple component exists within the understory. A few mature red oak are scattered throughout the stand.
11	4139 - Aspen, Mixed Deciduous	Sapling Well	51.8	18	Immature	Stand harvested in 2002: TS#118-00-01. Stand has regenerated back to a mix of aspen and red maple. Scattered large diameter white and red pine exist within the stand. White and red pine are regenerating back within the understory. Skid trails have regenerated back nicely to red pine.
12	4310 - Pine, Oak Mix	Sawtimber Well	11.9	107	111-140	Stand consists of mature red pine and oak.
14	42120 - Planted Jack Pine	Sapling Well	18.4	15	Immature	Stand was harvested in summer 2002: TS #118-00-01. Oak, cherry, red & white pine was left. FTP #C31-441 covers herbicide, trenching; seeding. 2018- stand consists of 3" dbh jack pine that looks healthy. Trees per acre are on the lower side, but overall the stand looks good.
15	4311 - Pine, Aspen Mix	Sapling Well	24.0	27	Immature	Stand harvested in 1991. TS # 001-90-1. Stand contains a mix of poorer quality aspen and healthy looking jack pine.

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Gwinn Mgt. Unit

## Report 7 – Forested Stands

Compartment: 267  
Year of Entry: 2020

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	42320 - Upland Spruce	Poletimber Well	17.0	91	51-80	Riparian zone for the Bryan Creek. Acts as a buffer to a high quality trout stream.
17	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	34.0	15	Immature	Stand was commercially cut in Aug/Sept 2001: TS # 117-00-01. FTP C31-432 was written on 10/16 /2001 for site prep & seeding of jack pine. Survival rates medium to poor. Aspen suppression of seeded pine significant.
18	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Well	53.4	36	51-80	Machine planted in 1982. Pockets of aspen exist within the stand.
24	4130 - Aspen	Poletimber Well	33.7	42	51-80	Stand of quaking aspen growing on poorer ground. Aspen is holding up fairly well. A few scattered red maple exist throughout.



Stand	Cover Type	Acres	Managed Site	General Comments:
5	310 - Herbaceous Openland	136.6		Stand was cut by Minerick Logging under permit # 110-10. The north half of stand (north of the East/West two track was cut in 2011, the southern part in 2013. About half of the site was sprayed in 2014. Trenched by DNR resources in the summer of 2016. Stand planted in the spring of 2017 by Superior forestry services. due to uneven trench spacing only 800 trees passed QAQC checks. A wet spring has given seedling a good chance.
400	3302 - Low Density Conifer Trees	3.3	No	Did not make it to this stand during the 2018 inventory. Former inventory notes from 2008 state: HERBICIDED IN 7/91. More of an upland brush (sweet fern) type.
401	3302 - Low Density Conifer Trees	6.6	No	Former grass opening that is now filling in with conifer.
403	330 - Low-Density Trees	4.0	No	Did not make it to this stand. Former inventory notes state: CLEARED AND SEEDED 7/93 AFTER SALE #1-90.
404	3201 - Sweet Fern	3.7	No	Stand is filling in along the edges with jack pine. Heavy sweet fern throughout the stand.
406	3302 - Low Density Conifer Trees	2.6	No	Cleared in seeded in July of 1993. Opening is currently filling in with red pine, mostly on the west side. Ground cover is a mix of sweet fern and grass.