

# **Compartment Review Presentation**

**Gwinn Forest Management Unit** 

Compartment 32266 Entry Year 2022 Acreage: 1,091

**County Marquette** 

Management Area: Chain Lakes Moraine

Revision Date: 2020-08-03 Stand Examiner: Rick Hill

**Legal Description:** 

T45N R27W, Sections 20 and 21

#### **Identified Planning Goals:**

Vegetative management in the Chain Lake management area will provide a variety of forest products; maintain or enhance wildlife habitat; protect areas with unique characteristics; and provide for forest based recreational uses. Timber management objectives for the 10-year planning period include improving the age-class distribution of aspen, lowland conifer and lowland spruce/fir; maintaining the conifer component in northern hardwood stands; maintaining the presence of minor cover types on the landscape; and maintaining non-forest vegetation types.

## Soil and topography:

Soils in this compartment fall into the following associations: Rubicon-Sayner, Grayling, and Kalkaska-Carbondale-Deford. These soils are very deep, excessively drained, sandy soils (Rubion-Sayner and Grayling) and very deep, somewhat excessively to very poorly drained, sandy and mucky soils (Kalkaska-Carbondale-Deford). They occur on outwash plains and terraces with the poorly drained soils being in the drainages and depressions. Topography in this area is nearly level to very hilly. Steep slopes exist along the Bryan Creek corridor.

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

Ownership in this portion of the landscape is predominantly State with some scattered private individual ownership. There is a large block of private club land (Michigan Northwoods Club) located to the north of the compartment. Development is recreational homes (Northwoods Club) and camps. Land use is associated with timber production, hunting, fishing, and general recreation.

#### **Unique Natural Features:**

None known

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

None known

## **Special Management Designations or Considerations:**

there are a few riparian management zones present in the compartment.

#### Watershed and Fisheries Considerations:

Bryan Creek and the headwaters of a small tributary to Bryan Creek are present within this compartment. Bryan Creek is a cold-water steam and will be buffered to protect water quality.

#### Wildlife Habitat Considerations:

Compartment 266 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

Marquette County Surface sediments consist of coarse-textured glacial till. The glacial drift thickness varies between 50 and 100 feet. The Precambrian Archean Granite/Gneiss subcrops below the glacial drift. Some of the Granite/Gneiss

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might be used for dimension stone. A rock (?) quarry is indicated on the topo seven miles to the west. Gravel pits are located just to the west of the compartment, and potential appears to be good. This compartment has never been leased; as it is mostly surface only. There is no economic oil and gas production in the UP.

#### **Vehicle Access:**

Access to the compartment is good. County roads PW (Bryan Creek Road) and PPZ provide direct access, the remainder is along woods roads. Some of these roads have berms in place to limit vehicle access beyond certain points.

### **Survey Needs:**

None at this time

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

No developed recreational facilities exist at this time and no opportunity exists. The main types of recreation in the compartment are low intensity hunting and fishing.

#### **Fire Protection:**

Several volatile fuel types are found in the compartment and the surrounding landscape. The compartment resides on the southeast end of a larger sandy outwash plain. A large grass opening (approximately a section in size) is immediately to the west of the compartment, several hundred acres of jack pine with some red and white pine stands mixed in are located within the compartment and to the north and northwest of the compartment. Age of the jack pine stands range from young seedling and sapling to mature, the red and white pine stands are mature, with understories of spruce-fir and some being relatively open. The road system in this area is adequate enough to handle current fire suppression equipment and provides adequate fire breaks for ground fire activity.

## **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

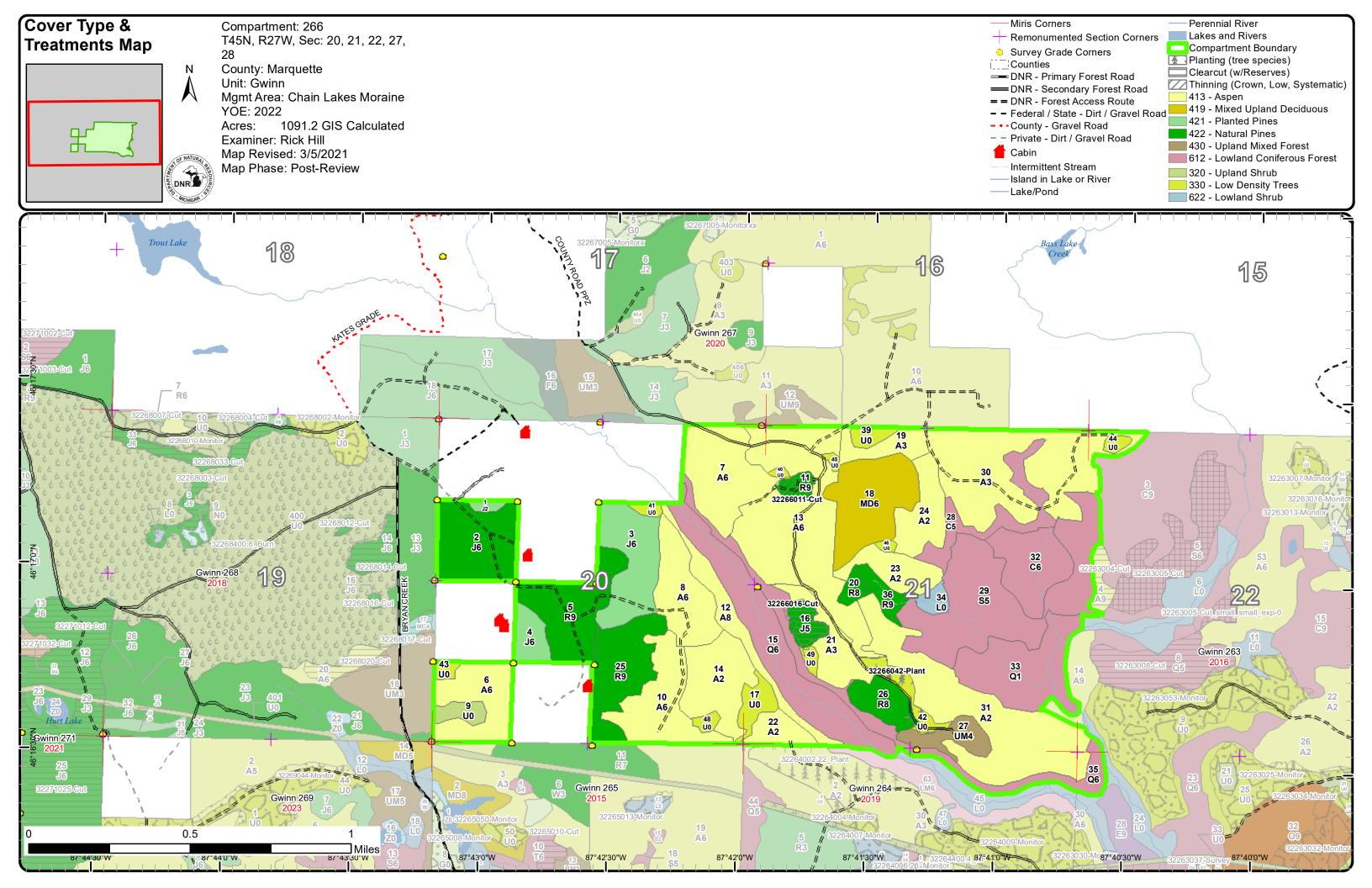
Compartment 266 Year of Entry 2022

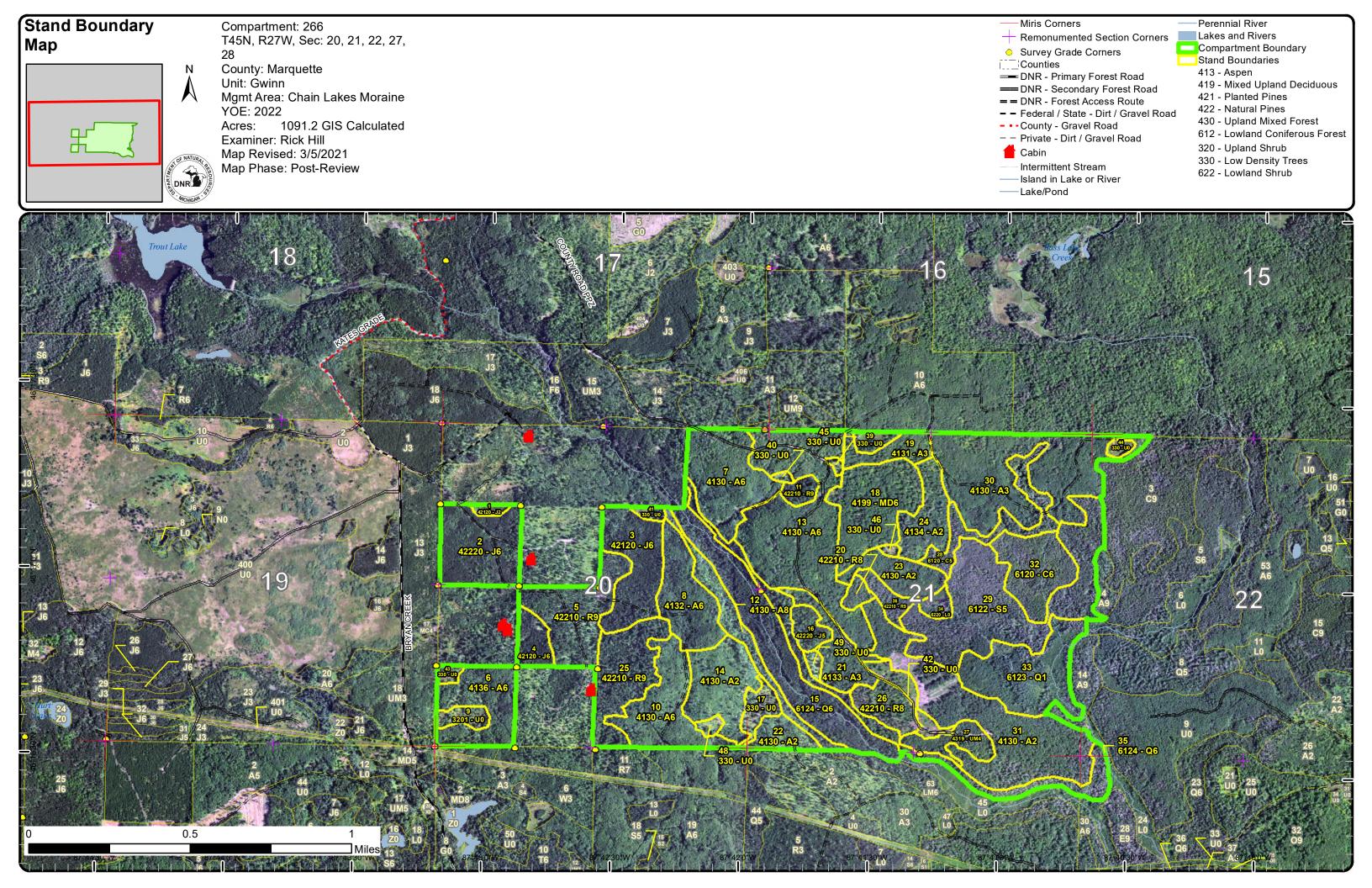
Gwinn Mgt. Unit Rick Hill: Examiner

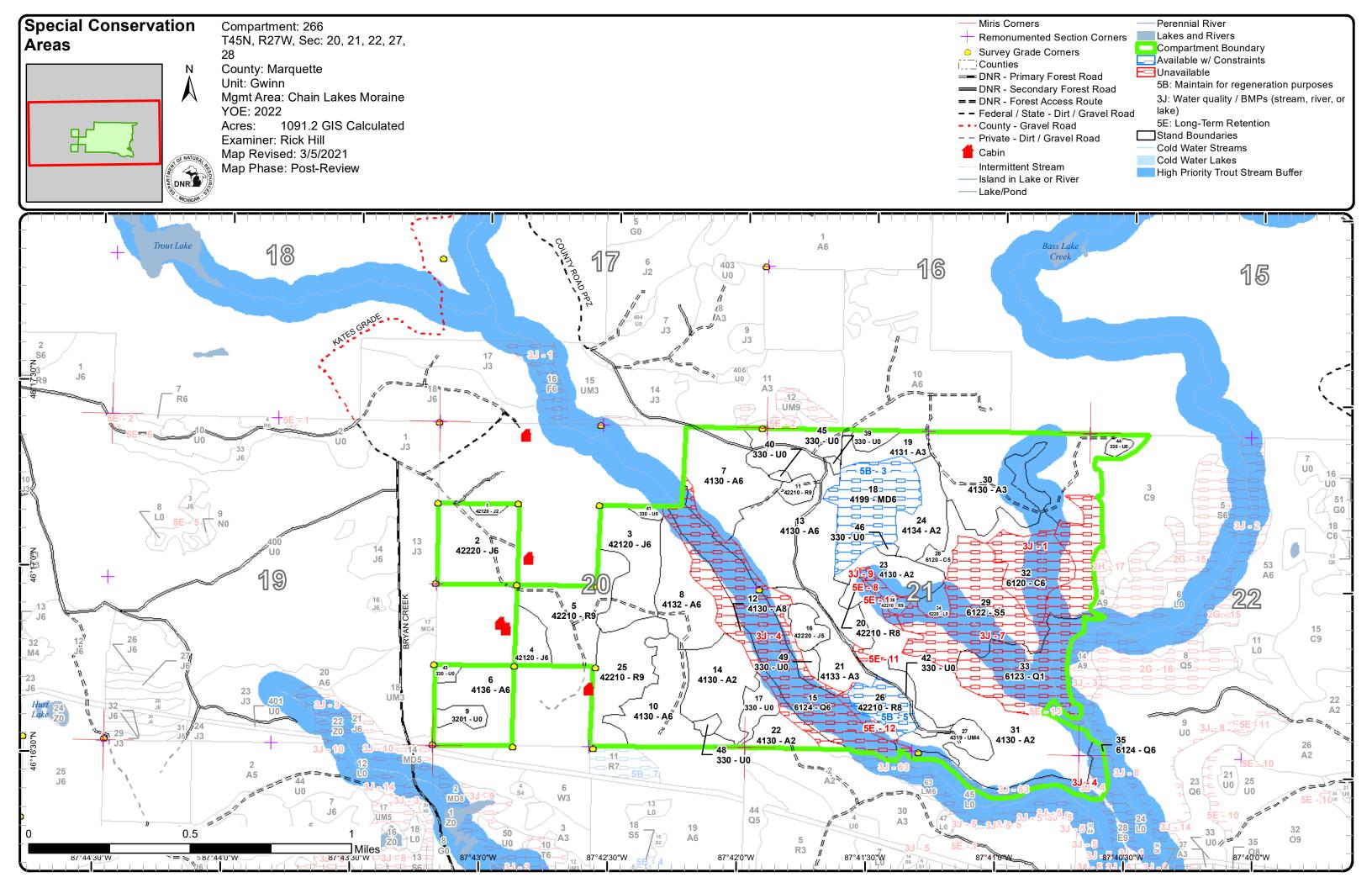


#### Age Class

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Aspen	0	80	94	17	277	31	0	0	0	20	0	0	0	0	0	0	0	0	517	ĺ
Cedar	0	0	0	0	0	0	0	0	0	0	0	21	29	0	0	0	0	0	50	l
Jack Pine	0	0	2	0	35	48	8	0	0	0	0	0	0	0	0	0	0	0	92	l
Low-Density Trees	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	l
Lowland Conifers	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	94	139	l
Lowland Shrub	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	l
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0	0	84	l
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	42	0	0	0	0	0	0	42	l
Red Pine	0	0	0	0	0	0	0	0	73	0	30	0	0	0	0	0	0	0	103	l
Upland Mixed Forest	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	l
Upland Shrub	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Total	48	80	96	30	357	79	8	0	73	20	114	63	29	0	0	0	0	94	1087	l









# **Report 2 – Treatment Summary**

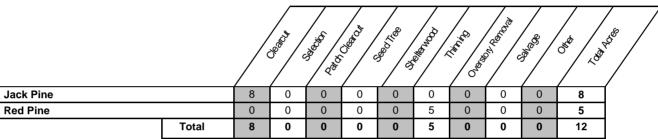
# Gwinn Mgt. Unit Year of Entry: 2022

Acres of Harvest

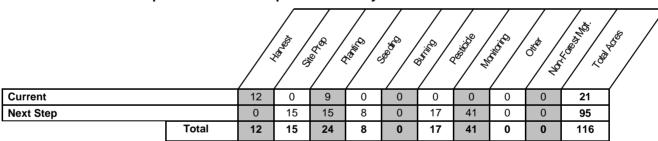
Compartment 266
Total Compartment Acres: 1,091

Commercial Harvest - 12 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

## **Cover Type by Harvest Method**



## **Proposed and Next Step Treatments by Method**



Gwinn Mgt. Unit Report 3 -- Treatments

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**Cover Type** Treatment RΔ Treatment Acres Stand Size Stand **Treatment** Age Habitat Name Method Objective CoverType Density Age Range Type Structure Cut

**Approved Treatments:** 

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I**1 32266011-Cut** 4.9 42210 - Natural Sawtimber 95 111- Harvest Crown Thinning 4221 - Natural Even-Aged No Red Pine Well 140 Red Pine

Prescription Thin stand to a residual BA 100 Sq Ft. mark for operability, to improve spacing, remove defective trees, and release crop trees. Cut all

Specs: aspen and Jack pine favor white pine in marking.

Next Step Treatments:

Acceptable Regen:

Other Strive to maintain as much deciduous tree diversity as possible black bear, pileated woodpecker. This stand is Game Fund Purchased

Comment:

Site Condition

Proposed Start Date: 10/1 /2021

16 32266016-Cut 7.5 42220 - Natural 4222 - Natural Poletimber 56 Unspec Harvest Clearcut with Even-Aged No Jack Pine Medium ified Retention Jack Pine

Prescription Cut all trees over 2 inches at DBH. Leave all oak, white pine, and red pine. Use a stump height spec. Leave a small buffer on the west side

<u>Specs:</u> of the stand ensure that underrepresented species are present.

Next Step SitePrep, Trenching; SitePrep, Scarification; Planting, Initial Plant; Planting, Replant; Seeding, Machine Seed; Pesticide, Skidder -

Treatments: Site Prep; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Monitoring, Direct Seedi

Acceptable Jack pine, aspen, oak, mixed conifer, mixed hardwood

Regen:

Other This stand is Game Fund Purchased.

Comment:

Site Condition

Proposed Start Date: 10/1 /2021

42 32266042- 9.0 330 - Low-Density Nonstocked 0 Unspec Planting Initial Plant 42110 - Planted Even-Aged No Plant Trees ified Red Pine

Prescription Red pine at 900 TPA

Specs:

Next Step Monitoring, Artificial Regen(1yr); Pesticide, Skidder - Release; Monitoring, Artificial Regen(3yr)

**Treatments:** 

Acceptable Red pine, spruce, fir

Regen:

Other Percent to Treat = 100%

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

Total Treatment 21.4 Acreage Proposed:

Gwinn Mgt. Unit

Rick Hill: Examiner

Compartment: 266 Year of Entry: 2022

Availa	ability for	Managemer	nt					
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Cond	ditions
Acres	Available	With Condition	Not Available		5B	2H	3J	5E
518	497	0	22	Aspen			20	1
50	21	0	29	Cedar			29	
93	93	0	0	Jack Pine				
37	37	0	0	Low-Density Trees			0	
139	1	0	139	Lowland Conifers			134	5
4	4	0	0	Lowland Shrub				
84	0	0	84	Lowland Spruce/Fir		0	84	
42	0	42	0	Mixed Upland Deciduous	42			
104	82	14	7	Red Pine	14		5	3
13	13	0	0	Upland Mixed Forest				
6	6	0	0	Upland Shrub				
1,091	754	56	281	Total Forested Acres	56	0	273	9
	69%	5%	26%	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)	29	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
3	Available	5B: Maintain for regeneration purposes	42	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	93	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

# **Report 4 – Site Conditions**

Gwinn Mgt. Unit Rick Hill: Examiner

5	Available	5B: Maintain for regeneration purposes	14	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	130	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
9	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
10	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
11	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
12	Unavailable	5E: Long-Term Retention	5	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				

Gwinn Mgt. Unit Compartment: 266



## 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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen condition stocked trout populations and those of other coldwater fish speci conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	es to persist from year to year. Suitable by are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	es (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effect as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well



Stand	I Level 4 C	over Type	;	Size Density	Acres	Stand Age	BA Range	Managed S	ite	General Comments
1	42120 - Pla Canopy Species Jack Pine		Pine S Size Class Sapling	DBH Age 1 17	2.3	17 l	Jnspecified	N/A		Seeded 2003
2	42220 - Nat	tural Jack P	ine P	Poletimber Well	37.6	43	51-80	N/A		Scarified in the fall of 1976 and seeded by helicopter in spring of 1977.
	Canopy Species Bigtooth Aspen Red Pine Jack Pine	% Cover 5 5 90	Size Class Sapling/Pole Pole/Log Sapling/Pole	DBH Age           5           12           6         43						
3	42120 - Pla	nted Jack P	Pine P	Poletimber Well	34.5	34	51-80	N/A		Jack pine poles (just entering this size class), mixed with pockets of
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	aspen. Scattered red pine poles and logs. Stand was cut in 1984, permit #10-82 (Holli Forest Products). Herbicided and trenched in 1985, planted
	Quaking Aspen	10	Sapling/Pole	4		ick Pine	Low	< 5 feet	Sapling	May 1986.
	Red Pine	5	Pole/Log	12				1	'	
	Jack Pine	85	Pole	6 34						
4	42120 - Pla	nted Jack P	Pine P	Poletimber Well	10.6	43	51-80	N/A		Seeded jack pine with scattered red pine logs
	Canopy Species	% Cover	Size Class	DBH Age						
	Red Pine	5	Log	14 95						
	Jack Pine	95	Pole	6 43						
5	42210 - Na	tural Red P	ine S	Sawtimber Well	37.4	76	51-80	N/A		A portion of this stand (north 1/3) was thinned 20 years ago.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	5	XLog/Log	18		ed Maple	Low	5 - 10 feet	Sapling	
	Red Pine	90	Log/XLog	17 76		nite Pine	Low	5 - 10 feet	Sapling	
	Red Oak	2	Log/Pole	12		ed Pine	Low	5 - 10 feet	Sapling	
	Quaking Aspen	3	Pole/Sapling	6	Ja	ick Pine	Low	5 - 10 feet	Sapling	
6	4136 - Asper			Poletimber Well	30.5	40 l	Jnspecified	N/A		
	Canopy Species		Size Class	DBH Age		nopy Species		Avg. Height	Size	
	Quaking Aspen	30	Sapling/Pole	5		te Spruce	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	50	Sapling/Pole	6 40	R	ed Pine	Low	5 - 10 feet	Sapling	
	White Spruce	3	Sapling/Pole	6						
	Red Pine  Jack Pine	5 12	Sapling/Pole Sapling/Pole							
<u> </u>	Jack Fille	12	Sapiniy/F018	5						
7	4130	- Aspen	P	Poletimber Well	40.8	37	1-50	N/A		Mixed aspen stand with red maple in the understory. Scattered red and white pine throughout the stand and some oak seedlings. Stand was cut
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	in 1980-83 by Dave Holli (Permit #5-78) then KG'd in 1983. Where the
	Red Maple	2	Sapling	2	Re	ed Maple	Medium	< 5 feet	Sapling	oak had been cut there is good stump sprout regeneration. The oak
	Quaking Aspen	49	Pole/Sapling Pole/Sapling							sprouts are keeping up with the aspen sprouts.
	Bigtooth Aspen	49		6 37						



Stand	d Level 4 Co	over Type	5	Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
8	4132 - Asp	en, Jack Pii	ne P	oletimb	er Well	30.6	35	1-50	N/A		This stand is a mix of aspen and jack pine with a few scattered remnant
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	red pine saw log size trees. There are a few scattered oaks, spruce, and balsam primarily along the southeast edge. This stand was originally part
	Quaking Aspen	38	Pole	6	35	R	led Pine	Medium	5 - 10 feet	Sapling	of the stand to the west. It was herbicided, trenched and planted but
	Bigtooth Aspen	37	Sapling/Pole	4		Já	ack Pine	Low	5 - 10 feet	Sapling	aspen took over as the dominant tree species.
	Red Pine	5	Log/Pole	16							
	Jack Pine	20	Sapling/Pole	5							
9	3201 - S	weet Fern		Nonsto	cked	5.9			No		
10	4130	- Aspen	P	oletimb	er Well	36.3	35	1-50	N/A		Scattered red and white pine seedlings and saplings. Stand was
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	harvested in 1984-85 by Dave Holli (Permit #9-80). White pine and oak were left.
	Red Oak	2	Log	10		W	hite Pine	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	93	Pole	6	35	R	ted Pine	Medium	5 - 10 feet	Sapling	
	Red Pine	5	Log	12							
11	42210 - Nat	ural Red Pi	ne S	awtimb	er Well	5.0	95 ·	111-140	N/A		Heavy white pine understory. Scattered red pine regen as well. West and is more poles and heavier to jack pine.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	end is more poles and neavier to jack pine.
	Red Maple	2	Pole	6		W	hite Pine	Medium	5 - 10 feet	Sapling	
	Paper Birch	2	Pole	8		R	led Pine	Medium	10 - 20 feet	Sapling	
	Bigtooth Aspen	2	Pole	8							
	White Pine	12	XLog/Log	18							
	Red Pine	78	Log/Pole	18	95						
	Jack Pine	4	Pole	8							
12	4130	- Aspen	Sav	vtimber	Mediur	n 19.8	88	81-110	N/A		Decadent stand of bigtooth aspen that is beginning to fall apart. Mixed
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	conifer's starting to recruit in the understory. Stand is on a steep (45% slope) hillside along Bryan Creek. It is providing a good buffer to the
	Red Maple	3	Pole	6		Re	ed Maple	Medium	5 - 10 feet	Sapling	stream and a wildlife corridor.
	Paper Birch	5	Pole	10		Ва	alsam Fir	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	90	Log	12	88	R	led Pine	Low	5 - 10 feet	Sapling	
	Red Pine	2	Log	14							
13	4130	- Aspen	P	oletimb	er Well	88.1	37	1-50	N/A		Stand has residual oak in the overstory. There are oak stump sprouts throughout that are competing with the aspen and keeping up in terms of
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Inloughout that are competing with the aspen and keeping up in terms of hieght growth. Scattered red and white pine seedlings and saplings
	Red Maple	4	Sapling	3		Re	ed Maple	Medium	5 - 10 feet	Sapling	throughout. Stand was cut in 1980-83 by Dave Holli and KG'd in 1983.
	Red Oak	5	Sapling/Pole	8	102	W	hite Pine	Low	< 5 feet	Sapling	
	Bigtooth Aspen	85	Pole/Sapling	6	37	R	ted Pine	Low	< 5 feet	Sapling	
	White Pine	3	Sapling/Pole	5		Hazelr	nut (Beaked)	Low	< 5 feet	Tall Shrub	
	Red Pine	3	Sapling/Pole	5							



Stand	d Level 4 C	over Type	s	Size De	ensity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
14		- Aspen			Medium	32.2	15	Unspecified	N/A		Stand was cut in fall of 2005 by Gary Gazan Contracting (#114-02-01). It was a shortwood operation. All oak, cherry, red and white pine were left.
	Canopy Species Red Maple	% Cover	Size Class	1	l Age						The residual red pine has seeded and there is a fair amount of red pine
	Red Oak	5	Sapling	10	94						seedlings coming in. Some white pine as well, but no oaks.
	Bigtooth Aspen	75	Log	10	15						
	Red Pine	10	Sapling Sapling/Pole	2	15						
45	6124 - Lowla		, ,		er Well	59.6	110	Unspecified	N/A		SCA=>Potential Old Growth- Bryan Creek runs through this stand (cold
15	Canopy Species		Size Class		l Age		nopy Species	•	Avg. Height	Size	water trout stream).
	Paper Birch	3 3	Pole	8	Age		Isam Fir	Low	5 - 10 feet	Sapling	
	Balsam Poplar	5	Log/Pole	14			k Spruce	Low	5 - 10 feet	Sapling	
	Balsam Fir	10	Pole	8			ng Alder	Medium	5 - 10 feet	Tall Shrub	
	White Spruce	2	Log/Pole	12		10	ig Aldel	Medium	3 - 10 1661	Tall Stilut	1
	Black Spruce	40	Pole	8							
No	orthern White Cedar	40	Log/Pole	12	110						
INC	Title III Willie Cedai	40	Log/T ole	12	110						
16	42220 - Nat	ural Jack P	Pine Pole	etimbe	r Medium	7.9	56	Unspecified	N/A		Mixed stand of jack pine, red maple with lesser components of white
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	blich and oak.
	Red Maple	20	Pole	6		Hazeln	ut (Beaked)	Medium	< 5 feet	Tall Shrub	
	Red Oak	2	Pole	9							
	Paper Birch	3	Pole	7							
	Jack Pine	75	Pole	7	56						
17	330 - Low-l	Density Tre	es	Nonst	ocked	8.5			No		
18	4199 - Other Mixe	d Upland D	eciduous Po	oletimb	er Well	41.6	102	51-80	N/A		There is a trace of white spruce, white pine and big tooth aspen in the
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	canopy. Semi-open to closed canopy. Open where it had been heavier to aspen. There are some oak saplings above 5 feet. Stand was
	Red Oak	50	Log/Pole	11	102	R	ed Oak	Low	< 5 feet	Sapling	harvested in summer of 1993 by Oro Logging (St. John) (Permit #8-92).
	Red Pine	2 5	Sapling/Pole/Lo	g 4		Wł	nite Pine	Low	Variable	Sapling	All oak were left and a 2-inch cutting spec was used on the other species
	Red Maple	22	Sapling	2	26	R	ed Pine	Medium	Variable	Sapling	
	Bigtooth Aspen	14	Sapling	2							-
	Quaking Aspen	10	Sapling	2	26						
	White Pine	2 5	Sapling/Pole/Lo	g 4							
19	4131 - A	spen, Oak	;	Saplin	g Well	12.0	17	Immature	N/A		This stand could be lumped in with the stand immediately adjacent to the
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	southwest. Oak is the same age, though the aspen and red maple are 10 years younger. Stand was cut in 2002 (#115-02-01).
	Red Oak	25	Log/Pole	12			d Maple	Medium	< 5 feet	Sapling	1 10 years younger. Stand was cut in 2002 (#115-02-01).
	Quaking Aspen	30	Sapling	2	17		ring Aspen	High	5 - 10 feet	Sapling	
	Bigtooth Aspen	25	Sapling	2	17		oth Aspen	High	5 - 10 feet	Sapling	
	Red Maple	15	Sapling	2			nite Pine	Low	< 5 feet	Sapling	
	White Pine	5	Sapling	2			ed Pine	Low	< 5 feet	Sapling	
		-					-			1 3	



Stand	d Level 4 Co	over Type	5	Size De	nsity	Acres Star	nd Age B	BA Range	Managed S	ite	General Comments
20	42210 - Nat				Medium		95	81-110	N/A		Mature red pine stand harvested in the winter of 2016-17 by Minerick Logging under 32-111-12-01 Bryan Creek Aspen. The sale was full tree
	Canopy Species		Size Class		Age	Sub-Canopy		Density	Avg. Height	Size	skidded this should provide sufficient scarification.
	Red Oak	2	Pole	8		Red Ma	ple	Low	10 - 20 feet	Sapling	
	Paper Birch	2	Pole	8							
	Red Pine	92	Log/Pole	16	95						
	White Pine	4	Log/Pole	16							
21	4133 - Aspe	n, Mixed P	ine	Sapling	y Well	18.2	17 U	Inspecified	N/A		Harvested summer 2002 by John Heidtman #32-115-02-01, "Sputnik Buck Aspen Sale". Birch seed trees were left as were oak and red and
	Canopy Species	% Cover	Size Class	DBH	Age						white pine. A portion of the stand (south and east) was subsequently
	Red Maple	10	Sapling/Pole	5							herbicided with Tordon (6 qt's/ac., 23 gal's on 15 acres), trenched and
	Red Oak	2	Sapling/Pole	3							planted with red pine in spring 2004. Stand is now a mix of aspen and red
	Quaking Aspen	60	Sapling	2	17						pine regen. Scattered red pine and oak along with red and white pine poles.
	White Pine	2	Sapling/Pole	5							poles.
	Red Pine	26	Sapling/Pole	5	18						
22	4130 -	- Aspen	S	apling N	Medium	10.7	15		N/A		Stand was surveyed in February of 2009 as part of the regen walk through survey. A birch seedtree cut was done here and has failed to
	Canopy Species	% Cover	Size Class	DBH	Age						produce a well stocked stand. It was requested at the time that the TMS
	Red Maple	30	Sapling	1							order a formal regen survey for this stand.
	Quaking Aspen	60	Sapling	1	15						
	Balsam Fir	10	Sapling	1							
23	4130 -	- Aspen	S	apling N	Medium	16.9	26 U	Inspecified	N/A		Variable stand. Type transitions to the south; more jack pine and
	Canopy Species	% Cover	Size Class	DBH	A a a		<u> </u>		A		tamarack on southwest.
					Age	Sub-Canopy	Species	Density	Avg. Height	Size	
1	Quaking Aspen	83	Sapling	3	26	Sub-Canopy Balsam		Medium	Variable	Size Sapling	
	Quaking Aspen Balsam Fir	83 15					Fir				
			Sapling	3		Balsam	Fir	Medium	Variable	Sapling	
	Balsam Fir	15	Sapling Sapling	3 2		Balsam Black Spi	Fir ruce ne	Medium Low	Variable < 5 feet	Sapling Sapling	
24	Balsam Fir Jack Pine	15	Sapling Sapling Sapling	3 2 2		Balsam Black Spi Red Pir Jack Pi	Fir ruce ne ne	Medium Low Low	Variable < 5 feet Variable	Sapling Sapling Sapling	Harvested 2002, TS #32-115-02-01. Birch seed trees, oak and red pine
24	Balsam Fir Jack Pine	15 2 en, Spruce/	Sapling Sapling Sapling	3 2 2 2 apling N	26	Balsam Black Spi Red Pir Jack Pi	Fir ruce ne ne	Medium Low Low Low Low	Variable < 5 feet Variable Variable	Sapling Sapling Sapling	Harvested 2002, TS #32-115-02-01. Birch seed trees, oak and red pine were left.
24	Balsam Fir Jack Pine 4134 - Aspe	15 2 en, Spruce/	Sapling Sapling Sapling Fir Sa	3 2 2 2 apling N	26 Medium	Balsam Black Spi Red Pir Jack Pir	Fir ruce ne ne 18 U	Medium Low Low Low Low	Variable < 5 feet Variable Variable N/A	Sapling Sapling Sapling Sapling	· · · · · · · · · · · · · · · · · · ·
24	Balsam Fir Jack Pine  4134 - Aspe	15 2 en, Spruce/	Sapling Sapling Sapling Fir Sa	3 2 2 2 apling N	26 Medium	Balsam Black Spr Red Pir Jack Pir 20.9  Sub-Canopy	Fir ruce ne ne 18 U Species ple	Medium Low Low Low Density	Variable < 5 feet Variable Variable N/A Avg. Height	Sapling Sapling Sapling Sapling Sapling	· · · · · · · · · · · · · · · · · · ·
24	Balsam Fir Jack Pine  4134 - Aspe  Canopy Species Red Maple	en, Spruce/ % Cover 6	Sapling Sapling Sapling Fir Sa Size Class Sapling	3 2 2 2 apling N DBH	26 Medium	Balsam Black Spi Red Pir Jack Pir 20.9  Sub-Canopy Red Ma	Fir ruce ne ne 18 U Species ple spen	Medium Low Low Low Density Medium	Variable < 5 feet Variable Variable N/A Avg. Height < 5 feet	Sapling Sapling Sapling Sapling Sapling Sapling	· · · · · · · · · · · · · · · · · · ·
24	Balsam Fir Jack Pine  4134 - Aspe  Canopy Species Red Maple Red Oak	15 2 en, Spruce/ % Cover 6 2	Sapling Sapling Sapling Fir Sa Size Class Sapling Pole/Log Sapling	3 2 2 2 apling N DBH 1 12	Medium I Age	Balsam Black Spi Red Pir Jack Pir 20.9  Sub-Canopy Red Mai Quaking A	Fir ruce ne ne 18 U Species ple spen Fir	Medium Low Low Low Mnspecified Density Medium Medium	Variable < 5 feet Variable Variable N/A Avg. Height < 5 feet < 5 feet	Sapling Sapling Sapling Sapling Sapling Size Sapling Sapling Sapling	· · · · · · · · · · · · · · · · · · ·
24	Balsam Fir Jack Pine  4134 - Aspe  Canopy Species Red Maple Red Oak Quaking Aspen	15 2 en, Spruce/ % Cover 6 2 70	Sapling Sapling Sapling Fir Si Size Class Sapling Pole/Log	3 2 2 2 apling N DBH 1 12 2	Medium I Age	Balsam Black Spi Red Pir Jack Pi  20.9  Sub-Canopy Red Ma Quaking A Balsam	Fir ruce ne ne 18 U Species ple spen Fir	Medium Low Low Low Mnspecified Density Medium Medium Medium	Variable < 5 feet Variable Variable N/A  Avg. Height < 5 feet < 5 feet < 5 feet	Sapling Sapling Sapling Sapling Sapling Sapling Size Sapling Sapling	· · · · · · · · · · · · · · · · · · ·
24	Balsam Fir Jack Pine  4134 - Aspe  Canopy Species Red Maple Red Oak Quaking Aspen Balsam Fir	15 2 en, Spruce/ % Cover 6 2 70 20 2	Sapling Sapling Sapling Fir Sa Size Class Sapling Pole/Log Sapling Sapling Log	3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Medium Age	Balsam Black Spi Red Pir Jack Pil 20.9  Sub-Canopy Red Mal Quaking A Balsam Red Pir	Fir ruce ne ne 18 U Species ple spen Fir	Medium Low Low Low Mnspecified Density Medium Medium Medium	Variable < 5 feet Variable Variable N/A  Avg. Height < 5 feet < 5 feet < 5 feet	Sapling Sapling Sapling Sapling Sapling Size Sapling Sapling Sapling	Stand was thinned in 2014 by bell timber. under sale 32-110-12-01
	Balsam Fir Jack Pine  4134 - Aspe  Canopy Species Red Maple Red Oak Quaking Aspen Balsam Fir Red Pine	15 2 en, Spruce/ % Cover 6 2 70 20 2	Sapling Sapling Sapling Fir Si Size Class Sapling Pole/Log Sapling Sapling Log ine S	3   2   2   2	Medium Age	Balsam Black Spi Red Pir Jack Pil 20.9  Sub-Canopy Red Mal Quaking A Balsam Red Pir	Fir ruce ne ne 18 U Species ple sspen Fir ne 76	Medium Low Low Low Mnspecified Density Medium Medium Medium Medium Medium Medium	Variable < 5 feet Variable Variable  N/A  Avg. Height < 5 feet < 5 feet < 5 feet < 5 feet	Sapling Sapling Sapling Sapling Sapling Size Sapling Sapling Sapling	were left.
	Balsam Fir Jack Pine  4134 - Aspe  Canopy Species  Red Maple  Red Oak  Quaking Aspen  Balsam Fir  Red Pine  42210 - Nate	15 2 en, Spruce/ % Cover 6 2 70 20 2 2 ural Red P	Sapling Sapling Sapling Fir Si Size Class Sapling Pole/Log Sapling Sapling Log ine S	3   2   2   2	Medium Age 18	Balsam Black Spi Red Pir Jack Pi  20.9  Sub-Canopy Red Ma Quaking A Balsam Red Pir	Fir ruce ne ne 18 U Species ple spen Fir ne 76 Species	Medium Low Low Low Mnspecified Density Medium Medium Medium Medium Medium Medium	Variable < 5 feet Variable Variable  N/A  Avg. Height < 5 feet < 5 feet < 5 feet < 5 feet	Sapling Sapling Sapling Sapling Size Sapling Sapling Sapling Sapling Sapling	Stand was thinned in 2014 by bell timber. under sale 32-110-12-01
	Balsam Fir Jack Pine  4134 - Aspe  Canopy Species  Red Maple  Red Oak  Quaking Aspen  Balsam Fir  Red Pine  42210 - Nate  Canopy Species	15 2 en, Spruce/ % Cover 6 2 70 20 2 2 ural Red P	Sapling Sapling Sapling Fir Si Size Class Sapling Pole/Log Sapling Sapling Log ine S Size Class	3   2   2   2	Medium  Age  18  er Well  Age	Balsam Black Spi Red Pir Jack Pi  20.9  Sub-Canopy Red Mai Quaking A Balsam Red Pir  35.9  Sub-Canopy	Fir ruce ne ne 18 U Species ple species ple Species ple	Medium Low Low Low Medium	Variable < 5 feet Variable Variable  N/A  Avg. Height < 5 feet < 5 feet < 5 feet < 5 feet Avg. Height	Sapling Sapling Sapling Sapling Size Sapling Sapling Sapling Sapling Sapling Sapling	Stand was thinned in 2014 by bell timber. under sale 32-110-12-01
	Balsam Fir Jack Pine  4134 - Aspe  Canopy Species Red Maple Red Oak Quaking Aspen Balsam Fir Red Pine  42210 - Nate  Canopy Species White Pine	15 2 en, Spruce/ % Cover 6 2 70 20 2 2 ural Red P % Cover 5	Sapling Sapling Sapling Fir Size Class Sapling Pole/Log Sapling Sapling Log ine S Size Class XLog/Log	3   2   2   2	Medium  Age  18  er Well  Age	Balsam Black Spi Red Pir Jack Pi  20.9  Sub-Canopy Red Ma Quaking A Balsam Red Pir  35.9  Sub-Canopy Red Ma	Fir ruce ne ne 18 U Species ple species ple ine 19 Species ple ine	Medium Low Low Low Medium	Variable < 5 feet Variable Variable  N/A  Avg. Height < 5 feet < 5 feet < 5 feet < 5 feet	Sapling Sapling Sapling Sapling Size Sapling Sapling Sapling Sapling Sapling Sapling Sapling	Stand was thinned in 2014 by bell timber. under sale 32-110-12-01

7 - Stands Compartment: 266
Year of Entry: 2022



Stand	Level 4 C	over Type	S	Size De	nsity	Acres	Stand Age	BA Range	Managed S	iite	General Comments
26	42210 - Nat	tural Red Pi	ine Sav	vtimbe	Medium	14.3	93	81-110	N/A		Mature red pine stand harvested in the winter of 2016-17 by Minerick
	Canopy Species	% Cover	Size Class	DBH	Age						Logging under 32-111-12-01 Bryan Creek Aspen. Logging should provide sufficient scarification. The Rx was modified though chapter 7 to allow
	Red Pine	75	Log/Pole	16	93						for under planting of red pine to fill in gaps.
	White Pine	25	Log/Pole	16							Stand was selectively cut in 2002 TS#115-02-01. All the red maple, birch
											and any aspen were removed from this stand as well as merchantable spruce and fir.
27	4319 - Mixed	d Upland Fo	rest Po	oletimb	er Poor	12.6	27	Immature	N/A		This stand is the result of a failed birch seed tree harvest. It is poorly
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	stocked with red pine, balsam fir and white spruce. An occassional pocket of aspen exists. There is no white birch regen. Stand was cut in
	Paper Birch	2	Pole/Log	8		Re	ed Maple	Low	5 - 10 feet	Sapling	1993 by Oro Logging, permit #8-92.
	Quaking Aspen	42	Sapling	3	27	Ва	alsam Fir	Low	5 - 10 feet	Sapling	, , , , , , , , , , , , , , , , , , , ,
	Balsam Fir	34	Pole/Sapling	6	27	R	ed Pine	Low	5 - 10 feet	Sapling	
	White Spruce	6	Sapling/Pole	6							
	Red Pine	16	Pole/Sap/Log	7							
28	6120 - Lo	wland Ceda	ar Pole	etimbe	Medium	21.2	102	Unspecified	N/A		Corridor along creek. Providing a good buffer. Scattered overstory
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	(supercanopy) white pine. Stand contains both white pine and white bird (pine being more in the north part of stand).
	Paper Birch	15	Pole/Log	8		Ва	alsam Fir	High	Variable	Sapling	(pine boing more in the north part of ottains).
	Balsam Fir	10	Pole	8		Bla	ck Spruce	High	< 5 feet	Sapling	
	Black Spruce	10	Pole	8		T	ag Alder	Medium	< 5 feet	Tall Shrub	
No	rthern White Cedar	60	Log/Pole	10	102			,			-
	White Pine	5	Log/Pole	16							
29	6122 - Bl	lack Spruce	e Pole	etimbe	Medium	84.4	96	81-110	N/A		Black spruce with scattered tamarack. Aspen and white birch occur
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	along the edge (northwest and south) of stand (transition zone). Riddled with water. Springs and creeks throughout the stand. Standing frozen
	Paper Birch	2	Pole	8		Bla	ck Spruce	Low	5 - 10 feet	Sapling	water throughout the stand inbetween grass hummocks. Lots of deer
	Quaking Aspen	2	Pole/Log	8				,		1	movement through the stand.
	Black Spruce	85	Pole	7	96						
	Tamarack	6	Pole	8							
	Balsam Fir	5	Pole	6							
30	4130	- Aspen	;	Sapling	y Well	80.8	31	1-50	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Red Maple	2	Sapling	2		Re	ed Maple	Medium	< 5 feet	Sapling	
	Red Oak	2	Sapling	1		F	Red Oak	Medium	< 5 feet	Sapling	
	Quaking Aspen	30	Sapling/Pole	4		Qua	king Aspen	Low	< 5 feet	Sapling	
	Bigtooth Aspen	57	Sapling/Pole	4	31	R	led Pine	Medium	< 5 feet	Sapling	
	Balsam Fir	2	Sapling	2				'			-
	White Spruce	2	Sapling	2							

Red Pine

Sapling/Pole

5

3



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
31	4130 -	- Aspen		Sapling N	/ledium	80.4	6	Immature	N/A		6-7 stick aspen, almost appears to be 2 stands from past cutting
	Canopy Species	% Cover	Size Class	DBH	Age						practices. Diameter's range from 8-14". A small portion of this stand on the east end was a separate POG stand at last entry. It has been
	Balsam Poplar	15	Sapling	1							encompassed in this stand but removed from the treatment layer.
	Quaking Aspen	85	Sapling	1	6						
32	6120 - Low	vland Ceda	ar	Poletimb	er Well	29.1	111	201+	N/A		No understory. Typical cedar stand. Would be good SCA; riddled with water and lots of deer movement through this stand at this time. Fairly
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	nice cedar. Stream runs through this stand and was POG last time
	Paper Birch	2	Pole	8		Ва	lsam Fir	Low	< 5 feet	Sapling	(stream corridor was).
	Balsam Poplar	5	Pole/Log	10							
	Balsam Fir	3	Pole	6							
	Black Spruce	5	Pole	8							
Nor	thern White Cedar	85	Pole/Log	12	111						
33	6123 - Lo	owland Fir		Sapling	Poor	45.3	36	1-50	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Balsam Poplar	10	Pole	6		Ta	ag Alder	Jnspecifie	5 - 10 feet	Tall Shrub	
	Tamarack	10	Unspecifie	d 8							-
Nor	thern White Cedar	10	Pole	8							
	Balsam Fir	60	Sapling	3	36						
	Black Spruce	10	Sapling/Pol	e 4							
34	6220 - Al	lder/willow		Nonsto	cked	4.5	0		No		
35	6124 - Lowla	ind Spruce	-Fir	Poletimb	er Well	34.6	110	Unspecified	N/A		Bryan Creek runs through this stand (cold water trout stream).
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Paper Birch	3	Pole	8		Ва	lsam Fir	Low	5 - 10 feet	Sapling	
	Balsam Poplar	5	Log/Pole	14		Blac	ck Spruce	Low	5 - 10 feet	Sapling	
	Balsam Fir	10	Pole	8		Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub	
	White Spruce	2	Log/Pole	12							
	Black Spruce	40	Pole	8							
Nor	thern White Cedar	40	Log/Pole	12	110						
36	42210 - Nati	ural Red Pi	ine	Sawtimb	er Well	7.4	95	111-140	N/A		Mature red pine stand with scattered big tooth apsen, white birch, red oa
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	and red maple. Aspen are in clone pockets. Trace of white pine seedlings in this stand as well.
	Red Maple	2	Pole	6			ed Maple	Low	10 - 20 feet	Sapling	
	Red Oak	2	Pole	8							•
	Paper Birch	2	Pole	8							
			Dala/Las	40							
ı	Bigtooth Aspen	2	Pole/Log	12							
l	Bigtooth Aspen Red Pine	92	Log/Pole	16	95						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
40	330 - Low-Density Trees	Nonstocked	1.1	0		No	Stand has residual oak in the overstory. There are oak stump sprouts throughout that are competing with the aspen and keeping up in terms of hieght growth. Scattered red and white pine seedlings and saplings throughout. Stand was cut in 1980-83 by Dave Holli and KG'd in 1983.
41	330 - Low-Density Trees	Nonstocked	2.2	0		No	
42	330 - Low-Density Trees	Nonstocked	9.2	0	Unspecified	4211 - Planted Red Pine	This stand was harvested in the spring of 2016 by Minerick Logging under 32-111-12-01 Bryan Creek Aspen. This site will be trenched and planted to red pine under C32-896.  This stand is the result of a failed birch seed tree harvest. It is poorly stocked with red pine, balsam fir and white spruce. An occassional pocket of aspen exists. There is no white birch regen. Stand was cut in 1993 by Oro Logging, permit #8-92.
43	330 - Low-Density Trees	Nonstocked	2.5	0		No	
44	330 - Low-Density Trees	Nonstocked	2.3	0		No	
45	330 - Low-Density Trees	Nonstocked	1.2	0		No	Stand has residual oak in the overstory. There are oak stump sprouts throughout that are competing with the aspen and keeping up in terms of hieght growth. Scattered red and white pine seedlings and saplings throughout. Stand was cut in 1980-83 by Dave Holli and KG'd in 1983.
46	330 - Low-Density Trees	Nonstocked	1.2	0		No	Harvested 2002, TS #32-115-02-01. Birch seed trees, oak and red pine were left.
48	330 - Low-Density Trees	Nonstocked	2.4	0		No	Stand was cut in fall of 2005 by Gary Gazan Contracting (#114-02-01). It was a shortwood operation. All oak, cherry, red and white pine were left. The residual red pine has seeded and there is a fair amount of red pine seedlings coming in. Some white pine as well, but no oaks.
49	330 - Low-Density Trees	Nonstocked	2.3	0		No	