

Compartment Review Presentation

Gwinn Forest Management Unit

Compartment 32252 Entry Year 2024 Acreage: 1,151

County Marquette

Management Area: Chain Lakes Moraine

Stand Examiner: Rick Hill

Legal Description:

T46N-R27W, Sections 28, 33.

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.

Soil and topography:

Soils range from sandy in the north to loamy sands to sandy loams in the south. Some organic peat and muck soils occur in smaller wetland areas. Topography ranges from level to rolling to moderately hilly.

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

This compartment is primarily surrounded by State land; however, it has some non-industrial lands adjacent to and inside its boundary. Land use around the area is passive recreation and forest production.

Unique Natural Features:

No known features.

Archeological, Historical, and Cultural Features:

No Known sites.

Special Management Designations or Considerations:

Other then cold water RMZs none are present.

Watershed and Fisheries Considerations:

This compartment contains two unnamed streams that serve as tributaries to the Middle Branch Escanaba River. The two unnamed streams are designated Type 1 trout streams less than 50' width with a predicted mean July temperature that ranges from 56.8 to 57.9°F (cold streams). 300' buffers are recommended for these unnamed streams 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 252 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

Compartment 252 Sections 3-4, T45N-R27W and sections 28 & 33, T46N-R27W, Marquette County No known potential exists for commercial oil & gas production in this part of the state. No known active sand/gravel pits occur in the area, but there appears to be some good potential for sand & gravel within the compartment. Empire and Tilden iron mines are more than five miles north, but there does not appear to be potential for iron ore beneath the compartment. There is no known potential for other metallic minerals beneath the compartment, but detailed geologic mapping is lacking, and no known ground-based exploration has occurred. No recent State mineral leasing activity has occurred 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:

Road access to this compartment is good. The Hemmings Lake Road is the primary travel route with two track branching off of it accessing most of the compartment.

Survey Needs:

Any needed survey requests will be summitted after the compartment review.

Recreational Facilities and Opportunities:

There are no developed recreational facilities in this area there are no current opportunities to expand recreation facilities. Primary recreation uses for this area include hunting, fishing and berry picking.

Fire Protection:

soils and forest types give this area a moderate fire risk. while topography is hilly all areas are accessible by mechanized fire equipment.

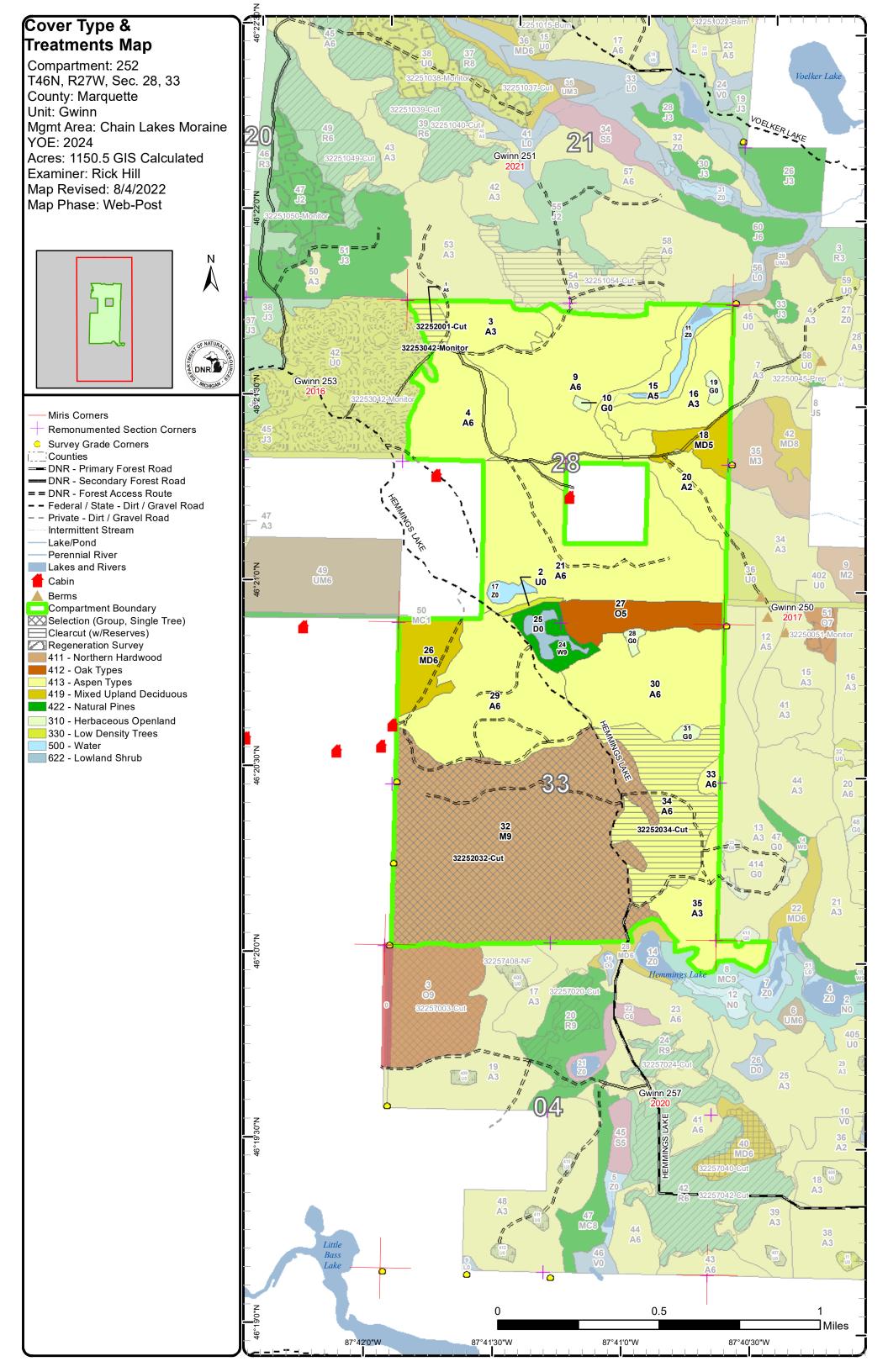
Additional Compartment Information:

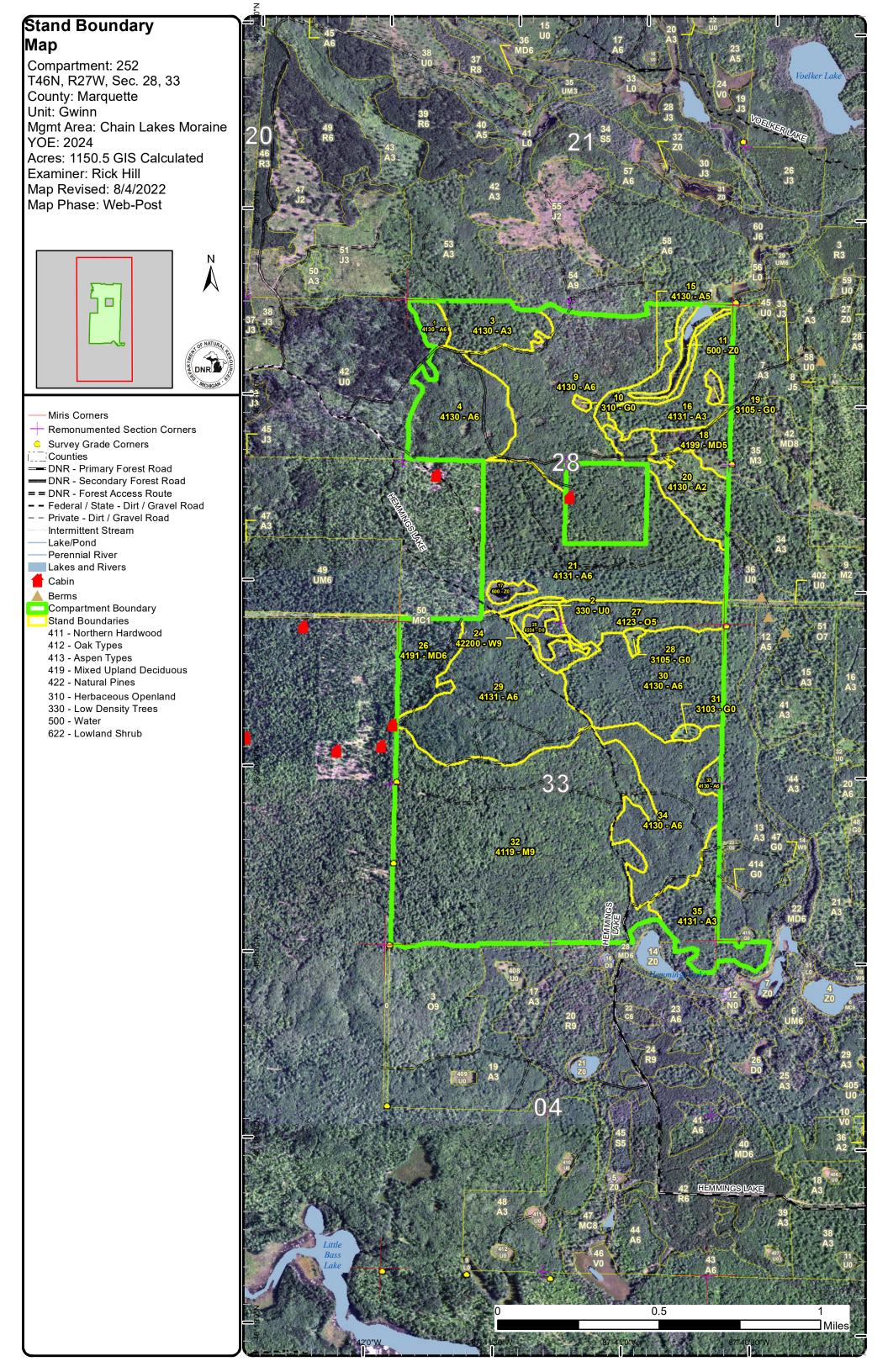
The following reports from the Inventory are attached:

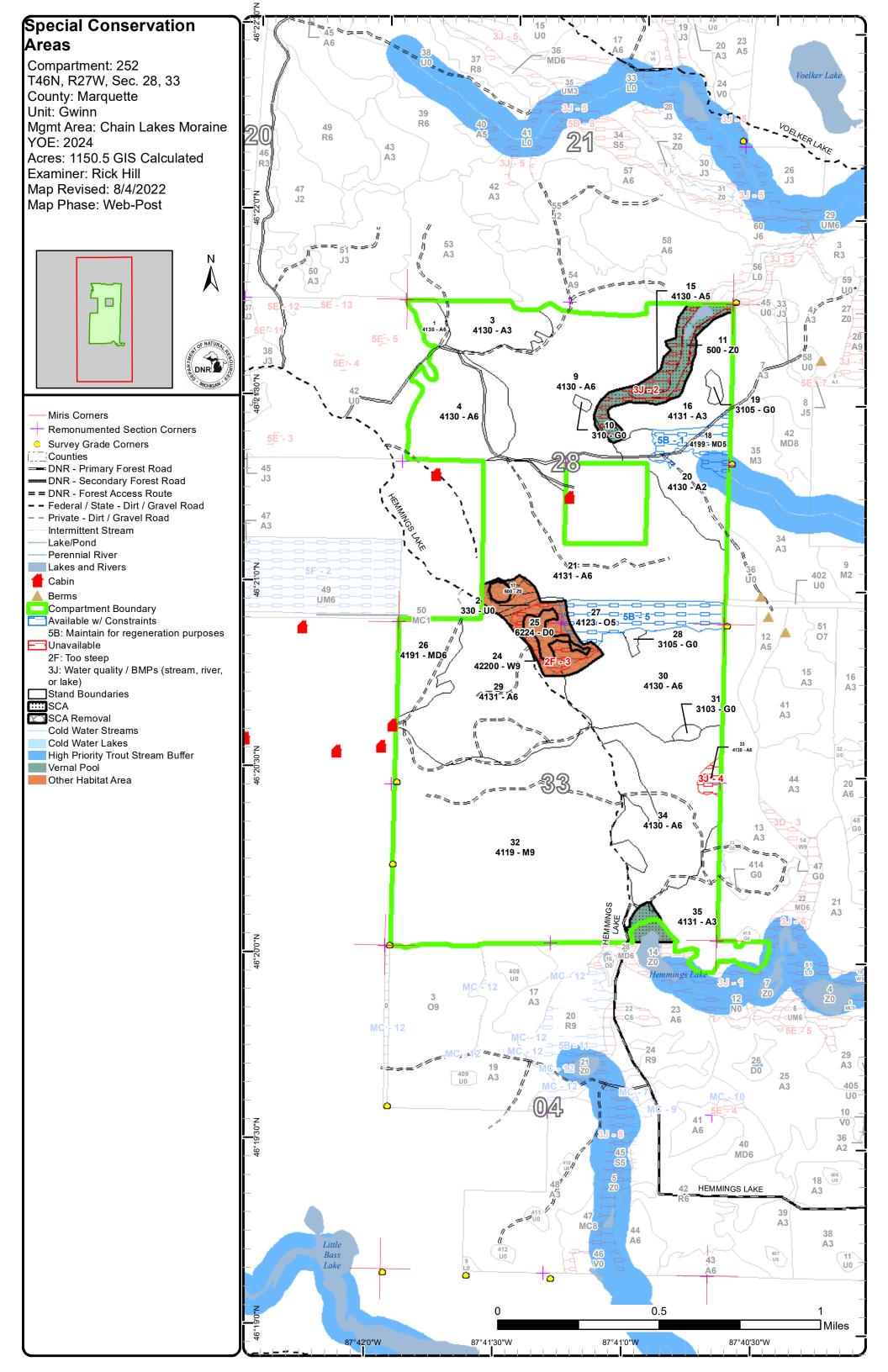
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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 252 Year of Entry 2024

Gwinn Mgt. Unit Rick Hill: Examiner



Age Class

	Į go		3 / 2		g g	3 / 12	a k	3/8	\$ / R	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	a a	S Id	70,	Q /S		\$ \$	No. of	gr Jug	No. of the second	
Aspen	0	0	73	285	176	112	77	0	0	0	22	0	0	0	0	0	0	0	744	ĺ
Herbaceous Openland	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	l
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	l
Mixed Upland Deciduous	0	0	0	29	0	0	0	0	0	17	0	0	0	0	0	0	0	0	46	l
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	288	0	0	0	0	0	0	288	l
Oak	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	31	l
Treed Bog	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	l
Water	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	l
White Pine	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12	l
Total	30	0	73	314	176	112	77	0	0	17	65	288	0	0	0	0	0	0	1150	



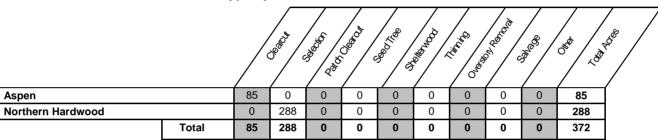
Report 2 – Treatment Summary

Gwinn Mgt. Unit

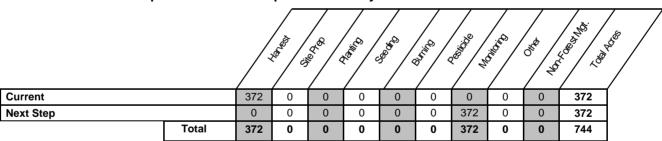
Compartment 252 Year of Entry: 2024 **Total Compartment Acres: 1,151 Acres of Harvest**

> Commercial Harvest - 372 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 Compartment: 252 s Year of Entry: 2024 t а **Cover Type Treatment** Size RΔ Treatment Acres Stand Stand **Treatment** Age Habitat n Name Method Objective CoverType Density Age Range Type Structure Cut d **Proposed Treatments:** 32252001-Cut 7.6 4130 - Aspen Poletimber 49 1-50 Harvest Clearcut with 413 - Aspen Even-Aged No Well Retention Prescription Cut all trees two inches and up leaving only cedar, oak, hemlock, white pine, and red pine. Specs: Monitoring, Natural Regen (Re-Inventory) Next Step **Treatments:** Acceptable Aspen Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2023 32 32252032-Cut 287.6 4119 - Mixed Sawtimber 105 111-Harvest Single Tree 411 - Northern Uneven-No Northern Hardwoods Well 140 Selection Hardwood Aged Prescription Cut using a selection system, target a residual of 80 sq ft where maple dominates and 70 Sq Ft where oak dominates, use the residual numbers to figure out where future management should be oak or maple. Specs: Mark using the complete marker as a guide. Per the complete marker mark to increase the prevalence of lesser occurring species including hemlock, white pine, yellow birch, and black cherry. Monitoring, Natural Regen (Re-Inventory) Next Step Treatments: Acceptable maple, oak, aspen, birch, spruce, fir Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2023 32252034-Cut Poletimber 54 81-110 Harvest Clearcut with No 77.0 4130 - Aspen 413 - Aspen Even-Aged Well Retention Prescription Cut all trees two inches and up leaving only cedar, oak, hemlock, white pine, and red pine. Area retention should include large forked big Specs: Monitoring, Natural Regen (Re-Inventory) Next Step **Treatments:**

Acceptable Aspen, spruce, fir, mixed hardwood.

Regen: Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023

Total Treatment 372.2 Acreage Proposed:

Gwinn Mgt. Unit

Rick Hill: Examiner

Compartment: 252 Year of Entry: 2024

Availa	ability for	Management	:	
Total	Acres	Acres Avail	Acres	Dominant Site Conditions
Acres	Available	With Condition	Not Available	5B 2F 3J

744	720	0	24	Aspen			24
8	8	0	0	Herbaceous Openland			
2	2	0	0	Low-Density Trees			
46	29	17	0	Mixed Upland Deciduous	17		
288	288	0	0	Northern Hardwood			
31	0	31	0	Oak	31		
7	7	0	0	Treed Bog			
12	12	0	0	Water			0
12	0	0	12	White Pine		12	
1,151	1,065	49	37	Total Forested Acres	49	12	24
	93%	4%	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	Available	5B: Maintain for regeneration purposes	17	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	20	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: SCA = Riparian zon	e protection.					
3	Unavailable	2F: Too steep	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 4 – Site Conditions

Gwinn Mgt. Unit

Compartment: 252 Year of Entry: 2024 Rick Hill: Examiner

4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Available	5B: Maintain for regeneration purposes	31	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: 252
Year of Entry 2024



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.

Conservation 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 condistocked 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 documentities 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				



an	d Level 4 C	Level 4 Cover Type		Size Density		Density Acres Stand Age BA			Managed 9	Site	General Comments		
1	4130	- Aspen	F	Poletimb	er Well	7.6	49	1-50	N/A		KG bladed in 1973 to regenerate aspen.		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	s Density	Avg. Height	Size			
	Quaking Aspen	70	Pole	6	49	Chol	ke Cherry	Low	5 - 10 feet	Tall Shrub			
	Red Oak	12	Pole/Log	12		Hazeln	ut (Beaked)	Low	5 - 10 feet	Tall Shrub			
	Bigtooth Aspen	15	Pole	6		Re	ed Oak	Low	5 - 10 feet	Sapling			
	Red Maple	3	Pole	5		Re	d Maple	Medium	10 - 20 feet	Sapling			
2	330 - Low-l	Density Tre	es	Nonst	ocked	2.0	0	Unspecified	No		Old Elf line		
3	4130	- Aspen		Saplin	g Well	27.5	26	Unspecified	N/A		Harvested in 1996: TS# 7-64. Two storied stand.		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cai	nopy Species	s Density	Avg. Height	Size			
	Red Maple	15	Sapling	2			d Maple	High	5 - 10 feet	Sapling			
	Red Oak	13	Pole/Log	10		Hazeln	ut (Beaked)	Low	< 5 feet	Tall Shrub			
	Jack Pine	2	Sapling	2		Re	ed Oak	Low	< 5 feet	Sapling			
	Bigtooth Aspen	55	Sapling	2	26				1				
	Quaking Aspen	15	Sapling	2									
4	4130	- Aspen	F	Poletimb	er Well	57.1	36	1-50	N/A		Harvested in 1986: TS# 011-84-2.		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cai	nopy Species	s Density	Avg. Height	Size			
	Quaking Aspen	25	Pole/Sapling	5			ed Oak	Low	5 - 10 feet	Sapling			
	Red Oak	10	Log/Pole	13		Hazeln	ut (Beaked)	Medium	5 - 10 feet	Tall Shrub			
	Bigtooth Aspen	50	Pole/Sapling	5	36	Re	d Maple	High	10 - 20 feet	Sapling			
	Jack Pine	5	Sapling/Pole	5				'	1				
	Red Maple	10	Sapling	4									
9	4130	- Aspen	F	Poletimb	er Well	118.9	36	1-50	N/A		Harvested in 1986: TS# 011-84-01.		
	Canopy Species	% Cover	Size Class	DBH	H Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size			
	Red Oak	10	Pole/Log	10			ck Pine	Low	5 - 10 feet	Sapling			
	Red Pine	2	Log	14			ut (Beaked)	Low	< 5 feet	Tall Shrub			
	Quaking Aspen	68	Pole	6	36	Re	d Maple	High	10 - 20 feet	Sapling			
	Red Maple	5	Pole	5		Chol	ke Cherry	Medium	5 - 10 feet	Tall Shrub			
	Jack Pine	15	Pole	5									
10	310 - Herbac	eous Open	land	Nonst	ocked	1.1			No				
							nopy Species		Avg. Height	Size			
						Re	ed Oak	Low		Log			
11	500 -	- Water		Nonst	ocked	8.2	0		No		SCA = Riparian zone protection.		



Stand	Level 4 Co	over Type	S	ize De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
15		- Aspen	Pole	timbei	Mediun	n 17.9	97	51-80	N/A		
	Canopy Species	% Cover		_	Age		nopy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	40	Pole	8	97		oth Aspen	Low	10 - 20 feet	Sapling	
	White Pine	7	Log/Pole	13			nite Pine	Medium	10 - 20 feet	Sapling	
	Jack Pine	3	Pole	9		R	ed Pine	Low	>20 feet	Pole	
	Red Pine	3	Log/Pole	13		R	ed Oak	Low	< 5 feet	Sapling	
	Paper Birch	17	Pole	7		Re	d Maple	Medium	5 - 10 feet	Sapling	
	Red Oak	10	Pole/Log	10							
	Quaking Aspen	20	Pole	8							
16	4131 - A	spen, Oak	5	Sapling	y Well	36.6	27		N/A		Harvested in 1995: TS# 14-94.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Pine	3	Log/Pole	14		WI	nite Pine	Low	5 - 10 feet	Sapling	
	White Pine	5	Pole/Log/Sap	11		Ja	ck Pine	Low	5 - 10 feet	Sapling	
	Red Oak	20	Pole/Log/Sap	10		Hazelr	ut (Beaked)	Medium	5 - 10 feet	Tall Shrub	
	Quaking Aspen	35	Sapling	2	27	R	ed Oak	Low	< 5 feet	Sapling	
	Bigtooth Aspen	20	Sapling	2		Re	d Maple	High	5 - 10 feet	Sapling	
	Red Maple	17	Sapling	1							•
17	500 -	Water	1	Vonsto	cked	4.3			No		
						Sub-Ca	nopy Species	Density	Avg. Height	Size	
						Blad	ck Spruce	Medium		Sapling	
							ck Spruce marack	Medium Medium		Sapling Sapling	
18	4199 - Other Mixe	d Upland D	eciduous Pole	timbei	· Mediun	Та			N/A		Cut as part of Saw-whit ELF by Sanville Logging 32-109-16-01
18	4199 - Other Mixe		eciduous Pole		Mediun	Та	marack	Medium	N/A		Cut as part of Saw-whit ELF by Sanville Logging 32-109-16-01
18						Та	marack	Medium	N/A		Cut as part of Saw-whit ELF by Sanville Logging 32-109-16-01
18	Canopy Species	% Cover	Size Class	DBH	Age	Та	marack	Medium	N/A		Cut as part of Saw-whit ELF by Sanville Logging 32-109-16-01
18	Canopy Species Quaking Aspen	% Cover 30	Size Class Sapling	DB H	Age	Та	marack	Medium	N/A		Cut as part of Saw-whit ELF by Sanville Logging 32-109-16-01
18	Canopy Species Quaking Aspen Red Maple	% Cover 30 30 40	Size Class Sapling Sapling Pole/Log	1 1	2 80	Та	80	Medium	N/A Managed Op	Sapling	Cut as part of Saw-whit ELF by Sanville Logging 32-109-16-01
	Canopy Species Quaking Aspen Red Maple Red Oak	% Cover 30 30 40	Size Class Sapling Sapling Pole/Log	1 1 1 8	2 80	Ta n 17.3	80	1-50		Sapling	Cut as part of Saw-whit ELF by Sanville Logging 32-109-16-01
	Canopy Species Quaking Aspen Red Maple Red Oak	% Cover 30 30 40	Size Class Sapling Sapling Pole/Log	1 1 1 8	2 80	17.3 n 17.3 2.5 Sub-Ca	80 U	1-50	Managed Op	Sapling	Cut as part of Saw-whit ELF by Sanville Logging 32-109-16-01
	Canopy Species Quaking Aspen Red Maple Red Oak 3105 - Mixed Up	% Cover 30 30 40	Size Class Sapling Sapling Pole/Log aceous	DBH 1 1 8	2 80	17.3 n 17.3 2.5 Sub-Ca	80 Unopy Species ed Oak	1-50 nspecified Density	Managed Op	Sapling Dening Size	Stand was cut in the fall of 2013, Double Camera Aspen sale # 304-11-
19	Canopy Species Quaking Aspen Red Maple Red Oak 3105 - Mixed Up	% Cover 30 30 40 Dland Herba	Size Class Sapling Sapling Pole/Log aceous	DBH 1 1 8 Nonsto	Age 2 80	2.5 Sub-Ca	80 Unopy Species ed Oak	nspecified Density Low	Managed Op	Sapling Dening Size	Stand was cut in the fall of 2013, Double Camera Aspen sale # 304-11-01. Red oak was left for retention. Some areas have heavier oak
19	Canopy Species Quaking Aspen Red Maple Red Oak 3105 - Mixed Up	% Cover 30 30 40 Dland Herba	Size Class Sapling Sapling Pole/Log accous	DBH 1 1 8 Nonsto	Age 2 80 socked	2.5 Sub-Ca	80 Unopy Species ed Oak	nspecified Density Low	Managed Op	Sapling Dening Size	Stand was cut in the fall of 2013, Double Camera Aspen sale # 304-11-
19	Canopy Species Quaking Aspen Red Maple Red Oak 3105 - Mixed Up	% Cover 30 30 40 Dland Herba - Aspen % Cover	Size Class Sapling Sapling Pole/Log aceous Saceous	DBH 1 1 8 Nonsto	Age 2 80 ocked	2.5 Sub-Ca	80 Unopy Species ed Oak	nspecified Density Low	Managed Op	Sapling Dening Size	Stand was cut in the fall of 2013, Double Camera Aspen sale # 304-11-01. Red oak was left for retention. Some areas have heavier oak
19	Canopy Species Quaking Aspen Red Maple Red Oak 3105 - Mixed Up 4130 Canopy Species Quaking Aspen	% Cover 30 30 40 20 20 20 20 20 20 20 20 20 20 20 20 20	Size Class Sapling Sapling Pole/Log aceous Sapling Sa	DBH 1 1 8 Nonsto	Age 2 80 ocked	2.5 Sub-Ca	80 Unopy Species ed Oak	nspecified Density Low	Managed Op	Sapling Dening Size	Stand was cut in the fall of 2013, Double Camera Aspen sale # 304-11-01. Red oak was left for retention. Some areas have heavier oak
19	Canopy Species Quaking Aspen Red Maple Red Oak 3105 - Mixed Up 4130 Canopy Species Quaking Aspen White Pine	% Cover 30 30 40 20 20 20 20 20 20 20 20 20 20 20 20 20	Size Class Sapling Sapling Pole/Log aceous Sa Size Class Sapling Log/Pole	DBH 1 1 8 Nonsto	Age 2 80 ocked	2.5 Sub-Ca	80 Unopy Species ed Oak	nspecified Density Low	Managed Op	Sapling Dening Size	Stand was cut in the fall of 2013, Double Camera Aspen sale # 304-11-01. Red oak was left for retention. Some areas have heavier oak



ınc	d Level 4 C	over Type	,	Size De	nsity	Acres Sta	nd Age BA	Range	Managed S	Site	General Comments
21	4131 - A	Aspen, Oak	Р	oletimb	er Well	135.9	25	1-50	N/A		Harvested in 1997: TS# 1147-94-01.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy	y Species	Density	Avg. Height	Size	
	Bigtooth Aspen	45	Sapling	2	25	Red Ma	aple	Medium	< 5 feet	Sapling	
	White Pine	7	Pole/Log	10		Quaking A	Aspen	Low	< 5 feet	Sapling	
	Red Maple	3	Sapling	1		White F	Pine	Low	< 5 feet	Sapling	
	Quaking Aspen	15	Sapling	2							•
	Red Oak	30	Log/Pole	12							
24	42200 - Nati	ural White F	Pine S	awtimb	er Well	12.4	97 1	11-140	N/A		Steep hill going into to bog good area to have larger older habitat.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy	y Species	Density	Avg. Height	Size	
	Red Maple	3	Pole	8		Red O	ak	Low	10 - 20 feet	Sapling	
	White Spruce	2	Pole	10		Paper B	Birch	Low	>20 feet	Sapling	
	Bigtooth Aspen	10	Pole	10		Balsam	Fir	Medium	10 - 20 feet	Sapling	
	Quaking Aspen	5	Pole	10		Hazelnut (E	Beaked)	Low	5 - 10 feet	Tall Shrub	
	Red Pine	5	Log	15		Red Ma	aple	Medium	>20 feet	Sapling	
	White Pine	70	Log/Pole	15	97	White F	Pine	Low	5 - 10 feet	Sapling	
	Paper Birch	5	Pole	8							
25	6224	Treed Bog		Nonsto	cked	6.7			No		
						Sub Canani	. 0 !				
						Sub-Canopy	y Species	Density	Avg. Height	Size	
						White F		Density Medium	Avg. Height	Size Sapling	
							Pine		Avg. Height		
26	4191 - Mixed Upl Co	and Deciduo	ous with P	oletimb		White F Tamara	Pine	Medium	Avg. Height N/A	Sapling	Cut in 1997: TS# 16-94. Two storied stand.
26	Canopy Species		Size Class	DBH	er Well	White F Tamara	Pine ack 28	Medium Medium		Sapling Sapling Size	Cut in 1997: TS# 16-94. Two storied stand.
26	Co	onifer			Age	White F Tamara 29.1 Sub-Canopy Red Ma	Pine ack 28 y Species aple	Medium Medium 1-50	N/A	Sapling Sapling Size Sapling	Cut in 1997: TS# 16-94. Two storied stand.
26	Canopy Species Red Oak Bigtooth Aspen	% Cover 25 35	Size Class Log/Pole Pole/Sapling	DBH 15 5	Age 28	White F Tamara 29.1 Sub-Canopy Red Ma Balsam	28 y Species aple a Fir	Medium Medium 1-50 Density	N/A Avg. Height >20 feet >20 feet	Sapling Sapling Size	Cut in 1997: TS# 16-94. Two storied stand.
26	Canopy Species Red Oak	% Cover	Size Class Log/Pole	DBH	Age	White F Tamara 29.1 Sub-Canopy Red Ma	28 y Species aple a Fir	Medium Medium 1-50 Density High	N/A Avg. Height >20 feet	Sapling Sapling Size Sapling	Cut in 1997: TS# 16-94. Two storied stand.
26	Canopy Species Red Oak Bigtooth Aspen	% Cover 25 35	Size Class Log/Pole Pole/Sapling	DBH 15 5	Age 28	White F Tamara 29.1 Sub-Canopy Red Ma Balsam	28 28 29 Species apple a Fir	Medium Medium 1-50 Density High Low	N/A Avg. Height >20 feet >20 feet	Sapling Sapling Size Sapling Sapling	Cut in 1997: TS# 16-94. Two storied stand.
26	Canopy Species Red Oak Bigtooth Aspen White Pine	% Cover 25 35 25	Size Class Log/Pole Pole/Sapling Log/Pole	DBH 15 5 15	Age 28	White F Tamara 29.1 Sub-Canopy Red Ma Balsam Paper B	28 28 29 Species apple a Fir	Medium 1-50 Density High Low Low	N/A Avg. Height >20 feet >20 feet >20 feet	Sapling Sapling Size Sapling Sapling Sapling	Cut in 1997: TS# 16-94. Two storied stand.
26	Canopy Species Red Oak Bigtooth Aspen White Pine Red Maple Red Pine	% Cover 25 35 25 10	Size Class Log/Pole Pole/Sapling Log/Pole Pole/Sapling Log	DBH	28 106	White F Tamara 29.1 Sub-Canopy Red Ma Balsam Paper B Bigtooth A	28 y Species aple a Fir Birch Aspen	Medium 1-50 Density High Low Low	N/A Avg. Height >20 feet >20 feet >20 feet	Sapling Sapling Size Sapling Sapling Sapling	Cut in 1997: TS# 16-94. Two storied stand. Cut as part of Saw-whit ELF by Sanville Logging 32-109-16-01
	Canopy Species Red Oak Bigtooth Aspen White Pine Red Maple Red Pine	% Cover 25 35 25 10 5	Size Class Log/Pole Pole/Sapling Log/Pole Pole/Sapling Log Pole Pole/Sapling	DBH	28 106	White F Tamara 29.1 Sub-Canopy Red Ma Balsam Paper B Bigtooth A	28 28 29 Species apple a Fir Birch Aspen	Medium Medium 1-50 Density High Low Low High	N/A Avg. Height >20 feet >20 feet >20 feet >20 feet	Sapling Sapling Size Sapling Sapling Sapling	
	Canopy Species Red Oak Bigtooth Aspen White Pine Red Maple Red Pine	% Cover 25 35 25 10 5	Size Class Log/Pole Pole/Sapling Log/Pole Pole/Sapling Log Pole Pole/Sapling	DBH	28 106	White F Tamara 29.1 Sub-Canopy Red Ma Balsam Paper B Bigtooth A	28 28 29 Species apple a Fir Birch Aspen 90 y Species	Medium Medium 1-50 Density High Low Low High 51-80	N/A Avg. Height >20 feet >20 feet >20 feet >20 feet N/A	Sapling Sapling Size Sapling Sapling Sapling Pole	
	Canopy Species Red Oak Bigtooth Aspen White Pine Red Maple Red Pine 4123 - Canopy Species	Cover 25 35 25 10 5	Size Class Log/Pole Pole/Sapling Log/Pole Pole/Sapling Log Pol Size Class	DBH 15 5 15 5 15 15 00 15 DBH	28 106 Mediur	White F Tamara 29.1 Sub-Canopy Red Ma Balsam Paper B Bigtooth A n 31.3 Sub-Canopy	28 28 29 Species Aspen 90 2 Species Aspen	Medium Medium 1-50 Density High Low Low High 51-80 Density	N/A Avg. Height >20 feet >20 feet >20 feet >20 feet Avg. Height	Sapling Sapling Size Sapling Sapling Sapling Pole	
	Canopy Species Red Oak Bigtooth Aspen White Pine Red Maple Red Pine 4123 - Canopy Species Quaking Aspen	% Cover 25 35 25 10 5 8 Red Oak % Cover 10	Size Class Log/Pole Pole/Sapling Log/Pole Pole/Sapling Log Pol Size Class Sapling	DBH 15 5 15 5 15 15 00 15 15 15 15 15 15 15 15 15 15 15 15 15	28 106 Mediur Age 4	White F Tamara 29.1 Sub-Canopy Red Ma Balsam Paper B Bigtooth A n 31.3 Sub-Canopy Quaking A	Pine ack 28 y Species aple a Fir Birch Aspen 90 y Species Aspen Aspen	Medium Medium 1-50 Density High Low Low High 51-80 Density High	N/A Avg. Height >20 feet >20 feet >20 feet >20 feet N/A Avg. Height 5 - 10 feet	Sapling Sapling Size Sapling Sapling Sapling Pole Size Sapling	
	Canopy Species Red Oak Bigtooth Aspen White Pine Red Maple Red Pine 4123 - Canopy Species Quaking Aspen Bigtooth Aspen	Cover 25 35 25 10 5 Red Oak Cover 10 10 80	Size Class Log/Pole Pole/Sapling Log/Pole Pole/Sapling Log Pol Size Class Sapling Sapling Log/Pole	DBH 15 5 15 5 15 15 DBH 1 1	28 106 106 Mediur Age 4	White F Tamara 29.1 Sub-Canopy Red Ma Balsam Paper B Bigtooth A n 31.3 Sub-Canopy Quaking A Bigtooth A	28 28 29 29 29 29 29 20 20 20 20 20	Medium Medium 1-50 Density High Low Low High 51-80 Density High High High	N/A Avg. Height >20 feet >20 feet >20 feet >20 feet >10 feet >20 feet >10 feet	Sapling Sapling Size Sapling Sapling Sapling Pole Size Sapling Sapling Sapling Sapling Sapling	
27	Canopy Species Red Oak Bigtooth Aspen White Pine Red Maple Red Pine 4123 - Canopy Species Quaking Aspen Bigtooth Aspen Red Oak	Cover 25 35 25 10 5 Red Oak Cover 10 10 80	Size Class Log/Pole Pole/Sapling Log/Pole Pole/Sapling Log Pol Size Class Sapling Sapling Log/Pole	DBH	28 106 106 Mediur Age 4	White F Tamara 29.1 Sub-Canopy Red Ma Balsam Paper B Bigtooth A 1.3 Sub-Canopy Quaking A Red Ma	Pine ack 28 y Species aple a Fir Birch Aspen 90 y Species Aspen Aspen aple Un	Medium Medium 1-50 Density High Low Low High 51-80 Density High High High Medium	N/A Avg. Height >20 feet >20 feet >20 feet >20 feet >10 feet >20 feet >20 feet	Sapling Sapling Size Sapling Sapling Sapling Pole Size Sapling Sapling Sapling Sapling Sapling	



Stanc	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
29	4131 - A	spen, Oak		Poletimb	er Well	103.9	47	81-110	N/A		Harvested in 1975.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	55	Pole	8	47	Red	l Maple	High	10 - 20 feet	Sapling	
	Red Maple	2	Pole	7		Whi	te Pine	Low	5 - 10 feet	Sapling	
	White Pine	10	Log	15		Bals	sam Fir	Low	10 - 20 feet	Sapling	
	Red Oak	20	Log/Pole	13		Re	d Oak	Low	10 - 20 feet	Sapling	
	Quaking Aspen	5	Pole	6		Iro	nwood	Low	10 - 20 feet	Tall Shrub	
	Paper Birch	3	Pole	6		Suga	ar Maple	Low	10 - 20 feet	Sapling	
	Red Pine	5	Log	15							
30	4130	- Aspen		Poletimb	er Well	84.7	25	51-80	N/A		Harvested in 1997: TS# 8-94. Two storied stand.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Quaking Aspen	10	Sapling	2		Bals	sam Fir	Low	5 - 10 feet	Sapling	
	Red Maple	23	Sapling	1		Whi	te Pine	Low	< 5 feet	Sapling	
	Red Oak	5	Log/Pole	13							
	Bigtooth Aspen	50	Sapling	2	25						
	White Pine	7	Log/Pole	12	97						
	Red Pine	5	Log/Pole	12							
31	3103 - R	tubus-Fern		Nonsto	cked	2.2			Managed O _l	pening	
						Sub-Can	opy Species	Density	Avg. Height	Size	
						Whi	te Pine	Low		Sapling	
											}
						Re	d Oak	Low		Log	
32	4119 - Mixed No	orthern Hard	dwoods	Sawtimb	er Well	287.6		111-140	N/A	Log	Selectively cut in 2008: TS# 115-04-01 and in 1997: TS# 12/76A. some
32	4119 - Mixed No		dwoods Size Class		er Well	287.6			N/A Avg. Height	Log	of this stand should be managed for oak long term and some for mixed
32						287.6 Sub-Can	105	111-140			
32	Canopy Species	% Cover	Size Class	DBH		287.6 Sub-Can	105 opy Species	111-140 Density	Avg. Height	Size	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection
32	Canopy Species White Pine	% Cover	Size Class	DBH		287.6 Sub-Can Suga	105 opy Species ar Maple	111-140 Density Medium	Avg. Height 10 - 20 feet	Size Sapling	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection
32	Canopy Species White Pine Hemlock	% Cover 2 5	Size Class Log Log/Pole	15 14	Age	287.6 Sub-Can Suga He White	105 opy Species ar Maple mlock	111-140 Density Medium Low	Avg. Height 10 - 20 feet 10 - 20 feet	Size Sapling Sapling	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE.
32	Canopy Species White Pine Hemlock Sugar Maple	% Cover 2 5 50	Size Class Log Log/Pole Log/Pole	15 14 13	Age	287.6 Sub-Can Suga He White	105 opy Species ar Maple mlock e Spruce	Density Medium Low Low	Avg. Height 10 - 20 feet 10 - 20 feet 5 - 10 feet	Size Sapling Sapling Sapling	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE.
32	Canopy Species White Pine Hemlock Sugar Maple Red Maple	% Cover 2 5 50 50	Log/Pole Log/Pole Log/Pole	15 14 13 12	Age	287.6 Sub-Can Suga He White	105 opy Species ar Maple mlock e Spruce nwood	111-140 Density Medium Low Low Low	Avg. Height 10 - 20 feet 10 - 20 feet 5 - 10 feet 10 - 20 feet	Size Sapling Sapling Sapling Tall Shrub	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE.
32	Canopy Species White Pine Hemlock Sugar Maple Red Maple Yellow Birch	% Cover 2 5 50 50 5	Log/Pole Log/Pole Log/Pole Pole/Log	15 14 13 12 12	Age	287.6 Sub-Can Suga He White	105 opy Species ar Maple mlock e Spruce nwood	111-140 Density Medium Low Low Low	Avg. Height 10 - 20 feet 10 - 20 feet 5 - 10 feet 10 - 20 feet	Size Sapling Sapling Sapling Tall Shrub	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE.
32	Canopy Species White Pine Hemlock Sugar Maple Red Maple Yellow Birch Red Oak Black Cherry	% Cover 2 5 50 5 5 30	Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole	15 14 13 12 12 14	105	287.6 Sub-Can Suga He White	105 opy Species ar Maple mlock e Spruce nwood	111-140 Density Medium Low Low Low	Avg. Height 10 - 20 feet 10 - 20 feet 5 - 10 feet 10 - 20 feet	Size Sapling Sapling Sapling Tall Shrub	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE.
	Canopy Species White Pine Hemlock Sugar Maple Red Maple Yellow Birch Red Oak Black Cherry	% Cover 2 5 50 5 5 30 3 - Aspen	Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole	DBH	105	287.6 Sub-Can Suga He White Iron Bals	105 opy Species ar Maple mlock e Spruce nwood sam Fir	111-140 Density Medium Low Low Low Low Low	Avg. Height 10 - 20 feet 10 - 20 feet 5 - 10 feet 10 - 20 feet 10 - 20 feet	Size Sapling Sapling Sapling Tall Shrub	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE.
	Canopy Species White Pine Hemlock Sugar Maple Red Maple Yellow Birch Red Oak Black Cherry	% Cover 2 5 50 5 5 30 3 - Aspen	Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Pole/Log Log/Pole Log	DBH	105 er Well	287.6 Sub-Can Suga He White Iron Bals 4.1 Sub-Can	105 opy Species ar Maple mlock e Spruce nwood sam Fir	111-140 Density Medium Low Low Low Low Low 81-110	Avg. Height 10 - 20 feet 10 - 20 feet 5 - 10 feet 10 - 20 feet 10 - 20 feet 10 - 20 feet	Size Sapling Sapling Sapling Tall Shrub Sapling	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE.
	Canopy Species White Pine Hemlock Sugar Maple Red Maple Yellow Birch Red Oak Black Cherry 4130 Canopy Species	% Cover 2 5 50 5 5 30 3 - Aspen % Cover	Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Pole/Log Log/Pole Log	DBH	105 er Well	287.6 Sub-Can Suga He White Iron Bals 4.1 Sub-Can	nustrial of the state of the st	111-140 Density Medium Low Low Low Low Density	Avg. Height 10 - 20 feet 10 - 20 feet 5 - 10 feet 10 - 20 feet 10 - 20 feet N/A Avg. Height	Size Sapling Sapling Sapling Tall Shrub Sapling	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE. Buffer to kettle hole.
	Canopy Species White Pine Hemlock Sugar Maple Red Maple Yellow Birch Red Oak Black Cherry 4130 Canopy Species Red Oak	% Cover 2 5 50 5 5 30 3 - Aspen % Cover 5	Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log Log	DBH	105 er Well	287.6 Sub-Can Suga He White Iron Bals 4.1 Sub-Can Rec	105 opy Species ar Maple mlock e Spruce nwood sam Fir 97 opy Species	111-140 Density Medium Low Low Low Low Density 81-110 Density Medium	Avg. Height 10 - 20 feet 10 - 20 feet 5 - 10 feet 10 - 20 feet 10 - 20 feet N/A Avg. Height 10 - 20 feet	Size Sapling Sapling Sapling Tall Shrub Sapling Size Sapling	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE. Buffer to kettle hole.
	Canopy Species White Pine Hemlock Sugar Maple Red Maple Yellow Birch Red Oak Black Cherry 4130 Canopy Species Red Oak Red Maple	% Cover 2 5 50 5 5 30 3 - Aspen % Cover 5 25	Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log/Pole Log Log Log	15	105 105 er Well	287.6 Sub-Can Suga He White Iron Bals 4.1 Sub-Can Rec	105 opy Species ar Maple mlock e Spruce nwood sam Fir 97 opy Species I Maple nwood	111-140 Density Medium Low Low Low Low Medium Low Low Low Medium Medium Low	Avg. Height 10 - 20 feet 10 - 20 feet 5 - 10 feet 10 - 20 feet 10 - 20 feet N/A Avg. Height 10 - 20 feet 10 - 20 feet	Size Sapling Sapling Sapling Tall Shrub Sapling Size Sapling Tall Shrub	of this stand should be managed for oak long term and some for mixed northern hardwood. This will be determined using data from a selection sale this YOE. Buffer to kettle hole.



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments	MICHIGAN .
34	4130	- Aspen		Poletimber Well		77.0	54	81-110	N/A		Treated in 1968.	
(Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
В	Bigtooth Aspen	60	Log/Pole	10	54	Ва	lsam Fir	Low	>20 feet	Sapling		
	Red Oak	15	Log/Pole	12		Re	d Maple	Low	>20 feet	Sapling		
	Red Maple	2	Pole	6		Sug	gar Maple	High	>20 feet	Sapling		
	Sugar Maple	5	Pole	6				,			_	
C	Quaking Aspen	18	Log/Pole	10								
35	4131 - A	Aspen, Oak		Sapling	g Well	38.1	17	1-50	N/A		Harvested in 205: TS# 116-04-01. Oak and pine retained.	
(Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Red Maple	10	Sapling	1		Ire	onwood	Low	5 - 10 feet	Tall Shrub		
В	Bigtooth Aspen	55	Sapling	1	17	Re	d Maple	Medium	< 5 feet	Sapling		
	White Pine	3	Pole/Log	10		WI	nite Pine	Low	5 - 10 feet	Sapling		
	Red Pine	2	Log/Pole	13		Ва	lsam Fir	Low	< 5 feet	Sapling		
	Balsam Fir	5	Sapling	1							-	
	Red Oak	25	Log/Pole	13								