

Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61023 Entry Year 2023 Acreage: 1,604

County Benzie

Management Area: Benzie Outwash

Revision Date: 2021-05-18

Stand Examiner: Craig Allen

Legal Description:

T25N- R14W; Sections 1, 12, 13 Weldon Township, Benzie County

Identified Planning Goals:

Compartment 23 is a part of the Benzie Outwash management area (MA). Vegetation management in this MA will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character, including the Betsie River which is a designated natural river; and threatened, endangered and special concern species and provide for forest-based recreational uses and Native American non-commercial uses of forest products. Timber management for the next 10 years includes improving the age-class distribution of aspen and red pine. Northern hardwoods management includes continued selective or regeneration harvesting of northern hardwoods to achieve an uneven age-class structure or improve timber quality. Wildlife management objectives include increasing the structural complexity of northern hardwood communities for interior forest species and perpetuating early-successional communities for species adapted to young forests. Expected trends in this 10-year planning period are increased recreational pressure on recreational trails and introduced insect and disease concerns, especially emerald ash borer and beech bark disease.

Soil and topography:

The soils in this area are Kalkaska soils comprised of excessively drained deep sands. The terrain is mostly level although the south half is rolling hills. A larger wetland complex is located in the southeast quarter of section 1.

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

This compartment is on the eastern end of a large area of state ownership in Weldon Township. The area is very rural with minimal private development. This compartment historically had some areas cleared with attempts towards homestead farming. Due to perhaps, poor soil conditions, along with some drainage issues, these efforts failed and the cleared areas were left barren. Later, some of these areas were either left to re-vegetated naturally or planted with red pine plantations that are present today. A large stand on the north end of the compartment was left in a semi-open condition and never planted.

Unique Natural Features:

There is a large wetland complex that is located in the southeast quarter of section 1, mostly on private land.

Archeological, Historical, and Cultural Features:

There are a few old homestead sites within or near the compartment. There are old, reclaimed railroad grades within or near the compartment that were used during the original logging days in this area around the turn of the century. These grades have mostly returned to a natural forest condition and can be quite difficult to distinguish.

Special Management Designations or Considerations:

There are no special management designations within this compartment.

Watershed and Fisheries Considerations:

The headwaters of Dair Creek are located in compartment 23. Dair Creek is a high-quality trout stream tributary to the Betsie River, and supports self-sustaining populations of brook trout, brown trout, steelhead, coho salmon, and chinook salmon.

Wildlife Habitat Considerations:

This compartment lies entirely within a broad flat outwash plain, with excessively drained soils. However, the northern two sections of this compartment do have several wet inclusions that harbor lowland tree and shrub species, such as blueberry, leatherleaf, willow, wild raisin, and quaking aspen. When necessary, habitat cuts should be used to regenerate these lowland habitat components.

Upland areas should continue to be managed for a variety of forest age classes, successional stages, and patch sizes, as well as grass/shrub openings consistent with fire driven dynamics that historically shaped vegetation on this Land Type Association (LTA). The aspen stands in this area have a component of white pine and hardwoods that should be used as

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leave trees/clumps as the aspen is harvested. Red oak is also found occasionally and should be used as leave trees when harvesting surrounding aspen. The incorporation of snags, leave trees, brush piles, and downed logs in these cuts will help to replicate a wildfire-altered forest and increase wildlife use by species like grouse, woodcock, golden-winged warbler, and deer.

The southern section of this compartment is slightly hilly and dominated by northern hardwoods. This would be an area to try different methods of hardwood regeneration, such as small patch cuts within the hardwood stands along with the standard thinnings. Patch cuts should be designed to mimic small blowdowns that would occur in areas affected by wind, such as windward side of slopes or ridge tops. Hardwood treatments should be designed to incorporate the preservation of tree species diversity, the retention of mature mast producing trees, and the protection of den, cavity, and downed trees. Tops should be left onsite, unchipped, and in scattered piles for habitat. Species benefiting from management of this community type include the red-eyed vireo, four-toed salamander, common gray fox, and broad-winged hawk.

Mineral Resource and Development Concerns and/or Restrictions

The nearest active sand/gravel operation is four miles away. There is good potential for sand & gravel within the compartment, particularly in Section 13. There are no current leases for oil and gas development within one mile of the compartment. The compartment is north of the Niagaran/Guelph reef trend and main Antrim Shale gas play. There is still some Antrim Shale gas potential in the compartment, but new Antrim development in this area, where existing infrastructure does not occur, are not likely to be economical at current gas prices. There is no known metallic mineral potential in this part of the state. (comments from Peter Rose)

Vehicle Access:

There are several gravel and seasonal county roads in and around the compartment offering good access to State lands. Thompsonville road running along the east edge of the compartment is the only paved road in the area. There are also a few forest 2-track roads in various areas of the compartment that are in good condition and are used for public and DNR land management access.

Survey Needs:

There are currently no survey needs in this compartment.

Recreational Facilities and Opportunities:

The Betsie River snowmobile trail travels along the north edge of the compartment on Aylsworth road. Various types of dispersed forest recreation occur in the area. Examples include hunting, trapping, cross-country skiing, hiking, orv riding, mushroom/berry picking, biking, horseback riding, and dispersed camping.

Fire Protection:

Wildfire protection is accomplished through coordination of local fire departments along with DNR fire staff. The majority of this compartment and surrounding areas are forested in mesic hardwood deciduous types so the opportunity for large scale wildfires are minimal.

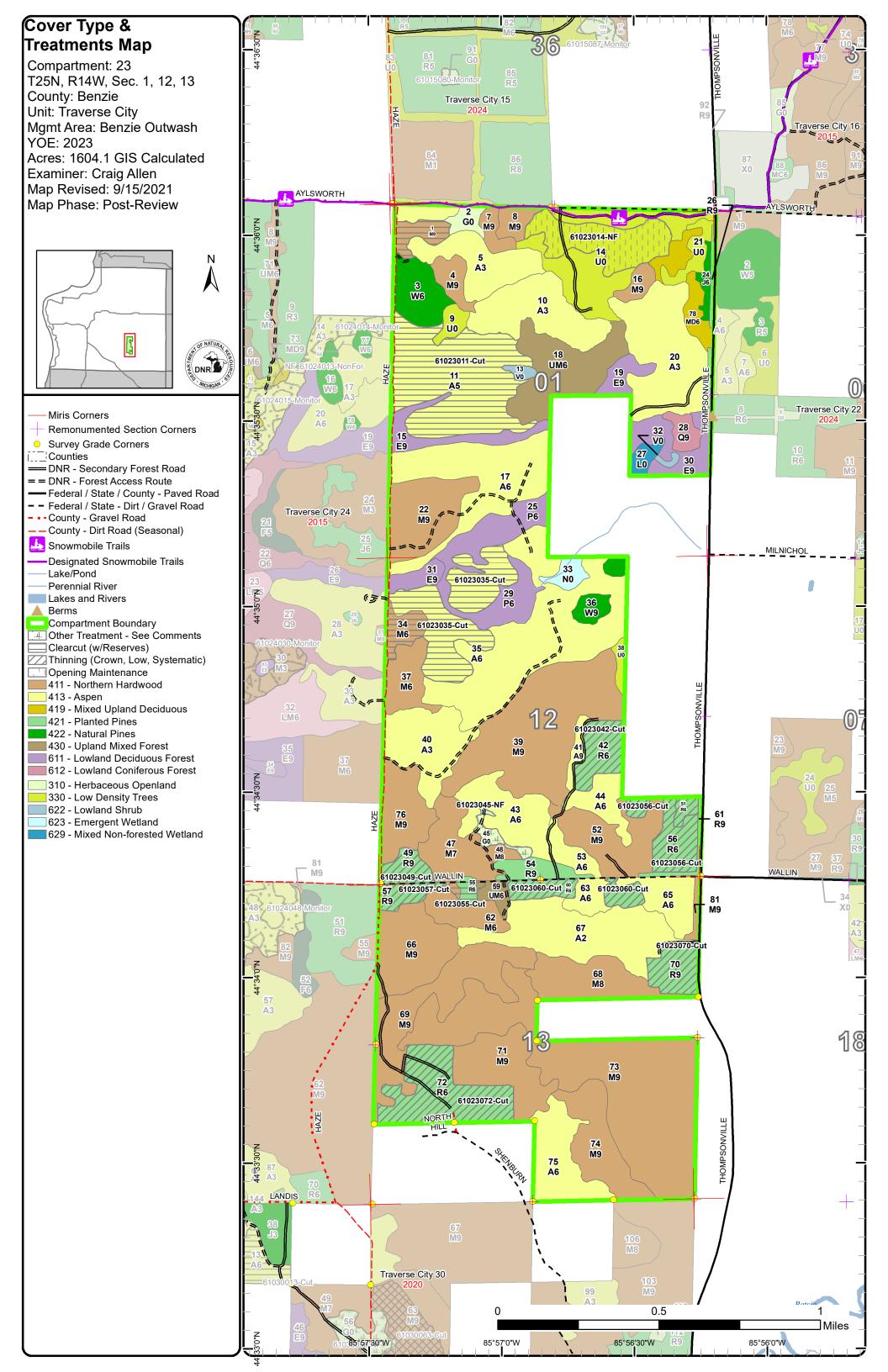
Additional Compartment Information:

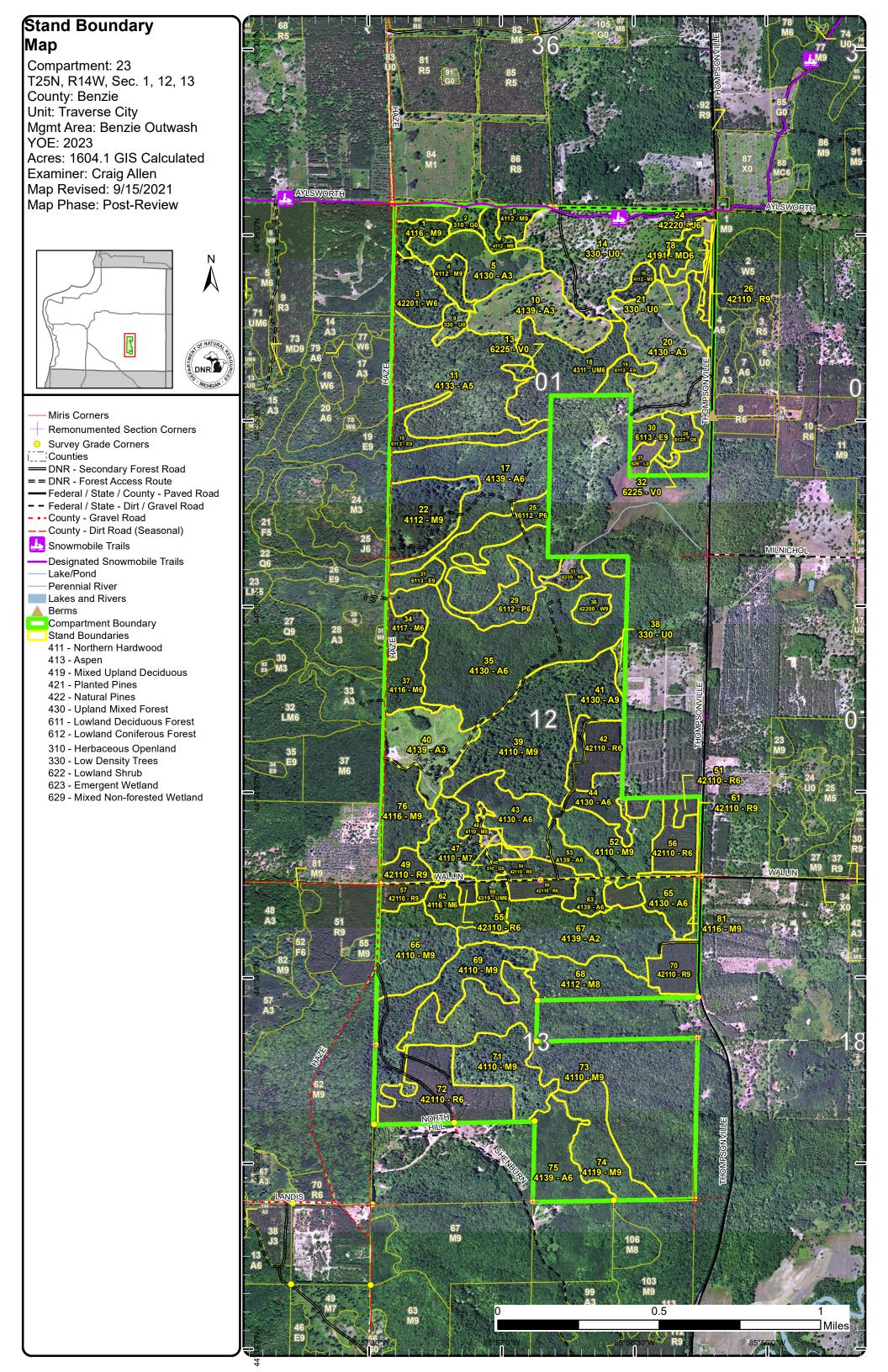
The following reports from the Inventory are attached:

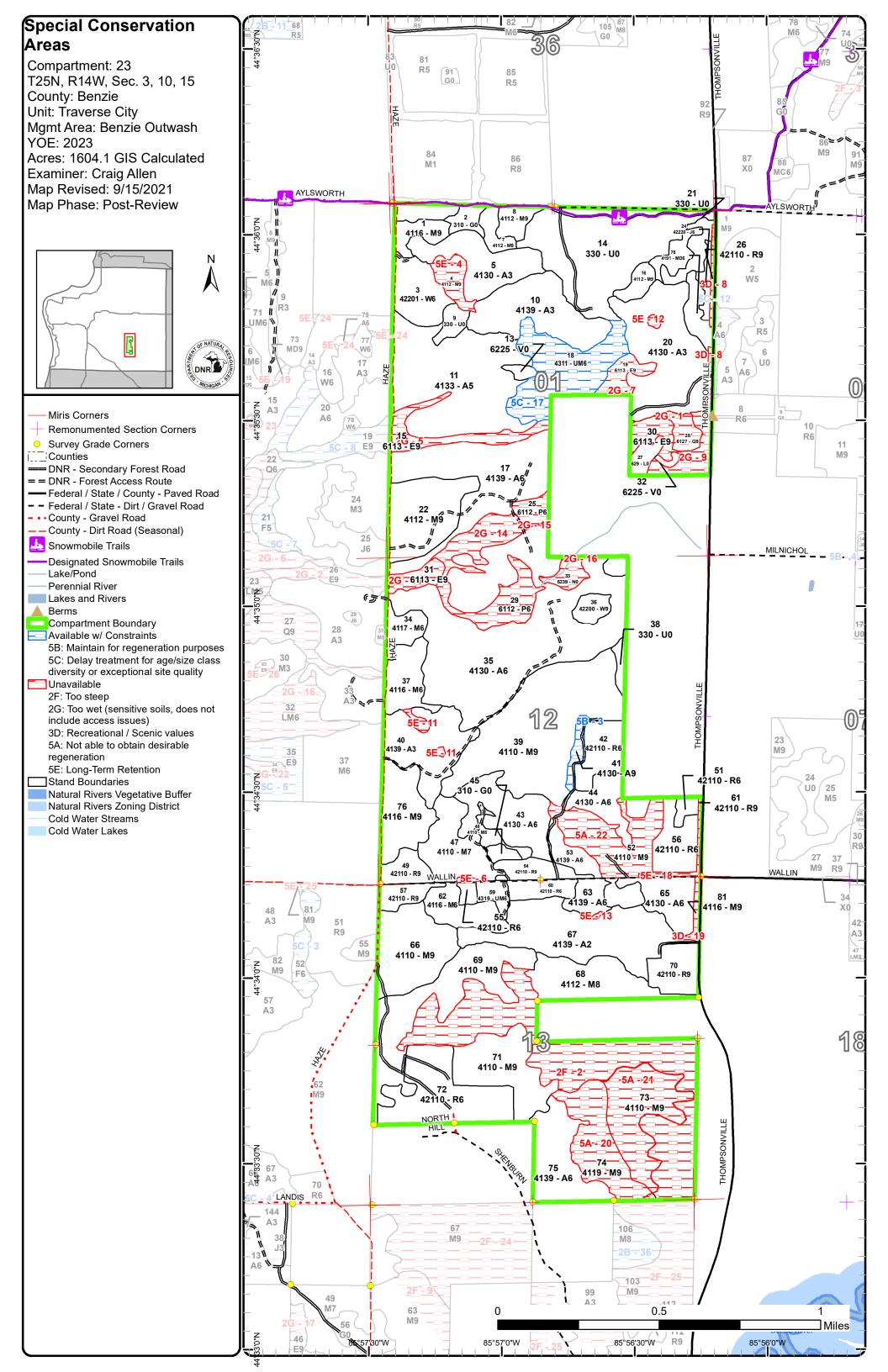
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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 23

Year of Entry 2023

Traverse City Mgt. Unit
Craig Allen: Examiner



Age Class

	₹0°C	S. C. C.	3/4		\$ \ \frac{\pi_{\text{st}}}{\text{st}}	3 /8	S K	3/8	3/8	\$ \ \$	S &	8 /8	W Z Z		NO NO	\$ /s	No. of the second	3 / 3res	A LOS
Aspen	0	181	33	0	80	215	0	77	0	4	0	0	0	0	0	0	0	0	590
Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Jack Pine	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Low-Density Trees	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86
Lowland Aspen/Balsam Poplar	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	37
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	48	0	0	0	0	0	0	0	48
Lowland Shrub	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Marsh	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Mixed Upland Deciduous	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	14
Northern Hardwood	0	0	0	0	0	15	41	9	0	34	122	171	194	0	0	0	0	0	585
Red Pine	0	0	0	0	0	3	51	79	8	0	0	0	0	0	0	0	0	0	141
Upland Mixed Forest	0	0	0	0	0	0	5	39	0	0	0	0	0	0	0	0	0	0	44
White Pine	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	27
Total	109	181	33	0	80	274	97	219	35	38	170	171	200	0	0	0	0	0	1605



Report 2 – Treatment Summary

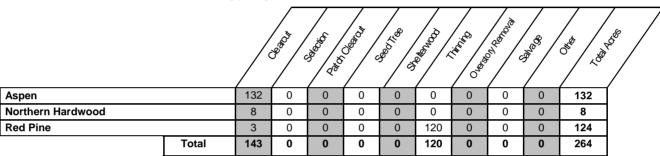
Traverse City Mgt. Unit Year of Entry: 2023

Acres of Harvest

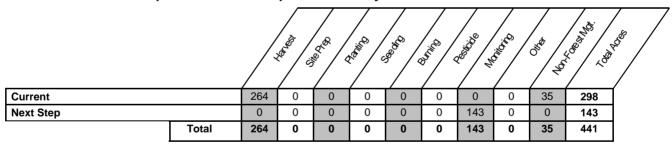
Compartment 23
Total Compartment Acres: 1,604

Commercial Harvest - 264 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Traverse City Mgt. Unit

Report 3 -- Treatments

Compartment: 23 Year of Entry: 2023 DNR DICHIGAN

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Treatment Name Acres

Stand CoverType

Size Density Stand Age R

BA Treatment Range Type

Treatment Method

Cover Type Objective Age Structure Habitat Cut

Approved Treatments:

1 61023001-Cut 7.9 4116 - Mixed N. Sawtimber 95 81-110 Harvest Clearcut with 413 - Aspen Even-Aged No Hardwood - Aspen Well Retention

<u>Prescription</u> Harvest stand when harvesting stand 11. Cut all aspen and select mark to remove multi-stem, poor form maple, cherry, white pine....leaving <u>Specs:</u> a component of each yet opening the canopy for aspen regeneration purposes.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, maple, pine, cherry,

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

61023011-Cut 77.0 4133 - Aspen. Poletimber Unspec Harvest Clearcut with 4133 - Aspen. 61 Even-Aged Nο Mixed Pine Medium ified Retention Mixed Pine

Prescription Specs: Harvest all hardwoods to focus on expanding and regenerating aspen. Also cut merchantable white pine, leave sub- merchantable white pine understory. Mark to leave any large unique white pine or Maple for retention/diversity. Also, could mark some scattered retention islands of pine if needed. add drumming spec for grouse and spec for debris piles for rabbit/small mammals cover.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, maple, cherry, white pine

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

14 61023014-NF 30.1 330 - Low-Density Nonstocked Unspec NonForestMgt Brush Cutting 3204 - Mast No Trees ified Producing Shrub

Prescription | Brush hog (or hand fell) around select leave trees and/or patches. Leave scattered mast producing trees and shrubs and/or conifers for Specs: wildlife food and cover. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings

and protect with wire cages or tubex. Considering establishing herbaceous/forbs ground cover for wildlife food source.

Next Step Treatments:

Acceptable Regen:

Other Maybe could do some type of firewood sale, like target red maple.

Comment: Use appropriate methods to protect snowmobile trail and its surface during project implementation.

Site Condition

Proposed Start Date: 10/1 /2022

Compartment: 23

S Year of Entry: 2023 t а **Treatment** Stand BA **Treatment Treatment Cover Type** Acres Stand Size Age Habitat n Method Objective Name CoverType Density Age Range Type Structure Cut Ч 35 61023035-Cut 54.9 4130 - Aspen Poletimber 45 Unspec Harvest Clearcut with 413 - Aspen Even-Aged Well ified Retention Prescription Harvest all hardwood trees to open stand for aspen regeneration along with cherry and maple. Also harvest any jack pine within the stand. Could have retention by marking any large unique maple as available. Also possibly make a few small retention islands as needed. Add Specs: grouse drumming log spec and debris pile spec for small mammals use. Will need to skid/forward logs across stand 29 at narrow location. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable aspen, maple, cherry, Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2022 42110 - Planted 171-Crown Thinning 4211 - Planted 61023042-Cut 15.1 Poletimber 58 Harvest Even-Aged Nο Red Pine 200 Red Pine Prescription Thin stand by select marking individual trees to harvest approximately 1/3 of trees. Primarily focus on marking poor form, suppressed, defect trees then mark others allowing for approximately 1/3 of volume removal with even spacing throughout plantation as much as possible Specs: Next Step **Treatments:** Acceptable Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2022 61023045-NF 4.5 310 - Herbaceous Nonstocked Unspec NonForestMgt Fruit Tree/Shrub 3204 - Mast No Openland Producing Shrub ified Planting Prescription Brush hog (or hand fell) around select leave trees and/or patches. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings Specs: and protect with wire cages or tubex. Considering establishing herbaceous/forbs ground cover for wildlife food source. Next Step **Treatments:** <u>Acceptable</u>

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

4211 - Planted 61023049-Cut 42110 - Planted 171-49 8.4 Sawtimber 58 Harvest Crown Thinning Even-Aged No Red Pine Well 200 Red Pine

Prescription Thin stand by select marking individual trees to harvest approximately 1/3 of trees. Primarily focus on marking poor form, suppressed, defect trees then mark others allowing for approximately 1/3 of volume removal with even spacing throughout plantation as much as possible Specs:

Next Step **Treatments:**

Acceptable

Regen: Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Prescription Thin stand by select marking individual trees to harvest approximately 1/3 of trees. Primarily focus on marking poor form, suppressed, defect trees then mark others allowing for approximately 1/3 of volume removal with even spacing throughout plantation as much as possible

Next Step Treatments:

Acceptable Regen:

Other Comment:

01: 0 11:1

Site Condition

Proposed Start Date: 10/1 /2022

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 23 S Year of Entry: 2023 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age Habitat n Method Objective Structure Name CoverType Density Age Range Type Cut d 60 61023060-Cut 13.3 42110 - Planted Poletimber 171-Harvest Crown Thinning 4211 - Planted Even-Aged No Red Pine Well Red Pine 200 Prescription Thin stand by select marking individual trees to harvest approximately 1/3 of trees. Primarily focus on marking poor form, suppressed, defect trees then mark others allowing for approximately 1/3 of volume removal with even spacing throughout plantation as much as possible Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2022 61023070-Cut 14 2 42110 - Planted Sawtimber 65 171-Harvest Crown Thinning 4211 - Planted Even-Aged Nο Red Pine Well 200 Red Pine Prescription Thin stand by select marking individual trees to harvest approximately 1/3 of trees. Primarily focus on marking poor form, suppressed, Specs: defect trees then mark others allowing for approximately 1/3 of volume removal with even spacing throughout plantation as much as possible Next Step Treatments: <u>Acceptable</u> Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2022 72 61023072-Cut 41.2 42110 - Planted 4211 - Planted Poletimber 65 171-Harvest Crown Thinning Even-Aged No Red Pine Well 200 Red Pine

Prescription Thin stand by select marking individual trees to harvest approximately 1/3 of trees. Primarily focus on marking poor form, suppressed,

defect trees then mark others allowing for approximately 1/3 of volume removal with even spacing throughout plantation as much as possible

<u>Acceptable</u>

Regen:

Specs: Next Step **Treatments:**

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Total Treatment 298.1 Acreage Proposed:

Compartment: 23

Traverse City Mgt. Unit

Craig Allen: Examiner Year of Entry: 2023

Availa	ability for	Managemer	nt								
Total	Acres	Acres Avail	Acres	D	omina	nt Site	e Con	dition	S		
Acres	Available	With Condition	Not Available		5B	5C	2F	2G	3D	5A	5E
590	582	4	3	Aspen	4			0	0		3
3	3	0	0	Bog							
9	9	0	0	Herbaceous Openland							
4	4	0	0	Jack Pine					0		
86	86	0	0	Low-Density Trees							
37	0	0	37	Lowland Aspen/Balsam Poplar				37			
6	0	0	6	Lowland Conifers				6			
47	0	0	47	Lowland Deciduous				47	0		
5	5	0	0	Lowland Shrub							
5	0	0	5	Marsh				5			
14	14	0	0	Mixed Upland Deciduous					0		
585	380	0	205	Northern Hardwood			99		3	96	8
140	132	0	8	Red Pine					4		4
44	5	39	0	Upland Mixed Forest		39					
27	27	0	0	White Pine							
1,604	1,248	43	313	Total Forested Acres	4	39	99	96	7	96	15
	78%	3%	20%	Relative Percent							

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
2	Unavailable	2F: Too steep	99	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

Traverse City Mgt. Unit

Craig Allen: Examiner

3	Available	5B: Maintain for regeneration purposes	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	15	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	3D: Recreational / Scenic values	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Compartment: 23

Traverse City Mgt. Unit

Craig Allen: Examiner Year of Entry: 2023

9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
11	Unavailable Comments:	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
12	Unavailable Comments:	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
13	Unavailable Comments:	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	32	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

Traverse City Mgt. Unit

Craig Allen: Examiner

15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	39	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
18	Unavailable	5E: Long-Term Retention	3	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
C	Comments:						
19	Unavailable	3D: Recreational / Scenic values	3	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
C	Comments:						
20	Unavailable	5A: Not able to obtain desirable regeneration	30	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Compartment: 23

Traverse City Mgt. Unit

Craig Allen: Examiner Year of Entry: 2023

21	Unavailable	5A: Not able to obtain desirable regeneration	35	Unspecified	Unspecified	Unspecified	Unspecified
С	Comments:						
22	Unavailable	5A: Not able to obtain desirable regeneration	31	Unspecified	Unspecified	Unspecified	Unspecified
С	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				

Mgt. Unit Compartment:
Year of Entry

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 Type Description
Area

ERA = Ecological Reference Area

HCVA = High Conservation Value Area

SCA = Special Conservation Area



											DNR.
Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
1	4116 - Mixed N.	Hardwood	- Aspen	Sawtimb	er Well	7.9	95	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Red Maple	60	Log/Pole	14	95	WI	nite Pine	Low	Variable	Sapling	
	Quaking Aspen	20	Pole/Log	9		Bla	ck Cherry	Low	< 5 feet	Sapling	
	White Pine	5	Pole/Log	8							•
	Black Cherry	5	Log/Pole	12							
	Sugar Maple	10	Log/Pole	13							
2	310 - Herbac	ceous Open	land	Nonsto	cked	4.9		Unspecified	No		natural opening
3	42201 - Natural Dec	White Pine	, Mixed	Poletimb	er Well	18.7	70	51-80	N/A		
	Canopy Species	% Cover	Size Class		Age		nopy Specie	s Density	Avg. Height	Size	
	Quaking Aspen	20	Pole/Log	9		WI	nite Pine	Medium	Variable	Sapling	
	White Pine	70	Pole/Log	9	70	WI	hite Pine	Medium	Variable	Pole	
	Black Cherry	10	Log/Pole	12							
4	4112 - Maple, Beed					8.1	95	81-110	N/A		decent quality
	Canopy Species		Size Class		Age		nopy Specie		Avg. Height	Size	
	Red Maple	90	Log/Pole	14	95		ed Maple	Low	Variable	Sapling	
	Sugar Maple	5	Log/Pole	14			hite Pine	Low	Variable	Sapling	
	White Pine	5	Pole/Log/XLo	og 8			Beech	Low	< 5 feet	Sapling	
						Ire	onwood	Low	< 5 feet	Sapling	
5	4130	- Aspen		Sapling	y Well	33.4	16	Unspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age						
	Red Maple	20	Sapling	2	16						
	Quaking Aspen	30	Sapling	2	16						
	Bigtooth Aspen	40	Sapling	2	16						
	Black Cherry	10	Sapling	2	16						
7	4112 - Maple, Beed	ch, Cherry A	Association	Sawtimb	er Well	5.5	110	1-50	N/A		lots of multi stemmed
	Canopy Species		Size Class		Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Red Maple	80	Log/Pole	13	110	Re	ed Maple	Medium	Variable	Sapling	
	Bigtooth Aspen	15	Log/Pole	11							
	Black Cherry	_	Log/Pole								



Stand	Level 4 C	over Type		Size De	ensity	Acres	Stand Age E	BA Range	Managed Site		General Comments
8	4112 - Maple, Beec	ch, Cherry A	Association	Sawtimb	er Well	6.5	110	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	50	Log/Pole	11	110	Sug	gar Maple	Medium	Variable	Sapling	
	Red Maple	47	Log/Pole	11		Re	ed Maple	Low	Variable	Sapling	
	Black Cherry	3	Log/Pole	10		I	Beech	Medium	Variable	Sapling	
				·		Iro	onwood	Medium	Variable	Sapling	
9	330 - Low-l	Density Tre	ees	Nonsto	ocked	4.9	ι	Jnspecified	No		
10	4139 - Aspen,	Mixed Deci	iduous	Sapling	g Well	37.1	7	Immature	N/A		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	42	Sapling	1	7	WI	nite Pine	Low	Variable	Sapling	
	Quaking Aspen	40	Sapling	1	7						•
	Bigtooth Aspen	15	Sapling	1	7						
	White Pine	3	Pole	8							
11	4133 - Aspe	en, Mixed P	'ine F	Poletimbe	r Mediun	n 77.0	61 L	Jnspecified	N/A		some areas sparse stocking and stunted growth.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	50	Pole	8	61	WI	nite Pine	Medium	Variable	Sapling	
	White Pine	30	Pole/Log	9		Blad	ck Cherry	Medium	Variable	Sapling	
	Black Cherry	20	Log/Pole	10	61						
13	6225	5 - Bog		Nonsto	ocked	2.2	ι	Jnspecified	No		
14	330 - Low-l	Density Tre	ees	Nonsto	ocked	70.5	L	Jnspecified	No		Cladonia, poverty grass, black berry, scatt wp poles, scatt rp saps, skw, sjw, black cherry, bracken, Scatt jp saps, scatt rubus, small patches of lbs, chuck full of cladonia.
15	6113 - Lo	wland Mapl	e	Sawtimb	er Well	14.7	90	51-80	N/A		seasonal drainagehas water within most times of year.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	100	Log/Pole/XL	.og 15	90	Re	ed Maple	Medium	Variable	Sapling	
						Re	ed Maple	Medium	Variable	Pole	
						Quak	king Aspen	Low	Variable	Sapling	
16	4112 - Maple, Beec	ch, Cherry A	Association	Sawtimb	er Well	5.3	90	51-80	N/A		Stand was select thinned in Feb. 2016
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	10	Log/Pole	12		WI	hite Pine	Low	Variable	Sapling	
	Red Maple	85	Log/XLog	14	90	Blac	ck Cherry	Low	< 5 feet	Sapling	



Stand	Level 4 C	over Type		Size De	ensity	Acres	Stand Age I	BA Range	Managed S	Site	General Comments	MICHIGAN
17	4139 - Aspen,	Mixed Deci	duous I	Poletimb	er Well	55.1	45 l	Jnspecified	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Maple	15	Pole	7		Re	d Maple	High	Variable	Sapling		
	Quaking Aspen	55	Pole	7	45	Wh	ite Pine	Low	Variable	Sapling		
	Black Cherry	30	Pole	7	45	Blac	k Cherry	Medium	< 5 feet	Sapling		
18	4311 - Pin	e, Aspen M	lix I	Poletimb	er Well	38.9	61	81-110	N/A		occasional oak tree	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Red Maple	25	Log/Pole	12		Re	d Maple	High	Variable	Sapling		
	Bigtooth Aspen	25	Pole/Log	9	61	Wh	ite Pine	Medium	Variable	Sapling		
	White Pine	50	Pole/Log	9	61					•		
19	6113 - Lo	wland Mapl	e :	Sawtimb	er Well	7.6	90	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Red Maple	75	Log/Pole	13	90	Re	d Maple	Low	Variable	Sapling		
	White Pine	25	XLog/Log/Pol	le 20	110	Re	d Maple	Medium	Variable	Pole		
				'		Wh	ite Pine	Low	Variable	Sapling		
						He	emlock	Medium	>20 feet	Pole		
20	4130	- Aspen		Sapling	g Well	54.7	6	Immature	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cai	nopy Species	Density	Avg. Height	Size		
	Red Maple	20	Sapling	1	6	Wh	ite Pine	Medium	Variable	Sapling		
	Quaking Aspen	50	Sapling	1	6			'				
	Bigtooth Aspen	20	Sapling	1								
	White Pine	10	Pole/Log	9								
21	330 - Low-l	Density Tre	es	Nonst	ocked	7.6	l	Jnspecified	No			
22	4112 - Maple, Beed	h, Cherry A	Association	Sawtimb	er Well	33.1	90	51-80	N/A		lots of multi stemmed	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cai	nopy Species	Density	Avg. Height	Size	open park like understory occasional sugar maple	
	Red Maple	65	Log/Pole	14			d Maple	Low	Variable	Sapling	Coodsional Sugai mapio	
	Bigtooth Aspen	10	Log/Pole	12		Wh	ite Pine	Low	Variable	Sapling		
	Black Cherry	25	Log/Pole	12	90					-		
24	42220 - Nat	ural Jack P	ine I	Poletimb	er Well	3.7	45 l	Jnspecified	N/A		natural, seed in from adjacent stand.	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	White Pine	10	Pole	7		Wh	ite Pine	Low	< 5 feet	Sapling		
	vviille i iiie										1	
	Red Pine	10	Pole	7		Re	ed Pine	Low	Variable	Sapling		
		10 75	Pole Pole	7	45		ed Pine ck Pine	Low	Variable Variable	Sapling		



Stand	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Site		General Comments
25		wland Aspe	n	Poletimb	er Well		45	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Red Maple	20	Log/Pole	10		Ba	alsam Fir	Low	Variable	Sapling	
	Quaking Aspen	50	Pole	8	45	W	hite Pine	Low	Variable	Sapling	
	White Pine	30	Log/Pole	12		Н	lemlock	Low	>20 feet	Pole	
26	42110 - Pla	nted Red P	ine	Sawtimb	er Well	4.4	78	81-110	N/A		Thin strip of pine planted along edge of Thompsonville road for wind
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	break and erosion control. Retain
	White Pine	10	Log/Pole	10		Re	ed Maple	Low	Variable	Sapling	
	Red Pine	85	Log/Pole	12	78	W	hite Pine	Low	Variable	Sapling	
	Jack Pine	5	Pole/Log	8							
27	629 - Mixed nor	n-forested v	vetland	Nonsto	ocked	4.7	ı	Unspecified	No		
28	6127 - Lo	wland Pine)	Sawtimb	er Well	6.1	110	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Red Maple	5	Log/Pole	12		Re	ed Maple	Low	Variable	Pole	
	Bigtooth Aspen	15	Log/Pole	13	78	Re	ed Maple	High	Variable	Sapling	
	White Pine	80	Log/Pole	17	110	W	hite Pine	Low	Variable	Sapling	
		1		'			Beech	Low	Variable	Sapling	
29		wland Aspe		Poletimb		31.5		Unspecified	N/A		drainage
	Canopy Species		Size Class		l Age		nopy Species		Avg. Height	Size	
	American Elm	3	Pole	8	I	Re	ed Maple	Medium	Variable	Sapling	
	Red Maple	30	Pole	8							
	Quaking Aspen	54	Pole	8	45						
No	orthern White Cedar	10	Pole/Log								
	Hemlock	3	Pole/Log	8							
30	6113 - Lo	wland Mapl	е	Sawtimb	er Well	18.5	91	81-110	N/A		also contains some tamarack
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Red Maple	85	Log/Pole	12	91	Re	ed Maple	High	Variable	Sapling	
	Bigtooth Aspen	10	Log/Pole	12		Re	ed Maple	High	Variable	Pole	
	White Pine	5	Log	17		W	hite Pine	Low	< 5 feet	Sapling	
31	6113 - Lov	wland Mapl	е	Sawtimb	er Well	6.7	90	81-110	N/A		drainagestanding water (possible flow) within.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Red Maple	100	Log/Pole	13	90	Re	ed Maple	High	Variable	Sapling	
32	6225	5 - Bog		Nonsto	cked	1.1	-	Unspecified	No		



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age BA Rang		ange Managed Site		General Comments
33	6239 - Mixed E	etland	Nonstocked		5.5	ı	Unspecified	No			
34	4117 - Mixed N	I. Hardwood	- Pine F	Poletimb	er Well	8.8	67	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Can	opy Species	s Density	Avg. Height	Size	
	Red Maple	25	Log/Pole	11			l Maple	High	Variable	Sapling	
	Quaking Aspen	5	Pole	7		Ве	eech	Low	Variable	Sapling	
	Jack Pine	30	Pole	8	67						
	Black Cherry	40	Log/Pole	13	67						
35	4130	- Aspen	F	Poletimb	er Well	136.0	45	Unspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Can	opy Species	s Density	Avg. Height	Size	
	Red Maple	20	Pole/Log	8	45	Red	l Maple	Medium	Variable	Sapling	
	Quaking Aspen	35	Pole	8	45			'			
	Bigtooth Aspen	35	Pole/Log	8	45						
	Black Cherry	10	Pole/Log	8	45						
36	42200 - Nat			Sawtimb		8.2	76	81-110	N/A		aspen was cut when adjoining stand was cut.
	Canopy Species		Pine Size Class		I Age		76 opy Species		N/A Avg. Height	Size	aspen was cut when adjoining stand was cut.
						Sub-Can				Size Sapling	aspen was cut when adjoining stand was cut.
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Can	opy Species	s Density	Avg. Height		aspen was cut when adjoining stand was cut.
	Canopy Species Bigtooth Aspen	% Cover	Size Class Pole Log/Pole	DB H	45 76	Sub-Can Red Whit	opy Species I Maple	S Density Medium	Avg. Height Variable	Sapling	May have some seasonally wet areas with stand, also has a few
	Canopy Species Bigtooth Aspen White Pine	% Cover	Size Class Pole Log/Pole - Aspen F	DBH 8 18	45 76	Sub-Cane Red Whit	opy Species I Maple te Pine	Medium Low 81-110	Avg. Height Variable < 5 feet	Sapling	
	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N.	% Cover	Size Class Pole Log/Pole Aspen F	DBH 8 18	45 76 Per Well	Sub-Can Red Whit 16.1 Sub-Can	opy Species I Maple te Pine	Medium Low 81-110	Avg. Height Variable < 5 feet N/A	Sapling Sapling	May have some seasonally wet areas with stand, also has a few
37	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N. Canopy Species	% Cover 10 90 Hardwood % Cover	Size Class Pole Log/Pole - Aspen F Size Class	DBH 8 18 Poletimb	45 76 Per Well	Sub-Can-Red Whit 16.1 Sub-Can-Red	opy Species Maple te Pine 58 opy Species	Medium Low 81-110 S Density	Avg. Height Variable < 5 feet N/A Avg. Height	Sapling Sapling Size	May have some seasonally wet areas with stand, also has a few
37	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N. Canopy Species Red Maple	% Cover 10 90 Hardwood **Cover* 35	Pole Log/Pole - Aspen F Size Class Pole/Log	DBH 8 18 Poletimb	45 76 eer Well 1 Age	Sub-Can-Red Whit 16.1 Sub-Can-Red	Maple te Pine 58 opy Species Maple	Medium Low 81-110 Density Full	Avg. Height Variable < 5 feet N/A Avg. Height Variable	Sapling Sapling Size Sapling	May have some seasonally wet areas with stand, also has a few
37	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N. Canopy Species Red Maple Bigtooth Aspen Black Cherry	% Cover 10 90 Hardwood % Cover 35 35 35	Size Class Pole Log/Pole - Aspen Size Class Pole/Log Pole/Log Log/Pole	DBH 8 18 Poletimb DBH 9 9	45 76 eer Well 1 Age 58 58	Sub-Can-Red Whit 16.1 Sub-Can-Red	opy Species I Maple te Pine 58 opy Species I Maple eech	Medium Low 81-110 Density Full	Avg. Height Variable < 5 feet N/A Avg. Height Variable	Sapling Sapling Size Sapling	May have some seasonally wet areas with stand, also has a few
37	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N. Canopy Species Red Maple Bigtooth Aspen Black Cherry	% Cover	Pole Log/Pole - Aspen F Size Class Pole/Log Pole/Log Log/Pole es	DBH 8 18 Poletimb DBH 9 9 10	45 76 er Well 1 Age 58 58 58 ocked	Sub-Cane Red Whit 16.1 Sub-Cane Red Be 3.2	opy Species I Maple te Pine 58 opy Species I Maple eech	S Density Medium Low 81-110 S Density Full Low	Avg. Height Variable < 5 feet N/A Avg. Height Variable Variable	Sapling Sapling Size Sapling	May have some seasonally wet areas with stand, also has a few
37	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N. Canopy Species Red Maple Bigtooth Aspen Black Cherry 330 - Low-	% Cover	Size Class Pole Log/Pole - Aspen Size Class Pole/Log Pole/Log Log/Pole es Size Class	DBH 8 18 Poletimb DBH 9 9 10 Nonsto	Age	Sub-Can-Red Whit 16.1 Sub-Can-Red Be 3.2	Maple te Pine 58 opy Species I Maple eech	81-110 Density Medium Low 81-110 S Density Full Low Unspecified	Avg. Height Variable < 5 feet N/A Avg. Height Variable Variable No	Sapling Sapling Size Sapling Sapling	May have some seasonally wet areas with stand, also has a few scattered balsam fir and white pine.
37	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N. Canopy Species Red Maple Bigtooth Aspen Black Cherry 330 - Low-	% Cover 10 90 Hardwood % Cover 35 35 30 Density Tre	Size Class Pole Log/Pole - Aspen Size Class Pole/Log Pole/Log Log/Pole es	DBH 8 18 Poletimb DBH 9 9 10 Nonsto	Age	Sub-Cane Red Whit 16.1 Sub-Cane Red Be 3.2 85.3 Sub-Cane	Maple te Pine 58 Opy Species Maple te Pine 68 Opy Species Maple 69 Opy	81-110 Density Medium Low 81-110 S Density Full Low Unspecified	Avg. Height Variable < 5 feet N/A Avg. Height Variable Variable No	Sapling Sapling Size Sapling Sapling	May have some seasonally wet areas with stand, also has a few scattered balsam fir and white pine. Stand was select thinned in late winter and spring of 2006.
37	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N. Canopy Species Red Maple Bigtooth Aspen Black Cherry 330 - Low- 4110 - Sugar M. Canopy Species	% Cover 10 90 Hardwood % Cover 35 35 30 Density Tre	Size Class Pole Log/Pole - Aspen Size Class Pole/Log Pole/Log Log/Pole es Size Class	DBH 8 18 Poletimb DBH 9 9 10 Nonsto	Age	Sub-Cander Red White 16.1 Sub-Cander Red Be 3.2 85.3 Sub-Cander Sugar	opy Species I Maple te Pine 58 opy Species I Maple eech	81-110 Solution Unspecified 81-110 Solution Balance B	Avg. Height Variable < 5 feet N/A Avg. Height Variable Variable No N/A Avg. Height	Sapling Sapling Size Sapling Sapling	May have some seasonally wet areas with stand, also has a few scattered balsam fir and white pine. Stand was select thinned in late winter and spring of 2006. Lots of large, down, woody debris and standing dead snags due to dead
37	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N. Canopy Species Red Maple Bigtooth Aspen Black Cherry 330 - Low- 4110 - Sugar M Canopy Species Sugar Maple	% Cover 10 90 Hardwood % Cover 35 35 30 Density Tre Maple Assort % Cover 65	Size Class Pole Log/Pole - Aspen Size Class Pole/Log Pole/Log Log/Pole es Size Class Log/Pole	DBH 8 18 Poletimb DBH 9 10 Nonsto	Age	Sub-Can- Red Whit 16.1 Sub-Can- Red Be 3.2 85.3 Sub-Can- Suga Suga	opy Species I Maple te Pine 58 opy Species I Maple eech 107 opy Species ar Maple	S Density Medium Low 81-110 S Density Full Low Unspecified 81-110 S Density Low	Avg. Height Variable < 5 feet N/A Avg. Height Variable Variable No N/A Avg. Height Variable	Sapling Size Sapling Sapling Sapling Sapling	May have some seasonally wet areas with stand, also has a few scattered balsam fir and white pine. Stand was select thinned in late winter and spring of 2006. Lots of large, down, woody debris and standing dead snags due to dead
37	Canopy Species Bigtooth Aspen White Pine 4116 - Mixed N. Canopy Species Red Maple Bigtooth Aspen Black Cherry 330 - Low- 4110 - Sugar M Canopy Species Sugar Maple Red Maple	% Cover	Size Class Pole Log/Pole - Aspen Size Class Pole/Log Pole/Log Log/Pole es Size Class Log/Pole Log/Pole	BBH	Age	Sub-Can- Red Whit 16.1 Sub-Can- Red Be 3.2 85.3 Sub-Can- Suga Suga Whi	Maple te Pine 58 opy Species Maple eech 107 opy Species ar Maple ar Maple	Bensity Medium Low 81-110 Bensity Full Low Unspecified 81-110 Bensity Low Low Low	Avg. Height Variable < 5 feet N/A Avg. Height Variable Variable No N/A Avg. Height Variable Variable Variable	Sapling Sapling Size Sapling Sapling Sapling Pole	May have some seasonally wet areas with stand, also has a few scattered balsam fir and white pine. Stand was select thinned in late winter and spring of 2006. Lots of large, down, woody debris and standing dead snags due to dead



Stand	Level 4 Cover Type			Size Density		Acres	Stand Age	BA Range	Managed Site		General Comments	MICHIGAN
40	4139 - Aspen,	4139 - Aspen, Mixed Deciduous			y Well	33.2	7	Immature	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age							
	Sugar Maple	10	Sapling	1								
	Red Maple	35	Sapling	1	7							
	Bigtooth Aspen	45	Sapling	1	7							
	Black Cherry	10	Sapling	1								
41	4130	- Aspen		Sawtimb	er Well	4.4	80	Unspecified	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size		
	Quaking Aspen	40	Log/Pole	12	80	Suç	gar Maple	High	Variable	Sapling		
	Bigtooth Aspen	60	Log/Pole	13	80	W	hite Ash	Medium	Variable	Sapling		
42	42110 - Pla	nted Red P	ine	Poletimb	er Well	15.1	58	171-200	N/A		was thinned in	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size		
	Red Pine	100	Log/Pole	11	58		Beech	Low	< 5 feet	Sapling		
43	4130	- Aspen		Poletimb	er Well	28.6	37	Unspecified	N/A		Also has a few basswood.	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size		
	Sugar Maple	10	Pole	7		Suç	gar Maple	Medium	Variable	Sapling		
	Red Maple	10	Pole/Log	8		Bla	ck Cherry	Low	Variable	Sapling		
	Quaking Aspen	20	Pole/Log	8		Ir	onwood	Medium	Variable	Sapling		
	Bigtooth Aspen	50	Pole/Log	9	37							
	Black Cherry	10	Pole	7								
44	4130	- Aspen		Poletimber Well		13.4	37	Unspecified	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Speci	es Density	Avg. Height	Size		
	Sugar Maple	5	Pole	7		Bla	ck Cherry	Medium	Variable	Sapling		
	Bigtooth Aspen	90	Pole	8	37	Ir	onwood	Medium	Variable	Sapling		
	Black Cherry	5	Pole	7								
45	310 - Herbac	eous Open	land	Nonsto	ocked	4.5		Unspecified	No			
47	4110 - Sugar N	Maple Assoc	ciation	Sawtimb	er Poor	24.8	107	1-50	N/A			
	Canopy Species		Size Class		l Age		nopy Speci	es Density	Avg. Height	Size		
	Sugar Maple	70	Log/Pole	12	107		gar Maple	Medium	Variable	Sapling		
	Basswood	30	Log/Pole	14		Suç	gar Maple	Low	Variable	Pole		
						Bigto	ooth Aspen	Medium	5 - 10 feet	Sapling		



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age I	BA Range	Managed S	iite	General Comments	MICHIGAN.
48	4110 - Sugar N	Maple Assoc	ciation S	Sawtimber	Medium	2.7	87	1-50	N/A			
	Canopy Species	% Cover	Size Class	s DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Quaking Aspen	10	Log/Pole	11		Sug	ar Maple	Medium	Variable	Sapling		
	Black Cherry	90	Log/Pole	11	87	Honeys	suckle (spp.)	High	< 5 feet	Tall Shrub		
49	42110 - Pla	nted Red P	ine	Sawtimb	er Well	8.4	58	171-200	N/A		Thinned in 2004	
	Canopy Species	% Cover	Size Class	s DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Pine	100	Log/Pole	12	58	I	Beech	Medium	< 5 feet	Sapling		
51	42110 - Pla	nted Red P	ine	Poletimb	er Well	3.2	48	111-140	N/A		Trees were planted in a sand blow eroded area	Growth slow and poor
	Canopy Species % Cover Size Class		s DBH	DBH Age						quality, many multi stemmed trees		
	Red Pine	100	Pole	5	48							
52	4110 - Sugar N	/laple Assoc	ciation	Sawtimb	er Well	31.0	107	111-140	N/A			
	Canopy Species	% Cover	Size Class	s DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Sugar Maple	89	Log/Pole		107	E	Beech	Medium	Variable	Sapling		
	Red Maple	3	Log/Pole	13		Iro	onwood	High	Variable	Sapling		
	White Ash	3	Log/Pole	13							1	
	Bigtooth Aspen	5	Log/Pole	12								
53	4139 - Aspen,	Mixed Deci		Poletimb		8.4	37 l	Jnspecified	N/A			
	Canopy Species	% Cover	Size Class	s DBH	Age							
	Sugar Maple	5	Pole/Saplir	ng 6	37							
	Red Maple	40	Pole/Saplir	ng 6	37							
	Beech	5	Pole/Saplir	ng 6	37							
	Bigtooth Aspen	40	Pole/Saplir		37							
	Black Cherry	5	Pole/Saplir	_	37							
	Ironwood	5	Pole/Saplir	ng 6	37							
54	42110 - Pla	nted Red P	ine	Sawtimb	er Well	9.3	58	111-140	N/A		thinned 2004	
	Canopy Species		Size Class	s DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Pine	100	Log/Pole	11	58		Beech	Medium	< 5 feet	Sapling		
						Sug	ar Maple	Low	Variable	Sapling		
55	42110 - Pla			Poletimb		3.0	65	201+	N/A			
	Canopy Species		Size Class		Age		nopy Species		Avg. Height	Size		
	Red Pine	100	Log/Pole	11	65		Beech	Medium	Variable	Sapling		
56	42110 - Pla			Poletimb		17.8	58	171-200	N/A		Thinned in 2004	
	Canopy Species		Size Class		Age							
	Red Pine	100	Log/Pole	10	58							



Stan	Level 4 Cover Type			Size Density		Acres Stand Age	BA Range	Managed S	ite	General Comments
57	42110 - Planted Red Pine			Sawtimber Well		7.1 65	171-200	N/A		Thinned 2004
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Speci	es Density	Avg. Height	Size	
	Red Pine	100	Log/Pole	10	65	Beech	Low	< 5 feet	Sapling	
59	4319 - Mixed	Upland Fo	rest	Poletimb	er Well	5.0 55	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Speci	es Density	Avg. Height	Size	
	Red Maple	50	Pole/Log	8	55	Sugar Maple	Low	Variable	Sapling	
	White Spruce	45	Pole/Log	8		Red Maple	High	Variable	Sapling	
	Black Cherry	5	Pole/Log	8		Ironwood	Low	Variable	Sapling	
60	42110 - Plar	nted Red P	ine	Poletimb	er Well	13.3 65	171-200	N/A		Thinned in 2004
	Canopy Species	% Cover	Size Class	DBH	l Age					
	Red Pine	100	Pole/Log	9	65					
61	42110 - Plar			Sawtimb	er Well	3.3 75	141-170	N/A		Thin strip of pine planted along edge of Thompsonville road as a windbreak and erosion control. Retain for visual aesthetic
	Canopy Species		Size Class		l Age	Sub-Canopy Speci		Avg. Height	Size	The state of the s
	White Pine	15	Pole/Log	8	LL	Red Maple	Medium	Variable	Sapling	
	Red Pine Jack Pine	75 10	Log/Pole Pole/Log	12	75					
62	4116 - Mixed N. I		Size Class	Poletimb	er Well I Age	15.0 46 Sub-Canopy Speci	81-110 es Density	N/A Avg. Height	Size	
	Sugar Maple	15	Pole	8	46	Sugar Maple	Medium	Variable	Sapling	
	Red Maple	15	Pole	8	46	Red Maple	Medium	Variable	Sapling	
	Beech	5	Pole	8	46	Ironwood	High	Variable	Sapling	
	Bigtooth Aspen	40	Pole	8	46		'	I		
	Black Cherry	25	Pole	8	46					
63	4139 - Aspen, I	Mixed Deci	duous	Poletimb	er Well	7.5 46	Unspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Speci	es Density	Avg. Height	Size	
	Red Maple	40	Pole	8	46	Red Maple	High	Variable	Sapling	
	Bigtooth Aspen	55	Pole	8	46	Beech	Low	< 5 feet	Sapling	
	Black Cherry	5	Pole	8	46					
65	4130 -	- Aspen		Poletimb		16.1 46	Unspecified	N/A		Also contains some sugar maple.
	Canopy Species		Size Class		l Age	Sub-Canopy Speci		Avg. Height	Size	
	Red Maple	15	Pole		40	Red Maple	High	Variable	Sapling	
	<u>'</u>			8	46	·				
	Quaking Aspen	15	Pole	8	46	Ironwood	Medium	Variable	Sapling	
	<u>'</u>					·				



Stand	d Level 4 Co	over Type		Size De	ensity	Acres	Stand Age E	A Range	Managed S	ite	General Comments
66	4110 - Sugar M	laple Assoc	iation	Sawtimb	er Well	35.0	90	81-110	N/A		Aspen was cut out of stand in 1984
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	60	Log/Pole	14	90		Beech	Medium	Variable	Sapling	
	Red Maple	5	Log/Pole	12		Ir	onwood	High	Variable	Sapling	
	Basswood	25	Log/Pole	14	90						
	Black Cherry	5	Log/Pole	12							
	Beech	5	Log/Pole	14							
67	4139 - Aspen, I	Mixed Decid	duous	Sapling	Medium	56.1	4	Immature	N/A		Contains many many scattered retention trees as individual and small
	Canopy Species	% Cover	Size Class	DBH	l Age						groups.
	Bigtooth Aspen	45	Sapling	1	4						
	Red Maple	25	Sapling	1							
	Beech	25	Sapling	1							
	Ironwood	5	Sapling	1							
68	4112 - Maple, Beec	h, Cherry A	ssociation S	Sawtimbe	r Mediun	n 28.5	80	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	65	Log/Pole	13	80	Sug	gar Maple	Low	< 5 feet	Sapling	
	Red Maple	35	Log/Pole	13			Beech	Medium	< 5 feet	Sapling	
69	4110 - Sugar M			Sawtimb		47.8	114	81-110	N/A		Was select thinned in 2005
	Canopy Species	% Cover			I Age		nopy Species		Avg. Height	Size	
	Sugar Maple	60	Log/Pole		114		gar Maple	Medium	>20 feet	Sapling	
	Red Maple	15	Log/Pole				gar Maple	Medium	Variable	Pole	
	Basswood	15	Log/Pole		L	Ir	onwood	Medium	Variable	Sapling	
	Beech	5	Log/Pole								
	Black Cherry	5	Log/Pole	11							
70	42110 - Plar			Sawtimb	er Well	14.2	65	171-200	N/A		Was thinned 2004
	Canopy Species	% Cover	Size Class		l Age						
	Red Pine	100	Log/Pole	10	65						
											
71	4110 - Sugar M	<u> </u>		Sawtimb		32.4	95	81-110	N/A		Was select thinned 2005
71	4110 - Sugar M	laple Assoc	Size Class	DBH	er Well	Sub-Ca	nopy Species		N/A Avg. Height	Size	Was select thinned 2005
71	4110 - Sugar M	<u> </u>		13		Sub-Ca				Size Sapling	Was select thinned 2005
71	4110 - Sugar M	% Cover	Size Class	13	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Sapling Pole	Was select thinned 2005
71	4110 - Sugar M Canopy Species Sugar Maple	% Cover 75	Size Class	13 13	I Age	Sub-Ca Sug Sug	nopy Species gar Maple	Density Low	Avg. Height Variable	Sapling	Was select thinned 2005



Stan	d Level 4 C	over Type	s	ize De	ensity	Acres	Stand Age E	A Range	Managed S	ite	General Comments
72	42110 - Planted Red Pine			Poletimber Well		41.2	65	171-200	N/A		Thinned twiced in 1994 and 2005
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Can	nopy Species	Density	Avg. Height	Size	
	Red Pine	100	Log/Pole	11	65	В	Beech	Medium	< 5 feet	Sapling	
73	4110 - Sugar N	laple Asso	ciation Sa	wtimb	er Well	134.0	114	111-140	N/A		Extremely hilly terrain. very difficult (machinery) access.
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Can	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	65	Log/Pole	13	114	Suga	ar Maple	Medium	Variable	Pole	
	Red Maple	5	Log/Pole	12		В	Beech	Medium	Variable	Sapling	
	Basswood	15	Log/Pole	13		Iro	nwood	Low	Variable	Sapling	
	Beech	5	Log/Pole/XLog	14							
	Bigtooth Aspen	5	Log/Pole	13							
	Black Cherry	5	Log/Pole	12							
74					er Well	30.1	100	141-170	N/A		1
	Canopy Species		Size Class		I Age		nopy Species		Avg. Height	Size	
	Sugar Maple	40	Log/Pole/XLog	14	100		ar Maple	Medium	Variable	Pole	
	Red Maple	5	Log/Pole	13			Beech	Medium	< 5 feet	Sapling	
	Basswood	15	Log/Pole	13	<u> </u>	В	Beech	Medium	Variable	Pole	
	Beech	30	Log/Pole/XLog	16							
	Bigtooth Aspen	10	Log/Pole/XLog	15							
75	4139 - Aspen,	Mixed Dec	iduous Po	letimb	er Well	29.1	37 U	nspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Can	nopy Species	Density	Avg. Height	Size	
	Red Maple	35	Pole/Sapling	6	37	Red	d Maple	Medium	Variable	Sapling	
	Red Oak	5	Pole/Sapling	6		В	Beech	Medium	Variable	Sapling	
											_
	Bigtooth Aspen	55	Pole/Sapling	7	37						
	Bigtooth Aspen Black Cherry	55 5	Pole/Sapling Pole/Sapling	7	37						
76	Black Cherry	5	Pole/Sapling	6	37 er Well	24.4	58	81-110	N/A		
76	Black Cherry	5 Hardwood	Pole/Sapling	6 wtimb			58		N/A Avg. Height	Size	
76	Black Cherry 4116 - Mixed N.	5 Hardwood	Pole/Sapling - Aspen Sa	6 wtimb	er Well	Sub-Can				Size Sapling	
76	Black Cherry 4116 - Mixed N. Canopy Species	5 Hardwood % Cover	Pole/Sapling - Aspen Sa - Size Class	6 wtimb	er Well	Sub-Can	nopy Species	Density	Avg. Height		
76	Black Cherry 4116 - Mixed N. Canopy Species Sugar Maple	5 Hardwood % Cover	Pole/Sapling - Aspen Sa - Size Class Log/Pole	6 wtimb	er Well	Sub-Can	nopy Species d Maple	Density High	Avg. Height Variable	Sapling	

Traverse City Mgt. Unit

Report 7 - Stands



Stand	Level 4 C	Size Density		Acres	Acres Stand Age BA		Managed Site		General Comments	MICHIGAN		
78	4191 - Mixed Upland Deciduous with Conifer			Poletimber Well		l 14.5	14.5 60		N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Red Maple	40	Log/Pole	14	60	Re	ed Maple	Medium	Variable	Pole		
	Quaking Aspen 15 Pole 8 60			60	R	ed Maple	High	Variable	Sapling			
	Bigtooth Aspen	15	Log/Pole	12		W	hite Pine	Medium	Variable	Sapling		
	White Pine	30	Pole/Log	9							-	
81	4116 - Mixed N. Hardwood - Aspen			Sawtimb	er Wel	l 2.8	80	51-80	N/A		lots of beech bark disease	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Sugar Maple	30	Log/Pole	12	80	R	ed Maple	Medium	Variable	Pole		
	Red Maple	30	Log/Pole	11	80		Beech	High	Variable	Sapling		
	Beech	15	Log/Pole	11		Ir	onwood	Low	Variable	Sapling		
	Bigtooth Aspen	25	Pole	8				,		•	-	