

Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61165 Entry Year 2022 Acreage: 1,757

County Kalkaska

Management Area: Boardman Plains

Revision Date: 2020-07-23

Stand Examiner: Katie Armstrong

Legal Description:

27N 8W Sections 16, 17, 18, and 19

Identified Planning Goals:

Vegetation management in the Boardman Plains management area will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character including the Boardman River (a designated natural river) and the Sand Lakes Quiet Area (a designated high conservation value area), threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management objectives for this planning period include improving the age-class structure of aspen; increasing regeneration of oak; working toward balancing the red pine age-class structure; continuing emphasis on managing the northern hardwood resource for stand quality, age, and species diversity; wildlife values; and continued production of wood products. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation opportunity. Expected challenges within this 10-year planning period include: increased recreational pressure; increased oil and gas development; an increased wildland/urban interface; a need to restore oak/pine barrens communities; invasive plant control; and the conversion of poor oak sites to mixed pine/oak sites.

Soil and topography:

Soils range from Rubicon sand to Kalkaska Loamy Sand. Topography is rolling hills with some relatively steep slopes. Topography will present management challenges in some areas.

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

Most of the compartment is contiguous state ownership with private property in Sections 16 and 17. There is a matrix of small state- and privately owned lots off of Island Lake Road. Past attempts to sell some of the state land were unsuccessful, but have been recommended for disposal in an upcoming review.

Unique Natural Features:

There are some small kettle depressions and this compartment is adjacent to the north side of Island Lake.

Archeological, Historical, and Cultural Features:

There are two known archaeological sites.

Special Management Designations or Considerations:

The compartment is adjacent to the Sand Lakes Quiet Area.

Watershed and Fisheries Considerations:

This compartment is within the Boardman River Watershed and is adjacent to Island Lake. Reasonable buffers (as outlined in Water Quality Management Practices on Forest Land) along the lake's wetland margin appear to be appropriate.

Wildlife Habitat Considerations:

This compartment falls into two land type associations: 1) the southern edge of the Williamsburg moraine crosses the northern edge of this compartment. This hilly area was historically dominated by maple-beech forest, but has been greatly altered. Remnant hardwood forest should be maintained via selective harvesting practices to create small gap disturbances. Tree species diversity and habitat structure (e.g. down logs, understory development and cavity trees) should be maintained or enhanced when treating stands. Beech is a particularly important species for wildlife, if there are any left. Previously disturbed areas now harboring black cherry, white pine, and aspen mixes should be allowed to succeed or moved toward uneven-aged conditions through selective harvesting. 2) Most of the compartment falls into a pitted outwash plain. Ridges, draws, and depressions may have tempered naturally occurring wildfires; thus habitat patches should be smaller on average than those on adjacent dry outwash plains. A mosaic of mixed oak, pine, and aspen stands of various ages is appropriate here, including some later successional hardwoods in the lee of natural firebreaks. Small or narrow openings are often associated with kettle depressions and should be maintained as shrubby openings. Frost naturally limits tree encroachment in these draws and depressions, although the fringes hold some black

cherry, aspen, and white pine. Abandoned oil well sites could be managed in a complimentary fashion by revegetating with grass mixes to eliminate exotic invasives and allowing some natural tree encroachment on the edges. A major windstorm in 1998 has created numerous semi-open patches. Some blowdown patches should remain unsalvaged to allow wholly natural processes to continue to unfold.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of an end moraine of coarse textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Coldwater Shale. There is no current economic use for the Coldwater Shale. The nearest gravel pits are within one mile to the north. Gravel potential in the compartment is considered good. This area is located along the northern edge of the Silurian Niagaran reef trend. Part of the state land is currently leased for oil and gas development and there may be additional reef potential. Part of the compartment has been nominated for underground gas storage and Section 18 was nominated for the May 2010 lease auction. The Antrim Shale has not been developed in this area, but may have some future potential.

Vehicle Access:

There is sufficient vehicle access throughout the compartment.

Survey Needs:

There are no survey needs at this time.

Recreational Facilities and Opportunities:

Fire Protection:

DNR fire protection is from the Kalkaska Field Office and volunteer fire protection is from the Kalkaska Fire Department. Travel time is good and access is not an issue.

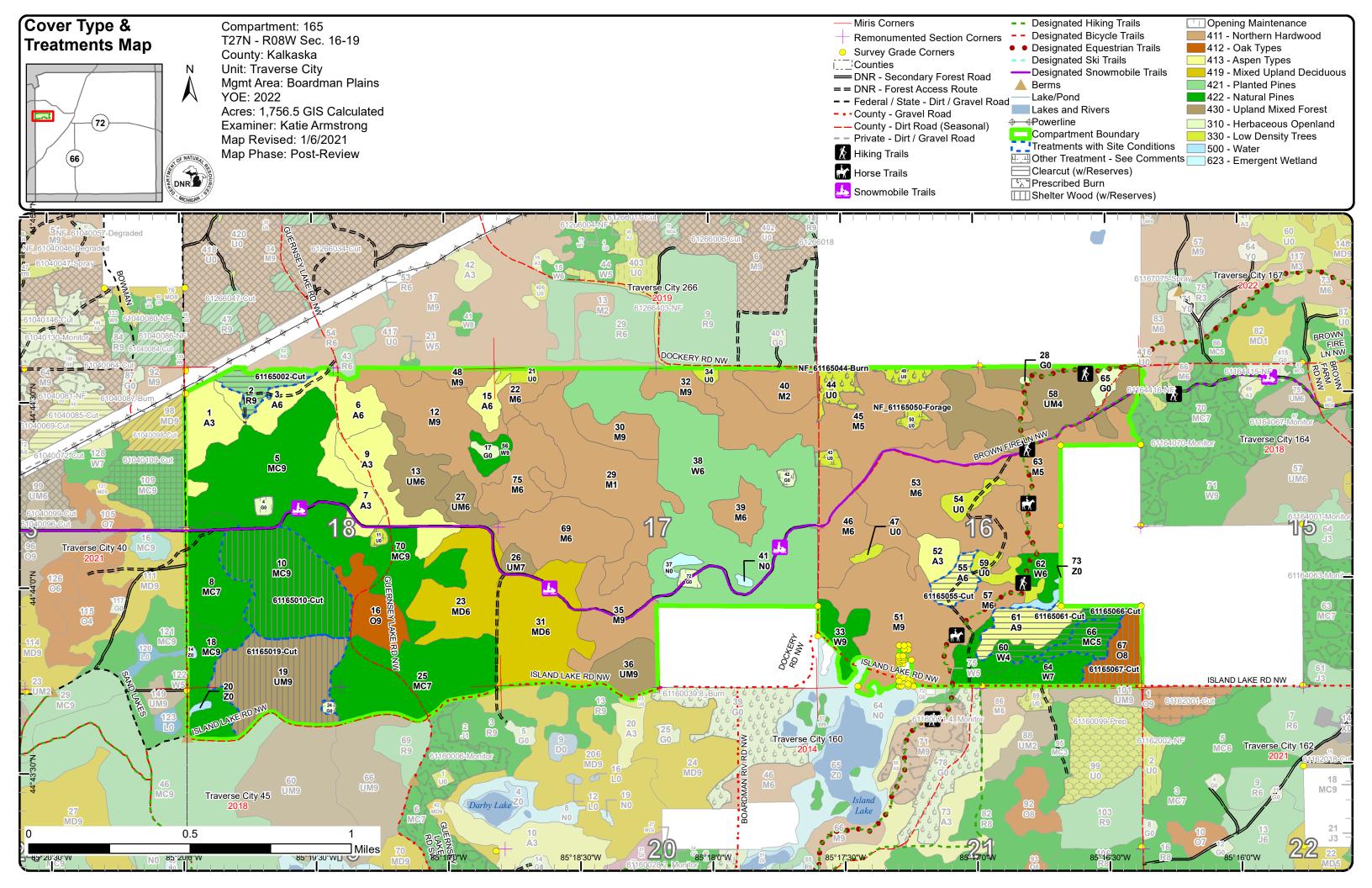
Additional Compartment Information:

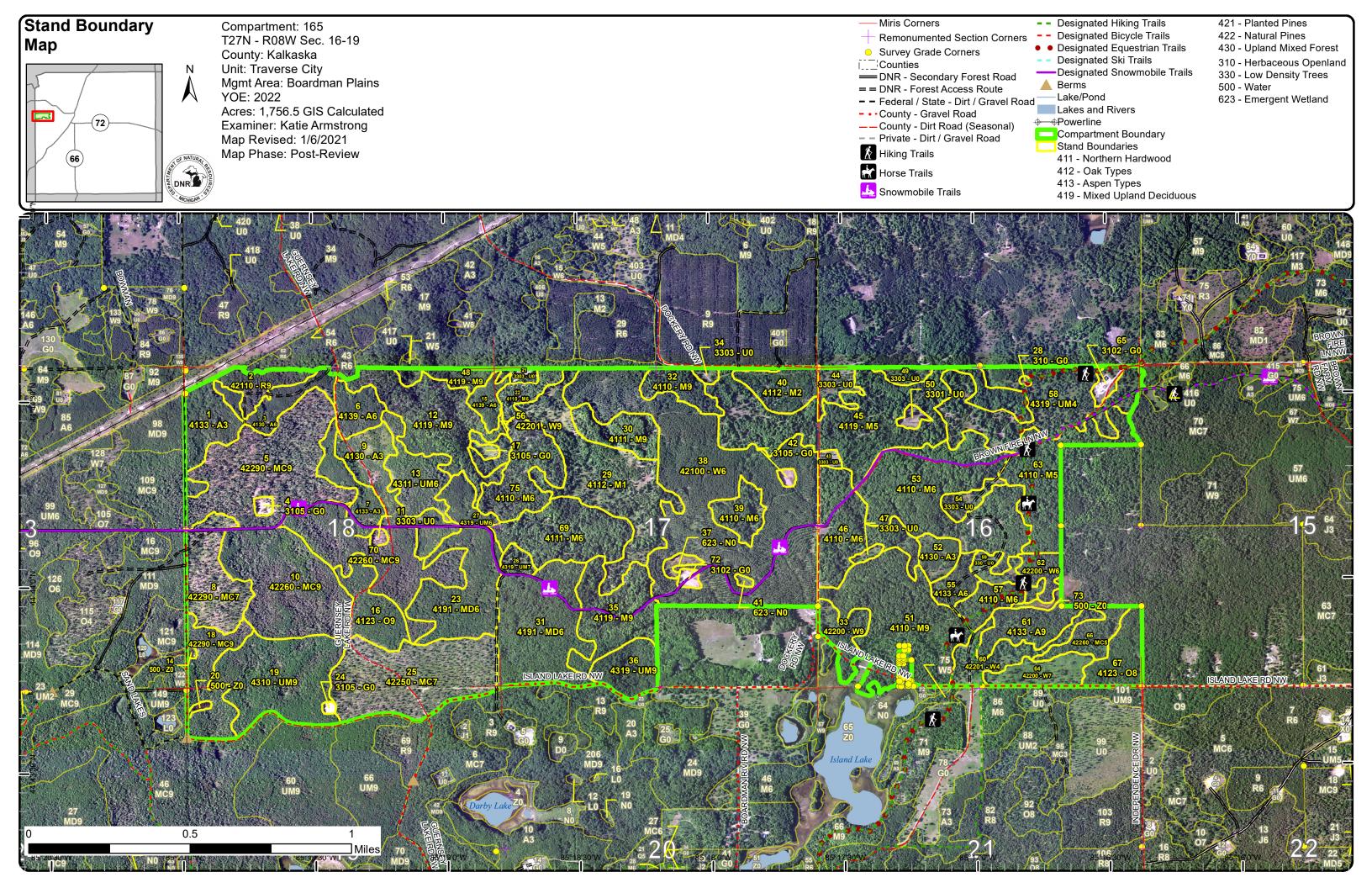
The following reports from the Inventory are attached:

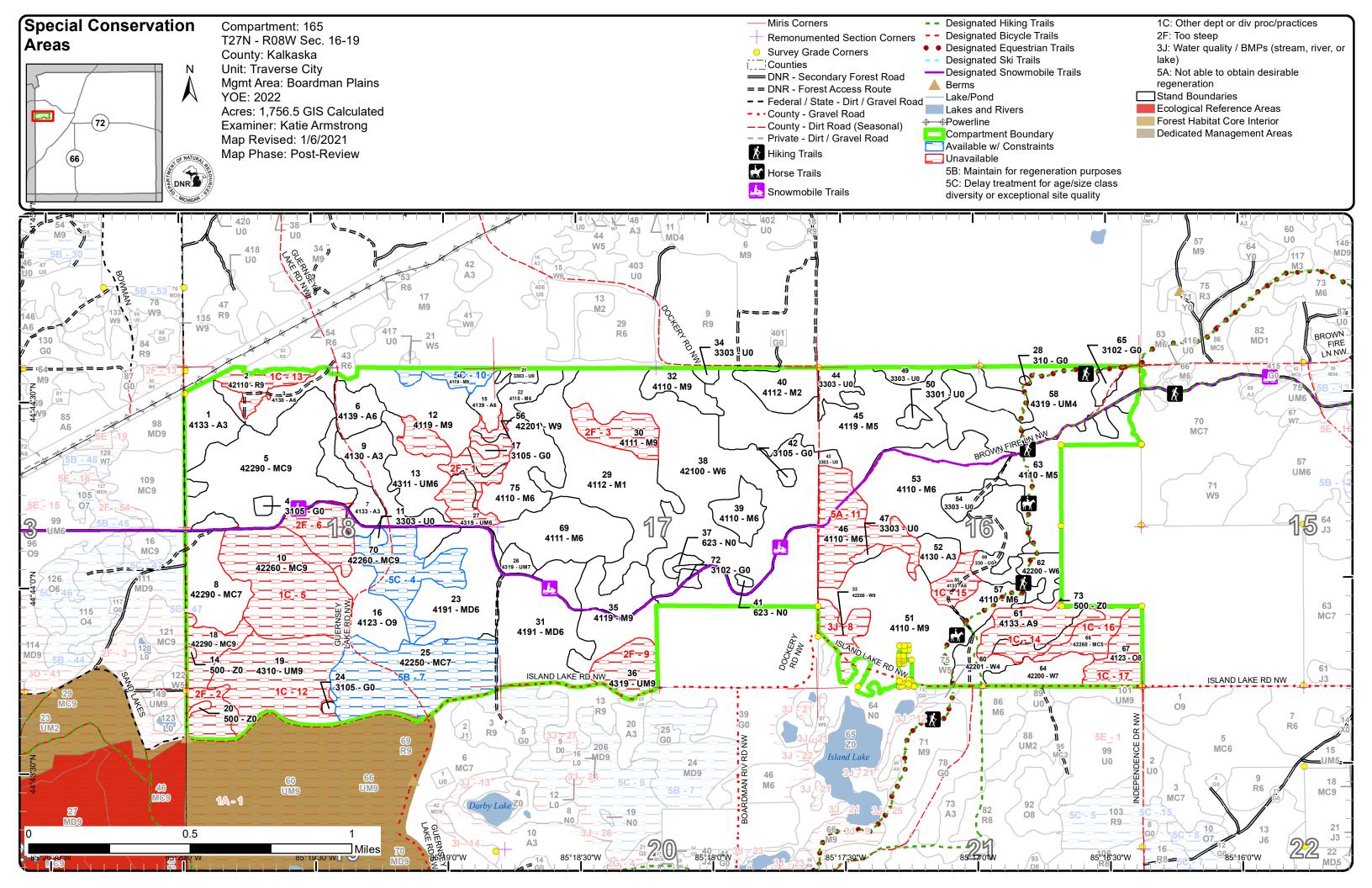
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







Traverse City Mgt. Unit
Katie Armstrong: Examiner

Compartment 165 Year of Entry 2022



Age Class

	, agr	Zen S	\$ \ <u>\</u>	\$ \\ \phi_{\text{start}}		3 / 6		3 /8					7a2,	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		\$ / W	R S	* July	TO TO
Aspen	0	0	39	55	8	22	0	19	0	0	0	0	0	0	0	0	0	0	143
Herbaceous Openland	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Low-Density Trees	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Mixed Upland Deciduous	0	0	0	0	0	60	0	0	42	0	0	0	0	0	0	0	0	0	102
Natural Mixed Pines	0	0	0	0	0	0	0	13	0	177	145	0	0	0	0	0	0	0	334
Northern Hardwood	0	0	69	17	0	38	101	167	204	49	0	0	0	0	0	0	0	0	645
Oak	0	0	0	0	0	0	0	0	22	18	0	0	0	0	0	0	0	0	40
Red Pine	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	13
Upland Mixed Forest	0	0	0	0	23	11	64	0	63	18	0	0	0	0	0	0	0	0	178
Water	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
White Pine	0	0	0	20	0	0	0	182	16	20	0	0	0	0	0	0	0	0	238
Total	65	0	108	92	31	131	165	381	347	282	158	0	0	0	0	0	0	0	1757



Report 2 - Treatment Summary

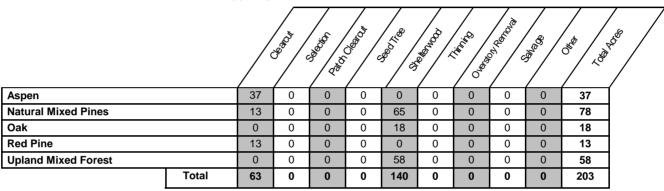
Traverse City Mgt. Unit Year of Entry: 2022

Acres of Harvest

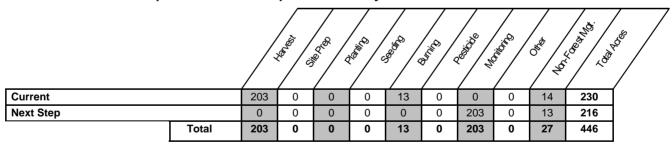
Compartment 165
Total Compartment Acres: 1,757

Commercial Harvest Harvests with Site Condition - 203
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: 165 Year of Entry: 2022 DNR DNR

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Treatment Name

Acres

Stand CoverType

Size Density

Stand Age

BA Range Treatment Type Treatment Method Cover Type Objective Age Structure Habitat Cut

Approved Treatments:

61165002-Cut 13.0 42110 - Planted Sawtimber 111-Harvest Clearcut with 4319 - Mixed Uneven-No Red Pine Well 140 Retention **Upland Forest** Aged

 $\underline{\underline{Prescription}} \quad \text{Cut red pine except for area retention. Leave white pine} < 6" \, \text{dbh. Protect desireable advanced hardwood regeneration.}$

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Site is not suitable for replanting so goal is to encourage existing white pine while promoting hardwood regeneration.

Regen:

Other Comment:

Site Condition Other Dept./Div. Processes

Proposed Start Date: 10/1 /2021

10 61165010-Cut 64.5 42260 - Natural Sawtimber 92 81-110 Harvest Shelterwood 429 - Mixed Even-Aged No Pine, Mixed Well Upland Conifers

Deciduous

<u>Prescription</u> Shelterwood cut to harvest most of mature red and white pine. Cut all aspen, jack pine, red maple, and cherry. Mark red pine to cut. Some <u>Specs:</u> pockets will be a thin-from-above while others will be more of a shelterwood with lower residual BA. Mark white pine to cut with similar

residual goals, releasing white pine understory where present and promoting growth of small poles. Cut all red and white oak except those marked with an orange X, which will consist of wildlife trees and those with some good growth and/or longevity potential. Residual BA will be

variable across the stand, 0-60 sf/acre, but maybe averaging 30.

Leave area retention on steeper slopes and around small pockets of trees to preserve remnants of this stand.

<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Red pine, white pine, jack pine, red oak, white oak, aspen.

Regen:

Other Treatment is adjacent to snowmobile trail so protect trail with appropriate sale specs. Access will be tricky because of topography but

<u>Comment:</u> generally encourage use of Guernsey Lake Rd over snowmobile trail.

Site Condition Other Dept./Div. Processes

Proposed Start Date: 10/1 /2021

11 61165011-NF 1.6 3303 - Mixed Low Nonstocked NonForestMgt Fruit Tree/Shrub 3204 - Mast No Density Trees Planting Producing Shrub

Prescription Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire

Specs: cages or tubex.

Next Step Treatments:

Treatments:

Acceptable Regen:

Other Comment:

Site Condition

Compartment: 165

S t		146136 01	ly lingt. Offic		Kepo	11.5	rreatments		Year of Entry		DNR
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habit Cut
19	61165019-Cut	57.7	4310 - Pine, Oak Mix	Sawtimbe Well	er 78	111- 140	Harvest	Shelterwood	4319 - Mixed Upland Forest	Even-Aged	No
Pres Spe	scription Shelte cs: mark to	rwood to r o leave. R	emove aging pine a esidual BA will be v	and oak. Try variable, 0-6	to rele 60 sf/ac	ease white re, averaç	pine understory je 30.	y and promote oak	regeneration whe	re possible. G	enerally
Trea	atments:		ral Regen (Re-Inve		!		anda blada ba				
Reg Othe	en: er	ne, write	pine, jack pine, red	oak, write t	uak, as	pen, rea r	паріе, віаск спе	arry.			
Con	nment:										
		•	Div. Processes								
Prop	osed Start Date	<u>:</u> 10/1 /2									
55	61165055-Cut	9.4	4133 - Aspen, Mixed Pine	Poletimbe Well	er 49	51-80	Harvest	Clearcut	4133 - Aspen, Mixed Pine	Even-Aged	No
Pres Spe		arvest. No	o retention because	of small siz	ze.						
	t Step Monito atments:	ring, Natu	ıral Regen (Re-Inve	ntory)							
Acc Reg		, white pin	ie, red pine, jack pir	ne, white oa	ık, red c	oak, red m	naple, black che	rry, sugar maple.			
Othe Con	<u>er</u> nment:										
Site	Condition Oth	er Dept./[Div. Processes								
<u>Pro</u> p	osed Start Date	<u>:</u> 10/1 /2	021								
61	61165061-Cut	27.1	4133 - Aspen, Mixed Pine	Sawtimbe Well	er 61	51-80	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	No
Pres Spe			iving area retention ed species. Expand						ees, expecially wh	nite oak (if pre	sent) and
=	t Step Monito htments:	ring, Natu	ıral Regen (Re-Inve	ntory)							
Acc Reg		, white pin	e, red pine, jack pir	ne, white oa	ık, red c	oak, red m	naple, black che	rry.			
Othe Con		ouches we ing trail.	estern edge of stand	d and trucks	or equ	ipment m	ight need to cro	ss it to access stan	d. Use specs requ	uiring caution	signs an
<u>Site</u>	Condition Oth	er Dept./[Div. Processes								
Prop	osed Start Date	<u>:</u> 10/1 /2	021								
66	61165066-Cut	13.2	42260 - Natural Pine, Mixed Deciduous	Poletimbe Medium		51-80	Harvest	Clearcut with Retention	42201 - Natural White Pine, Mixed Deciduous	Even-Aged	N
Pres Spe		arvest lea nt stands.	ving retention as so	cattered whi	te pine	or white o	oak. Low mercha	antability in this star	nd but can be trea	ated the same	as
	t Step Monito atments:	ring, Natu	ıral Regen (Re-Inve	ntory)							
Acc Reg	•	pine, red p	oine, jack pine, whit	e oak, red o	oak, red	d maple, a	ispen.				
Othe Com	e <u>r</u> nment:										
<u>Site</u>	Condition Oth	er Dept./[Div. Processes								
D	10, 10,	40/4/0	004								

Traverse City Mgt. Unit

Report 3 -- Treatments

Compartment: 165 Year of Entry: 2022

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

67 61165067-Cut 18.0 4123 - Red Oak Sawtimber 51-80 Harvest Shelterwood 42201 - Natural Medium White Pine.

Even-Aged Mixed

Deciduous

Nο

Treatment will be a final harvest leaving scattered white oak for seed and scattered or clumpy white pine. Consider leaving area retention Prescription (mostly pine) along Island Lake Rd. No oak wilt exceptions since this is across Island Lake Rd from OW treatment site. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable White pine, red pine, jack pine, red oak, white oak, red maple, aspen. Ok to have lower BA since current stand is somewhat open.

Regen:

Other Comment:

Site Condition Other Dept./Div. Processes

Proposed Start Date: 10/1 /2021

72 61165072-NF 2.3 3102 - Grass Nonstocked NonForestMgt Herbaceous/Crop 3204 - Mast No /Grass Planting Producing Shrub

Prescription This opening was a maintained wildlife opening. May need to treat for exotics. Disk in crab/quack grass, plant to annual rye for several Specs: years and then convert back to a pasture mix (i.e. clover/alfalfa).

Next Step Treatments:

<u>Acceptable</u>

Regen:

Other Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire

Comment: cages or tubex.

Site Condition

Proposed Start Date: 10/1 /2021

3105 - Mixed NF 61165004-1.9 Nonstocked NonForestMgt Herbaceous/Crop 3105 - Mixed No Recondition **Upland Herbaceous** /Grass Planting Upland Herbaceous

Prescription Blow sand, skw, sjw, scattered red/white/jack pine, mullein, Needs MAJOR rehab work. Scattered aspen along south edge.

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Could plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. Fertilize plantings and protect with wire Other

Comment: cages or tubex.

Site Condition

Traverse City Mgt. Unit

Report 3 -- Treatments

Compartment: 165 Year of Entry: 2022

а **Treatment** Stand BA **Treatment** Treatment **Cover Type** Acres Stand Size Age Habitat n Objective Method Name CoverType Density Age Range Type Structure Cut d

NF 61165024-1.0 3105 - Mixed Nonstocked NonForestMat Other - Specify 3105 - Mixed Nο **Upland Herbaceous** Upland **Forage** Herbaceous

Prescription This opening was a maintained wildlife opening. May need to treat for exotics. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture mix (i.e. clover/alfalfa). Specs:

Next Step Treatments:

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Acceptable Regen:

Other 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. Comment:

Old next step comments: Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment.

Site Condition

Proposed Start Date: 10/1 /2021

NF_61165042-1.6 3105 - Mixed Nonstocked Immatu NonForestMgt Other - Specify 3105 - Mixed No **Upland Herbaceous** Upland **Forage** re Herbaceous

Prescription This opening was a maintained wildlife opening. May need to treat for exotics. Disk in crab/quack grass, plant to annual rye for several

Specs: years and then convert back to a pasture mix (i.e. clover/alfalfa).

Next Step Treatments:

<u>Acceptable</u> Regen:

Old next step comments: Maintain as needed with mowing, seeding, fertilizing, burning, or removal of woody encroachment. **Other**

Comment:

Site Condition

Proposed Start Date: 10/1 /2021

NF_61165043-2.5 3303 - Mixed Low NonForestMgt Other - Specify 3105 - Mixed No 43 Nonstocked **Forage Density Trees** Upland Herbaceous

Prescription This opening was a maintained wildlife opening. May need to treat for exotics. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture mix (i.e. clover/alfalfa). Specs:

Next Step **Treatments:**

Acceptable Regen:

<u>Other</u> Old next step comments: Maintain as needed with mowing, seeding, fertilizing, burning, or removal of woody encroachment.

Comment:

Site Condition

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 165 S Year of Entry: 2022 t а **Treatment** Stand Size Stand BA **Treatment** Treatment **Cover Type** Acres Age Habitat n Method Range Objective Structure Name CoverType Density Age Type Cut d 44 NF 61165044-13.1 3303 - Mixed Low Nonstocked Burn Opening 31022 - Warm No **Density Trees** Season Grass Burn Prescription Burn on a rotational basis. The goal of prescribed burning is to restore and/or maintain a grassland/barrens ecosystem. The timing and Specs: frequency of the burns will be based on currents needs of restoration such as reducing woody encroachment or promoting grasses versus forbs. Remove exotics as needed by herbiciding or other methods. Maintain as needed with mowing, seeding of native grasses and forbs, planting native mast bearing shrubs or trees, burning, or removal of woody encroachment. Next Step NonForestMat, Other - Specify Treatments: Acceptable Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2021 50 NF 61165050-2.8 3301 - Low Density Nonstocked NonForestMat Other - Specify 3105 - Mixed No **Deciduous Trees** Upland **Forage** Herbaceous Prescription This opening was a maintained wildlife opening. May need to treat for exotics. Disk in crab/quack grass, plant to annual rye for several years and then convert back to a pasture mix (i.e. clover/alfalfa). Specs:

Next Step

Treatments:

Acceptable Regen:

Other Comment: Old next step comments: Maintain as needed with mowing, seeding, fertilizing, burning, or removal of woody encroachment.

Site Condition

Proposed Start Date: 10/1 /2021

Total Treatment 229.7 Acreage Proposed:

Compartment: 165

Traverse City Mgt. Unit

Katie Armstrong : Examiner Year of Entry: 2022

Avail	ability for	Managemer	nt								
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Con	dition	s		
Acres	Available	With Condition	Not Available		5B	5C	1A	1C	2F	3J	5A
143	114	0	29	Aspen				28	0		
14	14	0	0	Herbaceous Openland							
43	43	0	0	Low-Density Trees							
4	4	0	0	Marsh							
102	102	0	0	Mixed Upland Deciduous							
335	111	100	125	Natural Mixed Pines	67	32	0	78	48		
645	564	9	72	Northern Hardwood		9			34		38
40	22	0	18	Oak				18			
13	0	0	13	Red Pine				13			
178	92	0	86	Upland Mixed Forest				58	28		
4	4	0	0	Water							
237	209	0	28	White Pine				8	6	14	
1,757	1,277	109	371	Total Forested Acres	67	41	0	203	117	14	38
	73%	6%	21%	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.

Comments: Might have been possible to cut when adjacent stand was thinned but most of this stand is not feasible to cut now. Beech and ironwood regeneration 2 Unavailable 2F: Too steep 28 Unspecified Unspecifi	Site Condition	Other S	er Site Condition	Other Site Condition	Other Site Condition	Acres	Dominant Site Condition		Site No.
Might have been possible to cut when adjacent stand was thinned but most of this stand is not feasible to cut now. Beech and ironwood regeneration 2 Unavailable 2F: Too steep 28 Unspecified Unspecif	nspecified	Un	Unspecified	Unspecified		34	2F: Too steep	Unavailable	1
Comments: 3 Unavailable 2F: Too steep 17 Unspecified Unspecified Unspecified U	on issues.	egeneratio	ech and ironwood r	is not feasible to cut no	thinned but most of this sta	and was	ssible to cut when adjacent st		
3 Unavailable 2F: Too steep 17 Unspecified Unspecified Unspecified U	nspecified	Un	Unspecified	Unspecified	Unspecified	28	2F: Too steep	Unavailable	2
· · · · · · · · · · · · · · · · · · ·								Comments:	C
Comments:	nspecified	Un	Unspecified	Unspecified	Unspecified	17	2F: Too steep	Unavailable	3
Comments.								Comments:	C

Report 4 – Site Conditions

Traverse City Mgt. Unit
Katie Armstrong: Examiner

4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	32	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	1C: Other dept or div proc/practices	65	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: See locked comme	ents.					
6	Unavailable	2F: Too steep	20	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Part of this area m	ay be manageable but there is	orobabl	y this much or more area in	this compartment that will	be too steep to manage.	
7	Available	5B: Maintain for regeneration purposes	67	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	14	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
	Comments:						
9	Unavailable	2F: Too steep	18	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 4 - Site Conditions **Traverse City Mgt. Unit** Compartment: 165 Year of Entry: 2022 **Katie Armstrong: Examiner** Unspecified Unspecified Unspecified 10 5C: Delay treatment for 9 **Available** age/size class diversity or exceptional site quality Comments: Hold treatment to be more marketable and accessible when treated with 61266017. Unspecified Unspecified Unspecified 11 38 Unavailable 5A: Not able to obtain desirable regeneration Comments: Ironwood and beech regeneration issues. 12 1C: Other dept or div Unspecified Unspecified Unspecified Unavailable 58 proc/practices Comments: See locked comments. 1C: Other dept or div Unspecified Unspecified Unspecified 13 13 Unavailable proc/practices Comments: See locked comments.

14 Unavailable

1C: Other dept or div proc/practices

27

9

Unspecified

Unspecified

Unspecified

Unspecified

Unspecified

Unspecified

Unspecified

Unspecified

Comments:

See locked comments.

15 Unavailable

1C: Other dept or div

Unspecified

Unspecified

Unspecified

Unspecified

Comments:

See locked comments.

Report 4 – Site Conditions

Compartment: 165

Traverse City Mgt. Unit

Katie Armstrong : Examiner Year of Entry: 2022

16	Unavailable	1C: Other dept or div proc/practices	13	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: See locked commer	nts.					
17	Unavailable	1C: Other dept or div proc/practices	18	Unspecified	Unspecified	Unspecified	Unspecified
	comments: See locked commer	nts.					

1/21/2021 11:31:08 AM - Page 4 of 4

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				

Traverse City Mgt. Unit Compartment: 165
Year of Entry 2022



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	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
HCVA	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific mana- rules, as governed by Part 5, Department of Natural Resources, 324.504). Section 38 of the Administrative Procedures Act (MCL the promulgation of rules. This is an active program, with one pro- DNR.	of the NREPA (MCL 324.502(2) and 24.238) provides for public requests for
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Natura context of their natural community classification system. Element (Excellent) or B (Good) and a Global (G) or State (S) element (ra threatened (2), or rare (3) serve as an initial base of ERAs. They the State. The system is comprised of individual or associations of managed for restoration and maintenance of natural ecological p submit recommendations for lands as ERAs using the DNR Constitution.	Il Features Inventory (MNFI) within the Cocurrences with viability ranks of A rity) ranking of endangered (1), may be located upon any ownership in of natural community types that are processes and values. The public may



Stan	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
1	4133 - Aspe	en, Mixed P	ine	Sapling	Well	22.0	26	Unspecified	N/A		Aspen regen with pockets of oak and mixed hardwood. Grand Kal Aspen, 61-015-92-01.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	Clearcut 1993. Left oak, hemlock, WP and beech in this unit.
	Sugar Maple	5	Pole	6			Beech	Low	5 - 10 feet	Sapling	Canopy data from 2010.
	Red Maple	5	Pole	6		W	hite Pine	Low	10 - 20 feet	Pole	
	Beech	5	Log	16							•
	Red Oak	10	Log	16							
	Bigtooth Aspen	50	Sapling	4	26						
	White Pine	25	Pole	10							
2	42110 - Pla	nted Red P	Pine S	Sawtimb	er Well	13.0	92	111-140	N/A		These trees are nearing the end of merchantability due to their size
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	(diameters are close to outgrowing local markets). Mixture of RP, JP, WP
	Red Maple	5	Pole	6			gar Maple	Low	10 - 20 feet	Sapling	planted 1929? Thinned 1992, 61-030-92-01, Guernsey Lake Road Red Pine. Very thick hardwood understory, but mostly beech. Terrain not
	Red Oak	5	Pole	8			Beech	Medium	10 - 20 feet	Sapling	suitable for replanting. Stand used to have some ash so hopefully it will
	White Pine	5	Pole/Log	10		W	hite Pine	Medium	5 - 10 feet	Sapling	make a nice hardwood stand eventually.
	Red Pine	85	XLog/Log	18	92	Ir	onwood	Low	10 - 20 feet	Sapling	
3		- Aspen	ŀ	Poletimb	er Well	16.1	28	51-80	N/A		Aspen regen with some scattered white pine and mixed hardwood. Stand is fully stocked.
	Canopy Species		Size Class		Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	Grand Kal Aspen, 61-015-92-01.
	Red Maple	5	Sapling	3			Beech	Low	5 - 10 feet	Sapling	
	Beech	5	Sapling	3		Ir	onwood	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	80	Pole/Sapling		28	W	hite Pine	Low	10 - 20 feet	Sapling	
	White Pine	10	Pole/Sapling	8		Bla	ck Cherry	Trace	5 - 10 feet	Sapling	
4	3105 - Mixed U	pland Herb	aceous	Nonsto	cked	1.9			Managed Op	pening	Well plugged 1982.
5	42290 - Nati	ural Mixed I	Pine S	Sawtimb	er Well	77.4	87	51-80	N/A		Heavily mixed stand. Cut in 2014. Big Pine, 61-033-12-01. Park Forest Products. Were not able to cut some of the steep slopes, especially on
	Canopy Species	% Cover	Size Class		Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	east end. Eliminated buffer around stick nest just west of old well pad
	Red Oak	20	Log	18		Re	ed Maple	High	10 - 20 feet	Sapling	(Stand 4). Also has stick nest in northeast part. Residual BA varies from
	White Pine	50	Log	14	87		Beech	Low	10 - 20 feet	Sapling	20-90. Average 56. Red maple appears to be dominant regen species at this time.
	Red Pine	30	XLog/Log	18		W	hite Pine	High	10 - 20 feet	Sapling	uns une.
						Qual	king Aspen	Low	10 - 20 feet	Sapling	Mixture of RP, JP, WP planted 1929? (age 91)
6	4139 - Aspen,	Mixed Deci	iduous F	Poletimb	er Well	12.7	43	51-80	N/A		Aspen and maple regen. Try to hold 10 years.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	Perhaps clearcut in 1977.
	Sugar Maple	30	Pole	4		Sug	gar Maple	Low	10 - 20 feet	Sapling	
									F 40 (0 "	
	Quaking Aspen	50	Pole	6	43		Beech	Low	5 - 10 feet	Sapling	
	Quaking Aspen Black Cherry	50 10	Pole Pole	8	43		Beech onwood	Low	5 - 10 feet 5 - 10 feet	Sapling	

Compartment: 165
Year of Entry: 2022

											DNR
Stand	Level 4 C	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
7	4133 - Aspe	en, Mixed P	ine	Sapling	g Well	16.5	26	1-50	N/A		Aspen regen. Some trees just reaching pole size.
	Canopy Species	% Cover	Size Class	DBH	l Age						Grand Kal Aspen, 61-015-92-01.
	Red Maple	5	Sapling	2							
	Bigtooth Aspen	70	Sapling	3	26						
	White Pine	20	Sapling/Pole	4							
	Red Oak	5	Pole/Sapling	5							
8	42290 - Natu	ural Mixed F	Pine S	Sawtimb	er Poor	32.2	89	1-50	N/A		Soup Bowl Oak, 61-013-12-01, cut fall/winter 2012. Hilly terrain. Regen
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	consists of mostly white pine and maple sprouts with scattered oak.
	Red Oak	15	Log/Pole	14	93	Sug	gar Maple	Trace	10 - 20 feet	Sapling	
	White Pine	30	Pole/Log	10		WI	nite Pine	Medium	10 - 20 feet	Sapling	
	Red Pine	50	Log	12	89	Re	ed Maple	Medium	5 - 10 feet	Sapling	
	White Oak	5	Pole/Log	12		Ja	ick Pine	Low	5 - 10 feet	Sapling	
				'		W	hite Oak	Low	5 - 10 feet	Sapling	
9	4130	- Aspen		Sapling	g Well	29.9	16 I	mmature	N/A		Recent clear cut. Aspen is regenerating nicely.
	Canopy Species	% Cover	Size Class	DBH	I Age						165 Aspen, 61-016-02-01. Cut 2004. RO, WP, RP, aspen, HW
	Red Maple	21	Sapling	1							
	Bigtooth Aspen	70	Sapling	2	16						
	White Pine	2	Sapling	1							
	Red Pine	2	Sapling	2							
	Black Cherry	5	Sapling	1							
10	42260 - Natural Pi	ne, Mixed [Deciduous S	Sawtimb	er Well	64.5	92	81-110	N/A		Mifi lost stand comments. Records show a mixture of RP, JP, and WP
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	was planted in 1929, but stand does not look like a traditional planted stand. Some areas of larger pine with hardwoods on the ridges. 16 acres
	Red Oak	15	Log/XLog/Pol	e 12		Re	ed Maple	Low	10 - 20 feet	Pole	in north central part of stand was CC in 1983. Mixed HW, RP, oak,
	White Oak	5	Pole/Log	12		WI	nite Pine	Medium	10 - 20 feet	Sapling	aspen, WP.
	Bigtooth Aspen	10	Pole	8				,			-
	White Pine	25	Log/Pole	10							
	Red Pine	40	Log	14	92						

Managed Opening

Well site plugged 1976.

11

3303 - Mixed Low Density Trees

Nonstocked

1.6

nd	Level 4 C	over Type	:	Size De	iloity	Acres	Stand Age B	A Kange	Managed S	ite	General Comments
2	4119 - Mixed No	orthern Hard	dwoods S	Sawtimb	er Well	49.4	80	81-110	N/A		Log sized sugar maple and mixed hardwood. Stand has fairly steep
(Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	ground with some high hardwood ridges. Thinned fall 2014. Removed almost all beech except for a few wildlife trees. Average residual BA =
	Sugar Maple	58	Log/Pole	12	80	E	Beech	Medium	10 - 20 feet	Sapling	sf/acre. Hilly Hardwoods, 61-026-12-01.
	Red Maple	10	Log/Pole	12		Wh	hite Pine	Low	10 - 20 feet	Sapling	Most of the beech has died as well as some older oak and cherry.
	Basswood	20	Log	12		Iro	onwood	High	10 - 20 feet	Sapling	Iceman trail runs through this stand. Beech and ironwood regeneration issues.
	Beech	2	Log	14							Stand includes areas that were not thinned due to steep ground.
	Red Oak	5	Log	16							
	White Pine	5	Pole	10							
3	4311 - Pin	e, Aspen Mi	ix F	oletimb	er Well	22.5	37	81-110	N/A		Aspen and white pine mix. Not ready for harvest at this point.
(Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Canopy data from 2010.
В	Bigtooth Aspen	55	Pole	6	37	Wh	hite Pine	Low	5 - 10 feet	Sapling	
	White Pine	45	Pole	10							
4	500 -	- Water		Nonsto	ocked	0.6			No		
4 5	500 - 4139 - Aspen,		duous F	oletimb	er Well	7.7	39	51-80	No N/A		
5		Mixed Decid	duous F Size Class	oletimb		7.7 Sub-Ca	nopy Species	51-80 Density		Size	
5	4139 - Aspen,	Mixed Decid		Poletimb DBH	er Well	7.7 Sub-Ca			N/A	Sapling	small sugar maple poles and single stem saplings. Iceman Trail goes
5 (4139 - Aspen, Canopy Species Red Maple Beech	Mixed Decide % Cover 10 10	Size Class Sapling Sapling	Poletimb DBH 3	er Well	7.7 Sub-Ca	nopy Species	Density	N/A Avg. Height		small sugar maple poles and single stem saplings. Iceman Trail goes
5	4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen	Mixed Decide % Cover	Size Class Sapling Sapling Pole	DBH 3 1 6	er Well	7.7 Sub-Ca	nopy Species gar Maple	Density Medium	N/A Avg. Height < 5 feet	Sapling	small sugar maple poles and single stem saplings. Iceman Trail goes
5	4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen Sugar Maple	Mixed Decide **Cover** 10	Size Class Sapling Sapling Pole Pole/Sapling	00letimb 00BH 3 1 6 5	er Well	7.7 Sub-Ca	nopy Species gar Maple	Density Medium	N/A Avg. Height < 5 feet	Sapling	small sugar maple poles and single stem saplings. Iceman Trail goes
5	4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen Sugar Maple Black Cherry	Mixed Decide % Cover	Size Class Sapling Sapling Pole Pole/Sapling Pole/Sapling	DBH 3 1 6 5 6	er Well	7.7 Sub-Ca	nopy Species gar Maple	Density Medium	N/A Avg. Height < 5 feet	Sapling	Habitat cut 1982. Fully stocked aspen regen. Encouraging amount of small sugar maple poles and single stem saplings. Iceman Trail goes through this stand.
5	4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen Sugar Maple	Mixed Decide **Cover** 10	Size Class Sapling Sapling Pole Pole/Sapling	00letimb 00BH 3 1 6 5	er Well	7.7 Sub-Ca	nopy Species gar Maple	Density Medium	N/A Avg. Height < 5 feet	Sapling	small sugar maple poles and single stem saplings. Iceman Trail goes
5	4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen Sugar Maple Black Cherry Red Oak	Mixed Decide % Cover	Size Class Sapling Sapling Pole Pole/Sapling Pole/Sapling Pole/Log	DBH 3 1 6 5 6	er Well Age 39	7.7 Sub-Ca	nopy Species gar Maple	Density Medium	N/A Avg. Height < 5 feet	Sapling	small sugar maple poles and single stem saplings. Iceman Trail goes
5 (4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen Sugar Maple Black Cherry Red Oak 4123 - Canopy Species	Mixed Decide % Cover	Size Class Sapling Sapling Pole Pole/Sapling Pole/Sapling Pole/Log	Poletimb DBH 3 1 6 5 6 8 Sawtimb DBH	as a ser Well 39 er Well 1 Age	7.7 Sub-Ca Sug E	nopy Species gar Maple Beech 71 nopy Species	Density Medium Low	N/A Avg. Height < 5 feet 5 - 10 feet N/A Avg. Height	Sapling Sapling Size	small sugar maple poles and single stem saplings. Iceman Trail goes through this stand.
5 (4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen Sugar Maple Black Cherry Red Oak 4123 - Canopy Species Red Oak	Mixed Decide % Cover	Size Class Sapling Sapling Pole Pole/Sapling Pole/Sapling Pole/Log Size Class Log/Pole	DBH 3 1 6 5 6 8	er Well 39 er Well	7.7 Sub-Ca Sug E 21.8 Sub-Ca	nopy Species gar Maple Beech 71 nopy Species ed Maple	Density Medium Low 51-80 Density Low	N/A Avg. Height < 5 feet 5 - 10 feet N/A Avg. Height 10 - 20 feet	Sapling Sapling Size Pole	small sugar maple poles and single stem saplings. Iceman Trail goes through this stand.
5 (1) B	4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen Sugar Maple Black Cherry Red Oak 4123 - Canopy Species	Mixed Decide % Cover	Size Class Sapling Sapling Pole Pole/Sapling Pole/Sapling Pole/Log	DBH 3 1 6 5 6 8 Bawtimb DBH 10 8	as a ser Well 39 er Well 1 Age	7.7 Sub-Ca Sug E 21.8 Sub-Ca	nopy Species gar Maple Beech 71 nopy Species	Density Medium Low 51-80 Density	N/A Avg. Height < 5 feet 5 - 10 feet N/A Avg. Height	Sapling Sapling Size Pole Sapling	small sugar maple poles and single stem saplings. Iceman Trail goes through this stand. Mixed oak and pine stand. Barely a log stand. Poorer quality site.
B B	4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen Sugar Maple Black Cherry Red Oak 4123 - Canopy Species Red Oak White Oak Bigtooth Aspen	Mixed Decide **Cover** 10	Size Class Sapling Sapling Pole Pole/Sapling Pole/Sapling Pole/Log Size Class Log/Pole Pole Pole	Doletimb DBH 3 1 6 5 6 8 Sawtimb DBH 10 8 8	as a ser Well 39 er Well 1 Age	7.7 Sub-Ca Sug E 21.8 Sub-Ca Re	nopy Species gar Maple Beech 71 nopy Species ed Maple	Density Medium Low 51-80 Density Low	N/A Avg. Height < 5 feet 5 - 10 feet N/A Avg. Height 10 - 20 feet	Sapling Sapling Size Pole	small sugar maple poles and single stem saplings. Iceman Trail goes through this stand. Mixed oak and pine stand. Barely a log stand. Poorer quality site.
6 (4139 - Aspen, Canopy Species Red Maple Beech Bigtooth Aspen Sugar Maple Black Cherry Red Oak 4123 - Canopy Species Red Oak White Oak	Mixed Decide % Cover	Size Class Sapling Sapling Pole Pole/Sapling Pole/Sapling Pole/Log Size Class Log/Pole Pole	DBH 3 1 6 5 6 8 Bawtimb DBH 10 8	as a ser Well 39 er Well 1 Age	7.7 Sub-Ca Sug E 21.8 Sub-Ca Re	nopy Species gar Maple Beech 71 nopy Species ed Maple hite Pine	Density Medium Low 51-80 Density Low Full	N/A Avg. Height < 5 feet 5 - 10 feet N/A Avg. Height 10 - 20 feet 10 - 20 feet	Sapling Sapling Size Pole Sapling	small sugar maple poles and single stem saplings. Iceman Trail goes through this stand. Mixed oak and pine stand. Barely a log stand. Poorer quality site.



Stand	Level 4 Cover Type Size Density Acres Sta		tand Age B	A Range	Managed S	ite	General Comments				
18	42290 - Natu	ural Mixed F	Pine	Sawtimb	er Well	28.1	92 U	nspecified	N/A		Mixture of RP, JP planted 1928? (age 91)
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano	py Species	Density	Avg. Height	Size	
	Red Oak	8	Log	16		Red	Oak	Low	>20 feet	Pole	
	White Pine	35	Log/Pole	12		White	e Pine	High	10 - 20 feet	Sapling	
	Red Pine	40	Log/Pole/XLo	g 12	92						•
	Bigtooth Aspen	8	Pole/Log	8							
	Jack Pine	9	Pole/Log	9							
19	4310 - Piı	ne, Oak Mix	×	Sawtimb	er Well	57.9	78	111-140	N/A		Generally oak with relatively thick white pine understory. Some scattered
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano	py Species	Density	Avg. Height	Size	pockets of pine. Red oak, red pine and white pine are reaching maximu potential. Records of planting in 1929 but does not look planted. Some
	Red Oak	30	Log/Pole	12		Red I	Maple	Low	10 - 20 feet	Pole	challenging topography but generally workable.
	White Oak	12	Log/Pole	12		White	e Pine	High	10 - 20 feet	Sapling	
	White Pine	18	Log/Pole	12		White	e Pine	Low	>20 feet	Pole	
	Red Pine	30	Log/Pole	12	78						
	Bigtooth Aspen	5	Log/Pole	10							
	Red Maple	3	Pole/Log	8							
	Black Cherry	2	Pole	8							
20	500 -	- Water		Nonsto	cked	1.0			No		
21	3303 - Mixed L	ow Density	Trees	Nonsto	cked	3.2			No		
22	4110 - Sugar M	laple Assoc	ciation I	Poletimb	er Well	8.9	56	81-110	N/A		Small sugar maple pole stand. Thinned fall 2014. Average residual BA
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano	py Species	Density	Avg. Height	Size	Hendrickson Hardwoods, 61-035-12-01, Park Forest Products.
	Sugar Maple	94	Pole	8	56	Sugar	Maple	Low	10 - 20 feet	Sapling	Heavy beech and ironwood understory. Minimal desirable regeneration
	Beech	2	Log/Pole	12		Ве	ech	Medium	10 - 20 feet	Sapling	
	Black Cherry	2	Pole	10		White	e Pine	Low	10 - 20 feet	Sapling	
	Basswood	2	Log	12		Iron	wood	High	10 - 20 feet	Sapling	
23	4191 - Mixed Upla Co	and Decidu	ous with	Poletimb	er Well	42.1	76	81-110	N/A		Stand is mostly a mix of oak and pine with some patches of poor qualit aspen. Canopy data from 2010.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano	py Species	Density	Avg. Height	Size	
	Red Maple	15	Pole	8		Red I	Maple	Low	10 - 20 feet	Sapling	
	Red Oak	35	Log/Pole	12	76	White	e Pine	Medium	10 - 20 feet	Pole	
	Bigtooth Aspen	20	Pole	10							•
	White Pine	25	Pole	10							
	Red Pine	5	Log	14							
24	3105 - Mixed Up	pland Herba	aceous	Nonsto	cked	0.9			Managed Op	ening	Plugging approved.



Otani	d Level 4 Cover Type			Size Density		Acres	Stand Age B	A Range	Managed S	ite	General Comments			
25	42250 -	Pine, Oak	;	Sawtimb	er Poor	68.1	84	1-50	N/A		Seed tree harvest in 2014. Previous stand had pockets of aspen and red pine with oak intermixed. Some areas are heavy to a white pine			
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	understory.			
	Red Oak	20	Log	14	84	Re	d Maple	Low	10 - 20 feet	Pole	This is now a 2-aged stand which Mifi will not let me describe accurately.			
	White Oak	15	Log	12		WI	nite Pine	High	>20 feet	Sapling	There are sizeable canopy gaps with WP 7-30ft tall coming up. Stand			
	White Pine	55	Log/Pole/Sa	p 10	84	Bigto	oth Aspen	Low	< 5 feet	Sapling	appears to be converting to more white pine than oak. Anticipation Oak, 61-008-12-01, Tree Doc/Lutke.			
	Red Pine	10	Log	14				·			Anticipation Oak, 61-006-12-01, Tree Doc/Luike.			
26	4319 - Mixed	l Upland Fo	orest :	Sawtimb	er Poor	4.9	4.9 73 1-50		N/A		Cut to seedtree after 1998 tornado. Stand is converting to red maple a			
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	beech with some scattered pine.			
	Red Maple	45	Pole	8		Re	d Maple	Medium	10 - 20 feet	Sapling				
	White Pine	50	Log	14	73	I	Beech	Low	5 - 10 feet	Sapling				
	Red Pine	5	Log	16		R	ed Pine	Low	5 - 10 feet	Sapling				
27	4319 - Mixed	l Upland Fo	prest	Poletimb	er Well	10.6	46	81-110	N/A		Used to be mapped as part of stand 12 (HWs) but not treated in YOE2012. Stand appears to be mixed aspen/pine. Incomplete inventory due to shortened field season.			
28	310 - Herbac	eous Open	land	Nonsto	ocked	0.5	0				Breitburn site. Temporarily abandoned. Multiple permit numbers.			
29	4112 - Maple, Asso	, Beech, Ch	nerry	Sapling) Poor	69.1	18	1-50	N/A		Final harvested last YOE. Some salvage of wind-damaged trees 2003. Variable regeneration: some open grassy areas with scattered cherry,			
29		ociation	nerry Size Class		Poor	69.1	18	1-50	N/A		Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in			
29	Asso	ociation				69.1	18	1-50	N/A		Variable regeneration: some open grassy areas with scattered cherry,			
29	Asso	ciation % Cover	Size Class	DBH	I Age	69.1	18	1-50	N/A		Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in			
29	Asso Canopy Species Sugar Maple	% Cover	Size Class Sapling	DB H	Age	69.1	18	1-50	N/A		Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in			
29	Canopy Species Sugar Maple Red Maple	% Cover	Size Class Sapling Sapling	DBH 1	18 18	69.1	18	1-50	N/A		Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in			
30	Associated	% Cover 10 20 20 10	Size Class Sapling Sapling Sapling Pole	DBH	1 Age	69.1		1-50 81-110	N/A		Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in this stand but does not look promising. Small stand with some pockets of nice maple but limited thinning			
	Associated	% Cover 10 20 20 10 10 ard Mast As	Size Class Sapling Sapling Sapling Pole	DBH	1 Age 18 18 18	17.4				Size	Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in this stand but does not look promising.			
	Associated	% Cover 10 20 20 10 10 ard Mast As	Size Class Sapling Sapling Sapling Pole	DBH	1 Age	17.4 Sub-Ca	53	81-110	N/A	Size Sapling	Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in this stand but does not look promising. Small stand with some pockets of nice maple but limited thinning potential. Harvest limitations include steep hill on west side and poor			
	Associated	% Cover 10 20 20 10 10 4 Cover 10 Cover	Size Class Sapling Sapling Sapling Pole Ssociation Size Class	DBH 1 1 1 8 Sawtimb	1 Age	17.4 Sub-Ca	53 nopy Species	81-110 Density	N/A Avg. Height		Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in this stand but does not look promising. Small stand with some pockets of nice maple but limited thinning potential. Harvest limitations include steep hill on west side and poor			
	Associated	## Cover	Size Class Sapling Sapling Sapling Pole Ssociation Size Class Log/Pole	DBH	1 Age	17.4 Sub-Ca	53 nopy Species Beech	81-110 Density Medium	N/A Avg. Height 5 - 10 feet	Sapling	Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in this stand but does not look promising. Small stand with some pockets of nice maple but limited thinning potential. Harvest limitations include steep hill on west side and poor			
	Associated	Cover	Size Class Sapling Sapling Sapling Pole Ssociation Size Class Log/Pole Log	DBH	1 Age	17.4 Sub-Ca	53 nopy Species Beech	81-110 Density Medium	N/A Avg. Height 5 - 10 feet	Sapling	Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in this stand but does not look promising. Small stand with some pockets of nice maple but limited thinning potential. Harvest limitations include steep hill on west side and poor			
	Associated	## Cover	Size Class Sapling Sapling Sapling Pole Ssociation Size Class Log/Pole Log Pole/Log	DBH	1 Age	17.4 Sub-Ca	53 nopy Species Beech	81-110 Density Medium	N/A Avg. Height 5 - 10 feet	Sapling	Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in this stand but does not look promising. Small stand with some pockets of nice maple but limited thinning potential. Harvest limitations include steep hill on west side and poor			
	Associated	## Cover	Size Class Sapling Sapling Sapling Pole Ssociation Size Class Log/Pole Log Pole/Log Pole	DBH	1 Age	17.4 Sub-Ca	53 nopy Species Beech	81-110 Density Medium	N/A Avg. Height 5 - 10 feet	Sapling	Variable regeneration: some open grassy areas with scattered cherry, some clumpy maple, scattered white pine. Did not spend much time in this stand but does not look promising. Small stand with some pockets of nice maple but limited thinning potential. Harvest limitations include steep hill on west side and poor			



Stanc	d Level 4 Cov	8	Size De	nsity	Acres Stand Age E	A Range Managed Site		ite	General Comments		
31	4191 - Mixed Uplan Con		ous with Po	oletimbe	er Well	59.8 46	81-110	N/A		Mixed stand. Hold 10+ years. Heavy white pine understory, would push to white pine when cut. Scattered small frost pocket depressions.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size		
	Red Maple	10	Pole/Log	8		White Pine	Medium	Variable	Sapling		
	Red Oak	35	Log/Pole	10	46	Beech	Trace	< 5 feet	Sapling		
	Bigtooth Aspen	10	Pole	6	46	Red Maple	Low	>20 feet	Sapling		
	White Pine	30	Log/Pole	12							
	Red Pine	10	Pole	8							
	Quaking Aspen	5	Pole/Sap/Log	8							
32	4110 - Sugar Ma	ple Assoc	ciation S	awtimbe	er Well	12.8 78	81-110	N/A		Thinned summer 2014. High Country Hardwoods, 61-004-12-01, Park	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	Forest Products. Most aspen, beech and ash removed. TC-to-Kalkaska Trail (also Iceman MTB route) through stand.	
	Sugar Maple	80	Log	14	78	Beech	Low	5 - 10 feet	Sapling	Regen is either nonexistent or ironwood. Failed natural regeneration	
	Beech	5	Pole/Log	9		Ironwood	High	10 - 20 feet	Sapling	monitoring treatment.	
	Red Maple	15	Log/Pole	10		Black Cherry	Trace	5 - 10 feet	Sapling		
33	42200 - Natural White Pine Sawtimber				er Well	13.6 81	111-140	N/A		Small pocket of white pine/hemlock with hardwoods at the edges. Some	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	low areas that will have standing water in wet years.	
	White Pine	60	Log/Pole/XLog		81	Beech	Low	10 - 20 feet	Sapling		
	Sugar Maple	15	Log	12		Ironwood	Low	10 - 20 feet	Sapling		
	Hemlock	15	Pole/Log	8							
	Red Oak	10	Log/XLog	16							
34	Red Oak 3303 - Mixed Lov			16 Nonsto	cked	2.0	Immature	No		Mostly open with scattered large trees.	
34 35		w Density	Trees			2.0 36.9 77	Immature 81-110	No N/A		Fair to good quality hardwood but understory is full of ironwood. Some	
	3303 - Mixed Lov 4119 - Mixed Nort	w Density	Trees	Nonsto			81-110		Size	Fair to good quality hardwood but understory is full of ironwood. Some challenging topography and access issues with snowmobile trail being	
	3303 - Mixed Lov 4119 - Mixed Nort	w Density	Trees	Nonsto	er Well	36.9 77	81-110	N/A	Size Sapling	Fair to good quality hardwood but understory is full of ironwood. Some	
	3303 - Mixed Lov 4119 - Mixed Nort Canopy Species	w Density thern Haro	Trees dwoods S Size Class	Nonsto awtimbe	er Well	36.9 77 Sub-Canopy Species	81-110 Density	N/A Avg. Height	1	Fair to good quality hardwood but understory is full of ironwood. Some challenging topography and access issues with snowmobile trail being	
	3303 - Mixed Lov 4119 - Mixed Nort Canopy Species Sugar Maple	w Density thern Hard % Cover 53	Trees dwoods S Size Class Log/Pole	Nonsto awtimbe	er Well	36.9 77 Sub-Canopy Species Beech	81-110 Density Medium	N/A Avg. Height 5 - 10 feet	Sapling	Fair to good quality hardwood but understory is full of ironwood. Some challenging topography and access issues with snowmobile trail being	
	3303 - Mixed Lov 4119 - Mixed Nort Canopy Species Sugar Maple Basswood	w Density thern Hard % Cover 53 5	Trees dwoods S Size Class Log/Pole Pole	Nonsto awtimbe DBH 12 10	er Well	36.9 77 Sub-Canopy Species Beech White Pine	81-110 Density Medium Low	N/A Avg. Height 5 - 10 feet 10 - 20 feet	Sapling Sapling	Fair to good quality hardwood but understory is full of ironwood. Some challenging topography and access issues with snowmobile trail being	
	3303 - Mixed Lov 4119 - Mixed Nort Canopy Species Sugar Maple Basswood Red Oak	w Density thern Hard % Cover 53 5 15	Trees dwoods S Size Class Log/Pole Pole Log	Nonsto awtimbe DBH 12 10 16	er Well	36.9 77 Sub-Canopy Species Beech White Pine	81-110 Density Medium Low	N/A Avg. Height 5 - 10 feet 10 - 20 feet	Sapling Sapling	Fair to good quality hardwood but understory is full of ironwood. Some challenging topography and access issues with snowmobile trail being	



Stand	d Level 4 C	over Type		Size Density		Acres Stand A	res Stand Age BA Range		Site	General Comments
36	4319 - Mixed	Upland Fo	orest \$	Sawtimb		17.8 84	111-140	N/A		Most of stand is in a bowl with relatively steep sides. A couple hemlock pockets.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Spe	cies Density	Avg. Height	Size	pochets.
	Red Maple	10	Pole	8		Red Maple	Low	10 - 20 feet	Sapling	
	Red Oak	8	Log	14		White Pine	Medium	10 - 20 feet	Sapling	
	Bigtooth Aspen	25	Pole	8		Ironwood	Low	5 - 10 feet	Sapling	
	White Pine	40	Log/Pole/XLo	g 16	84	Red Oak	Low	>20 feet	Pole	
	Hemlock	15	Log	16		Beech	Trace	>20 feet	Pole	
	Sugar Maple	2	Pole/Log	8						
37	623 - Emer	gent Wetla	ind	Nonst	ocked	2.9		No		Small, wet depression.
38	42100 - Plan	ted White	Pine F	Poletimb	er Well	172.9 61	111-140	N/A		Row thinned last YOE. 50% volume removal. Canopy has not closed
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Spe	cies Density	Avg. Height	Size	yet. White pine is poor to mediocre quality. Many trees have weevilled tops.Thinned 2005. Re-ad Dockery White Pine
	White Pine	100	Pole	8	61	White Pine	Low	< 5 feet	Sapling	100000000000000000000000000000000000000
L				'	· · · · ·	Beech	Low	5 - 10 feet	Sapling	
						Ironwood	Low	5 - 10 feet	Sapling	
39	4110 - Sugar Maple Association Poletim					12.7 58	81-110	N/A		Mainly sugar maple poles with some larger oaks. Used to have ash. A few cherry. Not ready for commercial thinning, now or ever(?). Canopy
	Canopy Species	% Cover	Size Class		l Age	Sub-Canopy Spe	cies Density	Avg. Height	Size	gap on east side.
	Sugar Maple	65	Pole	8	58	Sugar Maple	Low	5 - 10 feet	Sapling	
	Basswood	10	Pole	9		Beech	Low	5 - 10 feet	Sapling	
	Red Oak	20	Log/XLog	17		White Pine	Low	5 - 10 feet	Sapling	
	Black Cherry	5	Pole	8		Ironwood	Medium	5 - 10 feet	Sapling	
40	4112 - Maple, Asso	Beech, Ch	nerry S	Sapling Medium		16.8 21	1-50	N/A		Final harvest ten years ago. There were a few sugar maple reserves left in stand (less than 10 BA).
	Canopy Species	% Cover	Size Class	DBH	l Age					Thinned 1997. Dockery Road Hardwoods, 61-050-94-01. Salvage after windstorm 1998.
	Sugar Maple	25	Log/Pole	10	61					Mostly shrubby regen with scattered overstory. Fair amount of cherry in
	Beech	20	Sapling	1	21					the regen.
	Black Cherry	35	Sapling	2	21					
41	623 - Emer	gent Wetla	nd	Nonsto	ocked	1.0		No		
42	3105 - Mixed Up	oland Herb	aceous	Nonsto	ocked	1.6	Immature	Managed O _l	pening	Old well site, plugged 1975.
43	3303 - Mixed Low Density Trees Nonstocked				2.2		No			



Stand	Level 4 C	over Type	;	Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
44	3303 - Mixed L	ow Density	Trees	Nonsto	cked	8.3			No		
						Sub-Ca	nopy Species	Density	Avg. Height	Size	
						W	hite Pine	Low		Sapling	
						Bla	ck Cherry	Low		Sapling	
45	4119 - Mixed No	orthern Hard	dwoods Po	letimber	Mediur	n 96.0	61	51-80	N/A		Salvage cut following tornado in 1998. Whirlwind Dockery, 61-044-98-0' Cut blow down and broken-top trees. West of Dockery Rd was whole-tre
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	harvested.
	Sugar Maple	50	Pole/Sap/Log	j 9	61	Ir	onwood	Full	>20 feet	Sapling	Current stand is patchy pockets of fair to medium quality sugar maple
	Red Oak	5	Log	14			Beech	Low	5 - 10 feet	Sapling	surrounded by open areas or pole-sized ironwood in the canopy. SM BA ranges from 0-140 with average total BA of 66 sf/acre. Understory is fair
	White Pine	5	Log/Pole/Sap	12		Su	gar Maple	Trace	5 - 10 feet	Sapling	thick ironwood throughout. Lots of open, old skid trails. Topography is
	Beech	5	Log/Pole	10		F	Red Oak	Trace	5 - 10 feet	Sapling	fairly flat and workable. Hard to see a good future hardwood stand here.
	Ironwood	30	Sapling/Pole	4							
	Basswood	5	Pole	10							
46	4110 - Sugar N	/laple Asso	ciation F	Poletimb	er Well	37.8	47	111-140	N/A		Pole stand. Not ready for commercial thinning. Canopy data from 2010
	Canopy Species	% Cover	Size Class	DBH	Age						
	Sugar Maple	60	Pole	6	47						
	Basswood	5	Pole	6							
	Red Oak	5	Pole	4							
	Bigtooth Aspen	15	Log/Pole	12							
	Black Cherry	15	Pole	6							
47	3303 - Mixed L	ow Density	Trees	Nonsto	cked	2.0			No		
48	4119 - Mixed No	orthern Hard	dwoods S	Sawtimb	er Well	9.0	56	111-140	N/A		Not treated with adjacent hardwood stands. Consider including with
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	61266017. A few pockets of mostly beech and more red maple than nearby stands.
	Sugar Maple	20	Log/Pole	12	56		Beech	Medium	10 - 20 feet	Sapling	liediby statius.
	Beech	7	Log/Pole	12		W	hite Pine	Low	10 - 20 feet	Sapling	
	Black Cherry	3	Pole	8		Ir	onwood	High	10 - 20 feet	Sapling	
	White Pine	15	Log/Pole	12	L				I.	, , ,	1
	Quaking Aspen	5	Pole	8							
	Basswood	10	Log	12							
	Red Maple	40	Log/Pole	12	56						
49	3303 - Mixed L	ow Density	Trees	Nonsto	cked	4.6			No		Scattered white pine and cherry.
						Sub-Ca	nopy Species	Density	Avg. Height	Size	
						W	hite Pine	Low		Pole	
						Bla	ck Cherry	Low		Pole	
	3301 - Low Dens	ity Decidus	us Trees	Nonsto	okod	2.8			No		
50	JOOT - LOW Della	ity Decidado	uo 11003	11011510	ONEU	2.0			INU		

Traverse City Mgt. Unit Report 7 - Stands



Stand	tand Level 4 Cover			Size Density		Acres	Stand Age B	A Range	Managed S	ite	General Comments
51	4110 - Sugar N	laple Asso	ciation	Sawtimb	er Well	72.8	77	81-110	N/A		Good quality sugar maple stand. Thinned last YOE, canopy still has some gaps. Thin again in 10 years. Two small pockets of dead maple,
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	ash, and oak salvaged in 2014, ~14 acres. See treatment history layer.
	Sugar Maple	55	Log/Pole	14	77	Suga	ar Maple	Medium	< 5 feet	Sapling	Cat Scratch Salvage, 61-012-13-01, Kitchen Forest Products.
	Basswood	30	Log/Pole	12		В	eech	Medium	5 - 10 feet	Sapling	Might have had defoliation issues. Decent amount of black cherry
	Red Maple	2	Pole/Log	8		Iro	nwood	High	5 - 10 feet	Sapling	regeneration in those gaps now.
	Red Oak	10	Sapling/Pole/L	Log 14							Thinned 1982.
	Beech	3	Log/Pole	10							
52	4130	- Aspen		Sapling	y Well	9.4	15 I	mmature	N/A		Clearcut 2005. Re-ad Island Lake, 61-014-02-01. Boundaries not exact.
	Canopy Species	% Cover	Size Class	DBH	l Age						Small pocket of mature hardwoods on top of hill on east side.
	Sugar Maple	5	Sapling	1							
	Red Maple	5	Pole	1							
	Beech	5	Sapling	1							
	Quaking Aspen	85	Sapling	1	15						
53	4110 - Sugar N	laple Asso	ciation	Poletimb	er Well	81.7	75	81-110	N/A		Mixed pole stand. Average BA 90 sf/acre. Not ready for commercial
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	thinning.
	Sugar Maple	70	Pole/Log	8	75	Suga	ar Maple	Low	10 - 20 feet	Sapling	
	Basswood	15	Pole	6		В	eech	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	5	Log/Pole	12		Iro	nwood	High	10 - 20 feet	Sapling	
	White Pine	5	Pole	8							
	Ironwood	5	Pole	4							
54	3303 - Mixed L	ow Density	Trees	Nonsto	ocked	6.8	0		No		5/4/20 WLD: site asap to check for possibility of upland brush or barrens management.
55	4133 - Aspe	en, Mixed F	Pine	Poletimb	er Well	9.4	49	51-80	N/A		Small stand of aspen and mixed hardwood. Mediocre quality.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Sugar Maple	10	Pole	6		В	eech	Low	10 - 20 feet	Sapling	
	Quaking Aspen	60	Pole	8	49	Whi	te Pine	Low	10 - 20 feet	Sapling	
	Quaking Aspen White Pine	60 20	Pole Log/Pole	8 12	49		te Pine nwood	Low High		-	
				12	49				10 - 20 feet	Sapling	
56	White Pine Red Oak 42201 - Natural	20	Log/Pole Log/XLog	12					10 - 20 feet	Sapling	Small stand that used to be typed as part of the surrounding hardwood stands but this is really a valley of white pine with steep, unworkable
	White Pine Red Oak 42201 - Natural	20 10 White Pine	Log/Pole Log/XLog a, Mixed	12 16 Sawtimb		6.0	nwood	High	10 - 20 feet 10 - 20 feet	Sapling	
	White Pine Red Oak 42201 - Natural Dec	20 10 White Pine	Log/Pole Log/XLog	12 16 Sawtimb	er Well	6.0 Sub-Can	80 opy Species	High 81-110	10 - 20 feet 10 - 20 feet N/A Avg. Height 5 - 10 feet	Sapling Sapling Size Sapling	stands but this is really a valley of white pine with steep, unworkable
	White Pine Red Oak 42201 - Natural Dec Canopy Species Sugar Maple Basswood	20 10 White Pine iduous	Log/Pole Log/XLog a, Mixed	12 16 Sawtimb	er Well	6.0 Sub-Can	80 opy Species	High 81-110 Density	10 - 20 feet 10 - 20 feet N/A Avg. Height	Sapling Sapling	stands but this is really a valley of white pine with steep, unworkable
	White Pine Red Oak 42201 - Natural Dec Canopy Species Sugar Maple	20 10 White Pine iduous % Cover	Log/Pole Log/XLog a, Mixed Size Class Log/Pole	12 16 Sawtimb	er Well	6.0 Sub-Can	80 opy Species	81-110 Density Medium	10 - 20 feet 10 - 20 feet N/A Avg. Height 5 - 10 feet	Sapling Sapling Size Sapling	stands but this is really a valley of white pine with steep, unworkable
	White Pine Red Oak 42201 - Natural Dec Canopy Species Sugar Maple Basswood	20 10 White Pine iduous % Cover 10	Log/Pole Log/XLog a, Mixed Size Class Log/Pole Log	12 16 Sawtimb DBH 12 12 12	er Well	6.0 Sub-Can	80 opy Species	81-110 Density Medium	10 - 20 feet 10 - 20 feet N/A Avg. Height 5 - 10 feet	Sapling Sapling Size Sapling	stands but this is really a valley of white pine with steep, unworkable



Stand	Level 4 Cover Type		Size Density		Acres	Stand Age B	A Range	Managed S	ite	General Comments	
57	4110 - Sugar M	laple Assoc	ciation	Poletimbe	er Well	11.5	58	81-110	N/A		Poorer quality hardwoods. Pole stand. Small diameters make this stand
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	not viable for commercial thinning. Data from 2010.
	Sugar Maple	75	Pole	10	58	Suç	gar Maple	Medium	10 - 20 feet	Sapling	
	Basswood	15	Log/Pole	12		W	hite Pine	Low	10 - 20 feet	Sapling	
	Red Oak	5	Log	14		Ir	onwood	Low	10 - 20 feet	Sapling	
	Bigtooth Aspen	5	Pole	10							
58	4319 - Mixed	Upland Fo	rest I	Poletimbe	er Poor	64.3	51	1-50	N/A		Limby white pine and mixed hardwoods/aspen with scattered small
	Canopy Species	% Cover	Size Class	DBH	Age						openings. Cherry, beech and sugar maple saplings along edges of stand.
	White Pine	50	Pole/Log	8	51						
	Ironwood	15	Sapling/Pole	e 4							
	Basswood	5	Pole/Log	8							
	Black Cherry	10	Sapling/Pole	e 4							
	Quaking Aspen	10	Pole/Sapling	g 6							
	Red Maple	5	Sapling/Pole	e 4							
	Jack Pine	5	Pole	6							
59	330 - Low-[Density Tree	es	Nonsto	cked	9.0			No		valley that weaves through surrounding stands. scattered black cherry, white pine and Aspen at edges
60	42201 - Natural \	White Pine, duous	Mixed I	Poletimbe	er Poor	19.5	29	1-50	N/A		Scattered clumps of white pine and black cherry with grass openings between.
	Canopy Species	% Cover	Size Class	DBH	Age						
	White Pine	65	Pole	8	29						
	Black Cherry	25	Pole/Log	10							
	Red Maple	10	Pole	8							
61	4133 - Aspe	n, Mixed Pi	ine	Sawtimbe	er Well	19.0	61	51-80	N/A		Poorer quality aspen site. rather variable.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	26	Pole	8	42	W	hite Pine	Medium	5 - 10 feet	Sapling	
	White Pine	35	Log/Pole	12	61	Bla	ck Cherry	Low	10 - 20 feet	Sapling	
	Jack Pine	5	Pole	6							-
	Black Cherry	8	Log	12							
	Sugar Maple	3	Pole/Log	8							
	Bigtooth Aspen	15	Pole	8							



Stan	d Level 4 C	over Type	Si	ze De	nsity	Acres Stand Age B	A Range	Managed Site		General Comments	
62	42200 - Natu	ural White	Pine Pol	letimb	er Well	8.8 60	81-110	N/A		Hardwood stand with white pine supercanopy. Some smaller WP at same level as HWs too. Thinned last YOE?	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Species	Density	Avg. Height	Size	lever as HVVS too. Thirlined last 10E?	
	Red Oak	5	Log/Pole/XLog	14		Sugar Maple	Low	10 - 20 feet	Sapling		
	White Pine	72	Log/XLog/Pole	14	60	Red Maple	Low	10 - 20 feet	Sapling		
	Black Cherry	5	Pole	10		White Pine	Low	10 - 20 feet	Sapling		
	Basswood	8	Log/Pole	12		Ironwood	High	10 - 20 feet	Sapling		
	Red Maple	10	Pole/Log	8							
63	4110 - Sugar M	laple Asso	ciation Pole	timbe	Medium	41.0 53	81-110	N/A		Lower quality mixed hardwood stand. Approximately 75% canopy	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Species	Density	Avg. Height	Size	closure. Thinned following last YOE. Horse trail passes through stand. Thinned 2005, Re-ad Island Lake North, 61-014-02-01, Data from 2010.	
	Sugar Maple	70	Pole	6	53	Beech	High	5 - 10 feet	Sapling	Trimino 2000. No da foldria Edito Nordin o 1 0 1 0 2 0 1. Edita foli 2010.	
	Red Maple	10	Pole	6		White Pine	Low	10 - 20 feet	Pole		
	Basswood	5	Pole	8		Ironwood	Low	5 - 10 feet	Sapling		
	White Ash	5	Pole	10				1	'		
	White Pine	10	Log	14							
64	42200 - Natural White Pine S				er Poor	15.7 71	1-50	N/A		Cut spring 2013, Island Mix, 61-003-12-01. Lost ~25% of residual trees	
	Canopy Species	% Cover	Size Class	DBH Age		Sub-Canopy Species	Density	Avg. Height	Size	Since then.	
	Red Maple	5	Pole	6		Beech	Low	5 - 10 feet	Sapling		
	Red Oak	20	Log	14		White Pine	Medium	10 - 20 feet	Sapling		
	Paper Birch	2	Pole	8		Red Oak	Low	5 - 10 feet	Sapling		
	White Pine	65				Red Maple	Low	5 - 10 feet	Sapling		
	***************************************	65	Log	16	71	Red Maple					
	Red Pine	8	Log Log/Pole	16	/1	Bigtooth Aspen	Low	10 - 20 feet	Sapling		
65	Red Pine		Log/Pole	10	ocked			10 - 20 feet		Active oil/gas facility. Breitburn "temporarily abandoned". State Kalkaska 1-16 HD1.	
65	Red Pine	- Grass	Log/Pole N Deciduous Pole	10 Nonsto	ocked r Medium	Bigtooth Aspen 4.5		10 - 20 feet		1-16 HD1. Fairly poor site. Mixed aspen and pine. A few denser pockets of aspen	
	Red Pine 3102	- Grass	Log/Pole	10 Nonsto	ocked	Bigtooth Aspen 4.5	Low		Sapling	1-16 HD1.	
	Red Pine 3102 42260 - Natural Pin	- Grass	Log/Pole N Deciduous Pole	10 Nonsto	ocked r Medium	Bigtooth Aspen 4.5 13.2 61	Low 51-80	N/A	Sapling	1-16 HD1. Fairly poor site. Mixed aspen and pine. A few denser pockets of aspen but generally low volume. A few small openings in stand. Aspen and jack	
	Red Pine 3102 42260 - Natural Pin Canopy Species	- Grass ne, Mixed l	Log/Pole N Deciduous Pole Size Class	10 Nonsto	ocked r Medium	4.5 13.2 61 Sub-Canopy Species	Low 51-80 Density	N/A Avg. Height	Sapling	1-16 HD1. Fairly poor site. Mixed aspen and pine. A few denser pockets of aspen but generally low volume. A few small openings in stand. Aspen and jack	
	Red Pine 3102 42260 - Natural Pin Canopy Species Quaking Aspen	- Grass ne, Mixed I % Cover	Log/Pole Deciduous Pole Size Class Pole	10 Nonsto	ocked r Medium	4.5 13.2 61 Sub-Canopy Species	Low 51-80 Density	N/A Avg. Height	Sapling	1-16 HD1. Fairly poor site. Mixed aspen and pine. A few denser pockets of aspen but generally low volume. A few small openings in stand. Aspen and jack	
	Red Pine 3102 42260 - Natural Pin Canopy Species Quaking Aspen Bigtooth Aspen	8 - Grass ne, Mixed 6 7 7 7 7 7 7 7 7 7	Log/Pole Deciduous Pole Size Class Pole Pole	10 Nonsto	r Medium	4.5 13.2 61 Sub-Canopy Species	Low 51-80 Density	N/A Avg. Height	Sapling	1-16 HD1. Fairly poor site. Mixed aspen and pine. A few denser pockets of aspen but generally low volume. A few small openings in stand. Aspen and jack	
	Red Pine 3102 42260 - Natural Pin Canopy Species Quaking Aspen Bigtooth Aspen White Pine	8 - Grass ne, Mixed I	Log/Pole Deciduous Pole Size Class Pole Pole Log/Pole	10 Nonsto	r Medium	4.5 13.2 61 Sub-Canopy Species	Low 51-80 Density	N/A Avg. Height	Sapling	1-16 HD1. Fairly poor site. Mixed aspen and pine. A few denser pockets of aspen but generally low volume. A few small openings in stand. Aspen and jack	
	Red Pine 3102 42260 - Natural Pin Canopy Species Quaking Aspen Bigtooth Aspen White Pine Jack Pine	8 - Grass ne, Mixed I % Cover 10 15 55 5	Log/Pole Deciduous Pole Size Class Pole Pole Log/Pole Pole	10 Nonsto	r Medium	4.5 13.2 61 Sub-Canopy Species	Low 51-80 Density	N/A Avg. Height	Sapling	1-16 HD1. Fairly poor site. Mixed aspen and pine. A few denser pockets of aspen but generally low volume. A few small openings in stand. Aspen and jack	
	Red Pine 3102 42260 - Natural Pine Canopy Species Quaking Aspen Bigtooth Aspen White Pine Jack Pine Red Oak	8 - Grass ne, Mixed I % Cover 10 15 55 5 5	Log/Pole Deciduous Pole Size Class Pole Pole Log/Pole Log/Pole/XLog	10 Nonsto	r Medium	4.5 13.2 61 Sub-Canopy Species	Low 51-80 Density	N/A Avg. Height	Sapling	1-16 HD1. Fairly poor site. Mixed aspen and pine. A few denser pockets of aspen but generally low volume. A few small openings in stand. Aspen and jack	



Stand	nd Level 4 Cover Type		Size Density			Acres Stand Age BA Range			Managed Site		General Comments	
67	4123 - 1	Red Oak	Sa	awtimber	Medium	18.0	84	51-80	N/A		Fairly open stand (approximately 70% canopy closure). Some larger oa	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	diameters. Would push towards white pine.	
	Red Oak	45	Log/XLog	16	84	Re	ed Maple	Low	10 - 20 feet	Pole		
	White Oak	15	Log	14		WI	hite Pine	Medium	10 - 20 feet	Pole		
	Bigtooth Aspen	5	Pole	6							•	
	White Pine	10	Pole	8								
	Red Maple	20	Pole/Log	8								
	Red Pine	5	Log	14								
69	69 4111 - S.Maple, Hard Mast Association Poletimber We		er Well	39.7	67	81-110	N/A		Variable stand with some pockets of nice sugar maple poles or logs, but			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	also has some pine especially along north edge and areas of oak and ironwood with some pockets of small pole-sized ironwood in canopy.	
	Sugar Maple	65	Pole/Log	9	67	Ire	onwood	Medium	10 - 20 feet	Sapling	Declining aspen found in pockets. Average BA=95 sf/acre. Thinned 1983	
	Beech	10	Log/Pole	10			Beech	Low	10 - 20 feet	Sapling	(61-023-83-02). Some salvage after 1998 wind storm. Some challe	
	Bigtooth Aspen	10	Log/Pole	10							with topography and poor access only on snowmobile trail, which is unusable when sandy. Also reluctant to treat because of beech and	
	Black Cherry	5	Log/Pole	10							ironwood regeneration issues.	
	White Pine	5	Log/Pole	12								
	Red Pine	5	Log	14								
70	42260 - Natural Pir Canopy Species		Size Class	Sawtimb DBH	Age	51.9 Sub-Ca	92 nopy Species	Density	N/A Avg. Height	Size	Heavily mixed stand. Some small areas within the stand will be difficult to harvest due to topography. Part of stand 5 that wasn't treated. WP planted 1929? (age 91)	
	White Pine	44	Log	14	92	WI	hite Pine	High	10 - 20 feet	Sapling	planted rezer (age er)	
	Red Pine	25	Log	14		Re	ed Maple	Low	10 - 20 feet	Sapling		
	Quaking Aspen	6	Log/Pole	12			Beech	Low	10 - 20 feet	Sapling		
	Red Oak	15	Log/XLog	16								
	Red Maple	10	Pole/Log	8								
72	3102 -	- Grass		Nonsto	cked	2.3			No		Old well site, plugged 1982. Slash, gravel, St John wort, spotted knapweed.	
72 73		- Grass Water		Nonsto		2.3	0		No No			
		Water	iation	Nonsto Poletimb	er Well			81-110			knapweed. Kettle pond. Water level is variable so west end might be exposed land a times. Stand is mainly pole sized sugar maple. Some scattered sugar maple	
73	500 -	Water aple Assoc	iation Size Class	Nonsto Poletimb DBH	cked	2.4		81-110 Density	No	Size	knapweed. Kettle pond. Water level is variable so west end might be exposed land a times.	
73	500 - 4110 - Sugar M	Water aple Assoc		Nonsto Poletimb	er Well	2.4 30.9 Sub-Ca	67		No N/A	Size Sapling	knapweed. Kettle pond. Water level is variable so west end might be exposed land a times. Stand is mainly pole sized sugar maple. Some scattered sugar maple logs. Declining aspen found in pockets. Very small amount of scattered red oak.	
73	500 - 4110 - Sugar M Canopy Species	Water aple Assoc	Size Class	Nonsto Poletimb DBH	er Well	2.4 30.9 Sub-Ca Sug	67 nopy Species	Density	No N/A Avg. Height		knapweed. Kettle pond. Water level is variable so west end might be exposed land a times. Stand is mainly pole sized sugar maple. Some scattered sugar maple logs. Declining aspen found in pockets. Very small amount of scattered	
73	500 - 4110 - Sugar M Canopy Species Sugar Maple	Water aple Assoc **Cover* 75	Size Class Pole/Log	Nonsto	er Well	2.4 30.9 Sub-Ca Sug	67 anopy Species gar Maple	Density Low	No N/A Avg. Height 5 - 10 feet	Sapling	knapweed. Kettle pond. Water level is variable so west end might be exposed land a times. Stand is mainly pole sized sugar maple. Some scattered sugar maple logs. Declining aspen found in pockets. Very small amount of scattered red oak.	