

Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61163 Entry Year 2024 Acreage: 1,692

County Kalkaska

Management Area: Boardman Plains

Stand Examiner: Paul Roell

Legal Description:

Sections 7-11 & 14-15, T27N-R7W

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. This compartment has very little topography but management will be difficult in some of the wetter areas and really sandy areas.

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

The compartment is the transition of the Village of Kalkaska to the adjacent State land. Development and expansion of the area is exerting pressure on state land. There is some oil & gas activity within the compartment.

Unique Natural Features:

Potential for Kirtland's warbler and prairie warbler in young jack pine and upland brush, great blue heron rookery, wood turtle, eastern massasuaga, and little brown bat.

Archeological, Historical, and Cultural Features:

2004 Comments: None Listed

Special Management Designations or Considerations:

There is Natural River Considerations for the North Branch of the Boardman River.

Watershed and Fisheries Considerations:

2004 Fisheries comments: The Little Rapid River, the North Branch of the Boardman River, and several inland lakes are located within Compartment 163. At one time Log Lake was stocked annually with rainbow trout by Fisheries Division. The Little Rapid River and the North Branch of the Boardman River are Designated Trout Streams with naturally reproducing populations of brook and brown trout.

Wildlife Habitat Considerations:

This compartment is adjacent to the city of Kalkaska and has been managed for mixed use with an emphasis on maintaining a variety of cover types and age classes for game and non-game wildlife. This emphasis coincides well with the fire driven dynamics of the dominant local Land Type Associations (LTA). Two large tracts of pitted outwash plain enter this compartment from the north and west. These outwash plains show a history of wildfires and less frequently, windfalls. Consequently, in the past a variety of forest types and age classes were found, including: the entire spectrum of conifer dominated forests, jack pine and oak/pine savannas, to northern hardwoods in "fire shadow" areas. This area should continue to be managed to perpetuate a variety of forest types and successional stages related to a fire prone community. Timber prescriptions should be designed to incorporate live leave trees, leave islands, and snags to mimic a wildfire. Some stands that fall in the "fire shadow" of streams and wetlands could be allowed to succeed to later successional species to add diversity of the area. Cuts in this community type should be designed to leave standing dead timber and scattered leave trees/islands for a component of structural diversity in regenerating stands of timber. This type of habitat mosaic supports wildlife species such as black bear, white-tailed deer, wild turkeys, pine warblers, northern goshawks, and

box turtles. Several upland brush types and grassy openings have been prescribed for burning to promote existing native warm season grasses.

A flat, excessively drained outwash plain makes up part of the State land in this compartment. Cuts that abut wetlands and/or drainages should incorporate a tree length buffer. The buffer will provide cavity trees, downed logs, an influx of nutrients, as well as shade for maintaining microhabitat conditions along these riparian habitats. Existing coniferous wetlands and lowland hardwoods should be managed toward later successional communities. Declining alder and willow stands should be cut during winter to stimulate regeneration of these lowland shrubs. Conifer dominated wetlands and lowland shrub swamps, in association with dry upland inclusions, provide habitat for white-tailed deer, snowshoe hare, bobcat, woodcock, evening grosbeaks, and massasauga rattlesnakes.

One final landtype exists within this compartment on state land, a narrow outwash channel. This glacial landform consists of channels of poorly drained peats and mucks with steep valley walls and often incorporates a stream or river, in this case a branch of the Rapid River. Pre-settlement vegetation was a mix of coniferous and hardwood swamps with inclusions of upland conifers. No cuts have been proposed this entry period and consideration should be given to letting stands on this LTA naturally succeed. However, small patch cuts could be conducted that would mimic the occasional fire or wind throw that occurred in this community type. Wildlife species that may potentially be found here include bobcats, deer, northern saw-whet owls, and wood turtles near larger streams.

Mineral Resource and Development Concerns and/or Restrictions

The nearest active sand/gravel pit is about three miles north. There is potential for sand and gravel within the compartment, but any surface mining would need to avoid oil & gas infrastructure and could be further inhibited by wetlands. The compartment is within the Silurian reef trend and several successful wells have been drilled in and around the compartment; some are still producing. There may be potential for additional reef discoveries beneath the compartment as well as potential for gas storage. Most of the State-owned mineral rights in the compartment are currently leased and held by production. There is no known metallic mineral potential in this part of the state.

Vehicle Access:

There are numerous forest roads and county roads throughout the compartment that provide plenty of access. Some of the forest roads are poor quality but are still navigable with a 4-wheel drive vehicle.

Survey Needs:

None needed at this time.

Recreational Facilities and Opportunities:

This compartment contains a variety of recreational trails. The non-motorized trails include the North Country Scenic Trail, and the Shore to Shore Equestrian trail. The motorized recreational trails include the Leetsville ORV Trail, and the Michigan Cross Country Cycle Trail (MCCCT). Trail protection specifications relevant to the specific type of trail should be used within stands being treated. Communication between the forester, and the appropriate recreation staff is needed to coordinate timber harvest activities impacting the Shore to Shore equestrian trail. Winter cuts are preferred when adjacent to all recreational trails to reduce user conflicts.

Fire Protection:

Since the compartment is close to the Kalkaska Field Office, fire response times are minimal. Just a few red pine stands scattered throughout the compartment are the only real concern, plus most have good access along main roads.

Additional Compartment Information:

The following reports from the Inventory are attached:

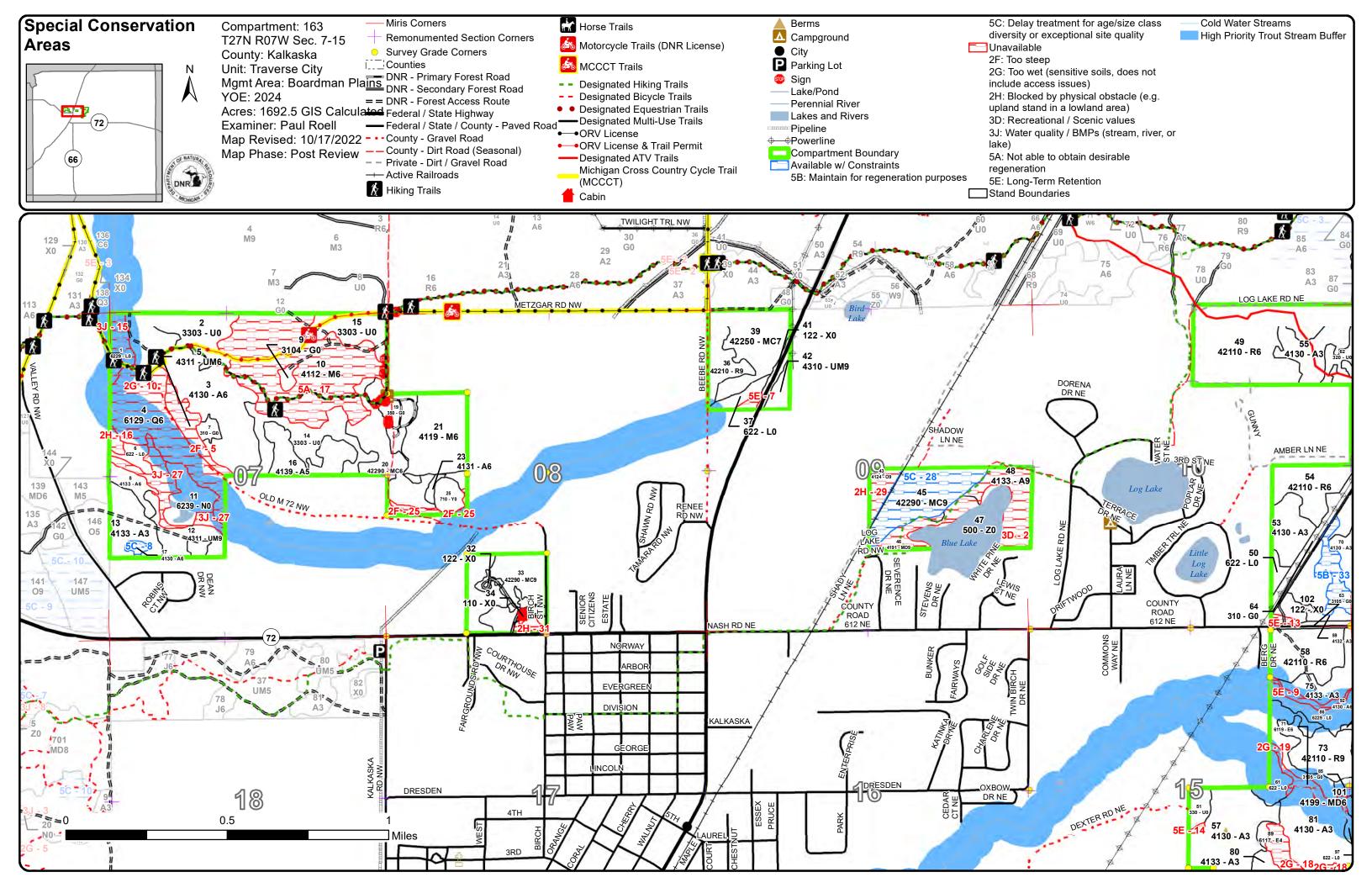
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

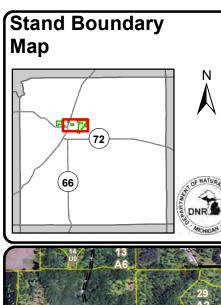
The following information is displayed, where pertinent, on the attached compartment maps:

Base feature information, stand boundaries, cover types, and numbers

Proposed treatments
Site condition boundaries

Details on the road access system





Compartment: 163 T27N R07W Sec. 7-15 County: Kalkaska Unit: Traverse City Mgmt Area: Boardman Plains

YOE: 2024

Acres: 1692.5 GIS Calculated

Examiner: Paul Roell Map Revised: 10/17/2022 Map Phase: Post Review

Miris Corners Remonumented Section Corners

= = DNR - Forest Access Route

—— County - Dirt Road (Seasonal)

- - Private - Dirt / Gravel Road

- · · County - Gravel Road

--- Active Railroads

Hiking Trails

MCCCT Trails Survey Grade Corners Counties

- Designated Hiking Trails DNR - Secondary Forest Road

Designated Equestrian Trails
 Designated Multi-Use Trails

Federal / State Highway

Federal / State / County - Paved Road

Designated With Fose Federal / State / County - Paved Road

Designated With Fose Federal / State / County - Paved Road

Horse Trails

Michigan Cross Country Cycle Trail

(MCCCT)

Cabin Berms Campground

City

Parking Lot -Lake/Pond Perennial River Lakes and Rivers Pipeline ⊕ ⊕Powerline Compartment Boundary

Stand Boundaries 411 - Northern Hardwood

421 - Planted Pines

422 - Natural Pines

423 - Other Upland Conifers

413 - Aspen

320 - Upland Shrub 330 - Low Density Trees 500 - Water 412 - Oak Types

622 - Lowland Shrub 419 - Mixed Upland Deciduous

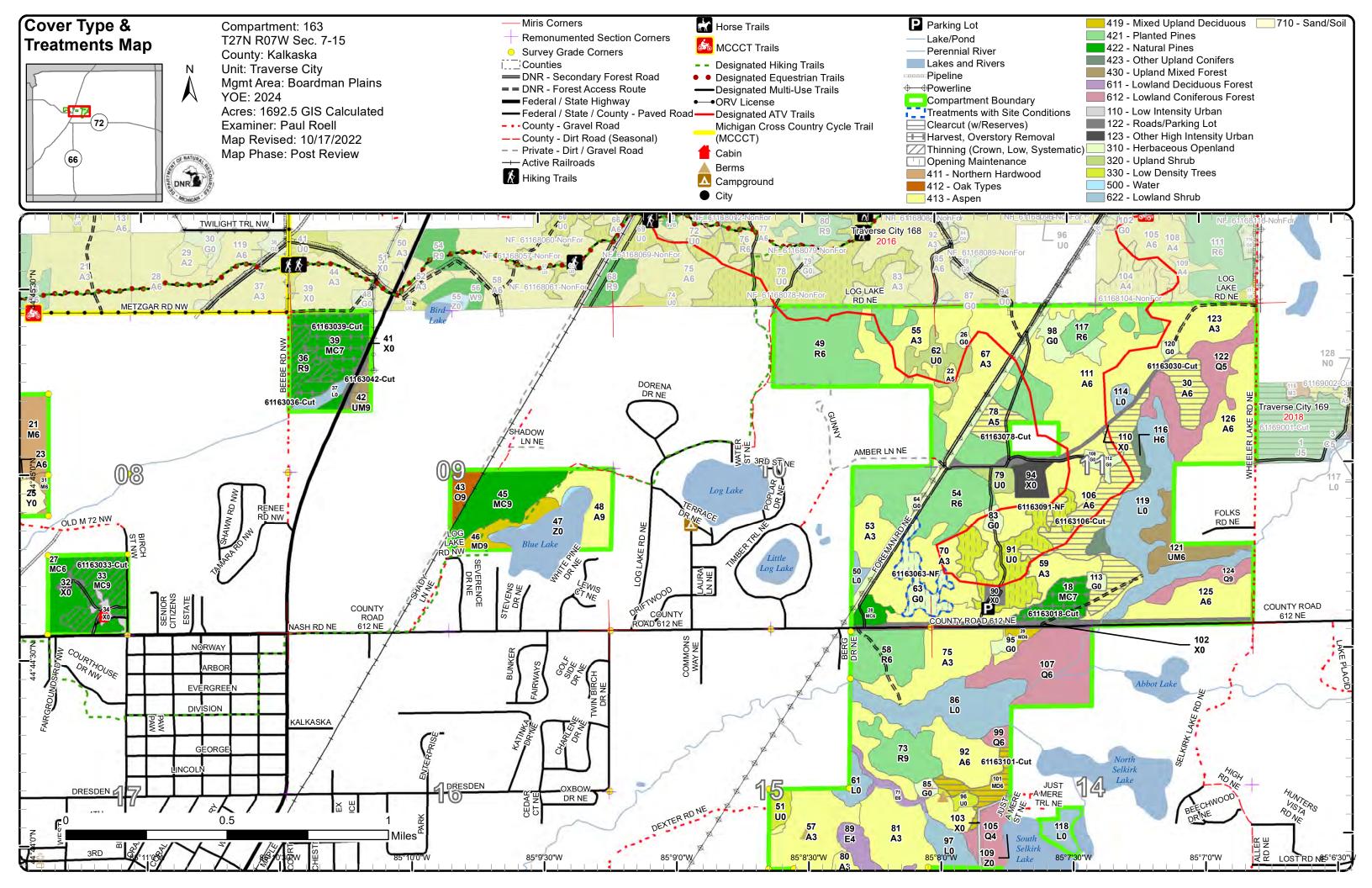
710 - Sand/Soil

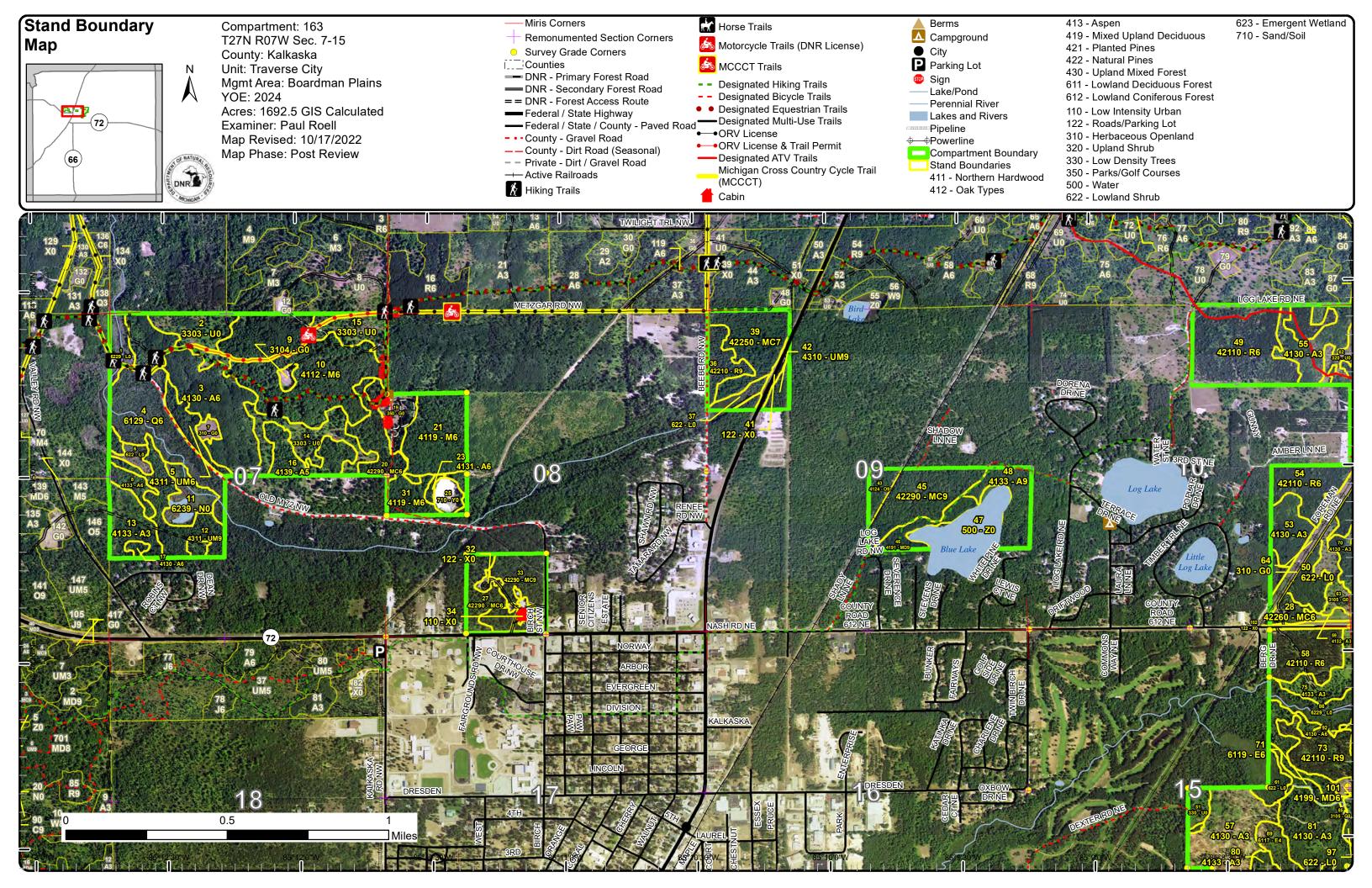
430 - Upland Mixed Forest

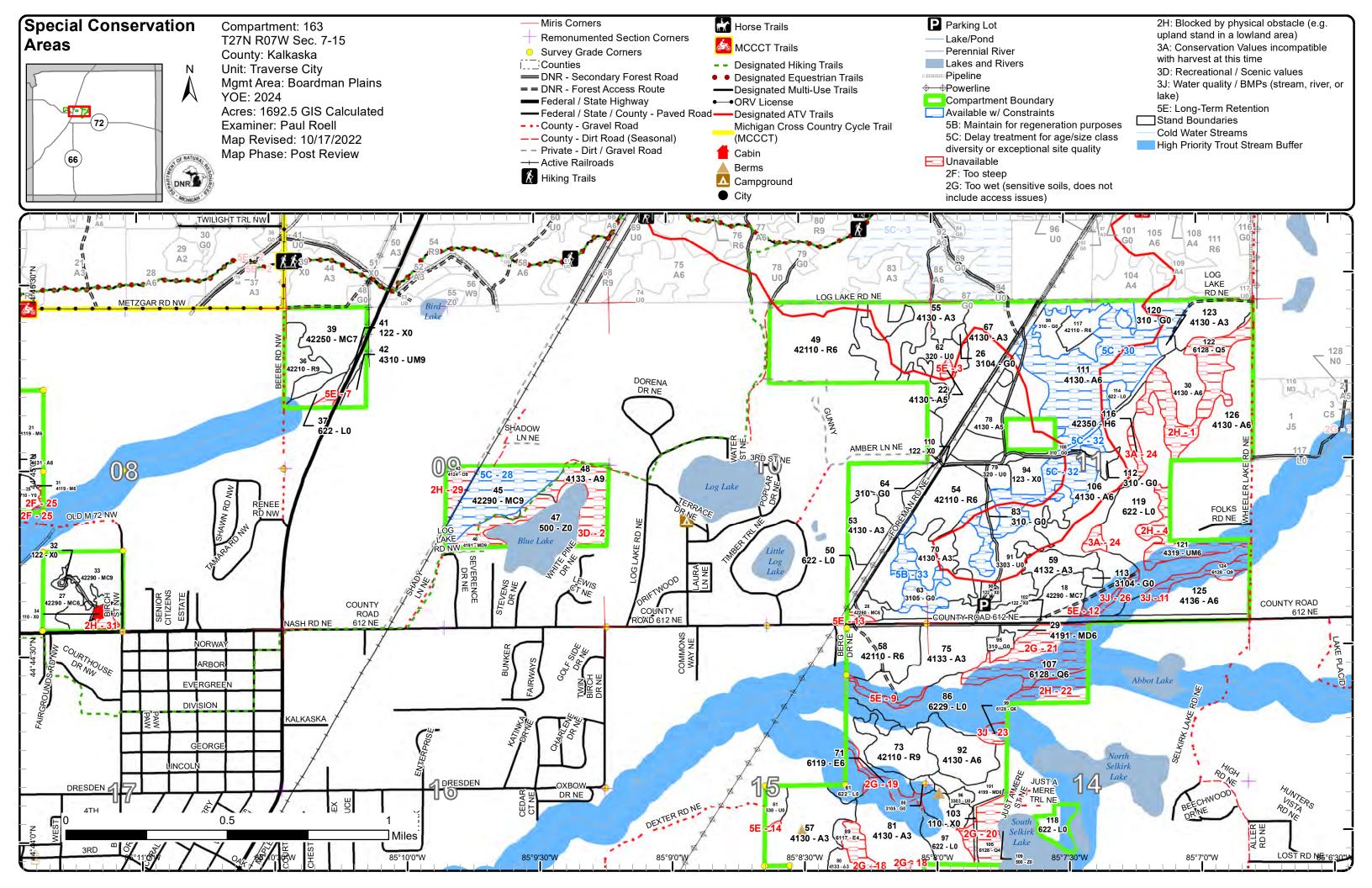
110 - Low Intensity Urban

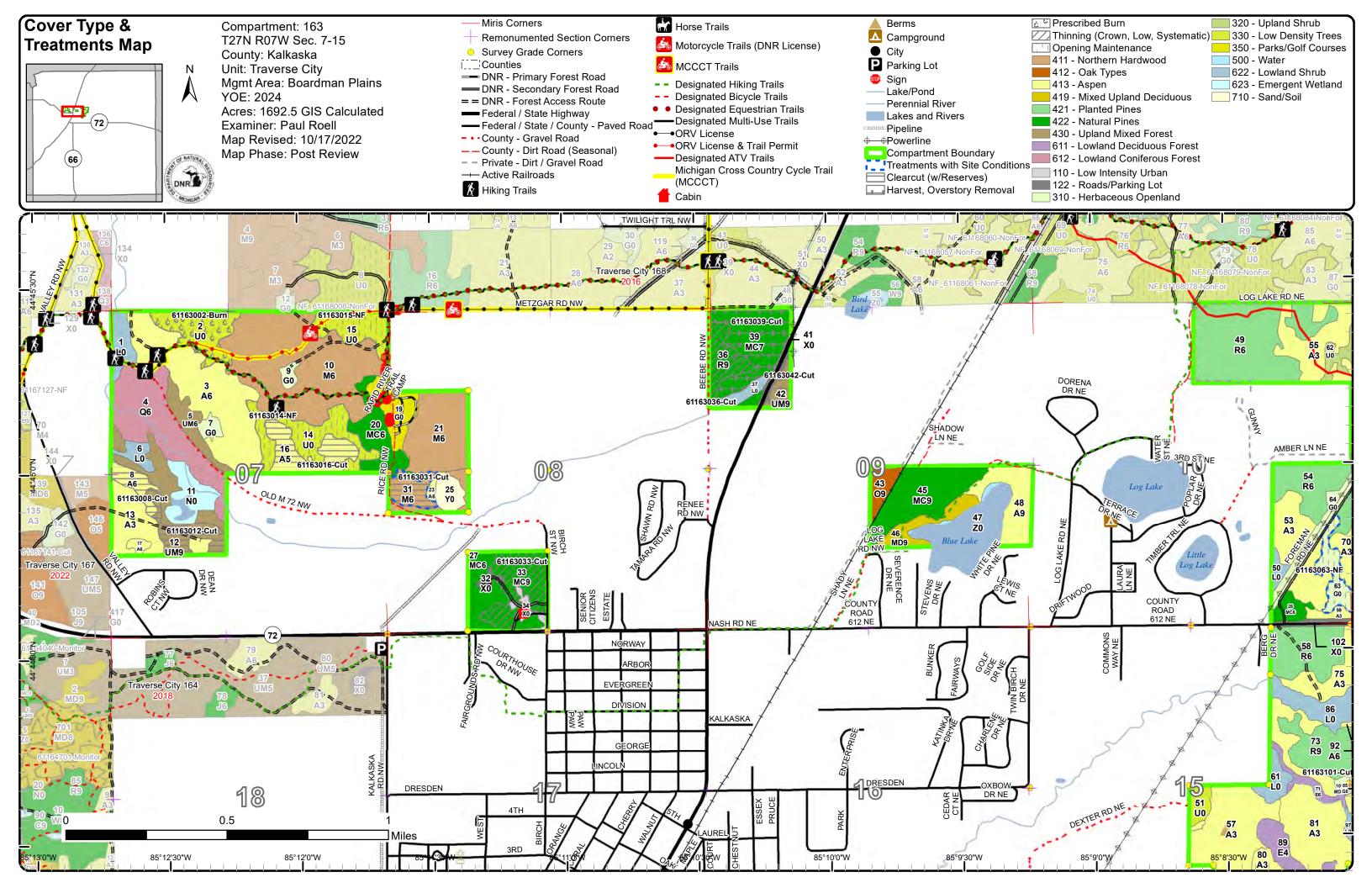
611 - Lowland Deciduous Forest 612 - Lowland Coniferous Forest

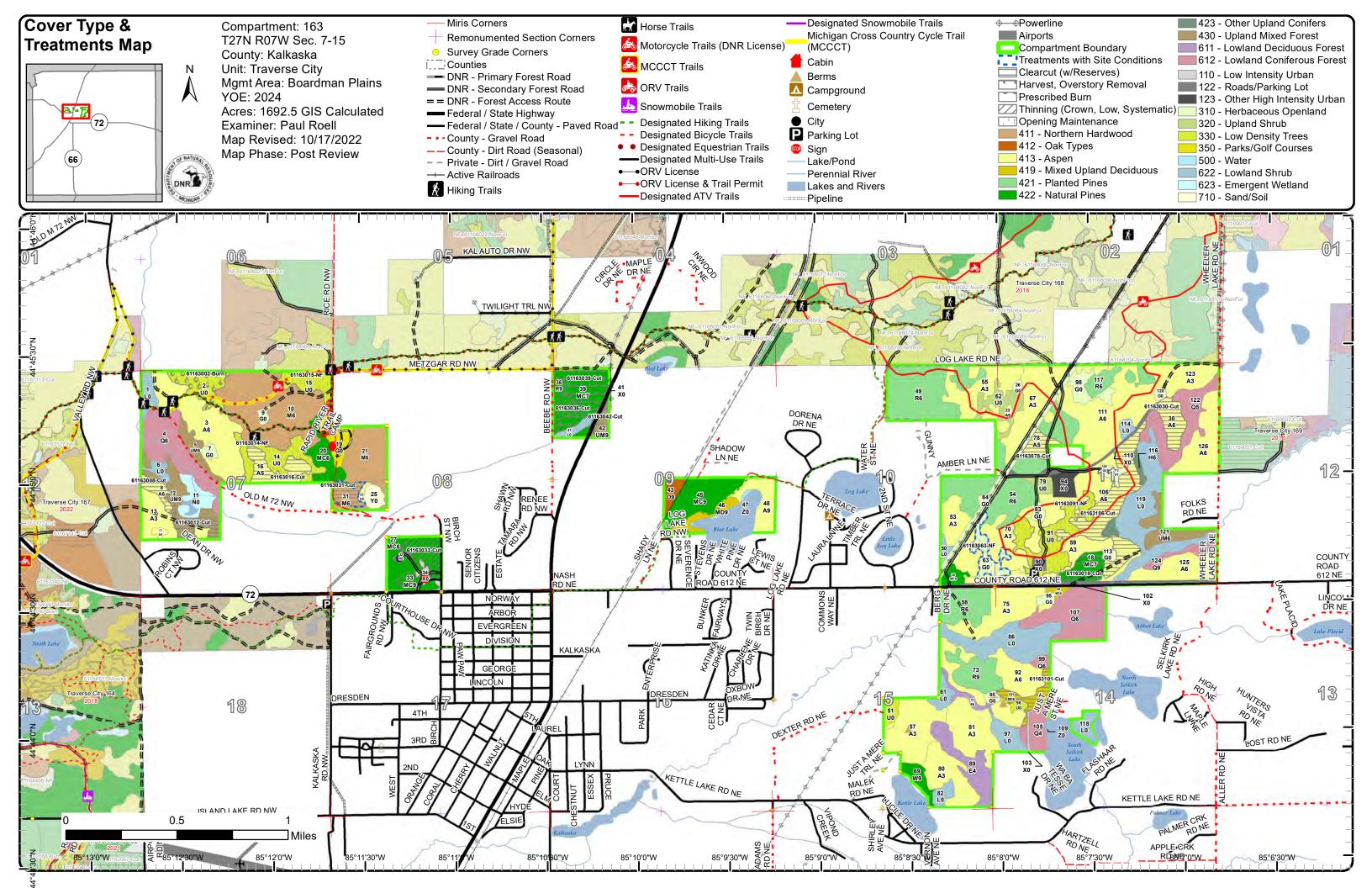
122 - Roads/Parking Lot 123 - Other High Intensity Urban 310 - Herbaceous Openland











Traverse City Mgt. Unit
Paul Roell: Examiner



Age Class

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Aspen	0	140	85	41	83	71	178	6	19	0	0	0	0	0	0	0	0	0	621
Hemlock	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
Herbaceous Openland	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76
Low-Density Trees	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91
Lowland Conifers	0	0	0	0	0	0	12	32	0	38	47	0	0	0	0	0	0	0	129
Lowland Deciduous	0	0	0	0	0	0	23	5	0	0	0	0	0	0	0	0	0	0	27
Lowland Shrub	133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133
Marsh	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Mixed Upland Deciduous	0	0	0	0	0	0	2	10	0	9	0	0	0	0	0	0	0	0	21
Natural Mixed Pines	0	0	0	0	12	0	0	13	97	0	0	0	0	0	0	0	0	0	122
Northern Hardwood	0	0	0	0	0	0	0	29	13	74	0	0	0	0	0	0	0	0	115
Oak	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6
Red Pine	0	0	0	128	0	0	22	19	11	0	0	0	0	0	0	0	0	0	180
Sand, Soil	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Upland Mixed Forest	0	0	0	0	0	0	9	0	16	30	0	0	0	0	0	0	0	0	55
Upland Shrub	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Urban	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Water	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
White Pine	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
Total	403	140	85	169	95	71	246	114	156	151	66	0	0	0	0	0	0	0	1691



Report 2 – Treatment Summary

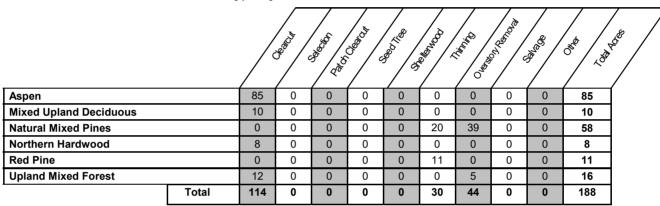
Traverse City Mgt. Unit Year of Entry: 2024

Acres of Harvest

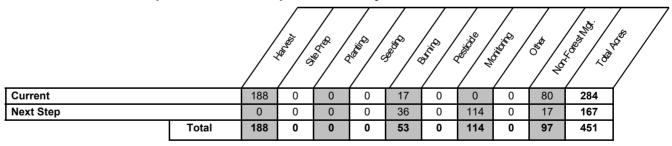
Compartment 163
Total Compartment Acres: 1,692

Commercial Harvest - 180 Harvests with Site Condition - 8 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



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n

d

Treatment Name

Acres

Stand CoverType

Size Density Stand BA Age Range **Treatment** Type

Treatment Method

Cover Type Objective

Age Structure Habitat Cut

No

No

Approved Treatments:

2 61163002-17.2 3303 - Mixed Low Nonstocked Burn Opening 3205 - Mixed Burn **Density Trees**

Upland Shrub

Specs:

Prescription Burn on a rotational basis. The goal of prescribed burning is to restore and/or maintain a grassland/barrens ecosystem. The timing and 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 NonForestMqt, Other - Specify

Treatments:

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023

61163008-Cut 6.0 4133 - Aspen, Poletimber 65 1-50 Harvest Clearcut 413 - Aspen Even-Aged Mixed Pine Well

Prescription Cut all trees 4 inches in diameter and larger. Mark some scattered pine and white oaks to leave for diversity and visual concerns. No retention to maximize regeneration of the small stand with high deer browse pressure. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, red maple and mixed conifer

Regen: **Other** Comment:

Site Condition

Proposed Start Date: 10/1 /2023

61163012-Cut 11.5 4311 - Pine, Aspen Sawtimber 111-Harvest Clearcut with 413 - Aspen Even-Aged No Mix Well 140 Retention

Prescription Cut all trees 4 inches and larger leave tree mark or designated some pines and oak for diversity and visual concerns. Area retention will be covered be the adjacent un cut portion of the stand. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, red maple and mixed conifer

Regen: **Other**

Comment:

Site Condition

Proposed Start Date: 10/1 /2023

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 163 Year of Entry: 2024 s t а **Treatment** Size Stand BA **Treatment Treatment Cover Type** Acres Stand Age Habitat n Method Objective Structure Name CoverType Density Age Range Type Cut d 14 61163014-NF 21.3 3303 - Mixed Low Nonstocked NonForestMqt **Brush Cutting** 3205 - Mixed Nο Upland Shrub **Density Trees** Prescription Hand fell or brush hog some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover Leave stumps to rot to provide future food source for insectivores, etc. Maintain as needed Specs: with mowing, seeding of native grasses and forbs, burning, or removal of woody encroachment. Next Step Burn, Opening Treatments: Acceptable Regen: **Other** Comment: Site Condition Proposed Start Date: 10/1 /2023 14.3 3303 - Mixed Low Nonstocked Immatu NonForestMgt 3205 - Mixed No 61163015-NF **Brush Cutting** 15 **Density Trees** Upland Shrub Prescription Hand fell or brush hog some trees to maintain opening and create some coarse woody debris. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.Leave stumps to rot to provide future food source for insectivores, etc. Maintain as needed Specs: with mowing, seeding of native grasses and forbs, burning, or removal of woody encroachment. Next Step Burn, Opening **Treatments:** Acceptable Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2023 61163016-Cut 15.7 4139 - Aspen, Poletimber 55 1-50 Harvest Clearcut with 413 - Aspen Even-Aged No Mixed Deciduous Medium Retention Prescription Cut all trees 4 inches and larger leave tree mark or designated some pines and oak for diversity and visual concerns. Area retention required. Specs: Monitoring, Natural Regen (Re-Inventory) Next Step **Treatments:** Acceptable aspen, red maple, oaks and possible some conifer Regen: Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023

61163018-Cut 12.9 42290 - Natural Sawtimber 51-80 Overstory 413 - Aspen Harvest Even-Aged No Mixed Pine Poor Removal

Prescription Cut all trees 4 inches and larger leave tree mark or designated some pines and oak for diversity and visual concerns.

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023

Compartment: 163

s t а

Year of Entry: 2024 **Treatment** Size Stand BA **Treatment Treatment Cover Type** Acres Stand Age Habitat n Method Objective Name CoverType Density Age Range Type Structure Cut d 30 61163030-Cut 12.9 4130 - Aspen Poletimber 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Nο Well Retention Prescription Cut all trees 2 inches and larger leave tree mark or designated some pines and oak for diversity and visual concerns. Minimal area retention Specs: required. Require a winter harvest because of wet access. Monitoring, Natural Regen (Re-Inventory) Next Step Treatments: Acceptable aspen, red maple and mixed conifers. Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2023 61163031-Cut 7 7 4119 - Mixed Poletimber 76 81-110 Harvest Clearcut with 4139 - Aspen, Even-Aged No Northern Hardwoods Well Retention Mixed Deciduous Prescription Cut all trees 4 inches and larger leave tree mark or designated some pines and oak for diversity and visual concerns. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable aspen, oak, red maple and mixed soft wood. Regen: Other Comment: Site Condition Too Steep Proposed Start Date: 10/1 /2023 61163033-Cut 19.5 42290 - Natural Sawtimber 76 141-Harvest Crown Thinning 429 - Mixed Even-Aged No Mixed Pine Well **Upland Conifers** 170 Prescription Thin stand down to 100-120 square feet of residual basal area. Mark suppressed and poorest formed trees first then target trees that are economical mature. Harvest area is around the Kalkaska DNR and Michigan State Police office building. Extra trees may be harvested or Specs: slash management may be required by facility managers Next Step Treatments: <u>Acceptable</u> Regen: **Other** Comment: Site Condition Proposed Start Date: 10/1 /2023 61163036-Cut 10.6 42210 - Natural Sawtimber 141-Harvest Crown Thinning 4221 - Natural Even-Aged No Red Pine Well 170 Red Pine Prescription Thin stand down to 100-120 square feet of residual basal area. Mark suppressed and poorest formed trees first then target trees that are Specs: economical mature. Next Step Treatments: <u>Acceptable</u> Regen: **Other** Comment: Site Condition Proposed Start Date: 10/1 /2023

Traverse City Mgt. Unit

Report 3 -- Treatments

Compartment: 163

S t										Year of Entr	y: 2024	DNR
a n d	Treatmer Name	it	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habita Cut
39	61163039	Cut	26.0	42250 - Pine, Oak	Sawtimbe Poor	er 74	1-50	Harvest	Overstory Removal	413 - Aspen	Even-Aged	No
Spe Nex		ıt all o	verstory	trees left from the p	revious ha	rvest in	2005. Ma	ark to leave some	e scattered large p	ine and leave all l	nemlock.	
Reg Othe												
	Condition											
	osed Start											
42	61163042	·Cut	4.6	4310 - Pine, Oak Mix	Sawtimbe Well	er 80	171- 200	Harvest	Overstory Removal	4133 - Aspen, Mixed Pine	Even-Aged	No
Pres Spe		t all tr	ees 6 ind	ches and larger in di	ameter and	d mark	a few larg	er diameters to le	eave. Protect the e	established pine u	ınderstory.	
	t Step ttments:											
Acce Reg		pen m	nixed oal	κ and release pine th	nat is estab	lished						
Othe Com	er nment:											
<u>Site</u>	Condition											
Prop	osed Start	Date:	10/1 /2	023								
63	61163063	-NF	12.4	3105 - Mixed Upland Herbaceous	Nonstocke	∋d		NonForestMgt	Brush Cutting	3205 - Mixed Upland Shrub		No
Pres Spe	<u>cs:</u> wo	ody e dlife f	ncroach ood and		land brush/	/grassla	and comm	nunity. Leave sca	attered mast produ	ucing trees and sh	nrubs and/or co	onifers for
			ant site r tubex.	appropriate native sl	hrubs and/o	or mast	producin	g trees for wildlife	e food and cover.	Fertilize plantings	and protect w	ith wire
	t Step ttments:											
Acce Reg	eptable en:											
Othe Con	e <u>r</u> nment:											
<u>Site</u>	Condition	Shelf	terwood/	Seed Source								
Prop	osed Start	<u>Date:</u>	10/1 /2	023								

Traverse City	Mgt. Unit

Report 3 -- Treatments

Compartment: 163



s t			, ,	·	. topo				Year of Entr		DNR
a n d	Treatment Name	Acre	es Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
78	61163078-0	Cut 7	7.8 4130 - Aspen	Poletimbe Medium	r 51	51-80	Harvest	Clearcut	413 - Aspen	Even-Aged	No
Pres Spe			4 inches and larger lear regeneration.	ave tree marl	k or des	signated s	some pines and c	oak for diversity an	d visual concerns	s. No retention	required
	<u>t Step</u> Mo atments:	nitoring, N	latural Regen (Re-Inve	entory)							
Acc Reg		en, red m	aple, cherry and mixe	d conifer							
Oth Con	<u>er</u> nment:										
Site	Condition										
Pro	oosed Start D	ate: 10/	1 /2023								
91	61163091-	NF 31	1.6 3303 - Mixed Low Density Trees	Nonstocke	ed		NonForestMgt	Brush Cutting	3205 - Mixed Upland Shrub		No
Pres Spe	woo wild Cou	ody encro life food a	e to brush hog around achment to maintain u and cover. ite appropriate native ex.	pland brush/	grassla	and comm	nunity. Leave sca	attered mast produ	icing trees and sh	rubs and/or c	onifers for
	t Step atments:										
Acc Reg	eptable len:										
Oth Con	<u>er</u> nment:										
Site	Condition										
Pro	oosed Start D	ate: 10/	1 /2023								
101	61163101-0	Cut 9	9.9 4199 - Other Mixed Upland Deciduous		r 60	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
Pres Spe		all trees : uired.	2 inches and larger lea	ave tree marl	k or des	signated s	some pines and c	oak for diversity an	d visual concerns	s. Area retenti	on
	<u>t Step</u> Mo atments:	nitoring, N	latural Regen (Re-Inve	entory)							
Acc Reg		en, red m	aple, oaks and mixed	pine.							
Oth Con	<u>er</u> nment:										

Site Condition

Proposed Start Date: 10/1 /2023

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 163 S Year of Entry: 2024 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n Density Age Method Objective Structure Name CoverType Range Type Cut d 106 61163106-Cut 42.4 4130 - Aspen Poletimber 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Well Retention Prescription Cut all trees 2 inches and larger leave tree mark or designated some pines and oak for diversity and visual concerns. Area retention required. Sign and Protect the rec trail during the harvest Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable aspen, red maple, oak, cherry and mixed pine Regen: <u>Other</u> Comment:

Total Treatment Acreage Proposed: 284.3

Proposed Start Date: 10/1 /2023

Site Condition

Compartment: 163

Traverse City Mgt. Unit

Paul Roell: Examiner Year of Entry: 2024

Availa	ability for	Managemer	nt											
Total	Acres	Acres Avail	Acres		omina	nt Site	Con	dition	s					
Acres	Available	With Condition	Not Available		5B	5C	2F	2G	2H	ЗА	3D	3J	5A	5E
622	504	96	22	Aspen		96		0			17	2		2
5	0	0	5	Hemlock						5				
76	63	12	0	Herbaceous Openland	12									
92	92	0	0	Low-Density Trees										
130	0	0	129	Lowland Conifers				79	39			11		
27	2	0	26	Lowland Deciduous				26						
133	122	0	11	Lowland Shrub				0				8		3
12	12	0	0	Marsh										
21	12	0	9	Mixed Upland Deciduous							9			
122	90	27	5	Natural Mixed Pines		27			2		0			3
115	37	0	78	Northern Hardwood			4						74	
6	0	0	6	Oak					6					
180	180	0	0	Red Pine										
5	5	0	0	Sand, Soil										
54	16	0	38	Upland Mixed Forest			9	0	18			12		
18	18	0	0	Upland Shrub										
46	45	0	1	Urban				1						
21	21	0	0	Water										
8	4	0	4	White Pine								4		
1,693	1,223	136	333	Total Forested Acres	12	124	13	106	65	5	27	36	74	8
	72%	8%	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.

No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	29	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
C	Comments:						

Traverse City Mgt. Unit

Paul Roell: Examiner Year of Entry: 2024

Compartment: 163

2	Unavailable	3D: Recreational / Scenic values	27	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	16	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Either need access	through upland private property	or bri	dge and road across lowlan	nd. Unknown length.		
5	Unavailable	2F: Too steep	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: retention for the over	erstory removal of the parent sta	and 39				
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Traverse City Mgt. Unit
Paul Roell: Examiner

Year of Ent

9	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	38	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
11	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	8	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
12	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
13	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
14	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
15	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	8	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

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16	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
17	Unavailable	5A: Not able to obtain desirable regeneration	74	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
18	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	21	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
21	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	29	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Traverse City Mgt. Unit
Paul Roell: Examiner

22	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	11	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
	Comments:						
23	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	3	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
24	Unavailable	3A: Conservation Values incompatible with harvest at this time	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Unusual hemlock s	stand.					
25	Unavailable	2F: Too steep	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
26	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
27	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	12	Unspecified	Unspecified	Unspecified	Unspecified
•	Comments:						

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28	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	27	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
29	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
30	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	66	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
31	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	29	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
33	Available	5B: Maintain for regeneration purposes	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: See locked comme	ents.					

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: 163
Year of Entry 2024



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

Conservation Area	า Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	ies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effects as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity of plants and wildlife. Riparian cts on water quality and quantity, as well



Stand	Level 4 Co	over Type		Size Density	Acres	Stand Age B	A Range	Managed S	ite	General Comments
1	6229 - Mixed	l lowland s	hrub	Nonstocked	7.6	II	mmature	No		Flooding area, wet soils. Some blow down, areas of stand were salvaged. Areas of the stand are filling in with red maple, cedar, aspen, white pine and balsam fir. Alot of stand dead trees and tag alder also present.
2	3303 - Mixed Lo	ow Density	/ Trees	Nonstocked	17.2			No		scattered cherry and white pine
3	4130	- Aspen	F	Poletimber Well	50.2	31	81-110	N/A		More pine in the western portion of the stand some was cleaned up in a
(Canopy Species	% Cover	Size Class	DBH Age	Sub-Can	opy Species	Density	Avg. Height	Size	salvage harvest in 1999
Е	Bigtooth Aspen	75	Pole	6 31	Bals	sam Fir	Medium	5 - 10 feet	Sapling	
	Balsam Fir	5	Sapling/Pole	. 4						
	White Pine	5	Pole	6						
	Red Oak	5	Sapling/Pole	. 4						
	Red Maple	10	Sapling/Pole	4						
4	6129 - Mixed Conife	erous Lowl	and Forest F	Poletimber Well	38.1	89	81-110	N/A		Mixed lowland conifer stand consisting mainly of cedar, balsam fir and
(Canopy Species	% Cover	Size Class	DBH Age	Sub-Can	opy Species	Density	Avg. Height	Size	occasional spruce. Some red maple, white pine, paper birch and there are spring feed drainages throughout
	Tamarack	6	Pole	8	Bals	sam Fir	High	5 - 10 feet	Sapling	are opining room aramages amongroun
Nort	thern White Cedar	40	Pole/Log	8 89			'		'	
	White Spruce	15	Pole	8						
	Balsam Fir	25	Pole/Sapling	6						
	Paper Birch	4	Pole	7						
	Red Maple	5	Pole	8						
	White Pine	5	Log/Pole/XLo	g 10						
5	4311 - Pine	e, Aspen N	Mix F	Poletimber Well	8.8	58	81-110	N/A		Has a flowing spring and the shore to shore horse trail in this stand
(Canopy Species	% Cover	Size Class	DBH Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Red Oak	5	Pole	8	Bals	sam Fir	Medium	10 - 20 feet	Sapling	
Е	Bigtooth Aspen	45	Log/Pole	10 58	Jac	k Pine	Low	5 - 10 feet	Sapling	
	Balsam Fir	20	Pole	6	Wh	ite Pine	Low	5 - 10 feet	Sapling	
	White Pine	10	Log/Pole	10					,	-
	Red Pine	5	Log/Pole	10						
	Jack Pine	15	Pole	8						
6	622 - Low	vland Shru	b	Nonstocked	3.9			No		Stand is a wet area, most likely resulting from beaver activity on a small feeder creek. Dead standing cedar and spruce can be found throughout.
7	310 - Herbac	eous Oper	nland	Nonstocked	2.6			No		Old gas well/landing site.



Stand	l Level 4 C	over Type		Size Der	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
8	4133 - Aspe	en, Mixed P	ine	Poletimbe	er Well	6.0	65	1-50	N/A		Red maple, aspen and jack pine dominant with some balsam fir and
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	scattered white and red pine.
	Red Oak	5	Log/Pole	10		Ва	ılsam Fir	Medium	10 - 20 feet	Sapling	
	Red Pine	5	Log/Pole	10							
	Balsam Fir	5	Pole	6							
	Red Maple	20	Pole/Log	8							
	Jack Pine	15	Pole/Log	8							
	White Pine	5	Pole/Log	8							
	Bigtooth Aspen	45	Log/Pole	10	65						
9	3104 -	Degraded		Nonsto	cked	2.1			No		abandoned well site, vegetated w/ grasses/knapweed. Plugged 2005. Updated stand data to not "managed oil/gas". Merit Energy is no longer responsible for an any additional surface restoration.
10	4112 - Maple, Beed	h, Cherry A	ssociation	Poletimbe	er Well	74.3	82	111-140	N/A		Too low/variable ba to warrant thinning at this time. Some pockets more
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	dense and of higher quality, however overall stand basal area is 115. Low number of crop trees and there is dense undesirable regeneration
	Ironwood	5	Pole/Sapling	g 6		WI	hite Pine	Low	5 - 10 feet	Sapling	present.
	Sugar Maple	30	Pole/Log	8			Beech	High	5 - 10 feet	Sapling	
	Red Maple	35	Pole/Log	8	82	Ire	onwood	High	5 - 10 feet	Sapling	
	White Pine	5	Log/Pole	12							
	Red Oak	10	Log/Pole	10							
	Beech	15	Log/Pole	10							
11	6239 - Mixed E	mergent W	etland	Nonstoo	cked	12.1			No		Stand looks to be an old flooding where several small tributaries flow into the Rapid River. Dead staning cedar, white pine and spruce can be found along edges of the stand.
12	4311 - Pin	e, Aspen M	lix	Sawtimbe	er Well	25.1	86	111-140	N/A		Mixed stand w/ variable composition. Some wet areas throughout stand
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	resulting from seeps leading to adjacent stand to the east.
	Balsam Fir	10	Pole/Sapling	g 6	50	Ва	ılsam Fir	High	10 - 20 feet	Sapling	
	White Pine	15	Log/Pole	13		WI	hite Pine	High	5 - 10 feet	Sapling	
	Red Pine	25	Log/Pole	12	86						-
	Bigtooth Aspen	25	Pole/Log	8							
	Jack Pine	5	Pole	8							
	Red Oak	5	Log/Pole	10							



Stan	d Level 4 C	over Type	;	Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
13	4133 - Aspe	en, Mixed P	ne	Sapling	y Well	18.2	17 l	mmature	N/A		A3 stand. Red pine, white pine and oak were left following harvest so there is an R-W-O 7 overstory. Stand was final harvested in 2005
	Canopy Species	% Cover	Size Class	DBH	l Age						there is an N-VV-O / Overstory. Stand was infall harvested in 2003
	Red Oak	5	Pole/Log	8							
	White Pine	5	Log/Pole	10							
	Jack Pine	15	Sapling	2							
	Red Pine	5	Log	12							
	Bigtooth Aspen	50	Sapling/Pole	3	17						
	Red Maple	20	Sapling/Pole	3							
14	3303 - Mixed L	ow Density	Trees	Nonsto	ocked	21.3			No		filling in with white pine, jack pine and cherry. Deep depression within stand
15	3303 - Mixed L	ow Density	Trees	Nonsto	ocked	14.3	[1	mmature	No		Low density cherry, white pine, jack pine and oak along with occasion aspen.
16	4139 - Aspen,	Mixed Deci	duous Pol	etimbei	r Medium	15.7	55	1-50	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	25	Pole/Log	8		Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub	
	Quaking Aspen	40	Pole	8	55	WI	nite Pine	Low	5 - 10 feet	Sapling	
	Red Oak	5	Log/Pole	10		Re	d Maple	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	10	Log/Pole	12		Ва	lsam Fir	Low	5 - 10 feet	Sapling	
	White Pine	10	Log/Pole	10							
	Sugar Maple	10	Pole	8							
17	4130	- Aspen	Р	oletimb	er Well	1.6	71	81-110	N/A		leave this stand as long term retention
	Canopy Species	% Cover	Size Class								
		% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Jack Pine	10	Pole	DB H	I Age		nopy Species ck Cherry	Density Low	Avg. Height 5 - 10 feet	Size Sapling	
					71	Bla					
	Jack Pine	10	Pole	8		Bla	ck Cherry	Low	5 - 10 feet	Sapling	
18	Jack Pine Bigtooth Aspen	10 75 15	Pole Pole Pole	8 8 8		Bla	ck Cherry	Low	5 - 10 feet	Sapling	Final harvest, spring 2016 to much pine left need to release the reger
18	Jack Pine Bigtooth Aspen Red Maple	10 75 15 ural Mixed F	Pole Pole Pole	8 8 8 awtimb	71	Blac Re 12.9	ck Cherry ed Maple	Low	5 - 10 feet 10 - 20 feet	Sapling	Final harvest, spring 2016 to much pine left need to release the reger
18	Jack Pine Bigtooth Aspen Red Maple 42290 - Nate	10 75 15 ural Mixed F	Pole Pole Pole Pole Sine	8 8 8 awtimb	71 er Poor	Black Res	ck Cherry ed Maple 65	Low Low	5 - 10 feet 10 - 20 feet N/A	Sapling Sapling	Final harvest, spring 2016 to much pine left need to release the reger
18	Jack Pine Bigtooth Aspen Red Maple 42290 - Nate Canopy Species	10 75 15 ural Mixed F	Pole Pole Pole Pole Size Class	8 8 8 awtimb	71 er Poor	Black Res	ck Cherry ed Maple 65 nopy Species	Low Low 51-80 Density	5 - 10 feet 10 - 20 feet N/A Avg. Height	Sapling Sapling	Final harvest, spring 2016 to much pine left need to release the reger
18	Jack Pine Bigtooth Aspen Red Maple 42290 - Nate Canopy Species Paper Birch	10 75 15 ural Mixed F % Cover 5	Pole Pole Pole Pole Size Class Pole	8 8 8 awtimb	71 er Poor	Black Res	ck Cherry ed Maple 65 nopy Species	Low Low 51-80 Density	5 - 10 feet 10 - 20 feet N/A Avg. Height	Sapling Sapling	Final harvest, spring 2016 to much pine left need to release the reger
18	Jack Pine Bigtooth Aspen Red Maple 42290 - Nate Canopy Species Paper Birch White Pine	10 75 15 15 Wrant Mixed F 6 20	Pole Pole Pole Pole Size Class Pole Pole/Log	8 8 8 awtimb DBH 8	71 er Poor	Black Res	ck Cherry ed Maple 65 nopy Species	Low Low 51-80 Density	5 - 10 feet 10 - 20 feet N/A Avg. Height	Sapling Sapling	Final harvest, spring 2016 to much pine left need to release the reger
118	Jack Pine Bigtooth Aspen Red Maple 42290 - Nate Canopy Species Paper Birch White Pine Balsam Fir	10 75 15 15 vural Mixed F 6 Cover 5 20 10	Pole Pole Pole Pole Size Class Pole Pole/Log Pole	8 8 8 awtimb DBH 8 8	71 er Poor	Black Res	ck Cherry ed Maple 65 nopy Species	Low Low 51-80 Density	5 - 10 feet 10 - 20 feet N/A Avg. Height	Sapling Sapling	Final harvest, spring 2016 to much pine left need to release the reger



Stand	Level 4 C	over Type	:	Size Density	Acres	Stand Age B	A Range	Managed S	Site	General Comments
20	42290 - Natu	ıral Mixed F	Pine P	oletimber Well	15.8	70	81-110	N/A		Mixed stand, pockets of aspen and hardwood. Some areas of smaller diameter regen and overstory. Pine dominant overall.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	anopy Species	Density	Avg. Height	Size	diameter regen and overstory. The dominant overall.
	Sugar Maple	2	Log/Pole	10	В	alsam Fir	Low	10 - 20 feet	Sapling	
	Red Maple	10	Pole	8	W	hite Pine	High	10 - 20 feet	Sapling	
	Red Oak	2	Pole/Log	9						
	Quaking Aspen	10	Pole/Sapling	7						
	White Pine	36	Log/Pole	10						
	Red Pine	40	Pole/Log	10 70						
21	4119 - Mixed No	orthern Hard	dwoods P	oletimber Well	28.5	66	51-80	N/A		Stand was select cut in Feb-April of 2017 (Log Local 61-129-15-01).
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	anopy Species	Density	Avg. Height	Size	Removed the aspen and most of the beech and marked through the areas of maple, pine and oak. There is a red shoulder hawks nest in the
	Sugar Maple	15	Pole	8	Bla	ack Cherry	Medium	5 - 10 feet	Sapling	southeast corner of the sale that was buffered.
	Red Maple	50	Pole/Log	8 66	ŀ	Hemlock	Low	>20 feet	Pole	
	Red Oak	20	Log/Pole	12		Beech	Full	5 - 10 feet	Sapling	
	White Pine	10	Log/Pole	12	В	alsam Fir	Low	10 - 20 feet	Sapling	
	Red Pine	5	Log/Pole	12	W	hite Pine	Medium	10 - 20 feet	Sapling	
22	4130	- Aspen	Pol	etimber Mediur	n 1.3	54	1-50	N/A		Left as retention on opposite side of recreational trail.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	anopy Species	Density	Avg. Height	Size	
	Jack Pine	6	Pole	7	R	ed Maple	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	89	Pole	8 54	Bla	ack Cherry	Low	5 - 10 feet	Sapling	
	Red Maple	5	Pole	6	J	ack Pine	Low	5 - 10 feet	Sapling	
23	4131 - A	spen, Oak	Р	oletimber Well	1.4	33	mmature	N/A		looks like a portion of the area clearcut to develop gravel pit and this
	Canopy Species	% Cover	Size Class	DBH Age						portion was not utilized and regenerated to current stand.
	Bigtooth Aspen	55	Pole/Sapling	6 33						
	Red Maple	25	Pole/Sapling	6						
	Red Oak	20	Sapling/Pole	4						
25	710 - S	Sand, Soil		Nonstocked	5.4			No		gravel pit
26	3104 -	Degraded		Nonstocked	1.5					State Kalkaska 1-11. Plugged 2005.
27	42290 - Natu	ıral Mixed F	Pine P	oletimber Well	11.7	34	51-80	N/A		mixdd pine stand, growing well. thinned in mid 90s, residual responding
	Canopy Species	% Cover	Size Class	DBH Age						well. regen is thick in places
	White Pine	20	Log/Pole	10						
	Red Maple	10	Pole/Log	8						
	Jack Pine	40	Pole	6 34						
	Red Pine	15	Log/Pole	12 76						
	Red Oak	15	Log/Pole	12						



Stan	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	iite	General Comments
28	42260 - Natural Pi	ine, Mixed [Deciduous	Poletimb	er Well	5.0	73	111-140	N/A		
	Canopy Species	% Cover	Size Class	s DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Oak	5	Log/Pole	10		WI	nite Pine	Medium	Variable	Sapling	
	White Pine	55	Pole/Log	8	73						-
	Jack Pine	10	Pole	8							
	Quaking Aspen	20	Pole	8							
	Red Maple	10	Pole/Log	8							
29	4191 - Mixed Upl	and Decidu onifer	ous with	Poletimb	er Well	1.8	54	51-80	N/A		
	Canopy Species	% Cover	Size Class	s DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	35	Pole	8	54	WI	nite Pine	Medium	10 - 20 feet	Sapling	
	Red Maple	20	Log/Pole	10		Ва	lsam Fir	Medium	10 - 20 feet	Sapling	
	Jack Pine	5	Pole	6	54						-
	White Pine	30	Pole/Log	8	54						
	Paper Birch	5	Pole	6							
	Balsam Fir	5	Pole	6							
30	4130	- Aspen		Poletimb	er Well	12.9	55	81-110	N/A		
	Canopy Species	% Cover	Size Class	s DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	85	Pole/Log	8	55	Re	d Maple	Medium	10 - 20 feet	Sapling	
	Quaking Aspen	5	Pole	8							_
	Balsam Fir	10	Pole	6							
31	4119 - Mixed No	orthern Har	dwoods	Poletimb	er Well	12.6	76	81-110	N/A		very few crop trees. There is more pine on the steep slope which is
	Canopy Species	% Cover	Size Class	s DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	south part of the stand towards Old M-72.
	Bigtooth Aspen	10	Pole/Log	8		Ва	lsam Fir	Low	10 - 20 feet	Sapling	
	White Pine	5	Log	12		WI	nite Pine	Medium	10 - 20 feet	Sapling	
	Red Pine	5	Pole/Log	8	78	I	Beech	High	5 - 10 feet	Sapling	
	Sugar Maple	2	Pole/Log	8		Н	emlock	Low	>20 feet	Pole	
		3	Pole/Log	8							
	Paper Birch										
	Paper Birch Red Oak	5	Log/Pole	13							
			Log/Pole								
	Red Oak	5		10	76						



Stand	Level 4 C	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
33	42290 - Natu	ıral Mixed F	Pine	Sawtimb	er Well	21.3	76	141-170	N/A		mixdd pine stand, growing well. thinned in mid 90s, residual responding
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	well. regen is thick in places
	White Pine	20	Log/Pole	10		Oa	k (spp.)	Medium	< 5 feet	Sapling	
	Red Pine	55	Log/Pole	12	76	Re	ed Pine	Low	10 - 20 feet	Sapling	
	Red Oak	15	Log/Pole	12		Ja	ck Pine	Medium	5 - 10 feet	Sapling	
	Red Maple	10	Pole/Log	8		Wh	ite Pine	Medium	5 - 10 feet	Sapling	
34	110 - Low Ir	ntensity Urb	oan	Nonsto	ocked	4.4			No		Site of Kalkaska DNR field office/Kalkaska MSP office and associated parking areas.
36	42210 - Nat	ural Red Pi	ine	Sawtimb	er Well	10.6	74	141-170	N/A		Stand was treated in 2005. All red and white pine DBH were left as
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	residual.
	Red Pine	75	Log/Pole	12	74	E	Beech	Low	5 - 10 feet	Sapling	
	White Pine	25	Log/Pole	12		Bigto	oth Aspen	Medium	5 - 10 feet	Sapling	
						Wh	ite Pine	Medium	5 - 10 feet	Sapling	
37	622 - Lov	vland Shrub)	Nonsto	ocked	4.2			No		lowland wetland, seep. cattails throughout along with two distinct areas of phragmites
39	42250 -	Pine, Oak		Sawtimb	er Poor	27.4	74	1-50	N/A		Stand was harvested in 2005, all white pine, hemlock and oak were left.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Oak	30	Log/Pole	10	74	Re	d Maple	High	5 - 10 feet	Sapling	
	White Pine	30	Log/Pole	10		Re	ed Pine	Low	5 - 10 feet	Sapling	
	Hemlock	5	Pole/Log	8		Wh	ite Pine	Medium	5 - 10 feet	Sapling	
	Red Pine	30	Pole/Log		74	Bigto	oth Aspen	High	5 - 10 feet	Sapling	
	Red Maple	5	Pole	6							
41	122 - Road	d/Parking Lo	ot	Nonsto	ocked	3.5			No		131 corridor, wide r.o.w.
42	4310 - Pi	ne, Oak Mix	<	Sawtimb	er Well	4.6	80	171-200	N/A		mixed pine stand with oak and aspen throughout. stand contains heavy
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	pine regen.
	Jack Pine	5	Pole/Log			Wh	ite Pine	High	Variable	Sapling	
	White Pine	30	Log/Pole	12	80						
	Bigtooth Aspen	25	Pole/Log								
	Red Oak	20	Log/Pole	12							
	Red Pine	20	Log/Pole	12							



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
43	4124 - Red v	with White	Oak	Sawtimb	er Well	6.2	99	111-140	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Oak	30	Pole/Log	8		WI	nite Pine	High	Variable	Sapling	
	Red Pine	20	Log/Pole	13		Ja	ick Pine	Low	5 - 10 feet	Sapling	
	Red Oak	50	Log/Pole	12	99	Oa	ak (spp.)	Low	5 - 10 feet	Sapling	
		1		1		Re	d Maple	Low	5 - 10 feet	Sapling	
45	42290 - Nati	ural Mixed F	Pine	Sawtimb	er Well	27.8	79	111-140	N/A		White pine stand mixed with some red pine and oak. Aspen, jack pine and red maple were removed from stand in 1993.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	and red maple were removed from stand in 1995.
	Red Oak	15	Log/Pole	12		Re	d Maple	Low	5 - 10 feet	Sapling	
	Red Pine	30	Log/Pole	10		WI	nite Pine	Medium	10 - 20 feet	Sapling	
	White Pine	55	Log/Pole	10	79	Quak	king Aspen	Low	10 - 20 feet	Sapling	
		1		1		Oa	ak (spp.)	Low	5 - 10 feet	Sapling	
46	4191 - Mixed Upla Co	and Decidu onifer	ous with	Sawtimb	er Well	9.4	85	81-110	N/A		Stand is a mix of oak, pine and aspen. Overall oak is dominant and is growing well. Stand is small in size and was not treated when adjacent
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	stand to the north/west was. Topography leads to lake and stand is essentially a narrow corridor between lake and adjacent stand. May wan
	Red Oak	55	Log/Pole	12	85	WI	nite Pine	High	5 - 10 feet	Sapling	to consider leaving stand-not treating.
	White Pine	10	Log/Pole	12				'	ı		
	Bigtooth Aspen	20	Pole	8							
	Red Pine	10	Log/Pole	12							
47	500	- Water		Nonsto	cked	19.8			No		Northern portion of Blue Lake.
48	4133 - Aspe	en, Mixed P	ine	Sawtimb	er Well	17.4	70	81-110	N/A		trace amount of hemlock and cedar within stand
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	15	Log/Pole	12		WI	nite Pine	High	10 - 20 feet	Sapling	
	Bigtooth Aspen	40	Log/Pole	10	70				I		
	Red Pine	10	Log/Pole	12							
	Red Oak	25	Log/Pole	13							
	Red Maple	10	Pole/Log	8							
49	42110 - Pla	nted Red P	ine	Poletimb	er Well	52.1	27	51-80	N/A		Red pine plantation, overall growing well. Some mortality throughout,
	Canopy Species	% Cover	Size Class	DBH	Age						occasional aspen pockets with white pine red maple and oak scattered
	White Pine	5	Log/Pole	10							throughout
	Red Maple	2	Log/Pole	10							
	Bigtooth Aspen	5	Pole/Log	8							
	Red Pine	88	Pole/Sapling		27						
50	622 - Lov	vland Shrub)	Nonsto	cked	2.6	I	mmature	No		Lowland shrub area, tag alder dominant with scattered small aspen and jack pine along edge.



Stand	Level 4 C	over Type	;	Size De	nsity	Acres	Stand Age	BA Range	Managed Site	General Comments
51	330 - Low-l	Density Tre	ees	Nonsto	ocked	4.8			No	Grass stand with cherry, red maple and scattered conifers present throughout.
53	4130	- Aspen		Sapling	g Well	22.4	29	Immature	N/A	
	Canopy Species	% Cover	Size Class	DBH	l Age					
	Bigtooth Aspen	50	Sapling/Pole	4	29					
	White Pine	5	Pole/Sapling	6						
	Black Cherry	5	Sapling	3						
	Red Maple	5	Sapling	3						
	Red Oak	1	Pole/Sapling	7						
	Quaking Aspen	34	Sapling/Pole	4						
54	42110 - Pla	nted Red P	ine P	oletimb	er Well	64.0	27	81-110	N/A	Red pine plantation, growing well.
	Canopy Species	% Cover	Size Class	DBH	l Age					
	Red Pine	100	Pole/Sapling		27					
55	4130	- Aspen		Sapling	y Well	31.7	31	Immature	N/A	moderate quality. some areas of patchy stocking. occassional conifers
	Canopy Species	% Cover	Size Class	DBH	l Age					thrroughout.
	Jack Pine	6	Sapling	3						
	Quaking Aspen	40	Sapling	2						
	White Pine	4	Sapling	3						
	Bigtooth Aspen	50	Sapling	4	31					
57	4130	- Aspen		Sapling	y Well	41.3	7	Immature	N/A	Cut 2016. Wet along eastern edge.
	Canopy Species	% Cover	Size Class	DBH	l Age					
	Red Maple	20	Pole/Sap/Log	8						
	White Pine	5	Log/Pole	10						
	Bigtooth Aspen	75	Sapling	3	7					
58	42110 - Pla	nted Red P	ine P	oletimb	er Well	22.0	59	141-170	N/A	thinned in 2005. Thinned again in spring 2016. Also removed all jack pine
	Canopy Species	% Cover	Size Class	DBH	l Age					and aspen.
	Red Maple	2	Pole	6						
	Red Pine	98	Pole/Log	9	59					



Stanc	d Level 4 C	over Type		Size D	ensity	Acres	Stand Age	BA Range	Managed S	ite	General Comments
59	4132 - Asp	en, Jack Pi	ne	Saplin	g Well	19.7	6	Immature	N/A		Planted jack pine clearcut spring 2016. Removed all aspen, red maple,
	Canopy Species	% Cover	Size Class	DB	H Age						and jack pine.
	Red Maple	5	Sapling	1							
	White Pine	5	Pole/Sapling	7							
	Quaking Aspen	5	Sapling	1	6						
	Jack Pine	30	Sapling	1	6						
	Bigtooth Aspen	50	Sapling	2	6						
	Black Cherry	5	Sapling	1							
61	622 - Lov	wland Shrub)	Nonst	ocked	6.0			No		lowland stand with scattered e and p-type species around perimeter.
62	320 - Up	land Shrub		Nonst	ocked	13.7			No		U-type, scattered aspen, cherry and conifer species throughout.
						Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
						Bla	ck Cherry	Low		Sapling	
						Qual	king Aspen	Medium		Sapling	
						W	hite Pine	Low		Sapling	
63	3105 - Mixed U	pland Herba	aceous	Nonst	ocked	12.4			No		
64	310 - Herbac	ceous Open	land	Nonst	ocked	20.9			No		Powerline R.O.W. with road and a gas line
67	4130	- Aspen		Saplin	g Well	32.7	6	Immature	N/A		Final harvest spring 2016. Original stand was a mix of jack pine (north end) and aspen of variable stocking and quality. Also expect some red
	Canopy Species	% Cover	Size Class	DB	H Age						maple and cherry.
	Red Maple	10	Sapling	1							
	Paper Birch	2	Pole	6							
	Jack Pine	5	Sapling	1							
	Black Cherry	10	Sapling	1							
	Quaking Aspen	18	Sapling	1							
	White Pine	5	Pole/Log	8							
	Bigtooth Aspen	50	Sapling	1	6						



Stand	Level 4 Co	over Type	S	Size De	ensity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
69	42200 - Natu	ıral White F	Pine S	awtimb	er Well	7.6	98	81-110	N/A		White pine stand next to lake with red maple and aspen present throughout along with occasional cedar and hemlock along lake.
С	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Northern portion of stand is more open lowland, Imped together with this
Q	uaking Aspen	5	Pole	8		Re	ed Maple	Low	5 - 10 feet	Sapling	stand because of stand size and function of stands buffering lake.
Bi	igtooth Aspen	5	Pole	8		Blad	ck Cherry	Low	5 - 10 feet	Sapling	
	White Pine	65	Log/Pole	12	98	Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub	
North	nern White Cedar	10	Pole/Log	9							
	Hemlock	5	Pole/Log	9							
	Red Maple	5	Pole	7							
	Paper Birch	5	Pole	8							
70	4130 -	- Aspen		Sapling	g Well	18.1	26	51-80	N/A		Scattered conifer and hardwood species present.
С	Canopy Species	% Cover	Size Class	DBH	l Age						
Q	uaking Aspen	35	Sapling	3							
Bi	igtooth Aspen	50	Sapling	4	26						
	White Pine	5	Pole/Log/Sap	8							
	Red Oak	5	Pole/Log	8							
	Black Cherry	5	Pole/Sapling	6							
71 6	6119 - Mixed Lowla						65	81-110	N/A	<u>.</u>	Lowland stand, drainage heading in a northerly direction towards Boardman River, connecting stands 87 and 60 before reaching the river.
71 6	6119 - Mixed Lowla		ous Forest Po		er Well		65	81-110 Density	N/A Avg. Height	Size	Boardman River, connecting stands 87 and 60 before reaching the river.
71 ⁶	Canopy Species Paper Birch	% Cover	Size Class Pole	DB H		Sub-Ca	nopy Species Ilsam Fir	Density Medium	Avg. Height 10 - 20 feet	Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably
71 ⁶	Paper Birch White Pine	% Cover 20 2	Size Class Pole Log/Pole	7 12		Sub-Ca Ba Ta	nopy Species alsam Fir ag Alder	Density Medium Medium	Avg. Height 10 - 20 feet 5 - 10 feet	Sapling Tall Shrub	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably
71 6 C	Paper Birch White Pine	% Cover 20 2 30	Size Class Pole Log/Pole Pole/Log	7 12 8		Sub-Ca Ba Ta	nopy Species Ilsam Fir	Density Medium	Avg. Height 10 - 20 feet	Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably
71 6 C	Paper Birch White Pine Puaking Aspen Balsam Fir	% Cover 20 2 30 5	Size Class Pole Log/Pole Pole/Log Pole/Sapling	7 12 8 5		Sub-Ca Ba Ta	nopy Species alsam Fir ag Alder	Density Medium Medium	Avg. Height 10 - 20 feet 5 - 10 feet	Sapling Tall Shrub	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably
71 6	Paper Birch White Pine Buaking Aspen Balsam Fir Dern White Cedar	% Cover 20 2 30 5 5	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole	7 12 8 5 8	I Age	Sub-Ca Ba Ta	nopy Species alsam Fir ag Alder	Density Medium Medium	Avg. Height 10 - 20 feet 5 - 10 feet	Sapling Tall Shrub	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably
71 6	Paper Birch White Pine Puaking Aspen Balsam Fir	% Cover 20 2 30 5	Size Class Pole Log/Pole Pole/Log Pole/Sapling	7 12 8 5		Sub-Ca Ba Ta	nopy Species alsam Fir ag Alder	Density Medium Medium	Avg. Height 10 - 20 feet 5 - 10 feet	Sapling Tall Shrub	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably
71 6	Paper Birch White Pine Buaking Aspen Balsam Fir Dern White Cedar	% Cover 20 2 30 5 5 38	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log	7 12 8 5 8 8 awtimb	Age 65	Sub-Ca Ba Ta	nopy Species alsam Fir ag Alder Beech	Density Medium Medium	Avg. Height 10 - 20 feet 5 - 10 feet	Sapling Tall Shrub	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned
71 6 C	Paper Birch White Pine Huaking Aspen Balsam Fir Hern White Cedar Red Maple	% Cover 20 2 30 5 5 38 nted Red P	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log	7 12 8 5 8 8 awtimb	Age 65	Sub-Ca Ba Ta	nopy Species alsam Fir ag Alder Beech	Density Medium Medium Low	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet	Sapling Tall Shrub	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77.
71 6 C	Paper Birch White Pine Puaking Aspen Balsam Fir nern White Cedar Red Maple 42110 - Plar	% Cover 20 2 30 5 5 38 nted Red P	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log	7 12 8 5 8 8 awtimb	Age 65	Sub-Ca Ba Ta I	nopy Species alsam Fir ag Alder Beech	Density Medium Medium Low	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet	Sapling Tall Shrub Sapling Size Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned
71 6 C	Paper Birch White Pine Puaking Aspen Balsam Fir nern White Cedar Red Maple 42110 - Plar	% Cover 20 2 30 5 5 38 nted Red P	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log Size Class	DBH 7 12 8 5 8 8 awtimb DBH 10 10	Age 65	Sub-Ca Ba Ta I 18.8 Sub-Ca Quak	nopy Species alsam Fir ag Alder Beech 66 nopy Species	Density Medium Medium Low 141-170 Density	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet N/A Avg. Height	Sapling Tall Shrub Sapling Size Sapling Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned
71 6 C	Paper Birch White Pine Buaking Aspen Balsam Fir Hern White Cedar Red Maple 42110 - Plar Canopy Species Red Maple	% Cover 20 2 30 5 5 38 nted Red P % Cover 5	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log Size Class Log/Pole	DBH 7	65 eer Well	Sub-Ca Ba Ta I 18.8 Sub-Ca Quak Re	nopy Species alsam Fir ag Alder Beech 66 nopy Species king Aspen	Density Medium Medium Low 141-170 Density Low	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet N/A Avg. Height < 5 feet	Sapling Tall Shrub Sapling Size Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned
71 6 C	Canopy Species Paper Birch White Pine Ruaking Aspen Balsam Fir nern White Cedar Red Maple 42110 - Plar Canopy Species Red Maple Red Pine	% Cover 20 2 30 5 5 38 nted Red P % Cover 5 90 5	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log Size Class Log/Pole Log/Pole	DBH 7 12 8 5 8 8 awtimb DBH 10 10 12 Sapling	65 er Well 66 Well GWell	Sub-Ca Ba Ta I 18.8 Sub-Ca Quak Re	nopy Species alsam Fir ag Alder Beech 66 nopy Species king Aspen ad Maple alsam Fir	Density Medium Medium Low 141-170 Density Low Trace	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet N/A Avg. Height < 5 feet < 5 feet	Sapling Tall Shrub Sapling Size Sapling Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned summer 2016. Also removed aspen pockets. Final harvest spring 2016. Cut aspen, red maple and jack pine. Left white
71 6 C	Paper Birch White Pine Buaking Aspen Balsam Fir hern White Cedar Red Maple 42110 - Plar Canopy Species Red Maple Red Pine White Pine	% Cover	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log Size Class Log/Pole Log/Pole	DBH 7 12 8 5 8 8 awtimb DBH 10 10 12 Sapling	65 er Well 66	Sub-Ca Ba Ta I 18.8 Sub-Ca Quak Re Ba	nopy Species alsam Fir ag Alder Beech 66 nopy Species king Aspen ad Maple alsam Fir	Density Medium Medium Low 141-170 Density Low Trace Low	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet N/A Avg. Height < 5 feet < 5 feet 5 - 10 feet	Sapling Tall Shrub Sapling Size Sapling Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned summer 2016. Also removed aspen pockets. Final harvest spring 2016. Cut aspen, red maple and jack pine. Left whit.
71 6 C	Paper Birch White Pine Buaking Aspen Balsam Fir Hern White Cedar Red Maple 42110 - Plar Canopy Species Red Maple Red Pine White Pine 4133 - Aspe Canopy Species Red Oak	% Cover	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log Size Class Log/Pole Log/Pole Log/Pole Size Class Pole/Sapling	DBH 7 12 8 5 8 8 awtimb DBH 10 10 12 Sapling	65 er Well 66 Well GWell	Sub-Ca Ba Ta I 18.8 Sub-Ca Quak Re Ba	nopy Species alsam Fir ag Alder Beech 66 nopy Species king Aspen ad Maple alsam Fir	Density Medium Medium Low 141-170 Density Low Trace Low	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet N/A Avg. Height < 5 feet < 5 feet 5 - 10 feet	Sapling Tall Shrub Sapling Size Sapling Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned summer 2016. Also removed aspen pockets. Final harvest spring 2016. Cut aspen, red maple and jack pine. Left whit pine, balsam and some paper birch, especially along the creek. Thinned
71 6 C	Canopy Species Paper Birch White Pine Ruaking Aspen Balsam Fir Pern White Cedar Red Maple 42110 - Plar Canopy Species Red Maple Red Pine White Pine 4133 - Aspe Canopy Species Red Oak Red Maple	% Cover 20 2 30 5 5 38 nted Red P % Cover 5 90 5 en, Mixed P	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log Pole/Log Size Class Log/Pole Log/Pole Log/Pole Size Class Pole/Sapling Size Class Pole/Sapling Sapling/Pole	DBH 7 12 8 5 8 8 awtimb DBH 10 10 12 Sapling	65 er Well 66 Well GWell	Sub-Ca Ba Ta I 18.8 Sub-Ca Quak Re Ba	nopy Species alsam Fir ag Alder Beech 66 nopy Species king Aspen ad Maple alsam Fir	Density Medium Medium Low 141-170 Density Low Trace Low	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet N/A Avg. Height < 5 feet < 5 feet 5 - 10 feet	Sapling Tall Shrub Sapling Size Sapling Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned summer 2016. Also removed aspen pockets. Final harvest spring 2016. Cut aspen, red maple and jack pine. Left whit pine, balsam and some paper birch, especially along the creek. Thinned
71 6 C	Canopy Species Paper Birch White Pine Puaking Aspen Balsam Fir Piern White Cedar Red Maple 42110 - Plan Canopy Species Red Maple Red Pine White Pine 4133 - Aspe Canopy Species Red Oak Red Maple Paper Birch	% Cover 20 2 30 5 5 38 nted Red P % Cover 5 90 5 en, Mixed P % Cover 5	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log Pole/Log Size Class Log/Pole Log/Pole Log/Pole Size Class Pole/Sapling Sapling/Pole Pole/Log	DBH	65 er Well 66 Well GWell	Sub-Ca Ba Ta I 18.8 Sub-Ca Quak Re Ba	nopy Species alsam Fir ag Alder Beech 66 nopy Species king Aspen ad Maple alsam Fir	Density Medium Medium Low 141-170 Density Low Trace Low	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet N/A Avg. Height < 5 feet < 5 feet 5 - 10 feet	Sapling Tall Shrub Sapling Size Sapling Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned summer 2016. Also removed aspen pockets. Final harvest spring 2016. Cut aspen, red maple and jack pine. Left whit pine, balsam and some paper birch, especially along the creek. Thinned
71 6 C	Canopy Species Paper Birch White Pine Ruaking Aspen Balsam Fir Pern White Cedar Red Maple 42110 - Plar Canopy Species Red Maple Red Pine White Pine 4133 - Aspe Canopy Species Red Oak Red Maple	% Cover 20 2 30 5 5 38 nted Red P % Cover 5 90 5 en, Mixed P % Cover 5 10	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log Pole/Log Size Class Log/Pole Log/Pole Log/Pole Size Class Pole/Sapling Size Class Pole/Sapling Sapling/Pole	DBH	65 er Well 66 Well GWell	Sub-Ca Ba Ta I 18.8 Sub-Ca Quak Re Ba	nopy Species alsam Fir ag Alder Beech 66 nopy Species king Aspen ad Maple alsam Fir	Density Medium Medium Low 141-170 Density Low Trace Low	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet N/A Avg. Height < 5 feet < 5 feet 5 - 10 feet	Sapling Tall Shrub Sapling Size Sapling Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned summer 2016. Also removed aspen pockets. Final harvest spring 2016. Cut aspen, red maple and jack pine. Left white pine, balsam and some paper birch, especially along the creek. Thinned
71 6 C	Canopy Species Paper Birch White Pine Puaking Aspen Balsam Fir Piern White Cedar Red Maple 42110 - Plan Canopy Species Red Maple Red Pine White Pine 4133 - Aspe Canopy Species Red Oak Red Maple Paper Birch	% Cover	Size Class Pole Log/Pole Pole/Log Pole/Sapling Pole Pole/Log Pole/Log Size Class Log/Pole Log/Pole Log/Pole Size Class Pole/Sapling Sapling/Pole Pole/Log	DBH	65 er Well 66 Well GWell	Sub-Ca Ba Ta I 18.8 Sub-Ca Quak Re Ba	nopy Species alsam Fir ag Alder Beech 66 nopy Species king Aspen ad Maple alsam Fir	Density Medium Medium Low 141-170 Density Low Trace Low	Avg. Height 10 - 20 feet 5 - 10 feet 5 - 10 feet N/A Avg. Height < 5 feet < 5 feet 5 - 10 feet	Sapling Tall Shrub Sapling Size Sapling Sapling	Boardman River, connecting stands 87 and 60 before reaching the river. Red maple and aspen dominant with conifers and other scattered e-type species. Some pockets of stand are quite heavy to aspen, most notably along the border between this stand and stand 77. Red pine plantation, wider spacing and planted in spiral pattern. Thinned summer 2016. Also removed aspen pockets. Final harvest spring 2016. Cut aspen, red maple and jack pine. Left white pine, balsam and some paper birch, especially along the creek. Thinned



Stan	d Level 4 C	over Type		Size Density	Acres	Stand Age I	BA Range	Managed S	ite	General Comments
78	4130	- Aspen	Po	letimber Medium	n 7.8	51	51-80	N/A		variable density and size throyghout. some open areas.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	94	Pole	8 51	Quak	ing Aspen	Medium	5 - 10 feet	Sapling	
	Jack Pine	4	Pole	6	Blad	ck Cherry	Low	5 - 10 feet	Sapling	
	Black Cherry	2	Pole/Sapling	5						
79	320 - Up	land Shrub		Nonstocked	4.5			No		Open area adjacent to compression station, includes access road/intersection for oil well roads.
80	4133 - Aspe	en, Mixed P	ine	Sapling Well	25.4	17	Immature	N/A		A3 stand with white pine and oak throughou. White pine more prevalent
	Canopy Species	% Cover	Size Class	DBH Age						along western edge. Stand was final harvested in 2005ish, conifers and oak were left as residual.
	Bigtooth Aspen	70	Sapling	2 17						out word loft as residual.
	Red Oak	5	Log/Pole	9						
	White Pine	25	Pole/Log/Sap	8						
81	4130	- Aspen		Sapling Well	40.9	17	Immature	N/A		A3 stand with white pine and oak scattered throughout. Some areas
	Canopy Species	% Cover	Size Class	DBH Age						more dense than others. Stand was final harvested in 2005ish, all conifer species and oak were left as residual. A strip along the western edge of
	Red Maple	10	Sapling	2						the stand was left adjacent to stand 81, most likely as retention and a
	White Pine	15	Pole/Log/Sap	7						type of buffer between harvest and wetter areas to the west.
	Red Oak	5	Log/Pole	10						
	Bigtooth Aspen	70	Sapling	3 17						
82	622 - Lov	vland Shrub)	Nonstocked	5.0			No		L-type stand with conifers at northern edge, mainly consisting of white pine and scattered balsam fir.
83	310 - Herbac	eous Open	land	Nonstocked	2.8			No		Old well site, monitoring wells at edges of stand. One well plugged 2015.
85	3105 - Mixed U _l	pland Herba	aceous	Nonstocked	2.1			Managed Op	pening	Looks to be an old well site. Open with some bare ground.
86	6229 - Mixed	l lowland sh	nrub	Nonstocked	36.2			No		Lowland alder stand, very dense. Scattered swamp conifers.
					Sub-Ca	nopy Species	Density	Avg. Height	Size	
						ıq Alder	Full	<u> </u>	Tall Shrub	



Stand	nd Level 4 Cover Type			Size De	ensity	Acres Stand Age BA Range			Managed S	Site	General Comments
89	6117 - Lowland Deciduous, Mixed Coniferous			Poletimber Poor		22.5	57	1-50	N/A		Lowland stand, could be considered non-forested but looks to have approximately 25-30% canopy coverage. Balsam fir and aspen around
	Canopy Species % Cover Size Class				s DBH Age		Sub-Canopy Species		Avg. Height Size	Size	perimeter with e-type species dominant in interior along with dense
(Quaking Aspen	25	Pole/Log	8		Ta	ag Alder	High	5 - 10 feet	Tall Shrub	thickets of alder throughout.
	Balsam Fir	20	Sapling/Pole	9 4						1	
Nor	rthern White Cedar	5	Pole	6							
	Paper Birch	10	Sapling/Pole	9 4							
	Red Maple	35	Pole/Sapling	9 6	57						
90	122 - Road	/Parking L	ot	Nonst	ocked	2.5			No		Parking lot for Leetsville tr.
91	3303 - Mixed Lo	w Density	Trees	Nonst	ocked	31.6			No		some large oak and white pine really starting to fill in Seedling/saplings consist mainly of aspen, cherry and red maple.
92	2 4130 - Aspen Poletimber Well						40	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
Е	Bigtooth Aspen	45	Pole	6		Ва	ılsam Fir	Medium	10 - 20 feet	Sapling	
	White Pine	2	Sapling/Pole	9 4		Blad	ck Cherry	Low	5 - 10 feet	Sapling	
	Balsam Fir	3	Sapling/Pole	9 4							•
(Quaking Aspen	50	Pole	6	40						
94	123 - Other High	n Intensity	Urban	Nonst	ocked	7.4		Immature			not plowed out in winter of 2022
95	310 - Herbaceous Openland				ocked	2.5		Immature			Old well site. Plugged 2015.
96	3303 - Mixed Lo	Nonst	ocked	2.5	Ų	Jnspecified	No		Small opening with white pine, red maple, cherry and aspen present in low numbers throughout.		
97	622 - Low	land Shrub)	Nonst	ocked	9.9			No		lowland stand w/ some e-type species around edges and scattered in interior along w/ bf and cedar. heavy alder
98	310 - Herbace	eous Open	land	Nonst	ocked	9.4			No		Opening, aspen clones scattered. Some cherry, pine and red maple as well, mainly in the sapling size class.



Stariu	Stand Level 4 Cover Type			Size Dens	sity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
99	6128 - Lowland Coniferous, Mixed Deciduous		Mixed P	d Poletimber Well		3.0	60	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH A	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Balsam Fir	45	Pole	7	60	Та	ıg Alder	Medium	5 - 10 feet	Tall Shrub	
Noi	rthern White Cedar	25	Pole/Log	8		Ва	lsam Fir	High	10 - 20 feet	Sapling	
	Hemlock	3	Pole	8							
	Red Maple	12	Pole	9							
	Quaking Aspen	15	Pole/Sapling	6							
101	4199 - Other Mixe	d Upland D	eciduous P	oletimber	Well	9.9	60	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH A	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	2	Log/Pole	10		Ва	lsam Fir	High	10 - 20 feet	Sapling	
	Bigtooth Aspen	23	Pole/Log	8							
	Paper Birch	20	Pole/Log	8							
	Quaking Aspen	15	Pole/Log	8	55						
	Balsam Fir	15	Pole/Sapling	6							
	Red Maple	25	Pole/Log	8	60						
102	122 - Road	d/Parking Lo	ot	Nonstock	ked	16.6			No		Stand consists of CR 612 corridor.
102	122 - Road 110 - Low Ir			Nonstock		16.6	ı	mmature	No		Stand consists of CR 612 corridor. powerline right-of-way.
	110 - Low Ir 6128 - Lowland	ntensity Urb	an	Nonstock oletimber	ked Poor		J 55	mmature 1-50			powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite
103	110 - Low Ir 6128 - Lowland	ntensity Urb Coniferous, iduous % Cover	Mixed P	Nonstock oletimber	ked Poor	1.6		1-50 Density	No N/A Avg. Height	Size	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir.
103	110 - Low Ir 6128 - Lowland Dec Canopy Species Quaking Aspen	Coniferous, iduous **Cover** 10	Mixed P Size Class Pole	Nonstock oletimber DBH A	ked Poor	1.6 12.3 Sub-Ca	55	1-50	No N/A	Size Tall Shrub	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir.
103	110 - Low Ir 6128 - Lowland Dec Canopy Species	Coniferous, iduous **Cover** 10 25	Mixed P Size Class Pole Pole	Nonstock oletimber DBH A	ked Poor	1.6 12.3 Sub-Ca	55	1-50 Density	No N/A Avg. Height	1	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir.
103	110 - Low Ir 6128 - Lowland Dec Canopy Species Quaking Aspen	Coniferous, iduous **Cover** 10	Mixed P Size Class Pole	Nonstock oletimber DBH A	ked Poor	1.6 12.3 Sub-Ca	55	1-50 Density	No N/A Avg. Height	1	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir.
103	110 - Low In 6128 - Lowland Dec Canopy Species Quaking Aspen rthern White Cedar Red Maple 4130	Coniferous, iduous **Cover** 10 25	Mixed P Size Class Pole Pole Pole	Nonstock oletimber DBH A 6 8 8 voletimber	Poor Age Well	1.6 12.3 Sub-Ca l Ta	55 nopy Species ag Alder 55	1-50 Density	No N/A Avg. Height	1	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir. Aspen stand (mixture of quaking and big-tooth clones) with balsam fir
103 105	110 - Low Ir 6128 - Lowland Dec Canopy Species Quaking Aspen rthern White Cedar Red Maple	Coniferous, iduous **Cover* 10 25 25 - Aspen	Mixed P Size Class Pole Pole Pole	Nonstock coletimber DBH A 6 8 8	Poor Age Well	1.6 12.3 Sub-Ca l Ta	55 nopy Species g Alder	1-50 Density High	No N/A Avg. Height 5 - 10 feet	Tall Shrub	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir. Aspen stand (mixture of quaking and big-tooth clones) with balsam fir and white pine scattered throughout along with red maple and cherry.
103 105	110 - Low In 6128 - Lowland Dec Canopy Species Quaking Aspen rthern White Cedar Red Maple 4130	Coniferous, iduous **Cover* 10 25 25 - Aspen	Mixed P Size Class Pole Pole Pole	Nonstock oletimber DBH A 6 8 8 voletimber	Poor Age Well	1.6 12.3 Sub-Car 73.5 Sub-Car	55 nopy Species ag Alder 55	1-50 Density High 81-110	No N/A Avg. Height 5 - 10 feet N/A	Tall Shrub	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir. Aspen stand (mixture of quaking and big-tooth clones) with balsam fir
103 105 Noi	110 - Low In 6128 - Lowland Dec Canopy Species Quaking Aspen rthern White Cedar Red Maple 4130 Canopy Species	Coniferous, iduous Cover 10 25 25 - Aspen Cover	Mixed P Size Class Pole Pole Pole Pole	Nonstock coletimber DBH A 6 8 8 coletimber DBH A 6 8	Poor Age Well	1.6 12.3 Sub-Car 73.5 Sub-Car	55 nopy Species g Alder 55 nopy Species	1-50 Density High 81-110 Density	No N/A Avg. Height 5 - 10 feet N/A Avg. Height	Tall Shrub	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir. Aspen stand (mixture of quaking and big-tooth clones) with balsam fir and white pine scattered throughout along with red maple and cherry. Conifer species most numerous in south and western posrtions of stand
103 105 Noi	110 - Low Ir 6128 - Lowland Dec Canopy Species Quaking Aspen rthern White Cedar Red Maple 4130 Canopy Species Red Maple	Coniferous, iduous Cover 10 25 25 25 - Aspen Cover 5	Mixed P Size Class Pole Pole Pole Pole Pole Pole Pole Pole	Nonstock oletimber DBH A 6 8 8 coletimber DBH A 6	Poor Age Well Age	1.6 12.3 Sub-Car 73.5 Sub-Car	55 nopy Species g Alder 55 nopy Species	1-50 Density High 81-110 Density	No N/A Avg. Height 5 - 10 feet N/A Avg. Height	Tall Shrub	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir. Aspen stand (mixture of quaking and big-tooth clones) with balsam fir and white pine scattered throughout along with red maple and cherry. Conifer species most numerous in south and western posrtions of stand
103 105 Noi	110 - Low Ir 6128 - Lowland of Dec Canopy Species Quaking Aspen rthern White Cedar Red Maple 4130 Canopy Species Red Maple Quaking Aspen	Coniferous, iduous Cover 10 25 25 - Aspen Cover 5 50	Mixed P Size Class Pole Pole Pole Pole Pole Pole Pole Pole	Nonstock coletimber DBH A 6 8 8 coletimber DBH A 6 8	Poor Age Well Age	1.6 12.3 Sub-Car 73.5 Sub-Car	55 nopy Species g Alder 55 nopy Species	1-50 Density High 81-110 Density	No N/A Avg. Height 5 - 10 feet N/A Avg. Height	Tall Shrub	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir. Aspen stand (mixture of quaking and big-tooth clones) with balsam fir and white pine scattered throughout along with red maple and cherry. Conifer species most numerous in south and western posrtions of stand
103 105 Noi	110 - Low Ir 6128 - Lowland Dec Canopy Species Quaking Aspen rthern White Cedar Red Maple 4130 Canopy Species Red Maple Quaking Aspen Balsam Fir	Coniferous, iduous Cover 10 25 25 - Aspen Cover 5 50 5	Mixed P Size Class Pole Pole Pole Pole Pole/Sapling Pole/Sapling	DBH A 6 8 8 8 Poletimber DBH A 6 8 8 10 10	Poor Age Well Age	1.6 12.3 Sub-Car 73.5 Sub-Car	55 nopy Species g Alder 55 nopy Species	1-50 Density High 81-110 Density	No N/A Avg. Height 5 - 10 feet N/A Avg. Height	Tall Shrub	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir. Aspen stand (mixture of quaking and big-tooth clones) with balsam fir and white pine scattered throughout along with red maple and cherry. Conifer species most numerous in south and western posrtions of stand
103 105 Noi	110 - Low Ir 6128 - Lowland Dec Canopy Species Quaking Aspen rthern White Cedar Red Maple 4130 Canopy Species Red Maple Quaking Aspen Balsam Fir Red Pine	Coniferous, iduous Cover 10 25 25 - Aspen Cover 5 50 5	Mixed P Size Class Pole Pole Pole Pole Pole Pole/Sapling Pole/Sapling Log/Pole	DBH A 6 8 8 Coletimber DBH A 6 8 8 Coletimber DBH A 6 8 6 10	Poor Age Well Age	1.6 12.3 Sub-Car 73.5 Sub-Car	55 nopy Species g Alder 55 nopy Species	1-50 Density High 81-110 Density	No N/A Avg. Height 5 - 10 feet N/A Avg. Height	Tall Shrub	powerline right-of-way. Lowland stand, low density in places-overall about 40% canopy coverage. Heavy alder throughout, especially in more open areas. Quite a bit of mortality in black ash. Pockets of stand dominated by cedar and balsam fir. Aspen stand (mixture of quaking and big-tooth clones) with balsam fir and white pine scattered throughout along with red maple and cherry. Conifer species most numerous in south and western posrtions of stand



107 6128 - Lowland Coniferous, Mixed Deciduous Poletimber Well 39.8 91 51-80 N/A	
Red Maple 5 Pole 6 Red Maple Low 10 - 20 feet Sapling Tag Alder Medium 5 - 10 feet Tall Shrub Red Maple 10 Log/Pole 10 Tag Alder Medium 5 - 10 feet Tall Shrub Red Maple 15 Pole Sapling Tag Alder Medium 5 - 10 feet Tall Shrub Red Maple 10 Log/Pole Sapling Tag Alder Medium 5 - 10 feet Tall Shrub Red Maple 10 Log/Pole Sapling Tag Alder Medium 5 - 10 feet Tall Shrub Red Maple 10 Log/Pole Sapling Sapler Sapling Tag Alder Medium 5 - 10 feet Tall Shrub Red Maple 10 Log/Pole Sapling Sapler Sapling Tag Alder Medium 5 - 10 feet Sapling Tag Alder Medium 5 - 10 feet Sapling Sapler Sapling Sapler Sapling Sapler Sapling Sapler Sapling Sapler Sapling Sapler Sapling Sapling Sapler Sapling Sapler Sapling Sapler Sapling	
White Pine 10 Log/Pole 10 Tag Alder Medium 5 - 10 feet Tall Shrub Paper Birch 15 Pole/Sapling 6 Northern White Cedar 35 Pole 8 91 Quaking Aspen 15 Pole 8 Balsam Fir 20 Pole 6 108 310 - Herbaceous Openland Nonstocked 2.1 Well site-permit #32488. 109 500 - Water Nonstocked 0.9 No Small corner of South Selkirk Lake 110 122 - Road/Parking Lot Nonstocked 8.0 Road/pipeline accessing compression static section. 111 4130 - Aspen Poletimber Well 66.2 51 51-80 N/A Canopy Species % Cover Size Class DBH Age Black Cherry 5 Pole 6 Quaking Aspen 70 Pole 8 51 White Pine Medium 10 - 20 feet Sapling White Pine 5 Pole/Sapling 6	
Paper Birch 15 Pole/Sapling 6 Northern White Cedar 35 Pole 8 91 Quaking Aspen 15 Pole 8 Balsam Fir 20 Pole 6 108 310 - Herbaceous Openland Nonstocked 2.1 Well site-permit #32488. 109 500 - Water Nonstocked 0.9 No Small corner of South Selkirk Lake 110 122 - Road/Parking Lot Nonstocked 8.0 Road/pipeline accessing compression static section. 111 4130 - Aspen Poletimber Well 66.2 51 51-80 N/A aspen stand, mix of quaking and big tooth. Yellow Canopy Species % Cover Size Class DBH Age Black Cherry 5 Pole 6 Quaking Aspen 70 Pole 8 51 White Pine Medium 10 - 20 feet Sapling White Pine 5 Pole/Sapling 6	
Northern White Cedar 35 Pole 8 91 Quaking Aspen 15 Pole 8 Balsam Fir 20 Pole 6 108 310 - Herbaceous Openland Nonstocked 2.1 Well site-permit #32488. 109 500 - Water Nonstocked 0.9 No Small corner of South Selkirk Lake 110 122 - Road/Parking Lot Nonstocked 8.0 Road/pipeline accessing compression static section. 111 4130 - Aspen Poletimber Well 66.2 51 51-80 N/A Canopy Species % Cover Size Class DBH Age Black Cherry 5 Pole 6 Quaking Aspen Low 5 - 10 feet Sapling White Pine 5 Pole/Sapling 6 White Pine Medium 10 - 20 feet Sapling	
Quaking Aspen15Pole8Balsam Fir20Pole6108310 - Herbaceous OpenlandNonstocked2.1Well site-permit #32488.109500 - WaterNonstocked0.9NoSmall corner of South Selkirk Lake110122 - Road/Parking LotNonstocked8.0Road/pipeline accessing compression static section.1114130 - AspenPoletimber Well66.25151-80N/Aaspen stand, mix of quaking and big tooth. Value of the section.Canopy Species% CoverSize ClassDBH AgeSub-Canopy SpeciesDensityAvg. HeightSizeBlack Cherry5Pole6Quaking AspenLow5 - 10 feetSaplingQuaking Aspen70Pole851White Pine5Pole/SaplingWhite PineMedium10 - 20 feetSapling	
Balsam Fir 20 Pole 6 108 310 - Herbaceous Openland Nonstocked 2.1 Well site-permit #32488. 109 500 - Water Nonstocked 0.9 No Small corner of South Selkirk Lake 110 122 - Road/Parking Lot Nonstocked 8.0 Road/pipeline accessing compression static section. 111 4130 - Aspen Poletimber Well 66.2 51 51-80 N/A Canopy Species % Cover Size Class DBH Age Black Cherry 5 Pole 6 Quaking Aspen 70 Pole 8 51 White Pine Medium 10 - 20 feet Sapling White Pine Sapling White Pine Medium 10 - 20 feet Sapling	
108 310 - Herbaceous Openland Nonstocked 2.1 Well site-permit #32488. 109 500 - Water Nonstocked 0.9 No Small corner of South Selkirk Lake 110 122 - Road/Parking Lot Nonstocked 8.0 Road/pipeline accessing compression static section. 111 4130 - Aspen Poletimber Well 66.2 51 51-80 N/A aspen stand, mix of quaking and big tooth. Value of the company Species 6 Cover Size Class DBH Age Black Cherry 5 Pole 6 Quaking Aspen Low 5 - 10 feet Sapling Quaking Aspen 70 Pole 8 51 White Pine Medium 10 - 20 feet Sapling White Pine 5 Pole/Sapling 6	
109 500 - Water Nonstocked 0.9 No Small corner of South Selkirk Lake 110 122 - Road/Parking Lot Nonstocked 8.0 Road/pipeline accessing compression static section. 111 4130 - Aspen Poletimber Well 66.2 51 51-80 N/A Canopy Species % Cover Size Class DBH Age Black Cherry 5 Pole 6 Quaking Aspen To Pole 8 51 White Pine Medium 10 - 20 feet Sapling White Pine 5 Pole/Sapling 6	
110 122 - Road/Parking Lot Nonstocked 8.0 Road/pipeline accessing compression static section. 111 4130 - Aspen Poletimber Well 66.2 51 51-80 N/A Canopy Species % Cover Size Class DBH Age Black Cherry 5 Pole 6 Quaking Aspen Low 5 - 10 feet Sapling Quaking Aspen 70 Pole 8 51 White Pine Medium 10 - 20 feet Sapling White Pine 5 Pole/Sapling 6	
111 4130 - Aspen Poletimber Well 66.2 51 51-80 N/A aspen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen stand, mix of quaking and big tooth. Value of the stand spen spen stand, mix of quaking and big tooth. Value of the stand spen spen stand, mix of quaking and big tooth. Value of the stand spen spen stand, mix of quaking and big tooth. Value of the stand spen spen stand, mix of quaking and big tooth. Value of the stand spen spen stand, mix of quaking and big tooth. Value of the stand spen spen stand, mix of quaking and big tooth. Value of the stand spen spen stand, mix of quaking and big tooth. Value of the stand spen spen spen spen spen spen spen spen	
Canopy Species % Cover Size Class DBH Age Black Cherry 5 Pole 6 Quaking Aspen To Pole 8 51 White Pine 5 Pole/Sapling 6	n and well site throughout
Black Cherry 5 Pole 6 Quaking Aspen Low 5 - 10 feet Sapling White Pine 5 Pole/Sapling 6	
Black Cherry 5 Pole 6 Quaking Aspen Low 5 - 10 feet Sapling Quaking Aspen 70 Pole 8 51 White Pine 5 Pole/Sapling 6	inroughout stand. Rec trail
White Pine 5 Pole/Sapling 6	
Bigtooth Aspen 20 Pole 8	
112 310 - Herbaceous Openland Nonstocked 1.9 No	
113 3104 - Degraded Nonstocked 2.1 Small opening, most likely old well site. Sort throughout.	
114 622 - Lowland Shrub Nonstocked 2.9 No tag alder	ne seedlings scattered
Sub-Canopy Species Density Avg. Height Size	ne seedlings scattered
Alder Full Tall Shrub	ne seedlings scattered



Stand	and Level 4 Cover Type			Size De	nsity	Acres	Stand Age I	BA Range	Managed Site		General Comments	
116	<u>'</u>	0 - Upland Hemlock		Poletimber Well		5.1	93	111-140	N/A		Small transition stand at western edge of 111. Hemlock dominated with red maple, paper birch, white pine and aspen present.	
	Canopy Species		Size Class		Age							
	Hemlock	75	Pole/Log	8	93							
	Red Maple	10	Pole/Log	8								
	Paper Birch	5	Pole	8								
No	Bigtooth Aspen	3 2	Pole Pole	8								
INO	rthern White Cedar White Pine	5	Log/XLog	20								
	Wille Fille	3	Log/ALog	20								
117	42110 - Plai	nted Red P	ine	Poletimb	er Well	12.0	27	81-110	N/A		Small red pine plantation, growing well.	
	Canopy Species	% Cover	Size Class	DBH	Age							
	Red Pine	100	Pole	6	27							
118	622 - Low	land Shrub)	Nonsto	cked	7.7			No		Lowland shrub stand	
119	622 - Low	land Shrub)	Nonsto	cked	47.0			No		Lowland stand, dominated by tag alder. Some small aspen throughout along with some red maple white pine and cedar common in southern portion of stand along river corridor.	
120	310 - Herbac	eous Open	land	Nonsto	cked	1.7		Immature			Well site, adjacent to pipeline. permit#39143.	
121	4319 - Mixed			Poletimb		15.8	73	81-110	N/A		Wet in places, difficult access because of boardman river, swamp land and private property.	
	Canopy Species		Size Class		Age							
NI.	Balsam Fir	5	Pole/Sapling	g 6 9								
INO	rthern White Cedar White Pine	30	Pole/Log	12								
	Hemlock	10	Log/Pole Log/Pole	10								
	Red Maple	10	Pole	8								
	Quaking Aspen	35	Pole/Log	8	73							
122	6128 - Lowland	Coniferous, Mixed Fiduous		Poletimber Medium		n 29.0	61	51-80	N/A		Mixed lowland stand, some variability along edges. Areas where more aspen are present, difficult type line to map. Quite a few pockets of lowland brush throughout stand as well. Density of these pockets along	
	Canopy Species		Size Class		Age		nopy Species		Avg. Height	Size	with areas of wet ground made access to internal areas of stand tricky	
	White Pine	5	Log/Pole/Sa				hite Pine	Medium	5 - 10 feet	Sapling	Some areas of very dense balsam fir understory. drain running through	
	rthern White Cedar	25	Pole/Log	8			ag Alder	Medium	< 5 feet	Tall Shrub		
No	Hemlock	5	Log/Pole	10	E		llsam Fir	Medium	5 - 10 feet	Sapling	along western edge and north. Aspen more common in eastern portions of stand near wheeler lake rd. Old pipeline rd runs through stand, very	
No											- 10	
No	Paper Birch	5	Pole/Sapling	-							wet.	
No		5 20		g 6 7 8							wet.	

Stand	nd Level 4 Cover Type Size Density		Acres Sta	nd Age B	A Range	Managed Site		General Comments			
123	4130 -	Aspen	S		Well	15.9	6 li	Immature	N/A		Final harvest spring 2016. Left oak, balsam fir, white pine and a few
C	anopy Species	% Cover	Size Class	DBH	Age						maples. Wet along southern edge.
Qι	uaking Aspen	15	Sapling	1	6						
	Balsam Fir	5	Pole	6							
	Red Maple	15	Sapling/Pole	1							
	Red Oak	5	Pole	8							
1	White Pine	5	Log/Pole	10							
Biç	gtooth Aspen	55	Sapling	2	6						
124		vland Coniferous, Mixed Deciduous			er Well	l 7.6 92 81-1		81-110	N/A		Mixed stand of hemlock, white pine, paper birch and scattered cedar (pockets) adjacent to boardman river. Mix of lowland/upland. Occasional
C	anopy Species	% Cover	Size Class	DBH	Age	Sub-Canop	y Species	Density	Avg. Height	Size	pockets of e-type hardwoods. Some wet areas where stand blends into river corridor stand to the north.
1	White Pine	2	Log/Pole	13		Balsan	n Fir	Medium	10 - 20 feet	Sapling	Tiver corridor stand to the north.
	Hemlock	45	Log/Pole	10	92	Red Ma	aple	Low	5 - 10 feet	Sapling	
North	ern White Cedar	3	Pole/Log	8		Tag Al	lder	Low	5 - 10 feet	Tall Shrub	
F	Paper Birch	10	Pole	6							
	Balsam Fir	20	Pole/Sapling	6							
125	4136 - Aspen	Mixed Co	nifer Po		er Well	23.0	43		N/A		small firewood sale happened at the intersection of 612 and wheeler lake
	anopy Species		Size Class	DBH	Λαα	Sub-Canop	y Species	Density	Avg. Height	Size	
	Balsam Fir				Age						
		10	Pole	6	Age	Balsan	n Fir	High	10 - 20 feet	Sapling	
D	White Pine	10	Pole/Log	6	Age			High Medium	10 - 20 feet 10 - 20 feet	Sapling Sapling	
	slack Cherry			6	Age	Balsan					
		10 5 3	Pole/Log	6	Age	Balsan					
	slack Cherry	10 5	Pole/Log Pole	6 8 7		Balsan					
	Black Cherry Red Maple	10 5 3	Pole/Log Pole Pole/Sap/Log	6 8 7 8	43	Balsan					
	slack Cherry Red Maple Basswood gtooth Aspen	10 5 3 5	Pole/Log Pole Pole/Sap/Log Pole/Log Pole	6 8 7 8 8 8		Balsan White F	Pine				
126	slack Cherry Red Maple Basswood gtooth Aspen	10 5 3 5 67 Aspen	Pole/Log Pole Pole/Sap/Log Pole/Log Pole	6 8 7 8 8 8	43 er Well	Balsan White F	Pine 45	Medium	10 - 20 feet	Sapling	
126 C:	Black Cherry Red Maple Basswood gtooth Aspen 4130 -	10 5 3 5 67 Aspen	Pole/Log Pole Pole/Sap/Log Pole/Log Pole Pole	6 8 7 8 8 8	43 er Well	Balsam White F 29.3	Pine 45 y Species	Medium 81-110	10 - 20 feet N/A	Sapling	
126 C:	Black Cherry Red Maple Basswood gtooth Aspen 4130 -	10 5 3 5 67 Aspen	Pole/Log Pole/Sap/Log Pole/Log Pole Pole Pole	6 8 7 8 8 8 8 Bletimb	43 er Well	Balsam White F 29.3 Sub-Canop	45 y Species aple	Medium 81-110 Density	N/A Avg. Height	Sapling	
126 Ca Qu Big	Black Cherry Red Maple Basswood gtooth Aspen 4130 - anopy Species aking Aspen Balsam Fir gtooth Aspen	10 5 3 5 67 Aspen 55	Pole/Log Pole/Sap/Log Pole/Log Pole Pole Pole	6 8 7 8 8 8 8 Bletimb	43 er Well	Balsam White F 29.3 Sub-Canop Red Ma	45 y Species aple n Fir	81-110 Density Low	N/A Avg. Height 5 - 10 feet	Sapling Size Sapling	
Big 126 C: Qu Big	Black Cherry Red Maple Basswood gtooth Aspen 4130 - anopy Species aking Aspen Balsam Fir	10 5 3 5 67 Aspen 55 2	Pole/Log Pole/Sap/Log Pole/Log Pole Pole Pole Pole Pole Pole Pole	6 8 7 8 8 8 8 Pletimb DBH 8 6	43 er Well Age 45	Balsam White F 29.3 Sub-Canop Red Ma Balsam	45 y Species aple n Fir	81-110 Density Low Medium	N/A Avg. Height 5 - 10 feet 10 - 20 feet	Size Sapling Sapling Sapling	