

Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61168
Entry Year 2026
Acreage: 1,853
County Kalkaska

Management Area: Kalkaska Sandy Moraines

Stand Examiner: Paul Roell

Legal Description:

T27N, R7W, Sections 2, 3, 4, 5 & 6

Identified Planning Goals:

Management in the Kalkaska Sandy Moraines area will emphasize continuing to balance the age class of aspen on suitable sites, the thinning the northern hardwoods, balancing age classes of red pine and jack pine and regenerating the aging oak resource. Management will strive to sustainably produce various forest products; enhance game and non-game wildlife habitat; protect areas of unique character and provide for forest-based recreational uses. Expected trends within this 10-year planning period are increased recreational pressure, managing oil and gas development, introduced pests and diseases and the difficulty in regenerating oak.

Soil and topography:

Mostly flat with Rubicon & Kalkaska sands.

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

The compartment is located 1 ½ miles north of Kalkaska. State Land is intermixed with private property throughout this compartment and also the compartment to the south. Further development of residential and industrial adjacent private land can be expected in the future.

Unique Natural Features:

None known at this time.

Archeological, Historical, and Cultural Features:

None known at this time.

Special Management Designations or Considerations:

None known at this time.

Watershed and Fisheries Considerations:

A small pothole lake, known as Bird Lake, is within this Compartment. Walk in access was improved and developed with small turn around parking area.

Wildlife Habitat Considerations:

Compartment 168 lies just north of the city of Kalkaska and is bisected by US-131. This is a busy highway and presents a barrier to movement for many wildlife species. Parts of three types of glacial outwash formations, a broad outwash plain (5111), a pitted outwash plain (5211), and a small strip of poorly drained outwash channel (5549), comprise the geology of this compartment. Several large blocks of private property, including a residential neighborhood, break up state ownership. There are several trails that traverse this compartment, including ORV, hiking, and horse trails. The trails have various impacts, mainly non-consumptive, on wildlife.

Most of compartment 168 and much of the state ownership lie on the broad, flat outwash plain. The sandy soil found here was often the setting for large wildfires. These fires sustained a variety of fire driven communities, mainly conifer forests at the time of the GLO surveys. Present habitat types include aspen of various ages interspersed by grassland openings, upland brush, and several pine plantations. Timber harvests should be designed to mimic wildfires of various intensities, when possible. Aspen harvest should utilize red maple or similar species for the creation of dead and down material. Standing dead timber is usually left during harvest operations unless deemed a safety hazard. Future sales could also be designed to utilize existing conifers as residuals. Several upland brush stands have been prescribed for maintenance to set back woody encroachment and stimulate native herbaceous vegetation. Species found in these early to midsuccessional communities include white-tailed deer, ruffed grouse, eastern bluebird, smooth green snake, meadow vole, and red-tailed hawk.

The west end of the compartment is situated on a pitted outwash plain which also has dry sandy soils and was the scene of large wildfires. This type of outwash plain contains numerous kettle lakes, few of which occur in this compartment.

Except for a larger representation of northern hardwoods, habitat types found here are similar to the ones found on the broad, flat outwash plain. Therefore, treatment designs for the early successional communities should also be similar.

The remaining outwash formation is a narrow, poorly drained channel, which contains Bird Lake. Conifer swamps were the most common community on this mucky soil and are still prevalent. However, except for the lake, the section of outwash channel in this compartment is the tip of the channel and has the highest elevation of the channel. This apparently has resulted in drier soils which are supporting a mix of aspen, hardwoods, and pine.

Mineral Resource and Development Concerns and/or Restrictions

There is no known metallic mineral potential in this part of the state. The closest known active sand/gravel pit is less than two miles north. There may be some potential for sand & gravel within the compartment and demand for aggregate exists in the area, but potential for commercial development may be inhibited by the prevalence of oil & gas infrastructure. The compartment is within the northern Silurian reef hydrocarbon play. Much of the compartment has been developed in association with the latter, and several successful, as well as many unsuccessful, wells are within the compartment. All State-owned mineral rights in the compartment are currently leased and held by production. It is possible that additional future reef reservoir discoveries beneath the compartment could occur, but potential is considered low. More likely are efforts of secondary recovery from old reservoirs. A number of depleted reef reservoirs in the area are being utilized for gas storage purposes, and there is future potential for additional gas and carbon storage opportunities within the compartment.

Vehicle Access:

There is adequate access throughout the compartment.

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.

Fire Protection:

Since the compartment is located 1 mile North of 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.

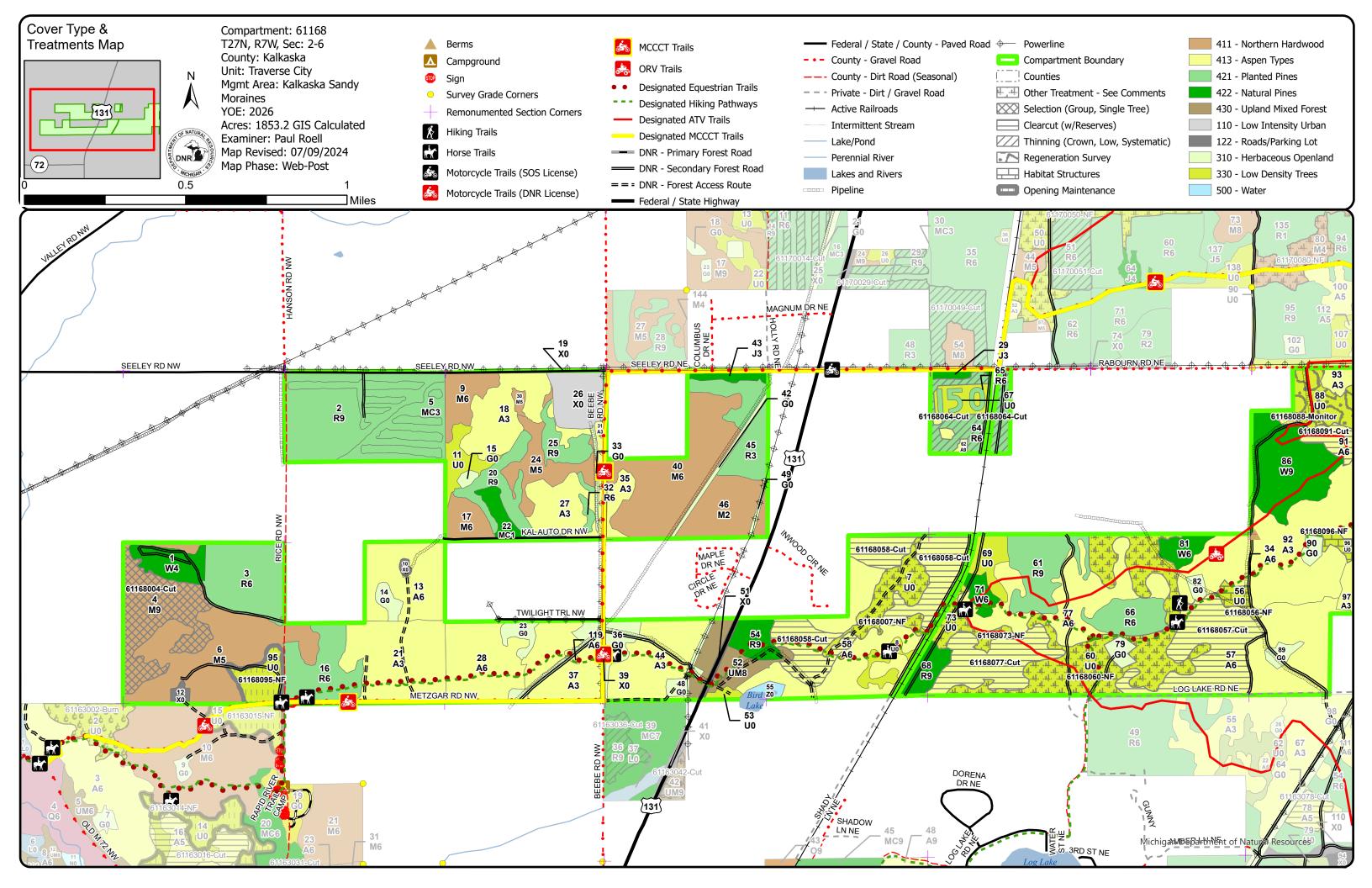
Additional Compartment Information:

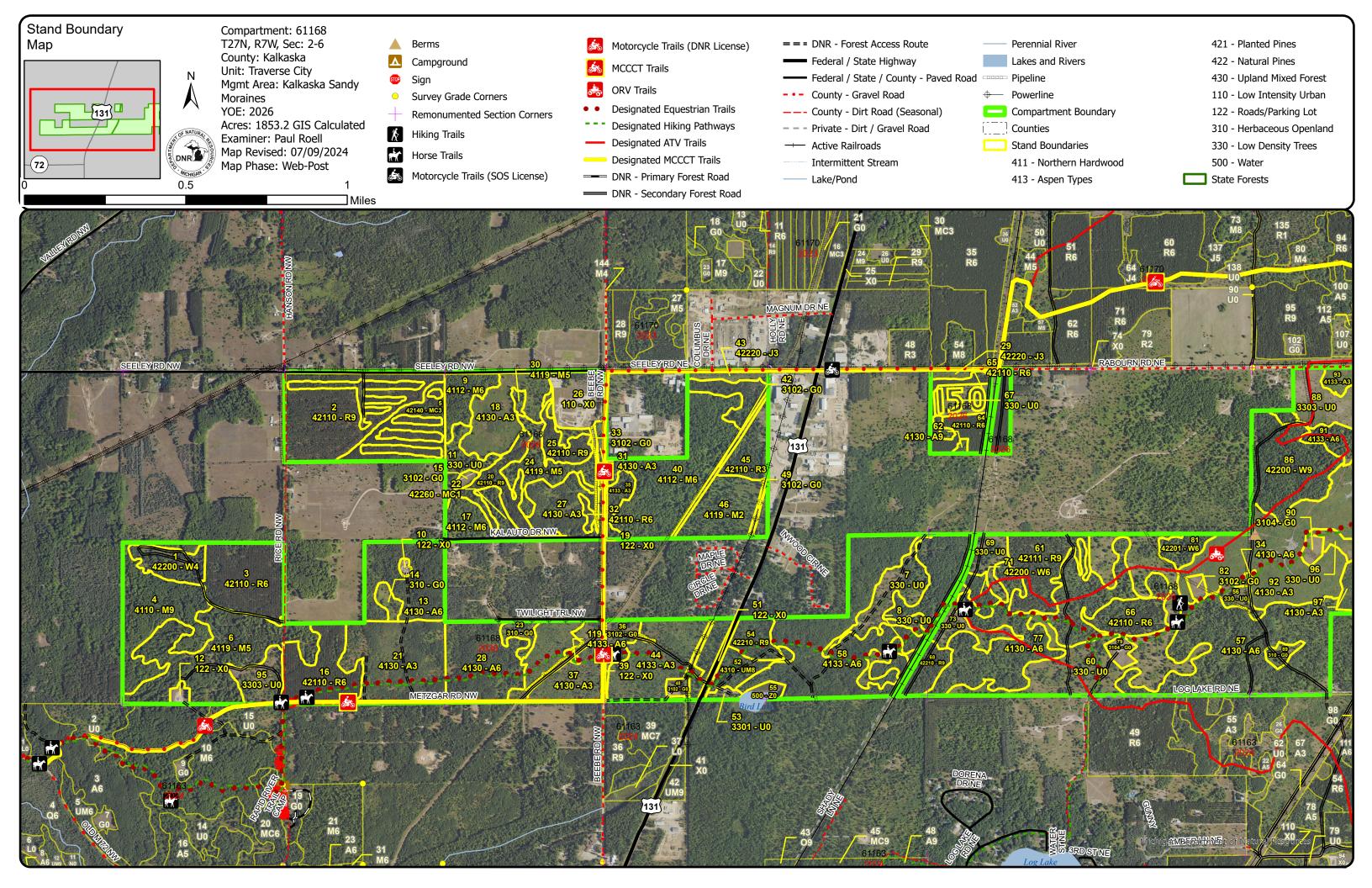
The following reports from the Inventory are attached:

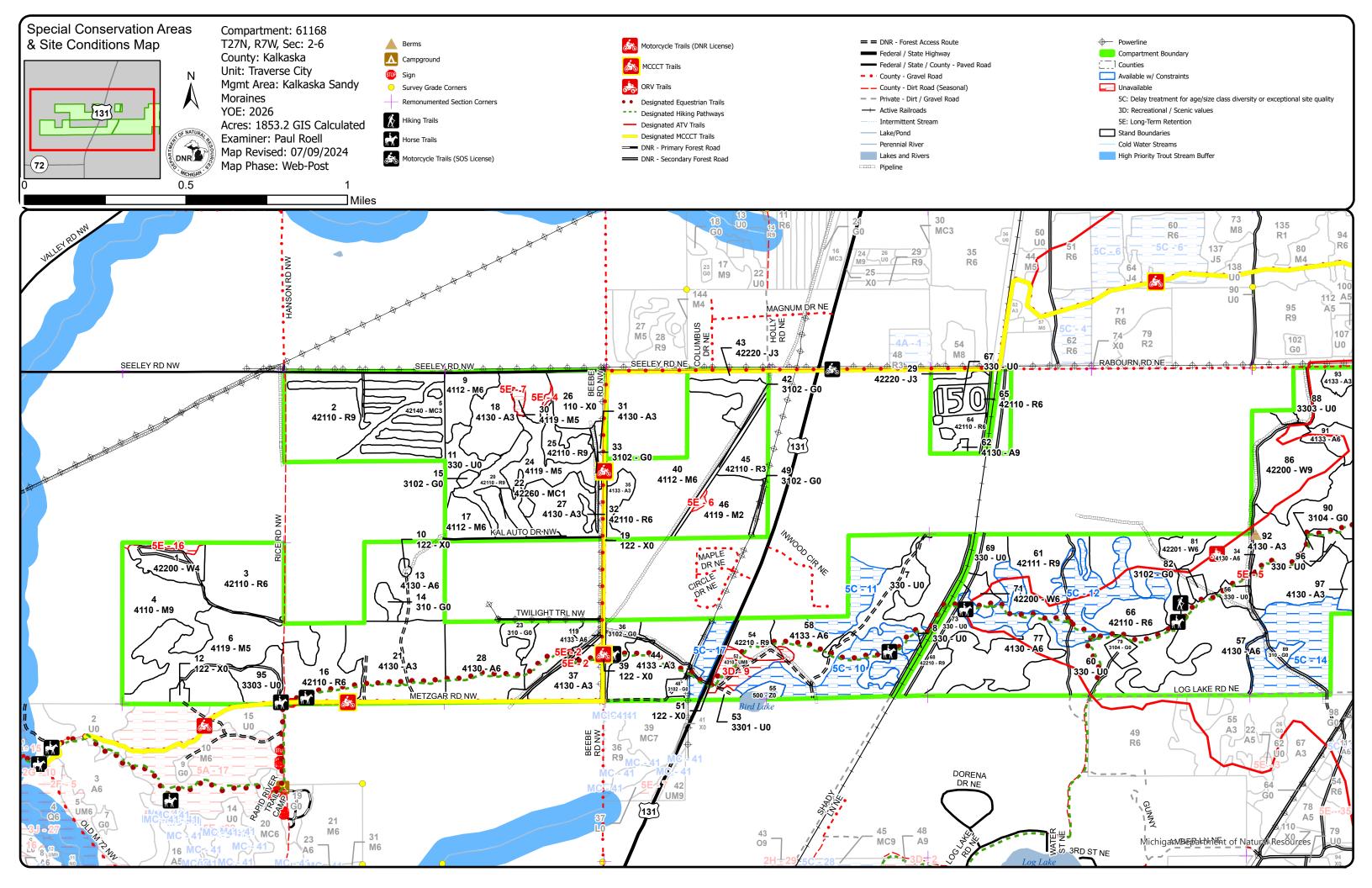
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

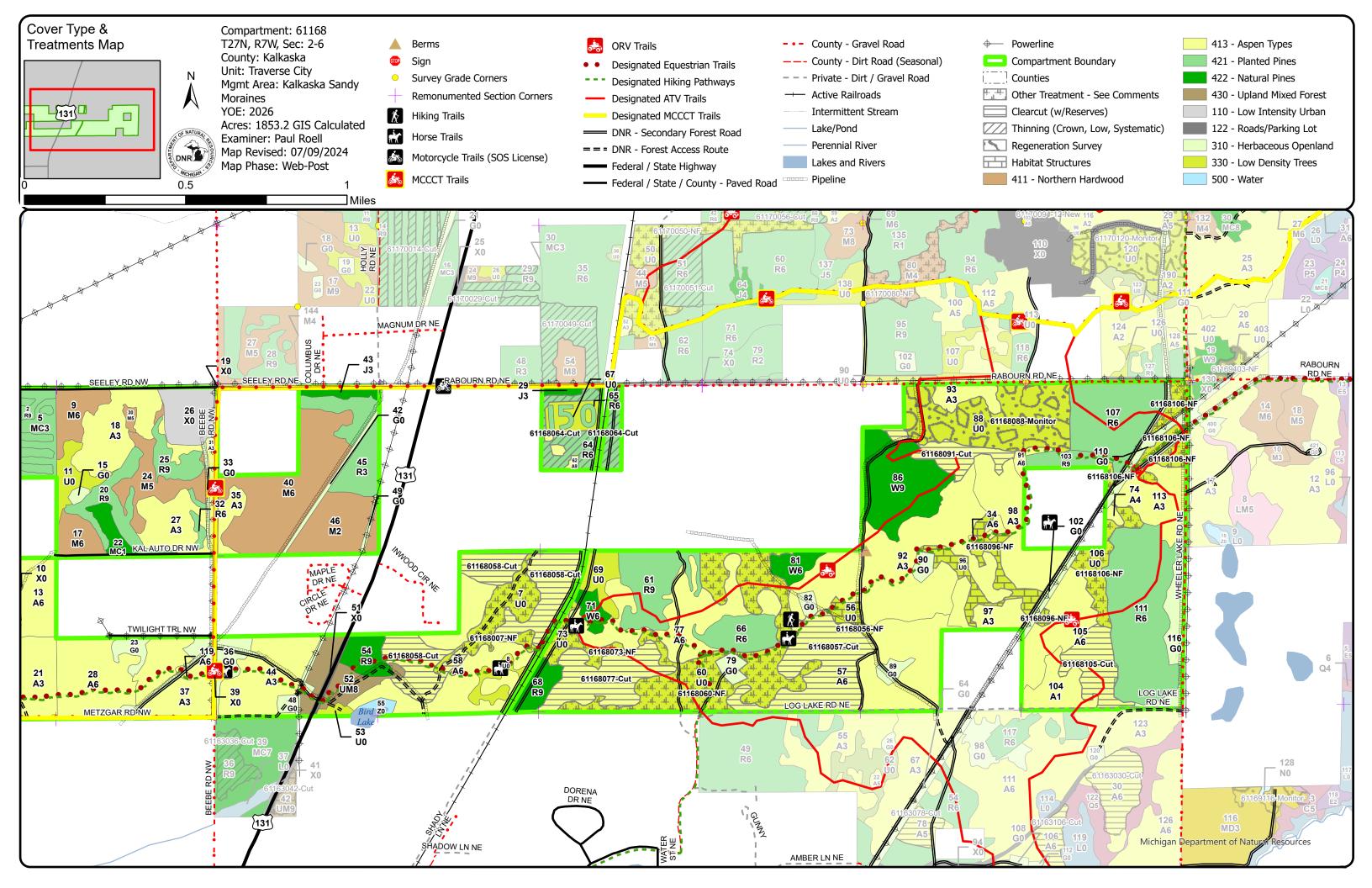
The following information is displayed, where pertinent, on the attached compartment maps:

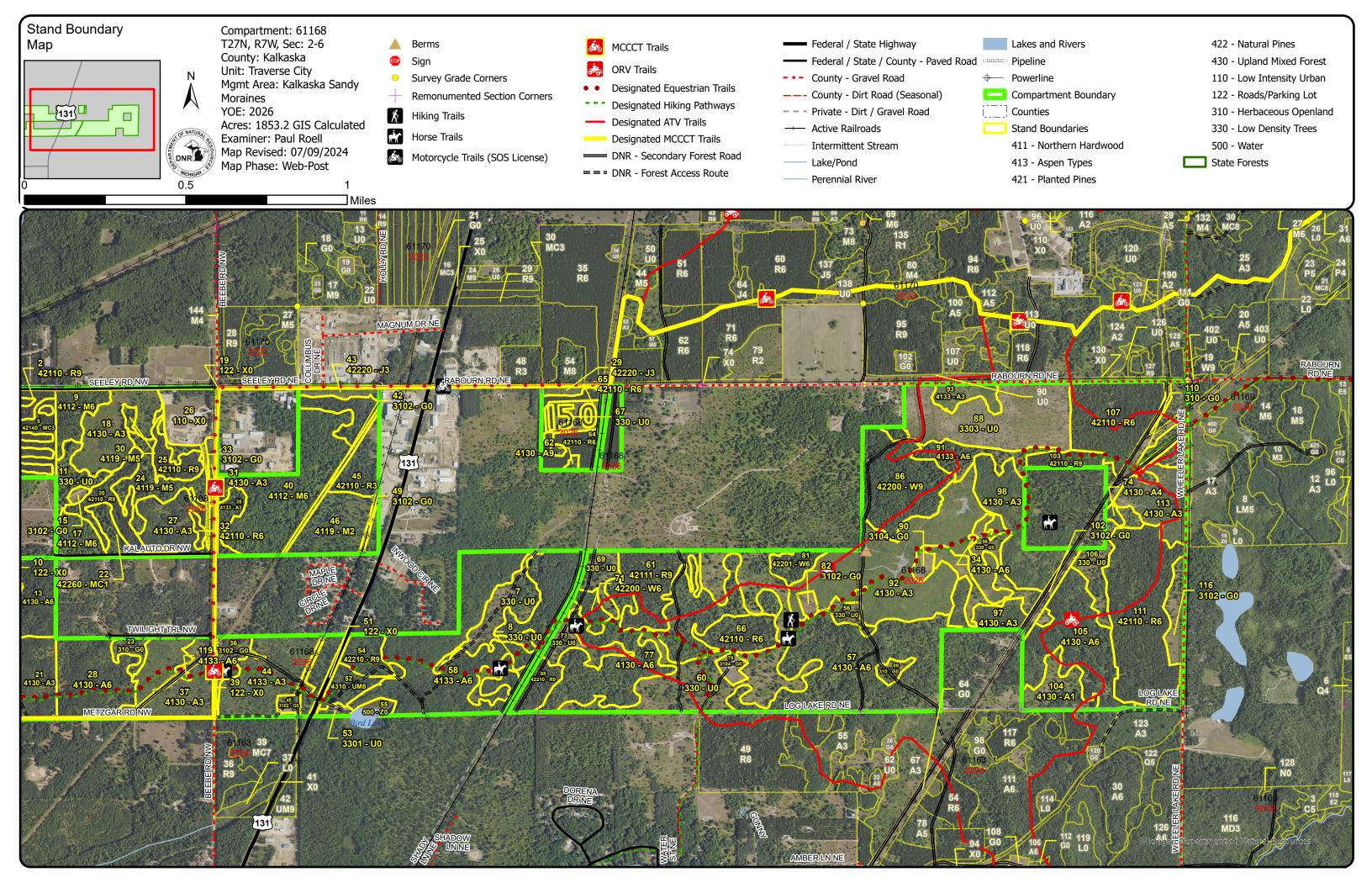
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

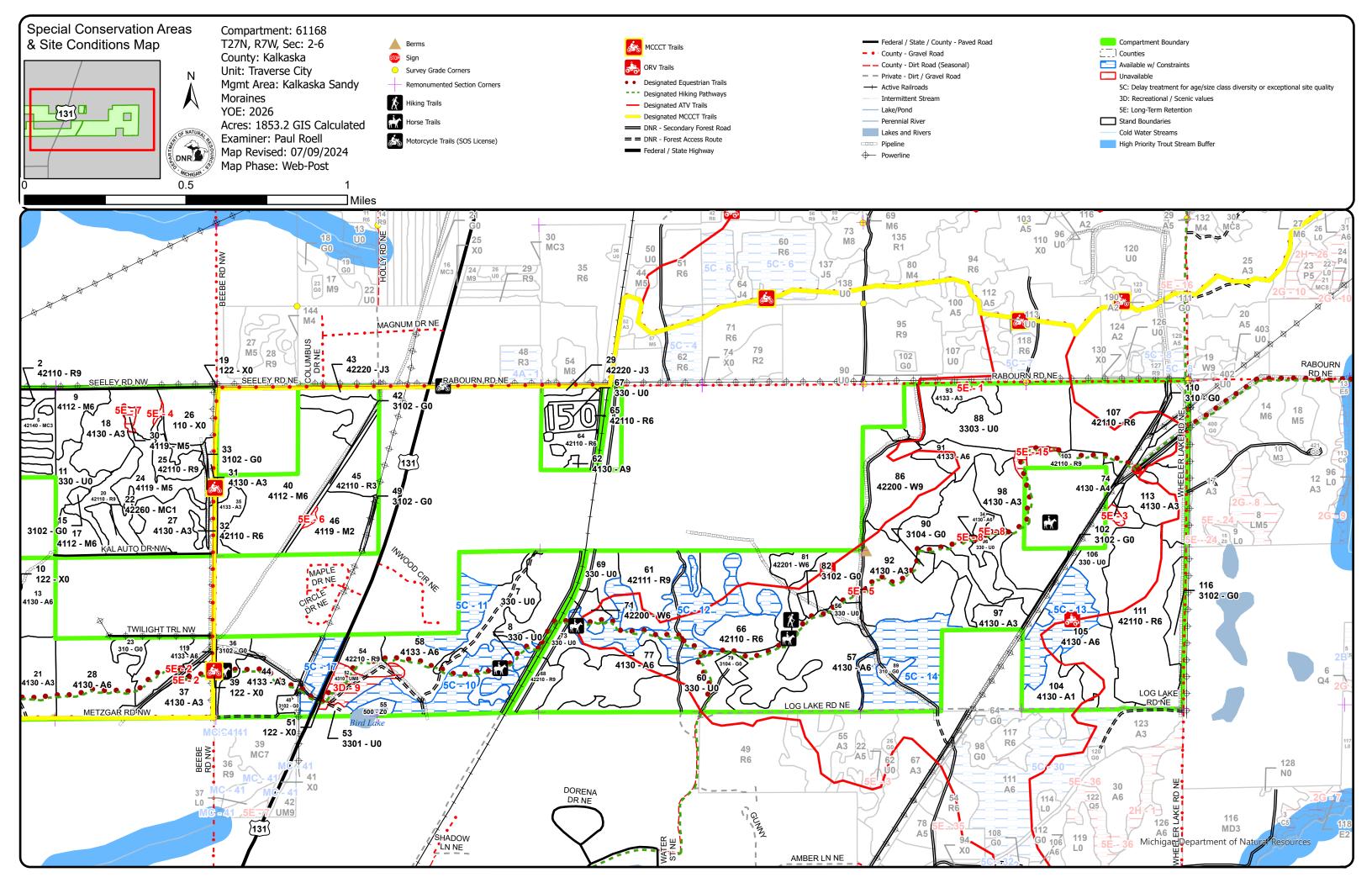


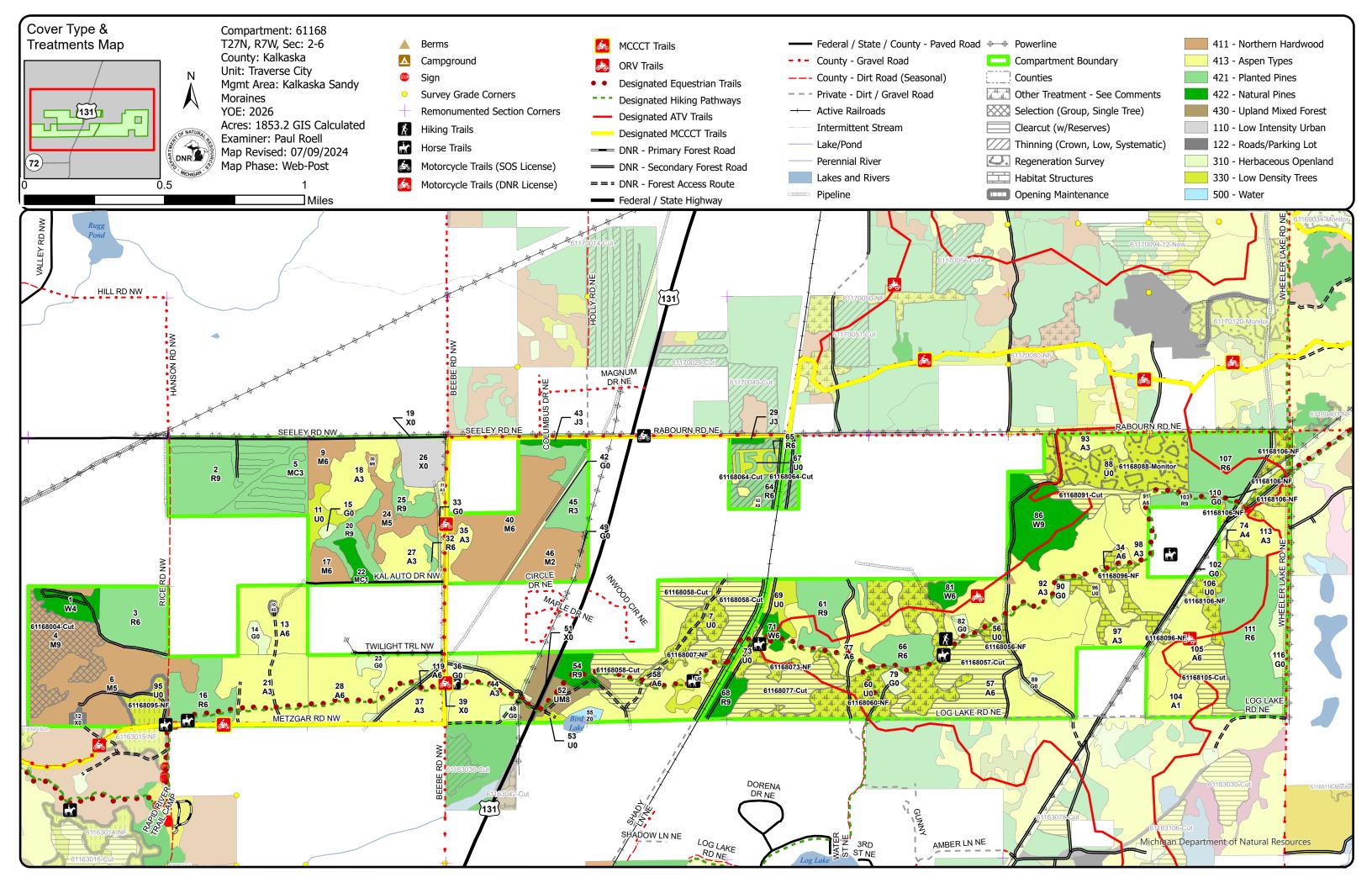






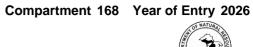






Traverse City Mgt. Unit

Paul Roell: Examiner



Age Class

	Age.	KO E	3 / 8	2 / 2	P S	3 / 6		3/8	3 / 8		* &	8 /18	a z	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	N S	No. No.		St Reg	A LOS
Aspen	0	187	45	84	6	69	329	1	0	0	0	0	0	0	0	0	0	30	751
Herbaceous Openland	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80
Jack Pine	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Low-Density Trees	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	258
Natural Mixed Pines	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Northern Hardwood	0	26	0	60	0	0	0	20	0	0	0	0	0	0	0	0	0	123	228
Planted Mixed Pines	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Red Pine	0	0	24	38	27	26	170	7	78	0	0	0	0	0	0	0	0	0	370
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	18
Urban	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Water	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
White Pine	0	0	0	0	0	0	0	0	13	53	0	0	0	0	0	0	0	0	66
Total	374	221	77	210	33	95	499	28	91	71	0	0	0	0	0	0	0	153	1851



Report 2 – Treatment Summary

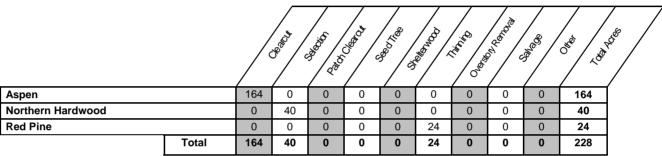
Traverse City Mgt. Unit Year of Entry: 2026

Acres of Harvest

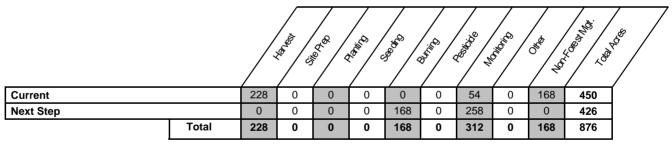
Compartment 168
Total Compartment Acres: 1,853

Commercial Harvest - 228
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Traverse City Mgt. Unit

Report 3 -- Treatments

Compartment: 168 Year of Entry: 2026 DNR DNR

a n Treatment d Name

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Acres Stand CoverType

Size St Density A

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

Proposed Treatments:

4 61168004-Cut 40.2 4110 - Sugar Maple Sawtimber 70 111- Harvest Single Tree 411 - Northern Uneven-No Association Well 140 Selection Hardwood Aged

<u>Prescription</u> mark to cut the stand down to a residual basal area of 70-80 square feet per acre. Target the trees with top dieback or poor form for harvest. <u>Specs:</u> Create some 150'-200' regen gaps. It would be probably best to line these out and try to get about 5 of these in the sale area.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable sugar and red maple, cherry and some possible some pine.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

7 61168007-NF 20.5 330 - Low-Density Nonstocked 0 NonForestMgt Fruit Tree/Shrub 3204 - Mast No Trees Planting Producing Shrub

Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Possibly also could seed in additional native grasses and forbs.

Next Step Burn, Opening

Treatments:

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

56 61168056-NF 5.0 330 - Low-Density Nonstocked 0 NonForestMgt Brushpile/Woody 3204 - Mast No Trees Debris Creation Producing Shrub

Prescription Specs:
Spe

Next Step Burn, Opening

Treatments:

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

Compartment: 168

S t				•				Year of Entr	y: 2026	DNR
a n Treatme d Name	nt Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habit Cut
57 61168057	-Cut 46.4	4130 - Aspen	Poletimbe Well	er 54	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
Specs:		tand to regenerate a	·			•				
		trails, drum log spec tural Regen (Re-Inve		consider	rations for	oak wiit in mind	during sale prep.			
Acceptable as Regen:	spen, red mar	ole, cherry, oak and	mixed pines							
Other Comment:										
Site Condition										
Proposed Start	Date: 10/1 /	2025								
58 61168058	-Cut 54.1	4133 - Aspen, Mixed Pine	Poletimbe Well	er 50	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
Specs:		tand to regenerate a						e or red oak per a	acre.	
		trails, drum log spec tural Regen (Re-Inve		consider	rations for	oak wiit in mind	during sale prep.			
	spen, red map	ole, oak and mixed p	oine							
Other Comment:										
Site Condition	5									
Proposed Start										
60 6116806		330 - Low-Density Trees				ŭ	Fruit Tree/Shrub Planting	Producing Shruk		No
Specs: a	nd/or conifers	woody encroachmer for wildlife food and plantings and prote	cover. Plan	nt site a _l	ppropriate	e native shrubs a	ınd/or mast produc	ing trees for wildli	fe food and co	
Next Step B Treatments:	urn, Opening									
Acceptable Regen:										
Other Comment:										
Site Condition										
Proposed Start	Date: 10/1 /	2025								
64 61168064	-Cut 23.5	42110 - Planted Red Pine	Poletimbe Well	er 39	171- 200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	No
Prescription C Specs:	ut one row lea	ave two. Remove a t	third of the v	olume.			-			
Next Step Treatments:										
Acceptable Regen:										
Other Comment:										
Site Condition										
Proposed Start	Date: 10/1 /	2025								

Compartment: 168

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Year of Entry: 2026 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment** Cover Type Age Habitat n Method Name CoverType Density Age Range Type Objective Structure Cut d 73 61168073-NF 9.8 330 - Low-Density Nonstocked NonForestMqt Fruit Tree/Shrub 3204 - Mast Nο

Trees Planting **Producing Shrub** Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs Specs:

and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Possibly also could seed in additional native grasses and forbs.

Next Step Burn, Opening

Treatments:

<u>Acceptable</u> Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

61168077-Cut 30.9 4130 - Aspen Even-Aged Poletimber 51-80 Harvest Clearcut with 4133 - Aspen, Nο 54 Well Retention Mixed Pine

<u>Prescription</u> Final harvest stand to regenerate aspen. Leave all white pine and white oak.

Specs:

Protect the rec trails, drum log spec and have considerations for oak wilt in mind during sale prep.

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable aspen, red maple, cherry, oaks and mixed pine.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

61168091-Cut Clearcut with 13.5 4133 - Aspen, Poletimber 55 51-80 Harvest 413 - Aspen Even-Aged No Mixed Pine Well Retention

Prescription Cut all trees 4 inches and up. Mark to leave one white pine per acre. Protect recreation trails during the harvest and include drum log spec. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, red maple, cherry and mixed pine which meets minimal stocking

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

Brush Cutting 61168095-NF 12.7 3303 - Mixed Low Nonstocked NonForestMgt 3204 - Mast No **Density Trees** Producing 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 Specs:

needed 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 /2025

Traverse City Mgt. Unit Report 3 -- Treatments

S Year of Entry: 2026 ŧ а **Treatment** Acres Stand Size Stand BA **Treatment Treatment** Cover Type Age Habitat n Method Objective Name CoverType Density Age Range Type Structure Cut d 96 61168096-NF 19.7 330 - Low-Density Nonstocked Immatu NonForestMgt Brushpile/Woody 3204 - Mast Nο Debris Creation Producing Shrub Trees Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May Specs: need to fertilize plantings and protect with wire cages or tubex. Possibly also could seed in additional native grasses and forbs. Next Step Burn, Opening Treatments: <u>Acceptable</u> Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2025 105 61168105-Cut 4130 - Aspen 413 - Aspen 194 Poletimber 51-80 Harvest Clearcut with Even-Aged Nο 55 Well Retention Prescription Final harvest stand to regenerate aspen. Leave all oak and white pine. Specs: Protect the rec trails, drum log spec and have considerations for oak wilt in mind during sale prep. Monitoring, Natural Regen (Re-Inventory) Next Step **Treatments:** Acceptable aspen, red maple, cherry, oak and mixed pine Regen: **Other** Comment: Site Condition Proposed Start Date: 10/1 /2025 106 61168106-NF 29.2 330 - Low-Density Nonstocked Immatu NonForestMgt Fruit Tree/Shrub No 3204 - Mast Trees **Planting** Producing Shrub Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May Specs: need to fertilize plantings and protect with wire cages or tubex. Possibly also could seed in additional native grasses and forbs. Next Step Burn, Opening

Compartment: 168

Treatments:

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

Approved Treatments:

88 61168088- 53.5 3303 - Mixed Low Nonstocked Immatu Monitoring Artificial 42110 - Planted Even-Aged No Regen(1yr) Red Pine

Prescription Specs:

<u>Next Step</u> ; ; Monitoring, Artificial Regen(3yr)

<u>reatments:</u>

Acceptable Fully Stocked Free to Grow red pine

Regen:

Other Percent to Treat = 100%

Comment:

Site Condition

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 168 Year of Entry: 2026 **Treatment** Acres Stand Size Stand ВА **Treatment Treatment Cover Type** Age Habitat Name CoverType Density Age Range Type Method Objective Structure

Proposed Start Date: 10/1 /2023

Total Treatment 449.9 Acreage Proposed:

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Traverse City Mgt. Unit

Paul Roell: Examiner

Compartment: 168
Year of Entry: 2026

Availability for Management Total Acres Acres Avail **Dominant Site Conditions** Acres With Condition Not Available 3D 5E Acres Available 5C Aspen Herbaceous Openland Jack Pine Low-Density Trees **Natural Mixed Pines** Northern Hardwood Planted Mixed Pines Red Pine **Upland Mixed Forest** Urban Water White Pine 1,853 1,665 **Total Forested Acres** 1% 90% 9% Relative Percent

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
1	Comments:						
2	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
1	Comments:						

Report 4 - Site Conditions

Traverse City Mgt. Unit
Paul Roell: Examiner

Compartment: 168
Year of Entry: 2026

Unavailable Unspecified Unspecified Unspecified Unspecified 4 5E: Long-Term Retention 1 Comments: Unspecified 5 Unavailable 5E: Long-Term Retention 0 Unspecified Unspecified Unspecified Comments: Unspecified Unspecified Unspecified Unspecified Unavailable **5E: Long-Term Retention** 6 1 Comments: 7 Unspecified Unspecified Unspecified Unspecified Unavailable 5E: Long-Term Retention 2 Comments: Unspecified Unspecified Unspecified 8 Unavailable **5E: Long-Term Retention** 0 Unspecified Comments: 9 Unavailable 3D: Recreational / Scenic 10 Unspecified Unspecified Unspecified Unspecified values Comments: Unspecified Unspecified Unspecified Unspecified 10 **Available** 5C: Delay treatment for 33 age/size class diversity or exceptional site quality **Comments:**

Report 4 – Site Conditions

Traverse City Mgt. Unit
Paul Roell: Examiner

11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	46	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	41	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
15	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
16	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Report 4 – Site Conditions

Traverse City Mgt. Unit
Paul Roell: Examiner

Compartment: 168
Year of Entry: 2026

17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						

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Mgt. Unit

Compartment: #Type! Year of Entry:



Report 5 - PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Mgt. Unit Compartment:
Year of Entry

Report 6 - EXISTING SPECIAL CONSERVATION AREA DETAILS



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

Conservation Type Description
Area

ERA = Ecological Reference Area

HCVA = High Conservation Value Area

SCA = Special Conservation Area



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	ite	General Comments
1	42200 - Natu	ıral White F	Pine P	oletimb	er Poor	13.0	80	1-50	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age						
	White Pine	85	Pole/Sap/Log	8	80						
	Black Cherry	15	Pole	6							
2	42110 - Plai	nted Red P	ine S	awtimb	er Well	58.6	70	111-140	N/A		Thinned for the second time in 2009. Thinned again in 2017.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Red Pine	100	Log/Pole	12			ack Pine	Low	Variable	Sapling	
						R	ed Pine	Low	Variable	Sapling	
							Beech	Medium	Variable	Sapling	
3	42110 - Plai	nted Red P	ine P	oletimb	er Well	34.5	55	141-170	N/A		First thinning winter 2016-17.
	Canopy Species	% Cover	Size Class	DBH	l Age						
	Red Pine	95	Pole/Log	9	55						
	White Pine	5	Pole/Log	8							
4	4110 - Sugar M	laple Assoc	ciation S		er Well	43.0	70	111-140	N/A		Stand was harvested during summer 2011, sale #61-025-06.
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Red Maple	10	Log/Pole	10		Sug	gar Maple	Low	Variable	Sapling	
	Basswood	10	Pole	8		Ir	onwood	Medium	Variable	Sapling	
	Beech	5	Pole/Log	8			Beech	Medium	Variable	Sapling	
	Sugar Maple	75	Log/Pole	12	70						
5	42140 - Plan	ted Mixed F	Pine	Sapling		28.3	25	Immature	N/A		Thinned for the second time in 2009. Thinned again in 2017. Photos
	Canany Engains										
	Canopy Species	% Cover	Size Class	DBH	l Age						seem to show 2 ages within the stand.
	Red Pine	% Cover	Size Class Sapling/Pole	DB H	Age 25						seem to show 2 ages within the stand.
											seem to show 2 ages within the stand.
	Red Pine	55	Sapling/Pole	3 3 3							seem to show 2 ages within the stand.
	Red Pine Jack Pine	55 30	Sapling/Pole Sapling/Pole	3							seem to snow 2 ages within the stand.
	Red Pine Jack Pine Red Maple	55 30 5	Sapling/Pole Sapling/Pole Sapling/Pole	3 3 3							seem to show 2 ages within the stand.
6	Red Pine Jack Pine Red Maple White Pine	55 30 5 5 5	Sapling/Pole Sapling/Pole Sapling/Pole Sapling Sapling	3 3 3 2 2		n 60.0	24	1-50	N/A		Salvage sale from wind event, #61-153-98. Fairly consistent pole and lo
6	Red Pine Jack Pine Red Maple White Pine Black Cherry	55 30 5 5 5 5	Sapling/Pole Sapling/Pole Sapling/Pole Sapling Sapling	3 3 3 2 2 etimber	25	60.0	24	1-50	N/A		Salvage sale from wind event, #61-153-98. Fairly consistent pole and lo sized maple throughout the stand.
6	Red Pine Jack Pine Red Maple White Pine Black Cherry 4119 - Mixed No	55 30 5 5 5 5	Sapling/Pole Sapling/Pole Sapling/Pole Sapling Sapling Sapling	3 3 3 2 2 etimber	25 r Medium	n 60.0	24	1-50	N/A		Salvage sale from wind event, #61-153-98. Fairly consistent pole and lo
6	Red Pine Jack Pine Red Maple White Pine Black Cherry 4119 - Mixed No	55 30 5 5 5 orthern Hard	Sapling/Pole Sapling/Pole Sapling/Pole Sapling Sapling Sapling dwoods Pol Size Class	3 3 3 2 2 2 etimber	25 r Medium	n 60.0	24	1-50	N/A		Salvage sale from wind event, #61-153-98. Fairly consistent pole and lo
6	Red Pine Jack Pine Red Maple White Pine Black Cherry 4119 - Mixed No Canopy Species White Pine	55 30 5 5 5 orthern Hard **Cover	Sapling/Pole Sapling/Pole Sapling/Pole Sapling Sapling dwoods Pol Size Class Log/Pole	3 3 2 2 2 etimber DBH	25 r Medium	n 60.0	24	1-50	N/A		Salvage sale from wind event, #61-153-98. Fairly consistent pole and lo
6	Red Pine Jack Pine Red Maple White Pine Black Cherry 4119 - Mixed No Canopy Species White Pine Sugar Maple	55 30 5 5 5 orthern Hard ** Cover 10 40	Sapling/Pole Sapling/Pole Sapling/Pole Sapling Sapling dwoods Pol Size Class Log/Pole Pole/Log/Sap	3 3 2 2 2 etimber 10 6	r Medium	60.0	24	1-50	N/A		Salvage sale from wind event, #61-153-98. Fairly consistent pole and lo



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	ite	General Comments	MICHIGAN .
8	330 - Low-D	Density Tre	es	Nonsto	cked	6.3	0		No			
9	4112 - Maple, Beec	h, Cherry A	Association	Poletimbe	er Well	12.4	75	81-110	N/A		Thinned spring 2016.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	anopy Specie	s Density	Avg. Height	Size		
	Red Maple	25	Pole/Log	8			onwood	High	Variable	Sapling		
	Black Cherry	3	Log/Pole	12		Ma	ple (spp.)	Medium	Variable	Sapling		
	Beech	2	XLog/Log	18			Beech	Low	Variable	Sapling		
	Sugar Maple	70	Pole/Log	8	75							
10	122 - Road	I/Parking L	ot	Nonsto	cked	1.0	0	Immature			active well	
11	330 - Low-[Density Tre	ees	Nonsto	cked	9.8		Immature	No		mostly large diameter red maple	
12	122 - Road	I/Parking L	ot	Nonsto	cked	2.1			No		Active Well site	
13	4130	- Aspen		Poletimb		34.4	44	51-80	N/A			
	Canopy Species	% Cover		DBH	Age		anopy Specie		Avg. Height	Size		
	Jack Pine	5	Pole	8			hite Pine	Low	5 - 10 feet	Sapling		
	Quaking Aspen	35	Pole/Saplin		44	Bla	ick Cherry	Medium	Variable	Sapling		
	Bigtooth Aspen	50	Pole/Sapling	-	44							
	Red Maple	5	Pole/Sapling	_	44							
	Black Cherry	5	Pole/Sapling	g 5								
14	310 - Herbaco	eous Oper	land	Nonsto	cked	3.7		Immature	No		open stand	
15	3102	- Grass		Nonsto	cked	1.5		Immature	No		looks like old mowed area	
16	42110 - Plar			Poletimb		27.9	55	141-170	N/A		First thinning winter 2016-17.	
	Canopy Species Red Pine	% Cover	Size Class Pole/Log	DBH	Age 55							
			. 0.0, Log	0	00							



Stand	Level 4 Co	over Type		Size De	ПЭП	Acres	Stand Age E		Managed S	ite	General Comments	MICHIGAN
17	4112 - Maple, Beec	h, Cherry A	ssociation F	Poletimb	er Well	10.7	64	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Sugar Maple	25	Pole/Log	8		W	hite Pine	Low	Variable	Sapling		
	Red Maple	59	Pole/Log	8	64		Beech	Low	Variable	Sapling		
	Bigtooth Aspen	10	Pole/Log	9		Ir	onwood	Low	Variable	Sapling		
	Balsam Fir	2	Pole	6				,				
	Ironwood	2	Pole	6								
	White Pine	2	Log/Pole	10								
18	4130	- Aspen		Sapling	g Well	30.2	7	Immature	N/A		harvested 2016	
	Canopy Species	% Cover	Size Class	DBH	I Age							
	Red Maple	20	Sapling	1	3							
	Bigtooth Aspen	65	Sapling	2	7							
	White Pine	5	Sapling	4								
	Black Cherry	5	Sapling	1								
	Beech	5	Sapling	1								
19	122 - Road	d/Parking Lo	ot	Nonst	ocked	6.8			No		Road	
19 20	122 - Road 42110 - Plar			Nonsto Sawtimb		6.8	53	111-140	No N/A		First thinning sprin 2016.	
		nted Red P		Sawtimb	er Well	16.4	53			Size		
	42110 - Plar	nted Red P	ine S	Sawtimb		16.4 Sub-C a			N/A	Size Sapling		
	42110 - Plar Canopy Species	nted Red P	ine S	Sawtimb DBH	er Well	16.4 Sub-Ca	nopy Species	Density	N/A Avg. Height			
	42110 - Plar Canopy Species Red Pine Red Maple	nted Red P % Cover	ine Size Class Log/Pole	Sawtimb DBH	er Well Age 53	16.4 Sub-Ca	nopy Species Beech	Density Low	N/A Avg. Height 5 - 10 feet	Sapling		
20	42110 - Plar Canopy Species Red Pine Red Maple	nted Red P % Cover 98 2 - Aspen	ine Size Class Log/Pole	Sawtimb DBH 10 12 Sapling	er Well Age 53	16.4 Sub-Ca	Beech erry (spp.)	Low Low	N/A Avg. Height 5 - 10 feet Variable	Sapling		
20	42110 - Plar Canopy Species Red Pine Red Maple	nted Red P % Cover 98 2 - Aspen	Size Class Log/Pole Log/Pole	Sawtimb DBH 10 12 Sapling	er Well 1 Age 53 Well	16.4 Sub-Ca	Beech erry (spp.)	Low Low	N/A Avg. Height 5 - 10 feet Variable	Sapling		
20	42110 - Plan Canopy Species Red Pine Red Maple 4130 - Canopy Species	nted Red P % Cover 98 2 - Aspen % Cover 30 5	Size Class Log/Pole Log/Pole Size Class	DBH 10 12 Sapling	er Well 53 Well Age	16.4 Sub-Ca	Beech erry (spp.)	Low Low	N/A Avg. Height 5 - 10 feet Variable	Sapling		
20	42110 - Plan Canopy Species Red Pine Red Maple 4130 - Canopy Species Quaking Aspen White Pine Black Cherry	nted Red P % Cover 98 2 - Aspen % Cover 30 5 10	Size Class Log/Pole Log/Pole Size Class Sapling	10	er Well Age 53 Well Age 25	16.4 Sub-Ca	Beech erry (spp.)	Low Low	N/A Avg. Height 5 - 10 feet Variable	Sapling		
20	42110 - Plar Canopy Species Red Pine Red Maple 4130 - Canopy Species Quaking Aspen White Pine	nted Red P % Cover 98 2 - Aspen % Cover 30 5	Size Class Log/Pole Log/Pole Size Class Sapling Sapling	Sawtimb DBH 10 12 Sapling DBH 4 3	er Well 53 Well Age	16.4 Sub-Ca	Beech erry (spp.)	Low Low	N/A Avg. Height 5 - 10 feet Variable	Sapling		
20	42110 - Plan Canopy Species Red Pine Red Maple 4130 - Canopy Species Quaking Aspen White Pine Black Cherry	nted Red P % Cover 98 2 - Aspen % Cover 30 5 10	size Class Log/Pole Log/Pole Size Class Sapling Sapling Sapling	10	er Well Age 53 Well Age 25	16.4 Sub-Ca	Beech erry (spp.)	Low Low	N/A Avg. Height 5 - 10 feet Variable	Sapling		
20	42110 - Plar Canopy Species Red Pine Red Maple 4130 Canopy Species Quaking Aspen White Pine Black Cherry Bigtooth Aspen	nted Red P % Cover 98 2 - Aspen % Cover 30 5 10 50 5	Size Class Log/Pole Log/Pole Size Class Sapling Sapling Sapling Sapling Sapling Sapling Sapling	10	er Well Age 53 Well Age 25	16.4 Sub-Ca	Beech erry (spp.)	Low Low	N/A Avg. Height 5 - 10 feet Variable	Sapling		
21	42110 - Plar Canopy Species Red Pine Red Maple 4130 - Canopy Species Quaking Aspen White Pine Black Cherry Bigtooth Aspen Jack Pine	nted Red P % Cover 98 2 - Aspen % Cover 30 5 10 50 5	Size Class Log/Pole Log/Pole Size Class Sapling Sapling Sapling Sapling Sapling Sapling Sapling	Sawtimb DBH 10 12 Sapling DBH 4 3 2 4 3	er Well Age 53 Well Age 25	16.4 Sub-Ca Che 47.5	Beech erry (spp.)	Low Low 51-80	N/A Avg. Height 5 - 10 feet Variable N/A	Sapling		
21	42110 - Plar Canopy Species Red Pine Red Maple 4130 - Canopy Species Quaking Aspen White Pine Black Cherry Bigtooth Aspen Jack Pine 42260 - Natural Pir	nted Red P % Cover 98 2 - Aspen % Cover 30 5 10 50 5	Size Class Log/Pole Log/Pole Size Class Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling	Sawtimb DBH 10 12 Sapling DBH 4 3 2 4 3	er Well Age 53 Well Age 25 25 Poor	16.4 Sub-Ca Che 47.5	Beech erry (spp.)	Low Low 51-80	N/A Avg. Height 5 - 10 feet Variable N/A	Sapling		
21	42110 - Plar Canopy Species Red Pine Red Maple 4130 - Canopy Species Quaking Aspen White Pine Black Cherry Bigtooth Aspen Jack Pine 42260 - Natural Pir Canopy Species	nted Red P % Cover 98 2 - Aspen % Cover 30 5 10 50 5 me, Mixed D	Size Class Log/Pole Log/Pole Size Class Sapling	Sawtimb DBH 10 12 Sapling DBH 4 3 2 4 3 Sapling DBH 3	er Well Age 53 Well Age 25 25 Poor	16.4 Sub-Ca Che 47.5	Beech erry (spp.)	Low Low 51-80	N/A Avg. Height 5 - 10 feet Variable N/A	Sapling		
21	42110 - Plar Canopy Species Red Pine Red Maple 4130 Canopy Species Quaking Aspen White Pine Black Cherry Bigtooth Aspen Jack Pine 42260 - Natural Pir Canopy Species Bigtooth Aspen	nted Red P % Cover 98 2 - Aspen % Cover 30 5 10 50 5 me, Mixed D % Cover 5	Size Class Log/Pole Log/Pole Log/Pole Size Class Sapling	10	er Well Age 53 Well Age 25 25 Poor	16.4 Sub-Ca Che 47.5	Beech erry (spp.)	Low Low 51-80	N/A Avg. Height 5 - 10 feet Variable N/A	Sapling		
21	42110 - Plar Canopy Species Red Pine Red Maple 4130 - Canopy Species Quaking Aspen White Pine Black Cherry Bigtooth Aspen Jack Pine 42260 - Natural Pir Canopy Species Bigtooth Aspen Red Maple	nted Red P % Cover 98 2 - Aspen % Cover 30 5 10 50 5 me, Mixed E % Cover 5 25	Size Class Log/Pole Log/Pole Log/Pole Size Class Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling Pole/Log/Sap	10	er Well Age 53 Well Age 25 25 Poor	16.4 Sub-Ca Che 47.5	Beech erry (spp.)	Low Low 51-80	N/A Avg. Height 5 - 10 feet Variable N/A	Sapling		
21	42110 - Plar Canopy Species Red Pine Red Maple 4130 - Canopy Species Quaking Aspen White Pine Black Cherry Bigtooth Aspen Jack Pine 42260 - Natural Pir Canopy Species Bigtooth Aspen Red Maple Black Cherry	nted Red P % Cover 98 2 - Aspen % Cover 30 5 10 50 5 me, Mixed D % Cover 5 25 5	Size Class Log/Pole Log/Pole Log/Pole Size Class Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling Pole/Log/Sap Sapling/Pole	10	er Well Age 53 Well Age 25 Poor Age	16.4 Sub-Ca Che 47.5	Beech erry (spp.)	Low Low 51-80	N/A Avg. Height 5 - 10 feet Variable N/A	Sapling		



Stand	Level 4 C	over Type		Size De	ensity	Acres	Stand Age E	A Range	Managed S	ite	General Comments	MICHIGAN
23	310 - Herbad	ceous Open	land	Nonsto	ocked	4.8	0		No			
24	4119 - Mixed No	orthern Har	dwoods Po	oletimbe	r Mediun	n 17.6	67	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Maple	65	Pole/Log	8	67		Beech	Low	Variable	Sapling		
	Black Cherry	5	Pole	8				'				
(Quaking Aspen	5	Pole	6								
	Jack Pine	5	Pole	6								
	White Pine	10	Log	12								
I	Bigtooth Aspen	10	Pole/Log	8								
25	42110 - Pla	inted Red P	ine :	Sawtimb		9.1	52	111-140	N/A		First thinning spring 2016.	
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Maple	3	Log	16			Beech	Low	5 - 10 feet	Sapling		
	Black Cherry	3	Pole	8								
	Red Pine	94	Log/Pole	10	52							
26	110 - Low I	ntensity Urb	oan	Nonsto		17.4 21.8	24	1-50	No N/A		Leased as a oil and gas facility. Salvage cut in 1999	
27						21.0	24	1-30	IN/A		Salvage cut in 1999	
	Canopy Species		Size Class		l Age							
(Quaking Aspen	20	Sapling	4	24							
	Red Maple	10	Sapling	3								
	White Pine	5	Sapling	3								
	Jack Pine	5	Sapling	3								
	Black Cherry	5	Sapling	3	0.4							
	Bigtooth Aspen	55	Sapling/Pole	4	24							
28	4130	- Aspen	ſ	Poletimb	er Well	35.0	45	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	I Age							
	White Pine	2	Pole	8								
I	Bigtooth Aspen	55	Pole	8	45							
(Quaking Aspen	35	Pole	8	45							
	Black Cherry	3	Sapling	3								
	Red Maple	3	Pole/Log	8								
	Jack Pine	2	Pole	6								



Stand	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age	BA Range	Managed S	ite	General Comments	- MICHIGAN .
29	42220 - Nat	ural Jack P	ine	Saplin	g Well	2.7	7	Immature	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age							
	Jack Pine	80	Sapling	2	7							
	Red Maple	5	Sapling	1								
	White Pine	5	Sapling	1								
	Black Cherry	10	Sapling	1								
30	4119 - Mixed No	orthern Hard	dwoods Po	oletimbe	r Mediu	m 2.2	67	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	anopy Specie	s Density	Avg. Height	Size		
	Black Cherry	5	Pole	8			Beech	Low	Variable	Sapling		
	Bigtooth Aspen	10	Pole/Log	8								
	Jack Pine	5	Pole	6								
	Quaking Aspen	5	Pole	6								
	Red Maple	65	Pole/Log	8	67							
	White Pine	10	Log	12								
31	4130	- Aspen		Saplin	g Well	2.6	8	Immature	N/A		Cut spring 2017.	
	Canopy Species	% Cover	Size Class	DBH	l Age							
	White Pine	5	Sapling	1								
	Bigtooth Aspen	45	Sapling	2	8							
	Black Cherry	5	Sapling	1								
	Jack Pine	10	Sapling	3								
	Quaking Aspen	25	Sapling	1								
	Red Maple	10	Sapling	1								
32	42110 - Pla	nted Red P	ine	Poletimb	er Well	2.5	52	111-140	N/A		First thinning spring 2016.	
	Canopy Species	% Cover	Size Class	DBH	l Age							
	Red Pine	100	Pole/Log	9	52							
33	3102	- Grass		Nonsto	ocked	1.9		Immature	No		Pipeline	
34	4130	- Aspen		Poletimb	er Well	0.7	60	51-80	N/A		Heavier to white pine in NW part of stand.	
	Canopy Species	% Cover		DBH	l Age		anopy Specie	s Density	Avg. Height	Size		
	Black Cherry	2	Pole	8			hite Pine	Low	Variable	Sapling		
	Red Maple	3	Pole/Log	8			ick Cherry	Low	Variable			
	White Pine	10	Log/Pole	12		Qua	king Aspen	Low	Variable	Sapling		
	Quaking Aspen	50	Pole/Sapling	g 8	60							
	Bigtooth Aspen	35	Pole/Log	8								



Stand	Level 4 Co	over Type		Size D	ensity	Acres	Stand Age	BA Range	Managed S	ite	General Comments	MICHIGAN .
35	4133 - Aspe	n, Mixed P	ine	Saplin	g Well	6.3	30 l	Unspecified	N/A			
	Canopy Species	% Cover	Size Class	DB	H Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Bigtooth Aspen	60	Sapling/Pol	e 4	30	W	hite Pine	Medium	5 - 10 feet	Sapling		
	Red Maple	20	Pole	8							-	
	White Pine	5	Log/Pole	14								
	Jack Pine	15	Sapling	4								
36	3102	- Grass		Nons	tocked	15.4			No		opening/Pipeline	
37	4130 -	- Aspen		Saplir	g Well	30.0	7	Immature	N/A		168 Epicenter Sale Closed spring of 2018	
	Canopy Species	% Cover	Size Class	DB	H Age							
	White Pine	15	Pole/Saplin									
	Bigtooth Aspen	30	Sapling	1	7							
	Red Maple	15	Sapling	1								
	Quaking Aspen	35	Sapling	1	7							
	Black Cherry	5	Sapling	2								
39	122 - Road	I/Parking Lo	ot	Nons	tocked	1.6		Immature	No		Beebe Road	
40	4112 - Maple, Beech	h, Cherry A	ssociation	Poletim	ber Well	56.4	65	51-80	N/A		Thinned in 2006 - 61-025-06-01	
	Canopy Species	% Cover	Size Class	DB	H Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Red Maple	55	Pole/Log	8	65		Beech	Medium	Variable	Sapling		
	White Pine	2	Pole	8		Ir	onwood	Medium	Variable	Sapling		
	Black Cherry	3	Pole	8		W	hite Pine	Low	Variable	Sapling		
	Sugar Maple	40	Pole/Log	8	65							
42	3102	- Grass		Nons	tocked	3.6			No		pipeline	
43	42220 - Natı	ural Jack P	ine	Saplir	ıg Well	5.2	6	Immature	N/A			
	Canopy Species	% Cover	Size Class	DB	H Age							
	Black Cherry	15	Sapling	1								
	White Pine	10	Sapling	1								
	Jack Pine	65	Sapling	1	6							
			Sapling		6							



Stand	Level 4 Co	over Type	5	Size De	ensity	Acres	Stand Age	BA Range	Managed S	Site	General Comments	MICHIGAN .
44	4133 - Aspe	n, Mixed P	rine	Saplin	g Well	33.6	7	Immature	N/A		168 Epicenter Sale Closed spring of 2018	
	Canopy Species	% Cover	Size Class	DBH	H Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size		
	Quaking Aspen	30	Sapling	1	7	W	hite Pine	Low	Variable	Sapling		
	White Pine	15	Pole/Sap/Log	6			Beech	Low	Variable	Sapling		
	Red Pine	5	Pole/Sapling	6		Re	ed Maple	Low	Variable	Sapling		
	Red Oak	5	Log/Pole	10				'	ı			
	Red Maple	25	Sapling	1								
	Bigtooth Aspen	20	Sapling	1								
45	42110 - Plar	nted Red P	ine	Saplin	g Well	23.9	18	Immature	N/A			
	Canopy Species	% Cover	Size Class	DBH	H Age							
	Black Cherry	5	Pole/Sapling	6								
	Jack Pine	10	Sapling	4								
	Red Pine	75	Sapling/Pole	4	18							
	White Pine	10	Pole/Sap/Log	8								
46	4119 - Mixed No				Medium	25.9	8	Immature	N/A		168 Epicenter Sale Closed spring of 2018	
	Canopy Species		Size Class		H Age							
	Black Cherry	15	Sapling	1								
	Red Maple	30	Sapling/Pole	1	8							
	Bigtooth Aspen	10	Sapling	1								
	Ironwood	10	Sapling	1								
	Beech	15	Sapling	1	8							
	Sugar Maple	10	Pole/Log	8								
	White Pine	10	Pole	8								
48	3102	- Grass		Nonst	ocked	4.9			No		Abondon well site and power line.	
49	3102	- Grass		Nonst	ocked	1.5			No		Powerline	
51	122 - Road/Parking Lot Nonstocked				2.9			No		131		
52	4310 - Pir	ne, Oak Mi	x Sav	wtimbe	r Mediun	n 18.0	80	51-80	N/A		168 Epicenter Sale Closed spring of 2018	
	Canopy Species	% Cover	Size Class	DBH	H Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size		
	Red Oak	45	Pole/Log	8			Beech	Low	5 - 10 feet	Sapling		
	White Pine	55	Log/Pole	12	80	Re	ed Maple	Medium	5 - 10 feet	Sapling		
						\//	hite Pine	Low	5 - 10 feet	Sapling		
						V V I	IIILE FIIIE	LOW	0 101000	Capinig		



Stand	d Level 4 C	Level 4 Cover Type Size Density		ensity	Acres	Stand Age B	A Range	Managed S	ite	General Comments	MICHIGAN	
53	3301 - Low Density Deciduous Trees		us Trees	Nonstocked		2.1	1	mmature	No		Scattered red and white pine and the bird lake access site.	
54	42210 - Natural Red Pine			Sawtimber Well		10.0	77	81-110	N/A		168 Epicenter Sale Closed spring of 2018	
	Canopy Species	% Cover	Size Class	Class DBH Age		Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Maple	5	Log	12			nite Pine	Low	Variable	Sapling		
	Red Pine	85	Log	12	77		Beech	Low	Variable	Sapling		
	White Pine	10	Log/Pole	10		Re	d Maple	Medium	5 - 10 feet	Sapling		
				'		Bigto	oth Aspen	Medium	5 - 10 feet	Sapling		
55	500	- Water		Nonst	ocked	3.5			No		Bird Lake	
56	330 - Low-	Density Tre	es	Nonst	ocked	5.0	0		No			
57	4130	- Aspen		Poletimb	er Well	87.0	54	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Black Cherry	5	Pole	8		Asp	en (spp.)	Medium	Variable	Sapling		
	Jack Pine	5	Pole	8		Che	erry (spp.)	Low	Variable	Sapling		
	White Pine	5	Pole/Log	8		Ja	ick Pine	Low	Variable	Sapling		
	Bigtooth Aspen	44	Pole/Log	8	54	WI	nite Pine	Low	Variable	Sapling		
	Quaking Aspen	35	Pole/Log	8	54	Re	d Maple	Low	Variable	Sapling		
	Red Maple	5	Log/Pole	12								
	Red Oak	1	Pole/Log	8								
58	4133 - Aspe	en, Mixed P	ine	Poletimb	er Well	100.1	50	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Quaking Aspen	30	Pole/Log	8	50	Che	erry (spp.)	Low	Variable	Sapling		
	Red Pine	10	Pole/Log	8			Beech	Low	Variable	Sapling		
	Black Cherry	5	Pole	6		WI	nite Pine	Low	Variable	Sapling		
	Bigtooth Aspen	34	Pole/Log	8	50							
	White Pine	15	Pole/Log	8								
	Jack Pine	5	Pole	7								
			Pole/Log									



tand	Level 4 Cover Type			Size Density		Acres	Stand Age	BA Range	Managed S	ite	General Comments	Mici
61	42111 - Planted Red Pine, Mixed Deciduous			Sawtimber Well		25.9	47	111-140	N/A		Stand density varies.	
	Canopy Species % Cover Size Class		DBI	l Age								
	Bigtooth Aspen	10	Log/Pole	10								
	Black Cherry	5	Pole	8								
	Red Pine	80	Log/Pole	10	47							
	Red Maple	5	Pole	8								
62	4130	- Aspen		Sawtimb	er Well	2.3	57	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	anopy Speci	es Density	Avg. Height	Size		
	Bigtooth Aspen	85	Log/Pole	10	57	R	ed Maple	Low	Variable	Sapling		
	Red Maple	5	Pole	6				-				
	Black Cherry	10	Pole	8								
64	42110 - Pla	nted Red P	ine	Poletim	er Well	23.5	39	171-200	N/A			
	Canopy Species	% Cover	Size Class	DBI	l Age							
	Red Pine	95	Pole	7	39							
	Black Cherry	5	Pole	6								
65	42110 - Planted Red Pine		ine	Poletim	er Well	3.5	36	171-200	N/A		150 logo	
	Canopy Species	% Cover	Size Class	DBI	H Age							
	Red Pine	100	Pole	7	36							
66	42110 - Pla	nted Red P	ine	Poletim	er Well	14.9	50	81-110	N/A		Stand density varies.	
	Canopy Species	% Cover	Size Class	DBI	l Age							
	Red Maple	5	Pole	8								
	Black Cherry	5	Pole	8								
	Red Pine	90	Pole/Log	8	50							
67	330 - Low-I	Density Tre	es	Nonst	ocked	6.8			No		filling in with jack pine and cherry	
68	42210 - Nat	tural Red P	ine	Sawtimb	er Well	9.2	74	141-170	N/A			
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	anopy Speci	es Density	Avg. Height	Size]	
	Red Maple	5	Log/Pole				Beech	Low	Variable	Sapling	-	
	Bigtooth Aspen	15	Pole/Log			W	hite Pine	Low	Variable	Sapling	-	
	Red Oak	5	Log/Pole							. 0	1	
			_	1	1							



Stand	d Level 4 C	Level 4 Cover Type			ensity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
71	42200 - Natural White Pine			Poletimber Well		5.7	70	81-110	N/A		Railroad adjacent to stand.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	10	Pole	8		Ма	ole (spp.)	Low	Variable	Sapling	
	Bigtooth Aspen	15	Pole/Log	8		WI	nite Pine	Low	Variable	Sapling	
	White Pine	75	Pole/Log	8	70			1			
73	330 - Low-	Density Tre	es	Nonst	ocked	9.8	0		No		
74	4130	- Aspen	Pe	oletimb	er Poor	1.4	58		N/A		Was called a U type last time. Aspen is starting to fill in. Retention from
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	stand 113
	Quaking Aspen	85	Pole/Log/Sap	6	58	Asp	en (spp.)	Low	Variable	Sapling	
	White Pine	5	Log/Pole	10		WI	nite Pine	Low	Variable	Sapling	
	Black Cherry	10	Sapling/Pole	3							•
77	4130	- Aspen	P	oletimb	er Well	76.4	54	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	35	Pole/Log	9	54	Che	erry (spp.)	Low	Variable	Sapling	
	Jack Pine	5	Pole	8		Re	d Maple	Low	Variable	Sapling	
	Black Cherry	5	Pole	6		Ja	ick Pine	Low	Variable	Sapling	
	Quaking Aspen	40	Pole/Log	9	54	WI	nite Pine	Low	Variable	Sapling	
	Red Maple	5	Log/Pole	12		Asp	en (spp.)	Medium	Variable	Sapling	
	White Pine	10	Pole/Log	8							
79	3104 -	Degraded		Nonst	ocked	3.8			No		Old well site plugged after 2000.
81	42201 - Natural Dec	White Pine	, Mixed P	oletimb	er Well	7.3	70	51-80	N/A		Pipeline runs through stand.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	65	Pole/Log	8	70	WI	nite Pine	Low	Variable	Sapling	
	Black Cherry	2	Pole	8							-
	Bigtooth Aspen	31	Pole/Log	8							
	Red Maple	2	Pole	8							
82	3102	- Grass		Nonst	ocked	2.3					Old well site.



Stand	d Level 4 C	over Type		Size Density	Acres	Stand Age B	A Range	Managed S	Site	General Comments
86	42200 - Natu	ural White F	Pine	Sawtimber Well	40.2	87	141-170	N/A		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Car	nopy Species	Density	Avg. Height	Size	
	White Pine	75	Log/Pole	13 87	Red	d Maple	Medium	Variable	Sapling	
	Quaking Aspen	10	Pole/Log	8 55	Wh	ite Pine	High	Variable	Sapling	
	Black Cherry	10	Pole	6	Cher	rry (spp.)	Low	Variable	Sapling	
	Red Maple	5	Log	16						
88	3303 - Mixed L	ow Density	Trees	Nonstocked	55.1	I	mmature	4211 - Planted	Red Pine	2024 - Stand was Planted to 793 Trees per Acre of Red Pine on 5/3/2024 2023 - Stand was Helicopter Site Prep Sprayed 8/15/2023 by Hamilton Helicopters Inc. 2021 - Stand was Trenched
89	310 - Herbac	eous Open	land	Nonstocked	3.4	I	mmature	No		
90	3104 -	Degraded		Nonstocked	3.1					Old well site plugged after 2000.
91	4133 - Aspe	en, Mixed P	ine	Poletimber Well	16.4	55	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Car	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	40	Pole	8 55	Quaki	ing Aspen	Medium	Variable	Sapling	
	White Pine	20	Log/Pole	13	Wh	ite Pine	High	Variable	Sapling	
	Bigtooth Aspen	20	Pole/Log	8						
	Red Maple	10	Pole/Log	8						
	Black Cherry	10	Pole/Log	8						
92	4130	- Aspen		Sapling Well	90.2	5 I	mmature	N/A		
	Canopy Species	% Cover	Size Class	DBH Age						
	White Pine	10	Sapling/Pol	e 4						
	Quaking Aspen	40	Sapling	1 5						
	Bigtooth Aspen	40	Sapling	1 5						
	Red Maple	5	Sapling	1 5						
	Black Cherry	5	Sapling	1 5						
93	4133 - Aspe			Sapling Well	8.5		mmature	N/A		1
	Canopy Species	% Cover				nopy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	40	Sapling	2 5		rry (spp.)	Low	Variable	Sapling	
	White Pine	20	Log/Pole	12	Red	d Maple	High	Variable	Sapling	
	Quaking Aspen	20	Sapling	1 5						
	Red Maple	20	Sapling	1 5						
95	3303 - Mixed L	ow Density	Trees	Nonstocked	12.7			No		cherry and white pine filling in



Stand	Level 4 C	over Type		Size Den	isity	Acres	Stand Age	BA Range	Managed S	ite	General Comments	MICHIGA	
96	330 - Low-Density Trees		Nonstoc	cked	19.7		Immature	No					
97	4130	- Aspen		Sapling \	Well	13.1	15		N/A		Cut in 2008. 61-074-06-1		
	Canopy Species	% Cover	Size Class	DBH	Age								
	Quaking Aspen	90	Sapling	2	15								
	Black Cherry	5	Sapling	2									
	Red Maple	5	Sapling	2									
98	4130	- Aspen		Sapling \	Well	32.1	16	Immature	N/A		Cut in 2008. 61-074-06-1		
90			Cina Class			02.1	10	mmataro	14//		Out III 2000. 01 014 00 1		
	Canopy Species Black Cherry	% Cover		DBH	Age								
	Quaking Aspen	23	Sapling	3									
			Sapling										
	Red Maple	20	Sapling	1	16								
	Bigtooth Aspen White Pine	50	Sapling Sapling	3	16								
102	3102	- Grass		Nonstoc	cked	5.7		Immature	No		Powerline/pipeline		
	3102 42110 - Pla		ine S	Nonstoc Sawtimbe		5.7 7.4	64	Immature 141-170	No N/A		Powerline/pipeline First thinning in 2008, sale #61-070-06		
	42110 - Pla	nted Red P		Sawtimbe	r Well	7.4		141-170	N/A	Size			
	42110 - Pla Canopy Species	nted Red P	Size Class	Sawtimbe DBH	er Well	7.4 Sub-Ca	nopy Specie	141-170		Size Sapling			
	42110 - Pla	nted Red P		Sawtimbe DBH	r Well	7.4 Sub-Ca		141-170 es Density	N/A Avg. Height	Size Sapling			
103	42110 - Pla Canopy Species Red Pine Red Maple	nted Red P % Cover	Size Class Log/Pole	Sawtimbe DBH 12 8	Age 64	7.4 Sub-Ca	nopy Specie	141-170 es Density	N/A Avg. Height		First thinning in 2008, sale #61-070-06		
103	42110 - Pla Canopy Species Red Pine Red Maple 4130	nted Red P % Cover 98 2 - Aspen	Size Class Log/Pole Pole/Log	Sawtimbe DBH 12 8 Sapling I	Age 64	7.4 Sub-Cal	nopy Specie ck Cherry 26	141-170 es Density Low 1-50	N/A Avg. Height Variable N/A	Sapling			
103	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species	nted Red P % Cover 98 2 - Aspen % Cover	Size Class Log/Pole Pole/Log Size Class	Sawtimbe DBH 12 8 Sapling I	Age 64	7.4 Sub-Ca Blac 15.1 Sub-Ca	nopy Species ck Cherry 26 nopy Species	141-170 es Density Low 1-50	N/A Avg. Height Variable N/A Avg. Height	Sapling	First thinning in 2008, sale #61-070-06		
103	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species Black Cherry	nted Red P % Cover 98 2 - Aspen % Cover 15	Size Class Log/Pole Pole/Log Size Class Pole/Sapling	Sawtimbe DBH 12 8 Sapling I DBH 6	Age 64 Poor Age	7.4 Sub-Ca Blac 15.1 Sub-Ca Asp	ck Cherry 26 nopy Specie pen (spp.)	141-170 Pes Density Low 1-50 Pes Density	N/A Avg. Height Variable N/A Avg. Height Variable	Sapling Size Sapling	First thinning in 2008, sale #61-070-06		
103	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species	nted Red P % Cover 98 2 - Aspen % Cover	Size Class Log/Pole Pole/Log Size Class	Sawtimbe DBH 12 8 Sapling I DBH 6	Age 64	7.4 Sub-Ca Blac 15.1 Sub-Ca Asp	nopy Speciesck Cherry 26 nopy Species	141-170 es Density Low 1-50 es Density Low	N/A Avg. Height Variable N/A Avg. Height	Sapling	First thinning in 2008, sale #61-070-06		
102	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species Black Cherry Quaking Aspen White Pine	nted Red P % Cover 98 2 - Aspen % Cover 15 75	Size Class Log/Pole Pole/Log Size Class Pole/Sapling Sapling/Pole Log/Pole	Sawtimbe DBH 12 8 Sapling I DBH 6 4	Poor Age	7.4 Sub-Ca Blac 15.1 Sub-Ca Asp	ck Cherry 26 nopy Specie pen (spp.)	141-170 es Density Low 1-50 es Density Low	N/A Avg. Height Variable N/A Avg. Height Variable	Sapling Size Sapling	First thinning in 2008, sale #61-070-06		
103	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species Black Cherry Quaking Aspen White Pine	nted Red P % Cover 98 2 - Aspen % Cover 15 75 10	Size Class Log/Pole Pole/Log Size Class Pole/Sapling Sapling/Pole Log/Pole	Sawtimbe DBH 12 8 Sapling I DBH 6 4 12	Poor Age 26	7.4 Sub-Cal Blace 15.1 Sub-Cal Asp Wh	26 Inopy Specie unopy Specie pen (spp.) hite Pine	141-170 es Density	N/A Avg. Height Variable N/A Avg. Height Variable Variable	Sapling Size Sapling	First thinning in 2008, sale #61-070-06		
103	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species Black Cherry Quaking Aspen White Pine	nted Red P % Cover 98 2 - Aspen % Cover 15 75 10 - Aspen	Size Class Log/Pole Pole/Log Size Class Pole/Sapling Sapling/Pole Log/Pole	Sawtimbe DBH 12 8 Sapling F DBH 6 4 12 Poletimbe	Poor Age 26	7.4 Sub-Ca Blace 15.1 Sub-Ca Asp Wh 45.5 Sub-Ca	26 nopy Species en (spp.) hite Pine	141-170 es Density	N/A Avg. Height Variable N/A Avg. Height Variable Variable N/A	Sapling Size Sapling Sapling	First thinning in 2008, sale #61-070-06		
103	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species Black Cherry Quaking Aspen White Pine 4130 Canopy Species	nted Red P % Cover 98 2 - Aspen % Cover 15 75 10 - Aspen % Cover	Size Class Log/Pole Pole/Log Size Class Pole/Sapling Sapling/Pole Log/Pole Size Class	Sawtimbe DBH 12 8 Sapling I DBH 6 4 12 Poletimbe DBH	Poor Age 26 er Well Age	7.4 Sub-Cal Black 15.1 Sub-Cal Asp Wh 45.5 Sub-Cal	26 nopy Specie en (spp.) hite Pine 55 nopy Specie	141-170 es Density Low 1-50 es Density Low 51-80 es Density	N/A Avg. Height Variable N/A Avg. Height Variable Variable N/A Avg. Height	Size Sapling Sapling Sapling	First thinning in 2008, sale #61-070-06		
103	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species Black Cherry Quaking Aspen White Pine 4130 Canopy Species Quaking Aspen	nted Red P % Cover 98 2 - Aspen % Cover 15 75 10 - Aspen % Cover 35	Size Class Log/Pole Pole/Log Size Class Pole/Sapling Sapling/Pole Log/Pole File Size Class Pole	Sawtimbe DBH 12 8 Sapling I DBH 6 4 12 Poletimbe DBH 6 10	Poor Age 26 er Well Age	7.4 Sub-Cal Blac 15.1 Sub-Cal Asp Wh 45.5 Sub-Cal Mag Asp	26 chopy Species pen (spp.) hite Pine 55 chopy Species ple (spp.)	141-170 es Density 1-50 es Density Low 51-80 es Density Low	N/A Avg. Height Variable N/A Avg. Height Variable Variable N/A Avg. Height Variable	Size Sapling Sapling Size Sapling Size Sapling	First thinning in 2008, sale #61-070-06 Was called a U type last time. Aspen is starting to fill in.		
103	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species Black Cherry Quaking Aspen White Pine 4130 Canopy Species Quaking Aspen White Pine	nted Red P % Cover 98 2 - Aspen % Cover 15 75 10 - Aspen % Cover 35 10	Size Class Log/Pole Pole/Log Size Class Pole/Sapling/Pole Log/Pole Size Class Pole Log/Pole	Sawtimbe DBH 12 8 Sapling I DBH 6 4 12 Poletimbe DBH 6 10	Poor Age 26 er Well Age	7.4 Sub-Cal Blac 15.1 Sub-Cal Asp Wh 45.5 Sub-Cal Mag Asp	26 Inopy Specie Den (spp.) hite Pine 55 Inopy Specie ple (spp.) Den (spp.)	141-170 es Density Low 1-50 es Density Low 51-80 es Density Low Low Low Low	N/A Avg. Height Variable N/A Avg. Height Variable Variable Variable Variable Variable	Sapling Size Sapling Sapling Size Sapling Sapling	First thinning in 2008, sale #61-070-06 Was called a U type last time. Aspen is starting to fill in.		
103	42110 - Pla Canopy Species Red Pine Red Maple 4130 Canopy Species Black Cherry Quaking Aspen White Pine 4130 Canopy Species Quaking Aspen White Pine Black Cherry	nted Red P % Cover 98 2 - Aspen % Cover 15 75 10 - Aspen % Cover 35 10 5	Size Class Log/Pole Pole/Log Size Class Pole/Sapling Sapling/Pole Log/Pole Find Class Pole Class Pole Class Pole Pole/Sapling	Sawtimbe DBH 12 8 Sapling I DBH 16 4 12 Poletimbe DBH 6 10 15	Poor Age 26 Pr Well Age 58	7.4 Sub-Cal Blac 15.1 Sub-Cal Asp Wh 45.5 Sub-Cal Mag Asp	26 Inopy Specie Den (spp.) hite Pine 55 Inopy Specie ple (spp.) Den (spp.)	141-170 es Density Low 1-50 es Density Low 51-80 es Density Low Low Low Low	N/A Avg. Height Variable N/A Avg. Height Variable Variable Variable Variable Variable	Sapling Size Sapling Sapling Size Sapling Sapling	First thinning in 2008, sale #61-070-06 Was called a U type last time. Aspen is starting to fill in.		



Stand	Level 4 C	Level 4 Cover Type			ensity	Acres	Stand Age	BA Range	Managed S	ite	General Comments	MICHIGAN .
107	42110 - Pla	nted Red P	ine F	Poletimber Well		38.3	28	111-140	N/A			
	Canopy Species	% Cover	Size Class	DBI	H Age							
	Red Pine	97	Pole/Sapling	5	28							
	Black Cherry	3	Sapling	4								
110	310 - Herbac	eous Open	land	Nonst	ocked	10.7		Immature	No		Pipeline/Electric line	
111	42110 - Pla	nted Red P	ine F	Poletimb	oer Well	64.8	50	111-140	N/A		Stand density varies.	
	Canopy Species	% Cover	Size Class	DBł	H Age	Sub-Ca	anopy Specie	es Density	Avg. Height	Size		
	Red Pine	85	Pole/Log	8	50	Re	ed Maple	Medium	5 - 10 feet	Sapling		
	Black Cherry	5	Pole	8								
	White Pine	5	Pole/Log	8								
	Red Maple	5	Pole	8								
113	4130	- Aspen		Saplin	g Well	22.4	5	Immature	N/A			
	Canopy Species		Size Class	DBI	H Age							
	Bigtooth Aspen	35	Sapling	1	5							
	Black Cherry	20	Sapling	1	5							
	Sugar Maple	5	Pole/Sapling	6								
	Quaking Aspen	30	Sapling	1	5							
	Red Maple	10	Sapling	1	5							
116	3102	- Grass		Nonst	ocked	13.4			No		log landing in stand from adjacent stand thinning	
119	4133 - Aspe	en, Mixed P	ine f	Poletimb	oer Well	0.6	65	51-80	N/A		retention island	
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	anopy Specie	es Density	Avg. Height	Size		
	White Pine	35	Pole/Log	8		W	hite Pine	High	Variable	Sapling		
	Red Maple	25	Pole/Log	8								
1	Bigtooth Aspen	40	Pole/Log	8	65							