

Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61149 Entry Year 2025 Acreage: 1,257

County Kalkaska

Management Area: High Sand Plains

Stand Examiner: Thomas Peterson III

Legal Description:

T25N,R5W, Sec. 35 & 36

Identified Planning Goals:

This compartment falls within the Upper Muskegon Management Area. There are 185,682 acres of state forest land in this MA, primarily located in Missaukee and Roscommon Counties with smaller portions in Wexford, Kalkaska, Mecosta, Crawford, Clare and Gladwin Counties. Vegetation management in the Upper Muskegon management area will provide timber products; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for the next ten years will focus on harvesting older jack pine and balancing age class distributions of oak, aspen and red pine. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation. Expected trends within the next decade are the need to manage exotic species (especially Phragmites and glossy buckthorn), the need to continue to manage cover types for a balanced age class distribution and an expected increase in recreation pressure.

Soil and topography:

Soil is Graycalm-Grayling Sands. Topography is rolling to steep hills between 6 to 18 percent slopes.

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

Located in the most southeasterly part of the county, this compartment is a solid block of state ownership. It contains mostly oak, which contrasts to the flat, jack pine plains that surround it. It also contains the point of the highest elevation in the area. To the east is Crawford County, southeast is Roscommon County, and to the south is Missaukee County. There are a few private holdings around the compartment. These are mainly undeveloped and held mostly as recreational hunting areas.

Unique Natural Features:

Nothing listed with-in compartment.

Archeological, Historical, and Cultural Features:

Non known at this time.

Special Management Designations or Considerations:

None listed with-in compartment..

Watershed and Fisheries Considerations:

No water in this compartment.

Wildlife Habitat Considerations:

This compartment falls onto two ecological landscapes. An ice contact ridge with excessively drained loamy sand occupies most of the compartment. Historically, this landscape was predominantly red and white pine forest with some components of oak and jack pine, affected largely by wildfires encroaching from adjacent outwash plains. The outwash plain was dominated by fire-dependent communities of jack pine, mixed pine forest, and barrens, and is found here mainly in the NE corner of section 36.

The ice contact ridge landscape is currently occupied by oak, aspen, and pine stands. Creating a pattern of various age classes of these types will be beneficial to diverse wildlife species including gray squirrel, wild turkey, scarlet tanager, red-backed salamander, blue jay, hog-nosed snake, deer, and broad-winged hawk. Regeneration harvests should include residual mature trees and down logs for within-stand diversity and should retain as many snags as possible if present. Pockets of remnant red pine should be retained for structural diversity.

Wildlife opening maintenance, especially through burning of brushlands in and adjacent to the outwash plain landscape, will benefit species such as badger, garter snake, coyote, field sparrow, cedar waxwing, and red-tailed hawk. Native warm

season grasses and fruiting shrubs should proliferate under a burn regime. The perpetuation of grassland/forest edge ecotone will benefit additional species that require components of both forested communities and grasslands.

Mineral Resource and Development Concerns and/or Restrictions

Sections 35-36, T25N-R5W, Kalkaska County

There is no known metallic mineral potential in this part of the state. The nearest active sand/gravel pit is more than five miles away. Good potential exists for sand & gravel within the compartment, but the compartment might be too far from populated areas (markets) to have much economic potential beyond use by the county road commission or DNR for local road maintenance. Active oil & gas production is occurring immediately south of the compartment. Oil & gas production in the area primarily occurs from structural highs in the basin. Most fields are quite mature and are unlikely to see future expansion, and there is low probability for discovery of new, similar fields targeting the same formations. Some testing and minor production from the Collingwood Formation occurred a few miles to the west, but the Collingwood has not been proven to be economical to produce commercially. Potential for additional oil & gas development within the compartment is considered low at this time.

Vehicle Access:

Vehicle access is good. No new roads needed. Most of the unnecessary roads have been blocked off and don't need further attention.

Survey Needs:

No survey needs for this compartment. Entire compartment is owned by State of Michigan.

Recreational Facilities and Opportunities:

The West Higgins Snowmobile Trail #6 runs along South County Line Road at the southern border of this compartment. Approximately 2.5 miles of the West Higgins ORV Trail runs predominantly East/West through the compartment. The West Higgins ORV trails shares dual use as the Michigan Cross Country Cycle Trail in the SE portion of the compartment. The West Higgins ORV route is designed for 50" wide vehicles or less (ATV's). Proposed timber management activities should include trail protection specifications to reduce impacts, as well as serve as an example of how silviculturally sound timber harvesting practices can co-exist, and often improve recreation and hunting experiences for future generations. Treatments proposed directly adjacent to the ORV trail tread should include either a "flush cut" specification, or be stumped high enough (3 feet) to avoid being hidden by perennial flora (ferns).

Fire Protection:

Fire protection comes from Kalkaska Field Office. Compartment is the southeastern part of Kalkaska County. To the east is Crawford County, southeast is Roscommon County, and to the south is Missaukee County. County roads and State two tracks allow for easy access for fire equipment.

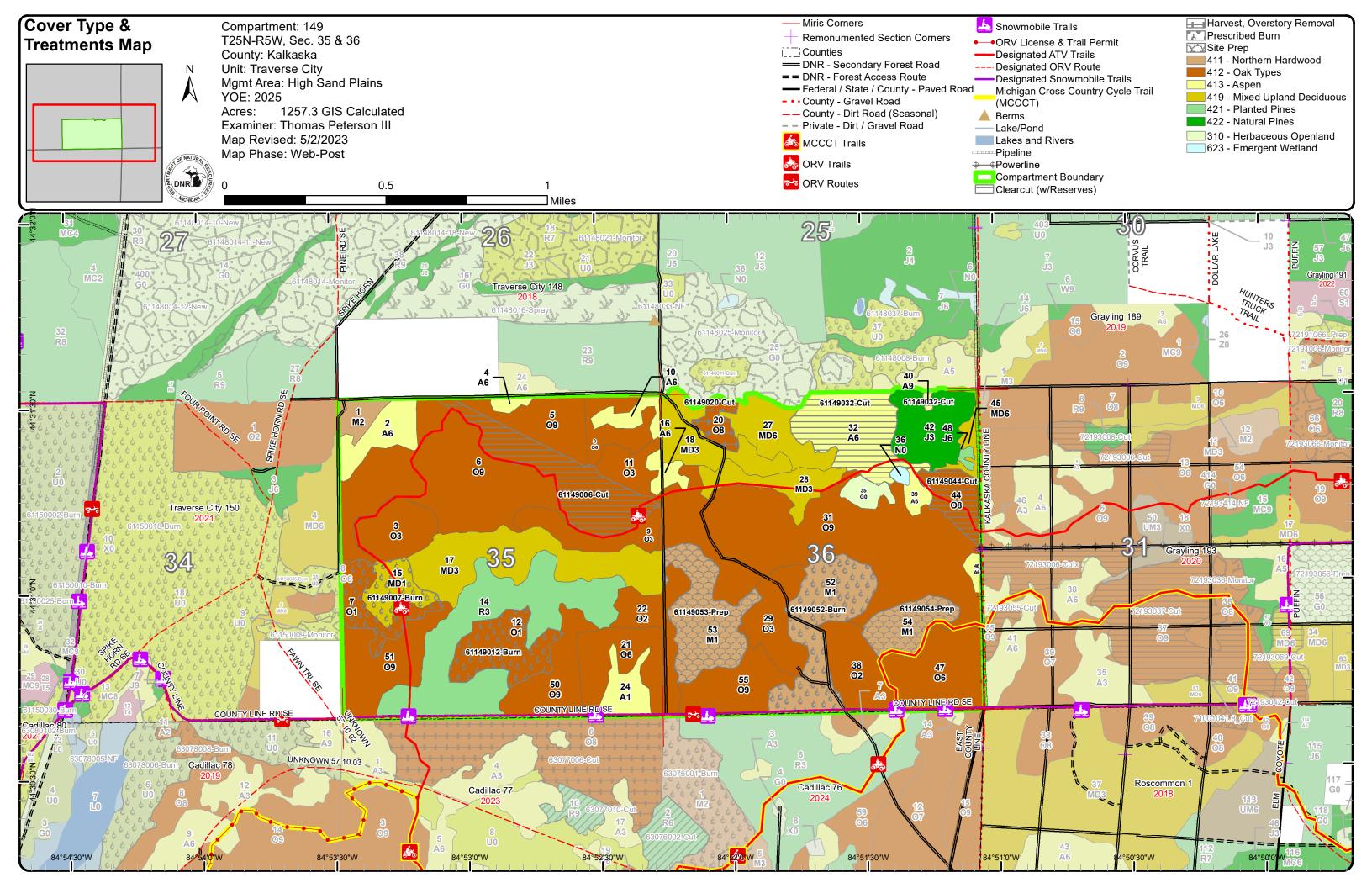
Additional Compartment Information:

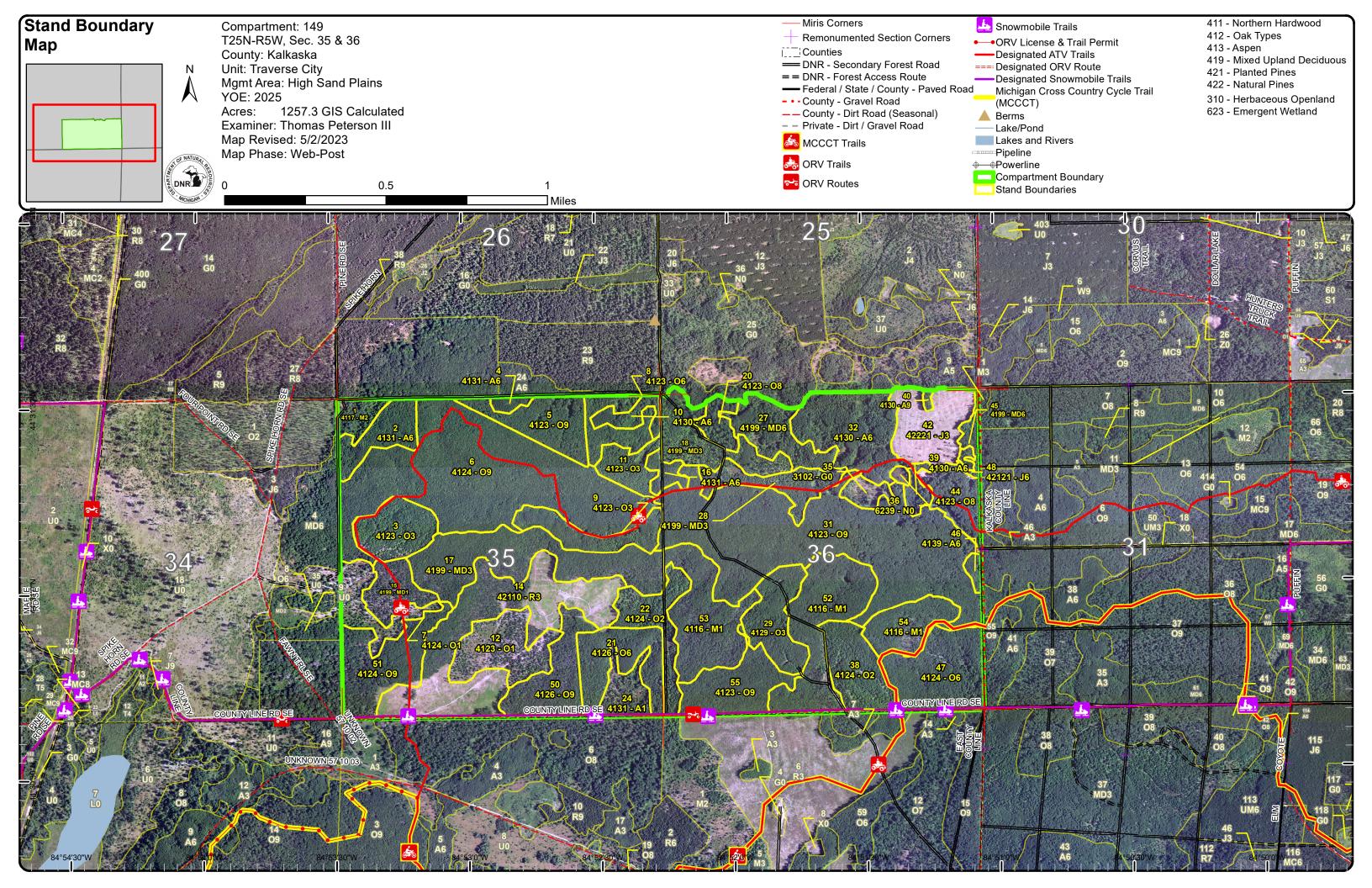
The following reports from the Inventory are attached:

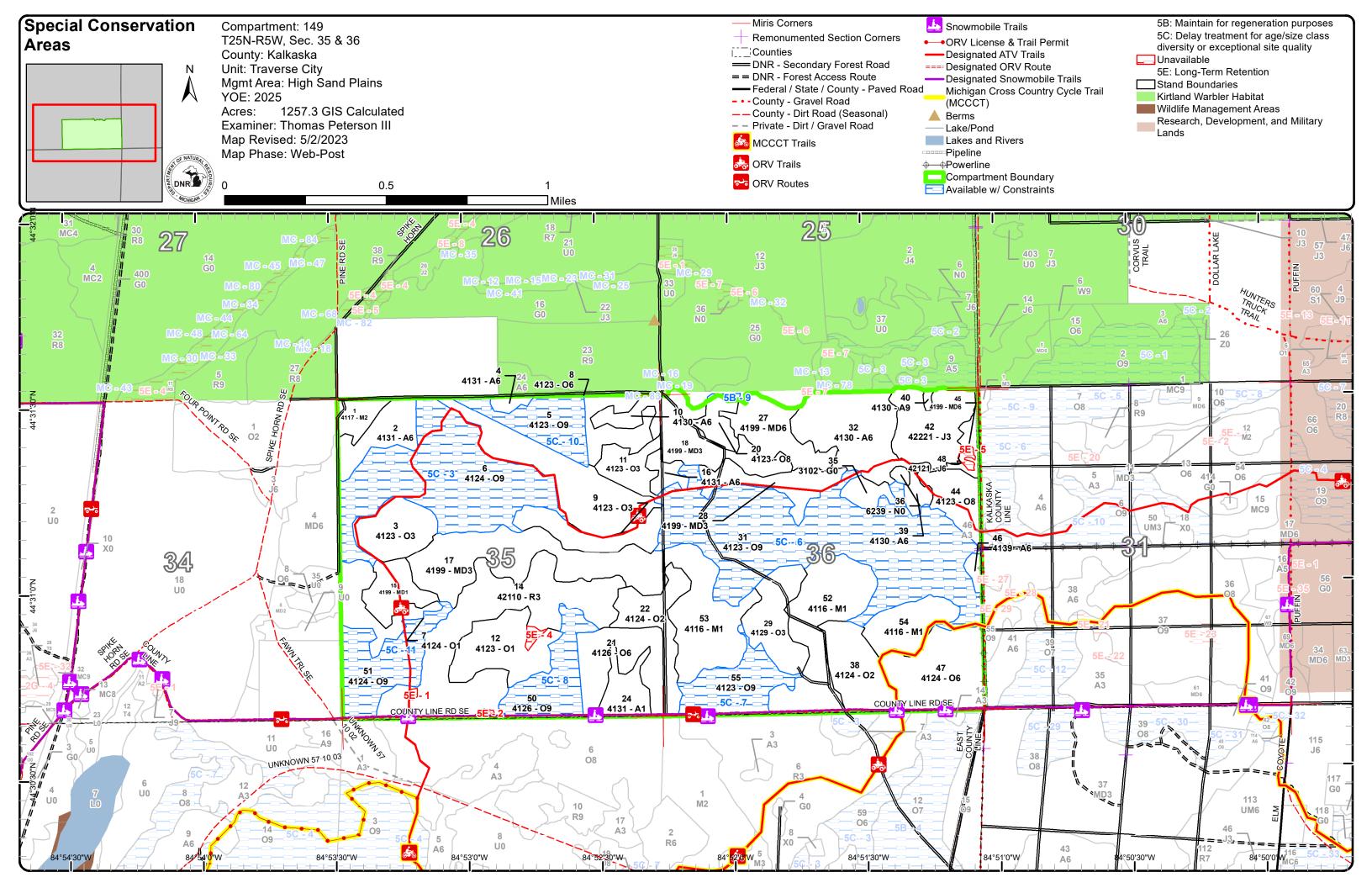
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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

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







Traverse City Mgt. Unit

Compartment 149 Year of Entry 2025

Thomas Peterson III: Examiner



Age Class

	/		/			/		_ /	/	/		/		, , /	/ /	/	/ /	/	Z Z	
	\ \$6		3 / 8		\$ \\ \&								a a						Ex. \790	
Aspen	0	0	0	5	23	75	0	1	0	0	0	0	0	0	0	0	0	0	104	
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
Jack Pine	0	32	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	34	
Marsh	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Mixed Upland Deciduous	0	79	29	20	0	24	6	0	0	0	0	0	0	0	0	0	0	0	157	
Northern Hardwood	0	116	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125	
Oak	0	0	0	140	46	73	17	0	0	464	0	0	0	0	0	0	0	0	739	
Red Pine	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	
Total	9	315	38	165	69	172	23	3	0	464	0	0	0	0	0	0	0	0	1256	



Report 2 – Treatment Summary

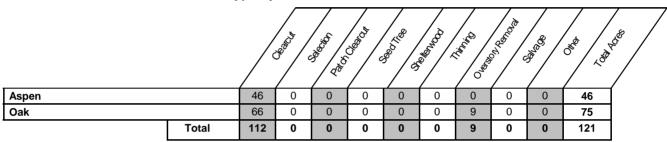
Traverse City Mgt. Unit Year of Entry: 2025

Acres of Harvest

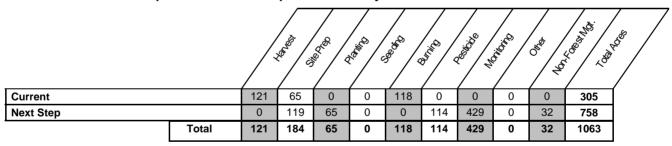
Compartment 149
Total Compartment Acres: 1,257

Commercial Harvest - 121 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Age



Habitat

Cut

S t а Treatment RΔ Treatment **Cover Type** Acres Stand Size Stand Treatment n Method Objective Name CoverType Density Age Range Type Structure d

Proposed Treatments:

61149006-Cut 48.6 4124 - Red with Sawtimber 88 111-Harvest Clearcut with 412 - Oak Types Even-Aged No White Oak Well 140 Retention

Clearcut with Retention. Retention should be left along ATV trail. Only a portion of stand 6 will be harvested at this time. Cut all trees 2 Prescription inches or more at DBH. Use oak wilt spec no exemptions to protect oak. Mark to leave a few scattered white oaks in stand for seed source. Specs: Do not leave any red oak for oak wilt concerns. If there is any pine that can be marked to leave as well. Do not leave more than 1 tree per acre due to any follow up treatments. Cutting only on one side of ATV trail to protect trail, use ATV spec to protect trail during harvest.

Scarify Stand after harvest to promote oak sprouts.

Monitoring, Natural Regen (Re-Inventory); SitePrep, Trenching; SitePrep, Scarification; Monitoring, Other - Specify; Pesticide, Skidder -Next Step Site Prep Treatments:

Acceptable Fully to Moderately Stocked Stand of oak, with a mix of aspen and red maple and pine.

Regen: Other

If Scarification does not work, consider burning stand to stimulate oak. If burning does not work trench stand to see if the oak can be

stimulated. If this stand fails to be an oak stand after all options were exhausted, then plant red pine in trenches. Comment:

Site Condition

Proposed Start Date: 10/1 /2024

7 61149007-36.0 4124 - Red with Sapling 27 Immatu Burn 330 - Low-Nο Opening White Oak Poor **Density Trees** Burn

Prescription Burn on a rotational basis. The goal of prescribed burning is to restore and/or maintain a grassland/barrens ecosystem. The timing and frequency of the burns will be based on currents needs of restoration such as reducing woody encroachment or promoting grasses versus Specs: 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 Monitoring, Prescribed Burn **Treatments:**

Acceptable

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023

NonForestMgt, Other - Specify

Sapling 61149012-31.7 4123 - Red Oak 26 Immatu Burn 330 - Low-Nο 12 Opening

Poor **Density Trees** 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 **Treatments:**

Specs:

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2024

DNR MICHIGAN	SOURCES
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a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
20	61149020-Cut	9.0	4123 - Red Oak	Sawtimbe Medium		1-50	Harvest	Overstory Removal	4319 - Mixed Upland Forest	Even-Aged	No

<u>Prescription</u> Overstory removal with no retention due to small size of stand. Protect all trees less than 4 inches during harvest. Use oak wilt spec with no exemptions during harvest.

Next Step Treatments:

S

Acceptable Fully Stocked Stand of aspen, red maple, oak, cherry or pine

Regen:
Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2024

32 61149032-Cut 46.0 4130 - Aspen Poletimber 46 51-80 Harvest Clearcut with 413 - Aspen Even-Aged No Well Retention

<u>Prescription</u> Clearcut stand with retention. Leave Retention around stand 36 and ATV trail. Cut all tree 2 inches or greater. Use ATV trail specs during <u>Specs:</u> timber harvest. Use Grouse Drumming Spec in Sale Area.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully socked stand of aspen, with any mixture of red maple, cherry or pine.

Regen:
Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2024

44 61149044-Cut 17.5 4123 - Red Oak Sawtimber 88 81-110 Harvest Clearcut with 4319 - Mixed Even-Aged No Retention Upland Forest

<u>Prescription</u> Clearcut stand with Retention. Leave Retention along ATV trail and use ATV protection spec well setting up timber. Cut all trees 2 inches or <u>Specs:</u> greater in DBH. Use Oak wilt spec no exemptions on this stand.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully to moderately stocked Stand of Oak, Red Maple, Aspen, White Pine, Jack Pine, or Red pine.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2024

52 61149052- 50.7 4116 - Mixed N. Sapling 6 Immatu Burn Opening 412 - Oak Types Even-Aged No Burn Poor re

<u>Prescription</u> Burn stand to set back maple and to try to stimulate oak that have been deer browsed. Objective of burn is to promote oak growth. Start <u>Specs:</u> burn plan and burn as soon as compartment goes through compartment review.

Next Step Monitoring, Prescribed Burn

Treatments: ; Monitoring, Natural Regen (Re-Inventory)

Acceptable Oak, pine or aspen is acceptable.

Regen:

Other Stand will need to be given FTP number and given to 50 for burn write up after compartment review process has been completed.

Comment:

Site Condition

Proposed Start Date: 10/1 /2023

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 149 s Year of Entry: 2025 t а **Treatment** Size **Treatment** Stand BA **Treatment Cover Type** n Acres Stand Age Habitat Name CoverType Density Method Objective Structure Age Range Type Cut d 53 61149053-4116 - Mixed N. 42210 - Natural 43.7 Sapling 5 Immatu SitePrep Trenching Even-Aged Nο Hardwood - Aspen Poor Red Pine Prep Prescription Trench to Plant stand to red pine. Use any follow up treatments necessary to get fully stocked stand of red pine. Start 10/1/23 as soon as compartment review is completed. Specs: Pesticide, Aerial - Site Prep; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) Next Step **Treatments:** Acceptable Fully stocked red pine stand with any oak component is acceptable. Regen: Other Comment: Site Condition

Proposed Start Date: 10/1 /2023

54 61149054- 21.6 4116 - Mixed N. Sapling 6 Immatu SitePrep Trenching 4211 - Planted Even-Aged No Prep Hardwood - Aspen Poor re Red Pine

<u>Prescription</u> Trench Stand to plant red pine. Start site prep as soon as treatment is approved in compartment review.

Specs:

Next Step SitePrep, Roller Chopping; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial

<u>Treatments:</u> Regen(3yr)

Acceptable Fully stocked stand of red pine. if oak comes in with trenching consider allowing it to be mixed stand

Regen:

<u>Other</u>

Comment:

Site Condition

Proposed Start Date: 10/1 /2023

Total Treatment Acreage Proposed: 304.8

Traverse City Mgt. Unit

Thomas Peterson III: Examiner

Availa	ability for	Managemer	nt					
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Cond	ditions
Acres	Available	With Condition	Not Available		5B	5C	5E	
104	104	0	0	Aspen				
7	7	0	0	Herbaceous Openland				
34	32	0	2	Jack Pine			2	
2	2	0	0	Marsh				
159	159	0	0	Mixed Upland Deciduous	0			
125	125	0	0	Northern Hardwood				
739	351	388	0	Oak	0	388		
88	85	0	3	Red Pine			3	
1,257	865	388	4	Total Forested Acres	0	388	4	
	69%	31%	0%	Relative Percent				<u>-</u>

^{*}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	Unavailable 5E: Long-Term Retention		Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
2	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	101	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

Report 4 – Site Conditions

Traverse City Mgt. Unit
Thomas Peterson III: Examiner

4	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	162	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	31	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	30	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
9	Available	5B: Maintain for regeneration purposes	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 4 – Site Conditions

Traverse City Mgt. Unit

Compartment: 149 Year of Entry: 2025 **Thomas Peterson III: Examiner**

10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	27	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
11	Available	5C: Delay treatment for age/size class diversity or	37	Unspecified	Unspecified	Unspecified	Unspecified
		exceptional site quality					

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: 149





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 D Area		Description HCVA = High Conservation Va SCA = Special Conservation A							
	Designated Critical Habitat	Critical habitat areas are established via a consultative U.S. Fish and Wildlife service for the recovery of threa 365, Endangered Species Protection, of the Natural RepA 451, and the Federal Endangered Species Act of 1 species plans in various stages of review. As of now of Plover Habitat.	stened and endangered species, as governed by Part esources and Environmental Protection Act, 1994 1973. This is an active program, with proposed						



Stan	d Level 4 Co	over Type	S	ize De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
1	4117 - Mixed N.	Hardwood	- Pine Sa	apling I	/ledium	9.1	15	Immature	N/A		2023 - Mature jack pine in NW part of stand, a few larger scattered oaks
	Canopy Species	% Cover	Size Class	DBH	Age						throughout stand. Stand has some open areas and dense pockets of immature cherry.
	Bigtooth Aspen	5	Sapling/Pole	2							,
Bla	ick/Red (Hybrid) Oak	5	Log/Pole/Sap	16							
	Red Maple	15	Sapling/Pole	4							
	Jack Pine	30	Pole/Sapling	7	10						
	Black Cherry	45	Sapling/Pole	4	15						
2	4131 - A	spen, Oak	Po	oletimb	er Well	18.7	47	51-80	N/A		2023 - Stand is a fully stocked aspen stand with a with nice mix of oak.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Red Maple	5	Pole/Log	8							
	White Oak	10	Pole/Log	8							
	Bigtooth Aspen	60	Pole/Log	9	47						
	Black Cherry	5	Pole/Sapling	5							
	Red Oak	20	Pole/Log	9							
3	4123 -	Red Oak	:	Sapling	ı Well	23.8 27 Im			N/A		2023 - Stand is transitioning from sapling to pole at this time. Stand will
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	be pole stand in 10 years. Giant hole at top of hill, old homestead?1996 - Stand was final harvested as part of sale
	Bigtooth Aspen	10	Sapling/Pole	4		Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub	
	White Oak	10	Sapling/Pole	4							
	Red Oak	70	Sapling/Pole	4	27						
	Red Maple	10	Sapling/Pole	4							
4	4131 - A	spen, Oak	Po	oletimb	er Well	3.2	44	81-110	N/A		2023 - Nice aspen clone with some oak and red maple mixed in it.
	Canopy Species	% Cover	Size Class	DBH	Age						Stamd was final harvested 1977 undwr contract Sale #23-77
	Red Maple	10	Pole/Sapling	6							otalia nao ilia narvottoa 1077 anam contract care 720 77
	Red Oak	20	Pole/Sapling	6							
	White Oak	10	Pole/Sapling	6							
	Bigtooth Aspen	60	Pole/Log	9	44						
5	4123 -	Red Oak	Sa	awtimb	er Well	26.7	89	81-110	N/A		2023 - Stand has Michigan State Oak Regeneration study in it. Stand
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	thinning back in 2007 did not recruit much oak in understory. 2007 - Stand was thinned as part of sale Compartment 49 Sale (61-083-
	Bigtooth Aspen	5	Log/Pole	12		R	ed Oak	Low	Variable	Sapling	96)
	Dad Manla	10	Log/Pole	12		Wh	nite Oak	Low	Variable	Sapling	
	Red Maple	10	5								
	White Oak	15	Log/Pole	12		Re	ed Pine	Low	Variable	Sapling	



Stand	d Level 4 C	over Type	:	Size De	nsity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
6	4124 - Red v			awtimb	er Well	149.7	88	111-140	N/A		2023 Stand has little to understory throughout stand. Red oak saw size, white oak pole. rolling hills. dead oak in stand
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	5	Pole/Log	9		Wito	h Hazel	Low	Variable	Tall Shrub	' '
	White Oak	40	Pole/Log	9	88	Wh	ite Pine	Low	Variable	Sapling	portion of this stand needs to be left as retention from the adjacent stands/sales (3-15 acres).
	Red Oak	55	Log/Pole	12	88						statius/sales (5-15 acres).
7	4124 - Red v	with White	Oak	Sapling	Poor	19.2	27	Immature	N/A		2023 - Scattered larger red oak, stand is seeding in. Stand is part of old
	Canopy Species	% Cover	Size Class	DBH	Age						burn area. 1995 - Sale was final harvested as part of County Line Oak Salvage (61-068-94)
	Jack Pine	10	Sapling/Pole	3							Calvage (01 000 04)
	Red Oak	50	Sapling/Pole	3	27						
	Red Maple	10	Sapling/Pole	3							
	White Oak	30	Sapling/Pole	3							
8	4123 -	Red Oak	P	oletimb	er Well	16.5	50	1-50	N/A		2023 - Stand has a couple aspen clones located throughout it. Stand
	Canopy Species	% Cover	Size Class	DBH	Age						changed from sapling to pole stand this year of entry. Aspen and red maple are poor quality multi stem sprouts.
	Red Oak	70	Pole/Log	8	50						maple are poor quality multi stem sprouts.
	Bigtooth Aspen	10	Pole	6							
	Red Maple	10	Pole/Sapling	6							
	White Oak	10	Pole/Log	8							
9	4123 -	Red Oak		Sapling	ı Well	20.1	33	Immature	N/A		2023 - Stand should transition to pole stand next year of entry.
	Canopy Species	% Cover	Size Class	DBH	Age						1989 - Stand was final harvested - Sale #30-86
	Red Maple	10	Sapling/Pole	4							
	Red Oak	60	Sapling/Pole	4	33						
	Bigtooth Aspen	20	Sapling/Pole	4							
	White Oak	10	Sapling/Pole	4							
10	4130	- Aspen	Р	oletimb	er Well	8.3	45	81-110	N/A		2023 - Stand could be harvested at this time. Stand could also be held
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	for 10 years no concerns at this point in time.
	Bigtooth Aspen	87	Pole	9	45	Red	d Maple	Medium	Variable	Sapling	
	Red Oak	3	Pole/Sapling	6		Re	ed Oak	Low	Variable	Sapling	
	Red Maple	10	Pole	8		Wh	ite Oak	Low	Variable	Sapling	
11	4123 -	Red Oak		Sapling	y Well	13.5	24	Immature	N/A		2023 - Fully stocked stand, with a mix of pole and saplings in it at this
	Canopy Species	% Cover	Size Class	DBH	Age						time. Quality is poor quality with a lot multi stem trees from stump sprouts.
	Red Maple	35	Sapling/Pole	4							2007 - Stand was final harvested as part of sale Compartment 49 Sale
	Red Oak	55	Sapling/Pole	4	24						
	White Oak	10	Sapling/Pole	4							



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Site	General Comments
12	4123 -	Red Oak		Sapling	Poor	31.7	26	Immature	N/A	2023 - Stand and scattered oak throughout sand is in sapling stage with
	Canopy Species	% Cover	Size Class	DBH	Age					some oaks turning into pole size at this time. Stand has several open areas as well. Stand is part of an old burn that has been done in the past,
	Red Oak	80	Sapling	4	26					1995 - Sale was final harvested as part of County Line Oak Salvage (61-
	Black Cherry	5	Sapling	2						068-94)
	White Oak	10	Sapling	2						
	Jack Pine	5	Sapling	2						
14	42110 - Plai	nted Red Pi	ne	Sapling	y Well	87.7	5	Immature	N/A	2023 - Planted Red Pine is about 3-5 foot tall at this time. Stocking Level
	Canopy Species	% Cover	Size Class	DBH	Age					Looks good across the stand. 2020 - Stand was Released Sprayed
	Black Cherry	3	Sapling	1						2019 - Stand was planted in Spring
1	Northern Pin Oak	5	Sapling	1						2018 - Stand was Trenched.
	Red Pine	90	Sapling	1	5					2017 - Sale was final harvested 149 County Line Oak (61-134-15)
	Bigtooth Aspen	2	Sapling	1						
15	4199 - Other Mixe	lixed Upland Deciduous Sapling Poor 16.8 4		Immature	N/A	2023 - Stand was originally part of stand 17. This portion of the stand did not regenerate as is poorly stocked at this time.				
	Canopy Species	% Cover	Size Class	DBH	Age					not regenerate as is poonly stocked at this time.
	Bigtooth Aspen	20	Sapling	1	4					2019 - Stand was Clearcut as part of sale 149 Ole Salvage (61-167-16)
	Red Maple	30	Sapling	1	4					
	Red Oak	30	Sapling	1	4					
	White Oak	20	Sapling	1						
16		spen, Oak	Size Class	Poletimb	1	6.3	32	1-50	N/A	2023 - Sale has turned into pole stand since last year of entry. 1986 - Sale was cut in 1986 under contract Sale #30-86
	Canopy Species Bigtooth Aspen	50	Pole/Sapling		Age 32					
	White Oak	10	Pole/Sapling	,	32					
	Red Oak	30	Pole/Sapling							
	Red Maple	10	Pole/Sapling	,						
17	4199 - Other Mixe			Sapling	ı Well	62.4	5	Immature	N/A	2023 - Stand is fully stocked with some open areas. Part of stand that
	Canopy Species	% Cover	Size Class	DBH	Age					did not regenerate well, were removed and their own stand was made for follow up treatment.
	Bigtooth Aspen	20	Sapling	1	5					2019 - Stand was Clearcut as part of sale 149 Ole Salvage (61-167-16)
	Red Oak	35	Sapling	1	5					
	Red Maple	25	Sapling	1	5					
	White Oak	20	Sapling	1	5					

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Stand	d Level 4 C	Size De	ensity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments		
18	4199 - Other Mixe	eciduous	Sapling Well		28.5	14	Immature	N/A		2023 - Stand is still in sapling stage, with some scattered larger oak in	
	Canopy Species	% Cover	Size Class	DBł	l Age						it.2007 - Sale was final Harvested as part of sale Four Corners Oak (61-074-05)
	White Oak	2	Log	14							
	White Oak	10	Sapling	2							
	Red Maple	30	Sapling	2	14						
	Bigtooth Aspen	30	Sapling	3	14						
	Red Oak	2	Log	16							
	Red Oak	26	Sapling	2	14						
20	4123 -	Red Oak	Sa	awtimber Medium		9.0	88	1-50	N/A		2007 - Stand was thinned as part of sale Compartment 49 Sale (61-083-
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	96)
	White Oak	10	Log	16		Re	d Oak	Low	Variable	Sapling	
	Red Oak	90	Log/XLog	16	88	Red	Maple	High	Variable	Sapling	
				·		Whi	te Oak	Low	Variable	Sapling	
21	4126 - White, I	Black, N. Pi	n Oak F	Poletimb	er Well	31.0	46	1-50	N/A		2023 - Stand is fully stocked at this time. No issues with this stand were found.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	Tourid.
	Bigtooth Aspen	8	Pole/Sapling	6		Oak	(spp.)	Low	5 - 10 feet	Sapling	
	White Oak	55	Pole/Sapling	6	46						
	Red Oak	35	Pole/Sapling								
	Red Pine	2	Log/Pole	12							
22	4124 - Red	with White Oak		Sapling Medium		24.0 25		Immature	N/A		2023 - Stand should become pole size oak stand next year of entry.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	Stand has a lot of single stem oaks 2007 - Stand was final harvested as part of sale Compartment 49 Sale (61-083-96)
	Red Maple	5	Sapling/Pole	4		Witc	h Hazel	Low	Variable	Tall Shrub	
	Bigtooth Aspen	20	Sapling/Pole	4							
	Red Oak	50	Sapling/Pole	4	25						
	White Oak	25	Sapling/Pole	4							
24	4131 - <i>A</i>	spen, Oak		Sapling	Poor	14.1	32	Immature	N/A		2023 - Stand should turn to pole stand next year of entry. Pocket of white
		0/ 0	Size Class	DBF	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	pine in stand with several open areas. Let stand become merchantable and consider clearcutting to expand aspen clones.
	Canopy Species	% Cover	Size Class	וטט	- Age						and consider stationting to expand depoin delice.
	Canopy Species White Pine	% Cover	Log/Pole	10	Age	Oak	(spp.)	Medium	Variable	Sapling	·
				10	, Age	Oak	(spp.)	Medium	Variable	Sapling	
	White Pine	3	Log/Pole	10	32	Oak	(spp.)	Medium	Variable	Sapling	

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Stand	Level 4 Cover Type			Size Density		Acres	Acres Stand Age BA Range		Managed S	Site	General Comments
27	4199 - Other Mixe	eciduous F	Poletimber Well		24.2	46	51-80	N/A		2023 - Stand appears to be old species removal. No cut records could	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	be found. Oak is much bigger than red maple and aspen at this time.
	Red Oak	40	Pole/Log	9	46	Wite	ch Hazel	Low	Variable	Tall Shrub	
	Red Maple	19	Pole/Sapling	6				,			-
	White Oak	3	Pole	8							
	Bigtooth Aspen	38	Pole	8	46						
28	4199 - Other Mixe	d Upland D	eciduous	Saplin	g Well	20.3	25	1-50	N/A		2023 - Stand should be in pole size next year of entry. There are some
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	pole size trees in stand already. 2007 - Stand was final Harvested as part of sale Compartment 49 Sale
	Bigtooth Aspen	30	Sapling/Pole	3	25	Wite	ch Hazel	Low	5 - 10 feet	Tall Shrub	(61-083-96)
	Red Maple	35	Sapling/Pole	3	25			,			-
	Red Oak	30	Sapling/Pole	3	25						
	White Oak	5	Sapling/Pole	4							
29	4129 - N	Mixed Oak		Sapling	g Well	26.0	33	Immature	N/A		2023 - Stand should transition to pope stand next year of entry.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	1989 - Sale was finaly harvest under contract Sale #30-86
	Red Oak	30	Sapling/Pole	4			ch Hazel	Low	5 - 10 feet	Tall Shrub	
	White Oak	35	Sapling/Pole	4	33						
	Bigtooth Aspen	18	Sapling/Pole	4							
	Red Maple	17	Sapling/Pole	4							
31	4123 -	3 - Red Oak		Sawtimber Well		162.3 88		111-140	N/A		2023 - Some oak die back mostly likely do to stand self-thinning itself.
	Canopy Species	anopy Species % Cover Size (DBH	l Age	Sub-Canopy Species		Density	Avg. Height	Size	East portion of stand was thinned. We're thinning took place in stand, stand understory is red maple, where no thinning took place stand does
	Red Oak	78	Log/Pole	12	88	Wite	ch Hazel	Low	5 - 10 feet	Tall Shrub	not have an understory at this point in time.
	White Oak	15	Pole/Log	9		Re	d Maple	Low	Variable	Sapling	
	Bigtooth Aspen	4	Log/Pole	12			-		I		2007 - West portion of Stand was thinned as part of sale Compartment 49 Sale (61-083-96)
	Red Maple	3	Pole/Log	8							49 Sale (01-003-90)
32	32 4130 - Aspen Poletim		Poletimb	er Well	44.9 46		51-80	N/A		2023 - Stand has a couple frost bowls / dips in elevation. Stand has a	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	few more open areas. Some aspen is starting to die back. Cut stand to get stand to regeneral
	Red Maple	8	Pole/Sapling	6		Bigto	oth Aspen	Low	Variable	Sapling	before more aspen dies off.
	Black Cherry	8	Pole/Sapling	6		Wh	nite Oak	Low	Variable	Sapling	
	Bigtooth Aspen	84	Pole/Log	9	46	Re	ed Oak	Low	Variable	Sapling	
		1		-		Blac	k Cherry	Low	Variable	Sapling	
						Re	d Maple	Low	Variable	Sapling	
35	3102	- Grass		Nonsto	ocked	7.0	U	Jnspecified	No		2023 - Deep depression / frost bowl. few trees are seeding in at this time
36	6239 - Mixed E	mergent W	etland	Nonsto	ocked	1.7	L	Jnspecified	No		2023 - Cranberry bog with a few spruce trees growing in it. Very unique area, leave retention around stand to protect it with any adjacent cuts.

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Stand	Level 4 C	:	Size De	nsity	Acres	Stand Age E	BA Range	Managed \$	Site	General Comments	
38	4124 - Red with White Oak			Sapling Medium		um 28.1	26	Immature	N/A		2023 - Stand is moderately stocked at this time. Stand should continue to a fill in over the next 10 years and should move into pole size stand next
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	year of entry.
	Red Maple	10	Sapling/Pole	4		Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub	2007 - Stand was final harvested as part of sale Compartment 49 Sale
	Red Oak	60	Sapling/Pole	4	26						(61-083-96)
	White Oak	20	Sapling/Pole	4							
	Bigtooth Aspen	10	Sapling/Pole	4							
39	4130	- Aspen	Р	oletimb	er Well	5.0	25	1-50	N/A		2023 - Large scattered oak in stand with pole size aspen and red maple
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	in it.
	Red Oak	5	Log	16		Re	d Maple	Low	Variable	Sapling	
	Bigtooth Aspen	85	Pole/Sapling	6	25					-	
	Red Maple	10	Pole/Sapling	5							
40	4130	- Aspen	S	Sawtimb	er Well	1.1	63	51-80	N/A		2023 - Stand is fully stocked log size stand.
	Canopy Species % Cover		Size Class	ize Class DBH Age		Sub-Canopy Species		Density	Avg. Height	Size	
	Red Maple	5	Pole/Log	9		Re	d Maple	Low	Variable	Sapling	
	Bigtooth Aspen	95	Log/Pole	12	63	Bigto	oth Aspen	Low	Variable	Sapling	
				Cho	ke Cherry	Medium	Variable	Sapling			
42		1 - Natural Jack Pine, Mixed Sapling Well 32 Deciduous		32.0	7	N/A		2023 - Stand has regenerated to Jack pine very nicely. Stand has a decent mix of deciduous trees as well.			
	Canopy Species	% Cover	Size Class	DBH	Age						2016 - Stand was final harvested as part of sale 149 Jack Aspen (61-132-
	Red Maple	10	Sapling	1	7						15)
	Red Oak	5	Sapling	1	7						
	White Oak	5	Sapling	1	7						
	Black Cherry	5	Sapling	1							
	Jack Pine	60	Sapling	1	7						
44	4123 -	Red Oak	Sa	Sawtimber Medium		n 17.5	88	81-110	N/A		2023 - Stand appear to be thinned. Lots of red maple in understory. No
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	cutting records could be found for this stand.
	White Oak	15	Log/Pole	12		W	hite Oak	Low	Variable	Sapling	
	Red Oak	78	Log/Pole	12	88	Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub	
	Bigtooth Aspen	4	Log/Pole	12		R	ed Oak	Low	Variable	Sapling	
	Red Maple	3	Log/Pole	12		Re	ed Maple	High	Variable	Sapling	

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Stand	Stand Level 4 Cover Type			Size De	ensity	Acres	Stand Age B	A Range	Managed S	Site	General Comments			
45	4199 - Other Mixed Upland Deciduous			Poletimber Well		6.3	53	81-110			2023 - Stand has some nice aspen clones in it. Stand is good mixed stand at this time.			
	Canopy Species		Size Class		l Age		nopy Species		Avg. Height	Size				
	Bigtooth Aspen	35	Pole	8	53	Wit	ch Hazel	Low	Variable	Tall Shrub				
	Red Maple	45	Pole	8	53									
	White Oak	5	Pole/Sapling	9 6										
	Red Oak	14	Pole	8										
	Red Pine	1	Log	12										
46	4139 - Aspen, I	Mixed Deci	duous	Poletimb	er Well	3.0	33	51-80	N/A		2023 - Lots of red maple below aspen. Due to small size of stand cut			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	stand with stand 31 in order to expand aspen clone.			
	Red Oak	5	Pole/Sapling	5		Wit	ch Hazel	Low	5 - 10 feet	Tall Shrub				
	Red Maple	40	Pole/Sapling	9 6					I					
	Bigtooth Aspen	55	Pole	8	33									
47	4124 - Red v	vith White	Oak	Poletimb	er Well	42.3	46	1-50	N/A		2023 - Stand entered pole size class this year of entry. Stand has a			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	couple aspen clone in. Some oak is multi stem from stump sprouting.			
	White Oak	20	Pole/Sapling				ch Hazel	Low	5 - 10 feet	Tall Shrub				
	Bigtooth Aspen	15	Pole/Sapling	7										
	Red Maple	5	Pole/Sapling	1 6										
	Red Oak	60	Pole/Sapling	9 6	46									
48	3 42121 - Planted Jack Pine, Mixed Poleti Deciduous		Poletimb		1.5	63	51-80	N/A		2023 - Jack pine falling out and red maple has taken over. Stand is long term retention for stand 42. All Jack Pine will most likely be dead by new consecution.				
	Canopy Species	% Cover	Size Class	DBH	l Age						year of entry.			
	Jack Pine	80	Pole/Log	8	63									
	Red Maple	20	Pole	8										
50	4126 - White, E	Black, N. Pi	n Oak	Sawtimb	er Well	29.9	87	111-140	N/A		2023 - Stand does have some dead oak scattered throughout it. Stand			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	does seem to have a little bit more white oak than adjacent stands.			
	Red Oak	35	Log/Pole	12		Wh	ite Pine	Low	Variable	Sapling				
	Bigtooth Aspen	15	Pole/Log	8		WI	nite Oak	Low	Variable	Sapling				
	White Oak	50	Log/Pole	10	87	Wit	ch Hazel	Low	Variable	Tall Shrub				
						_			\ / I - I -	Conlina				
						R	ed Oak	Low	Variable	Sapling				
51	4124 - Red v	vith White	Oak	Sawtimb	er Well	37.4	ed Oak 88	111-140	Variable N/A	Sapiling	2023 - Stand has some scattered red pine, stand was burnt 22 years ag			
51	4124 - Red v		Oak Size Class		er Well	37.4		111-140		Size	2013 - Seems to be a lower quality stand heavier to white oak pulp. A			
51						37.4 Sub-Ca	88	111-140	N/A					
51	Canopy Species	% Cover	Size Class Pole/Log	DBH		37.4 Sub-Ca	88 nopy Species ed Oak	111-140 Density	N/A Avg. Height Variable	Size Sapling	2013 - Seems to be a lower quality stand heavier to white oak pulp. A portion of this stand needs to be left as retention from the adjacent			
51	Canopy Species Quaking Aspen Red Pine	% Cover	Size Class Pole/Log Log/XLog	DB H		37.4 Sub-Ca R	88 nopy Species ed Oak nite Pine	111-140 Density Low	N/A Avg. Height	Size Sapling Sapling	2013 - Seems to be a lower quality stand heavier to white oak pulp. A portion of this stand needs to be left as retention from the adjacent			
51	Canopy Species Quaking Aspen	% Cover 15 5	Size Class Pole/Log	DBH 8 16		37.4 Sub-Ca R Wh	88 nopy Species ed Oak	111-140 Density Low Low	N/A Avg. Height Variable Variable	Size Sapling	2013 - Seems to be a lower quality stand heavier to white oak pulp. A portion of this stand needs to be left as retention from the adjacent stands/sales (3-15 acres).			



Stand	Level 4 Co	over Type		Size De	ensity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
52	4116 - Mixed N.	Sapling Poor		50.7	6	Immature	N/A		2023 - Stand is mostly red maple stump sprouts at this time. Stand does		
	Canopy Species	% Cover	Size Class	DBH	l Age						have a few larger pine trees that were left. Stand does have a few aspen pockets that are doing good. Overall Stand is not fully stocked, oak has
	Bigtooth Aspen	20	Sapling	1	6						been browsed heavily by deer.
	Red Oak	10	Sapling	1	6						2019 - Stand was Clearcut as part of sale 149 Ole Salvage (61-167-16)
	White Oak	10	Sapling	1	6						
	Red Maple	60	Sapling	1	6						
53	4116 - Mixed N.	Hardwood ·	- Aspen	Sapling Poor		43.7	5	Immature	N/A		2023 - This stand was originally part of stand 17. This portion of stand
	Canopy Species	% Cover	Size Class	DBH	l Age						had issues regenerating. Stand was broken out to reflect that. 2019 - Stand was Clearcut as part of sale 149 Ole Salvage (61-167-16)
	Red Oak	10	Sapling	1	5						
	Bigtooth Aspen	20	Sapling	1	5						
	Red Maple	60	Sapling	1	5						
	White Oak	10	Sapling	1	5						
54	4116 - Mixed N.	Hardwood -	- Aspen	Sapling		21.6	6	Immature	N/A		2023 - Stand has not regeneration well, little bit of oak that came back was browsed hard by deer
	Canopy Species		Size Class	DBF	l Age						2019 - Stand was Clearcut as part of sale 149 Ole Salvage (61-167-16)
	Red Oak	5	Sapling	1	6						•
	Bigtooth Aspen	20	Sapling	1	6						
	White Oak	15	Sapling	1	6						
-	Red Maple	60	Sapling	1	6						
55	4123 -	Red Oak		Sawtimb	er Well	30.7	88	111-140	N/A		2023 - Stand does have some die back at this time. Some red maple in
	Canopy Species	% Cover	Size Class	DBH Age		Sub-Ca	nopy Specie	s Density	Avg. Height	Size	understory of stand.
	Bigtooth Aspen	4	Log/Pole	12		Re	ed Maple	Medium	Variable	Sapling	
	White Oak	15	Pole/Log	8		Wi	tch Hazel	Low	5 - 10 feet	Tall Shrub	
	Red Oak	78	Log/Pole	12	88						
	Red Maple	3	Pole/Log	8							