

Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61142

Entry Year: 2027

Acreage: 2,115

County: Kalkaska

Management Area: High Sand Plains

Stand Examiner: Thomas Peterson III

Legal Description:

Garfield Township - T25N, R5W, Sec. S1/2 13, 22, 23 & 24

Identified Planning Goals:

Kirtland's Warbler Management Area

Soil and topography:

Grayling Sand. Very Flat well drained

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

Almost this entire compartment is in state ownership. One 40 is privately owned in the SWSW of Sec. 22 and one acre of former school property along Fletcher Road in Sec. 23 has a cabin. An eighty acre parcel in Sec. 22 is owned by the U.S. Fish & Wildlife Service. A TransCanada natural gas pipeline, a high pressure 48" in diameter, runs through compartment.

Unique Natural Features:

This compartment falls within landtype association (LTA) 5111 of sub-subsection VII.2.2. LTA 5111 is a broad flat outwash plain with excessively drained sand and few kettle lakes.

MNFI ecologists have identified a high quality oak-pine barrens community in the southwest quarter of section 22 corresponding to U0 stands 28 and 33, O9 stands 27, 32 and 34, and O3 stand 30. Oak-pine barrens (G2?S2) are characterized by heterogeneous savanna vegetation with scattered and clumped mature oak and pine in a matrix of native grasses. Frequent wildfires were the dominant form of disturbance and the primary ecological process that maintained this community. Modern fire suppression has resulted in a shift in the fire regime and a conversion of many oak-pine barrens to closed-canopy forest. Today only a few hundred acres of high-quality oak-pine barrens exist in the entire state. This site, which occurs on rolling outwash sand and is dominated by scattered white oak and northern pin oak, has an element occurrence rank of C. We strongly encourage the use of prescribed fire to maintain the open structure and floristic diversity of this unique system. GLO surveyors commonly reported evidence of large wildfires within LTA 5111. As indicated by the notes of the original land surveyors the northeastern portion of the compartment contained the fire-dependent pine barrens community.

More than one threatened & endangered species is in this compartment.

Archeological, Historical, and Cultural Features:

Archeological concerns in section 22.

Special Management Designations or Considerations:

Kirtland's Warbler Management Area

Watershed and Fisheries Considerations:

No water in compartment.

Wildlife Habitat Considerations:

Compartment 142 is part of the Fletcher Road Area Kirtland's Warbler Management Unit. The Kirtland's Warbler Recovery Plan was developed in 1976, updated in 1985, and recently underwent a third revision, May 2014, in order to provide state and federal agencies with guidelines for management efforts to increase the Kirtland's warbler population. Kirtland's warblers (KWs) nest in Michigan's northern Lower and Upper peninsulas, in Wisconsin and the province of Ontario. It nests under live branches of five to 20 year old jack pine forests. Kirtland's warblers prefer jack pine stands over 80 acres in size. Jack pine stands are regenerated naturally by wildfires which were common on the sandy outwash plains. However with modern fire prevention and suppression techniques, jack pine is not naturally regenerated like it used to be. In order to provide habitat for KWs, jack pine stands are managed by logging, burning, seeding, and replanting on a rotational basis to provide approximately 38,000 acres of productive nesting habitat at all times. These jack pine stands also provide habitat for the upland sandpiper, Eastern bluebird, white tailed deer, black bear and snowshoe hare, and for several protected prairie

plants, including the Allegheny plum, Hill's thistle, and rough fescue. In the southwest corner of section 22 there is a remnant piece of Oak Pine Barrens, a natural fire-dependent community. This occurrence of barrens has been identified and delineated by ecologists from the Michigan Natural Features Inventory. The main tool for maintenance and restoration of this rare ecosystem will be controlled burning. Other techniques that will be helpful include but not limited to are hand felling of trees, brush hogging, using a forest masticator, herbiciding invasives, seeding/planting native shrubs, forbs, and grasses.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum elsewhere in the state. No gravel pits are in the area, but potential is considered good. Part of Section 13 is within the Beaver Creek Field. Beaver Creek produces oil from multiple zones within the Devonian Detroit River Group and gas from the Ordovician PdC. Most of the State's minerals are currently leased.

Vehicle Access:

Vehicle access is good. Fletcher Road is southern boundary of compartment and can be used as a Class A sale for break up sales. County roads border east and west edge of compartment and run North / South every mile through the compartment. There is also access down the TransCanada Pipeline that runs North / South.

Survey Needs:

Recreational Facilities and Opportunities:

There are no designated recreational facilities or designated trails within this compartment.

Fire Protection:

This compartment falls within Zone 5 of wildfire protection plan. The compartment has large concentration of volatile fuels and has large fires in the past. Units would respond from Kalkaska, Grayling and Roscommon. East side of compartment falls in Beaver Creek Fields and is a no plow zone due to above ground pipelines scattered throughout area.

Additional Compartment Information:

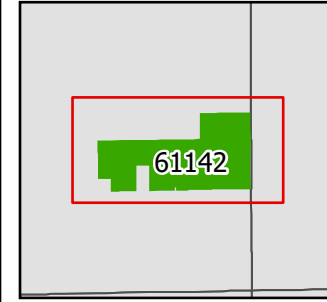
The following reports from the Inventory are attached:

- 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**

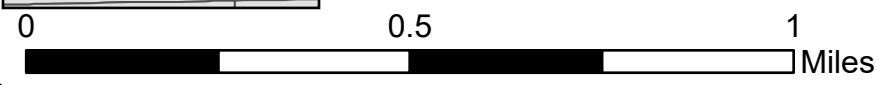
The following information is displayed, where pertinent, on the attached compartment maps:

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

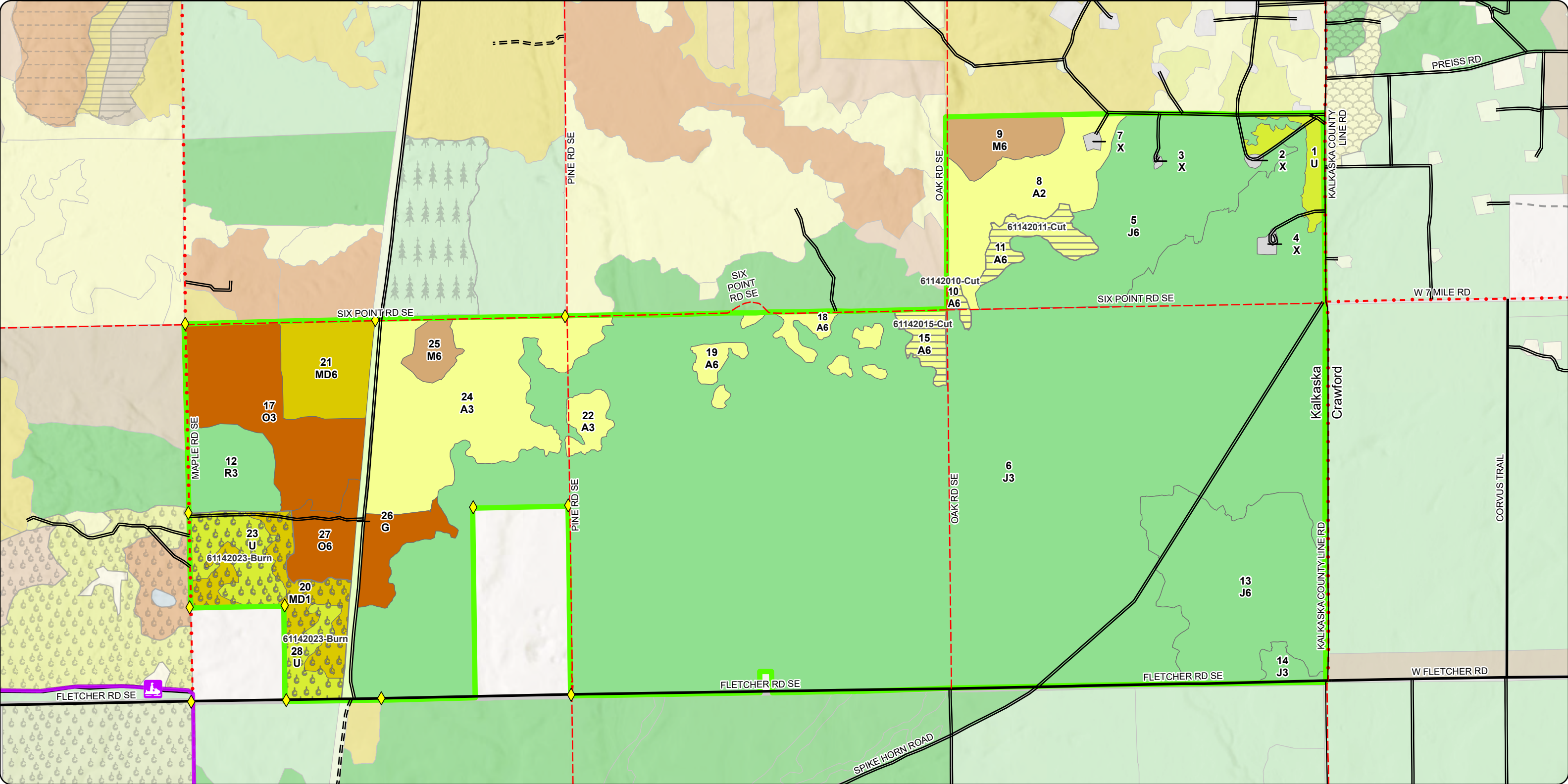
Cover Type & Treatments Map



Compartment: 61142
 T25N R05W S1/2 13, 22-24
 County: Kalkaska
 Unit: Traverse City
 Mgmt. Area: High Sand Plains
 YOE: 2027
 Acres: 2,115 GIS Calculated
 Examiner: Thomas Peterson III
 Date Exported: 1/12/2026
 Map Phase: Post Maps

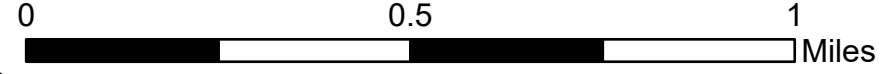
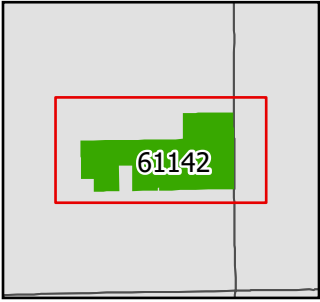


- ◆ Survey Grade Corners
- Designated ORV Routes
- Designated Snowmobile
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- - - County - Gravel Road
- - - County - Dirt Road (Seasonal)
- - - Private - Dirt / Gravel Road
- Compartment Boundary
- Clearcut
- Prescribed Burn
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 330 - Low Density Trees

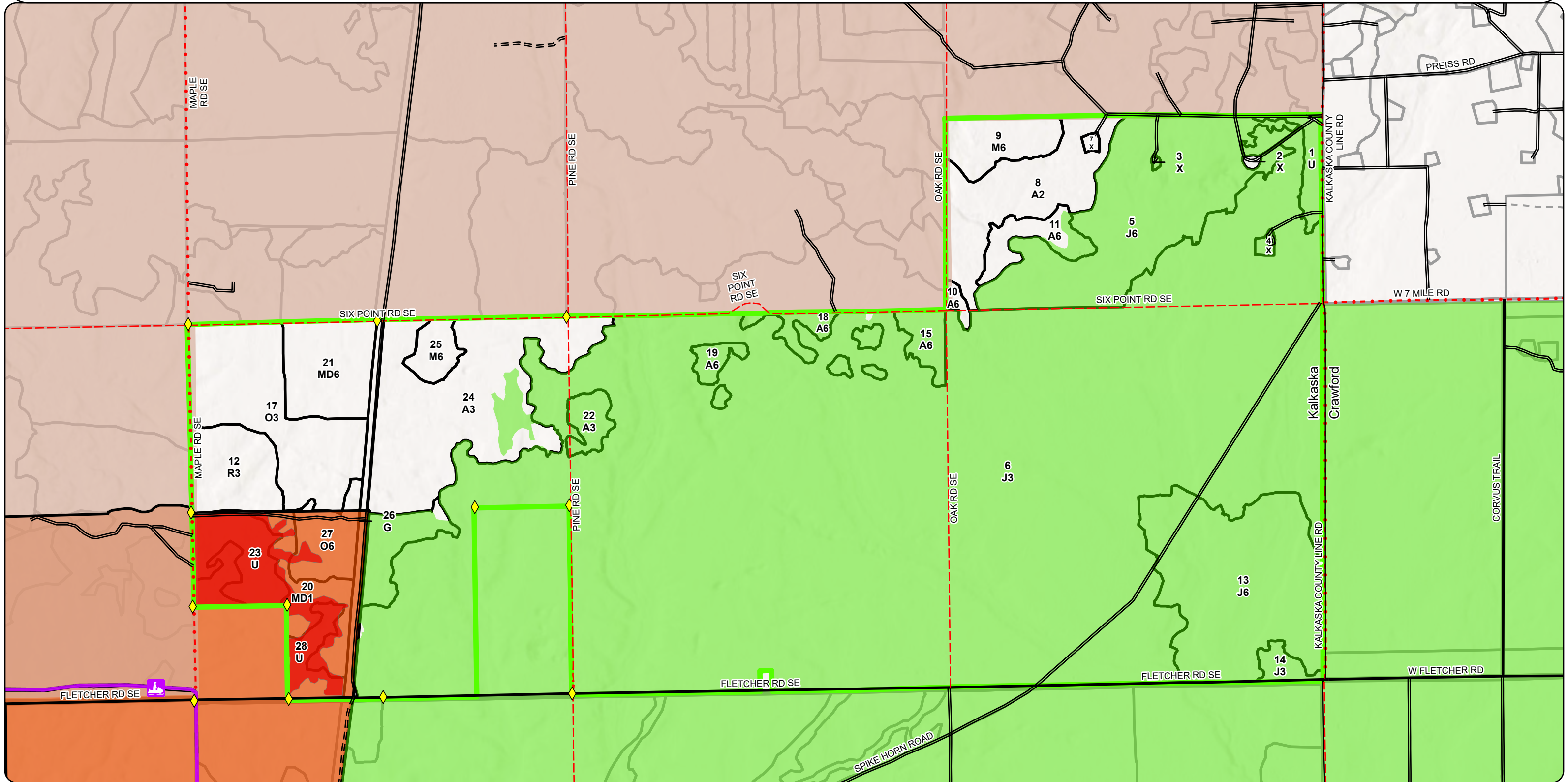


**Special Conservation Areas
& Site Conditions Map**

Compartment: 61142
 T25N R05W S1/2 13, 22-24
 County: Kalkaska
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- Compartment Boundary
- Stand Boundaries
- Ecological Reference Areas
- SCA
- Kirtland's Warbler Habitat
- Research, Development, and Military Lands
- Other Habitat Area



Report 1 – Total Acres by Cover Type and Age Class

Traverse City Mgt. Unit

Compartment 142 Year of Entry 2027

Thomas Peterson III: Examiner

Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	188	0	0	0	0	17	35	0	0	0	0	0	0	0	0	0	0	239
Herbaceous Openland	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Jack Pine	0	0	1298	0	245	0	0	0	0	0	0	0	0	0	0	0	0	0	1543
Low-Density Trees	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
Mixed Upland Deciduous	0	34	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	72
Northern Hardwood	0	0	0	0	0	24	11	0	0	0	0	0	0	0	0	0	0	0	35
Oak	0	78	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120
Red Pine	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	73	332	1298	42	245	24	67	35	0	0	0	0	0	0	0	0	0	0	2114

Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry: 2027

Acres of Harvest

Compartment 142
Total Compartment Acres: 2,115

Commercial Harvest - 62
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

		Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overshory Removal	Salvage	Other	Total Acres
Aspen		31	0	0	0	0	0	0	0	0	31
	Total	31	0	0	0	0	0	0	0	0	31

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		31	0	0	0	75	0	0	0	0	106
Next Step		0	0	0	0	75	0	106	0	0	181
	Total	31	0	0	0	150	0	106	0	0	287

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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Approved Treatments:

10	61142010-Cut	3.0	4130 - Aspen	6	60	51-80	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Final harvest stand. No retention required do to stand being under 5 acres in size. Cut all trees down to 1 inch in DBH.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully stocked aspen stand with any component of oak, cherry, red maple or pine.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

11	61142011-Cut	16.7	4130 - Aspen	6	58	51-80	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Final harvest stand. Leave standard area retention in stand. Cut all trees down to 2 inches in DBH. Add grouse drumming log spec to sale write up.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully Stocked aspen stand with any component of oak, black cherry, red maple or pine.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

15	61142015-Cut	11.0	4130 - Aspen	6	60	81-110	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Clearcut stand. Leave no retention do to stand being under 15 acres. Cut all trees 2 inches or more in DBH. Protect all oak under 8 inches during harvest. Add grouse drumming log spec to sale write up.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully stocked aspen stand with any component of oak, black cherry, red maple or pine.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
23 61142023-Burn	75.2	3303 - Mixed Low Density Trees	99			Burn	Prescribed Burn	330 - Low-Density Trees	Previous Inventory	No
<p><u>Prescription Specs:</u> Burn on a rotational basis. The goal of prescribed burning is to restore and maintain an oak pine barrens ecosystem. The timing and frequency of the burns will be based on current needs of restoration such as reducing woody encroachment or promoting gr</p> <p><u>Next Step Treatments:</u> Monitoring, Prescribed Burn; Burn, Opening</p> <p><u>Acceptable Regen:</u> Restore Oak Barrens</p> <p><u>Other Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 01/08/2025</p>										

Total Treatment Acreage Proposed: 105.9

Report 4 – Site Conditions

Compartment: 142

Year of Entry: 2027

Traverse City Mgt. Unit

Thomas Peterson III: Examiner

Availability for Management

Total Acres	Acres Available	Acres <i>Acres Avail</i> <i>With Condition</i>	Acres Not Available	Dominant Site Conditions	5E
185	180	0	5	Aspen	5
13	13	0	0	Herbaceous Openland	
1542	1542	0	0	Jack Pine	
42	41	0	1	Low-Density Trees	1
72	72	0	0	Mixed Upland Deciduous	
35	35	0	0	Northern Hardwood	
120	120	0	0	Oak	
32	32	0	0	Red Pine	
4	4	0	0	Urban	
2,046	2,041		6	Total Forested Acres	6
	100%		0%	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
5	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
23	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand 27 Oak/Pine timber sale							

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
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Comments

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
1	330 - Low-Density Trees	None	14.4			Yes	2024 - Stand is filling in with Jack pine and cherry. Mature Jack Pine can be cut out when nearby stands are harvested to maintain opening.																																													
2	110 - Low Intensity Urban	None	0.9				2024 - Oil / Gas well.																																													
3	110 - Low Intensity Urban	None	0.5				2024 - Gas/ Well Site.																																													
4	110 - Low Intensity Urban	None	1.8				2024 - Oil /gas well.																																													
5	42120 - Planted Jack Pine	Poletimber Well	123.5	38	51-80	N/A	2024 - Stand has transitioned into a pole stand this year of entry. Some areas in stand are still sapling.																																													
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Jack Pine	97	Pole	6	38																																																
Pin Cherry	3	Sapling/Pole	3																																																	
6	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	1,290.7	18	Immature	N/A	2024 - Stand is fully stocked jack pine stand, stand has some larger oak scattered throughout it and has a few pockets of aspen and black cherry. 2008 - Stand was planted to Jack Pine in Springs of 2007 and 2008 under FTP W62-6922004 - Stand was final harvested Under Sale Fletcher - Warbler (61-130-98)1966 - Part of stand was had Fletcher Fire Burn through it in May 1966																																													
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Jack Pine	80	Sapling	2	18																																																
7	110 - Low Intensity Urban	None	1.2				2024 - Oil/gas well.																																													
8	4131 - Aspen, Oak	Sapling Medium	58.7	9		N/A	2024- Stand has a few openings in it, mostly due to deer browse. These are filling into jack pine. Stand should continue to fill in and be fully stocked stand next year or entry. Heavy deer browse on oak saplings 2017 - Stand was final harvest under sale Coyote Mix (Sale #61-120-17).																																													
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9	4119 - Mixed Northern Hardwoods	Poletimber Well	24.1	41	51-80	N/A	2024 - Stand has larger oak, with heavy maple understory and a few mature aspen clones heavier to oak on west side if stand. West side of stand has oak regeneration were there is mostly maple regeneration as you head east throughout the stand. 1998 - Stand was thinned as part of Oak road sale 61-069-97																																													
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Bigtooth Aspen	5	Log/Pole	11																																																	
Black/Red (Hybrid) Oak	20	Log/Pole	11																																																	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
10	4130 - Aspen	Poletimber Well	3.0	60	51-80	N/A	2024 - Stand is fully stocked with some aspen showing signs of die back.		
Canopy Species		% Cover	Size Class	DBH	Age				
Bigtooth Aspen		90	Pole/Sap/Log	8	60				
Black/Red (Hybrid) Oak		10	Pole/Sap/Log	9					
11	4130 - Aspen	Poletimber Well	16.7	58	51-80	N/A	2024 - Over mature fully stocked stand of aspen. 2017 - Stand is originally part of stand 8. Held to break up size class.		
Canopy Species		% Cover	Size Class	DBH	Age				
Red Maple		15	Pole	8					
Bigtooth Aspen		60	Pole/Log	9	58				
Black/Red (Hybrid) Oak		10	Log/Pole	12					
Jack Pine		15	Pole/Sapling	6	40				
12	42110 - Planted Red Pine	Sapling Well	32.4	5	Immature	N/A	2025 - Year 3 Regeneration Survey was completed 9/23/2025. There is currently 803 Trees per Acre and stand is 97% Free to Grow at this time. 2023 - Year 1 Regeneration was completed 10/14/2023. There is currently 863 Trees per Acre and stand is 98% free to grow at this time. 2023 - Stand was Planted to red pine, 914 TPA2022 - Stand Was Contract Site Prep Sprayed 7/5/20222021 - Stand was Trenched Stand was clear cut November 2018. February Monsoon Red Pine 61-121-17.		
Canopy Species		% Cover	Size Class	DBH	Age				
Black/Red (Hybrid) Oak		2	Sapling	1					
Red Pine		97	Sapling	3	5				
Black Cherry		1	Sapling	1					
13	42120 - Planted Jack Pine	Poletimber Well	121.1	38	51-80	N/A	2024 - Stand is transitioning to a pole stand. Stand still has Jack Pine in sapling size, but majority of stand is know a pole stand. 1987 - Stand was planted to Jack Pine for Kirtland Warbler Habitat.		
Canopy Species		% Cover	Size Class	DBH	Age				
Jack Pine		98	Pole/Sapling	5	38				
Choke Cherry		2	Sapling/Pole	4					
14	42120 - Planted Jack Pine	Sapling Well	6.9	18	Immature	N/A	2024 - Stand is fully stocked jack pine stand, stand has some larger oak scattered throughout it and has a few pockets of aspen and black cherry. 2008 - Stand was planted to Jack Pine in Springs of 2007 and 2008 under FTP W62-692 along with stand #6.2004 - Stand was final harvested Under Sale Fletcher - Warbler (61-130-98)1966 - Part of stand was had Fletcher Fire Burn through it in May 1966		
Canopy Species		% Cover	Size Class	DBH	Age				
Jack Pine		95	Sapling	2	18				
Choke Cherry		5	Sapling	1					
15	4130 - Aspen	Poletimber Well	11.0	60	81-110	N/A	2024 - Stand is fully stocked aspen stand with some oak growing under the aspen at this time.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen		100	Pole/Log/Sap	7	60	Black/Red (Hybrid) Oak	Medium	Variable	Variable
17	4126 - White, Black, N. Pin Oak	Sapling Well	77.9	9	Immature	N/A	2024 - Stand has filled in nicely since harvest. There is a lot of deer browse on smaller oak and maple. Anything over browse height is in good shape. Currently oak is out competing other tree species, Species percentage might differ in 10 years. 2018 - Stand was final harvested under sale name February Monsoon Red Pine Sale (#61-127-17).		
Canopy Species		% Cover	Size Class	DBH	Age				
Red Maple		30	Sapling	2	9				
White Oak		30	Sapling	2	9				
Black/Red (Hybrid) Oak		30	Sapling	2	9				
Red Pine		5	Log/Pole/Sap	16					
Black Cherry		5	Sapling	2	9				

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																										
18	4130 - Aspen	Poletimber Well	13.2	60	51-80	N/A	OPIC - FMD: 12/14/2004 Area of Fletcher Fire May 1966. (Grieve)Previous Survey Date03/30/2015																																										
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19	4130 - Aspen	Poletimber Well	7.3	60	51-80	N/A	2024 - Fully stocked aspen stand surrounded completely by Kirtland Warbler Habitat.																																										
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20	4199 - Other Mixed Upland Deciduous	Sapling Poor	33.9	8	81-110	N/A	2024 - Stand has scattered large oak and pine throughout it. Stand has regenerated nicely in some spots. Some spots are still open. Heavy deer browse in most oak saplings. 2019 - Stand was harvested under contract Oak/Pine sale number 61-122-17. All Red and White Pine left during harvest along with green tree marked oak.																																										
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21	4199 - Other Mixed Upland Deciduous	Poletimber Well	38.5	55	51-80	N/A	OPIC - FMD: 12/14/2004 Stand still coming. (Grieve)Previous Survey Date3/9/2015																																										
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23	3303 - Mixed Low Density Trees	None	26.5			Yes	2024 - Stand has some larger oak scattered throughout it with a few pines. There are a lot of areas of scrub cherry brush. It appears wildlife division has done mastication work in stand.																																										
24	4131 - Aspen, Oak	Sapling Well	119.2	8	Immature	N/A	2024 - Stand does have some open areas in it mostly due to deer browse in oak. Areas where there is aspen are fully stocked. Competition in this stand could sway species percentage in future, parts of stand where oak is thriving is out competing everything. 2018 - Stand was final harvested under sale name - Pipeline Dream (61-124-17)																																										
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25	4112 - Maple, Beech, Cherry Association	Poletimber Well	10.9	52	51-80	N/A	2024 - Stand has an overstory of Black cherry with black cherry in its understory. Stand has a Couple pockets of jack pine and some scattered oak. Hawthorn pocket in southern portion of stand																									
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26	310 - Herbaceous Openland	None	13.1				2024 - Trans-Canada Gas pipeline corridor.																									
27	4125 - Black, N. Pin Oak	Poletimber Well	42.2	28	51-80	N/A	2024 - Stand has transitioned to a pole stand from sapling this year of entry. Still scared oaks in stand that do not meet pole definition at this time. 1998 - Stand was final harvested under contract 61-18-97 Maple Road Oak																									
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