## **Compartment Review Presentation**

**Traverse City Forest Management Unit** 

Compartment 61053 Entry Year: 2027 Acreage: 3,143

**County: Grand Traverse** 

Management Area: Kalkaska Sandy Moraines

Stand Examiner: Patrick Cotant

**Legal Description:** 

: T26NR9W sections 19, 20, 21, 22, 23, 24

#### **Identified Planning Goals:**

This compartment is part of the Kalkaska Sandy Moraines (MA). Vegetative management in this management area (MA) will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character including the Boardman River (a designated natural river) and the Sand Lakes Quiet area (a designated high conservation value area), threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management objectives for this 10-year planning period include improving the age-class structure of aspen; increasing regeneration of oak; working toward balancing the red pine age-class structure; continuing emphasis on managing the northern hardwood resource for stand quality, age, and species diversity; wildlife values; and continued production of wood products. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation opportunity. Expected trends within this 10-year planning period are: increased recreational pressure, especially on the Muncie Lakes pathway, North Country and other established trails; increased oil and gas development; an increased wildland/urban interface; a need to restore oak/pine barrens communities; invasive plant control; and the conversion of poor oaks sites to mixed pine/oak sites. This compartment falls within land-type associations (LTAs) 2221, 5111, and 5549 of sub-subsection VII.2.2. LTA 2221, characterized by broad moraine ridges, few or no lakes, and well drained sand, occurs in the southeastern portion of the compartment. Circa 1800, 91% of the LTA supported northern hardwood forests of American beech and sugar maple. Wetlands were forested with various types of lowland conifers. The LTA has become guite fragmented with 19% consisting of various types with less than 5% cover. Cropland, now the most wide spread cover type, occurs on about 29% of the LTA with old fields occurring on another 13%. Pine forests, which occurred on only about 2% of the LTA circa 1800, now cover 20%; these are largely plantations. Northern hardwood forests also occur on 20% of the LTA, however this represents a significant reduction compared to circa 1800 acreage. LTA 5549, which occurs just along the northern edge of section 20, is a narrow outwash channel with very poorly drained peat and muck. Circa 1800, conifer swamps were the most common type (60%) in LTA 5549, with an additional 7% in hardwood/conifer and hardwood swamp. An additional 14% supported upland conifer types, including xeric jack pine and iack pine/red pine forest, as well as more mesic hemlock/white pine forest. Current land cover of LTA 5549 is a mosaic of lowland conifer, hardwood, shrub, and emergent swamp. LTA 5111, which occurs in the remainder of the compartment and is the dominant LTA, is a broad flat outwash plain with excessively drained sand and few lakes. LTA 5111 occurs in the southern three-quarters of the compartment. This LTA is a broad flat outwash plain with few kettle lakes and excessively drained sand. The circa 1800 vegetation of this LTA was variable but dominated by fire-dependent conifer forests, e.g. jack pine, red pine/white pine, and pine or oak/pine barrens. Calibri (Body) The LTA has become guite fragmented and 27% of its area supports cover types with less than 5% individual cover. Although 42% of the LTA still supports pine forests, much of this is red or jack pine plantation. Aspen/white birch forest, a type that did not occur here at the time of the General Land Office survey, now occurs on 14% of the area. Finally, second-growth northern hardwoods occur on another 8% of the LTA. GLO surveyors frequently reported the occurrence of large wildfires within LTA 5111. These fires were among the largest in the state, covering several square miles. Wind-throws, sometimes in combination with wildfire, were often reported.

### Soil and topography:

Rubicon-Rose lawn and Roscommon Sands with Rifle Peat and Lupton Muck along creeks. Compartment is flat to gently rolling with steeper slopes along entrenched streams and a few widely scattered ice block depressions.

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

State and private lands are intermingled within the compartment. Land in all directions surrounding compartment is mostly state ownership. Private holdings are generally rural in nature.

#### **Unique Natural Features:**

Twenty-two Creek traverses the compartment and a branch enters the ground with considerable flow just south of the compartment. A branch of Carpenter Creek jogs in and out of the north side of the compartment. A high quality managed barrens area exist in Section 22. A large number of special plants, animals and natural communities occur within this LTA and potentially within this compartment.

### Archeological, Historical, and Cultural Features:

None known, but a historic Native American trail crosses the adjacent compartment to the west.

#### **Special Management Designations or Considerations:**

Beaver activity and deer winter yarding around creeks. Managed high quality Barrens Area is Section 22

#### **Watershed and Fisheries Considerations:**

Both Carpenter Creek and Twenty Two Creek flow through this compartment. Both of these streams are designated trout streams with populations of naturally reproducing brook trout and brown trout, and are part of the State Designated Natural Rivers system (Boardman River). The Natural Rivers vegetative buffer for Twenty-two and Carpenter Creeks on State land is 100 feet. Beaver activity is common in both Twenty-two Creek and Carpenter Creek. Excessive beaver activity will degrade the natural flow dynamics of these streams, and should not be encouraged by final harvest activities in riparian areas.

#### Wildlife Habitat Considerations:

Most of compartment 53 consists of a dry sandy outwash plain (LTA 5111). 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 upland mixed stands of pine/oak/aspen of various ages interspersed with a few openings, upland brush, natural pine, and several oak communities. Timber harvests should be designed to mimic wildfires of various intensities, when possible. Several aspen, oak, and pine stands will have cutting prescriptions this entry period and should utilize mature pine and oak as residuals. The creation of dead and down logs will also be included in some sales. Standing dead timber is usually left during harvest operations unless deemed a safety hazard. A large portion of this landscape has been identified by MNFI ecologists as a high quality remnant Oak Pine Barrens, one such fire driven natural community. By employing controlled fire on the landscape the hope is to restore a mosaic of natural pine, oak, aspen, and non-forested habitats like oak/pine barrens or savannas. Some species found in these early to mid-successional communities include: white-tailed deer, ruffed grouse, eastern bluebird, smooth green snake, long-tailed weasel, and redtailed hawk. An Ecological Reference Area (ERA) management plan has been written for this occurrence of barrens. Also, many endangered, threatened, or special concern species can be found in these fire maintained ecosystems. Twenty-two Creek runs through this sandy outwash plain. A narrow strip of lowland conifers and lowland brush are found along the creek bottom and create a valuable riparian corridor through an otherwise dry landscape. A small tributary of Carpenter Creek also makes its way into the compartment. The east end of the compartment consists of broad rolling moraine ridges of dry sand. Several pine plantations are mixed with stands of oak, aspen, and northern hardwoods. Several deciduous stands are scheduled for treatments of various types. The final harvest of aspen should incorporate the protection of fruiting shrubs and the creation of coarse woody debris. The remaining thinning and selection cuts should result in a nice mix of tree species that will maintain or enhance habitat diversity. Standing dead timber is usually left during harvest operations. One opening, as well as a similar opening adjacent and south of Mayfield Road, will be burnt to stimulate the abundant little bluestem that is already present. Seeding native wildflowers into these openings should make a nice "showcase" treatment along Fife Lake Rd. This matrix of mixed upland deciduous and grassy openings will benefit badger, wild turkey, scarlet tanager, hog-nosed snake, ruffed grouse, Cooper's hawk, red-backed salamander, and gray squirrel.

#### Mineral Resource and Development Concerns and/or Restrictions

There is no known potential for the occurrence of economic deposits of metallic minerals in this part of the state. No active sand/gravel operations are known to exist in the area. There may be some potential for sand & gravel in the compartment on the uplands, but the compartment might be too far from populated areas (markets) for any aggregate resources to have much value beyond use by the county road commission or DNR for local road maintenance. The west half of the compartment is within the Silurian reef hydrocarbon play, and a number of wells have been completed within the compartment, but only a few were productive. All of the wells have since been plugged and abandoned, and all State mineral leases within the compartment are expired. There has been no recent well permit activity, but there may still be potential for additional discoveries of reef reservoirs beneath the compartment in the future.

#### **Vehicle Access:**

Access is generally good via county roads-Fife Lake Road, Boardman Road, Mayfield Road and Carpenter Creek Road. There are also a number of two tracks that traverse the compartment.

#### **Survey Needs:**

Section 23. Timber trespass. NW corner of private 80 must be located. Section 20. State Lands posted around private 40 NESW.

#### **Recreational Facilities and Opportunities:**

A variety of trail opportunities are offered in this compartment. The motorized trails include: the Grand Traverse Motorcycle Trail, Michigan Cross Country Cycle Trail (MCCCT), and Snowmobile trail #55 (Grand Traverse Snowmobile Trail). Non-motorized recreational opportunities include the Shore to Shore Riding and Hiking Trail, and sections of the North Country National Scenic Trail. Trail protection specifications should be considered for all these trails. Specifically, guidance provided by Policy and Procedures document "32.22XX Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails" should be followed. In addition, guidance provided in the "Logging Operations and Horse

Events on State Land" should be considered when settling up timber sales that may impact the Shore to Shore Riding & Hiking trail. (T.M.N. 12/9/14).

#### **Fire Protection:**

This area is protected by Grand Traverse Fire Battalion # 6 and DNR fire protection is from the Traverse City Unit. Access to most areas in the compartment is adequate and there has not been significant recent wildfire activity.

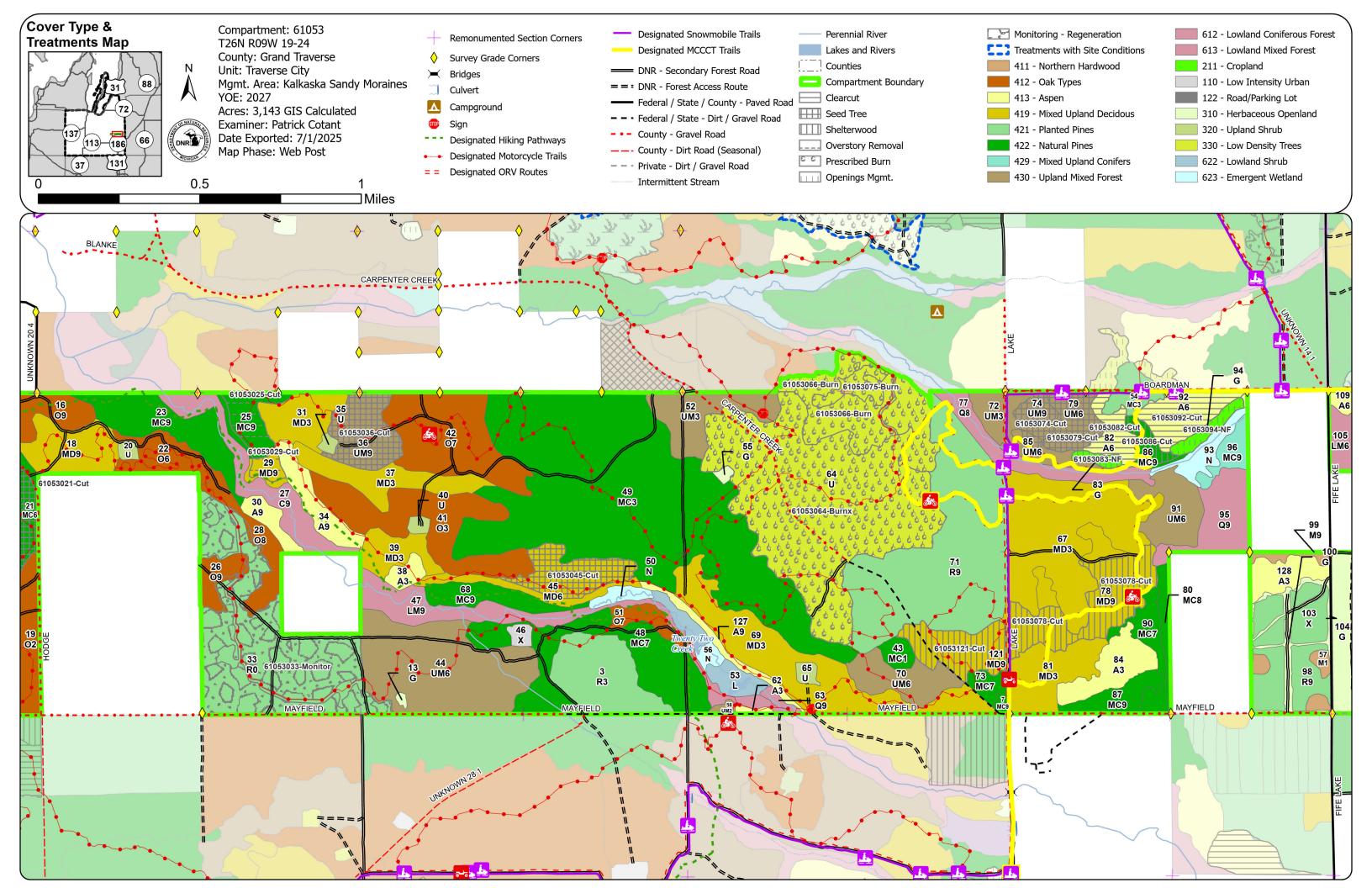
#### **Additional Compartment Information:**

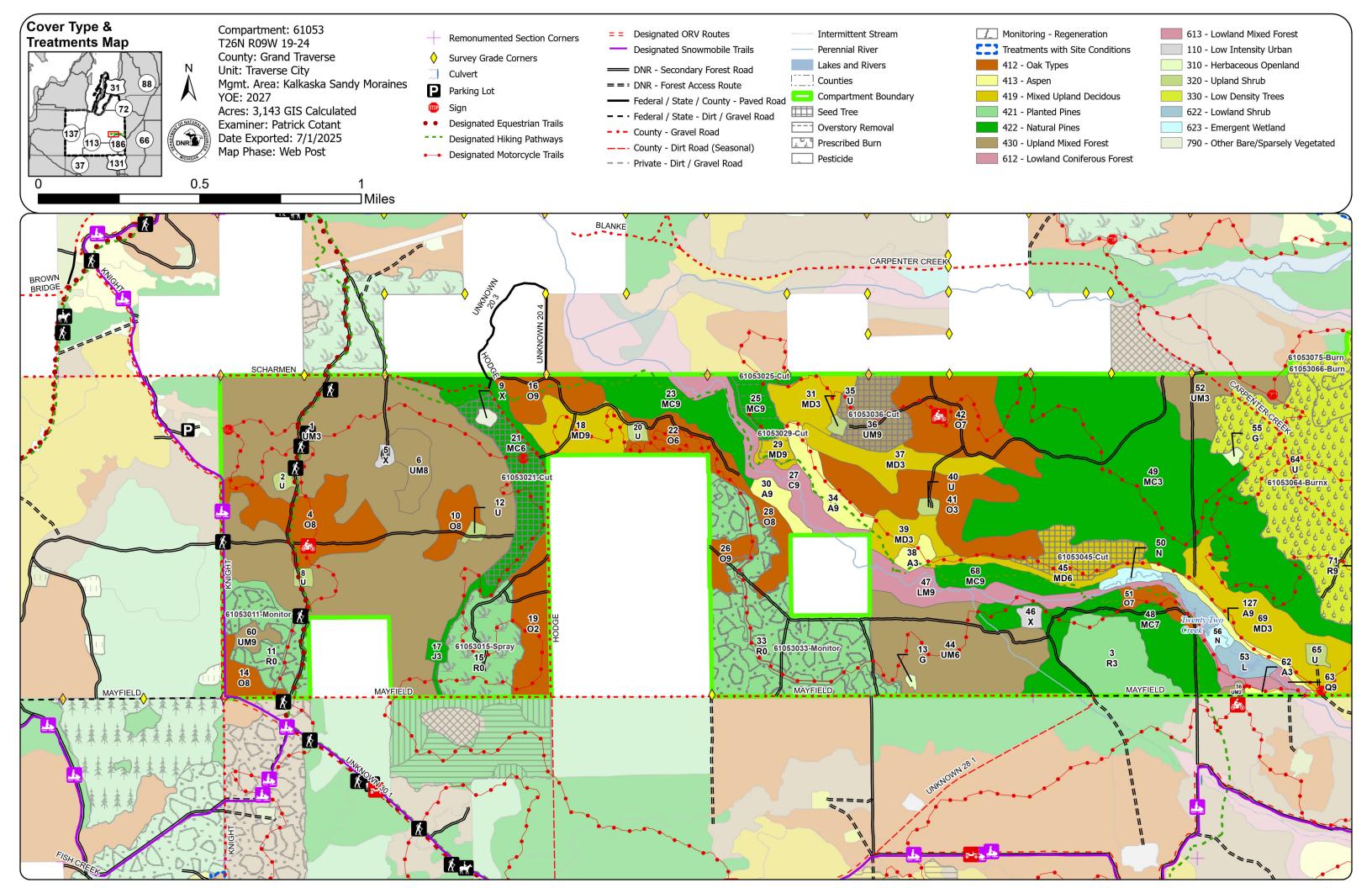
The following reports from the Inventory are attached:

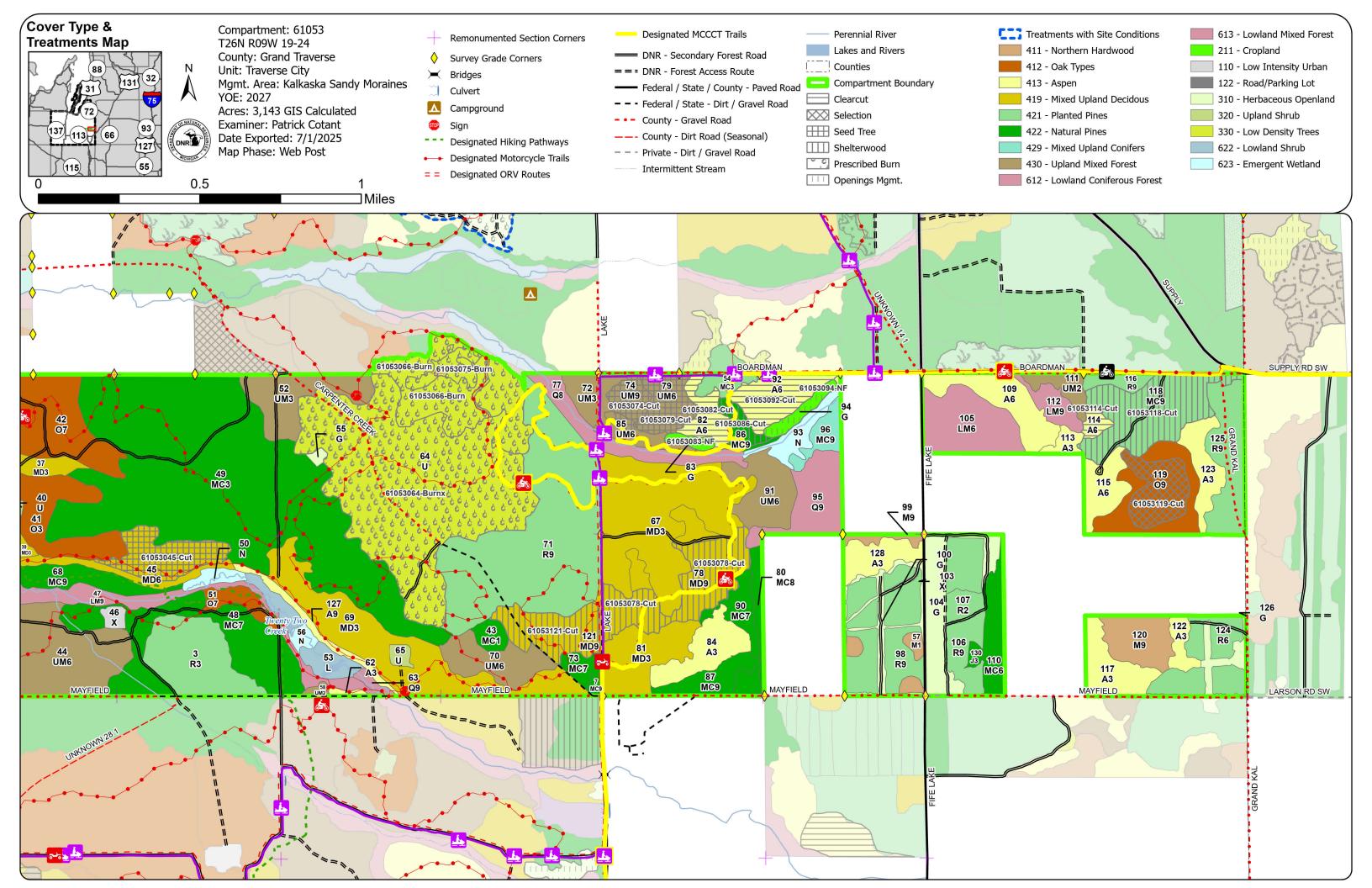
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

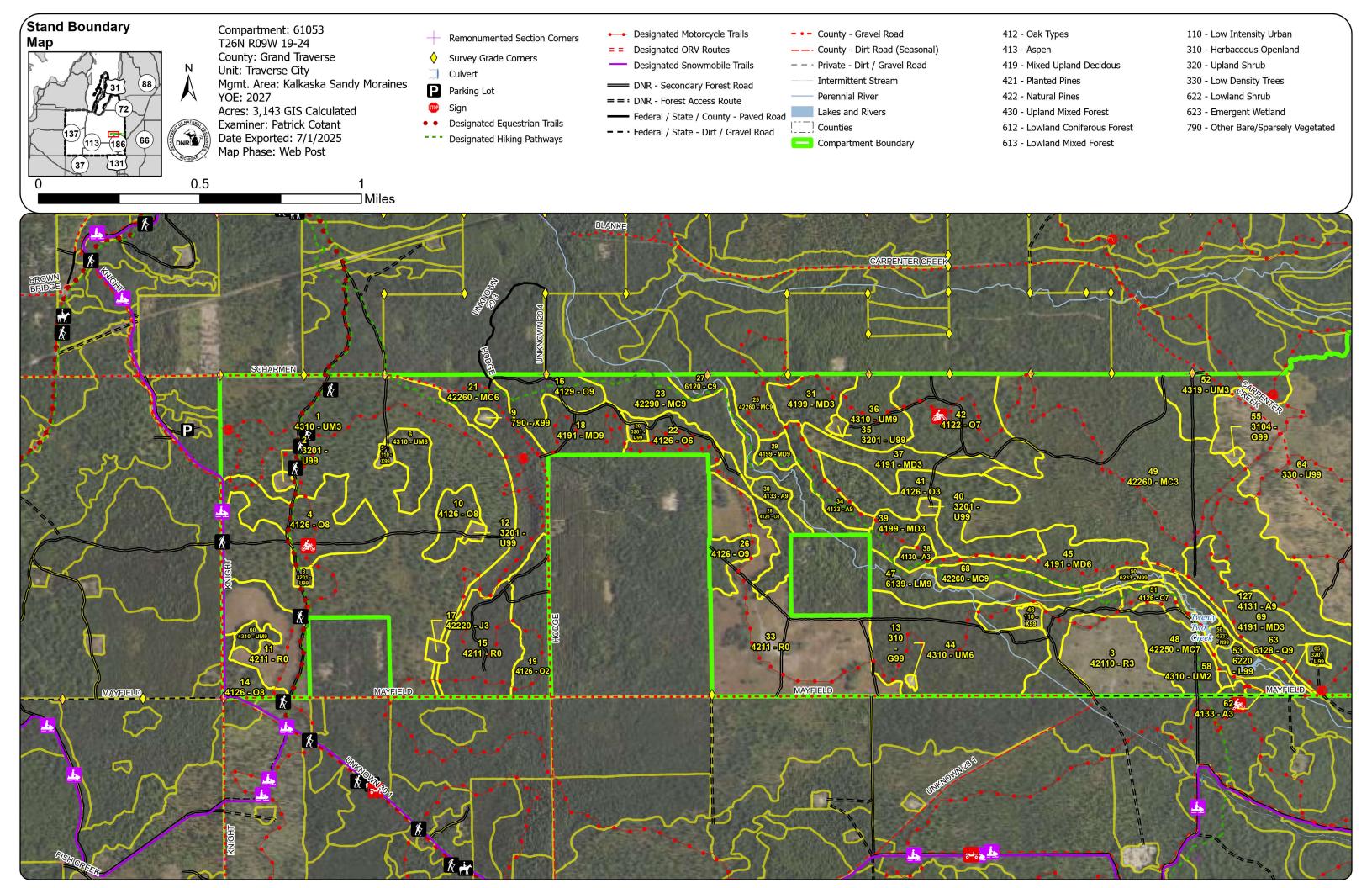
The following information is displayed, where pertinent, on the attached compartment maps:

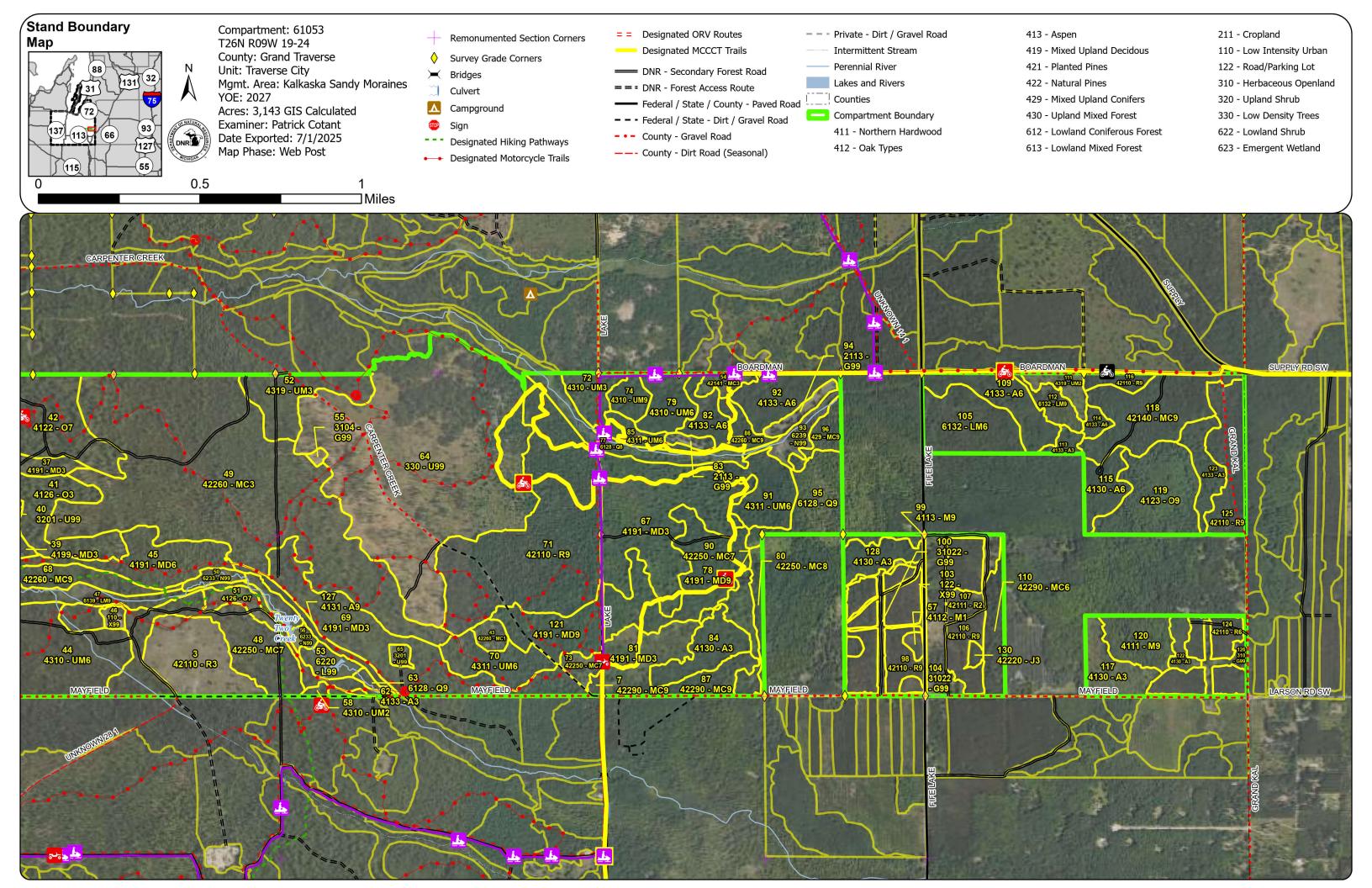
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

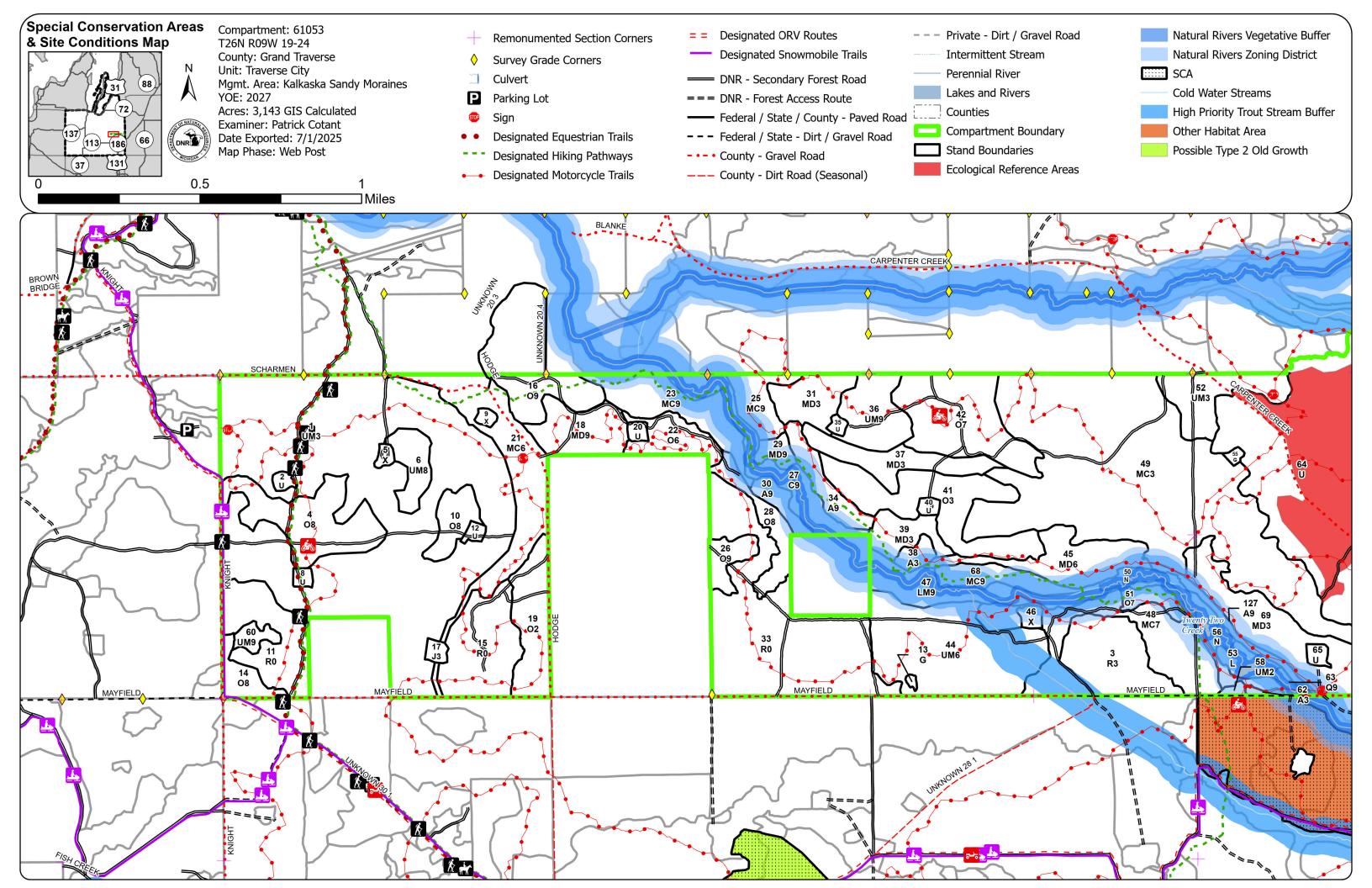


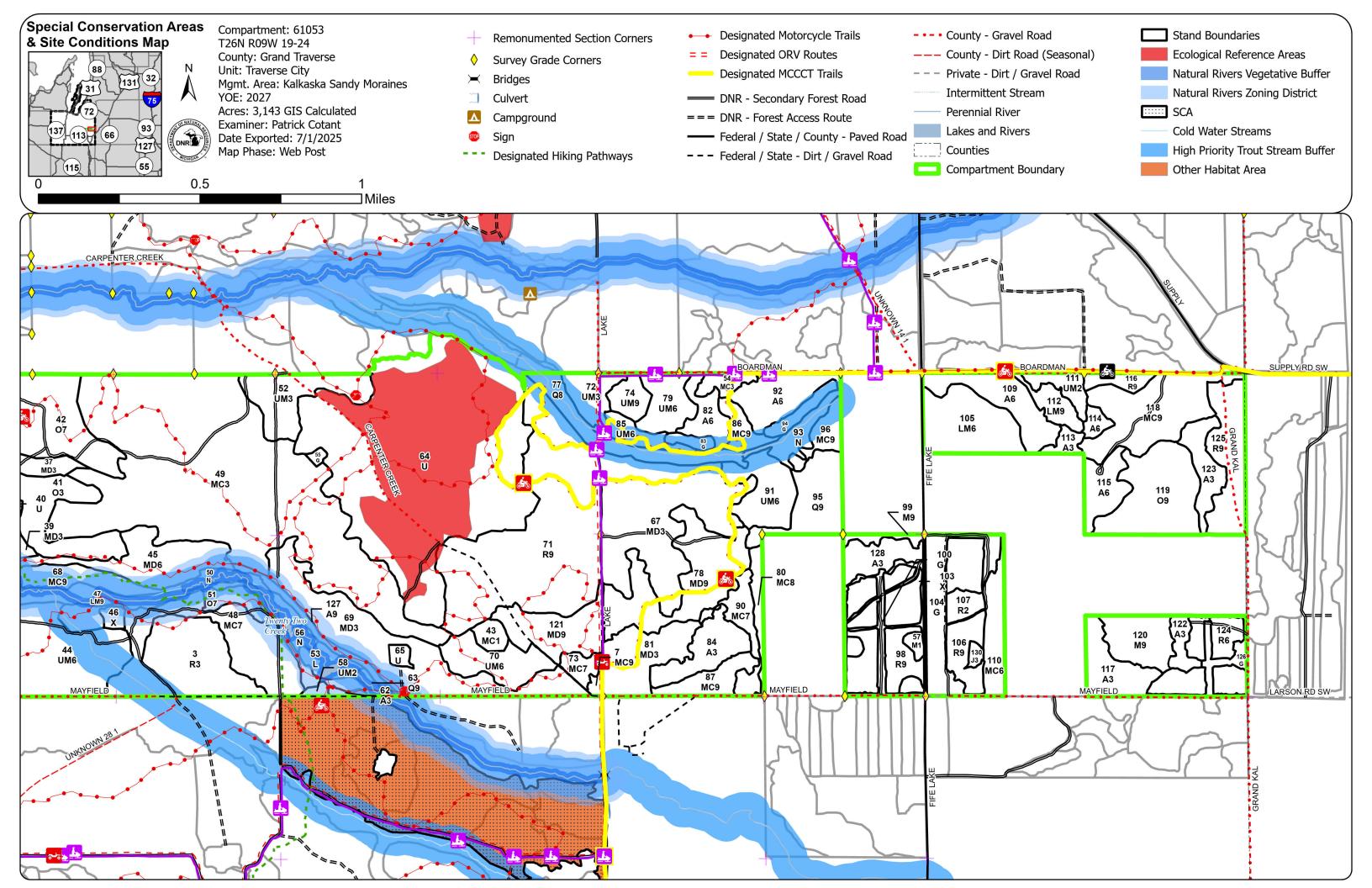












Compartment 53 Year of Entry 2027

Traverse City Mgt. Unit Patrick Cotant: Examiner

Age Class

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	/	/ <sub>*</sub> /	/ /	/ /	/ /	/	/ /	/	/ ,	/ /	/ /	/	/ /	/	/ /	/ /	/ /	/ /	/ & /
		KON C			\$ \\ \frac{\partial}{\partial} \partia	3 /				\$ <sup>8</sup> \&	8 / S	§ /g	S Z		A L	<i>3</i>	, R	* / 6	No. No.
	\ <del>x</del> or	'/	, \ '&	' / F	5 / B	\ <b>&amp;</b>	5 / B	/ &	' / «	s / &	/ &	18	1/2	\ \L	` / &	\$ / \$	\$ / &	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Aspen	0	20	60	5	41	0	38	0	8	0	24	0	0	0	0	0	0	0	196
Bare/Sparsely Vegetated	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Cedar	0	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	29
Cropland	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Herbaceous Openland	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Jack Pine	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Low-Density Trees	245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	245
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	24	26	0	0	0	0	0	0	50
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	82	0	0	0	0	0	0	0	82
Lowland Shrub	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Marsh	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Mixed Upland Deciduous	0	0	227	15	0	0	0	0	0	6	0	139	0	0	0	0	0	0	387
Natural Mixed Pines	0	0	263	0	5	0	73	0	59	22	10	6	0	29	50	0	0	0	517
Northern Hardwood	0	6	0	0	0	0	0	0	0	0	4	20	0	0	0	0	0	0	30
Oak	0	86	0	0	0	0	0	0	0	56	43	109	18	19	0	0	0	0	331
Planted Mixed Pines	0	0	6	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	52
Red Pine	200	40	0	6	0	0	0	93	0	30	139	0	0	0	0	0	0	0	506
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9
Upland Mixed Forest	0	330	41	2	106	0	34	16	0	0	0	56	0	0	0	0	0	0	585
Upland Shrub	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Urban	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	564	482	599	28	155	0	145	109	67	114	373	385	27	48	50	0	0	0	3142

### **Report 2 - Treatment Summary**

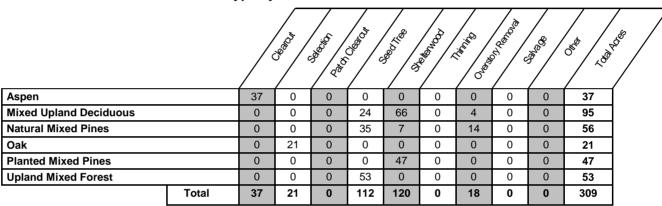
Traverse City Mgt. Unit Year of Entry: 2027

#### **Acres of Harvest**

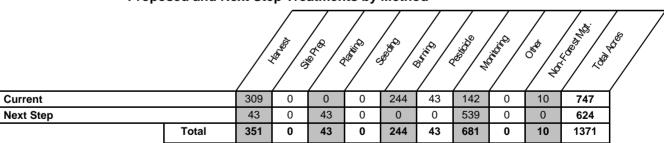
Compartment 53
Total Compartment Acres: 3,143

Commercial Harvest - 608 Harvests with Site Condition - 0 Next Step Harvest - 43 Habitat Cut - 43

#### **Cover Type by Harvest Method**



### **Proposed and Next Step Treatments by Method**



S t	Traverse C	ity Mgt. Unit		Repoi	rt 3	Treatments		Compartmen Year of Entry		
a n Treati d Nar		Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habita Cut
78 610536	atments: 078-Cut 41.2	2 4191 - Mixed Upland Deciduous with Conifer	9	105	111- 140	Harvest	Shelterwood	4122 - Oak, Pine	e Planting Record	No
Next Step Treatments: Acceptable Regen: Other Comment:	formed red and stand retaining Monitoring, Nat White oak, whit	rvest protecting adva white pine. Retain 2- additional trees along ural Regen (Re-Inver e pine, aspen, red m	3 islands ο g trail and ι ntory)	f large, s using ap	super can propriate	opy white and re	ed pine in eastern			
21 610530	art Date: 10/01/ 021-Cut 34.8  Treat stand by Protect Motorcy		onal retenti	ed maple on of wh	nite oak a	ong trail corrido	r - exclude portion	of stands east of I	Hodge road ar	nd keep
Next Step Treatments:	•	ntion and protection outlined and protection of the contract o		bog area	a, north of	Sharmen Rd.				
Acceptable Regen: Other Comment:	Jack pine, white	e oak, white pine, che	erry and red	d maple.						
Site Condition	on: art Date: 10/01/	2026								
25 610530			9	120	81-110	Harvest	Overstory Removal	4310 - Pine, Oak Mix	Planting Record	No
Prescription Specs:		overstory removal, re o lines. Protect trail u					otect trail, ensure c	reek buffer is adec	quate paying c	lose
Next Step Treatments:	Monitoring, Nat	ural Regen (Re-Inver	ntory)							
Acceptable Regen:	White pine, red	pine, white oak, red	oak and as	pen, wit	h jack pir	e likely to seed	in.			
Other Comment:										
Site Condition	on:									

Traverse City Mgt. Unit Report 3 -- Treatments Compartment: 53 S Year of Entry: 2027 t а **Treatment** Size Stand BA **Treatment Treatment Cover Type** Habitat Acres Stand Age n Name CoverType Density Age Range Type Method Objective Structure Cut Ч 29 61053029-Cut 4.3 4199 - Other Mixed q 80 51-80 Harvest Overstory 4319 - Mixed Planting No **Upland Deciduous** Removal **Upland Forest** Record Prescription Harvest portion of this stand, removing aspen, red maple, red oak and any remaining jack pine. Retain a few white oak for mast along with Specs: red and white pine. Next Step Treatments: <u>Acceptable</u> Regen: Other Comment: Site Condition: Proposed Start Date: 10/01/2026 61053036-Cut 26.44310 - Pine, Oak Mix 105 141-Harvest Seed Tree 4122 - Oak, Pine Cutting No 170 Record Prescription Seed tree harvest stand, retaining 10-20 BA of large white oak and larger red and white pine. Residual BA will vary in spots as additional retention should be applied along motorized recreation trail and in pockets of concentrated large red and white pine. Apply trail protection Specs: specs and utilize oak wilt spec. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable White oak, red oak, white pine, red pine, aspen, red maple and jack pine. Regen: Other Comment: Site Condition: Proposed Start Date: 10/01/2026 4191 - Mixed **Planting** 61053045-Cut 6 105 51-80 Seed Tree 23.9 Harvest 4319 - Mixed No **Upland Deciduous Upland Forest** Record with Conifer Prescription Treat stand with seed tree harvest, retaining scattered white oak and red/white pine to continue to develop white oak understory while also providing a seed and mast source. Keep treatment on top of slope which leads to 22 creek, this will also leave majority of motorized trail out Specs: of treatment area. In addition, exclude narrow finger of western portion of stand due to topographical influences. Additional individual tree retention should be applied along motorized trail - use appropriate trail protection specs w/in contract. Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable White oak, white pine, red maple, jack pine and aspen. Regen: Other Comment: Site Condition:

Traverse City Mgt. Unit S t a			ty Mgt. Unit		Repoi	rt 3 1	Treatments		Compartmer Year of Entr		
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
64	61053064 Burnx	- 182.9	330 - Low-Density Trees	99			Burn	Prescribed Burn	3303 - Mixed Low Density Trees	Previous Inventory	No
Spec Next	s: eco pror nati <u>Step</u> Mor	system. The noting grass	timing and frequences versus forbs. Rend forbs, fertilizing, b	cy of the bu	urns will tics as n	be based eeded by	on currents ne herbiciding or	burning is to restore seds of restoration so other methods. Ma	uch as reducing v	woody encroad	hment or
Acce Rege Other	<u>r</u>										
	ment: Condition:										
Propo	osed Start D	ate: 10/01/2	2026								
Spec Next Treat	s: Step ments: ptable typi	nitor formation	,	Schedule fu	ture pre	scribed b	urns to maintair	n and enhance featu	Density Trees	Inventory	
Other		cent to Treat	= 100%								
Site 0	Condition:										
Propo	osed Start D	ate: 10/01/2	2026								
74	61053074-0	Cut 10.24	4310 - Pine, Oak Mix	x 9	105	81-110	Harvest	Seed Tree	4319 - Mixed Upland Forest	Planting Record	No
Preso Spec	s: exp	ect jack pine		erate as we				should help shelter at the statement south into sta			
	Step Mor ments:	nitoring, Natu	ral Regen (Re-Inver	ntory)							
Acce Rege		te oak, aspe	n, jack pine, white p	ine and red	d maple.						
Other Com	<u>r</u> ment:										

#### **Approved Treatments:**

15	61053015- Spray	42.7 4211 - Planted Red Pine	0	0 Immatu re	Pesticide	Pesticide	42111 - Planted Red Pine, Mixed Deciduous	Planting Record	No
Preso Spec		after harvest to prep for red pir	ne planting						
Next	Step Planti	ng, Unfurrowed; Monitoring, A	rtificial Regen;	Harvest, Sir	ngle Tree Selecti	ion			

Treatments:

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

Regen:

s	Traverse City Mgt. Unit S t			Repoi	rt 3 1	<b>Freatments</b>		Compartmen Year of Entry			
t 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
Otho Con	er Perce nment:	nt to Treat =	100%								
Site	Condition:										
Prop	oosed Start Dat	<u>e:</u> 10/01/20	24								
33	61053033- Monitor	110.1 42	211 - Planted Red Pine	0	1	Immatu re	Monitoring	Monitoring - Regeneration	4211 - Planted Red Pine	Planting Record	No
Spe	scription cs:										
	t Step atments:										
Acc Reg	<u>eptable</u> red pi <u>en:</u>	ne, oak.									
Othe Con	<u>er</u> Perce nment:	nt to Treat =	100%								
Site	Condition:										
Prop	oosed Start Dat	<u>e:</u> 10/01/20	26								
11	61053011- Monitor	31.8 42	211 - Planted Red Pine	0	1	Immatu re	Monitoring	Monitoring - Regeneration	42111 - Planted Red Pine, Mixed Deciduous	Planting Record	No
Pres Spe	scription cs:										
	t Step atments:										
Acc Reg		ne, jack pine	e, white pine, oak, a	spen, red	maple,						
Othe Con	<u>er</u> Perce nment:	nt to Treat =	100%								
Site	Condition:										
Prop	oosed Start Dat	<u>e:</u> 10/01/20	25								

Total Treatment 746.5 Acreage Proposed:

Traverse City Mgt. Unit

**Patrick Cotant: Examiner** 





#### **Availability for Management** Total Acres Acres Avail Acres **Dominant Site Conditions** Available With Condition Not Available 2F 2G 3A 3D 3J 5E Acres Aspen Bare/Sparsely Vegetated Cedar Cropland **Herbaceous Openland** Jack Pine Low-Density Trees **Lowland Conifers Lowland Mixed Forest** Lowland Shrub Marsh Mixed Upland Deciduous Natural Mixed Pines Northern Hardwood Oak **Planted Mixed Pines Red Pine Upland Conifers Upland Mixed Forest Upland Shrub** Urban 2,822 2,426 **Total Forested Acres** 86% 3% 11% Relative Percent

<sup>\*</sup>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 Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Lowland mix-cedar						

Traverse City Mgt. Unit

Patrick Cotant: Examiner



2	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	34	2F: Too steep	3D: Recreational/scenic values	Unspecified	Unspecified
	Comments: The North Country	Trail bisects this stand as does	22 Cree	ek. This stand is consider	red type II old growth.		
3	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	29	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: 22 Creek flows thro	ough stand, riparian area contair	ns nume	erous large, old growth wh	nite and red pine.		
ļ	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
;	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	22	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: South Branch Carp	enter Creek corridor and riparia	n area.				
7	Unavailable	3A: Conservation values incompatible with harvest at this time	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Old growth natural	pine stand with mixed deciduou	S.				
3	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	26	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
	Comments: Lowland swamp co	nifer stand with numerous seep	s, sensi	tive soils and high water t	able influence.		

Traverse City Mgt. Unit Patrick Cotant: Examiner



10	Unavailable	3A: Conservation values incompatible with harvest at this time	16	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	39	3A: Conservation values incompatible with harvest at this time	Unspecified	Unspecified	Unspecified
(	Comments:						
12	Unavailable	3A: Conservation values incompatible with harvest at this time	8	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
13	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	2	2F: Too steep	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
	Comments: Upland steep slope	and bottomland along creek dr	ainage				
14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	34	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

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15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	24	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Aspen is relatively	small diameter, recommend wa	iting until	next YOE to conduct har	vest, recommend aspen r	emoval, retain white pine.	
16	Unavailable	5E: Long-Term Retention	13	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Natural pine stand	, large diameter and old age.					
17	Unavailable	3D: Recreational/scenic values	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Slope to 22 creek a	and recreation trail protection, m	anagem	ent is incompatible with c	onservation values at this	time.	
18	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	66	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
20	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
21	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

Traverse City Mgt. Unit Patrick Cotant: Examiner



22	Unavailable	5E: Long-Term Retention	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
23	Unavailable	2F: Too steep	8	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: Upslope from creek	x, some seeps at base of slope	and sta	and gets hummocky and wet i	n northern portion.		
36	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
38	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
40	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
44	Unavailable	5E: Long-Term Retention	10	Unspecified	Unspecified	Unspecified	Unspecified
•	Comments:						
51	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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				

Size Density **General Comments** Stand Level 4 Cover Type Acres Stand Age BA Range Managed Site 4310 - Pine, Oak Mix Sapling Well 321.6 8 1-50 N/A Stand is a mix of planted red pine, 3-7' tall and 7 years old along with 1 resulting natural deciduous regen from harvest. In addition, 10-30 BA **Canopy Species** % Cover Size Class DBH Age of white oak, white pine and trace red pine make up the overstory that 15 White Pine was retained during most recent harvest. Some pockets slightly more dense, other areas with less overstory stocking. 2020; STAND 5 1 Jack Pine Loa WAS SCHEDULED FOR SKIDDER HERBICIDE RELEASE. dropped Red Pine 35 1 8 Log TREATMENT. ACCEPT MIXED STAND AS ORIGIONALY 1 20 Red Maple Loa INTENDED, 2015; part of TS# 052-14. Cut all merchantable -oak and pine retention. Stand was chip harvested, trenched and planted to red 10 12 White Oak 89 pine (spring 2016). South part of stand planted 2017. Ist yr regen 1 White Oak 20 Loa check done 2017. 350-500 tpa red pine. A good bit or natural Red Oak 5 1 Log regeneration from aspen rm. cherry, oak. Consider replant. A good bit of mortality noted in regen check. This site was initially planted during very dry spring and summer. Re-planted spring 2018. Checked regen 10/10. Recommend release herbicide application. 3201 - Sweet Fern 2 Unspecifed 2.1 No Mostly sweetfern with clumps of little bluestem. A few holes. **Sub-Canopy Species** Density Avg. Height Size Bracken Fern Not Applicable Not Applicable Low Mixed Grasses Not Applicable Not Applicable Medium Sweet Fern Hiah 5 - 10 feet 5 - 10 feet Little Bluestem Medium Not Applicable Not Applicable 42110 - Planted Red Pine Sapling Well 39.8 5 **Immature** N/A Red pine growing fairly well, some patchy competition in areas of 3 stand, mainly consisting of jack pine and cherry with scattered white **Canopy Species** % Cover Size Class **DBH Age** oak and red maple.2023 - Year 3 Regeneration Survey was Red Pine 80 1 5 Log completed 9/13/2023. There is currently 685 Trees per Acre and stand 1 is 79% Free to grow11/9/2021 - Year 1 regeneration survey Jack Pine 10 Log completed. Stand has approximately 887 trees per acre. Stand is Black Cherry 10 Log 1 free to grow at this time no herbicide treatment is currently recommended. Check stand for year 3 regeneration survey is recommended. 2021: Stand planted with containerized red pine. 2020: Herbicide applied skidder fall 2020. TS# 064 17. Harvest 8/2018. Trenched 2019. Scheduled herbicide 2020 and plant 2021.

4 EO

4	4126 - White, i	Black, N. P	in Oak S	awtimber	rıvlealur	n 45.3 105	1-50	IN/ <i>F</i>	4
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Canopy Species	Density	Avg. Height	Size
	White Pine	10		14	65	White Oak	Medium	10 - 20 feet	10 - 20 feet
	White Oak	60		14	105	Red Oak	Low	5 - 10 feet	5 - 10 feet
	Red Pine	15		12	65	Red Maple	Low	10 - 20 feet	10 - 20 feet
	Red Oak	10		14		White Pine	Low	>20 feet	>20 feet
	Red Maple	5		8		Jack Pine	Low	5 - 10 feet	5 - 10 feet
						Black Cherry	Low	5 - 10 feet	5 - 10 feet

Courtimber Medium 4F 2

Stand responding well to most recent treatment, good regeneration and advanced regen that was released is progressing well to intermediate canopy level. Overstory oak and pine are in good condition, stand along with other islands w/in stand 1 are providing good verti al steucture and some additional diversity and cover.

Cut to 1 inch to prep site for red pine planting. Was a rp/jp site with some oak and rm. Jp had been removed in earlier harvest and was growing in gaps. Site should be allowed to sprout with a herbicide application in 2019. Plant 2020. Retention along road and motorcycle

Compartment: 53
Year of Entry: 2027

2020: Stand treated. Removed jp, aspen and poorly formed oak and rm. Intention is to create oak islands surrounded by younger stand formed from other treatments.

4426 White Block N. Din Ook

trail.

NI/A

Traverse City Mgt. Unit Report 7 – Stands

Stand	tand Level 4 Cover Type		Size Density			Acres Stand Age BA Range Mana		Managed S	Site	General Comments	
5	110 - Low Ir	<u> </u>		Unspe		2.1			No		Active well site.
6	4310 - Piı	ne, Oak Mix	C Sav	wtimbe	· Mediur	m 14.6	105	1-50	N//	Α	Good mix of species making up canopy with higher percentages of
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	conifer than other island stand w/in stand 1. Growing well overall,
	White Pine	45	Seedling	8	65		ite Pine	Medium	5 - 10 feet	5 - 10 feet	advanced and new regeneration are in good shape and progressing well, providing some good cover in spots. 2020: Stand treated.
	Black Cherry	5	Seedling	8		Blac	k Cherry	Low	5 - 10 feet	5 - 10 feet	Removed jp, aspen and poorly formed oak and rm. Intention is to
	White Oak	45		14	105	Wh	ite Oak	High	5 - 10 feet	5 - 10 feet	create oak islands surrounded by younger stand formed from other treatments.
	Red Oak	5		14							t treatments.
7	42290 - Natu	ıral Mixed F	Pine S	awtimb	er Well	1.8	93	81-110	N/A	Α	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	White Oak	5		16	105		ite Pine	High	5 - 10 feet	5 - 10 feet	
	Bigtooth Aspen	2		10		Re	d Pine	Low	5 - 10 feet	5 - 10 feet	
	Red Oak	5		16	105	Red	d Maple	Low	5 - 10 feet	5 - 10 feet	
	White Pine	40		12		Wh	ite Oak	Medium	5 - 10 feet	5 - 10 feet	
	Red Pine	48		16	93						1
8	3201 - S	Sweet Fern		Unspe	cifed	2.1			No	)	Really nice old well pad. Equal mixture of sweetfern and little
						Sub-Can	opy Species	Density	Avg. Height	Size	bluestem. Jack pine encroaching. Leave as-is.
						Swe	et Fern	High	5 - 10 feet	5 - 10 feet	
						Little	Bluestem	High	Not Applicable	Not Applicable	
						Jac	k Pine	Low	10 - 20 feet	10 - 20 feet	
9	790 - Other Bare/	Sparsely V	egetated	Unspe	cifed	1.8			No	)	Allot of bare soil in center. Should do something here. FMFM
						Sub-Can	opy Species	Density	Avg. Height	Size	recommends leaving as-is, replant to jack pine during next compartment cycle when adjacent stand is ready for cut. Need to fi
						Swe	et Fern	Low	5 - 10 feet	5 - 10 feet	berm.
						Spotted	Knapweed	Low	Not Applicable	Not Applicable	
						Mixed	Grasses	Low	Not Applicable	Not Applicable	
						Jac	k Pine	Medium	10 - 20 feet	10 - 20 feet	
10	4126 - White, E	Black, N. Pi	n Oak Sav	wtimbe	Mediur	m 14.0	105	51-80	N/A	Α	Stand is regenerating well following recent harvest, advanced regen
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	progressing and entering intermediate canopy in spots, regen resulting from harvest is doing well with a good mix of species
	Red Pine	10		16	70	Wh	ite Oak	Medium	10 - 20 feet	10 - 20 feet	present. Overstory oak and pine are good quality and in good shape
	White Oak	60		14	105	Whi	ite Pine	Low	Variable	Variable	
	Red Oak	13		14	105	Jac	k Pine	Low	5 - 10 feet	5 - 10 feet	Harvest 2020 Harvest jack pine, aspen and poorly formed oak and maple. Maintain as oak island within larger surrounding harvest.
	White Pine	15	Seedling	8	70	Jac	k Pine	Trace	5 - 10 feet	5 - 10 feet	Expect new age class to form in gaps created by harvest
	Black Cherry	2	Seedling	8		Blac	k Cherry	Low	5 - 10 feet	5 - 10 feet	• • • • • • • • • • • • • • • • • • •
							d Oak	Low	5 - 10 feet	5 - 10 feet	1

Compartment: 53

Year of Entry: 2027

Stand	Level 4 Co	over Type	Size Density	Acres	Stand Age	BA Range	Managed S	Site	General Comments
11	4211 - Plan	ted Red Pine	Unspecifed	38.0	1	Immature			Red pine growing well, minimal competition throughout stand.2023 - Year 1 Regeneration Survey was Completed 9/13/2023. There is currently 857 Trees Per Acre and the stand is currently 98% Free to Grow at this time. 2023 - Stand was planted to red pine, 911 TPA. 2022 - Stand was Contacted Skidder Sprayed 7/18/20222021 - Stand Was contracted trenched2020: Site chip harvested to prep for planting. Trench in 2021. 2015: Consider harvesting this and planting red pine. Most of the stand would be pretty clean after harvest. Northwest part has heavier oak understory. Part of stand 14 could also be final harvested where there is light understory development. Stand 60 should be retained as good age/structure diversity. 2005;Older pine and oak scattered JP variable aged 30-50 most 30. Jack pine looks fine but the quality is poor. Red pine did much better on this site. Let grow in more and look at in next entry.
12	3201 - S	weet Fern	Unspecifed	2.1			No	-	Sweetfern opening.
					nopy Species		Avg. Height	Size	
					ack Pine	Trace	10 - 20 feet	10 - 20 feet	
					ed Grasses	Low	Not Applicable		
					ohns Wort	Low	Not Applicable		
				Sw	veet Fern	Full	5 - 10 feet	5 - 10 feet	
13	310 - Herbac	eous Openland	Sapling Medium	0.7			No	)	Old well site slowly converting to jack pine regeneration around edges which has been incorporated into adjacent stand.
14	4126 - White, E	slack, N. Pin Oak	Sawtimber Medium	11.0	105	51-80	N/A	4	Responding well after treatments, significant white oak regen in
	Canopy Species	% Cover Size Clas	s DBH Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	places along with aspen sprouts and some jack pine seedlings.
	Red Pine	5	14	WI	hite Pine	Low	5 - 10 feet	5 - 10 feet	
	Red Maple	2	12	Ja	ack Pine	Low	Variable	Variable	
	Red Oak	20	16	W	hite Oak	Medium	5 - 10 feet	5 - 10 feet	
	White Oak	73	16 105	R	ed Pine	Low	5 - 10 feet	5 - 10 feet	
				Re	ed Maple	Low	5 - 10 feet	5 - 10 feet	
15	4211 - Plan	ted Red Pine	Unspecifed	42.9	0	Immature			Clean site for planting objective, regen present is primarily cherry sprouts in the 1-3' range scattered through. A few retained red pine in the pole/log class to trench around along with regen buffer along trail which contains some pole sized charry and white pine as well.  Stand harvested in summer 2023. Trench, spray and plant red pine. Trench around motorcycle trail which loops through stand. Shrub and tree buffer along trail.

	Traverse City Mgt. Off		jt. Offit				Торс				Year of Entry: 2027
Stan	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
16	4129 -	Mixed Oak		Sawtimb	er Well	21.6	105	141-170	N/A	<b>\</b>	Fair quality stand, less of a conifer component than adjacent stand
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	18. Was originally part of stand 23 but is mainly upland. NCT passes through stand along with forest road. Oak is fair quality, some
	Red Oak	35		11	105	W	hite Oak	Medium	5 - 10 feet	5 - 10 feet	pockets of white oak regen and a fair amount of white pine saplings.
	White Pine	10		14	90	Ва	lsam Fir	Low	Variable	Variable	Consider treating this stand along with stand 18 and 22 next YOE.
	Jack Pine	10		9	65	WI	nite Pine	Medium	10 - 20 feet	10 - 20 feet	
	White Oak	25		12	105						-
	Red Maple	10		10	80						
	Bigtooth Aspen	10		12	90						
17	42220 - Na	tural Jack P	Pine	Sapling	Medium	2.7	30 li	mmature	N/A	<b>\</b>	Natural succession of jack pine into old well site. Averages 4" DBH
	Canopy Species	% Cover	Size Class	DBH	l Age						but some merchantable trees throughout stand, will likely be J6 next YOE.
	Jack Pine	100	Log	4	30						
18	4191 - Mixed Upl Co	and Decidu	ous with	Sawtimb	er Well	26.7	105	81-110	N/A	1	Fair quality stand of mixed species, dominated primarily by white oak and white pine. Understory of white pine developing well with relatively
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	dense pockets of white oak scattered throughout stand. Cycle trail reroute passes through stand.
	White Pine	20		10	55	WI	nite Pine	Medium	10 - 20 feet	10 - 20 feet	Toroute passes unough stand.
	Jack Pine	15		10	65	Re	d Maple	Medium	10 - 20 feet	10 - 20 feet	
	White Oak	35		14	105	W	hite Oak	Low	5 - 10 feet	5 - 10 feet	
	Red Pine	5		14	105	Ва	lsam Fir	Low	5 - 10 feet	5 - 10 feet	
	Red Maple	15		10	55						
	Bigtooth Aspen	5		10	55						
19	4126 - White,	Black, N. Pi	in Oak	Sapling	Medium	31.3	2	1-50	N/A	١	Regenerating stand consisting primarily of red maple and white oak
	Canopy Species	% Cover	Size Class	DBH	I Age						saplings. Scattered white oak retained at time of recent harvest, less than 10BA. Fair amount of browse in some areas, also areas not yet
	Red Maple	40	Log	1	2						filling in with regeneration, currently occupied with concentrated
	White Oak	5		11	89						pockets of sedge. Scattered, trace jack pine and white pine saplings.
	White Oak	55	Log	1	2						
20	3201 - \$	Sweet Fern		Unspe	cifed	2.2			No	ı	Big clumps of sweetfern. Redtop (?) grass. Nice oaks surrounding
						Sub-Ca	nopy Species	Density	Avg. Height	Size	opening. A couple holes, a patch of milkweed. Two-track goes around perimeter.
						Ja	ick Pine	Low	10 - 20 feet	10 - 20 feet	- di da la politica di la politica d
						Mixe	d Grasses	High	Not Applicable	Not Applicabl	•
										1	1

High

5 - 10 feet

Sweet Fern

5 - 10 feet

Compartment: 53

Compartment: 53 Year of Entry: 2027

											rour or Entry. 2027		
Stand	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	Site	General Comments		
21	42260 - Natural Pi	ine, Mixed [	Deciduous	Poletimb	er Well	56.3	55	81-110	N/A	Ą	Mixed stand, predominantly jack pine and white oak with smaller		
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	areas and/or inclusions of larger red and white pine. Fairly uniform, well stocked understood of white oak and white pine. North country		
	Red Maple	10	Seedling	6		WI	hite Oak	Medium	Variable	Variable	trail and motorcycle trail transect stand.		
	White Oak	20		14	84	Wh	nite Pine	Medium	Variable	Variable			
	Red Oak	5		14							-		
	Red Pine	10		12									
	White Pine	15		11									
	Jack Pine	40		9	55								
22	4126 - White,	Black, N. Pi	in Oak	Poletimb	er Well	17.7	110	111-140	N/A	4	Fair quality oak stand with conifer component in overstory and		
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	Sub-Canopy Species Density Avg. Height		Size	developing in understory. White oak regeneration is prevalent in su and west portions of stand, not present in north and east or at trace			
	White Oak	65		10	110	WI	hite Oak	Medium	5 - 10 feet	5 - 10 feet	levels. TS# 027-14. Partially cut but not completed. Buyer		
	Red Maple	10		9	110	Wł	nite Pine	Medium	10 - 20 feet	10 - 20 feet	requested extension but did not return it.		
ı	Northern Pin Oak	5		10					I				
	Red Pine	3		10									
	Red Oak	15		12	110								
	White Pine	2		12									
23	42290 - Nati	ural Mixed I	Pine S	awtimbe	r Medium	n 34.1	135	141-170	N/A	1	Mixed pine stand with scattered red oak and red maple throughout.		
	Canopy Species	% Cover	Size Class		l Age		nopy Species	Density	Avg. Height	Size	Steep north facing slope to 22 creek RMZ, lowland soils in northern area of stand near creek, cedar and hemlock more common in this		
	White Pine	35		18	135		nite Pine	Low	5 - 10 feet	5 - 10 feet	area of stand. NCT travels through stand, area commonly referred		
	Red Pine	40		14	135	Ва	Isam Fir	Low	5 - 10 feet	5 - 10 feet	as 'Valley of the Giants'.		
	Red Oak	10		16		Н	emlock	Low	10 - 20 feet	10 - 20 feet			
No	orthern White Cedar	5		12							1		
	Red Maple	10		11									
25	42260 - Natural Pi	ine, Mixed [	Deciduous	Sawtimb	er Well	16.2	120	81-110	N/A	A .	Natural pine/oak stand with larger red and white pine scattered		
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	throughout. Pole sized white pine and jack pine make up remainder conifer canopy, white oak, red oak and red maple evenly distributed		
	White Oak	10		12		Wh	nite Pine	Medium	5 - 10 feet	5 - 10 feet	Aspen is patchy, clone included in stand w/in southern lobe.		
	Red Pine	10		12		WI	hite Oak	Trace	10 - 20 feet	10 - 20 feet	Motorcycle trail traverses stand.		
	Red Oak	5		10		Ва	lsam Fir	Low	5 - 10 feet	5 - 10 feet			
	Red Maple	15		10	80				1	1			
	Bigtooth Aspen	5		8									
	White Pine	35		14	120								
	Jack Pine	20		8									
26	4126 - White,	Black, N. Pi	in Oak	Sawtimb	er Well	10.7	120	51-80	N/A	4	Oak stand retained when adjacent stand was cut and replanted.		
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Recommend retaining stand for long term retention, at least 2 more entry years while red pine plantation fills in and matures.		
	Jack Pine	5	Seedling	8		WI	hite Oak	Low	5 - 10 feet	5 - 10 feet	Toring years write rea pine plantation files in and matures.		
											╣		

Low

Trace

5 - 10 feet

5 - 10 feet

5 - 10 feet

5 - 10 feet

White Oak

Red Maple

Red Oak

60

5

30

Seedling

7

14

13 120

White Pine

Red Maple

Stand Size Density **Managed Site General Comments** Level 4 Cover Type Acres Stand Age BA Range 6120 - Lowland Cedar Sawtimber Well 29.0 105 111-140 N/A Cedar stand with spruce/fir component throughout. Also large red and 27 white pine scattered throughout stand, some very large diameter % Cover Size Class **DBH Age** Size **Canopy Species Sub-Canopy Species** Density Ava. Heiaht individual legacy trees. Some historic beaver activity along creek. White Pine 10 14 135 White Pine 5 - 10 feet 5 - 10 feet Low 2 14 135 5 - 10 feet Red Pine Balsam Fir Medium 5 - 10 feet Balsam Fir 6 Seedling 8 Hemlock Low 10 - 20 feet 10 - 20 feet 10 12 Red Maple 100 2 8 Yellow Birch Seedling 2 8 Black Spruce Seedling Northern White Cedar 58 12 105 Hemlock 10 14 105 4126 - White, Black, N. Pin Oak Sawtimber Medium 17.3 105 51-80 N/A Stand responding well from harvest, significant white oak regeneration 28 from acorn and stump sprout origin, in faily good condition, some **Canopy Species** Size % Cover Size Class DBH Age **Sub-Canopy Species** Density Avg. Height areas browsed. Some slash from adjacent cut/plant treatment was 10 12 White Pine Medium 10 - 20 feet 10 - 20 feet Red Maple placed in this stand as mentioned in previous comments, breaking down and currently providing a good source of course woody debris. White Pine 20 Seedling 7 White Oak High 5 - 10 feet 5 - 10 feet 70 13 105 5 - 10 feet White Oak Red Maple Low 5 - 10 feet 2020: Harvest 2020. Removed jack pine and poor formed oak and red maple. Lots of slash from surrounding stand left in this stand. State land posted. Contact from C.O. Signs taken down. 4199 - Other Mixed Upland Deciduous Sawtimber Well 5.9 80 51-80 N/A Small flat between more entirely upland stands and the 22 creek 29 corridor. Mainly upland but some lowland areas and high water table % Cover Size Class **Sub-Canopy Species** Size **Canopy Species DBH Age** Density Avg. Height in spots. Jack pine has fallen out of stand, aspen is deteriorating a bit. White Pine 5 14 White Pine Medium Variable Variable 14 95 White Oak 15 Balsam Fir Medium 5 - 10 feet 5 - 10 feet 5 Balsam Fir Seedling Red Maple 35 12 80 30 Bigtooth Aspen 14 80 5 Red Oak 14 105 5 Red Pine 14 110 30 4133 - Aspen, Mixed Pine Sawtimber Well 7.8 90 81-110 N/A Steep north facing slope leading to 22 Creek, majority too steep to harvest and lower elevation more level portion of stand falls within **Canopy Species** % Cover Size Class **DBH Age Sub-Canopy Species Density** Avg. Height Size riparian management zone. Some beaver activity closer to creek. White Oak Variable 5 14 105 Balsam Fir Medium Variable Red oak is fairly nice quality. 12 White Pine 10 80 White Pine Iow 5 - 10 feet 5 - 10 feet Jack Pine 5 10 80 Red Oak 10 14 105 20 Red Maple 10 75 Bigtooth Aspen 20 14 90 10 Red Pine 12 80

20

16 90

Quaking Aspen

Compartment: 53

Year of Entry: 2027

											real of Entry. 2021
Stand	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
31	4199 - Other Mixe	ed Upland D	Deciduous	Sapling	Poor	20.5	16	Immature	N/A	4	Featured regen as canopy but scattered oak and pine in overstory
	Canopy Species	% Cover	Size Class	DBH	I Age						retained at time of last harvest. Aspen more of a significant component in central/western area of stand.
	Red Pine	3		12							on ponon in contrar notion and on ordinar
	White Pine	10	Log	1							
	Red Oak	20	Log	1	16						
	Red Maple	14	Log	2	16						
	Bigtooth Aspen	20	Log	2	16						
	White Oak	3		12	91						
	White Oak	30	Log	1	16						
33	4211 - Pla	nted Red Pi	ine	Unspe	ecifed	118.9	1	Immature			Planted red pine growing well, some competition but nominal. Expect red pine to be ftg at 3 year regen check.2023 - Stands year 1 regeneration check was completed 9/13/2023. Stand currently has 890 Trees per Acre and is 98% Free to Grow at this time. 2023 - Stand was planted to red pine, 935 TPA. Some scattered white oaks left in stand.2022 - July 2022 Stand was Site Prep Sprayed with Contract Helicopter Contracted Trenched Spring 2021.Harvested 2020. Chipped and cleared to prep site for planting. Good bit of oak and rm sprouting places. Trench and spray 2021 if possible.
34	4133 - Asp	en, Mixed P	ine	Sawtimb		15.9	90	111-140	N/A	4	Aspen stand with pine and oak throughout. Some variability in species composition, areas where pine/oak are more prevalent but overall
	Canopy Species	% Cover	Size Class		l Age		nopy Specie	s Density	Avg. Height	Size	considered aspen stand. SW facing slope is steep, potentially
	Red Pine	15		16	120		led Oak	Low	10 - 20 feet	10 - 20 feet	operable in spots but base of slope is essentially at RMZ of creek and
	White Oak	5		16	120		hite Pine	Medium	Variable	Variable	NCT, motorcycle trail also traverses stand at top of ridge.
	White Pine	25		12	90		hite Oak	Low	10 - 20 feet	10 - 20 feet	
	Red Oak	5		14	120	Ва	alsam Fir	Medium	5 - 10 feet	5 - 10 feet	
	Red Maple	5		9	50						
	Bigtooth Aspen	45		12	90						
35	3201 - 3	Sweet Fern		Unspe	cifed	1.7			No	)	Another nice sweetfern opening. Blown-over pine blocks access. Leave as-is. Couple nice snags NW corner.
36	4310 - P	ine, Oak Mi	x	Sawtimb	er Well	26.4	105	141-170	N/A	4	Oak, pine stand of natural origin, some large trees throughout stand.
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	Advanced understory of primarily white pine developing, also intermediate canopy of white pine, white oak and red maple in areas
	Red Oak	5		14		R	ted Oak	Low	10 - 20 feet	10 - 20 feet	of stand. Jack pine scattered throughout stand, low density, fair
	Northern Pin Oak	5		14		W	hite Pine	High	10 - 20 feet	10 - 20 feet	quality.
	Red Pine	20		10	70	W	hite Oak	Low	10 - 20 feet	10 - 20 feet	
	White Pine	25		13		Re	ed Maple	Low	10 - 20 feet	10 - 20 feet	
	Jack Pine	3		10							
	Red Maple	10		10							
	Bigtooth Aspen	2	Seedling	6							
	14/1/1/ 0 1										

30

12 105

White Oak

Stan	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age I	BA Range	Managed S	Site	General Comments
37	4191 - Mixed Upla Co	and Decidu onifer	uous with	Saplin	g Well	25.9	16	1-50	N/A	A	Mixed stand of regen consisting mainly of jack pine and white oak resulting from 2009 harvest, scattered white oak, red pine and white
	Canopy Species	% Cove	Size Class	DBH	l Age						pine overstory retained, also featured in canopy species.
	White Pine	2	Seedling	8							
	White Pine	5	Log	1							
	Jack Pine	25	Log	1							
	Black Cherry	3	Log	1							
	White Oak	3		12	91						
	White Oak	45	Log	1	16						
	Red Pine	2		9							
	Red Pine	2	Log	1							
	Red Maple	13	Log	1							
38	4130	- Aspen		Saplin	g Well	5.4	27	Immature	N/A	4	Regenerating aspen stand, converting from sapling to pole, will be
	Canopy Species	% Cove	Size Class	DBH	l Age	Sub-Ca	anopy Species	Density	Avg. Height	Size	small pole next yoe. White Pine and jack pine present in southern portion of stand. Trace pine oak in stand as well, retained at time of
	White Oak	2	Log	2	27	W	hite Pine	Low	5 - 10 feet	5 - 10 feet	last harvest.
	White Pine	2	Log	3		<u> </u>		,			_
	Jack Pine	9	Pole	4							
	Black Cherry	5	Log	3	27						
	Red Maple	5	Log	3	27						
	Bigtooth Aspen	77	Pole	4	27						
39	4199 - Other Mixe	ed Upland [	Deciduous	Saplin	g Well	14.9	27	201+	N/A	4	Mixed regen throughout, primarily aspen, white oak and red maple
	Canopy Species	% Cove	Size Class	DBH	l Age						resulting from 1998 harvest. Retained overstory of pine and white oak is featured in canopy as well, averaging ~10 ba overall, slightly less in
	White Oak	5		12							many areas of stand.
	White Oak	25	Log	1	27						
	Red Maple	20	Log	2	27						
	Bigtooth Aspen	25		3	27						
	Red Oak	10	Log	1	27						
	Northern Pin Oak	5		15							
	White Pine	5	Log	2							
	Jack Pine	5	Log	2							
40	3201 - 5	Sweet Fern	l	Unspe	ecifed	2.1			No	)	Nice sweetfern opening.
						Sub-Ca	anopy Species	Density	Avg. Height	Size	
						Sv	veet Fern	High	5 - 10 feet	5 - 10 feet	
						Little	e Bluestem	Medium	Not Applicable	Not Applicabl	<del>e</del>
						Bra	cken Fern	Trace	Not Applicable	Not Applicabl	€

Trace

10 - 20 feet

10 - 20 feet

Jack Pine

Compartment: 53

Year of Entry: 2027

3

Stand	Level 4 C	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
41	4126 - White, I	Black, N. Pi	n Oak	Saplin	g Poor	54.6	9	1-50	N/A	٨	
	Canopy Species	% Cover	Size Class	DBI	l Age						
	Red Pine	5		10							
	Red Maple	15	Log	1							
	White Pine	2		12							
	Jack Pine	15	Log	1							
	White Oak	10		12	91						
	White Oak	53	Log	1	9						
42	4122 -	Oak, Pine	;	Sawtimb	er Poor	55.5	89	51-80	N/A	٨	Stand resulting from seed tree harvest in 2009, full stocking of mixed
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	regen, mainly white oak and jack pine. White oak, red pine and white pine make up scattered retention from harvest, featured in canopy but
	Red Oak	5		13		WI	nite Pine	Medium	10 - 20 feet	10 - 20 feet	this is a two aged stand with generally full stocking of regenerating
	White Oak	60		13	89	Ja	ick Pine	High	10 - 20 feet	10 - 20 feet	species surrounding seed tree retention.
	Red Pine	20		11		Re	ed Maple	Medium	10 - 20 feet	10 - 20 feet	
	White Pine	10		9		W	hite Oak	High	10 - 20 feet	10 - 20 feet	
	Jack Pine	5	Seedling	8					1	1	
43	,		5.4	35	1-50	N/A	1	Old well site or opening filling in with regeneration, also some scattered larger trees around perimeter. ~30-40% canopy closure			
	Canopy Species	% Cover	Size Class	DBI	l Age						overall, variable size classes.
	Red Maple	10	Sapling	5	35						
	Bigtooth Aspen	20	Log	3							
	Red Oak	5		12							
	White Pine	5		12							
	White Pine	10	Pole	4	35						
	Jack Pine	50	Pole	4	35						
44	4310 - Pi	ne, Oak Mix	( I	Poletimb	er Well	83.9	30	1-50	N/A	٨	Uniform canopy coverage consisting primarily of jack pine pole/sap
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	sized regeneration along with white pine, white oak and lower stocking of additional species - this regen appears to have been released at
	Red Pine	13		12	83	WI	nite Pine	Low	< 5 feet	< 5 feet	time of harvest which took place in 2010, originally resulting from a
	Red Oak	10		10		W	hite Oak	Medium	5 - 10 feet	5 - 10 feet	harvest in 1994. In addition, scattered red pine, white oak and white
	Red Maple	5	Log	3		R	ed Pine	Low	< 5 feet	< 5 feet	pine throughout remaining from last harvest. Jack pine averages smal pole of ~5" but is pole/saplings in size.
	Bigtooth Aspen	5	Log	3				1		1	2 poto of 0 but to poto/baptings in size.
	White Oak	10		12							
	White Pine	2	Sapling	5							
	Jack Pine	40	Sapling	5	30						

Black Cherry

15

Log

Compartment: 53

Year of Entry: 2027

		,									Year of Entry: 2027
Stand	Level 4 Co	over Type		Size Dei	nsity	Acres	Stand Age E	BA Range	Managed \$	Site	General Comments
45	4191 - Mixed Upla Co	and Decidud Inifer	ous with	Poletimbe	er Well	33.9 105		51-80	N/A		Mixed upland stand, some variability in species composition with pockets heavier to pine component, areas of more concentrated whi
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	oak and also aspen clones present. Jack pine and red maple uniformly distributed throughout. White oak regen concentrated in
	White Pine	20		9	65	Wh	nite Pine	Medium	10 - 20 feet	10 - 20 feet	areas where oak is more prominent.
	Jack Pine	20		8		Wh	hite Oak	Medium	5 - 10 feet	5 - 10 feet	'
	Red Maple	5	Seedling	8							1
	Bigtooth Aspen	10		8							
	White Oak	35		14	105						
46	110 - Low Ir	ntensity Urb	an	Unspec	cifed	2.9			No	)	Oil well site. Has a cap on the pipe.
						Sub-Ca	nopy Species	Density	Avg. Height	Size	
						Spotted	d Knapweed	Low	Not Applicable	Not Applicable	
						Mixe	d Grasses	Medium	Not Applicable	Not Applicable	
						St. Jo	ohns Wort	Medium	Not Applicable	Not Applicable	
						Little	Bluestem	Low	Not Applicable	Not Applicable	
						Sw	eet Fern	Medium	5 - 10 feet	5 - 10 feet	
47	6139 - Mixed			Sawtimbe		39.4	90	111-140	N//		Lowland/upland stand, includes creek bottom and RMZ along with slope to creek, specifically along southern edge of stand where more
	Canopy Species		Size Class		Age		nopy Species	Density	Avg. Height	Size	upland is included but is essentially the same stand and will be
	Red Maple	20	Sapling	5			nite Pine	Medium	Variable	Variable	included in hard-factored area.
	Bigtooth Aspen	10		10		Blac	ck Cherry	Medium	5 - 10 feet	5 - 10 feet	
	Black Spruce	10	Seedling	8							
Noi	thern White Cedar	10		10							
	White Oak	10		12							
	Quaking Aspen	10		10							
	White Pine	20		14	90						
	Jack Pine	5	Seedling	8							

40	12200	i iiio, oan		Cawaniba	JI I 001	00.7	1 00	14/7	•
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
	White Pine	10		12		White Oak	High	10 - 20 feet	10 - 20 feet
	Jack Pine	5		10		Jack Pine	High	10 - 20 feet	10 - 20 feet
	White Oak	25		12		Black Cherry	Medium	5 - 10 feet	5 - 10 feet
	Red Oak	5		12		Red Maple	Medium	5 - 10 feet	5 - 10 feet
	Red Maple	10	Seedling	8		Bigtooth Aspen	Medium	5 - 10 feet	5 - 10 feet
	Red Pine	45		13	75				

58.7

75

1-50

N/A

5

Sawtimber Poor

Sapling

Stand is a mix of primarily red pine and white oak making up the overstory from a seed tree harvest in 2010 - overstory species are featured thus the 25-50% canopy closure identified. Understory recruiting well, mainly consisting of jack pine, white oak and red and white pine at lower densities, some of which was released from harvest, other areas of ~14 year old regen. BA of red pine and white oak averages about 35 BA with some pockets slightly higher mainly along Mayfield rd, other areas are not stocked with merchantable timber but have very dense regen.

Compartment: 53

**Black Cherry** 

40

5

42250 - Pine, Oak

Stanc	Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Site	General Comments
49	42260 - Natural Pi	ne, Mixed D	eciduous	Sapling		262.7	17	Immature	N/A	Mixed stand regenerating from harvest in 2007, generally dominated by jack pine with white oak, red maple and cherry present as well.
	Canopy Species		Size Class		Age					Scattered retention mainly consisting of white oak and red pine, some
	Red Pine	5		12	80					trace jack pine and balsam fir poles present as well.
	White Oak	2		12						
	White Oak	15	Log	2						
	Red Maple	5	Log	2						
	Bigtooth Aspen	5	Log	1						
	White Pine	5	Log	1						
	Jack Pine	58	Log	2	17					
	Black Cherry	5	Log	1						
50	6233 - W	et Meadow		Unspe	cifed	4.9			No	Twenty two creek runs through. Cedar is dead and dying. Mostly sedges with traces of fern and other forbs.
51	4126 - White, E	· · · · · · · · · · · · · · · · · · ·		Poletimb		8.2	120	1-50	N/A	Stand resulting from 2018 harvest, some trace regen, overstory oak retained, oak barrens type stand. NCT traverses stand.
	Canopy Species		Size Class		Age					rotalitot, our burrons type stand. 1101 traverses stand.
	Red Pine	2		14						
	White Oak	91		14	120					
	White Pine	2		14						
	Black Cherry	5	Seedling	8						
52	4319 - Mixed	Upland Fo	rest	Sapling	Well	28.1	17	Immature	N/A	Mixed stand, regenerating well following harvest. Retained white oak and red pine in good condition. Regen is variable in terms of species
	Canopy Species	% Cover	Size Class	DBH	Age					composition, appears jack pine is dominant in general with pockets of
	White Pine	5	Log	1						white oak and aspen also quite prevalent.
	Jack Pine	35	Log	2	17					
	Black Cherry	5	Log	1	17					
	Red Pine	2		8						
	White Oak	3		9						
	White Oak	15	Log	1	17					
	Red Maple	15	Log	2	17					
	Bigtooth Aspen	20	Log	1	17					
53	6220 - A	lder/Willow		Unspe	cifed	14.5			No	
		141 - Planted Mixed Pine, Mixed Sapling Well Deciduous				Immature	N/A	Red pine that was planted growing well and pockets are free to however significant variability in stocking and species composit		
54			Mixed	Sapling	Well	6.0	15	Immature	N/A	Red pine that was planted growing well and pockets are free to grow, however significant variability in stocking and species composition.
		duous	Mixed Size Class			6.0	15	Immature	N/A	however significant variability in stocking and species composition.  Developing into mixed stand overall with pockets of aspen, jack pine,
	Dec	duous			Well  Age 15	6.0	15	Immature	N/A	however significant variability in stocking and species composition.
	Dec Canopy Species	duous % Cover	Size Class	DBH	Age	6.0	15	Immature	N/A	however significant variability in stocking and species composition.  Developing into mixed stand overall with pockets of aspen, jack pine,

	nd Lovel 4.0									roar or Entry, 2021	
Stand	Level 4 C	Level 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		General Comments							
55	3104 -	Degraded		Unspe	cifed	1.3			No	)	Old well site, beginning to fill in with conifer and deciduous species.
						Sub-Ca	nopy Species	Density	Avg. Height	Size	Could probably include in Carpenter Creek burn complex at this time not sure of current ground cover and/or if this area is degraded/bare
						Ja	ack Pine	Trace	5 - 10 feet	5 - 10 feet	soil.
						Spotte	d Knapweed	Full	Not Applicable	Not Applicable	
						Sw	eet Fern	Low	5 - 10 feet	5 - 10 feet	
56	6233 - W	et Meadow	,	Unspe	cifed	3.1			No	)	Sedge meadow. Evidence of an old beaver flooding.
57	4112 - Maple, Beed	ch, Cherry A	Association	Sawtimb	er Well	6.3	2	1-50	N/A	A	Lightly stocked multi-part stand resulting from dieback pockets that
	Canopy Species	% Cover	Size Class	DBF	l Age						were harvested following 2020 red pine thinning. Mainly deciduous
	Red Maple	40	Log	1	2						regen but some white pine and trace red pine.
	Beech	15	Log	1	2						
	White Pine	5	Log	1	2						
	Black Cherry	40	Log	2	2						
58	Canopy Species	Pine, Oak Mix  Cover Size Class		Sapling	Poor	1.7	20 I	mmature	N/A	A	Small mixed species stand, regen resulting from harvest 30 years
		% Cover	Size Class	DBH	l Age						ago, overstory oak present.
	Red Oak	20		12	105						
	White Oak	20		12	105						
	White Pine	30	Log	2	20						
	Jack Pine	20	Log	1	20						
	Black Cherry	10	Log	1	30						
60	4310 - Pi	ne, Oak Mix	ĸ	Sawtimb	er Well	5.4	105	111-140	N/A	A	Large oak and pine island within larger plantation area established in
	Canopy Species	% Cover	Size Class	DBF	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	recent years. Recommend for long term retention, at least until red pine is established and further develops.
	White Pine	30		12	65	WI	hite Pine	Low	5 - 10 feet	5 - 10 feet	
	Jack Pine	10		10	65	Re	ed Maple	Low	5 - 10 feet	5 - 10 feet	
	Red Pine	10		12	65						
	White Oak	30		16	105						
	Red Oak	20		16	105						
62	4133 - Aspe	en, Mixed P	ine	Saplin	y Well	1.6	30 I	mmature	N/A	A	Primarily aspen and red maple regen along with scattered oak and older pine.
	Canopy Species	% Cover	Size Class		l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	oluei pilie.
	White Oak	3		14	105	WI	hite Pine	Medium	5 - 10 feet	5 - 10 feet	
	Balsam Fir	2	Log	2							
	Red Oak	2		12	105						
	Red Maple	10	Log	2	30						
	Bigtooth Aspen	63	Pole	3	30						
				_							

White Pine

20

Log

2 20

Compartment: 53

Stand				Size De	nsity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
63	6128 - Lowland ( Deci	Coniferous, duous	Mixed	Sawtimb	er Well	1 2.4	90	111-140	N/A	4	Small stand, majority lowland with upland edges. Dense understory o balsam in spots, some large cedar present. 22 Creek flows through
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	center of stand.
	White Pine	15		12	90	W	hite Pine	Medium	10 - 20 feet	10 - 20 feet	
	Black Ash	2	Sapling	7		Ва	alsam Fir	Medium	10 - 20 feet	10 - 20 feet	
	White Oak	1		12		Re	ed Maple	Medium	10 - 20 feet	10 - 20 feet	
	Balsam Fir	15	Seedling	8		Ta	ag Alder	Low	5 - 10 feet	5 - 10 feet	
	Red Maple	10		12							•
	Paper Birch	15		10							
	Bigtooth Aspen	5		12							
	Red Oak	2		12							
No	orthern White Cedar	35		12	90						
64	330 - Low-[	Density Tre	es	Unspe	cifed	245.4			Yes	S	Carpenter Creek Rx burn area.
65	3201 - S	weet Fern		Unspe	cifed	2.7			No	)	Old well site, slowly seeding in with jack pine. Retained previous
						Sub-Ca	nopy Species	Density	Avg. Height	Size	species composition.
						Já	ack Pine	Low	5 - 10 feet	5 - 10 feet	
						Cladonia (	(Reindeer moss	s) Trace	Not Applicable	Not Applicable	
						St. J	Johns Wort	Medium	Not Applicable	Not Applicable	
						Spotte	ed Knapweed	High	Not Applicable	Not Applicable	
						Aut	umn Olive	High	5 - 10 feet	5 - 10 feet	
						Sw	veet Fern	High	5 - 10 feet	5 - 10 feet	
67	4191 - Mixed Upla Co	and Decidu	ous with	Sapling	y Well	84.5	15	81-110	N/A	Ą	Stand consists of dense regen, 10-20' in height resulting from 2009 harvest. Scattered red pine along with white oak and a few red oak
	Canopy Species	% Cover	Size Class	DBH	Age						retained at time of harvest. Red pine that was planted in 2011 is patchy, some uniform areas where it's free to grow and others where it
	White Pine	5	Log	1							is present but over topped - in general this is a mixed stand with white
	Jack Pine	15	Log	1	15						oak dominant at this stage of inventory. Should develop into a nice
	Red Maple	10	Log	1	15						mixed stand, fully stocked. TS# 072-07. Harvested fall 2009. Planted spring 2011. Planted red pine with oak, jp, aspen, rm, wp, ba
	White Oak	3		13	91						that started after harvest. Retention of log sized oak and pine from
	White Oak	30	Log	2	15						last treatment. Heavy browsing on oak but some is growing through.
	Quaking Aspen	5	Log	1	15						Good pine site but also good deciduous mix coming in.
	Red Pine	3		11							
	Red Pine	17	Log	2	14						

Red Oak

2

Year of Entry: 2027 Stand **Level 4 Cover Type** Size Density Acres Stand Age BA Range **Managed Site General Comments** 42260 - Natural Pine, Mixed Deciduous Sawtimber Well 16.3 138 111-140 N/A Large, old white pine and oak along with scattered old red pine 68 distributed throughout - aspen has filled in with wp, jp, rm, aspen, 45 **DBH Age** Size **Canopy Species** % Cover Size Class **Sub-Canopy Species** Density Avg. Height years old. Jack pine more prevalent in western tip of stand. White Pine 40 18 138 Balsam Fir Low 5 - 10 feet 5 - 10 feet Topographically stand is generally 2-5' above creek bed, some lowland influence in areas of stand. 10 12 5 - 10 feet Jack Pine Red Maple Medium 5 - 10 feet Red Oak 5 18 White Pine Medium 5 - 10 feet 5 - 10 feet 5 14 White Oak 5 6 Balsam Fir Seedling 15 16 Red Pine 15 9 65 Red Maple 5 14 Bigtooth Aspen 4191 - Mixed Upland Deciduous with Sapling Well 67.9 15 1-50 N/A Mixed stand with dense, mixed species, specifically white oak, jack 69 Conifer pine, white pine and evenly distributed red maple and aspen - this advanced regen averages 10-25' in height. Red pine, white pine and **Canopy Species** % Cover Size Class **DBH Age Sub-Canopy Species** Density Avg. Height Size white oak along with some red oak make up retained overstory from Red Pine 5 14 White Pine Medium 5 - 10 feet 5 - 10 feet last harvest, featured with advanced regen as overall canopy. Witch White Oak 5 14 91 Witch Hazel 5 - 10 feet 5 - 10 feet hazel and white pine filling in under advanced regen, 3-6' in height. Low 20 2 15 White Oak Loa 15 1 15 Red Maple Log Bigtooth Aspen 25 Log 2 15 2 15 White Pine White Pine 10 2 15 Log 2 Jack Pine 10 15 Log Red Oak 3 15 4311 - Pine, Aspen Mix Poletimber Well 22.1 35 51-80 N/A Mixed stand, consisting mainly of white pine of somewhat variable 70 dbh, averages 6-8", along with aspen averaging ~5-6" dbh with some **DBH Age Canopy Species** % Cover Size Class **Sub-Canopy Species** Density Avg. Height Size variability. In addition, red pine, white oak and red oak present along 10 - 20 feet White Oak 5 14 105 White Oak Medium 10 - 20 feet with jack pine and red maple. Some dense pockets of white oak regeneration, mainly where white pine is not as dense. 5 14 Red Oak 105 Red Pine Low < 5 feet < 5 feet

Low

Low

Low

Iow

< 5 feet

< 5 feet

5 - 10 feet

5 - 10 feet

< 5 feet

< 5 feet

5 - 10 feet

5 - 10 feet

Northern Pin Oak

Red Pine

White Pine

Jack Pine

Red Maple

Bigtooth Aspen

2

5

45

5

8

25

13

7

6

5

5

5

Seedling

Sapling

Sapling

Sapling

105

75

35

35

70

35

White Pine

Jack Pine

Black Cherry

Witch Hazel

Compartment: 53

8

14 105

Stand **Level 4 Cover Type** Size Density **Managed Site General Comments** Acres Stand Age BA Range 42110 - Planted Red Pine Sawtimber Well 132.3 94 81-110 N/A Red pine stand with white oak and red oak present in canopy, most 71 notably in south and north portions of stand. Red pine is decent **DBH Age** Size **Canopy Species** % Cover Size Class **Sub-Canopy Species Density** Ava. Height quality, looks to be two aged with trace, plate bark and occasionally Red Pine 90 11 94 White Pine Medium Variable Variable fire scarred red pine, larger than average red pine common throughout stand. Understory ~25 years in age advancing well into lower canopy. 5 14 10 - 20 feet White Oak 105 Jack Pine Medium 10 - 20 feet Made up of a diverse mix of species including jack pine (thick in Red Oak 5 14 105 White Oak Medium 10 - 20 feet 10 - 20 feet areas), white oak, red pine, white pine, red maple and aspen. Canopy Medium 10 - 20 feet 10 - 20 feet Red Maple closure estimated at 75% overall, some pockets slightly lower while others are closer to 100%. Ba is variable but averages ~100. Planting Bigtooth Aspen Iow 10 - 20 feet 10 - 20 feet records show this stand was planted in 1931, previously identified as a Red Oak Iow 5 - 10 feet 5 - 10 feet natural pine stand. 72 4310 - Pine, Oak Mix Sapling Poor 12.8 15 **Immature** N/A Heavier aspen sprouting in south end over topping planted red pine. Planted red pine still surviving but generally topped by oak, maple and **Canopy Species** % Cover Size Class **DBH Age Sub-Canopy Species** Density Avg. Height Size aspen sprouts. Scattered oak and red pine log sized retention age White Oak 20 15 Witch Hazel Low 5 - 10 feet 5 - 10 feet Log 1 95. 15 Red Oak 10 Log 1 Red Pine 30 1 15 Log White Pine 5 Log 1 1 Jack Pine 10 Log 15 15 Red Maple 10 1 Log 15 1 15 Bigtooth Aspen Log 73 42250 - Pine, Oak Poletimber Medium 6.2 101 1-50 N/A Good quality, large overstory red and white pine retained at time of last harvest along with scattered single stem white oak. Advanced **Canopy Species** % Cover Size Class **DBH Age Sub-Canopy Species** Density Avg. Height Size regen released at time of harvest is growing well and new cohort of White Pine 30 12 101 White Pine Medium 10 - 20 feet 10 - 20 feet regen is established, mainly from stump sprouts. Retained overstory featured as canopy. 2020: edge call after last harvest. Verify at 20 16 White Oak 105 White Oak High 10 - 20 feet 10 - 20 feet inventory. Red Oak 20 16 105 Red Pine 5 - 10 feet 5 - 10 feet Low Red Pine 30 16 105 Red Maple Low 5 - 10 feet 5 - 10 feet 74 4310 - Pine, Oak Mix Sawtimber Well 8.6 105 81-110 N/A Large white oak with other canopy species filling in, likely resulting from past harvest or disturbance. White Pine medium density in **Canopy Species** % Cover Size Class **DBH Age Sub-Canopy Species** Density Avg. Height Size understory with red maple and white oak filling in. White Oak 38 15 105 White Pine Medium 5 - 10 feet 5 - 10 feet 20 White Pine 8 60 Red Maple Low >20 feet >20 feet Jack Pine 20 9 60 White Oak Medium 5 - 10 feet 5 - 10 feet Red Oak 10 14 105

Bigtooth Aspen

Red Pine

10

2

Seedling

Compartment: 53

Traverse City Mgt. Unit Report 7 – Stands

Stan			Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments	
77		Coniferous iduous	, Mixed S	awtimb	er Well	21.5	90	111-140	N/A	А	Low area along drainage, low stocking in areas specifically in NW. Some historic beaver activity, stand is generally lowland but include:
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	slopes leading to upland as part of RMZ.
	Black Ash	10	Seedling	8	70	Whi	ite Pine	Low	10 - 20 feet	10 - 20 feet	
	Red Maple	10	Seedling	8		Bals	sam Fir	Medium	5 - 10 feet	5 - 10 feet	
	Paper Birch	10		12					1	1	_
	Bigtooth Aspen	10		11							
	Black Spruce	10	Seedling	9							
No	orthern White Cedar	25		12	90						
	Balsam Fir	10	Seedling	9							
	White Pine	15		14							
78	4191 - Mixed Upli Co	and Decidu onifer	ous with S	Sawtimb	er Well	51.2	105	111-140	N/A	Ą	Mixed pine oak stand with scattered aspen and red maple. Pockets dense regen and other areas where regen is lighter or more mid
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	canopy white pine are present. Pockets of very large white and red pine.
	White Oak	15		16	105	Whi	ite Pine	Medium	>20 feet	>20 feet	pino.
	White Pine	15		14		Wh	ite Oak	Medium	5 - 10 feet	5 - 10 feet	
	Jack Pine	2		12	65	Re	ed Oak	Low	5 - 10 feet	5 - 10 feet	
	Red Oak	35		18	105	Red	d Maple	Low	>20 feet	>20 feet	
	Red Maple	8		8	73						_
	Bigtooth Aspen	10		10	70						
79	4310 - Pi	ne, Oak Mi	x P	oletimb	er Well	16.4	65	81-110	N/A	A	Pine oak stand with some stocking and species composition variab
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	throughout. Jack pine is more of a component in northern half. Reg specifically white pine and white oak is dense in spots. Aspen is
	White Oak	20		14	105	Whi	ite Pine	High	5 - 10 feet	5 - 10 feet	uniformly distributed throughout with some denser pockets, overall
	Red Pine	15		8	65	Re	d Pine	Low	10 - 20 feet	10 - 20 feet	quality but a bit suppressed. Should regenerate well.
	White Pine	25		8	65	Red	d Maple	Low	10 - 20 feet	10 - 20 feet	
	Jack Pine	15		9	65	Wh	ite Oak	Medium	5 - 10 feet	5 - 10 feet	
	Red Maple	5	Seedling	8	65						_
	Bigtooth Aspen	15		12	65						
	Red Oak	5		14	105						
80	42250 -	Pine, Oak	S	awtimb	er Poor	7.5	85	1-50	N/A	Ą	Split off from stand 90 which was harvested under TS# 059-16.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	Records show this stand was harvested by timber trespass (adjace private property), approximately 6 acres. (old notes) their cutting lin
	White Pine	25		14	83	Bals	sam Fir	Low	10 - 20 feet	10 - 20 feet	drifted to the west after a good start in the SE corner of the state
	White Oak	10		12		Whi	ite Pine	Low	5 - 10 feet	5 - 10 feet	land. Good aspen regeneration on the part that was harvested in t
	Red Oak	20		14	85	Red	d Maple	Low	5 - 10 feet	5 - 10 feet	spring.
				_					-		

High

< 5 feet

< 5 feet

Red Pine

Red Maple

35

10

13 85

13

Bigtooth Aspen

Compartment: 53

Stand	and Level 4 Cover Type		Size De	ensity	Acres Stand A	Age BA	Range	Managed S	ite	General Comments	
81	4191 - Mixed Upla Co	and Decidu onifer	ious with	Sapling	g Well	28.5 16		1-50	N/A	1	Mixed stand of deciduous regen with white pine also present throughout. Red pine, white pine and white oak overstory retained last
	Canopy Species	% Cover	Size Class	DBH	l Age						harvest. 2019: TS#063-17. Removed most over story to release advanced regen in understory. Scattered retention of pine oak and
	Red Pine	2		12	80						maple. Canopy call on age class that developed after 2009 harvest.
	White Oak	2		13							Verify at next inventory.
	White Oak	20	Log	1	16						
	Red Oak	15	Log	1	16						
	Red Maple	16	Log	1	16						
	Bigtooth Aspen	20	Log	1	16						
	White Pine	2		14							
	White Pine	18	Log	1	16						
82	4133 - Aspe	en, Mixed F	Pine	Poletimb	er Well	12.0 55	8	31-110	N/A	Λ.	Aspen stand with pine component, specifically red pine. Variable
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Sp	ecies	Density	Avg. Height	Size	stocking in northern portion of stand, better quality and stocking in southern 2/3 of stand.
	White Pine	10	Sapling	5		Red Pine		Low	5 - 10 feet	5 - 10 feet	Southern 2/3 of Stand.
	Jack Pine	10	Seedling	8	55	White Pine		Medium	5 - 10 feet	5 - 10 feet	
	Quaking Aspen	30	Seedling	8	55	Jack Pine		Low	5 - 10 feet	5 - 10 feet	
	White Oak	5		14	105			'		1	1
	Red Pine	10		10							
	Red Maple	5	Seedling	7							
	Bigtooth Aspen	30		8	55						
83	2113 - Fo	orage Crop	S	Unspe	ecifed	3.4			No		Maintained opening, scattered islands of primarily deciduous trees
						Sub-Canopy Sp	ecies	Density	Avg. Height	Size	throughout.
						Red Maple		Low	>20 feet	>20 feet	
						Rye (annual)	)	Full	Not Applicable	Not Applicable	
						Red Oak		Low	>20 feet	>20 feet	
84	4130	- Aspen		Sapling	g Well	20.4 16		1-50	N/A	\	Very good aspen regen with scattered oak and pine retention. Some
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Sp	ecies	Density	Avg. Height	Size	decent red maple and white pine regen present as well.
	White Oak	5	Log	1	16	White Pine		Medium	< 5 feet	< 5 feet	
	Red Pine	2	Log	3		Hawthorn (spp	o.)	Low	5 - 10 feet	5 - 10 feet	
	Red Oak	2	Log	1	16						-
	White Pine	10	Log	2							
	Black Cherry	2	Log	1	16						
	Red Maple	10	Log	2	16						

Bigtooth Aspen

69

Log

Year of Entry: 2027 Stand **Level 4 Cover Type** Size Density **Managed Site General Comments** Acres Stand Age BA Range 4311 - Pine, Aspen Mix Poletimber Well 9.9 55 81-110 N/A Mix of wp and aspen grown in among residual pine and oak. White 85 pine is heavier stocking on west side with aspen more prominent in % Cover Size Class **DBH Age** Size **Canopy Species Sub-Canopy Species Density** Ava. Heiaht 7 White Pine 55 Black Cherry 10 - 20 feet 10 - 20 feet 35 Sapling Medium 10 7 55 Jack Pine Seedling Red Maple Medium 5 - 10 feet 5 - 10 feet White Oak 2 14 90 5 6 Red Pine 2 6 Red Maple Seedling 7 Bigtooth Aspen 44 Seedling 55 Red Oak 2 14 90 42260 - Natural Pine, Mixed Deciduous 90 Sawtimber Well 8.4 81-110 N/A Red and white pine stand with aspen distributed throughout. Scattered 86 red maple, oak and jack pine distributed throughout as well. Orv/cycle **Canopy Species** % Cover Size Class **DBH Age Sub-Canopy Species** Density Avg. Height Size trail in stand. 5 - 10 feet White Oak 6 14 White Oak 5 - 10 feet Low Red Oak 2 14 White Pine Medium Variable Variable White Pine 30 15 90 Red Maple Low 5 - 10 feet 5 - 10 feet Jack Pine 2 10 Witch Hazel Low 5 - 10 feet 5 - 10 feet Red Pine 35 15 90 5 14 Red Maple 10 8 Bigtooth Aspen 8 Quaking Aspen 10 42290 - Natural Mixed Pine Sawtimber Well 13.2 124 81-110 N/A Predominantly white and red pine stand with oak and red maple more 87 prevalent in eastern portion of stand. White Pine and red pine are **DBH Age Canopy Species** % Cover Size Class **Sub-Canopy Species** Avg. Height Size Density guite large especially in western 2/3 of stand, natural origin and many White Pine 50 20 124 White Pine Medium 10 - 20 feet 10 - 20 feet legacy sized trees throughout of both species. Cored representative white pine at 124 age, could be slightly older. 25 16 Red Pine Black Cherry Medium 5 - 10 feet 5 - 10 feet 15 Red Maple 10 - 20 feet 10 - 20 feet Red Maple 14 Medium 10 16 Red Oak 105 Bigtooth Aspen Medium 10 - 20 feet 10 - 20 feet Balsam Fir 5 - 10 feet 5 - 10 feet Low 42250 - Pine, Oak Sawtimber Poor 14.2 85 1-50 N/A Aspen regenerating very well along with white pine and red maple. 90 Retained overstory featured as canopy species, in good condition at Size **Canopy Species** % Cover Size Class **DBH Age Sub-Canopy Species** Density Avg. Height this time. Stand is providing good early successional cover along with White Pine 25 14 83 Balsam Fir Low 10 - 20 feet 10 - 20 feet vertical structure.

Medium

High

Medium

5 - 10 feet

10 - 20 feet

5 - 10 feet

5 - 10 feet

10 - 20 feet

5 - 10 feet

White Oak

Red Pine

Red Maple

Red Oak

10

35

10

20

12

13

13

14 85

85

Red Maple

Bigtooth Aspen

White Pine

Compartment: 53

Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	BA Range	Managed S	Site	General Comments
91	4311 - Pin	e, Aspen M	1ix	Poletimb	er Well	24.1	55	81-110	N/A	4	Pole sized aspen stand with two aged natural origin white pine. Pole
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	sized class concentrated in western portion of stand while larger super canopy trees are evenly distributed throughout. Aspen is small dbh fo
	Red Pine	5		15		Wh	nite Pine	Medium	5 - 10 feet	5 - 10 feet	age, some size and stocking variability. Need to confirm age of asper
	Red Maple	10	Seedling	8	55	Re	d Maple	Medium	>20 feet	>20 feet	High water table in some small areas, looks to be a seasonal drain
	Bigtooth Aspen	45	Seedling	7	55						Separating main portion of stand from NW lobe. NW portion of stand is where red pine is located.
	White Pine	25		20	120						is where rea pine is located.
	White Pine	10	Sapling	7							
	Jack Pine	5		9	85						
92	4133 - Aspe	en, Mixed P	Pine	Poletimb	er Well	21.8	55	111-140	N/A	4	Aspen stand with white pine throughout, specifically pockets of higher
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	density advanced saplings/small poles. Some aspen falling out of stand. Pockets of good quality aspen and more uniform stocking.
	White Oak	2		14	90	Wh	nite Pine	Medium	Variable	Variable	stand. I bekets of good quality aspent and more difficult stocking.
	Red Pine	2		14	95	Blac	k Cherry	Low	5 - 10 feet	5 - 10 feet	
	Red Maple	5	Seedling	8							
	Bigtooth Aspen	10	Seedling	8	55						
	Red Oak	2		14	95						
	White Pine	30		8	55						
	Jack Pine	4	Sapling	6							
	Quaking Aspen	45	Seedling	8	55						
93	6239 - Mixed E	mergent W	/etland	Unspe	cifed	10.6			No	)	Area of blowdown, or flooded and overstory died and fell over. Some
						Sub-Ca	nopy Species	Density	Avg. Height	Size	dead standing, scattered red maple alive w/in stand.
						Wh	ite Pine	Trace	>20 feet	>20 feet	
						Cat	tail spp.	Medium	Not Applicable	Not Applicable	e
						Wil	low spp.	Trace	5 - 10 feet	5 - 10 feet	
						Mixe	d Grasses	Medium	Not Applicable	Not Applicable	e
						В	ulrush	Trace	Not Applicable	Not Applicable	e
							Alder	Trace	5 - 10 feet	5 - 10 feet	
94	2113 - Fo	orage Crops	s	Unspe	cifed	6.2			Ye	S	Maintained opening, scattered islands/individual retention trees
						Sub-Car	nopy Species	Density	Avg. Height	Size	throughout.
						Rye	(annual)	Full	Not Applicable	Not Applicable	e e
				Wh	nite Pine	Low	>20 feet	>20 feet			
						Wh	nite Oak	Low	5 - 10 feet	5 - 10 feet	
									i .	1	†

Low

>20 feet

>20 feet

Red Oak

Stanc	and Level 4 Cover Type		Size Density		Acres Stand Age BA		A Range	Managed S	Site	General Comments	
95	6128 - Lowland Dec	Coniferous iduous	, Mixed	Sawtimb	er Well	26.3 105		111-140	N/A	4	Generally lowland stand with some hummocky areas and small upland inclusions less than .5 ac. Some large white pine throughout
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	especially along west and nw edge. Some large cedar as well, pockets of blowdown. Numerous seeps leading northward to creek.
	White Pine	10		16	105	Ba	Isam Fir	Low	5 - 10 feet	5 - 10 feet	pockets of blowdown. Numerous seeps leading northward to creek.
	Balsam Fir	5	Seedling	8		Re	ed Maple	Medium	5 - 10 feet	5 - 10 feet	
	Yellow Birch	5		12							-
	Red Maple	15		14	105						
	Bigtooth Aspen	2		14							
	Black Spruce	2		10							
No	rthern White Cedar	35		14	105						
96	429 - Mixed I	Jpland Cor	nifers	Sawtimb	er Well	9.2	118	171-200	N/A	4	Large "old Growth" natural pine stand with deciduous component
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	throughout, primarily in eastern lobe. Western finger is more uniform pine stocking. Larger aspen is beginning to die out forming nice
	Red Pine	20		16	111	W	hite Pine	High	10 - 20 feet	10 - 20 feet	standing snags. Stick nest in large aspen in eastern area of stand.
	Red Maple	15		16		Ba	ılsam Fir	Medium	5 - 10 feet	5 - 10 feet	High water table influence in stand adjacent to stand 95/Q-type.
	Paper Birch	10		9		Н	emlock	Low	10 - 20 feet	10 - 20 feet	Recommend keeping in natural state. Trace red oak in canopy.
	Bigtooth Aspen	15		16				'	1		
	Hemlock	5		14							
	White Pine	35		22	118						
98	42110 - Pla	nted Red P	ine	Sawtimb	er Well	41.8	65	111-140	N/A	4	Decent quality red pine stand, recently thinned and responding well
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	overall. Dieback pockets and buffer were cut out of stand in 2023.  Scattered beech, balsam fir and white pine scattered throughout
	Red Pine	98		10	65	W	hite Pine	Low	5 - 10 feet	5 - 10 feet	understory. Current BA averages 140 square ft/ac.
	White Pine	2		12	65		Beech	Low	5 - 10 feet	5 - 10 feet	
						Ва	lsam Fir	Trace	10 - 20 feet	10 - 20 feet	
99	4113 - R.N	laple, Conit	fer	Sawtimb		3.6	90	81-110	N/A	4	High water table influence in much of stand, mix of red maple with gedar, hemlock and balsam fir. White Pine present as well. Stand
	Canopy Species	% Cover	Size Class		Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	provides nice pockets of thermal cover at northern edge of
	Balsam Fir	5	Sapling	6			llsam Fir	High	Variable	Variable	regenerating aspen stand. Some blow down throughout providing
No	rthern White Cedar	10		12		W	hite Pine	Low	5 - 10 feet	5 - 10 feet	good source of course woody debris.
	Hemlock	5		10			gar Maple	Low	10 - 20 feet	10 - 20 feet	
	Sugar Maple	10		14	90	Re	ed Maple	Low	10 - 20 feet	10 - 20 feet	
	Red Maple	60		14	90						
	Paper Birch	5		14	90						

Bigtooth Aspen

5

Report 7 - Stands

Compartment: 53 Year of Entry: 2027

Stand	,				nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
100	31022 - Warn	n Season G	rass	Unspe	cifed	12.4			No	)	Fire-break between red pine stands, slowly filling in with white pine,
						Sub-Ca	nopy Species	Density	Avg. Height	Size	red pine and jack pine saplings, advanced regen size. On the cusp of 25-50% canopy closure. If/when red pine plantations are
						WI	nite Pine	Medium	10 - 20 feet	10 - 20 feet	restarted, recommend replanting this area with plantation area to
						Ja	ck Pine	Medium	10 - 20 feet	10 - 20 feet	make one contiguous plantation.
						Little	Bluestem	Medium	Not Applicable	Not Applicable	
						Cladonia (	Reindeer moss	) Medium	Not Applicable	Not Applicable	
						Brad	ken Fern	Medium	Not Applicable	Not Applicable	
						Pove	erty Grass	Medium	Not Applicable	Not Applicable	
						Spotte	d Knapweed	Trace	Not Applicable	Not Applicable	
						R	ed Pine	Medium	10 - 20 feet	10 - 20 feet	
103	122 - Road	d/Parking Lo	ot	Unspe	cifed	3.2			No	)	
104	31022 - Warm Season Grass Uns				Unspecifed				No	)	Clumps of pine & upland deciduous. Lots of little bluestem. Old
						Sub-Ca	nopy Species	Density	Avg. Height	Size	homestead site SE side with walnut and apple trees, also surrounded by larger, open grown sugar maple.
						Spotte	d Knapweed	Low	Not Applicable	Not Applicable	
						Wh	nite Pine	Low	10 - 20 feet	10 - 20 feet	
						Ja	ck Pine	Low	10 - 20 feet	10 - 20 feet	
						Little	Bluestem	Full	Not Applicable	Not Applicable	
						Decidu	ous Saplings	Low	10 - 20 feet	10 - 20 feet	
						Cladonia (	Reindeer moss	) Low	Not Applicable	Not Applicable	
						Brad	ken Fern	Low	Not Applicable	Not Applicable	
105	6132 - Mixed Lowla	and Forest w	vith Cedar F	Poletimb	er We	II 33.6	90	141-170	N/A	A	Mostly lowland, hummocky ground with some small areas of upland
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	inclusions, specifically in NW portion of stand. Looks like it was possibly an old well pad? Mixed pine present in this area of stand.
	White Pine	10		10	90	Ва	lsam Fir	Medium	5 - 10 feet	5 - 10 feet	, process, and one of the process of
	Black Spruce	5	Seedling	8		Blac	k Spruce	Medium	5 - 10 feet	5 - 10 feet	
Nor	thern White Cedar	35		10	90	Northerr	White Cedar	Medium	5 - 10 feet	5 - 10 feet	
	Hemlock	5		12							
	Red Maple	30		12	90						
	Paper Birch	5		8							
	Bigtooth Aspen	5		12	90						
(	Quaking Aspen	5		12							
106	42110 - Pla	nted Red Pi	ne F	Poletimb	er We	II 25.6	68	111-140	N/A	Α	Stand responding well to recent thinning in 2020, stocking consistent
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	throughout averaging ~130BA. Die back pockets in north and south areas of multi part stand. *merge 106 & 108.
	White Pine	5		14	68	Blac	ck Cherry	Low	5 - 10 feet	5 - 10 feet	
	Red Pine	95		10	68	I	Beech	Low	5 - 10 feet	5 - 10 feet	
						Re	d Maple	Low	5 - 10 feet	5 - 10 feet	

Stand		over Type		Size D	ensity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
107	42111 - Planted Dec	d Red Pine, iduous	Mixed	Sapling	Sapling Medium		20	1-50	N/A		Red pine growing well although variable stocking in much of stand.  Transitioning from sapling to pole sized, fair amount of merchantable
	Canopy Species	% Cover	Size Class	DB	-l Age						sized stems but determined average dbh to be 4". Good growth rates overall, some jack pine mixed in along with a fair amount of cherry in
	Jack Pine	10	Log	2	20						areas where red pine did not survive.
	Red Pine	70	Pole	4	20						
109	4133 - Asp	en, Mixed P	ine	Saplin	g Well	24.4	36	1-50	N/A	١	Aspen small pole/large sapling stand with substantial white pine
	Canopy Species	% Cover	Size Class	DB	H Age	Sub-Car	nopy Species	Density	Avg. Height	Size	component specifically in SE area of stand adjacent to lowland type.  Some high water table and hummocks in this area, aspen was either
	White Pine	25	Sapling	5	36	Bal	Isam Fir	Low	5 - 10 feet	5 - 10 feet	outcompeted by white pine or did not regenerate due to wet soils in
	Jack Pine	5	Pole	4	36	Wh	nite Pine	Medium	5 - 10 feet	5 - 10 feet	this portion of stand.
	Red Maple	10	Pole	4	36						1
	Paper Birch	5	Pole	3	36						
	Bigtooth Aspen	55	Sapling	5	36						
110	42290 - Nat	ural Mixed F	Pine	Poletimber Well		16.6	56	81-110	N/A	1	JP and WP that has been slowly seeding in to pockets. A few red
	Canopy Species	% Cover	Size Class	DB	H Age	Sub-Car	nopy Species	Density	Avg. Height	Size	pine poles. Various age classes resulting. Most is getting to a merchantable size. Large weeviled white pine scattered around along
	White Pine	25		10	60	Wh	ite Pine	Low	5 - 10 feet	5 - 10 feet	with some bushy open grown beech and trace aspen of poor quality.
	Jack Pine	59	Seedling	8	56	Ja	ck Pine	Low	5 - 10 feet	5 - 10 feet	Small aspen clone at northern tip of stand. A few log sized red oak
	Beech	2		10		Blac	k Cherry	Medium	10 - 20 feet	10 - 20 feet	and maple. Portions of stand along east edge have planted red pine in the smaller pole class.
	Red Oak	2		13				,			an the smaller pole diago.
	Red Pine	5	Seedling	7	40						
	Red Maple	5	Seedling	8	60						
	Bigtooth Aspen	2	Seedling	8							
111	4319 - Mixed	d Upland Fo	rest	Sapling	Medium	8.2	6	81-110	N/A	1	Regenerating stand with residual overstiry white and red pine retained
	Canopy Species	% Cover	Size Class	DB	-l Age						from last harvest. Slowly filling in, some areas of light regen along with areas where red maple has been browsed.
	Balsam Fir	5	Pole	2							areas where rea maple has seen browsed.
	White Pine	10		14	94						
	White Pine	25	Log	3	6						
	Jack Pine	3	Log	1							
	Black Cherry	20	Log	1	6						
	Red Maple	25	Log	1	6						
	Red Pine	2		12							

Red Pine

10

Log

6

Compartment: 53

Traverse City Mgt. Unit

Report 7 – Stands

Compartment: 53
Year of Entry: 2027

Level 4 Cover Type

Size Density

Acres Stand Age BA Range

Managed Site

General Comments

Stand	Level 4 C	Level 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		General Comments							
112	6132 - Mixed Lowla	and Forest	with Cedar	Poletimb	er Well	9.0	90	141-170	N/A		Lots of deer activity in stand, dense lowland conifer overstory
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	providing good thermal cover. Hummocky ground, generally lowland throughout.
	Red Maple	40		14	90	Bal	sam Fir	Medium	5 - 10 feet	5 - 10 feet	a moughout
	Black Spruce	5	Seedling	8	80	Black	k Spruce	Medium	5 - 10 feet	5 - 10 feet	
No	rthern White Cedar	35		10	90	Northern	White Cedar	Medium	5 - 10 feet	5 - 10 feet	
	Hemlock	10		12	80						
	White Pine	5		12	70						
	Yellow Birch	5		10	70						
113	4133 - Aspe	en, Mixed P	ine	Sapling	Well	4.4	16	1-50	N/A		Stand regenerating very well, good quality aspen, red maple and white
	Canopy Species	% Cover	Size Class	DBH	Age						lines stems throughout. Retention from last harvest in good condition with oak continuing to provide good mast source.
	White Oak	5		14	90						with our continuing to provide good must course.
	White Pine	10		14	90						
	White Pine	15	Log	2							
	Red Maple	5	Log	2	16						
	Bigtooth Aspen	50	Log	2	16						
	Red Oak	5	Log	1	16						
	Quaking Aspen	10	Log	2	16						
114	4133 - Aspe	en, Mixed P	ine	Sawtimb	er Well	3.9	55	141-170	N/A	\	Previously typed as Natural Pine, switched to planted, planting
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	records show N1/2 of NE was planted in 1931. Pine was either thinned heavily in this area or the original plantation failed after 20-30
	White Pine	25		14	94	В	eech	Trace	5 - 10 feet	5 - 10 feet	years allowing aspen and red maple to become the dominant
	Red Oak	2		16		Wh	ite Pine	Medium	10 - 20 feet	10 - 20 feet	overstory. Aspen pole/small log size.
	Red Pine	5		12	94	Red	d Maple	Medium	>20 feet	>20 feet	
	Red Maple	18		9		Bal	sam Fir	Trace	5 - 10 feet	5 - 10 feet	
	Bigtooth Aspen	50		8	55			'		1	_
115	4130	- Aspen		Poletimb	er Well	15.1	30	51-80	N/A	1	Decent quality aspen stand, aspen averaging just merchantable dbh,
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	typed stand as pole with aspen having 5" average dbh overall. Plenty of stems large sapling sized. White Pine regen beginning to fill in
	White Pine	7		14	95	Wh	ite Pine	Low	5 - 10 feet	5 - 10 feet	understory, red maple throughout in large sapling size class.
	Red Maple	3	Pole	3	30					l	
	Bigtooth Aspen	90	Sapling	5	30						
116	42110 - Pla	nted Red P	ine	Sawtimb	er Well	6.2	94	111-140	N/A	1	Part of larger adjacent pine stand, sepersted after it was thinned in 99
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	Slightly lower stocking with more advanced regeneration, consisting mainly of white pine. Previously identified as Natural Pine, switched to
	White Pine	30		14	94	Red	d Maple	Low	10 - 20 feet	10 - 20 feet	planted in 1931 after looking at planting records for stand.
	Red Pine	70		14	94	В	eech	Low	5 - 10 feet	5 - 10 feet	
						Wh	ite Pine	Medium	10 - 20 feet	10 - 20 feet	
								-			<del></del>

Medium

5 - 10 feet

Witch Hazel

5 - 10 feet

										real of Entry. 2021
Stand	Level 4 C	over Type	s	ize De	ensity	Acres Stand Age B	A Range	Managed S	Site	General Comments
117	4130	- Aspen		Saplin	g Well	20.2 6	1-50	N/A	4	Stand regenerating well, fully stocked with aspen and red maple
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Canopy Species	Density	Avg. Height	Size	regen. Beech and white pine are a component of the regen as well.
	White Pine	2		10	110	White Pine	Low	< 5 feet	< 5 feet	
	Sugar Maple	2		11	80		,			-
	Red Maple	30	Log	1	6					
	Bigtooth Aspen	60		1	6					
	Beech	4	Log	1						
	Red Oak	2		14	110					
118	42140 - Plar	ited Mixed F	Pine S	awtimb	er Well	46.5 94	141-170	N/A	4	Good quality, mixed pine with aspen present throughout much of
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Canopy Species	Density	Avg. Height	Size	stand however there are areas that are void of aspen, these areas tend to be dominated by red pine. Scattered red oak present as well.
	Red Pine	47		13	94	Beech	Low	5 - 10 feet	5 - 10 feet	Trace jack pine, most has fallen out or was cut, some dead standing.
	Red Oak	3		14		Red Maple	Low	10 - 20 feet	10 - 20 feet	Occasional red and white pine legacy trees in stand. Found average
	Quaking Aspen	15		9		White Pine	Medium	10 - 20 feet	10 - 20 feet	BA to be 160, some stocking variability throughout stand. Trace paper birch in stand, most has died off but still standing. Previously typed
	White Pine	35		14	94		'			as Natural Pine, switched to planted, planting records show N1/2 of
		,								NE was planted in 1931 with red pine, white pine and jack pine.
119	4123 -				r Medium	n 43.2 90	81-110	N/A	4	Decent quality oak stand, dense advanced aspen regen in large
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Canopy Species	Density	Avg. Height	Size	sapling class mainly around perimeter of stand where aspen was likely more prevalent at time of last harvest. Central portion of stand has
	Red Maple	3	Seedling	8		White Pine	Medium	10 - 20 feet	10 - 20 feet	higher BA in the 100-120 sq ft/ac range with no aspen regen in this
	Red Pine	2		12		Red Maple	High	10 - 20 feet	10 - 20 feet	area of stand, medium density red maple regen.
	White Pine	5		10		Bigtooth Aspen	High	10 - 20 feet	10 - 20 feet	
	Red Oak	90		12	90					
120	4111 - S.Maple, H	ard Mast As	ssociation S	awtimb	er Well	20.0 105	81-110	N/A	4	Good quality hardwood stand, BA averages 110-120 consistently
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Canopy Species	Density	Avg. Height	Size	throughout. Scattered super canopy white pine, very good quality and likely closer to 150+ age class. Beech regen is thick throughout, very
	Beech	8		14	105	Black Cherry	Low	5 - 10 feet	5 - 10 feet	little desirable regeneration aside from trace sugar maple at edges of
	Red Oak	6		18	105	Beech	High	5 - 10 feet	5 - 10 feet	stand. Trace aspen in NW corner.
	White Pine	7		19						
	Sugar Maple	64		14	105					
	Red Maple	15		14						
121	4191 - Mixed Upla Co	and Decidu onifer	ous with Sa		er Well	27.3 105	111-140	N/A	4	Mixed oak pine stand with aspen and red maple scattered throughout.  Aspen mainly present in more uniform clones, 34 years old however
	Canopy Species	% Cover	Size Class		l Age	Sub-Canopy Species	Density	Avg. Height	Size	some larger aspen present in lower numbers. Much of the red and white oak is large diameter and multi stem, some white and red oak
	Red Pine	10		12	73	White Pine	Low	5 - 10 feet	5 - 10 feet	poles present in the 5-8" size class. White Pine is variable diameter,
	Red Oak	20		18	105	Beech	Trace	5 - 10 feet	5 - 10 feet	fair amount of poles in the intermediate canopy along with larger
	White Pine	20	Pole	4	35	White Oak	Medium	5 - 10 feet	5 - 10 feet	stems occupying canopy level. Larger red pine present but higher density in eastern portion of stand. Old well site or opening reverting
	White Pine	5		12		Witch Hazel	Low	5 - 10 feet	5 - 10 feet	to forested, should be separated, consists of white oak, aspen and
	Jack Pine	2	Seedling	8	73		LOW			jack pine saps with red pine, white pine, aspen and red oak pole/logs
	White Oak	20		16	105					present.
			0 "							

Sapling

5 35

Red Maple

Compartment: 53

Seedling

Stand	d Level 4 C	Level 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		iite	General Comments						
122	4130	- Aspen		Sapling	y Well	6.5	16 Ir	mmature	N/A	<b>\</b>	Aspen growing well, fully stocked regeneratingnstand dominated by
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy	Species	Density	Avg. Height	Size	aspen and red maple.
	White Pine	2	Pole	3		Beech	1	Low	< 5 feet	< 5 feet	
	Sugar Maple	3		12		Ironwoo	od	Low	< 5 feet	< 5 feet	
	Red Maple	20	Log	2	16						
	Bigtooth Aspen	75	Log	2	16						
123	4133 - Aspe	en, Mixed P	ine	Sapling	Well	14.7	16	81-110	N/A	١	Stand regenerating well, ~10-30 ba of red and white pine and red oak
	Canopy Species	% Cover	Size Class	DBH	Age						were retained at time of last harvest.
	White Pine	10		12	85						
	Red Pine	10		9	85						
	Red Oak	5		12	85						
	Red Maple	20	Log	2	16						
	Bigtooth Aspen	55	Log	2	16						
124	42110 - Pla	nted Red P	Pine F	Poletimb	er Well	25.1 6	65 °	111-140	N/A	۸	Stand responding well to 2020 thinning, growing well and good quality.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy	Species	Density	Avg. Height	Size	Fair amoint of beech and white pine regen in understory. Pole sized, transitioning to log sized with average dbh of 9-10".
	Red Pine	100		9	65	White Pi	ine	Medium	5 - 10 feet	5 - 10 feet	transitioning to log sized with average dbit of 9-10.
						Beech	1	Medium	5 - 10 feet	5 - 10 feet	
125	42110 - Pla	nted Red P	Pine S	Sawtimb	er Well	30.3	35	81-110	N/A	١	Marked harvest completed 2015, stand responding well, good quality
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy	Species	Density	Avg. Height	Size	red pine. BA hovering around 110 overall with some stocking variability in areas of stand. Fairly heavy white pine, beech and aspen
	Red Oak	2		12		White Pi	ine	Medium	5 - 10 feet	5 - 10 feet	regen throughout.
	Red Pine	96		12	85	Red Mar	ole	Medium	10 - 20 feet	10 - 20 feet	
	Red Maple	2		12	85	Bigtooth A	spen	Medium	10 - 20 feet	10 - 20 feet	
	•					Beech	1	Medium	10 - 20 feet	10 - 20 feet	
126	310 - Herbac	eous Open	land	Unspe	cifed	8.0			No		Opening seeding in with bushy white pine. Jack pine and red maple
						Sub-Canopy	Species	Density	Avg. Height	Size	present as well.
						White Pi		Medium	10 - 20 feet	10 - 20 feet	
127	4131 - A	spen, Oak		Sawtimb	er Well	8.1 7	70	111-140	N/A	1	New stand created by timber sale boundary when adjacent stand 69
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy	Species	Density	Avg. Height	Size	was harvested. Slope along Twenty-two creek, somewhat steep in spots, generally provides a good corridor along creek and adjacent to
	Red Pine	2		12	3-	White Pi	•	Medium	Variable	Variable	RMZ. Aspen is relatively large diameter providing good standing
	White Oak	20		14		Red Mar	ole	Medium	5 - 10 feet	5 - 10 feet	snags in spots and excellent source of course woody debris. In
	Red Oak	15		14							ddition, motorized trail transects stand.
	Red Maple	10		8							
	Bigtooth Aspen	45		12	70						
	White Pine	3		14							

5

Jack Pine

Compartment: 53

Stand	Level 4 C	over Type		Size Density			Acres Stand Age BA Range			ite	General Comments
128	4130	- Aspen		Sapling	Well	14.0	17	1-50	N/A	<b>\</b>	Aspen growing well, high density stems/ac and fairly good quality
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	overall. Conifer component of white pine, jack pine and balsam fir regenerating in understory. In addition, scattered red maple and white
	White Oak	2		13		WI	hite Pine	Low	5 - 10 feet	5 - 10 feet	pine present, retained at time of last harvest.
	Red Maple	3		14	90	Ja	ack Pine	Low	5 - 10 feet	5 - 10 feet	
	Red Maple	10	Log	1	17	Ва	alsam Fir	Low	5 - 10 feet	5 - 10 feet	
	Paper Birch	5	Log	1	13			<u> </u>		l	
	Bigtooth Aspen	80	Log	2	17						
130	42220 - Nat	tural Jack P	ine	Sapling	Well	1.9	17	Immature	N/A		Regenerating pine stand, dominated by sapling jack pine. Fairly
	Canopy Species	% Cover	Size Class	DBH	Age						dense overall.
	Red Maple	5	Log	2	17						
	White Pine	10	Log	2							
	Jack Pine	80	Log	2	17						
	Red Pine	5	Lon	2	17						