

Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41054 Entry Year 2022 Acreage: 1,983

County Schoolcraft

Management Area: Seney Manistique Swamp

Revision Date: 2020-05-08

Stand Examiner: Adam Petrelius

Legal Description:

T43N R14W, Sections 16, 17, 18

Identified Planning Goals:

Compartment 54 lies within the Seney Manistique Swamp Management Area.

Soil and topography:

The topography within the compartment is mostly flat with a few rolling hills. Elevation values range between 650-673 feet. Approximately half of the compartment is forested and half is non-forested. The two main forested cover types are natural jack pine and natural red pine. The 2 main soil types are Markey Mucky Peat and Rousseau-Neconish-Finch. Major habitat types within the compartment, in order of abundance, are Unclassified Lowland, PVE, and PArVAa.

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

State land within this compartment was acquired between 1827 and 1941. The compartment is entirely surrounded by state land except for one private 40 acre parcel in the northeast. The compartment is used mostly by hunters, ORV users, and snowmobile riders.

Unique Natural Features:

Wood Turtle (Clemmys insculpta, state special concern) have been known to inhabit riparian areas within the compartment. Prescribed treatments in this compartment are unlikely to adversely impact this species when best management practices are followed along these riparian corridors.

Archeological, Historical, and Cultural Features:

None.

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

Poor. Duck Creek is classified SQWW. There is no need to protect Duck Creek from encroachment by beaver, but protection from increased sand bedload is still a high priority.

Wildlife Habitat Considerations:

Compartment 54 lies within south-central Schoolcraft county in the Seney Sand lake Plain ecological sub-subsection and is part of the Seney-Manistique Swamp Management area with beaver, moose, sharp-tailed grouse, snowshoe hare, and white-tailed deer as featured species. It has a growing season of less than 100 days. Extreme minimum winter temperatures reach –46 F. Annual snowfall averages around 110 inches.

Pre-settlement upland forests were dominated by jack pine and red pine. White pine and aspen also occurred. Wetlands contained vast expanses of marshes and peatlands. Lowland forest contained black spruce, balsam fir, and cedar. Natural disturbance regimes included fire and beaver ponding. Duck creek runs north to south through the center of this compartment. Current upland vegetation types are similar in composition, but not in structure, to pre-settlement conditions. Jack pine and red pine dominate the ridges. Lowlands remain relatively unchanged since pre-settlement times.

Wildlife habitat objectives for this compartment include maintaining structural diversity within the pine system while providing travel corridors that will allow animals to move undetected through the cover of mature forest. Other wildlife priorities include the creation of dense understory's with retention of woody debris in jack pine and lowland types and retaining soft and hard mast producing species in harvested stands. Other wildlife species of interest include fisher, least chipmunk, long-tailed weasel, sedge wren, and sandhill crane. Although not documented, it is possible that yellow rail exists within this compartment.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Ordovician Queenston Shale subcrops below the glacial drift. The Queenston does not have an economic use. The nearest gravel pit is 3 miles to the south. There is limited gravel potential on State lands.

Vehicle Access:

Vehicle access is poor. Only one good road, Highwater Truck Trail, splits the compartment in half.

Survey Needs:

None

Recreational Facilities and Opportunities:

The Highwater Truck Trail is a snowmobile trail and serves as the main access route through the compartment.

Fire Protection:

Response time to fires within this compartment from the Thompson field office will be slow. The compartment receives moderate use throughout fire season and human caused fires are a concern. Both spring and summer fires are likely to occur here. The Seney Fire of 1976 burned through much of the eastern portion. Access is poor to most areas and lightning fires during dry summer months could create problems. Water sources are abundant and include the Duck Creek, Walsh Ditch, Dougal Creek, and other tributaries of these creeks.

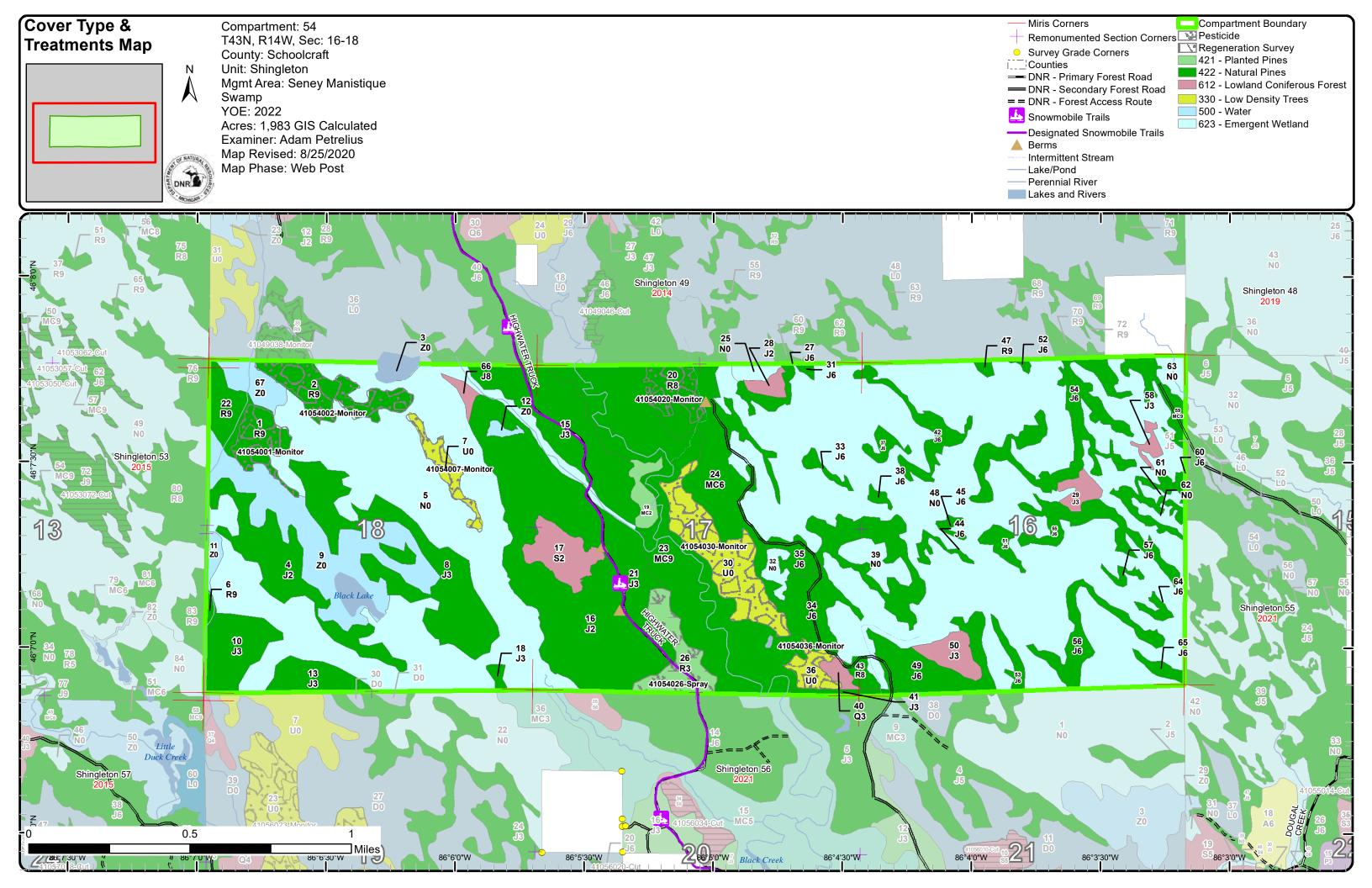
Additional Compartment Information:

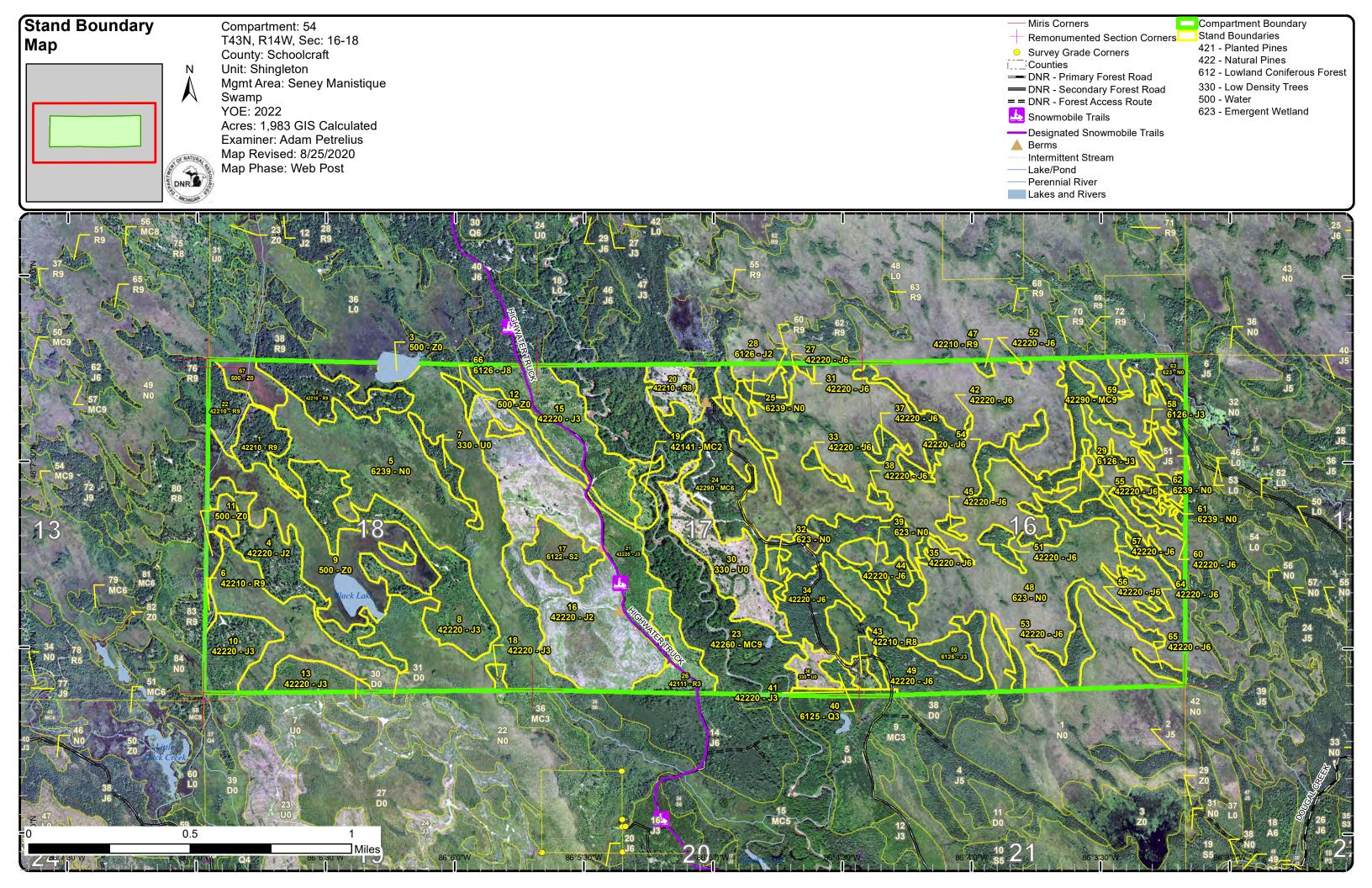
The following reports from the Inventory are attached:

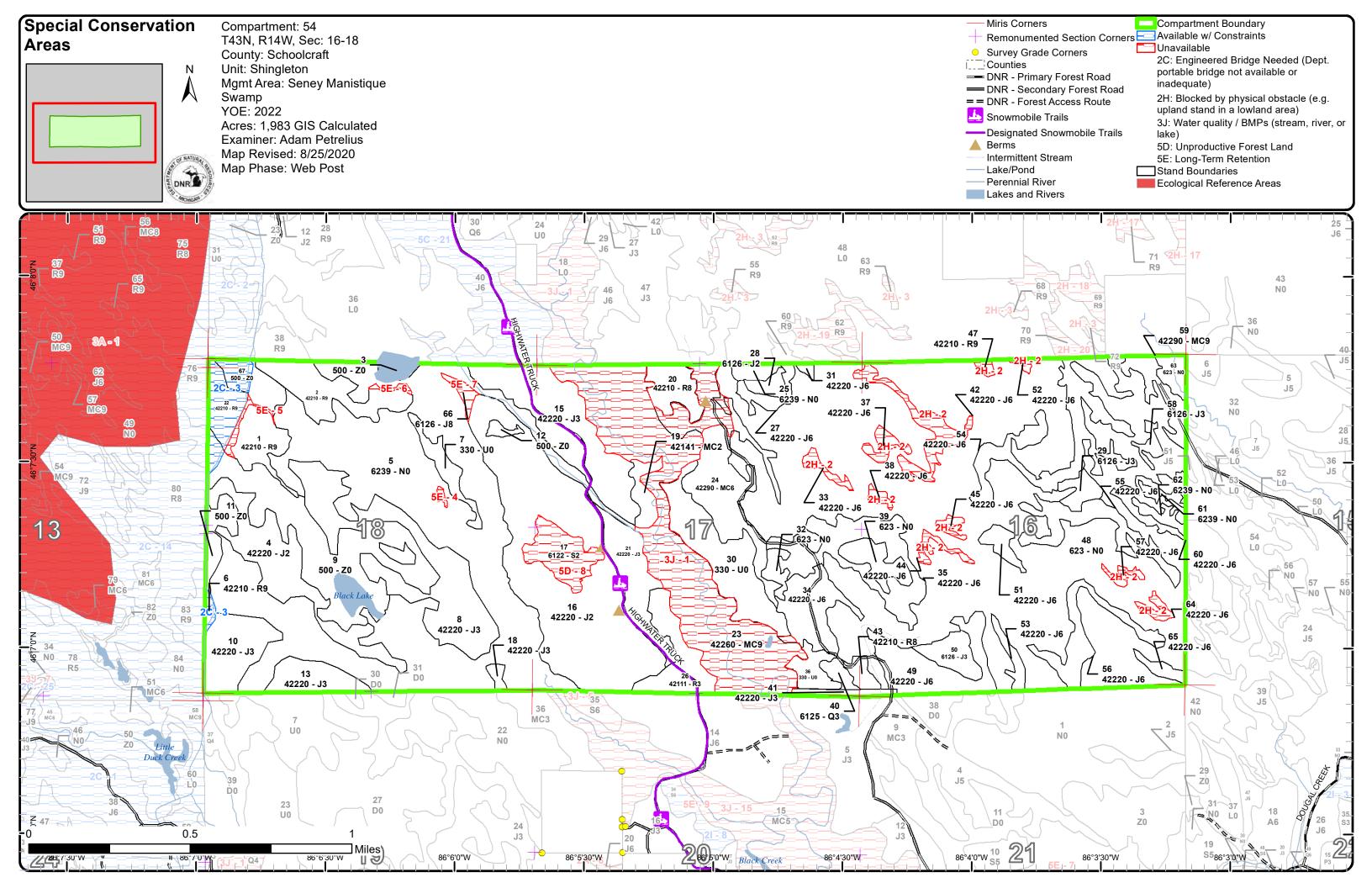
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







Shingleton Mgt. Unit Adam Petrelius : Examiner



Age Class

	No.		\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\$ \\ \phi	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	3 / 12		3/8	\$ / R	R. S.	* * * * * * * * * * * * * * * * * * *		a Zaz	Q / &	Z / 25	, S. J. B.	8 / E		N. N	_
Jack Pine	0	136	236	0	0	259	3	0	0	0	0	0	0	0	0	0	0	0	634	/
Low-Density Trees	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	
Lowland Conifers	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Lowland Spruce/Fir	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	18	
Marsh	874	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	874	
Natural Mixed Pines	0	0	0	0	0	53	0	0	11	0	0	127	0	0	0	0	0	0	191	
Planted Mixed Pines	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
Red Pine	0	22	0	0	0	0	0	0	6	59	14	0	0	0	0	0	0	0	101	
Water	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98	
Total	1029	166	236	4	0	312	21	0	17	59	14	127	0	0	0	0	0	0	1985	



Report 2 – Treatment Summary

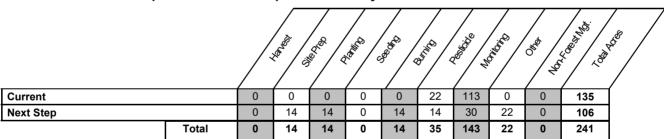
Shingleton Mgt. Unit Year of Entry: 2022

Acres of Harvest

Compartment 54
Total Compartment Acres: 1,983

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

Proposed and Next Step Treatments by Method



Shingleton Mgt. Unit

Report 3 -- Treatments

Compartment: 54 Year of Entry: 2022 OF NATURAL DISCOURSE OF NATURA

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Treatment Name

Acres

Stand CoverType

Size Density Stand Age I

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

Approved Treatments:

41054001-15.8 42210 - Natural Sawtimber 81-110 Monitoring Natural Regen 42210 - Natural Uneven-No Monitor Red Pine Well Red Pine (Intermediate) Aged

Prescription check regeneration

Specs:

Next Step Treatments:

Acceptable Natural regeneration of red pine, jack pine, and white pine is acceptable.

Regen:

Other Percent to Treat = 100%

Comment:

Site Condition

Proposed Start Date: 10/1 /2029

41054002-26.4 42210 - Natural Sawtimber 80 51-80 Monitoring Natural Regen 42210 - Natural Uneven-No Monitor Red Pine Well (Intermediate) Red Pine Aged

Prescription check regeneration

Specs:

Next Step

Treatments:

Acceptable Natural regeneration of red pine, jack pine, and white pine is acceptable.

Regen:

Other Percent to Treat = 100%

Comment:

Site Condition

Proposed Start Date: 10/1 /2029

7 41054007- 9.5 330 - Low-Density Nonstocked 0 Unspec Monitoring Natural Regen 429 - Mixed Even-Aged No Monitor Trees ified (Re-Inventory) Upland Conifers

Prescription monitor

Specs:

Next Step Treatments:

Acceptable any species onsite

Regen:

Other Percent to Treat = 100%

Comment:

Site Condition

Proposed Start Date: 10/1 /2029

Comment:
Site Condition

Regen: Other

Next Step

Treatments:

Proposed Start Date: 10/1 /2020

; Monitoring, Artificial Regen(1yr)

Acceptable red pine, white pine, black spruce, jack pine

Percent to Treat = 100%

Shingleton Mgt. Unit Report 3 -- Treatments Compartment: 54 s t Year of Entry: 2022 а Cover Type Objective Age Structure **Treatment** Acres Stand Size Stand ВА Treatment **Treatment** Habitat n Name CoverType Density Age Range Type Method d Cut

Total Treatment Acreage Proposed: 134.6

Shingleton Mgt. Unit

Compartment: 54 Year of Entry: 2022 **Adam Petrelius: Examiner**

Availa	ability for	Managemer	nt						
Total	Acres	Acres Avail	Acres	ı	Dominaı	nt Site	e Cond	dition	s
Acres	Available	With Condition	Not Available		2C	2H	3J	5D	5E
634	595	0	39	Jack Pine		35	1		3
57	57	0	0	Low-Density Trees			0		
4	4	0	0	Lowland Conifers					
18	0	0	18	Lowland Spruce/Fir				18	
874	871	0	3	Marsh			1		2
191	50	0	141	Natural Mixed Pines			141		
8	8	0	0	Planted Mixed Pines					
100	81	15	4	Red Pine	15	1	0		2
98	90	8	0	Water	8				
1,983	1,755	23	205	Total Forested Acres	23	37	143	18	7
<u>- </u>	89%	1%	10%	Relative Percent			-		

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	143	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
2	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	37	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

Report 4 – Site Conditions

Shingleton Mgt. Unit
Adam Petrelius: Examiner

3	Available	2C: Engineered Bridge Needed (Dept. portable bridge not available or inadequate)	23	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Retention for stand	7					
5	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Retention for stand	1					
6	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: retention for stand 2	2					
7	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Retention for stand	16					
8	Unavailable	5D: Unproductive Forest Land	18	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				

Shingleton Mgt. Unit Compartment: 54
Year of Entry 2022



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

Conservation Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Natura context of their natural community classification system. Elemen (Excellent) or B (Good) and a Global (G) or State (S) element (rathreatened (2), or rare (3) serve as an initial base of ERAs. They the State. The system is comprised of individual or associations managed for restoration and maintenance of natural ecological public recommendations for lands as ERAs using the DNR Con	al Features Inventory (MNFI) within the t Occurrences with viability ranks of A arity) ranking of endangered (1), may be located upon any ownership in of natural community types that are processes and values. The public may



Stand	d Level 4 C	over Type		Size Density	Acres	Stand Age	BA Range	Managed S	ite	General Comments
1	42210 - Nat	ural Red P	ine	Sawtimber Well	15.6	81	81-110	N/A		Stand was cut as part of Wide Open Spaces Sale #41-009-12-01. TCR Date 9/26/2018.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	Date 9/20/2010.
	Red Pine	90	Log	14 81	Qual	king Aspen	Low	5 - 10 feet	Sapling	
	White Pine	10	Log	14	R	ed Pine	Low	< 5 feet	Sapling	
2	42210 - Nat	ural Red P	ine	Sawtimber Well	26.5	80	51-80	N/A		Stand was cut as part of Wide Open Spaces Sale # 41-009-12-01. TCR
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	Date 9/20/2016.
	White Pine	10	Log	11	Blad	ck Spruce	Low	5 - 10 feet	Sapling	
	Red Pine	90	Log	12 80	WI	nite Pine	Low	5 - 10 feet	Sapling	
					R	ed Pine	Medium	10 - 20 feet	Sapling	
3	500 -	- Water		Nonstocked	3.7			No		
4	42220 - Nat	ural Jack P	ine	Sapling Medium	41.8	18	1-50	N/A		Stand was winter cut 2001. 2006 regen counts= 380 jack pine, 176 red pine, 88 aspen, 7 white pine 278 black spruce, 929 total trees per acre.
	Canopy Species	% Cover	Size Class	DBH Age						pine, oo aspen, 7 white pine 276 black spruce, 929 total trees per acre.
	Black Spruce	15	Sapling	2 18						
	White Pine	5	Sapling	3 18						
	Red Pine	5	Log	14						
	Jack Pine	75	Sapling	3 18						
5	6239 - Mixed E	mergent W	etland	Nonstocked	299.4			No		
6	42210 - Nat	ural Red P	ine	Sawtimber Well	2.0	81	51-80	N/A		Stand harvested with sale to the west, 13 mile Pine.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	
	Red Pine	100	Log	14 81	Bigto	oth Aspen	Low	5 - 10 feet	Sapling	
					R	ed Pine	Low	< 5 feet	Sapling	
7	330 - Low-l	Density Tre	es	Nonstocked	9.3	0	Unspecified	4222 - Natural .	Jack Pine	Cut in winter of 2018. Stand was listed on FTP 1525 for jack pine scarification. There is no possible access to stand and the majority of it was used for road construction.
8	42220 - Nat	ural Jack P	ine	Sapling Well	67.2	18	1-50	N/A		Stand cut winter 2001. 2006 regen counts= 380 jack pine, 176 red pine, 88 aspen, 7 w.pine, 278 black spruce, 929 total trees per acre.
	Canopy Species	% Cover	Size Class	DBH Age						oo aspen, 7 w.pine, 270 black spruce, 929 total trees per acre.
	Black Spruce	15	Sapling	2 18						
	White Pine	5	Sapling	3 18						
	Red Pine	5	Log	14						
	Jack Pine	75	Sapling	3 18						
9	500 -	- Water		Nonstocked	75.7			No		



Stand	d Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Si	ite	General Comments
10	42220 - Nat		ine Size Class	Sapling	g Well	25.5	18	1-50	N/A		Stand winter cut 2001. 2006 regen counts= 380 jack pine, 176 red pine, 88 aspen, 7 white pine, 278 black spruce, 929 total trees per acre.
	Canopy Species Black Spruce	15	Sapling	2	18						
	White Pine	5	Sapling	3	18						
	Red Pine	5	Log	14	10						
	Jack Pine	75	Sapling	3	18						
			1 3								
11	500 -	Water		Nonst	ocked	4.0			No		
12	500 -	Water		Nonst	ocked	2.0			No		
13	42220 - Nat	ural Jack P	ine	Saplin	g Well	15.7	18	1-50	N/A		Stand winter cut 2001. 2006 regen counts= 380 jack pine, 176 red pine,
	Canopy Species	% Cover	Size Class	DBH	l Age						88 aspen, 7 white pine, 278 black spruce, 929 total trees per acre.
	Black Spruce	15	Sapling	2	18						
	White Pine	5	Sapling	3	18						
	Red Pine	5	Log	14							
	Jack Pine	75	Sapling	3	18						
15	42220 - Nat	ural Jack P	ine	Saplin	y Well	54.2	16	1-50	N/A		Southern portion of stand was cut in Jan. 2003 and then scarified. Remaining portion of stand was cut in Dec. of 2003 and scarified in
	Canopy Species	% Cover	Size Class	DBH	l Age						2007. Regen did not happen in this portion and it was seeded in March
	Jack Pine	90	Sapling	1	16						of 2008. Regen is unsuccesful within this portion. TMS decided to count
	Red Maple	5	Sapling	1							this stand before trenching. Came back to 1,000 TPA.
	Quaking Aspen	5	Sapling	2							
16	42220 - Nat	ural Jack P	ine	Sapling l	Medium	135.6	5	1-50	N/A		Cut with sale Wide Open Spaces. Scarified by DNR staff. Regen
	Canopy Species	% Cover	Size Class	DBH	l Age						checked in 2018 and passed.
	Jack Pine	80	Sapling	1	5						
	Black Spruce	10	Sapling	1	5						
	Tamarack	10	Sapling	1	5						
17	6122 - BI	ack Spruce	•	Sapling l	Иedium	18.3	51	1-50	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	anopy Specie	es Density	Avg. Height	Size	
	Black Spruce	100	Sapling/Pole	e 4	51	Bla	ck Spruce	Medium	5 - 10 feet	Sapling	
18	42220 - Nat			Sapling		2.1	18	1-50	N/A		Cut with stand 36 in compartment 56 in Feb. of 2002. 2006 regen counts= 391 jp, 163rp, 391 b.sp., 228 red map.
	Canopy Species		Size Class		l Age						2000 10gon 0001 jp; 1001p; 001 5.0p.; 220 10d 11dp.
	Red Maple	10	Sapling	2	18						
	Black Spruce	20	Sapling	2	18						
	Red Pine	10	Sapling	3	18						
	Jack Pine	60	Sapling	3	18						



Stand	i Level 4 C	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed \$	Site	General Comments
19	42141 - Planted Dec	Mixed Pine iduous	e, Mixed S	Sapling N	/ledium	7.8	6	1-50	N/A		Stand cut in 2005, some jp & b sp seedlings coming in. Stand was planted in spring 2015 with red pine.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Year 1 regeneration counts - 475 red pine. Stand lacks suitable planting areas, but should be planted again next time we are in the area.
	Red Pine	50	Sapling/Pole	1	6	Re	ed Maple	Low	< 5 feet	Sapling	Site was forwarded to TMS for planting. Planting never occurred and
	Jack Pine	10	Sapling	1		Bla	ck Spruce	Low	< 5 feet	Sapling	stand was placed back into monitoring status.
	Red Maple	25	Sapling	1		R	ed Pine	Low	< 5 feet	Sapling	Stand was planted and understory is now 3 years old. passed 2018 regen check with 600 TPA where suitable planting areas existed.
	White Pine	10	Sapling	2				·			- creek with 600 H A where suitable planting areas existed.
20	42210 - Nat	tural Red P	ine Sa	wtimber	Medium	13.5	94	1-50	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	20	Log/XLog	14		R	ed Pine	Medium	< 5 feet	Sapling	
	Red Pine	75	Log/XLog	14	94						
	Red Oak	5	Log/XLog	14							
21	42220 - Nat	ural Jack F	Pine	Sapling	Well	24.7	13	1-50	N/A		Cut in May of 2005, scarified in July of 2007, trenched and planted in
	Canopy Species	% Cover	Size Class	DBH	Age						spring of 2008. The 2009 regen. check shows 1737 jack pine. 3 year
	Jack Pine	80	Sapling	1	13						regen check needed in 2011. (6/17/2011 AP) Stand passed 3 year regen check and all cult work is complete. FTP is still open for stand to the
	Quaking Aspen	15	Sapling	1							north.
	Red Pine	5	Log	12							
22	42210 - Nat	tural Red P	ine S	Sawtimb	er Well	14.6	81	141-170	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Pine	90	Log	14	81		king Aspen	Low	5 - 10 feet	Sapling	
	White Pine	10	Log	14			ed Pine	Low	< 5 feet	Sapling	
23	42260 - Natural Pi	ne, Mixed [Deciduous S	Sawtimb		126.9	101	111-140	N/A		Lots of drainages and oxbows. Factor limit for BMP's.
	Canopy Species	% Cover	Size Class		Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	20	Pole	5			ed Maple	Low	5 - 10 feet	Sapling	
	Paper Birch	5	Pole	5		W	hite Pine	Low	5 - 10 feet	Sapling	
	Quaking Aspen	5	Pole	5			ed Pine	Low	5 - 10 feet	Sapling	
No	rthern White Cedar	5	Log	10		Ja	ack Pine	Low	5 - 10 feet	Sapling	
	Red Pine	55	Log	14	101	Haze	elnut (Spp.)	Medium	5 - 10 feet	Tall Shrub	
-	Jack Pine	10	Pole	6			Alder	Medium	5 - 10 feet	Tall Shrub	
24	42290 - Natu	ıral Mixed l	Pine F	Poletimb	er Well	52.6	43	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	20	Pole/Sapling	7	43	Bla	ck Spruce	Low	< 5 feet	Sapling	
	Black Spruce	10	Pole/Sapling	5	43	W	hite Pine	Low	< 5 feet	Sapling	
	White Pine	5	Pole/Sapling	5	43	R	ed Pine	Low	< 5 feet	Sapling	
	Red Pine	20	Log/Pole	13		Ja	ack Pine	Low	< 5 feet	Sapling	
	Jack Pine	45	Pole/Sapling	7	43						



Stand	Level 4 Co	over Type		Size Density	Acres	Stand Age B	A Range	Managed S	Site	General Comments
25	6239 - Mixed E	mergent W	etland	Nonstocked	4.4			No		
26	42111 - Planted Deci	Red Pine, duous	Mixed	Sapling Well	21.7	7	1-50	N/A		Seed tree cut in 2005. harvested with wide open spaces timbersale and trenched. Planted in spring 2015. 1000 tpa red pine in year 1 count. Year
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	3 check showed 810 red pine.
	Red Pine	60	Sapling	1 7		ed Pine	High	< 5 feet	Sapling	
	Quaking Aspen	20	Sapling	1 7				ı	1	
27	42220 - Nati	ural Jack P	ine	Poletimber Well	6.1	43	51-80	N/A		Stand result of Seney fire 1976
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	5	Pole	5 43		ck Spruce	Medium	10 - 20 feet	Sapling	
	Red Pine	5	Log	14		-				
	Jack Pine	90	Pole	5 43						
28	6126 - Lowla	and Jack Pi	ine	Sapling Medium	4.3	43		N/A		Wet ground creating stunted trees.
	Canopy Species	% Cover	Size Class	DBH Age						
	Black Spruce	45	Sapling	2 43						
	Jack Pine	55	Sapling	2 43						
29	6126 - Lowla	and Jack Pi	ine	Sapling Well	6.2	43	1-50	N/A		
	Canopy Species	% Cover	Size Class	DBH Age						
	Jack Pine	100	Sapling	2 43						
30	330 - Low-[Density Tre	es	Nonstocked	39.4	0		4211 - Planted	Red Pine	Trenching completed in summer 2017.
					Sub-Ca	nopy Species	Density	Avg. Height	Size	5/9/2018: Planted by Superior Forestry. Oversight by Forest Resource
					R	ed Pine	High	< 5 feet	Seeding	Services (Grossman Forestry Co.).
					W	hite Pine	Medium	< 5 feet	Seeding	Quality shooks: 0.000/ too door 0.000/ had stom and 0.51.23: 1.670/
					Ja	ack Pine	Medium	< 5 feet	Seeding	Quality checks: 0.00% too deep, 0.00% bad stem angle, St 22; 1.67% too loose, St 30; 2.35% too loose, St 22; 7.14% "J" rooted, St 30; 4.00%
					Bla	ck Spruce	Medium	< 5 feet	Seeding	"J" rooted.
										Weather: scattered clouds, rain in the afternoon, 65 degrees. Stocking = Stand 22; 510 trees/ac actual, 1025 trees/ac plot data. Stand 30; 500 trees/ac actual, 947 trees/ac plot data. **Trees/ac actual seems low because of amount of low ground not planted. Total cost = \$110.70/ac
										10/1/2018: 1st year regeneration check showed 70% survival of red pine. Other species component of white pine, black spruce, jack pine was present though which are acceptable.



Stand	Level 4 C	over Type		Size Density	Acres	Stand Age B	A Range	Managed S	Site	General Comments
31	42220 - Nat	ural Jack P	ine	Poletimber Well	1.2	43	1-50	N/A		Stand result of Seney fire in 1976.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	5	Pole	5 43	Bla	ck Spruce	Medium	10 - 20 feet	Sapling	
	Red Pine	5	Log	14						
	Jack Pine	90	Pole	5 43						
32	623 - Emer	gent Wetla	nd	Nonstocked	4.7			No		
33	42220 - Nat	ural Jack P	ine	Poletimber Well	3.1	43	51-80	N/A		Stand result of Seney fire 1976
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	15	Pole	5 43	Bla	ck Spruce	Medium	10 - 20 feet	Sapling	
	Red Pine	15	Log	14						•
	Jack Pine	60	Pole	5 43						
	Tamarack	10	Pole/Saplin	ng 5						
34	42220 - Nat	ural Jack P	ine	Poletimber Well	23.4	43	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	15	Pole	7	Bla	ck Spruce	Medium	< 5 feet	Sapling	
	Jack Pine	75	Pole	7 43	Ja	ack Pine	Low	< 5 feet	Sapling	
	Quaking Aspen	10	Pole	7	W	hite Pine	Medium	5 - 10 feet	Sapling	
35	42220 - Nat	ural Jack P	ine	Poletimber Well	37.2	43	51-80	N/A		Stand result of Seney fire.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	10	Pole	7 43	Bla	ck Spruce	Medium	10 - 20 feet	Sapling	
	Red Pine	5	Log	14						
	Jack Pine	85	Pole	7 43						
36	330 - Low-I	Density Tre	es	Nonstocked	8.3	0		4212 - Planted	Jack Pine	Stand was cut in winter of 2016, South East Side Duck sale. 41-008-12-
				-		nopy Species	Density	Avg. Height	Size	O'LStalld Was d'ollorioù ill Sullillioi 2017.
						ack Pine	Full	< 5 feet	Seeding	5/9/2018: Planted by Superior Forestry. Oversight by Forest Resource
				-		ck Spruce	Low	< 5 feet	Seeding	Services (Grossman Forestry Co.).
					W	hite Pine	Low	< 5 feet	Seeding	Quality checks: 1.43% too deep, 0.00% bad stem angle, 2.86% too
										loose, 0.00% "J" rooted. Weather: scattered clouds, rain in afternoon, 65 degrees. Stocking = 915 trees/ac actual planted, 1057 trees/ac plot data. Total cost = \$181.69/ac
										1st year regeneration count - 95% jack pine survival. Black spruce and white pine volunteers present also.

Report 7 - Stands



Stand	d Level 4 Co	over Type		Size De	ensity	Acres	Stand Age B	Aitange	Managed S		General Comments
37	42220 - Nat	ural Jack F	Pine F	Poletimb	er We	II 4.3	43	51-80	N/A		Stand result of Seney fire 1976
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	10	Pole	5	43	Blad	ck Spruce	Medium	10 - 20 feet	Pole	
	Red Pine	5	Log	14							
	Jack Pine	75	Pole	5	43						
	Tamarack	10	Pole/Sapling	5							
38	42220 - Nat	ural Jack F	Pine F	Poletimb	er We	II 1.7	43	51-80	N/A		Stand result of Seney fire 1976
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	15	Pole/Sapling	5	43	Blad	ck Spruce	Medium	10 - 20 feet	Sapling	
	Red Pine	5	Log	14				,			
	Jack Pine	60	Pole	5	43						
	Tamarack	10	Pole/Sapling	5							
	White Pine	10	Log	14							
39	623 - Emer	gent Wetla	ınd	Nonst	ocked	11.2			No		
40	6125 - Lowland E P	Black Sprud Pine	ce, Jack	Saplin	g Well	3.9	25	1-50	N/A		There has been some cutting in the past. Area is periodically flodded by beaver.
40		ine	ce, Jack		g Well		25 nopy Species	1-50 Density	N/A	Size	
40	P	ine				Sub-Ca				Tall Shrub	beaver.
40	Canopy Species	ine % Cover	Size Class	DBI		Sub-Ca	nopy Species	Density	Avg. Height		beaver.
40	Canopy Species Red Maple	% Cover	Size Class Sapling	DBI	l Age	Sub-Ca	nopy Species Alder	Density Low	Avg. Height 5 - 10 feet	Tall Shrub	beaver.
40	Canopy Species Red Maple Black Spruce	% Cover 15 40	Size Class Sapling Sapling	DBI 3 3	l Age	Sub-Ca	nopy Species Alder	Density Low	Avg. Height 5 - 10 feet	Tall Shrub	beaver.
40	Canopy Species Red Maple Black Spruce Red Pine	% Cover 15 40 10	Size Class Sapling Sapling Sapling	3 3 3	l Age	Sub-Ca	nopy Species Alder	Density Low	Avg. Height 5 - 10 feet	Tall Shrub	beaver.
40	Canopy Species Red Maple Black Spruce Red Pine Jack Pine	% Cover 15 40 10 10	Size Class Sapling Sapling Sapling Sapling Sapling	3 3 3 3	l Age	Sub-Ca	nopy Species Alder	Density Low	Avg. Height 5 - 10 feet	Tall Shrub	beaver.
40	Canopy Species Red Maple Black Spruce Red Pine Jack Pine Tamarack	% Cover 15 40 10 10 10 10	Size Class Sapling Sapling Sapling Sapling Sapling Sapling	3 3 3 3 3	l Age	Sub-Ca	nopy Species Alder	Density Low	Avg. Height 5 - 10 feet	Tall Shrub	beaver.
41	Canopy Species Red Maple Black Spruce Red Pine Jack Pine Tamarack Paper Birch	% Cover 15 40 10 10 10 5 10	Size Class Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling	3 3 3 3 3 3 Sapling	1 Age 25	Sub-Ca	nopy Species Alder	Density Low	Avg. Height 5 - 10 feet 5 - 10 feet N/A	Tall Shrub	beaver.
	Red Maple Black Spruce Red Pine Jack Pine Tamarack Paper Birch White Pine	% Cover 15 40 10 10 10 5 10 Ural Jack F	Size Class Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling	3 3 3 3 3 3 Sapling	25	Sub-Ca Blace	Alder ck Spruce	Density Low Medium	Avg. Height 5 - 10 feet 5 - 10 feet	Tall Shrub	beaver.
	Red Maple Black Spruce Red Pine Jack Pine Tamarack Paper Birch White Pine	% Cover 15 40 10 10 10 5 10 Ural Jack F	Size Class Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling	3 3 3 3 3 3 Sapling	1 Age 25	Sub-Ca Blace 4.4 Sub-Ca	Alder ck Spruce	Density Low Medium	Avg. Height 5 - 10 feet 5 - 10 feet N/A	Tall Shrub Sapling	beaver.
	Red Maple Black Spruce Red Pine Jack Pine Tamarack Paper Birch White Pine 42220 - Nate	% Cover 15 40 10 10 10 5 10 ural Jack F	Size Class Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling Sapling Size Class	3 3 3 3 3 3 Sapling	25 25 Well	Sub-Ca Blace 4.4 Sub-Ca	Alder ck Spruce	Density Low Medium 1-50 Density	Avg. Height 5 - 10 feet 5 - 10 feet N/A Avg. Height	Tall Shrub Sapling	beaver.
	Red Maple Black Spruce Red Pine Jack Pine Tamarack Paper Birch White Pine 42220 - Nate Canopy Species Quaking Aspen	% Cover 15 40 10 10 10 5 10 ural Jack F % Cover 5	Size Class Sapling	3 3 3 3 3 3 3 3 3 3	g Well	Sub-Ca Black 4.4 Sub-Ca	Alder ck Spruce	Density Low Medium 1-50 Density	Avg. Height 5 - 10 feet 5 - 10 feet N/A Avg. Height	Tall Shrub Sapling	beaver.
	Canopy Species Red Maple Black Spruce Red Pine Jack Pine Tamarack Paper Birch White Pine 42220 - Natt Canopy Species Quaking Aspen Black Spruce Jack Pine	% Cover 15 40 10 10 5 10 wral Jack F 5 90	Size Class Sapling Size Class Sapling Sapling Sapling	3 3 3 3 3 3 Sapline DBI 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	25 25 Well 15 15 15	Sub-Ca Black 4.4 Sub-Ca Re	Alder ck Spruce	Density Low Medium 1-50 Density	Avg. Height 5 - 10 feet 5 - 10 feet N/A Avg. Height	Tall Shrub Sapling	beaver.
41	Canopy Species Red Maple Black Spruce Red Pine Jack Pine Tamarack Paper Birch White Pine 42220 - Natt Canopy Species Quaking Aspen Black Spruce Jack Pine	% Cover 15 40 10 10 10 5 10 ural Jack F 5 90 ural Jack F	Size Class Sapling Size Class Sapling Sapling Sapling	3 3 3 3 3 3 3 3 3 3	25 25 Well 15 15 15	Sub-Ca Blace 4.4 Sub-Ca Re	Alder ck Spruce 15 Inopy Species ed Maple	Low Medium 1-50 Density Medium	Avg. Height 5 - 10 feet 5 - 10 feet N/A Avg. Height 5 - 10 feet	Tall Shrub Sapling	Part of stand that was cut in adjacent compartment.
41	Canopy Species Red Maple Black Spruce Red Pine Jack Pine Tamarack Paper Birch White Pine 42220 - Nate Canopy Species Quaking Aspen Black Spruce Jack Pine	% Cover 15 40 10 10 10 5 10 ural Jack F 5 90 ural Jack F	Size Class Sapling Size Class Sapling Sapling Sapling	3 3 3 3 3 3 3 3 3 3	g Well 15 15 15 per We	4.4 Sub-Ca Re Il 14.5 Sub-Ca	Alder ck Spruce 15 Inopy Species ed Maple	Low Medium 1-50 Density Medium 51-80	Avg. Height 5 - 10 feet 5 - 10 feet N/A Avg. Height 5 - 10 feet	Size Sapling	Part of stand that was cut in adjacent compartment.
41	Canopy Species Red Maple Black Spruce Red Pine Jack Pine Tamarack Paper Birch White Pine 42220 - Nate Canopy Species Quaking Aspen Black Spruce Jack Pine 42220 - Nate Canopy Species	% Cover 15 40 10 10 10 5 10 ural Jack F % Cover 5 90 ural Jack F % Cover	Size Class Sapling Size Class Sapling Sapling Sapling Size Class Sapling Sapling Sapling	3 3 3 3 3 3 3 3 3 3	g Well 1 Age 15 15 15 15 Der We	4.4 Sub-Ca Re Il 14.5 Sub-Ca	Alder ck Spruce 15 nopy Species ed Maple 43 nopy Species	Low Medium 1-50 Density Medium 51-80 Density	Avg. Height 5 - 10 feet 5 - 10 feet N/A Avg. Height 5 - 10 feet N/A Avg. Height	Size Sapling Size Sapling	Part of stand that was cut in adjacent compartment.

Report 7 - Stands



Stand	Level 4 Co	over Type		Size De	ensity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
43	42210 - Nat	ural Red Pi	ine S	Sawtimbe	r Mediun	n 4.3	75	1-50	N/A		Cut in 2017
	Canopy Species	% Cover	Size Class		I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	10	Log/Pole	12		Blad	ck Spruce	Medium	Variable	Sapling	
	Red Pine	90	Log/Pole	12	75		ed Pine	Low	< 5 feet	Sapling	
							ack Pine	Low	< 5 feet	Sapling	
							amarack	Medium	10 - 20 feet	Sapling	
							hite Pine	Medium	5 - 10 feet	Sapling	
						Re	ed Maple	High	5 - 10 feet	Sapling	
							Alder	Low	5 - 10 feet	Tall Shrub	
44	42220 - Nati	ural Jack P	ine	Poletimb	er Well	3.4	43	1-50	N/A		Stand result of Seney fire in 1976
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	5	Pole	5	43	Blad	ck Spruce	Medium	10 - 20 feet	Sapling	
	Red Pine	5	Log	14							
	Jack Pine	90	Pole	5	43						
45	42220 - Nati	ural Jack P	ine	Poletimb	er Well	2.1	43	1-50	N/A		Stand result of Seney fire.
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	5	Pole	5	43	Blad	ck Spruce	Medium	10 - 20 feet	Sapling	
	Red Pine	5	Log	14						1	
	Jack Pine	90	Pole	5	43						
47	42210 - Nat	ural Red Pi	ine	Sawtimb	er Well	1.5	75	81-110	N/A		Stand result of Seney fire in 1976.
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	5	Pole	5	43	Blad	ck Spruce	Medium	10 - 20 feet	Sapling	
	Red Pine	70	Log	14	75						
	Jack Pine	25	Pole	5	43						
48	623 - Emer	gent Wetla	nd	Nonsto	ocked	541.7			No		
49	42220 - Nati	ural Jack P	ine	Poletimb	er Well	28.4	43	1-50	N/A		Stand regenerated from the Seney fire in 1976
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	20	Pole	5	43	Blad	ck Spruce	Low	5 - 10 feet	Sapling	
	Jack Pine	70	Pole	5	43			,		,	•
	Red Pine	10	Log/Pole	14							
50	6126 - Lowla	and Jack P	ine	Saplin	g Well	10.5	43	1-50	N/A		Stand result of Seney fire in 1976. Ground is lowland with stunted trees
	Canopy Species	% Cover	Size Class	DBH	l Age						
	Black Spruce	40	Sapling	1	43						



Stand	l Level 4 C	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	ite	General Comments	MICHIGAN .
51	42220 - Na	tural Jack P	Pine F	Poletimb	er Well	5.4	43	1-50	N/A		Stand result of Seney fire.	
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Black Spruce	5	Pole	5	43	Black	k Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14							_	
	Jack Pine	90	Pole	5	43							
52	42220 - Na	tural Jack P	Pine F	Poletimb	er Well	1.0	43	51-80	N/A		Stand reult of Seney fire 1976.	
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Black Spruce	5	Pole	5	43	Black	k Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14								
	Jack Pine	90	Pole/Sapling	j 7	43							
53	42220 - Na	tural Jack P	Pine F	Poletimb	er Well	4.6	43	1-50	N/A		Stand result of Seney fire 1996	
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Black Spruce	5	Pole	5	43	Blacl	k Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14								
	Jack Pine	90	Pole	5	43							
54	42220 - Na	tural Jack P	Pine F	Poletimb	er Well	40.2	43	51-80	N/A		Stand result of Seney fire	
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Black Spruce	5	Pole	5	43	Black	k Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14								
	Jack Pine	90	Pole	6	43							
55	42220 - Na	tural Jack P	Pine F	Poletimb	er Well	20.3	43	51-80	N/A		Stand result of Seney fire 1976	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Black Spruce	10	Pole	5	43	Blacl	k Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14								
	Jack Pine	80	Pole	6	43							
	Tamarack	5	Pole/Sapling	5								
56	42220 - Na	tural Jack P	ine F	Poletimb		17.7	43	1-50	N/A		Stand result of Seney fire.	
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	opy Species	Density	Avg. Height	Size		
	Black Spruce	5	Pole	5	43	Black	k Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14								
	Jack Pine	90	Pole	5	43							



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments	MICHIGAN .
57	42220 - Nati	ural Jack P	Pine F	Poletimb	er Well	2.2	43	1-50	N/A		Stand result of Seney fire 1976.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Black Spruce	5	Pole	5	43	Black	Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14								
	Jack Pine	90	Pole	5	43							
58	6126 - Lowla	and Jack P	ine	Sapling	Well	3.4	43	1-50	N/A		Stand result of Seney fire 1976	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Black Spruce	5	Sapling/Pole	4	43	Black	Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14								
	Jack Pine	90	Sapling/Pole	4	43							
59	42290 - Natu	ıral Mixed F	Pine S	Sawtimb	er Well	11.4	75	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Black Spruce	10	Pole	5		Black	Spruce	Low	5 - 10 feet	Sapling		
	Red Pine	50	Log	14	75	Whi	te Pine	Low	5 - 10 feet	Sapling		
	Jack Pine	40	Pole	6	43	Red	d Pine	Medium	5 - 10 feet	Sapling		
60	42220 - Nati	ural Jack P	Pine F	oletimb	er Well	12.1	43	51-80	N/A		Stand result of Seney fire 1976	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Black Spruce	10	Pole	5	43	Black	Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14								
	Jack Pine	75	Pole	6	43							
	Tamarack	10	Pole/Sapling	5								
61	6239 - Mixed E	mergent W	etland	Nonsto	cked	2.6			No			
62	6239 - Mixed E	mergent W	etland	Nonsto	cked	3.9			No			
63	623 - Emer	gent Wetla	nd	Nonsto	cked	6.2			No			
64	42220 - Nati	ural Jack P	Pine F	Poletimb		2.8	43	1-50	N/A		Stand result of Seney fire	
	Canopy Species		Size Class		Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Black Spruce	5	Pole	5	43	Black	Spruce	Medium	10 - 20 feet	Sapling		
	Red Pine	5	Log	14								
	Jack Pine	90	Pole	5	43							

Shingleton Mgt. Unit

Report 7 - Stands



and	Level 4 Cover Type 42220 - Natural Jack Pine			Size Density Poletimber Well		Acres Stand Age BA Range			Managed Si	te	General Comments	MICHIGI
5						3.6	43	1-50	N/A		Stand result of Seney fire 1976	
С	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
В	Black Spruce	5	Pole	5	43	Blac	ck Spruce	Low	10 - 20 feet	Sapling		
	Red Pine	5	Log	14				,			-	
	Red Pille	_										
	Jack Pine	90	Pole	5	43							
6		90 and Jack P		Sawtimber		n 3.0	58	51-80	N/A		retention patch	
6 C	Jack Pine 6126 - Lowla	90 and Jack P	ine S	Sawtimber DBH	Mediun Age	n 3.0	58	51-80	N/A		retention patch	
6 C	Jack Pine 6126 - Lowla Canopy Species	90 and Jack Pi % Cover	ine S	Sawtimber DBH	Mediun Age	n 3.0	58	51-80	N/A		retention patch	