

Shingleton Forest Management Unit Compartment Review Presentation

Compartment #120 Entry Year: 2013 Compartment Acreage: 913 County: Schoolcraft

Revision Date: August 16, 2011

Stand Examiner: Sheila Clark

Legal Description: T45N R14W Section 6 and T46N R14W Section 31

RMU (if applicable):

Management Goals: To provide multiple use benefits for the citizens of Michigan.

Soil and Topography: The terrain is flat to gently rolling, with slightly elevated sandy ridges.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is completely state-owned. It is bounded by The Seney National Wildlife Refuge to the west and south, and more state lands to the east and the north across Highway M-28.

Unique, Natural Features: To the west of the compartment *Juncus vaseyi* (vasey's rush) has been identified. Its habitat is the marshy areas which are kept open by seasonal flooding.

Archeological, Historical, and Cultural Features: None known at this time.

Special Management Designations or Considerations: Visual quality along the M-28 corridor, which forms the north boundary of the compartment.

Watershed and Fisheries Considerations: Fisheries Values Poor-to-None. No treatments are prescribed near water, so Fisheries Division has no comments at this time.

Wildlife Habitat Considerations: This compartment lies within the Seney Sand Lake Plain ecological subsubsection. The growing season in this area is less than 100 days with extreme minimum winter temperatures of –46 F. Annual snowfall in this area averages between 120 and 140 inches. General Land Office (GLO) Surveyor notes indicate that the lowlands in this compartment were historically dominated by spruce and tamarack with white pine mixed in. Uplands held a mix of hemlock, yellow birch, white pine, and red maple. Wildfire and windthrow likely were the major forms of natural disturbance. The current forest cover has shifted heavily toward early successional pine (red and jack pine). Section 6 also contains a fairly sizable aspen stand. However, there are some lowland stands that still contain a mixture of species similar to those recorded in the GLO notes. Wildlife habitat objectives include maintaining age and structural diversity within and between upland conifer stands, reestablishing forest cover in skid roads, providing a hard mast component in the form of red oak, and promoting retention of soft mast and eventual snag formation by selecting birch leave trees. Gray wolves (Federal and Michigan endangered), moose (Michigan special concern) and sharp-tailed grouse (Michigan special concern) have all been recorded in this compartment. Other species of interest include saw-whet owl, red-breasted nuthatch, bobcat, and white-tailed deer.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel. There is minimal local relief in the compartment. There is insufficient data to determine the glacial drift thickness. The Ordovician Trenton Group subcrops below the glacial drift. The Trenton is used for dolomite/stone elsewhere in the UP. Gravel pits at not found in the general area and potential appears to be limited. There is no commercial oil and gas production in the UP.

Vehicle Access: An excellent gravel road forms the western compartment boundary, with several low-quality two-track roads running into the state land from it. Wet terrain throughout the area makes road construction and maintenance difficult, particularly in the southern part of the compartment.

Survey Needs: None

Recreational Facilities and Opportunities: Hunting opportunities, especially during deer season.

Fire Protection: See comments under Vehicle Access.

Additional Compartment Information: Text

- > The following reports from the Inventory are attached:
 - **♦** Total Acres by Cover Type and Age Class
 - **♦** Proposed Treatment Summary
 - **♦** Proposed Treatments No Limiting Factors
 - **♦** Proposed Treatments With Limiting Factors
 - **♦ Stand Details (Forested and Nonforested)**
 - **♦ Dedicated and Proposed Special Conservation Areas**
- > The following information is displayed, where pertinent, on the attached compartment maps:
 - ♦ Base feature information, stand boundaries, cover types, and numbers
 - **♦** Proposed treatments
 - **♦** Details on the road access system

Table 1 – Total Acres by Cover Type and Age Class

1 - Total Acres by Cover Type and Ago

Shingleton Mgt. Unit Sheila Clark : Examiner



Compartment 120 Year of Entry 2013

Age Class

	Age Class																
	Hor	Do No.	, s, /	0,70	,	S. O.	D. L. C.	\$5.05°	8,0	R. j	\$ 6	88	00,00	8120	70 [*] 30°	RS	, 8 ^t
Jack Pine	0	0	211	28	0	0	0	0	0	0	0	0	0	0	0	238	
Low-Density Trees	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
Lowland Conifers	0	0	52	0	0	0	0	0	30	0	0	0	0	0	0	82	
Lowland Mixed Forest	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9	
Lowland Shrub	127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127]
Natural Mixed Pines	0	0	0	81	0	10	0	0	65	0	0	0	0	0	0	157	
Planted Mixed Pines	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	12]
Red Pine	0	0	0	0	0	0	0	9	88	0	0	31	0	0	0	127]
Upland Conifers	0	37	0	0	0	51	0	0	49	0	0	0	0	0	0	137	
Urban	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12]
Total	149	37	284	109	0	61	0	9	232	0	0	31	0	0	0	913	



Table 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit

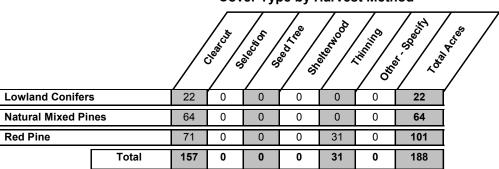
Compartment 120 Year of Entry 2013 **Total Compartment Acres: 912.6**

Acres by Treatment Type

Commercial Harvest - 188 Site Prep - 0 Tree Planting - 0 Prescribed Burn - 0 Other - 0

Habitat Cut - 0 Tree Seeding - 0 Pesticide - 0 Opening Maintenance - 0

Cover Type by Harvest Method



s t		Shingleton Mgt. Unit				atments Pre Limiting Fact		Compartment: 120 Year of Entry 2013	DNR DNR
a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3	41120003-Cut	19.3	42290 - Natural Mixed Pine	Medium Density Pole	71	Harvest	Clearcut with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
Preso Spec			sted in the winter due	to surrounding low	er ground	d. Mark red and	white pine, leave white	birch. Harvest all rema	ining trees
Othe Com	r_ This is a ments:	mixed st	and of softwood and	hardwood. There a	re severa	ll swayles within	the stand.		
Next Steps		vest may	need to scarify to ex	pose mineral soil.					
9	41120009-Cut	35.2	42290 - Natural Mixed Pine	High Density Sapling	72	Harvest	Clearcut with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
Preso Spec	•	nt = On h	nigher ground remove	all merchantable tr	ees, whi	ch will be marke	d. On low ground leave	e red and white pine.	
Othe Com			arvested in 1999. At . Would like to maint			ite pine stand. S	Since harvest the stand	is being taken over by j	ack pine, aspen
Next Steps		vest the	high ground will be tre	enched and planted	I to red pi	ine.			
10	41120010-Cut	30.6	42210 - Natural Red Pine	High Density Log	104	Harvest	Low Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal
Preso Spec			e pine. Mark trees th sure red pine coverty		r poor qu	ality. Harvest all	jack pine over 2 inche	s. Maintain a basal area	a between 80 -
Othe Com	r Parts of ments:	stand we	re thinned in 1985.						
Next Steps									
11	41120011-Cut	9.9	42290 - Natural Mixed Pine	Medium Density Log	48	Harvest	Clearcut with Reserves	42221 - Natural Jack Pine, Mixed Deciduous	Cmpt. Review Proposal
Preso Spec			ine and black spruce winter or dry summe		mark red	and white pine f	or harvest. Stand is lov	wer ground and may nee	ed to be
Othe Com	r_ There is ments:	a lot of a	dvanced regeneration	n present in the star	nd, so ca	ution should be	used to minimize dama	ige to it.	
Next Steps									

41120018-Cut 7.6 6125 - Lowland Medium Density 71 6117 - Lowland Cmpt. Review 18 Harvest Clearcut with Black Spruce, Jack Log Reserves Deciduous, Mixed Proposal Pine Coniferous

<u>Prescription</u> Within Payment Unit(s) 1-5, red pine and white pine are designated for cutting when marked with orange paint above specs: and below stump height, regardless of merchantability. In addition, cut all other species except OAK and

HEMLOCK which meet minimum piece specification in 2.2 Utilization.

<u>Other</u> Comments: This stand is under contract 41-27-08-01 - Brown Hand Sale.

<u>Next</u>

Steps:

Shingleton Mgt. Unit

Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 120 Year of Entry 2013

Deciduous

DNR DNR	COURCE
Arichigan .	

a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	41120020-Cut	63.6	42210 - Natural Lo Red Pine	ow Density Log	70	Harvest	Clearcut with Reserves	42211 - Natural Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription On high ground mark all read and white pine for harvest. Leave pine in the lower swayles. Minimize damage to aspen regneration.

Specs: Other_

S

This stand was cut in 1999. there is good regeneration of jack pine, black spruce, and aspen. However, ground was not disturbed enough to

Comments: encourage red pine regeneration.

Next After harvest trench high ground and plant to red pine.

Steps:

Cmpt. Review 6125 - Lowland 21 41120021-Cut 14.3 Medium Density 71 Harvest Clearcut with 6128 - Lowland Black Spruce, Jack Pole Reserves Coniferous, Mixed Proposal

Pine

Prescription Treatment = Mark red and white pine. Harvest all merchantable trees.

Specs:

This stand should be harvested with adjacent stands in Compartment 119. Brown Hand Sale 41-27-08-01. There is not enough volume to justify Other Comments: an independent sale, and would require too much road work to attach to another timber sale in the area.

Next Steps:

> 41120033-Cut 2.5 42210 - Natural High Density Log 42290 - Natural Cmpt. Review 33 Harvest Clearcut with Red Pine Reserves Mixed Pine Proposal

Prescription Within Payment Unit(s) 1-5, red pine and white pine are designated for cutting when marked with orange paint above Specs:

and below stump height, regardless of merchantability. In addition, cut all other species except OAK and

HEMLOCK which meet minimum piece specification in 2.2 Utilization.

This stand is under contract. Brown Hand Sale. 41-27-08-01. Other

Comments:

Next Steps:

> 42210 - Natural High Density Pole 70 42260 - Natural Cmpt. Review 34 41120034-Cut 4.6 Harvest Clearcut with Red Pine Pine, Mixed Proposal Reserves Deciduous

Prescription Within Payment Unit(s) 1-5, red pine and white pine are designated for cutting when marked with orange paint above Specs: and below stump height, regardless of merchantability. In addition, cut all other species except OAK and

HEMLOCK which meet minimum piece specification in 2.2 Utilization.

This stand is under contract. Brown Hand Sale 41-27-08-01. Other_

Comments:

<u>Next</u> Steps:

Total Treatment

187.7 Acreage Proposed:

S t a		Shingle	eton Mgt. Unit	Table 4		ents Prescrib ing Factor	Compartment: 120 Year of Entry 2013	DNR MICHIGAN	
n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error						
Preso Spec	cription s:								
Othe Com	<u>r</u> ment:								
Next Steps	<u>5:</u>								
	ing Factor and N ment Reason	0							

Total Treatment
Acreage Proposed:

0

Out of YOE -- Treatments Prescribed with No Limiting Factor

Year of Entry: 2013

Treatment Acres Stage1 Size Stand **Treatment Treatment Cover Type Approval** Density Method Objective Status Name CoverType Age Type 41022 OutOfY 35.6 Harvest Systematic Thinning 42110 - Planted Red Cmpt. Review OE-Cut Proposal Pine

<u>Prescription</u> 3rd row thinning. Cut all trees in designated rows. Rows can be spaced wider apart in areas with lower basal area. Do not cut hemlock and oak. <u>Specs:</u>

Other Do not cut any trees within 50 feet of the West Branch Manistique River.

Comments:

Next Thin next year of entry.

Steps:

41049_OutOfY4.7HarvestSingle Tree Selection42290 - NaturalCmpt. ReviewOE_1-CutMixed PineProposal

Prescription Mark red pine and white pine to 30 sq. ft. Create gaps in canopy for regeneration where pine exists. Areas that have thicker young poles can be

Specs: marked to 80. Cut all other species except hemlock and oak if present.

Other Access to stand is too difficult for continuous thinning.

Comments:

Regeneration walkthrough during next inventory cycle. Acceptable regeneration includes any species mixture currently found onsite.

<u>Next</u> Steps:

41053_OutOfY OE-Cut10.2Harvest Single Tree Selection Mixed Pine42290 - Natural Mixed PineCmpt. Review Proposal

Prescription Mark red pine and white pine to 30 sq. ft. Create gaps in canopy for regeneration where pine exists. Areas that have thicker young poles can be

Specs: marked to 80. Cut all other species except hemlock and oak if present.

Other Access to stand is too difficult for continuous thinning.

Comments:

Regen walkthrough during next inventory cycle. Acceptable regeneration includes any species mixture currently found onsite.

Next Steps:

Total Treatment

Acreage Proposed: 50.5

S t	Shingleton Mgt. Unit			5 – Fo	orested Sta	nds Compartment: 120 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42220 - Natural Jack Pine	High Density Pole	11.7	27		
2	42121 - Planted Jack Pine, Mixed Deciduous	Medium Density	15.1	13		Stand was harvested in 1998. It is a mixture of upland and lowland, with jack pine and aspen on the upland and tag alder in the lowland.
3	42290 - Natural Mixed Pine	Medium Density Pole	19.3	71	81-110	Conifer on higher ground - tag alder and aspen in swayles.
4	42220 - Natural Jack Pine	Medium Density Pole	15.8	24	81-110	Similar to stand 2 - a little more open. A few knobs with larger diameter red pine, aspen & white pine 8-14 inches in diameter.
6	42140 - Planted Mixed Pine	Medium Density	12.4	13		Good regeneration on higher ground.
7	42220 - Natural Jack Pine	High Density Sapling	10.2	12	51-80	Stand was harvested in 1999.
9	42290 - Natural Mixed Pine	High Density Sapling	35.2	72	1-50	Pine Islands surrounded by lower ground. Some low ground has trees - others have tag alder. Good jack pine regen.
10	42210 - Natural Red Pine	High Density Log	30.6	104	111-140	Parts of stand were thinned in 1985.
11	42290 - Natural Mixed Pine	Medium Density Log	9.9	48	81-110	There is a lot of advanced regeneration.
12	6139 - Mixed Lowland Forest	Medium Density	9.3	12		Red and white pine overstory is very scattered. Stand was harvested in 1999.
13	42220 - Natural Jack Pine	Medium Density	152.7	13		Good regeneration. tag alder in lower swayles. Higher ground is 75 to 80% forested with regeneration 5-15 feet.
15	6126 - Lowland Jack Pine	Medium Density	15.8	12		Thick jack pine regeneration.
16	429 - Mixed Upland Conifers	High Density Log	51.2	47	81-110	Mixed pine.
17	42220 - Natural Jack Pine	Medium Density	16.9	13		
18	6125 - Lowland Black Spruce, Jack Pine	Medium Density Log	7.6	71		Stand has been included in a timber sale with a stand in adjacent compartment (119). red line around stand. The sale is Brown Hand - 41-27-08-01.
20	42210 - Natural Red Pine	Low Density Log	63.6	70	51-80	Was recently cut in 1999. Good regeneration, though too much was left in overstory. Overstory is red and white pine. Understory is jack pine, aspen, red pine, white pine, and black spruce.

S t	Shingleto	n Mgt. Unit		5 – Forested Stands		Compartment: 120 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	6125 - Lowland Black Spruce, Jack Pine	Medium Density Pole	14.3	71		Tamarack is dieing on the edges.
22	42290 - Natural Mixed Pine	High Density Sapling	81.4	25		
23	6125 - Lowland Black Spruce, Jack Pine	Medium Density	34.7	13		Was harvested in 1998. Regeneration looks good.
24	429 - Mixed Upland Conifers	Medium Density	37.3	7		Regeneration is still small. Jack pine is just starting to get above the snow.
25	6127 - Lowland Pine	Low Density Log	8.3	70		Stand is made up of scattered pockets of trees intermixed with tag alder.
26	6125 - Lowland Black Spruce, Jack Pine	Medium Density	16.9	12		This stand is lower ground with jack pine and black spruce being on the higher areas.
28	429 - Mixed Upland Conifers	Medium Density Pole	48.6	71	51-80	This is a hodgpodge kind of stand. The Northwest quareter has a high percentage of red pine on ridges surrounded by lowland - mixed tamarack, paper birch, and tag alder. On ridges it is relatively open with some hardwood regeneration. Was harvested about 10 years ago.
29	42290 - Natural Mixed Pine	Medium Density Log	11.0	70	51-80	Was thinned in 1999. voerstory red and white pine. Understory of jack pine, black spruce, and aspen.
31	42210 - Natural Red Pine	Medium Density Pole	16.9	71	51-80	This stand was recently harvested.
32	42210 - Natural Red Pine	Low Density Log	9.1	69	1-50	This is stand is a combination of upland and lowland. It was harvested in 2006.
33	42210 - Natural Red Pine	High Density Log	2.5	70		This stand has been marked for harvesting. Assuming it is part of Brown Hand Sale 41-27-08. There is a ditch on the west side of the stand.
34	42210 - Natural Red Pine	High Density Pole	4.6	70		This stand is marked for harvest. Assume it is part of Brown Hand Sale 41-27-08. Ditch on west side of stand.

6 - Nonforested Stands

Compartment: 120 Year of Entry: 2013



Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3302 - Low Density Conifer Trees	5.0	No	Unspecified	
11 - Low Intensity Urban	11.8	No	Unspecified	Right-of-way between highway and train tracks.
629 - Mixed non-forested wetland	7.6	No	Unspecified	
6229 - Mixed lowland shrub	119.8	No	Unspecified	
3302 - Low Density Conifer Trees	3.6	No	Unspecified	
3302 - Low Density Conifer Trees	1.7	No	Unspecified	
	3302 - Low Density Conifer Trees 11 - Low Intensity Urban 629 - Mixed non-forested wetland 6229 - Mixed lowland shrub 3302 - Low Density Conifer Trees	3302 - Low Density Conifer Trees 5.0 11 - Low Intensity Urban 11.8 629 - Mixed non-forested wetland 7.6 6229 - Mixed lowland shrub 119.8 3302 - Low Density Conifer Trees 3.6	3302 - Low Density Conifer Trees 5.0 No 11 - Low Intensity Urban 11.8 No 629 - Mixed non-forested wetland 7.6 No 6229 - Mixed lowland shrub 119.8 No 3302 - Low Density Conifer Trees 3.6 No	3302 - Low Density Conifer Trees 5.0 No Unspecified 11 - Low Intensity Urban 11.8 No Unspecified 629 - Mixed non-forested wetland 7.6 No Unspecified 6229 - Mixed lowland shrub 119.8 No Unspecified 3302 - Low Density Conifer Trees 3.6 No Unspecified

Shingleton Mgt. Unit

Compartment: 120 Year of Entry: 2013



7 - 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.

Stand	SCA Type	SCA Name	Acres	Comments

Shingleton Mgt. Unit

Compartment: 120 Year of Entry 2013



8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

Conservation Area	Туре	Description	HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen constocked trout populations and those of other coldwater fish specyear to year. Coldwater streams in Michigan typically provide th contributions of groundwater to their stream flows. Such stream designated as trout resources by Fisheries Order 210.	cies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA Habitat Area An area that provide some specific need for the life cycle of and Waterfowl Production Areas, deer wintering complexes in openings and savannas. Habitat areas are distinct from critical endangered or threatened species (such as Kirtland's warble general in nature, are not primarily associated with threatened covered by species recovery plans that are developed in coordinate.		owland conifer communities, grassland habitat designated for recovery of or piping plover areas) in that they are more or endangered species, and are not	
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