

Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41140 Entry Year 2019 Acreage: 1,195 County Alger

Management Area: Danaher Kingston Outwash

Revision Date: 2017-07-13

Stand Examiner: Mario Molin

Legal Description:

: T48N R15W Sections 26, 34-36

Identified Planning Goals:

The main goal in this compartment is to conduct multiple resource management for current and future generations.

Soil and topography:

The topography in this compartment is rolling with more elevation changes near the streams and rivers. This compartment contains several soil types; Saugatuck sand, which is low to fair natural fertility, white pine and low land hardwoods will grow on this soil; Autrain sand, low in natural fertility, growing yellow birch, beech, maple and hemlock types; Rubicon sand, also low in natural fertility having mainly pine growing on it; and the mucks/peat soils types having the marshes and bogs. The LTS's for this compartment are Munising moraine II in the NW part and Kingston Outwash for the remainder of the compartment.

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

Ownership within the compartment is broken up with private industry lands.

Unique Natural Features:

Currently under review by Michigan Natural Features Inventory (MNFI).

Archeological, Historical, and Cultural Features:

N/A

Special Management Designations or Considerations:

The West Branch of the Fox River is a HCVA for Natural Rivers.

Watershed and Fisheries Considerations:

This compartment contains the West Branch of the Fox River and stream reaches of Grass Creek, Loon Creek, and Pelican Creek. There are sufficient areas with spawning gravel to support brook trout in the West Branch, while the above mentioned tributaries support mainly warm-water fisheries. Standard BMP's should be implemented to control sediment sources from adjacent uplands. Fine sediments such as silt and sand negatively affect natural reproduction of fish, decrease the diversity of aquatic invertebrate and fish taxa, and result in lower overall fish populations.

Wildlife Habitat Considerations:

This compartment lies along the Fox River Road north of the village of Seney. Pre-settlement data indicate the virgin forest in this area was a composite of white pine, hemlock, beech, red maple, balsam fir, and yellow birch. Mountain ash was an important component of the understory. Lowlands were dominated by spruce.

The current forests continue to contain white pine in most locations; however, most of the other species have been reduced while red pine has significantly increased.

The wildlife management objectives for this compartment include managing for an age-class, species, and structural diversity with the forested system.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and lacustrine (lake) sand & gravel. There is insufficient data to determine the glacial drift thickness. The Cambrian Trempealeau and Munising Formations subcrop below the glacial drift. The Trempealeau could be used for stone and the Munising was used as a building stone in the past. Gravel pits are not located in this area, but there could be some potential. There is no commercial oil and gas production in the UP.

Vehicle Access:

The Sunrise Grade can be driven through the center of the compartment with a good two-track going to the north or south

for more access. Skid roads have mainly been blocked after timber sales reducing more roads to be developed.

Survey Needs:

Unknown at this time.

Recreational Facilities and Opportunities:

The snowmobile trail follows the Sunrise Grade east and west with another snowmobile trail going south off the grade. The Fox River Pathway follows the West Branch through most of the compartment.

Fire Protection:

Fire response to the area will be slow because there is no real direct route to the area. The areas with the most potential for wildfires are the pine plantations and access is from the south.

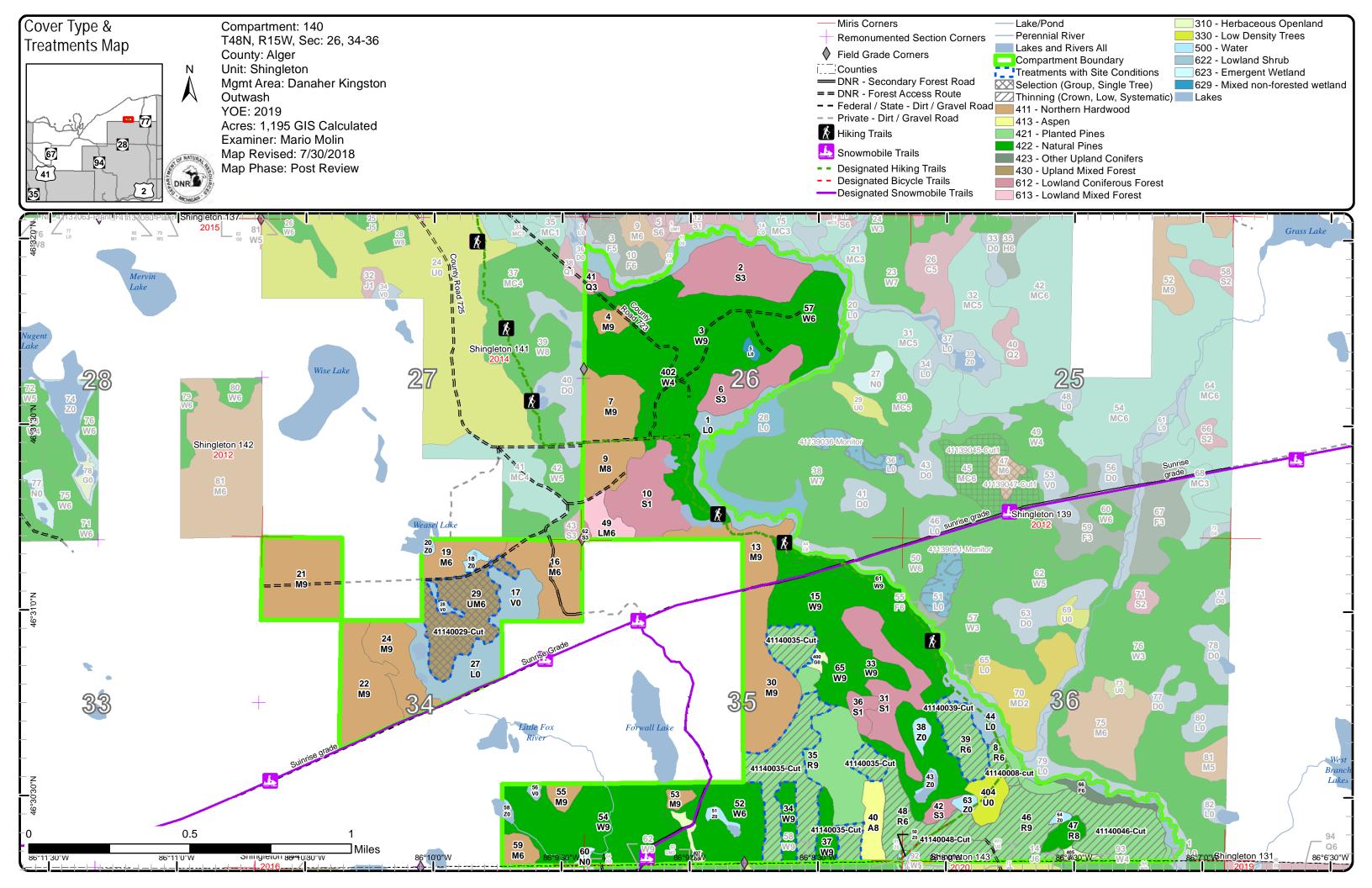
Additional Compartment Information:

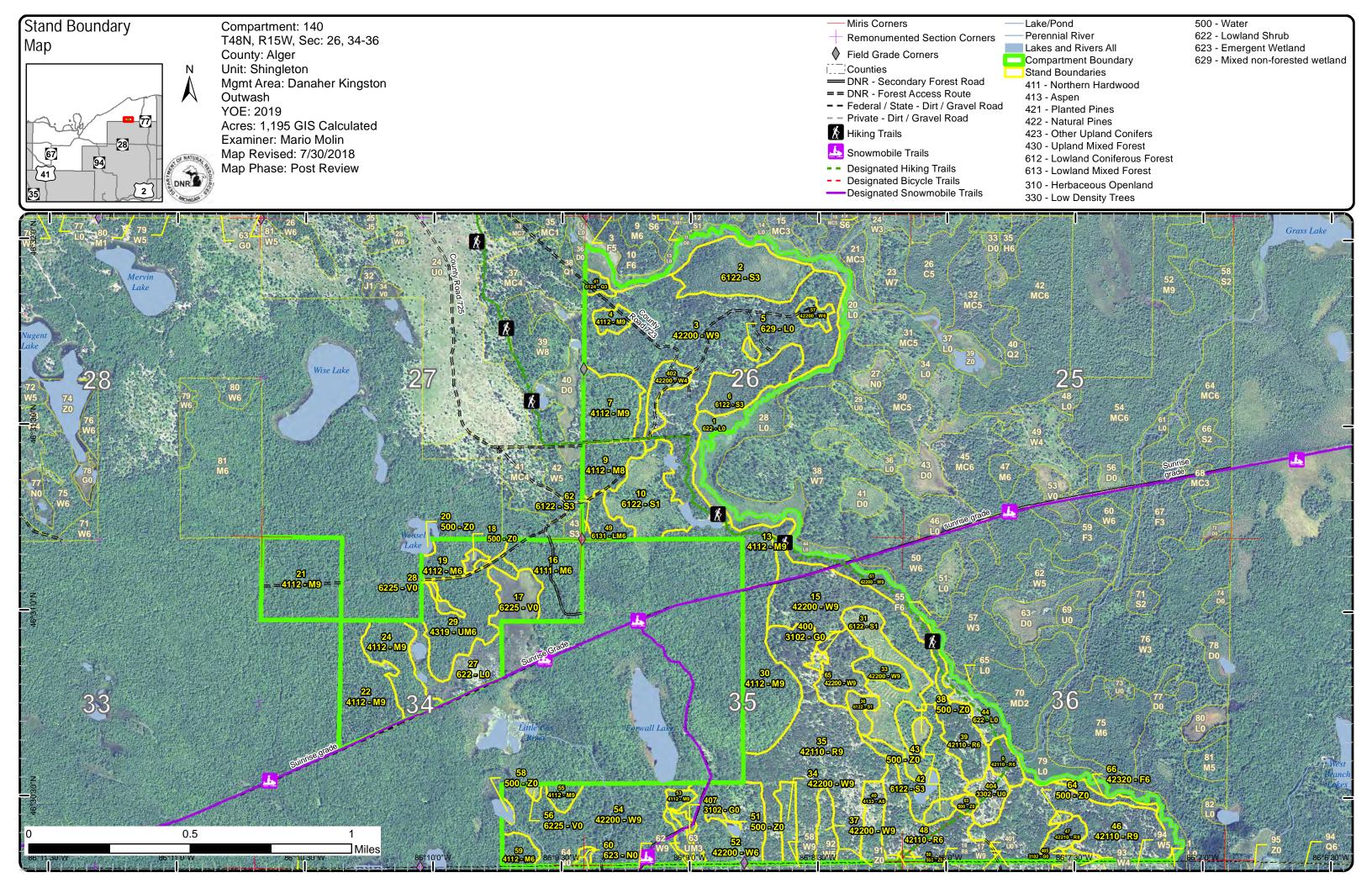
The following reports from the Inventory are attached:

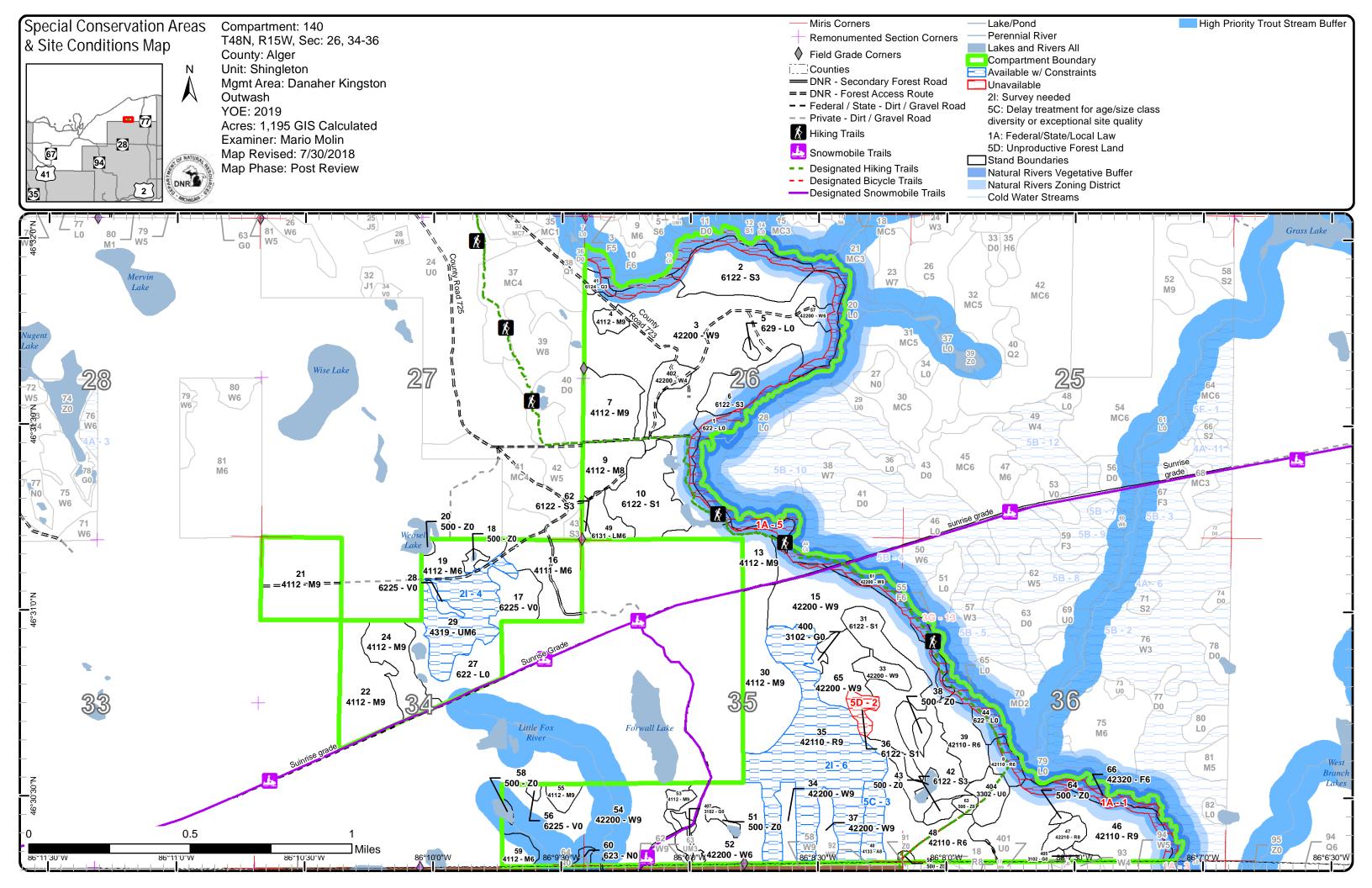
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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 140 Year of Entry 2019

Shingleton Mgt. Unit Mario Molin : Examiner



Age Class

		KO C	3 / 2	,	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	§ /	No.	, % %		,		\$ /0 <u>0</u>	70,	\ \&_\&	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$ \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	NA SE	g ^x / co	080 100
	-	-																	/
Aspen	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	11
Bog	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Low-Density Trees	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Conifers	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9
Lowland Shrub	82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82
Lowland Spruce/Fir	0	0	33	30	1	0	56	0	0	5	0	0	0	0	0	0	0	0	125
Marsh	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Northern Hardwood	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	238	252
Red Pine	0	0	0	0	0	0	96	122	0	0	0	0	0	0	0	0	0	0	218
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	36
Upland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Water	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
White Pine	0	0	0	0	0	0	0	16	0	0	72	0	0	0	0	0	0	316	404
Total	133	0	33	33	1	0	163	152	0	14	72	0	0	0	0	0	0	596	1196



Report 2 – Treatment Summary

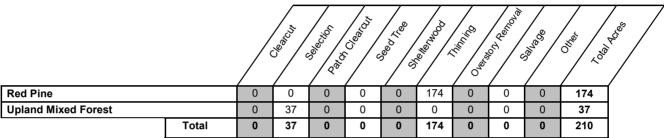
Shingleton Mgt. Unit Year of Entry: 2019

Acres of Harvest

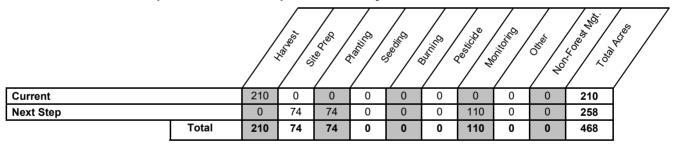
Compartment 140
Total Compartment Acres: 1,195

Commercial Harvest - 93 Harvests with Site Condition - 117 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



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10/01/2018

SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)

Next Step

Treatments:

Regen:
Other
Comment:

Acceptable Red pine

Proposed Start Date:

s t		Shin	gleton Mgt. Unit		Re	eport 3	Treatmer	nts	•	tment: 140 Entry: 2019	DNR DE NATURAL RESOURCE
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
46	41140046-Cut	57.4	42110 - Planted Red Pine	Sawtimber Well	62	81-110	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
	oitat Cut: No scription row things:	nning	Site Condition	<u>:</u>							
	<u>t Step</u> SitePre atments:	ep, Trench	ning; Planting, Initia	al Plant; Mo	onitorin	g, Artificia	l Regen(1yr)				
Acc Reg	<u>eptable</u> Red pii <u>en:</u>	ne									
Othe Com	<u>er</u> nment:										
Prop	osed Start Date	<u>:</u> 10/0	1/2018								
48	41140048-Cut	32.0	42110 - Planted Red Pine	Poletimber Well	62	81-110	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
		ntry thinnir	Site Condition ng, row thin/mark fo	_	-						
	t Step_ ttments:										
Acc Reg	eptable en:										
Othe Com	e <u>r</u> nment:										

Total Treatment Acreage Proposed:

Proposed Start Date:

210.1

10/01/2018

Compartment: 140

Shingleton Mgt. Unit

Mario Molin : Examiner Year of Entry: 2019

Availa	ability for	Managemer	nt					
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Con	ditions
Acres	Available	With Condition	Not Available		21	5C	1A	5D
11	0	11	0	Aspen		11		
17	17	0	0	Bog				
7	7	0	0	Herbaceous Openland				
9	9	0	0	Low-Density Trees				
3	2	0	1	Lowland Conifers			1	
9	9	0	0	Lowland Mixed Forest				
82	29	0	53	Lowland Shrub			53	
125	114	0	11	Lowland Spruce/Fir			6	5
2	2	0	0	Marsh				
251	248	0	3	Northern Hardwood			3	
218	108	96	13	Red Pine	96		13	
37	0	37	0	Upland Mixed Forest	37			
5	1	0	4	Upland Spruce/Fir			4	
16	16	0	0	Water				
403	298	0	106	White Pine			106	
1,195	860	143	192	Total Forested Acres	133	11	187	5
	72%	12%	16%	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	1A: Federal/State/Local Law	9	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
2	Unavailable	5D: Unproductive Forest Land	5	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

Report 4 – Site Conditions

Shingleton Mgt. Unit
Mario Molin: Examiner

Compartment: 140 Year of Entry: 2019

3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	2I: Survey needed	37	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	1A: Federal/State/Local Law	97	Unspecified	Unspecified	Unspecified	Unspecified
	Unavailable Comments:		97	Unspecified	Unspecified	Unspecified	Unspecified
			97	Unspecified Unspecified	Unspecified Unspecified	Unspecified Unspecified	Unspecified Unspecified

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: 140





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
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high of communities are ecologically and socially significant in their effective as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian ects on water quality and quantity, as well
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spapproved distance from the river centerlines. The Natural Rivers most Natural Rivers. The Vegetative Buffer ranges from 25 to 1 and Vegetative Buffers for each Natural River see the table loca folder.	s Zoning District is a 400 foot buffer for 00 feet. To view specific Zoning Districts

s t	Shingleton	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 140 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6122 - Black Spruce	Sapling Well	36.2	58	1-50	OPIC - FMD: Spruce is growing up nicely. Should make S4 soon. There are nice white pine on the edges. Some tamarack and fir and mixed in, 5-15' tall.
3	42200 - Natural White Pine	Sawtimber Well	147.2	96	51-80	Cut in 1997 Sale (49-91-01) removed everything except red and white pine.
4	4112 - Maple, Beech, Cherry Association	Sawtimber Well	5.0	96	51-80	Cut 11/97, sale # 49-91-01, some scattered large white pine and hemlock. Good regeneration coming in of beech, red and sugar maple and cherry.
6	6122 - Black Spruce	Sapling Well	20.1	58	1-50	
7	4112 - Maple, Beech, Cherry Association	Sawtimber Well	22.7	96	81-110	Recently thinned 11/97, sale # 49-91-01
8	42110 - Planted Red Pine	Poletimber Well	6.8	62	111-140	OPIC - FMD: These stands were planted in 1956 and again in 1961 after failures. Some areas have a more dense BA because of the replant.
9	4112 - Maple, Beech, Cherry Association	Sawtimber Medium	15.1	96	51-80	Fox River Pathway now parallels the road to the north.
						Cut in 2011, TS 41-040-10-01 Weasel Lake II.
10	6122 - Black Spruce	Sapling Poor	30.1	21	Immature	Cut 11/97, sale # 49-91-01, removed all but red and white pine. Nice band of large white pine in the middle of the stand. Regeneration is 0.5-10' tall depending on the species.
13	4112 - Maple, Beech, Cherry Association	Sawtimber Well	20.5	96	51-80	Some hemlock on the north transition zone.
15	42200 - Natural White Pine	Sawtimber Well	77.4	96	51-80	[04/11/03] TS # 036-00 Stanley Lake Softwood Complex.
16	4111 - S.Maple, Hard Mast Association	Poletimber Well	27.7	96	51-80	Cut in 8/95. Underplanted w/red oak in 1997. Looks like it may have been a shelterwood cut in the past, could go in and remove most of the overstory if wanted.
19	4112 - Maple, Beech, Cherry Association	Poletimber Well	13.7	66	81-110	OPIC - FMD: Red maple is sparse, good hemlock regeneration 12 to 20 in height, ground is moist. Red maple site index = 50. LEAVE HEMLOCK AND YELLOW BIRCH. Stand is under contract for DOC sale. Thin to promote same species mix. New retention guidelines will be used with new contract. [8-26-09] DOC sale (028-01) was cancelled uncut after Camp Cusino closed. Sent: Tuesday, August 17, 2010 4:01 PM To: Stampfly, Jeffrey (DNRE) Subject: RE: Reason for dropping c140 std 19 I would use 1E for the first one. If you want two then add 5D. I just think that with equipment uses it would tear up the advanced regeneration that is coming up. The height ranges from 1' – 20' tall, but have sm DBH. The over story is total junk rm and it was only Rx before b/c of inmates and the firewood they would get for it. Natural process will continue on without it.

S t	Shingleton	n Mgt. Unit		Report 7	- Forested	Stands Compartment: 140 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	4112 - Maple, Beech, Cherry Association	Sawtimber Well	40.7	96	81-110	Cut in 8/95. Appears to have been cut heavily in the past, most regen is beech. Next entry consider cutting, BA should be better and perhaps beech regen will have died back some.
22	4112 - Maple, Beech, Cherry Association	Sawtimber Well	32.4	96	51-80	Cut in 2011 TS# 41-040-10-01A few scattered yellow birch was seen.
24	4112 - Maple, Beech, Cherry Association	Sawtimber Well	21.4	96	81-110	2017- Poor site with some terrain, hemlock in the lower areas, and transitions to lower ground to the north with more hemlock.
29	4319 - Mixed Upland Forest	Poletimber Well	36.5	96	81-110	
30	4112 - Maple, Beech, Cherry Association	Sawtimber Well	38.6	81	51-80	cut in 8/95. Underplanted w/red oak in 1997.
31	6122 - Black Spruce	Sapling Poor	29.2	14	Immature	OPIC - FMD: Cut everything but the white pine, found mostly along the outer edge of the stand. Follow Natural Rivers guidelines.[04/11/03] Under contract TS # 036-00 Stanley Lake Softwood Complex.[01/13/05] RFT - sale is now closed TCR dtd 11/29/04.Regen is looking really good. There are already lots of spruce established with more filling in. Some white pine on the "knobs". There should also be fir and tamarck to fill in.
33	42200 - Natural White Pine	Sawtimber Well	6.8	96	81-110	Cut in 2004 TS # 036-00 Stanley Lake Softwood Complex.
34	42200 - Natural White Pine	Sawtimber Well	7.8	61	1-50	
35	42110 - Planted Red Pine	Sawtimber Well	96.1	59	81-110	Density and size does vary throughout the stand.
36	6122 - Black Spruce	Sapling Poor	5.1	86	Unspecified	Spruce bog.
37	42200 - Natural White Pine	Sawtimber Well	7.7	61	1-50	
39	42110 - Planted Red Pine	Poletimber Well	16.3	62	111-140	OPIC - FMD: These stands were planted in 1956 and again in 1961 after failures. Some areas have a more dense BA because of the replant.
40	4133 - Aspen, Mixed Pine	Sawtimber Medium	10.6	51	51-80	
41	6124 - Lowland Spruce- Fir	Sapling Well	3.2	24	Immature	OPIC - FMD: Area cut with #49-91. Scattered large wp remain on edges. There is well established fir, red maple, spruce, aspen, cedar, and white birch 1-20' tall.
42	6122 - Black Spruce	Sapling Well	3.5	14	Immature	[04/11/03] TS # 036-00 Stanley Lake Softwood Complex.

s t				Report 7	– Forested	Stands Compartment: 140 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	42110 - Planted Red Pine	Sawtimber Well	60.6	62	81-110	OPIC - FMD: These stands were planted in 1956 and again in 1961 after failures. Some areas have a more dense BA because of the replant. Those spots are starting to prune. Other more open areas may have developed b/c of frost pockets.
47	42210 - Natural Red Pine	Sawtimber Medium	5.8	61	81-110	[04/11/03] TS # 036-00 Stanley Lake Softwood Complex. Area also planted to red pine in '56 and '61.
48	42110 - Planted Red Pine	Poletimber Well	32.0	62	81-110	OPIC - FMD: These stands were planted in 1956 and again in 1961 after failures. Some areas have a more dense BA because of the replant. Those spots are starting to prune. Other more open areas may have developed b/c of frost pockets.
49	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Well	9.1	86	51-80	There is a small pocket of red maple, M5/M6 with scattered white pine in it.
52	42200 - Natural White Pine	Poletimber Well	36.1	51	1-50	
53	4112 - Maple, Beech, Cherry Association	Sawtimber Well	2.8	66	81-110	OPIC - TS# #33-79.
54	42200 - Natural White Pine	Sawtimber Well	71.9	96	81-110	OPIC - cut 1n 1979 TS# 33-79.
55	4112 - Maple, Beech, Cherry Association	Sawtimber Well	4.4	66	81-110	OPIC - FMD: Cut heavily last time #33-79, treated in '82. Reproduction is mainly hardwood with a mix of maple, beech and cherry.
57	42200 - Natural White Pine	Poletimber Well	4.5	51	1-50	
59	4112 - Maple, Beech, Cherry Association	Poletimber Well	6.4	66	81-110	OPIC - FMD: Cut heavily last time TS #33-79, treated in '82.
61	42200 - Natural White Pine	Sawtimber Well	17.8	96	81-110	Can not cut- River buffer and Pathway
62	6122 - Black Spruce	Sapling Well	0.9	36	1-50	
65	42200 - Natural White Pine	Sawtimber Well	17.1	96	81-110	
66	42320 - Upland Spruce	Poletimber Well	4.9	51	51-80	Cant harvest- River buffer and Pathway.
402	42200 - Natural White Pine	Poletimber Poor	9.2	51	1-50	

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Stand	Cover Type	Acres	Managed Site	General Comments:
1	622 - Lowland Shrub	38.6	No	West Branch Fox River. Low area follows the West Branch of the Fox River.
5	629 - Mixed non-forested wetland	1.4	No	Seasonal pond.
17	6225 - Bog	13.5	No	
18	500 - Water	1.9	No	
20	500 - Water	1.2	No	
27	622 - Lowland Shrub	22.3	No	Marsh
28	6225 - Bog	2.1	No	
38	500 - Water	2.8	No	
43	500 - Water	2.3	No	Seasonal pond
44	622 - Lowland Shrub	19.9	No	OPIC - FMD: HCVA - NR- West Branch Fox River. Low that follows the West Branch of the Fox River
50	500 - Water	1.0	No	seasonal pond
51	500 - Water	2.3	No	Pond.
56	6225 - Bog	1.2	No	
58	500 - Water	1.3	No	
60	623 - Emergent Wetland	1.5	No	
63	500 - Water	2.3	No	Seasonal pond
64	500 - Water	1.2	No	Seasonal pond
400	3102 - Grass	1.6	No	Some scattered pine filling in

Report 8 - Nonforested Stands

Compartment: 140 Year of Entry: 2019



Stand	Cover Type	Acres	Managed Site	General Comments:
404	3302 - Low Density Conifer Trees	9.3	No	
405	3102 - Grass	2.2	No	Some scattered trees of red and white pine.
407	3102 - Grass	3.0	No	