

Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41010 Entry Year 2018 Acreage: 579

County Schoolcraft

Management Area: Seney Manistique Swamp

Revision Date: 2016-08-31

Stand Examiner: Sheila Clark

Legal Description:

T44N R14W Sections 25 and 36

Identified Planning Goals:

Management activities that coordinate multiple uses and benefits for the people of Michigan including recreation, timber production and protection/enhancement of wildlife habitat are desirable.

Soil and topography:

The terrain varies significantly from rolling, sandy uplands featuring pine types on fine sands down to flat bottomlands with wetland cover types on soils displaying impeded drainage. The sandy uplands generally have high-to-very high site indices for the pine types.

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

There are privately-owned parcels of land along the Manistique River in the south end of this compartment where several hunting camps are located. The state-owned lands have been managed intensively for timber production with the exception of the bottomlands along the Manistique River this area is now designated as

Unique Natural Features:

Auricled twayblade was found along the Manistique river in the last 70's. It's habitat is alder thickets and damp woods along the river.

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

There is a habitat corridor 150 feet from the center of the Manistique River where management has to be modified. Southern end of the compartment is part of the deer obligate winter range.

Watershed and Fisheries Considerations:

This compartment contains the Manistique River (warm-water). Encroachment by beaver is a concern in the cold-water tributaries of the Manistique River. Additionally, 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 on the east side of the Manistique River off the southeast corner of the Seney National Wildlife Refuge. Uplands, away from the river are dominated by jack pine and red pine. Lowland forests contain a mixture of spruce, cedar and tamarack. Closer to the river, northern hardwood and aspen are more prevalent. Wildlife habitat goals include maintaining a closed canopy corridor along the Manistique River, protecting the river and associated oxbow wetlands, and promoting tree species and structural diversity within the compartment. Variable retention principles will be utilized. This compartment lies within the Seney/Manistique Swamp Management Area and the featured species within this MA are American beaver, moose, ruffed grouse, sharp-tailed grouse, snowshoe hare, and white-tailed deer.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel and coarse-textured till. There is insufficient data to determine the glacial drift thickness. The Ordovician Queenston Shale and the Big Hill Dolomite subcrop below the glacial drift. The Big Hill could be used for stone. There are no gravel pits in the area, but there might be some potential. There is no commercial oil and gas production in the UP.

Vehicle Access:

Excellent access to the uplands, but limited through the low wet areas.

Survey Needs:

None needed.

Recreational Facilities and Opportunities:

The area receives moderate to heavy hunting pressure. There are no developed recreational facilities in this compartment.

Fire Protection:

Access is generally good for fire suppression. Jack pine is a significant component in this compartment and the surrounding area.

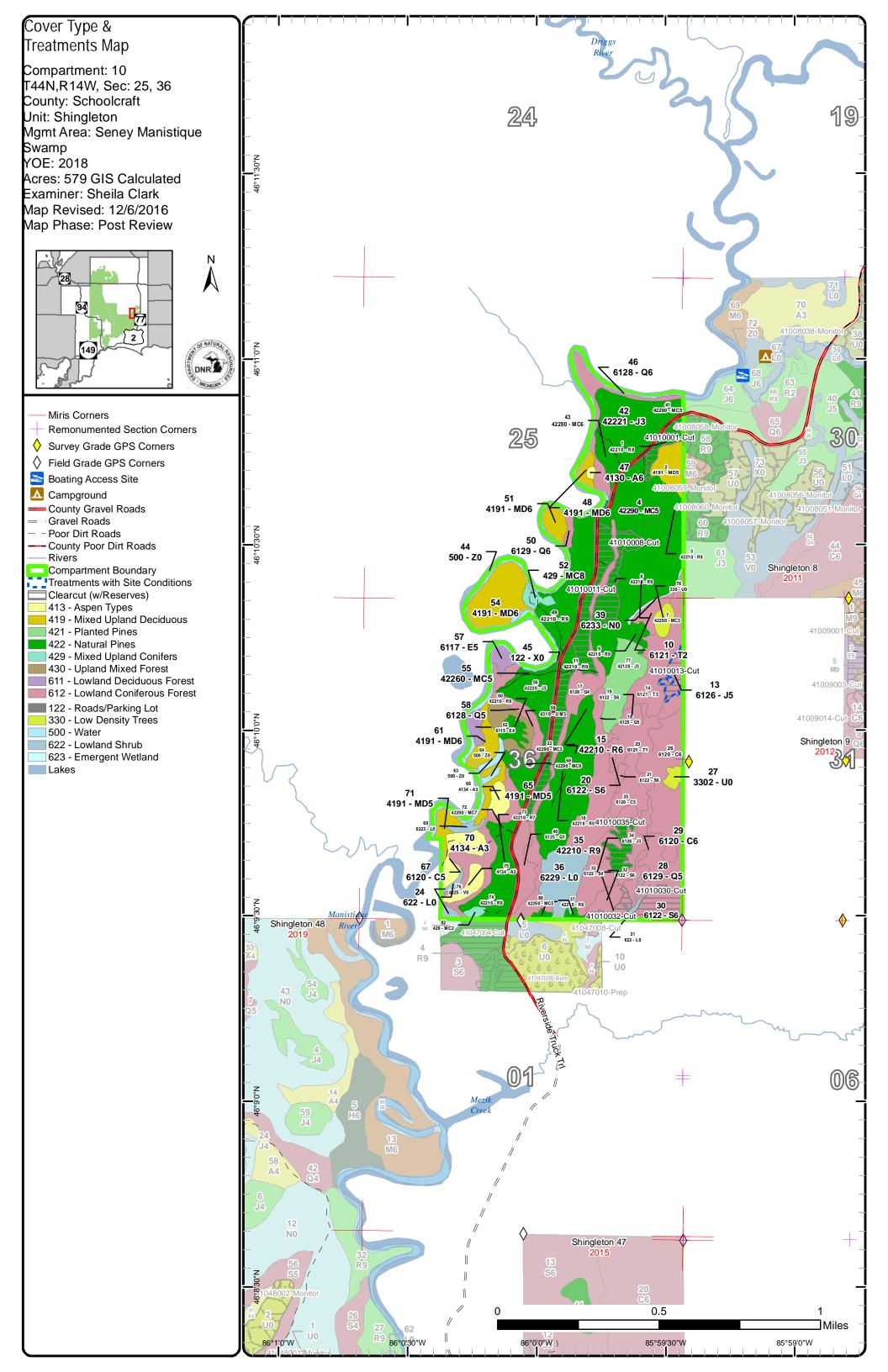
Additional Compartment Information:

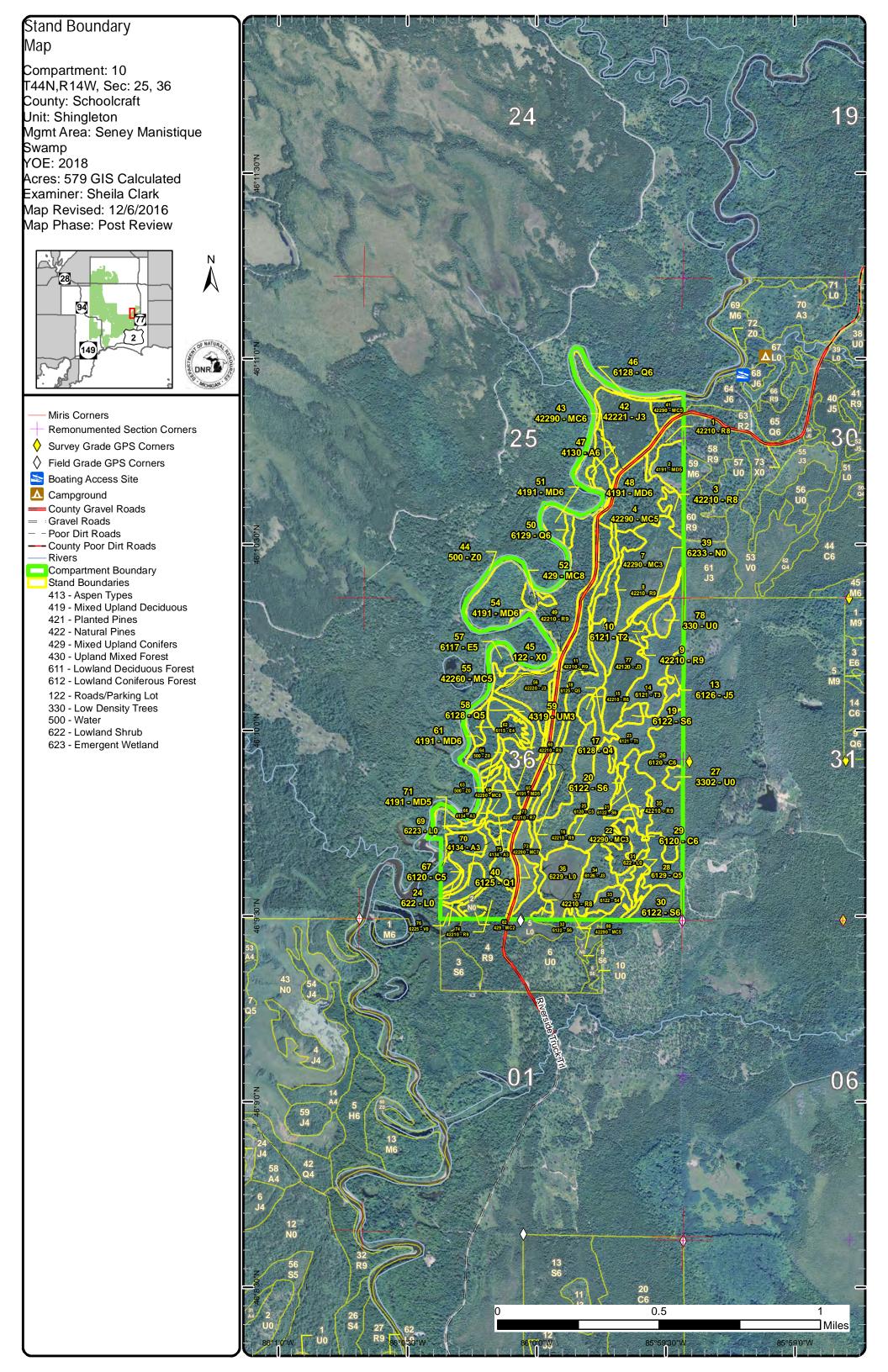
The following reports from the Inventory are attached:

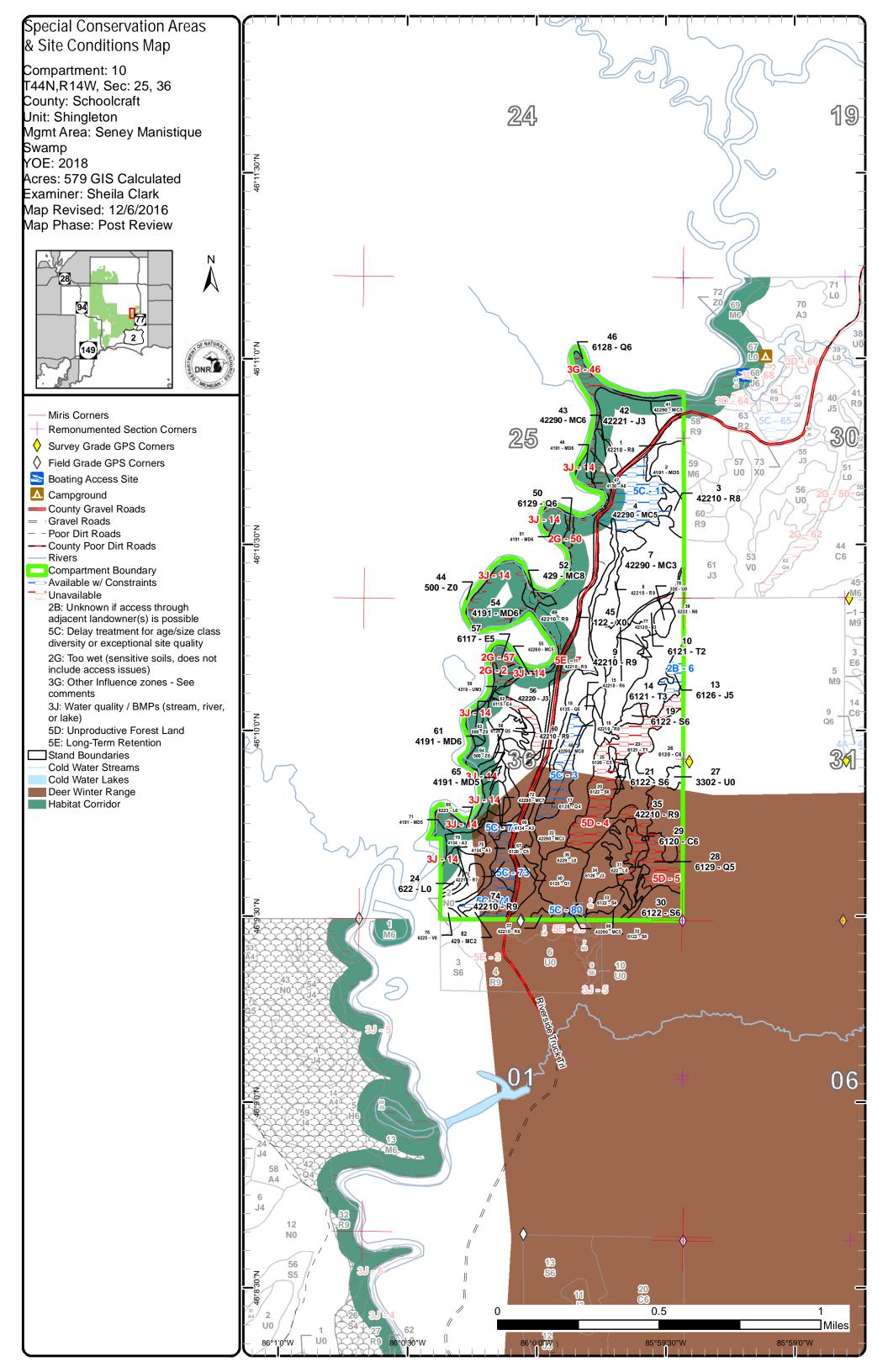
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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

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







Compartment 10 Year of Entry 2018

Shingleton Mgt. Unit Sheila Clark : Examiner



Age Class

	*OC	40 E	, , , , , , , , , , , , , , , , , , ,	,		8 / k	A CO	» / %	8 / S	,	80 80	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	00,00	, s / st	S. S.		The A	St Jug	A LOS
Aspen	0	0	0	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	13	38	0	0	0	0	0	0	0	51
Jack Pine	0	0	0	55	0	0	0	0	0	0	4	0	0	0	0	0	0	0	59
Low-Density Trees	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Lowland Conifers	0	7	0	22	0	0	4	0	0	8	14	0	0	0	0	0	0	10	65
Lowland Deciduous	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Lowland Shrub	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Lowland Spruce/Fir	0	0	0	0	0	0	8	0	12	0	0	0	0	0	0	0	0	0	20
Marsh	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	42	46
Natural Mixed Pines	0	0	0	52	0	0	0	0	2	34	0	2	0	0	0	0	0	0	90
Red Pine	0	0	0	0	0	0	2	0	0	84	0	14	0	0	0	0	0	0	100
Tamarack	0	0	0	3	0	19	0	0	0	0	32	0	0	0	0	0	0	0	53
Upland Conifers	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
Upland Mixed Forest	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Urban	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Water	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Total	64	7	0	155	1	19	14	3	14	149	88	16	0	0	0	0	0	52	581



Report 2 – Treatment Summary

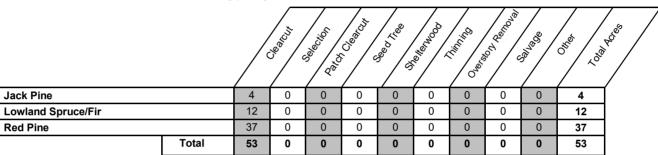
Shingleton Mgt. Unit Year of Entry: 2018

Acres of Harvest

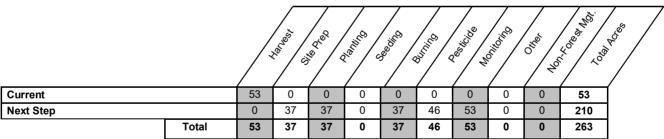
Compartment 10
Total Compartment Acres: 579

Commercial Harvest - 49 Harvests with Site Condition - 4 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Compartment: 10

Year of Entry: 2018

s t а

Treatment Acres Stand Size Stand BA **Treatment Treatment Cover Type Approval** n Age Method Objective Name Structure Status d CoverType Density Age Range Type 41010001-Cut 4211 - Planted 4.3 42210 - Natural Red Sawtimber 80 81-110 Harvest Clearcut with Even-Aged Draft Field Red Pine Pine Medium Retention Boundary

Habitat Cut: No Site Condition:

Prescription Remove all merchantable timber, leave stumps low and scatter slash. Leave large trees along red line.

Specs:

Next Step Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Pesticide, Skidder/Mechanical

Treatments:

Acceptable Red pine.

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

41010008-Cut 9.0 42210 - Natural Red Sawtimber 171-Harvest Clearcut with 4211 - Planted Even-Aged Draft Field Pine Well 200 Retention Red Pine Boundary

Habitat Cut: No Site Condition:

Prescription Harvest all trees, scatter slash and leave stumps low. Leave some large trees along the red line.

Specs:

Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Pesticide, Skidder/Mechanical; Pesticide, Next Step

Treatments: Skidder/Mechanical

<u>Acceptable</u> Red Pine.

Regen:

Other make sure to address southwest corner of stand that is state game fund.

Comment:

Proposed Start Date: 10/01/2017

41010011-Cut 18.2 42210 - Natural Red Sawtimber 201+ Harvest Clearcut with 4211 - Planted Even-Aged Draft Field Red Pine Pine Well Retention Boundary

Habitat Cut: No Site Condition:

Prescription Remove all trees, distribute slash and low stumps. Put unit lines along State game lands to keep payments seperate. Make sure to leave buffer on

east side of road where river is within 300 feet of the stand. leavve some large trees along red line. Specs:

Next Step Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Pesticide, Skidder/Mechanical

Treatments:

Acceptable Red Pine.

Regen:

Other After harvest do a burn instead of herbicide due to slash load and state game land.

Comment:

Proposed Start Date: 10/01/2017

41010013-Cut 4.2 6126 - Lowland Poletimber 93 201+ Harvest Clearcut with 612 - Lowland Even-Aged Draft Field Jack Pine Medium Retention Coniferous Boundary

Forest

Habitat Cut: No Site Condition: Unknown Access

Prescription Harvest all merchantable trees. Leave retention on the southern end. Will probably need to harvest in the winter due to access.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Any current species

Regen:

Other Comment:

Proposed Start Date: 10/01/2017

Shinaleton Mat. Unit Report 3 -- Treatments Compartment: 10 s Year of Entry: 2018 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Method Objective Structure Status Name CoverType Density Age d Range Type 41010030-Cut 8.4 6122 - Black Spruce Poletimber Clearcut with 612 - Lowland Draft Field 30 111-Harvest Even-Aged Well Coniferous Boundary 140 Retention Forest **Habitat Cut: No Site Condition: Prescription** Harvest all trees except cedar. Leave retention along the drain on the west side of the stand. Due to the nature of the stand there will be pockets of submerchantable timber left. Harvest with stand 32. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Any current species is acceptable. Regen: <u>Other</u> Comment: Proposed Start Date: 10/01/2017 41010032-Cut 3.2 6122 - Black Spruce Poletimber 111-Harvest Clearcut with 612 - Lowland Even-Aged Draft Field 140 Retention Coniferous Boundary Forest **Habitat Cut: No Site Condition:** Prescription Harvest all trees except cedar. Leave retention along drain to the east. Include stand 8 from compartment 9. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Any current species is acceptable. Regen: **Other** Comment:

35 41010035-Cut

<u>Habitat Cut:</u> No

Proposed Start Date:

Site Condition:

5.6 42210 - Natural Red Sawtimber

10/01/2017

<u>Prescription</u> Harvest all trees leaving stumps low and slash scattered. Leave retention in the fingers.

Specs:

Next Step Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Pesticide, Aerial

81

171-

200

Harvest

Clearcut with

Retention

4211 - Planted

Red Pine

Treatments:

Acceptable Red pine.

Regen:

Other Access to stand is through stand 34.

Comment:

Proposed Start Date: 10/01/2017

Total Treatment
Acreage Proposed:

52.9

Draft Field

Boundary

Even-Aged

Shingleton Mgt. Unit

Compartment: 10 Year of Entry: 2018 Sheila Clark: Examiner

Availa	ability for	Managemer	nt								
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Cond	dition	s		
Acres	Available	With Condition	Not Available		2B	5C	2G	3G	3J	5D	5E
15	15	0	0	Aspen							
1	1	0	0	Bog							
51	51	0	0	Cedar							
59	55	4	0	Jack Pine	4						
5	5	0	0	Low-Density Trees							
65	33	0	32	Lowland Conifers			9	9		14	
6	2	0	3	Lowland Deciduous			3		1		
18	18	0	0	Lowland Shrub							
20	19	0	0	Lowland Spruce/Fir						0	
1	1	0	0	Marsh							
45	33	0	12	Mixed Upland Deciduous					12		
90	67	22	1	Natural Mixed Pines		22			1		
99	70	25	5	Red Pine		25			3		2
54	22	0	32	Tamarack						32	
4	3	0	1	Upland Conifers					1		
7	7	0	0	Upland Mixed Forest							
14	14	0	0	Urban							
25	25	0	0	Water							
579	442	51	87	Total Forested Acres	4	47	12	9	18	46	2
	76%	9%	15%	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.

		Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						

Report 4 – Site Conditions

Shingleton Mgt. Unit Sheila Clark : Examiner

2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Allow to grow one	more entry to gain more sawlog	S.				
4	Unavailable	5D: Unproductive Forest Land	32	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	5D: Unproductive Forest Land	14	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Available	2B: Unknown if access through adjacent landowner(s) is possible	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable Comments:	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified

Report 4 – Site Conditions

Shingleton Mgt. Unit Sheila Clark : Examiner

14	Unavailable	able 3J: Water quality / BMPs 19 Unspecified (stream, river, or lake)		Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
46	Unavailable	3G: Other Influence zones - See comments	9	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
50	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
57	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
	Comments: Stand is at the bot	tom of steep cliff.					
72	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
73	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Report 4 – Site Conditions

Shingleton Mgt. Unit Sheila Clark: Examiner

74	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
80	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	1	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						

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.

Comments	

Shingleton Mgt. Unit Compartment: 10
Year of Entry 2018



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	Туре	Description	HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Habitat Area	and Waterfowl Production Areas, deer wintering openings and savannas. Habitat areas are distinguished and endangered or threatened species (such as Kirl	e life cycle of wildlife species, including State Wildlife Areas gromplexes in lowland conifer communities, grassland nct from critical habitat designated for recovery of tland's warbler or piping plover areas) in that they are more with threatened or endangered species, and are not eloped in cooperation with Federal agencies.

S t	Shingletor	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42210 - Natural Red Pine	Sawtimber Medium	4.4	80	81-110	OPIC - FMD: Soils - Rousseau fine sands 0-15% slopes 2-storied, semi-open red pine ranging from 6-16" DBH. The understory is a mix of aspen, red pine, red maple and balsam fir. Ground cover is primarily blueberries and ferns. [11-19-11] Ch. 7 changes to treat this stand with the adjoining red pine stand to the east in compartment 008 have been approved. The stand will be included in timber sale 41-019-11-01. Residual BA: red pine = 80; white pine = 10; total = 90 sq.ft./acre.
						11/1/11 bb Stand is on proposal 19-11 Kuzzins Pine, part of Unit 1. SAle is now cut. TCR 8/10/15
						2016 - Stand looks healthy, did a nice job logging. Hardwood and non-pine conifer is starting to come in. Not to address before have to wait on regeneration to reach maturity.
2	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	7.6	81	81-110	OPIC - FMD: Soils - Rousseau fine sands 0-15% slopes Select cut and manage for uneven-age hardwoods. Most of the pine and aspen are found on the fringes of the stand; the pine may be thinned as needed, and converting the fringe to aspen is acceptable.
						[1-15-09] JS: Treat with cmp 8 std 39, HARDWOOD PORTION ONLY. This will have to be typed of cmp 8 in 2011.
						11/1/11 bb Stand is on proposal 19-11 Kuzzins Pine, part of Unit 2. Residual BA = hard maple 24', red maple 49', white pine 1', red pine 2' and hemlock 2' SAle complete TCR 8/10/15
						2016 - Stand looks good. Regeneration is starting to come in. Gaps are filling in nicely.
3	42210 - Natural Red Pine	Sawtimber Medium	4.2	80	81-110	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand 2-storied, red pine ranging from 6-16" DBH. The understory is an extremely variable mix of red maple, beech, white pine, aspen, spruce and balsam fir. Ground cover is a mix of grass, blueberries, ferns and other low herbaceous plants. [11-19-11] Ch. 7 changes to treat this stand with the adjoining red pine stand to the east in compartment 008 have been approved. The stand will be included in timber sale 41-019-11-01. Residual BA: red pine = 62; white pine = 15; total = 77 sq.ft./acre.
						11/1/11 bb Stand is on proposal 19-11 Kuzzins Pine, part of Unit 1 Sale cut TCR 8/10/15
						2016 - Just like the other red pine stands in the area that have been recently thinned, the hardwood is starting to take over.
4	42290 - Natural Mixed Pine	Poletimber Medium	18.3	80	111-140	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand Cut during the early '90's - Now a semi-open red pine stand over
						a mix of regen that is primarily aspen and jack pine but also includes scattered hardwoods, red & white pine, spruce, etc.
						2016 - Stand is healthy and growing.
7	42290 - Natural Mixed Pine	Sapling Well	33.9	21	Immature	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope 10 ACRES WERE TRENCHED AND HAND PLANTED IN 1995.YOE 2008: Mostly jack pine regen to 2" DBH, plus pockets of aspen, spruce and/or mixed conifer regen.2016 - Regeneration looks good.

S t	Shingleto	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
8	42210 - Natural Red Pine	Sawtimber Well	9.0	81	171-200	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Red pine over a mix of regen including jack & red pines, spruce, fir and red maple. A few white pine and balsam fir are also present in the overstory.2016 - Stand is healthy. The understory is heavier than some of the other stands, but not a limiting factor. Can cut at the same time as other stands in the area.
9	42210 - Natural Red Pine	Sawtimber Well	3.1	85	141-170	OPIC - FMD: Soils - Rousseau-Neconish-Finch Complex (sand to fine sands) at 0-25% slopes Red pine over a mix of regen including jack & red pines, spruce, fir and red maple. A few white pine and balsam fir are also present in the overstory.
						2016 - Trees look good and healthy. The understory is low density.
10	6121 - Tamarack	Sapling Medium	3.4	21	Immature	OPIC - FMD: Soils - Markey mucky peat Soft, boggy ground with a mix of conifer regeneration - primarily tamarack and black spruce, plus scattered pockets that include jack, red & white pines. Some pockets of slightly larger (up to 4" DBH) tamarack & spruce are also present - residuals from the last stand. The site indices vary quite a bit with slight changes in elevation, and the ground cover species also change. In places the site indices may be too low for commercial timber management.
						2016 - not much change. Broke this stand apart from southern stand because seems more productive than Stand 14.
11	42210 - Natural Red Pine	Sawtimber Well	20.0	81	201+	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand Red pine along Co. Rd. 436 with a few small pockets of young aspen mixed. Scattered fir, spruce and white pine are also present. The understory includes a variety of species such as fir, spruce, red maple, aspen, and pines. Sweet fern is also found throughout.2016 - Stand is over stocked and the trees are starting to slow down. Based on other stands in the area, do not thin otherwise stand will convert to a mixed conifer stand.
13	6126 - Lowland Jack Pine	Poletimber Medium	4.2	93	201+	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand with Kinross muck in the lower spots Ready to cut ASAP. This is a clearcut with reserves. Retention guidelines: Do not cut hemlock or red & white pine. Any mix of commercial species is acceptable for regeneration, so the S3 understory should be protected as much as possible. Leave a few jack pine along the edge by using them as boundary line trees. [1-15-09] Factor Limited due to small acreage. 2016 - Not much change since last entry, stand is still overmature, but holding. Adjacent private stand was harvested in the
						mature, but holding. Adjacent private stand was harvested in the past, so could possible access from that direction.
14	6121 - Tamarack	Sapling Well	18.5	45	1-50	OPIC - FMD: Soils - Markey mucky peatSoft, boggy ground with a mix of conifer regeneration - primarily tamarack and black spruce, plus scattered pockets that include jack, red & white pines. Some pockets of slightly larger (up to 4" DBH) tamarack & spruce are also present - residuals from the last stand. The site indices vary quite a bit with slight changes in elevation, and the ground cover species also change. In places the site indices may be too low for commercial timber management. 2016 - no change stand is low and unproductive.

S	Shingletor		Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018	
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	42210 - Natural Red Pine	Poletimber Well	2.3	59	51-80	2016 - Stand was thinned and is now starting to fill in the with mixed conifers. No activity.
16	42210 - Natural Red Pine	Sawtimber Well	12.0	81	111-140	OPIC - FMD: Soils - Rousseau and/or Neconish fine sands 2-storied red pine (12-18" DBH logs, 6-9" DBH poles) over a mix of regeneration featuring red & white pines, spruce, balsam fir and red maple. Ground cover species are primarily ferns & blueberry.
						2016 - Stand does not have as many logs as adjacent stand 11. Trees are also suppressed and not sure how well they will respond to a release. A lot of trees are 10.5 to 11.5 DBH leave for another 10 years to encourage trees to get into sawlog size class.
17	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Poor	22.0	21	1-50	OPIC - FMD: Soils - Transition zone between Rousseau and/or Neconish fine sands to Spot-Finch sands - slopes run 0-25%Soft, boggy ground with a mix of conifer regeneration - primarily tamarack and jack pine over black spruce. A few red pine and some lowland brush are also present. The site index varies quite a bit with slight changes in elevation, and the ground cover species also change.2016 - This is a drain that goes between two red pine stands, it is starting to fill in with trees, but very low and unproductive. To the south part of the stand was cut, there is not a lot of merchantable volume.
18	6125 - Lowland Black Spruce, Jack Pine	Poletimber Medium	3.8	59	81-110	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Black spruce that has just reached merchantable size. The understory includes more spruce up to 4" DBH - many of these should grow into merchanrable trees as the stand matures. The mixed pine pulpwood includes scattered red & jack pine.
						2016 - Low ground no change.
19	6122 - Black Spruce	Poletimber Well	2.3	59	141-170	OPIC - FMD: Soils - Markey mucky peat Black spruce that has just reached merchantable size. The understory includes more spruce up to 4" DBH - many of these should grow into merchanrable trees as the stand matures. The mixed pine pulpwood includes scattered red & jack pine.
						2016- Not much change trees are a little bigger. (9/19/07 AP) Stand scarified on 7/25/07. Regen check needed in 2010.
20	6122 - Black Spruce	Poletimber Well	0.9	59	111-140	OPIC - FMD: Soils - Markey mucky peatBlack spruce that has just reached merchantable size. The understory includes more spruce up to 4" DBH - many of these should grow into merchanrable trees as the stand matures. The mixed pine pulpwood includes scattered red & jack pine.2016 - Not much change - trees are a little bigger.
21	6122 - Black Spruce	Poletimber Well	1.1	59	111-140	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Black spruce that has just reached merchantable size. The understory includes more spruce up to 4" DBH - many of these should grow into merchanrable trees as the stand matures. The mixed pine pulpwood includes scattered red & jack pine.
						2016 - Not much change. Trees are a little bigger, but a lot of one stick black spruce.

S t	Shingleton	Mgt. Unit		Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	42290 - Natural Mixed Pine	Sapling Well	17.7	21	Immature	OPIC - FMD: Soils - Markey mucky peat Fully stocked with a mix that is primarily jack pine regen 1-2" DBH but also includes tamarack and black spruce. No further cult work is needed.
						2016 - Stand is hilly and has upland and lowland. There are small pockets of log sized red pine that were thinned and have an understory of red pine, black spruce and white pine. No activity at this time.
23	6121 - Tamarack	Sapling Poor	31.7	96	1-50	OPIC - FMD: Soils - Markey mucky peatLeatherleaf bog with a lot of slow-growing tamarack and shrubs. This area has slowly filled in to the point that it appears to be a fully-stocked stand of tamarack regeneration, but the site index is too low to consider it for commercial forest management. Over time, some trees are likely to reach merchantable size.2016 - Stand is slowly starting to fill in with trees - will never be productive. No activity.
25	6120 - Lowland Cedar	Poletimber Medium	9.3	96	1-50	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Semi-open mix of slow-growing cedar, black spruce and tamarack. The site may be inoperable.
						2016 - this stand is very low ground and has low productivity. No activity - very little merchantable timber, however, there is some rabbit activity in the area.
26	6120 - Lowland Cedar	Poletimber Well	24.9	91	81-110	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Dense pockets of cedar interspersed with semi-open areas dominated by lowland brush. The understory also varies from dense conifer regeneration to wet grass. Operable in winter only.
						2016 - While this stand is low, it is more productive than the adjacent stand 25. No activity at this time.
28	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	13.8	96	1-50	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Multiple size and age classes of mixed conifers (tamarack, cedar & spruce) are present, and the site indices vary considerably - in some areas it appears to be too low for commercial timber management. A small (possibly intermittent) stream runs through the stand.
						The stand's year of origin was previously listed as 1920. Operability is questionable due to poor volume and soft ground.
						2016 - No change, still unproductive.
29	6120 - Lowland Cedar	Poletimber Well	4.0	91	141-170	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Dense cedar with some paper birch and a few spruce, tamarack, etc.Operable in winter only.2016 - No change or activity.
30	6122 - Black Spruce	Poletimber Well	8.4	77	111-140	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Spruce stand with many 4" DBH stems that will add merchantable volume by next entry. There is a drainage on the west side of the stand.

stand.

2016 - There are lots of 1 and 2 stick black spruce, with red and jack pine scattered throughout. The jack pine is starting to die out, but the spruce looks good. This stand could be cut, but there will be low volume. If cut include with stand 13.

s t	Shingleto		Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	6122 - Black Spruce	Poletimber Well	3.2	77	111-140	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Spruce stand with many 4" DBH stems that will add merchantable volume by next entry. There is a drainage on the east side of the stand. 2016 - This stand is very similar to stand 30. It have a lot of 1 and 2 stick black spruce with the jack pine starting to die.
33	6122 - Black Spruce	Poletimber Poor	3.9	55	1-50	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope 2016 - This stand has very low productivity. A lot of black spruce is dead due to high water table, there is some younger black spruce and jack pine coming in. Will never be a merchantable stand.
34	6126 - Lowland Jack Pine	Sapling Well	11.5	21	Immature	OPIC - FMD: Soils - Rousseu-Neconish-Finch Complex - Rousseau and Neconish fine sands and Finch sand, with variable slopes from 0-25%Mix of conifer regeneration - jack pine, tamarack and black spruce, plus a few red & white pine. The site indices vary with slight changes in elevation, and the ground cover species also change. As the stand matures it may be possible to divide it into smaller stands by dominant species. 2016 - Stand was in 1995, was originally typed as an R6, but now is mixed conifer. No activity at this time. Jack pine on the high ground and black spruce on low ground.
35	42210 - Natural Red Pine	Sawtimber Well	5.6	81	171-200	OPIC - FMD: Soils - Rousseu-Neconish-Finch Complex - Rousseau and Neconish fine sands and Finch sand, with variable slopes from 0-25% 2-storied red pine - 6-10" DBH poles and 14-18" logs. Begin regenerating next entry.
						2016 - Stand is healthy and growing well.
37	42210 - Natural Red Pine	Sawtimber Medium	1.0	81	51-80	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope [6-19-05] JS Residual BA updated to show 50 sqft of RP [9-15-06] Under contract TS # 011-05 Just Off The Road.
						2016 - Stand was cut in past - not a lot of regeneration coming in. When harvest stand to the south look at clear cutting and replanting.
40	6125 - Lowland Black Spruce, Jack Pine	Sapling Poor	7.2	6	Immature	OPIC - FMD: Soils - Neconish-Wainola-Kinross complex - a mix of fine sands, sandy loam and muck soils at 0-6% slopes. LEAVE SOME RP FOR AESTHETICS SCARIFY AREAS W/0 ADVANCED REPRODUCTIO [6-17-05] JS Updated partial cut record to show 5 sqft of BA left in Red Pine [9-15-06] Under contract TS # 011-05 Just Off The Road. (9/15/2010 AP) Upland portions of stand were scarified in summer 2010. This amounted to only 2 acres. Regeneration count scheduled in 2014. 2016 - Stand is starting to fill in with a mix of species. There are some bigger red pine left from the harvest, otherwise the trees are small, but the stand is starting to fill in No activity at this time.

s t	Shingletor	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	42290 - Natural Mixed Pine	Poletimber Medium	3.9	81	81-110	OPIC - FMD: Soils - Rousseau fine sand at 0-6% slopes Semi-open, 2-storied stand featuring a mix of red & jack pines, quaking & bigtooth aspens and paper birch. The understory includes all of these species plus balsam fir.
						2016 - Stand looks healthy. Though does not look as productive as stands to the south, might be better suited to jack pine. No activity at this time.
42	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	19.9	22	Immature	OPIC - FMD: Soils - Rousseau fine sand at 0-6% slopes Primarily jack pine regen; also includes a mix of quaking & bigtooth aspens and scattered red & white pine saplings.
						2016 - Stand looks good, no activity needed.
43	42290 - Natural Mixed Pine	Poletimber Well	3.9	81	51-80	OPIC - FMD: Soils - Rousseau fine sand at 0-6% slopes Red pine logs and poles plus jack pine, aspen and balsam fir. The understory is dominated by red maple & balsam fir.
						2016 - Not much changed. Looks good - transition from high to lower ground.
46	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	8.7	89	141-170	OPIC - FMD: Soils - Pelkie-Deford complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Deford muck soils at 0-6% slopes Bottomland complex of hemlock-red maple-cedar that displays uneven-aged characteristics. Protect this stand for the recreational/aesthetic value it has as a buffer along the Manistique River, and for wildlife habitat. Mixed hardwood logs include maples and birches while mixed hardwood pulp is primarily birches.
						2016 - Stand looks good. No change.
47	4130 - Aspen	Poletimber Well	0.6	36	111-140	OPIC - FMD: Soils - Pelkie-Deford complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Deford muck soils at 0-6% slopes
						Young aspen
						2016- Stand looks good. No activity.
48	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	2.4	89	81-110	OPIC - FMD: Soils - Pelkie-Deford complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Deford muck soils at 0-6% slopes
						Hardwoods along the Manistique River.

2016 - Stand has not changed much, some sawlogs, but poor quality.

S t	Shingleton Mgt. Unit			Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
49	42210 - Natural Red Pine	Sawtimber Well	21.2	87	111-140	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand
						Thinned in the 90's - Now a two-storied red pine stand featuring 7-9" poles and sawlogs up to 18" DBH. Mixed pulpwood includes jack & white pines, red maple and aspen. A few white pine logs are also present. The understory is mix of various species of regeneration, but balsam fir, red maple and white pine appear consistently throughout. Consider a shelterwood cut and cultural work next entry when the present understory is better established.
						2016 - Stand looks healthy the understory is not very thick. A variety size classes.
50	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	1.5	179	111-140	OPIC - FMD: Soils - Pelkie-Deford complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Deford muck soils at 0-6% slopes
						Bottomland complex of hemlock-red maple-cedar that displays uneven-aged characteristics. Protect this stand for the recreational/aesthetic value and for wildlife habitat.
						2016 - No change.
51	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	4.1	87	81-110	OPIC - FMD: Soils - Pelkie-Deford complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Deford muck soils at 0-6% slopes
						Hardwoods along the Manistique River.
						2016 - Stand still looks healthy. Lots of small diameter trees. Swayles and seasonal drains are throughout the stand. Poor quality timber.
52	429 - Mixed Upland Conifers	Sawtimber Medium	2.6	66	111-140	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand.
						2016 - Stand is healthy and starting to fill in. Lots of submerchantable trees in the 2-4 inch age class.
54	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	17.4	89	81-110	OPIC - FMD: Soils - Pelkie-Deford complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Deford muck soils at 0-6% slopes Hardwoods along the Manistique River. Scattered cedar, hemlock and white pine are also present.2016 - Stand is of poor quality it has some sawlogs. There are a variety of size classes. There are scattered swayles and seasonal drainages.
55	42260 - Natural Pine, Mixed Deciduous	Poletimber Medium	1.4	72	81-110	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand Jack pine on the river bank - hold for aesthetics and erosion control.
						2016 - Stand is mature. Lightly stocked with mature timber, however, not enough volume or size for a harvest unless close to another harvest. Regeneration is starting to come in on its own. Also part of stand is a buffer along river.

s t	Shingleton Mgt. Unit			Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	42220 - Natural Jack Pine	Sapling Well	10.0	23	Immature	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand
	Tillo					Mix of jack pine & aspen regeneration. Site index was estimated in previous records and carried forward here.
						Stand was cut and is regenerating nicely. No activity at this time.
57	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	2.7	85	111-140	OPIC - FMD: Soils - Pelkie-Deford complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Deford muck soils at 0-6% slopes
						Wet swales run through this stand, making operability questionable. Some large diameter sugar maple are present but these are generally not sawlog-quality trees.
						2016-This stand is at the bottom of a short cliff and is surrounded by the Manistique river. No way to access. Aspen is overmature, but regeneration looks good. No activity
58	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	7.5	86	81-110	OPIC - FMD: Soils - Neconish-Deford-Wainola complex, featuring a mix of Neconish and Wainola fine sands and (rarely flooded) Deford muck soils. Slopes vary from 0 to 15%. Old oxbow that has filled in with a mix of lowland timber and some large red pine on the upslopes.
						2016 - Stand goes along the roadside and then drops off. No activity.
59	4319 - Mixed Upland Forest	Sapling Well	7.0	23	Immature	OPIC - FMD: Soils - Neconish-Deford-Wainola complex, featuring a mix of Neconish and Wainola fine sands and (rarely flooded) Deford muck soils. Slopes vary from 0 to 15%.
						2016 - Good regeneration. Healthy and well-stocked.
60	42210 - Natural Red Pine	Sawtimber Well	3.3	83	81-110	OPIC - FMD: Soils - Neconish-Deford-Wainola complex, featuring a mix of Neconish and Wainola fine sands and (rarely flooded) Deford muck soils. Slopes vary from 0 to 15%.
						2016 - There is a heavy understory. If and when stand is cut, it will have to be in the winter due to access.
61	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	5.7	86	51-80	OPIC - FMD: Soils - Pelkie-Arnheim complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Arnheim mucky silt loam soils at 0-6% slopes
						Hardwoods along the Manistique River on rolling terrain, with wet swales through the stand. Mixed pulpwood includes scattered conifers and balsam poplar.
						2016 - Stand is low ground and a drain running along the east side of the stand, cannot access.
62	6115 - Lowland Ash	Poletimber Poor	2.8	87	1-50	OPIC - FMD: Soils - Pelkie-Arnheim complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Arnheim mucky silt loam soils at 0-6% slopes.
						2016 - Low ground along the river - frequently flooded. No activity.

S t	Shingleton		Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
65	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	3.7	86	81-110	OPIC - FMD: Soils - Neconish-Deford-Wainola complex, featuring a mix of Neconish and Wainola fine sands and (rarely flooded) Deford muck soils. Slopes vary from 0 to 15%.
						Hardwoods along the Manistique River.
						2016 - Stand is basically a buffer along Manistique River, no activity.
66	4134 - Aspen, Spruce/Fir	Sapling Well	3.2	23	Immature	OPIC - FMD: Soils - Neconish-Deford-Wainola complex, featuring a mix of Neconish and Wainola fine sands and (rarely flooded) Deford muck soils. Slopes vary from 0 to 15%.
						2016 - Stand looks good - well stocked.
67	6120 - Lowland Cedar	Poletimber Medium	13.0	86	111-140	OPIC - FMD: Soils - Neconish-Deford-Wainola complex, featuring a mix of Neconish and Wainola fine sands and (rarely flooded) Deford muck soils. Slopes vary from 0 to 15%.
						Old oxbows that have filled in with cedar etc.
						2016 - There are merchantable trees, however, it is difficult to access and very low ground.
68	42290 - Natural Mixed Pine	Sawtimber Medium	7.7	87	81-110	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand.
						Stand was thinned in 1994. It opened it up to balsam fir and black spruce. Not a lot of red pine.
70	4134 - Aspen, Spruce/Fir	Sapling Well	7.5	23	Immature	OPIC - FMD: Soils - west side of the stand is on the Pelkie-Arnheim complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Arnheim mucky silt loam soils at 0-6% slopes. The east side of the stand is on the Neconish-Deford-Wainola complex, featuring a mix of Neconish and Wainola fine sands and (rarely flooded) Deford muck soils. Slopes vary from 0 to 15%.2016 - Stand was cut and looks good - well-stocked. A few large red maple left.
71	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	3.9	86	81-110	OPIC - FMD: Soils - Pelkie-Arnheim complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Arnheim mucky silt loam soils at 0-6% slopes Hardwoods along the Manistique River
72	42290 - Natural Mixed Pine	Sawtimber Poor	2.3	106	51-80	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand
	•					THINNED TCR 6/15/99 SALE #38-98-02. YOE 2008 - Hold until the adjacent stand has fully regenerated, then consider shelterwood to regenerate this stand.
						2016 - regeneration looks good.
73	42210 - Natural Red Pine	Sawtimber Poor	5.5	106	1-50	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand THINNED TCR 6/15/99 SALE #38-98-02.YOE 2008 - Hold the overstory while the red pine regen (currently about 8-18" tall) is becoming fully established. Perform regen survey to identify any gaps with insufficient regen and handplant red pine to fill them in. Additional planting (if needed) will require writing a new FTP.2016 - stand looks good

s t	Shingleton	Mgt. Unit		Report 7	– Forested	Stands Compartment: 10 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
74	42210 - Natural Red Pine	Sawtimber Well	7.6	106	111-140	 OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand Understory is a diverse mix of red maple, balsam fir, pines and spruce. Hold while the adjacent stand is regenerating. 2016 - stand looks good was cut with other stands in the area. Understory is growing good.
75	4134 - Aspen, Spruce/Fir	Sapling Well	4.0	23	Immature	OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand, plus Kinross muck in the lower areas Stand was cut and has regenerated well.
77	42120 - Planted Jack Pine	Sapling Well	13.9	21	Immature	OPIC - FMD: Soils - Rousseau-Neconish-Finch Complex (sand to fine sands) at 0-25% slopes [1-7-03 RFT] Handplanted by inmates during 2002 under FTP #C41-633. Schedule survival check in 2003. [9-06 RFT] YOE 2008 - Fully stocked with a mix that is primarily jack pine regen 1-2" DBH but also includes tamarack and black spruce. No further cult work is needed. 2016 - Stand looks good.
80	42290 - Natural Mixed Pine	Poletimber Medium	1.0	77	81-110	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Jack pine etc. over black spruce regeneration 0-4" DBH. Some of the spruce may be merchantable by next entry - cut this stand with the adjacent spruce in Stand # 32. Mixed pine logs include scattered red & white pine, while mixed softwood pulp includes pine and spruce. 2016 - stand looks healthy.

429 - Mixed Upland Conifers

82

Sapling Medium

1.1

20

Immature

OPIC - FMD: Soils - Neconish fine sand and/or Wainola loamy sand
Upland opening slowly filling in with conifers

2016 - Stand is no longer an opening. It is filling in. No activity.



Stand	Cover Type	Acres	Managed Site	General Comments:
24	622 - Lowland Shrub	1.0	No	OPIC - FMD: Soils - west side of the stand is on the Pelkie-Arnheim complex, occasionally to frequently flooded - Pelkie loamy very fine sand and Arnheim mucky silt loam soils at 0-6% slopes. The east side of the stand is on the Neconish-Deford-Wainola complex, featuring a mix of Neconish and Wainola fine sands and (rarely flooded) Deford muck soils.
				2016 - Low ground - unproductive.
27	3302 - Low Density Conifer Trees	2.1	No	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Lowland brush with scattered conifers.
				2016 - Stand is filling in, but still low.
31	622 - Lowland Shrub	1.1	No	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Lowland brush/marsh around drainage channel - also has a few scattered trees.2016 - No change. The drain continues up through stand 29.
36	6229 - Mixed lowland shrub	14.6	No	OPIC - FMD: Soils - ponded histosols and aquents Seasonally flooded marsh complex - grass and various low shrubs are present between a number of deep drainage channels.
				2016 - Stand is continuing grow. Too wet for trees to grow - most of trees along the edge. Otherwise dead. No activity.
39	6233 - Wet Meadow	1.1	No	OPIC - FMD: Soils - Spot-Finch sands at 0-3% slope Narrow strip of wet grass running NE - SW.
44	500 - Water	22.3	No	OPIC - FMD: Manistique River
45	122 - Road/Parking Lot	14.4	No	OPIC - FMD: County Road P436
63	500 - Water	1.6	No	OPIC - FMD: Pond/marsh grass - water levels vary significantly with the season. 2016-no change - drain does continue to the north and hooks up to river.
64	500 - Water	0.8	No	OPIC - FMD: Pond/marsh grass - water levels vary significantly with the season.
69	6223 - Inundated Shrub Swamp	1.5	No	OPIC - FMD: Soils - Deford muck soil. Marsh grass, cattails, etc.
76	6225 - Bog	1.3	No	OPIC - FMD: Soils - Deford muck leatherleaf bog
78	330 - Low-Density Trees	3.0	No	OPIC - FMD: Soils - Rousseau-Neconish-Finch Complex (sand to fine sands) at 0-25% slopes This area was forested before harvest during the early 90-'s- now an open hillside with ferns but very few trees. Reforest by handplanting jack pine. 2016 - no change from previous inventory. Did not get replanted. Small acreage - difficult to access.