

## **Compartment Review Presentation**

Shingleton Forest Management Unit

Compartment 41065 Entry Year 2017 Acreage: 1,297

**County Schoolcraft** 

Management Area: Seney Manistique Swamp

Revision Date: 2015-08-04

Stand Examiner: Thomas Burnis

**Legal Description:** 

T43N R14W Sections 31-33 T43N R15W Section 36

## **Identified Planning Goals:**

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

## Soil and topography:

The soils in Schoolcraft County are currently being mapped by the Soil Survey. Preliminary soils information including Habitat Types can be found in the specific stand comments. In general, the soils are moderately drained sandy soils on the uplands and poorly drained organic soils on the low ground. The topography is rolling terrain consisting mostly of upland pine types. The West half of the compartment contains areas of lowland marsh between the pine ridges. The East half is intermixed with lowland brush and drainages as it gets closer to the Manistique River. The entire compartment lies within the Manistique Sloughs/Muskeg Land Type Association.

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

This compartment is 2 miles long and 1 mile wide of mostly contiguous state land, with some private lands intermixed. Development consists of permanent dwellings and hunting camps. Hunting is the main use within the compartment.

### **Unique Natural Features:**

Eastern portion of compartment contains the Manistique River Floodplain PLU.

Wood turtle to s, sw, and nw.

Potential for red-shouldered hawk, goshawk, wood turtle, eagle, osprey, loon, and great blue heron rookery. Potential for gray wolf and moose.

Potential for auricled twayblade along Manistique River. Potential for lake-cress, autumnal water star-wort, Farwell's water-milfoil, alternate-leaved water-milfoil and alga pondweed along creeks and in small lakes. Potential for wetland plants such as Canada rice grass, black sedge, clinton's bulrush, Vasey's rush, sweetcoltsfoot, slender spike-rush, Wiegand's sedge, panicled screw-stem, linear-leaved gentian, appressed club-moss, and auricled twayblade. Possibly dwarf bilberry, flat oatgrass, Canada rice-grass and slender spike-rush in open areas, particularly jack pine.

#### Archeological, Historical, and Cultural Features:

None known.

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

Stands along the Manistique River offer diverse riparian corridors which sometimes contain unique species such as bur oak, elm and green ash within several of the hardwood stands. The corridor was also identified in 2000 by Wildlife Division as a Deeryard. All stands identified as Deeryard were coded as Special Conservation Areas (SCA's).

## **Watershed and Fisheries Considerations:**

The Walsh Ditch is found in this compartment and although plugged, some flow still exists in the channel. A small buffer to prevent erosion of surface soils should be left for stabilization purposes (to the base of the spoil piles).

#### Wildlife Habitat Considerations:

This compartment lies on the west side of the Manistique River. The first surveyors recorded sugar maple, elm, hemlock, yellow birch, white pine, balsam fir, and red pine as the dominant upland tree species. Other species found in the uplands include basswood, oak, beech, white birch, aspen, jack pine and red maple. Tamarack, black spruce, and white cedar were recorded in the lowlands.

Current forest composition is skewed heavily toward jack pine in the western portion of the compartment while the eastern portion appears fairly similar in species composition to the pre-settlement forest. Featured species in this compartment are beaver, moose, ruffed grouse, sharp-tailed grouse, snowshoe hare, and white-tailed deer. The wildlife habitat objectives in this compartment include providing functional deciduous forests along the Manistique River corridor and promoting early

successional conifer forest in the western portion of the compartment.

## Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel. There is up to 10 feet of glacial drift thickness. The Silurian Manitoulin Dolomite and Cabothead Shale subcrop below the glacial drift. The Manitoulin is quarried for stone. The nearest gravel pit is one-half mile to the south, but potential appears to be limited. There is no commercial oil and gas production in the UP.

#### **Vehicle Access:**

Most of compartment is accessible by conventional two wheel drive vehicles on two track dirt roads.

#### **Survey Needs:**

None

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

There are no facilities. Opportunities include hunting and snowmobiling.

#### **Fire Protection:**

Response times to fires within the compartment will be relatively slow due to its location. Fire operations will be challenging in some areas due to the lack of roads and the number of creeks present. The compartment has a mix of fuel types but there is a fair amount of jack pine in varying age classes which could potentially lead to some larger fires due response times, location and this volatile fuel type given the proper weather conditions.

## **Additional Compartment Information:**

- □ The following 5 reports from the Operations Inventory System (OIPC) are attached:
- Cover Type by Age Class
- Cover Type by Management Objective
- Compartment Volume Summary
- •Proposed Treatments No Limiting Factors
- •Proposed Treatments With Limiting Factors
- The following information is displayed, where pertinent, on the attached compartment maps:
- •Base feature information, stand numbers, cover types
- Proposed treatments
- •Proposed road access system
- Suggested potential old growth

#### 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** 

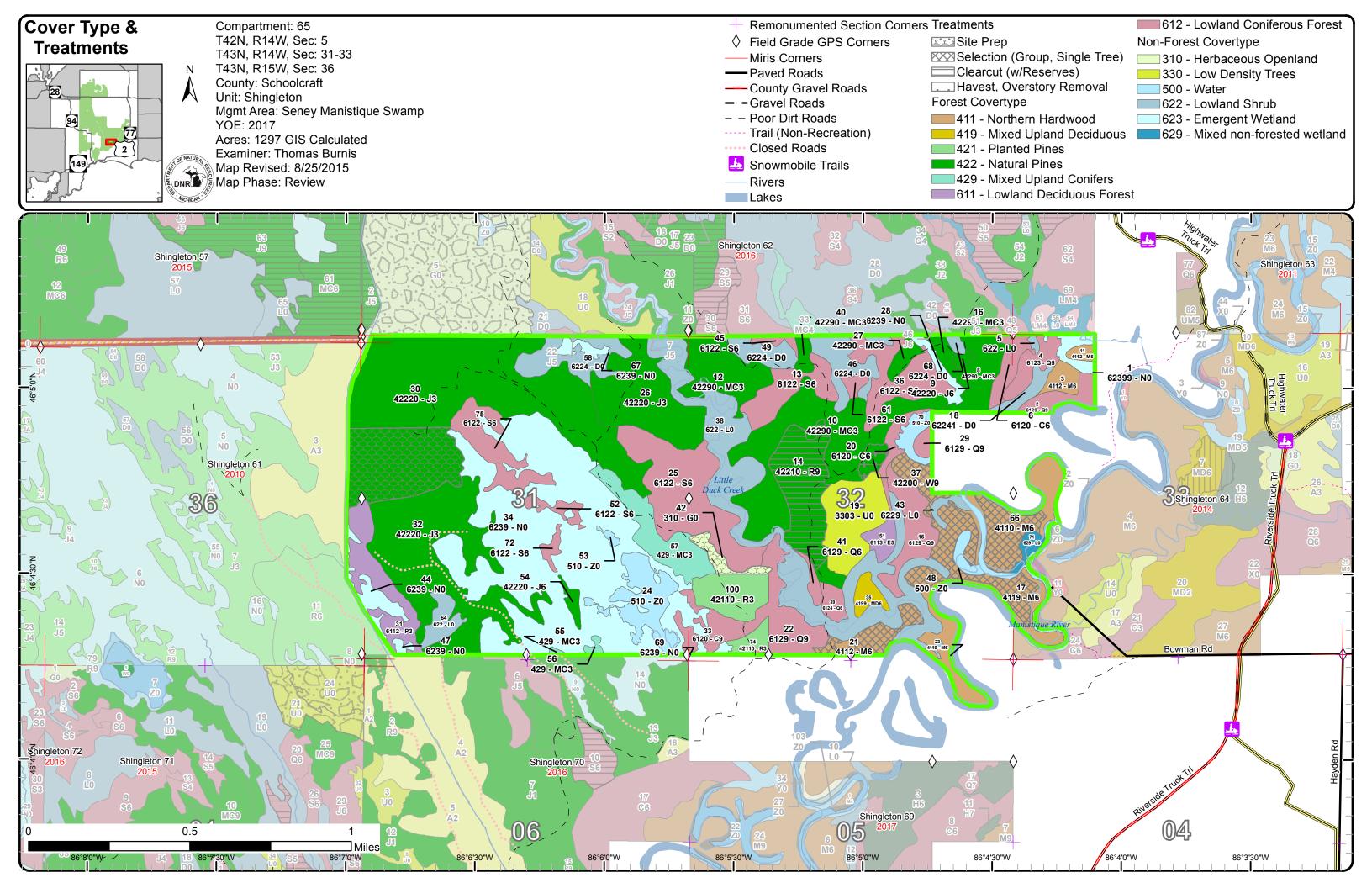
The following information is displayed, where pertinent, on the attached compartment maps:

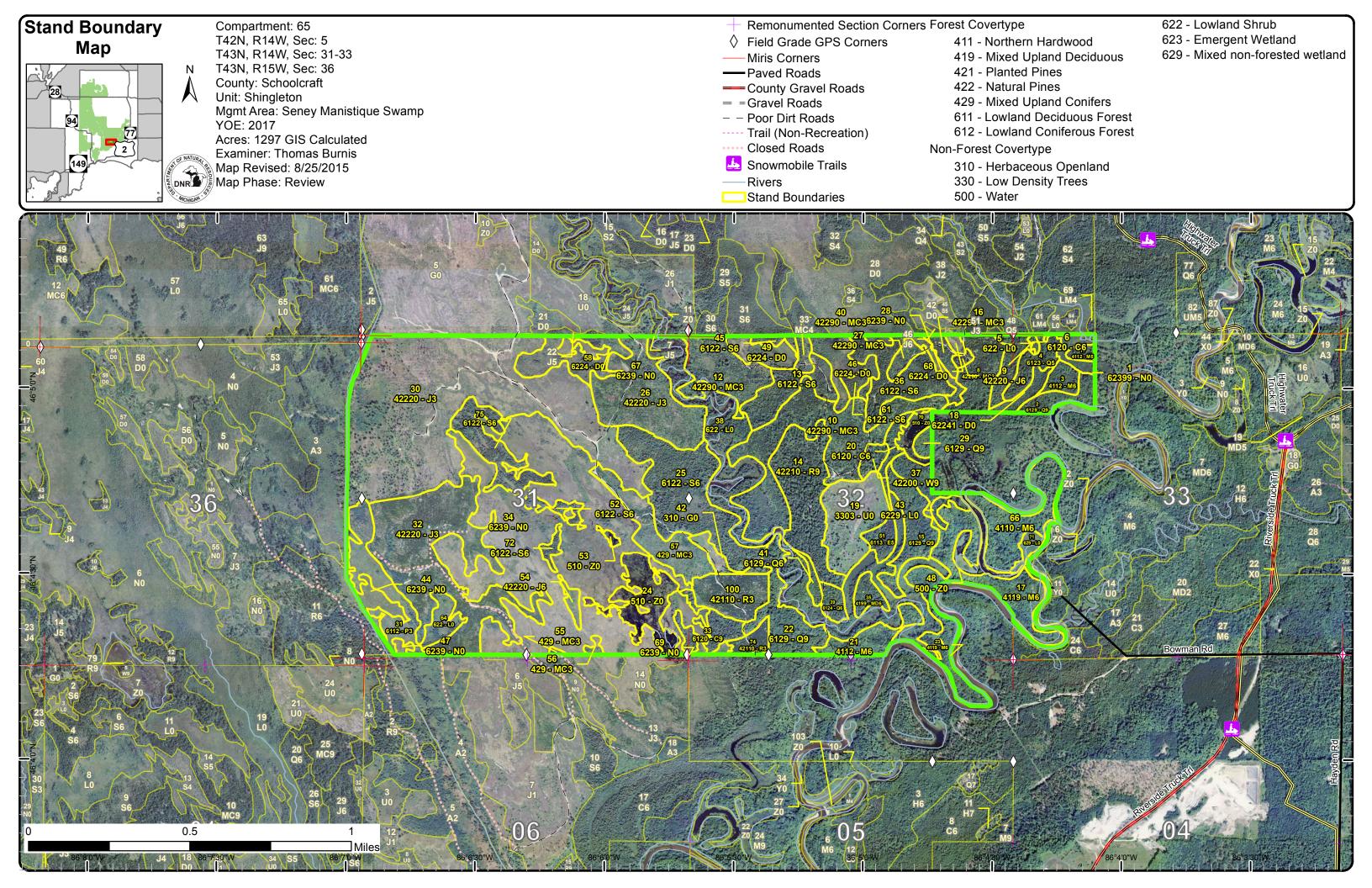
Base feature information, stand boundaries, cover types, and numbers

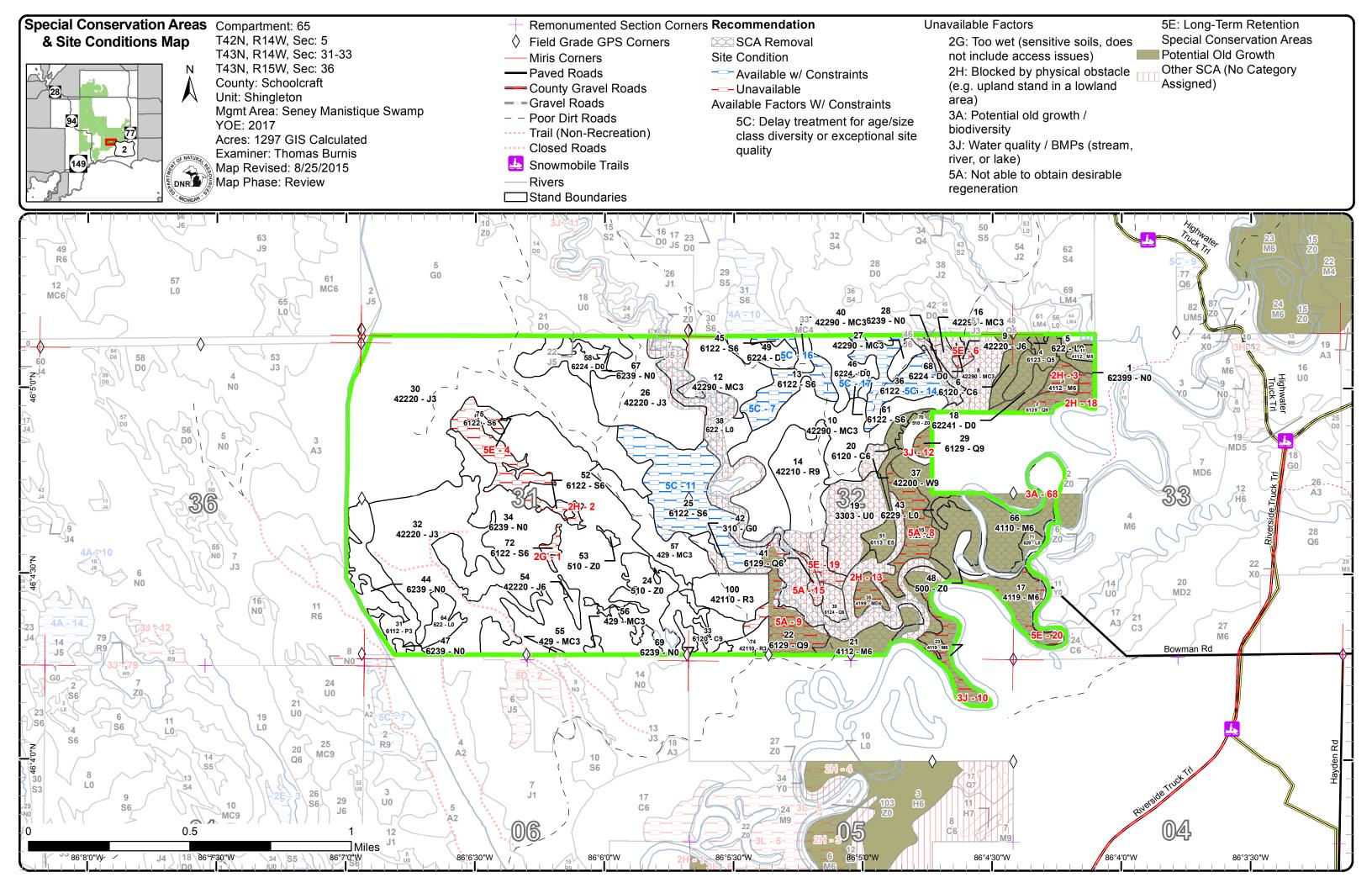
**Proposed treatments** 

Site condition boundaries

Details on the road access system







Shingleton Mgt. Unit

Compartment 65

Year of Entry 2017



**Thomas Burnis: Examiner** 

## Age Class

	, Joseph	A STATE OF THE PERSON OF THE P	2° / 2°	0 / E		8 /	10 10 10 10 10 10 10 10 10 10 10 10 10 1	3/8	58 / K	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	8 8	\$ \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	, z , z , z , z , z , z , z , z , z , z	Ž / Ž	,	05. / PA	LE SE	Dx Jue	Se S
Cedar	0	0	0	0	0	0	0	0	0	14	0	0	11	0	0	0	0	0	25
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Jack Pine	0	172	130	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	303
Low-Density Trees	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
Lowland Aspen/Balsam Poplar	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Lowland Conifers	0	0	0	0	0	0	0	0	14	0	3	0	0	18	0	11	22	0	68
Lowland Deciduous	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6
Lowland Shrub	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	73	51	0	0	0	0	0	0	0	0	124
Marsh	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Natural Mixed Pines	0	0	0	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114
Northern Hardwood	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	97	99
Red Pine	0	0	23	0	0	0	0	0	0	0	0	0	0	0	37	0	0	0	60
Treed Bog	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
Upland Conifers	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Water	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4
Total	440	172	201	114	0	0	0	0	94	67	3	0	11	18	41	11	22	102	1296



## **Report 2 – Treatment Summary**

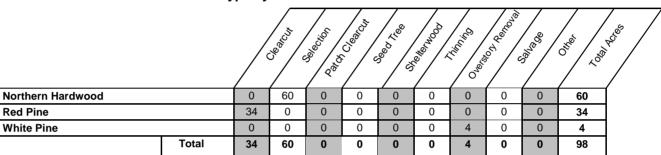
## Shingleton Mgt. Unit Year of Entry: 2017

#### **Acres of Harvest**

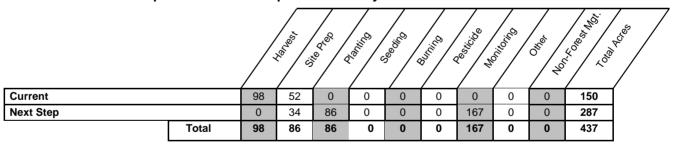
Compartment 65
Total Compartment Acres: 1,297

Commercial Harvest - 98 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

## **Cover Type by Harvest Method**



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



Poor quality timber.

Comment:

WLD comment - This harvest will regenerate young deciduous species, creating excellent food availability for snowshoe hare. Old next step

comments:

**Proposed Start Date:** 10/1 /2016

30 41065030-46.5 42220 - Natural Sapling Immatu SitePrep Trenching 42120 - Planted Even-Aged Proposal Well Prep Jack Pine re Jack Pine

**Habitat Cut: Yes Site Condition:** 

Prescription Trench and plant jack pine.

Specs:

Next Step Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable mix of upland and lowland conifers.

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016 Shingleton Mgt. Unit Report 4 -- Treatments

S t a n port 4 -- Treatments Compartment: 65
Year of Entry: 2017

Removal

White Pine

DNR

**Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** Objective Name CoverType Density Age Range Type Method Structure **Status** d Sawtimber 37 41065037-Cut 4.1 42200 - Natural 130 81-110 4220 - Natural Even-Aged Harvest Overstory Proposal

Habitat Cut: No Site Condition:

Prescription Remove all overstory, leave a few large white pine as a seed source to fill in areas damaged by logging.

Well

Specs: Add understory protection spec. to sale.

White Pine

Next Step Treatments:

Acceptable Existing regeneration.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

42 41065042- 5.1 310 - Herbaceous Nonstocked 0 Unspec SitePrep Trenching 4212 - Planted Even-Aged Proposal Frep Openland ified Jack Pine

Habitat Cut: Yes Site Condition:

Prescription Trench and plant jack pine.

Specs:

Next Step Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

**Treatments:** 

Acceptable Jack pine with mix of upland and lowland conifers.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

6641065066-Cut16.5 4110 - Sugar MaplePoletimber8381-110HarvestSingle Tree411 - NorthernUneven-ProposalAssociationWellSelectionHardwoodAged

Habitat Cut: No Site Condition:

<u>Prescription</u> Mark to cut leaving a residual BA of 80 sqft per acre. All fir may be cut 50 foot buffer on main river, not necessary along slough. Exclude 8 acres <u>Specs:</u> in NE part of stand. Due to a trespass, the BA is too low in this area. Must be winter cut due to access and deer yard. Add no chipping spec,

deer wintering area.

Next Step
Treatments:

Acceptable Mixed deciduous and conifer species.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Total Treatment 1
Acreage Proposed:

149.7

Compartment: 65

Shingleton Mgt. Unit

Year of Entry: 2017 **Thomas Burnis: Examiner** 

Availa	ability for	Managemer	nt								
Total	Acres	Acres Avail	Acres	D	omina	nt Site	e Con	dition	s		
Acres	Available	With Condition	Not Available		5C	2G	2H	3A	3J	5A	5E
25	25	0	0	Cedar							
5	5	0	0	Herbaceous Openland							
304	302	0	1	Jack Pine							1
29	29	0	0	Low-Density Trees							
23	23	0	0	Lowland Aspen/Balsam Poplar							
68	14	0	54	Lowland Conifers			8		3	43	
6	6	0	0	Lowland Deciduous							
102	102	0	0	Lowland Shrub							
125	0	98	27	Lowland Spruce/Fir	98	3	4				20
210	210	0	0	Marsh							
5	0	0	5	Mixed Upland Deciduous			5				
114	114	0	0	Natural Mixed Pines							
100	74	0	26	Northern Hardwood			5		12		8
60	57	0	3	Red Pine							3
49	49	0	0	Treed Bog							
25	25	0	0	Upland Conifers							
45	45	0	0	Water				0			
4	4	0	0	White Pine							
1,297	1,082	98	116	Total Forested Acres	98	3	23	0	15	43	32
	83%	8%	9%	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.

1 U	Jnavailable						
	mavanable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comi	ments:						

Shingleton Mgt. Unit
Thomas Burnis : Examiner

2	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Small acreage loca	ted in hard to get to area. Noth	ing else	nearby being treated.			
4	Unavailable	5E: Long-Term Retention	20	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Delay treatment to	allow more spruce to reach me	rchantab	le size			
3	Unavailable	5A: Not able to obtain desirable regeneration	18	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
	Comments: Hemlock stand alorstand.	ng river within deer range is diffi	cult to re	egenerate. Also, mature l	nemlock stands are favorab	le fisher habitat. Fisher tr	acks seen in this

Shingleton Mgt. Unit
Thomas Burnis : Examiner

Unava		Not able to obtain rable regeneration	22	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
Comment Mature he		rable for fisher. Also, o	difficult	to regenerate species.			
) Unava		ater quality / BMPs eam, river, or lake)	12	Unspecified	Unspecified	Unspecified	Unspecified
Comment	s:						
1 Avai	age/si	Delay treatment for ze class diversity or ptional site quality	51	Unspecified	Unspecified	Unspecified	Unspecified
Comment Allow sub		ruce to reach merchan	table siz	ze. Stand is also adjacent to	a clearcut with trees les	s than 3 foot tall.	
2 Unava		ater quality / BMPs eam, river, or lake)	3	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comment	s:						
3 Unava	obs	locked by physical tacle (e.g. upland d in a lowland area)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comment	s:						
4 Avai	age/si	Delay treatment for ze class diversity or ptional site quality	25	Unspecified	Unspecified	Unspecified	Unspecified
Comment Allow more		hantable spruce to bed	come m	erchantable.			
		hantable spruce to bed	come m	erchantable.			

Shingleton Mgt. Unit
Thomas Burnis : Examiner

15	Unavailable	5A: Not able to obtain desirable regeneration	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Stand is mostly ce	dar and hemlock.					
16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Manage with stand	l 31 comp 62.					
17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Allow more of the s	submerchantable spruce to beco	ome m	erchantable.			
18	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	8	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
C	Comments:						
19	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
20	Unavailable	5E: Long-Term Retention	8	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
C	Comments:						

Shingleton Mgt. Unit

Thomas Burnis : Examiner

68 Unavailable	3A: Potential old growth / biodiversity	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:						

Compartment: 065
Year of Entry: 2017



## Report 6 - 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
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	4
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	22
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	4
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	3
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	8
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	25
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	6
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	79
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	4
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	5
Unspecified Comments Does not meet criteria	Other SCA		SCA Removal	2

Compartment: 065
Year of Entry: 2017



## Report 6 - PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

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SCA Name	SCA Category	Detail Type	Recommendation	Acres
Unspecified Comments	Potential Old Growth		SCA Removal	23
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	8
Comments				
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	1
Comments				
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	5
Comments				
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	3
Comments				
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	19
Comments				
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	5
Comments				
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	8
Comments				
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	3
Comments				
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	2
Comments				
Does not meet criteria fo	or old growth			
Unspecified	Potential Old Growth		SCA Removal	7
Comments				
Does not meet criteria fo	or old growth			

Compartment: 065 Year of Entry: 2017



## Report 6 - 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
Unspecified	Potential Old Growth		SCA Removal	5
Comments  Does not meet criteria	for old growth			
	-			
Unspecified	Potential Old Growth		SCA Removal	15
Comments  Does not meet criteria	for old growth			
Unspecified	Potential Old Growth		SCA Removal	14
Comments  Does not meet criteria	for old arowth			
			COA Davis soul	40
Unspecified	Potential Old Growth		SCA Removal	40
Comments  Does not meet criteria	for old growth			
Unspecified	Potential Old Growth		SCA Removal	5
Comments  Does not meet criteria	for old growth			
Unspecified	Potential Old Growth		SCA Removal	19
Comments	r otomiar old Grown		oon nomeval	.0
Does not meet criteria	for old growth			
Unspecified	Potential Old Growth		SCA Removal	9
Comments				-
Does not meet criteria	for old growth			
Unspecified	Potential Old Growth		SCA Removal	4
Comments				
Does not meet criteria	for old growth			
Unspecified	Potential Old Growth		SCA Removal	8
Comments				
Does not meet criteria	for old growth			

Mgt. Unit Compartment:
Year of Entry

## Report 7 - 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 Type Description
Area

ERA = Ecological Reference Area

HCVA = High Conservation Value Area

SCA = Special Conservation Area

S t	Shingletor	n Mgt. Unit		Report 8	- Forested	Stands Compartment: 65 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	8.4	141	141-170	OPIC - FMD: SCA-POG-Stand is bieng proposed as potential old growth to fit into the Manistique River corridor stands that were previously proposed as POG in 1997.  SCA-Deeryard
3	4112 - Maple, Beech, Cherry Association	Poletimber Well	5.5	82	111-140	OPIC - FMD: SCA-POG-Stand is bieng proposed as potential old growth to fit into the Manistique River corridor stands that were previously proposed as POG in 1997.  SCA-Deeryard  Soil-491D Clemons-Deford Complex
4	6123 - Lowland Fir	Poletimber Medium	9.1	72	51-80	OPIC - FMD: SCA-POG-Stand is bieng proposed as potential old growth to fit into the Manistique River corridor stands that were previously proposed as POG in 1997.  SCA-Deeryard  Soil-491D Clemons-Deford Complex
6	6120 - Lowland Cedar	Poletimber Well	8.3	82	141-170	OPIC - FMD: SCA-POG-Stand is bieng proposed as potential old growth to fit into the Manistique River corridor stands that were previously proposed as POG in 1997.  SCA-Deeryard  Soil- 491D Clemons-Deford Complex
8	42290 - Natural Mixed Pine	Sapling Well	17.2	27	Immature	OPIC - FMD: SCA-Deeryard Soil- 20E Rousseau-Neconish-Spot Complex
9	42220 - Natural Jack Pine	Poletimber Well	1.4	78	51-80	OPIC - FMD: SCA-Deeryard High knob of jack pine. Retain as retention for stand 8. Soil- 20E Rousseau-Neconish-Spot Complex.
10	42290 - Natural Mixed Pine	Sapling Well	60.7	26	Immature	OPIC - FMD: Close FTP C41-807
11	4112 - Maple, Beech, Cherry Association	Poletimber Medium	2.4	83	1-50	OPIC - FMD: SCA-POG-Stand is bieng proposed as potential old growth to fit into the Manistique River corridor stands that were previously proposed as POG in 1997.  SCA-Deeryard  White birch dead, medium stocked red maple poles, converting to fir. Thick fir understory is about 20 feet tall. Soil-491D Clemons-Deford Complex.
12	42290 - Natural Mixed Pine	Sapling Well	24.1	26	Immature	OPIC - FMD: Close FTP C41-807 Soil-20E Rouseau-Neconish- Spot Complex
13	6122 - Black Spruce	Poletimber Well	17.1	81	Unspecified	OPIC - FMD: Soil- 37 Dawson, Greenwood and Loxley Peat.  Lots of sub merchantable spruce throughout stand. Will hold for another ten years.
14	42210 - Natural Red Pine	Sawtimber Well	37.0	136	111-140	OPIC - FMD: Other species cut out in 1989. Good white pine regeneration but a bit short yet. Look at doing an overstory removeal next entry.

S t	Shingleton	n Mgt. Unit		Report 8	B – Forested	Stands Compartment: 65 Year of Entry: 2017	OF NATURAL PROPERTY OF NAT
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN
15	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	18.0	122	111-140	OPIC - FMD: SCA-POG-Stand was proposed as potentia growth as the Manistique River corridor in 1997. SCA-Deeryard Soil- 490B Pelki-Moqueh-Arnhiem Complex	al old
16	42290 - Natural Mixed Pine	Sapling Well	4.1	27	Immature	OPIC - FMD: SCA-DeeryardSoil- 20E Rousseau-Neconi Spot Complex	ish-
17	4119 - Mixed Northern Hardwoods	Poletimber Well	41.3	82	111-140	OPIC - FMD: SCA-POG-Stand was proposed as potentic growth as the Manistique River corridor in 1997.SCA-DeeryardSoil- 490B Pelkie-Moquah-Arnhiem Comple:	-
20	6120 - Lowland Cedar	Poletimber Well	5.7	82	141-170	OPIC - FMD: SCA-POG-Stand was proposed as potentia growth as the Manistique River corridor in 1997. SCA-Deeryard SCA-Deeryard Soil-490B Pelkie-Moquah-Arnhiem Com	
21	4112 - Maple, Beech, Cherry Association	Poletimber Well	12.2	83	111-140	OPIC - FMD: SCA-POG-Stand was proposed as potential growth as the Manistique River corridor in 1997. SCA-Deeryard Soil-490B Pelkie-Moquah- Arnhiem Complex	al old
22	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	22.4	163	Unspecified	SCA-Deeryard Soil-65 Deford-Ausable-Tawas Mucks	
23	4119 - Mixed Northern Hardwoods	Poletimber Well	12.4	82	111-140	OPIC - FMD: SCA-POG-Stand was proposed as potential growth as the Manistique River corridor in 1997.  SCA-Deeryard	al old
25	6122 - Black Spruce	Poletimber Well	51.2	78	51-80	OPIC - FMD: Stand very sparse in most areas with stur spruce fir and cedar. Slight ridges within stand better stowith nicer quality spruce. Fir dying out. Maybe cut next allow cutting of cedar, make several retention patches, acres in size, scattered through central portion of stand. area is heavier to cedar and contains smaller diameter to	ocked entry. 1-3 This
26	42220 - Natural Jack Pine	Sapling Well	43.2	16	Immature	OPIC - FMD: Sale completed summer 1999. Permit# 56-Stand was partially scarified, 6 acres, September 1999, acres scarified 2000 schedule regen check 2002 Regen results indicated failure.  [8/6/2004 BB] Stand was seeded over the snow because inaccessability during summer. Regen check in 2007. So Proper Fine Sand  (1/19/06AP) Regen walkthrough was done by TMS. Star fully regenerated. CLOSE FTP-C41-796	, 37 of its oil-25B
27	42290 - Natural Mixed Pine	Sapling Well	4.2	27	Immature	OPIC - FMD: Close FTP C41- 807 Soil-20E Rousseau-Ne Spot Complex	conish-
29	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	2.8	141	141-170	OPIC - FMD: SCA-POG-Stand is bieng proposed as pote old growth to fit into the Manistique River corridor stands were previously proposed as POG in 1997.  SCA-Deeryard Soil- 490B Pelkie-Moquah-Arnhiem Complex.	

S t	Shingleton Mgt. Unit			Report 8	- Forested	Stands Compartment: 65  Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
30	42220 - Natural Jack Pine	Sapling Well	172.3	4	Immature	OPIC - FMD: Include stand 2 compartment 61. Buffer to the bottom of the spoils along Walsh Ditch. Mark red pine to cut with orange paint, leaving 10 sq.ft. of poles (trees measuring 11" or less DBH) in upland areas. A new road is bieng built through the stand as part of several 2005 timbersales for summer access. New road will also be used for the sale of this stand but will be closed when all sales are complete. Try and limit to dry ground harvesting to promote regeneration and prevent the snowmobile trail from bieng used. Add operating caution to sale specs to accomplish this.
						4/16/07 BB] Sale is now on proposal, 11-07 (The Final Stand).  Residual Basal Area = .1 sq ft of white pine and 5 sq ft of red pine (5.1 total). Actual prepared acres = 162.
						(9/15/2010 AP) Upland portions of U3 and U4 were scarified in summer 2010, 42 acres. Unit 1 and unit 2 will have to wait till little walsh duck sale is cut for access. Regen count scheduled for 2014.
						(11/24/2011 AP) Stand scarified in summer 2011, high ground units only. Unit 1 and 2 were scarified in 2011 and Units 3 and 4 were scarified in 2010. Regen count in 2015
						[11/16/2012 TI] Sale is now closed. Final Stand 41-011-07-01. TCR Date 10/29/2012. Stand will be added to the Regen Timeclock and regneration will be monitored.
						7/2/2015: Regen check shows an average of 1200 trees per acre of mostly JP and some SP. for most of this stand except unit 2 of the sale, which failed check at 342 trees per acre.
31	6112 - Lowland Aspen	Sapling Well	22.9	16	Immature	OPIC - FMD: CUT WITH LETSON RD SALE 75-96-01. Soil- 516 Marky-deford mucks
32	42220 - Natural Jack Pine	Sapling Well	83.8	16	Immature	OPIC - FMD: CUT WITH LETSON RD. SALE 75-96-01. Regen check shows adequette regeneration. FTP still open. Soil-20E Rousseau-Neconish-Spot Complex (6/5/06AP) Regen check completed in spring of 2004 showing JP- 372, RM- 3, Aspen- 184, Spruce- 168, Wp- 32 for a total of 759 tpa. Stand was reinventoried as J3. CLOSE FTP C41-773.
33	6120 - Lowland Cedar	Sawtimber Well	11.1	111	Unspecified	SCA-Deeryard Soil-65 Deford-Ausable-Tawas Mucks
35	4199 - Other Mixed Upland Deciduous	Poletimber Well	5.2	60	111-140	OPIC - FMD: SCA-POG-Stand was proposed as potential old growth as the Manistique River corridor in 1997. SCA-Deeryard Soil-490B Pelkie-Moquah-Arnhiem Complex
36	6122 - Black Spruce	Poletimber Well	24.5	87	81-110	OPIC - FMD: OI Stand Year Origin was 1928
37	42200 - Natural White Pine	Sawtimber Well	4.1	130	81-110	OPIC - FMD: SCA-Deeryard Other species cut out in 1989. Good white pine regeneration but a bit short yet. Look at doing an overstory removeal next entry.

S t	Shingleton		Report 8	- Forested	Stands Compartment: 65 Year of Entry: 2017	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
39	6124 - Lowland Spruce- Fir	Poletimber Well	4.7	70	Unspecified	OPIC - FMD: SCA-Deeryard Birch is dying, let naturally convert to fir.
40	42290 - Natural Mixed Pine	Sapling Well	3.3	26	Immature	OPIC - FMD: Soil-20E Rousseau-Neconish-Spot
41	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	2.8	98	Unspecified	OPIC - FMD: SCA-Deeryard  No cutting in stand so as to maintain cedar and hemlock component. This strip makes a good buffer to creek and a travle corridor.
45	6122 - Black Spruce	Poletimber Well	2.4	81	Unspecified	Lots of sub merchantable spruce throughout stand. Manage with stand 31 in compartment 62.
51	6113 - Lowland Maple	Poletimber Medium	5.7	72	1-50	OPIC - FMD: SCA-POG-Stand was proposed as potential old growth as the Manistique River corridor in 1997.  SCA-Deeryard
52	6122 - Black Spruce	Poletimber Well	4.3	87	Unspecified	OPIC - FMD: OI Stand Year Origin was 1928
54	42220 - Natural Jack Pine	Poletimber Well	2.9	16	Immature	OPIC - FMD: Ridge of jack pine in marsh. Soil-525B Neconish- Kinross-Wainola Complex
55	429 - Mixed Upland Conifers	Sapling Well	0.6	16	Immature	OPIC - FMD: CUT WITH LETSON RD. SALE 75-96-01. Regen check shows adequette regeneration. Soil-20E Rousseau-Neconish-Spot Complex (6/5/06AP) Regen check completed in spring of 2004 showing JP- 372, RM- 3, Aspen- 184, Spruce- 168, Wp- 32 for a total of 759 tpa. Stand was reinventoried as J3. CLOSE FTP C41-773.
56	429 - Mixed Upland Conifers	Sapling Well	1.4	16	Immature	OPIC - FMD: CUT WITH LETSON RD. SALE 75-96-01. Regen check shows adequette regeneration. Soil-20 Rousseau-Neconish-Spot Complex.  (6/5/06AP) Regen check completed in spring of 2004 showing JP- 372, RM- 3, Aspen- 184, Spruce- 168, Wp- 32 for a total of 759 tpa. Stand was reinventoried as J3. CLOSE FTP C41-773.
57	429 - Mixed Upland Conifers	Sapling Well	22.7	16	Immature	OPIC - FMD: sale completed summer 1999. Permit # 56-96-01. Scarified but road never closed. North end of stand is J3 but heavier to black spruce with white and jack pine in southern portion. Regen check shows adequette regen. Soil- 20E Rousseau-Neconish-Spot Complex (1/19/06AP)Stand is fully regenerated. CLOSE FTP-C41-796
61	6122 - Black Spruce	Poletimber Well	2.8	81	Unspecified	Lots of sub merchantable spruce throughout stand. Stand will hold another 10 years.
66	4110 - Sugar Maple Association	Poletimber Well	25.7	83	81-110	OPIC - FMD: SCA-POG-Stand was proposed as potential old growth as the Manistique River corridor in 1997. SCA-Deeryard Soil-490B Pelkie-Moquah-Arnhiem Complex

S t a n d	Shingleton Mgt. Unit			Report 8	B - Forested	Stands Compartment: 65 Year of Entry: 2017
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
72	6122 - Black Spruce	Poletimber Well	2.6	78	Unspecified	OPIC - FMD: Ridge of jack pine in marsh. Soil-525B Neconish- Kinross-Wainola Complex
74	42110 - Planted Red Pine	Sapling Well	5.1	14	Immature	Acquired from Plum Creek. Fall planted in 2001.
75	6122 - Black Spruce	Poletimber Well	19.7	78	Unspecified	OPIC - FMD: [5/29/07 BB] This stand was originally part of stand 30. However, when stand 30 was prepared for harvest this portion of the stand which is a large finger was excluded for retention purposes. This stand will be managed long term for retention.
100	42110 - Planted Red Pine	Sapling Well	17.7	14	Unspecified	Acquired from Plum Creek. Planted Fall of 2001.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	62399 - Marsh (OI)	5.3	No	Soil-491D Clemons-Deford Complex
5	622 - Lowland Shrub	0.8	No	OPIC - FMD: SCA-POG-Stand is bieng proposed as potential old growth to fit into the Manistique River corridor stands that were previously proposed as POG in 1997. SCA-Deeryard Soil-491D Clemons-Deford Complex
18	62241 - Treed Bog (OI)	5.3	No	OPIC - FMD: SCA-POG-Stand is bieng proposed as potential old growth to fit into the Manistique River corridor stands that were previously proposed as POG in 1997.  SCA-Deeryard  Soil-491D Clemons-Deford Complex
19	3303 - Mixed Low Density Trees	28.5		OPIC - FMD: SCA-Deeryard  Red and white pine logs mixed throughout. Fir is falling apart. Cut everything except hemlock. Also leave scattered white pine seed trees, by marking with green paint, if they occure on wind firm soils. Do a 100% tally on red and white pine logs. Any of the current species mix will be an acceptable MO. Cut stand on dry ground only to provide some scarification and to prevent plowing the snowmobile trail in the winter.  Add operating caution into sale specs. To accomplish this. Plant acorns and hemlock where possible after cutting.
				[2/22/07 BB] Stand is now on proposal, 006-07 Little Duck Sale. Actual Stand acres = 28 and residual volumes are 4.8' of White Pine and 15.9' of hemlock.  (1/6/08 AP) Logger asked for written waiver to cut sale in winter. Snowmobile trail is currently being plowed by another logger. Wildlife biologist agrees with this also. >>> David Jentoft 01/05/2009 6:43 PM >>> I am ok with cutting the two stands we discussed today. I don't have the sale sheet in front of me, so don't recall the sale or stands, but you can go ahead with cutting them now.)  [11/20/09 BB] Sale is now closed, cut summer 2009, TCR date of 10/13/2009. FTP is open to plant acorns and hemlock W41-1321 however, without inmates its unlikely this will happen.
				(7/2/2015) Regen check shows a mix of B. Sp,WP,Fir,Tam,RM,WB totaling a minimum of 2055 trees per acre.
24	510- Water (OI)	22.6	No	
28	6239 - Mixed Emergent Wetland	4.1	No	OPIC - FMD: SCA-Deeryard Soil -37 Dawson,Greenwood and Loxley Peats
34	6239 - Mixed Emergent Wetland	185.7	No	OPIC - FMD: Soil-66 Markey mucky peat.
38	622 - Lowland Shrub	87.7	No	OPIC - FMD: SCA-Deeryard. Little Duck Creek runs through this stand and into the Manistique river.



Stand	Cover Type	Acres	Managed Site	General Comments:
42	310 - Herbaceous Openland	5.1	No	OPIC - FMD: SCA-Deeryard  Upland ridge of large red and white pine over spruce and fir. Leave 3 white pine seed trees, do not cut hemlock. Cut all else. Do a 100% tally of pine logs. Soil-20E Rouseau- Neconish-Spot Complex. Cut stand on dry ground only to provide some scarification and to prevent plowing the snowmobile trail in the winter. Add operating caution to sale specs to accomplish this. Plant acorns where possible after cut.
				[2/22/07 BB] Stand is now on proposal, 006-07 Little Duck Sale. Actual Stand acres = 5 and residual volumes are 1.4' of White Pine and 40' of hemlock.
				(1/6/08 AP) Logger asked for written waiver to cut sale in winter. Snowmobile trail is currently being plowed by another logger. Wildlife biologist agrees with this also. >>> David Jentoft 01/05/2009 6:43 PM >>> I am ok with cutting the two stands we discussed today. I don't have the sale sheet in front of me, so don't recall the sale or stands, but you can go ahead with cutting them now.)
				[11/20/09 BB] Sale is now closed, cut summer 2009, TCR date of 10/13/2009. FTP is open to plant acorns, W41-1321 however, without inmates its unlikely this will happen.
				[7/2/2015] Stand failed regen check showing 274 jp/ac and 137 sp/ac.
43	6229 - Mixed lowland shrub	2.9	No	
44	6239 - Mixed Emergent Wetland	8.8	No	Flood area from Walsh ditch.
46	6224 - Treed Bog	14.9	No	OPIC - FMD: Soil-37 Dawson, Greenwood and Loxley Peat
47	6239 - Mixed Emergent Wetland	1.3	No	
48	500 - Water	15.2	No	Manistique River and adjoining old river course.
49	6224 - Treed Bog	9.2	No	OPIC - FMD: OI Stand Year Origin was
53	510- Water (OI)	1.0	No	OPIC - FMD: OI Stand Year Origin was
58	6224 - Treed Bog	17.5	No	OPIC - FMD: Soil- 37 Dawson, Greenwood and Loxley Peats.
64	622 - Lowland Shrub	7.6	No	OPIC - FMD: Soil-516 Marky Deford Mucks Drained
67	6239 - Mixed Emergent Wetland	3.4	No	OPIC - FMD: Soil- 37 Dawson,Greenwood and Loxley Peats.
68	6224 - Treed Bog	1.5	No	OPIC - FMD: SCA-Deeryard Soil- 20E Rousseau-Neconish-Spot Complex

## Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
69	6239 - Mixed Emergent Wetland	1.8	No	
70	510- Water (OI)	5.7	No	
71	629 - Mixed non-forested wetland	3.4	No	