



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41015

Entry Year 2017

Acreage: 1,783

County Schoolcraft

Management Area: Seney Manistique Swamp

Revision Date: 2015-08-04

Stand Examiner: Mario Molin

Legal Description:

T45N R16W Section 10, 14, 15

Identified Planning Goals:

Timber production and wildlife habitat management.

Soil and topography:

Flat marshland with small ridges. Soils in the low, wet areas are Deford Muck, Markey-Mucky Peat and Deford-AuSable-Tawas Mucks. Soils in the ridges are Paquin-Finch Sands, Rubixon-Croswell-Deford Complex, and Deford-AuGres-Rubicon Deep Water Table Complex.

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

State land north, west and south of the compartment; Seney National Wildlife Refuge borders the compartment on the east.

Unique Natural Features:

Currently under review by Michigan Natural Features Inventory (MNFI)

Archeological, Historical, and Cultural Features:

None identified at this time.

Special Management Designations or Considerations:

None identified at this time.

Watershed and Fisheries Considerations:

The Creighton River is classified as warm-water in the compartment. BMP's should be followed as inputs of sediment and increases in sand bedload need to be prevented.

Wildlife Habitat Considerations:

This compartment lies between Hartman Camp Road and the Creighton River. Pre-settlement surveys showed open marsh to be the dominant feature within this compartment circa 1850. Tamarack, spruce, and cedar appear to have been the primary trees in the forested portions of the compartment. However, low ridges throughout the compartment also held white pine, red pine, and hemlock. In addition, surveyors recorded minor amounts of aspen, jack pine, white birch, yellow birch, red maple and beech. Although it appears that the open marshes are largely intact, forest species and structure on the low ridges have changed substantially. Red pine, jack pine, and aspen have all increased while tamarack, spruce, cedar, and white pine have shown marked decreases. Featured species in this compartment are beaver, moose, ruffed grouse, sharp-tailed grouse, snowshoe hare, and white-tailed deer. Beaver ponding is an important environmental activity within this compartment providing habitat for a variety birds, herptiles, and plants. Wolves are also relatively common within this compartment. Wildlife habitat objectives include protecting the integrity of the marsh system and promoting structural and species diversity with the forested portions of the compartment.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River Group subcrops below the glacial drift. The Black River is quarried for stone/dolomite elsewhere in the UP. Gravel pits are not found in the area and potential appears to be limited There is no commercial oil and gas production in the UP.

Vehicle Access:

Section 14 has several two-track roads, and the S. Creighton Truck Trail. The majority of the compartment is low, wet ground with islands of trees, and is without roads.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

There are no DNR recreational facilities within the compartment; but the area is used for deer and grouse hunting and people often set up hunting camps near the Creighton River.

Fire Protection:

Lack of roads in most of the western portion of the compartment makes access to fires difficult.

Additional Compartment Information:

The following reports from the Inventory are attached:

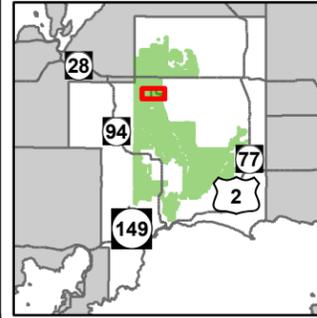
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

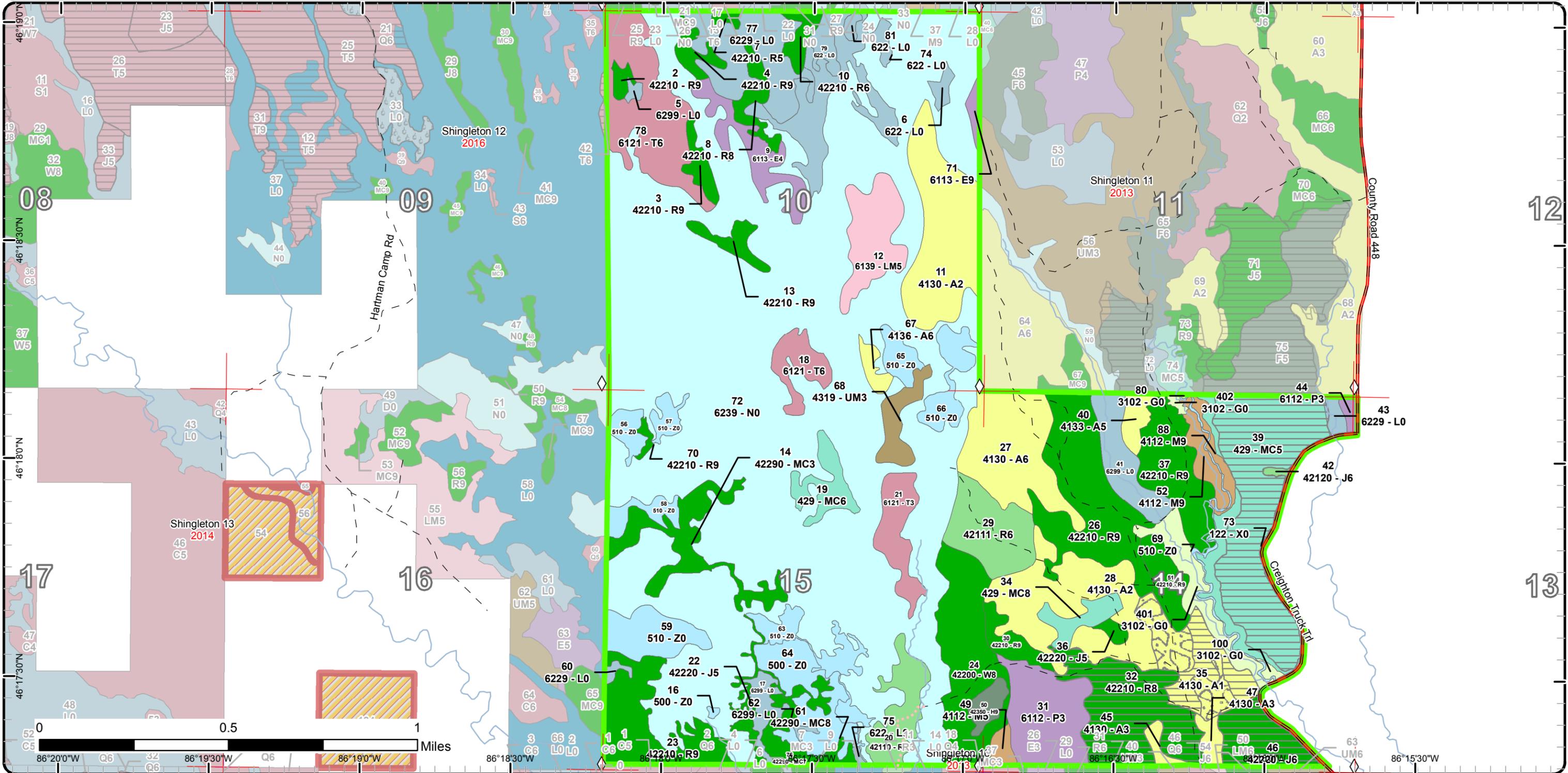
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments

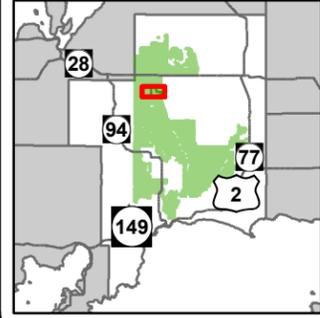
Compartment: 15
 T45N, R16W, Sec: 10, 14, 15
 County: Schoolcraft
 Unit: Shingleton
 Mgmt Area: Seney Manistique Swamp
 YOE: 2017
 Acres: 1783 GIS Calculated
 Examiner: Mario Molin
 Map Revised: 8/18/2015
 Map Phase: Review



- ✦ Remonumented Section Corners
 - ◇ Field Grade GPS Corners
 - Miris Corners
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - Closed Roads
 - Rivers
 - ▭ Clearcut (w/Reserves)
 - ▭ Regeneration Survey
- | | |
|---|--|
| <ul style="list-style-type: none"> 411 - Northern Hardwood 413 - Aspen 421 - Planted Pines 422 - Natural Pines 423 - Other Upland Conifers 429 - Mixed Upland Conifers 430 - Upland Mixed Forests 611 - Lowland Deciduous Forest 612 - Lowland Coniferous Forest 613 - Lowland Mixed Forest | <ul style="list-style-type: none"> 122 - Roads/Parking Lot 310 - Herbaceous Openland 500 - Water 622 - Lowland Shrub 623 - Emergent Wetland |
|---|--|

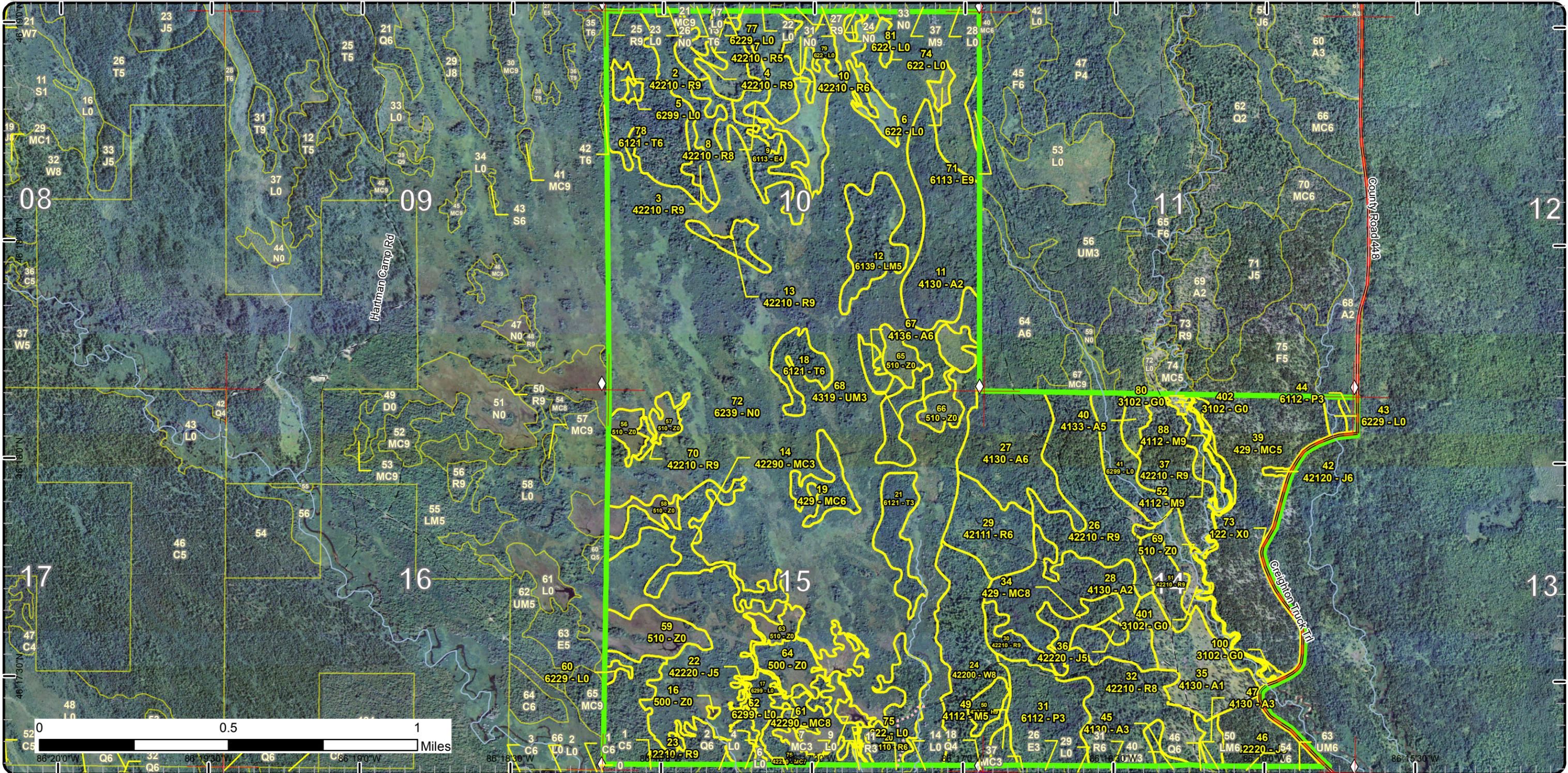


Stand Boundary Map



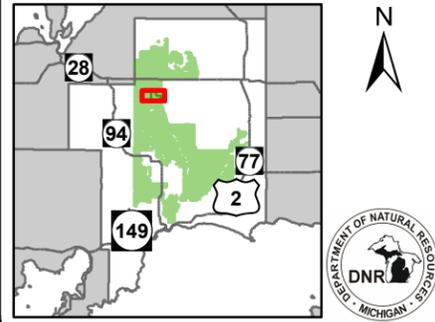
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- | | | |
|--|---|---|
| <ul style="list-style-type: none"> ✦ Remonumented Section Corners ◇ Field Grade GPS Corners — Miris Corners — County Gravel Roads — Gravel Roads — Poor Dirt Roads ⋯ Closed Roads — Rivers ▭ Stand Boundaries | <ul style="list-style-type: none"> 421 - Planted Pines 422 - Natural Pines 423 - Other Upland Conifers 429 - Mixed Upland Conifers 430 - Upland Mixed Fores 611 - Lowland Deciduous Forest 612 - Lowland Coniferous Forest 613 - Lowland Mixed Forest | <ul style="list-style-type: none"> 622 - Lowland Shrub 623 - Emergent Wetland |
| <p>Forest Coverture</p> <ul style="list-style-type: none"> 411 - Northern Hardwood 413 - Aspen | <p>Non-Forest Coverture</p> <ul style="list-style-type: none"> 122 - Roads/Parking Lot 310 - Herbaceous Openland 500 - Water | |

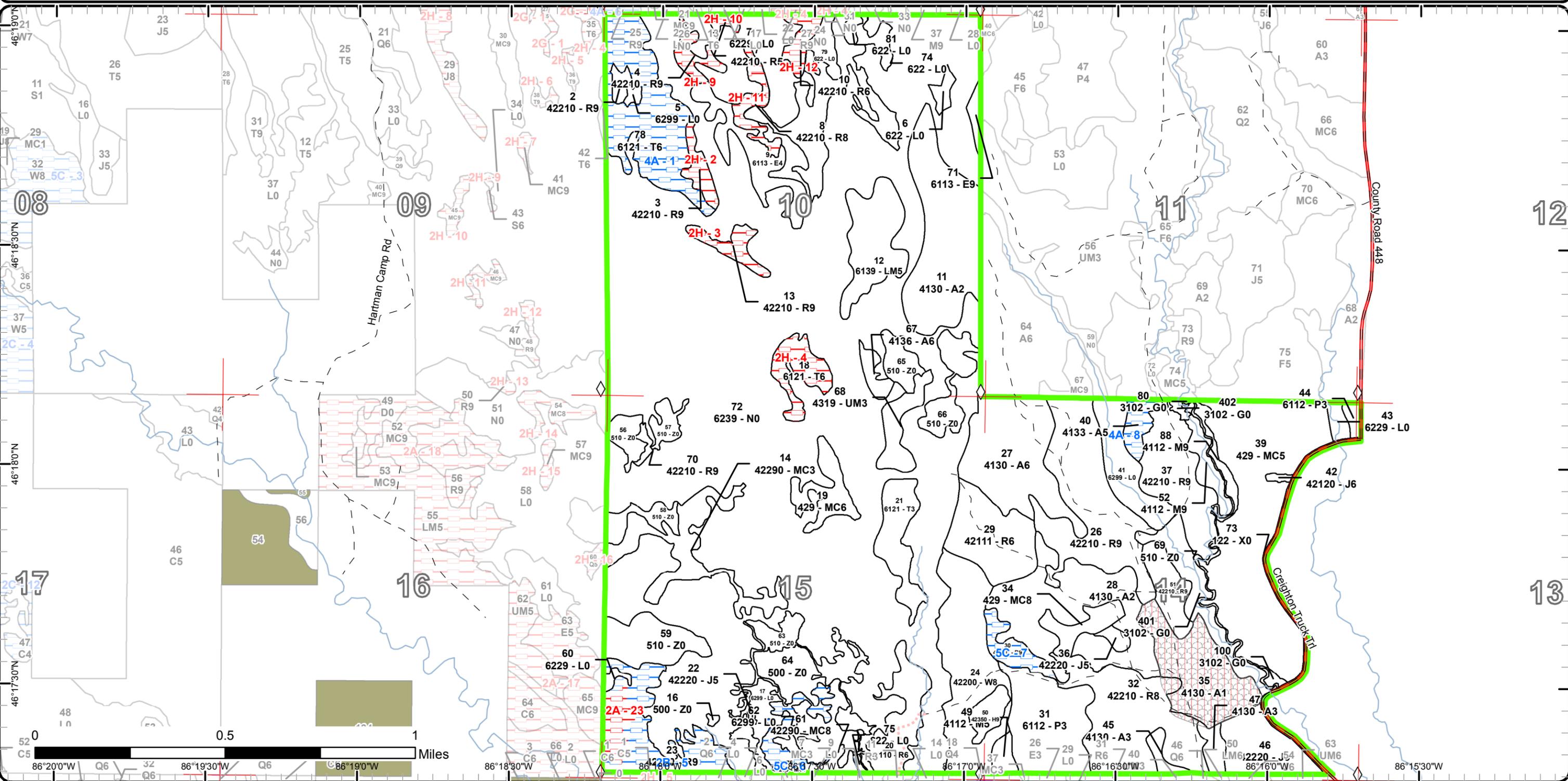


Special Conservation Areas & Site Conditions Map

Compartment: 15
 T45N, R16W, Sec: 10, 14, 15
 County: Schoolcraft
 Unit: Shingleton
 Mgmt Area: Seney Manistique Swamp
 YOE: 2017
 Acres: 1783 GIS Calculated
 Examiner: Mario Molin
 Map Revised: 8/18/2015
 Map Phase: Review



- ✦ Remonumented Section Corners Site Condition
- ◇ Field Grade GPS Corners
- Miris Corners
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- ⋯ Closed Roads
- Rivers
- ▭ Stand Boundaries
- ▨ SCA Removal
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints
- 2B: Unknown if access through adjacent landowner(s) is possible
- 4A: No Markets Available for these Forest Products
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 2A: Adjacent landowner denied access
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- Special Conservation Areas
- ▭ Potential Old Growth
- ▭ Other SCA (No Category Assigned)



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	40	0	147	0	0	6	0	0	0	0	0	0	0	0	0	0	0	193
Hemlock	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Herbaceous Openland	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Jack Pine	0	0	0	8	0	0	1	19	0	0	0	0	0	0	0	0	0	0	28
Lowland Aspen/Balsam Poplar	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Lowland Deciduous	0	0	0	17	0	0	0	0	0	3	0	0	0	0	0	0	0	0	20
Lowland Mixed Forest	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	24
Lowland Shrub	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	107
Marsh	708	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	708
Natural Mixed Pines	0	0	0	24	0	0	0	0	0	2	0	0	0	0	0	11	0	0	37
Northern Hardwood	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	4	15
Red Pine	0	0	0	44	0	0	0	11	74	44	0	0	0	0	0	33	0	52	258
Tamarack	0	0	0	16	0	0	0	0	11	44	0	0	0	0	0	0	0	0	71
Upland Conifers	0	0	0	11	0	0	85	0	0	8	0	0	0	0	0	0	0	0	104
Upland Mixed Forest	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Urban	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Water	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96
White Pine	0	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	0	43
Total	939	40	0	312	0	0	127	30	85	150	0	0	0	0	0	44	0	56	1783



Report 2 – Treatment Summary

Shingleton Mgt. Unit
Year of Entry: 2017

Acres of Harvest

Compartment 15
Total Compartment Acres: 1,783

Commercial Harvest - 154
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	15	0	0	0	0	0	0	0	0	15
Jack Pine	19	0	0	0	0	0	0	0	0	19
Lowland Shrub	73	0	0	0	0	0	0	0	0	73
Red Pine	46	0	0	0	0	0	0	0	0	46
Total	154	0	0	0	0	0	0	0	0	154

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	154	0	0	0	0	17	0	0	0	171
Next Step	0	200	61	0	0	15	171	0	0	446
Total	154	200	61	0	0	15	189	0	0	618



S t 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
43	41015_OutOfY OE-Cut	73.5	6229 - Mixed lowland shrub	Nonstocked		Unspec ified	Harvest	Clearcut with Retention	42290 - Natural Mixed Pine	Even-Aged	Completed - Pending Edits

Habitat Cut: No**Site Condition:**Prescription Clearcut with red pine reservedSpecs:Next Step SitePrep, Scarification; Monitoring, Artificial Regen(1yr)Treatments:Acceptable Spruce fir and jack pine, with aspen and maple.Regen:

Other Stand is being cut early due to spruce bud worm. Old next step comments: --Robert Burnham : 02/05/2013 comments: Stand is now on proposal, "Super Duper Sale" Unit 7 and 8. Red pine Residual = 5'. River Buffer is also Retention for the stand as well as island on road. FTP C41-1550 is submitted for Jack Pine regeneration. Stand will need to be planted. Stand cannot be harvested nor can site prep occur between May 1 and July 15 to protect potential nesting wood turtles.

Scarify with natural regeneration, monitor according to work instructions. Acceptable regeneration is any current mix of species on site.

FTP C41-1550

Proposed Start Date: 10/1 /2012

32	41015032-Cut	46.1	42210 - Natural Red Pine	Sawtimber Medium	70	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**Prescription Clear-cut, retention should be on edges and done using the red line. Site will be herbicide, trenched and planted to red pine.Specs:Next Step SitePrep, Other - Specify; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)Treatments:Acceptable Red PineRegen:Other Old next step comments:Comment:Proposed Start Date: 10/1 /2016

35	41015035-Cut	14.8	4130 - Aspen	Sapling Poor	6	Immature	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**Prescription Clearcut portion of stand that has not regenerated heavily with aspen. Plant to red pine.Specs: Wood turtle spec during write up.Next Step Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)Treatments:Acceptable Red Pine.Regen:Other Old next step comments:Comment:Proposed Start Date: 10/1 /2016



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
35	41015035-Monitor	17.5	4130 - Aspen	Sapling Poor	6	Immature	Monitoring	Artificial Regen(3yr)	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: Yes

Site Condition:

Prescription .
Specs:

Next Step
Treatments:

Acceptable Aspen
Regen:

Other Percent to Treat = 100% Old next step comments:
Comment:

Proposed Start Date: 8 /3 /2015

46	41015046-Cut	19.2	42220 - Natural Jack Pine	Poletimber Well	66	51-80	Harvest	Clearcut with Retention	4222 - Natural Jack Pine	Even-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Clear cut with retention in the southeast corner of the stand.
Specs:

Next Step SitePrep, Scarification; Monitoring, Artificial Regen(1yr)
Treatments:

Acceptable Jack Pine
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

Total Treatment Acreage Proposed: 171.0

Report 5 – Site Conditions

Shingleton Mgt. Unit

Mario Molin : Examiner

Compartment: 15

Year of Entry: 2017

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions					
		With Condition	Not Available		2B	4A	5C	2A	2H	
192	187	6	0	Aspen		6				
6	6	0	0	Hemlock						
19	19	0	0	Herbaceous Openland						
28	28	0	0	Jack Pine						
35	35	0	0	Lowland Aspen/Balsam Poplar						
19	19	0	0	Lowland Deciduous						
24	24	0	0	Lowland Mixed Forest						
107	107	0	0	Lowland Shrub					0	
708	708	0	0	Marsh						
38	27	11	0	Natural Mixed Pines			11			
15	15	0	0	Northern Hardwood						
258	185	33	40	Red Pine	25		8	7	32	
71	16	44	11	Tamarack		44			11	
104	104	0	0	Upland Conifers						
10	10	0	0	Upland Mixed Forest						
8	8	0	0	Urban						
96	96	0	0	Water						
43	43	0	0	White Pine						
1,783	1,638	94	51	Total Forested Acres	25	49	19	7	44	
	92%	5%	3%	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	Available	4A: No Markets Available for these Forest Products	44	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
Stand has deteriorated to a point where harvesting is no longer an option.							

Report 5 – Site Conditions

Shingleton Mgt. Unit
Mario Molin : Examiner

Compartment: 15
Year of Entry: 2017

2	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	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:							
4	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Available	2B: Unknown if access through adjacent landowner(s) is possible	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Pine is beyond the marketable size class.							

Report 5 – Site Conditions

Shingleton Mgt. Unit
Mario Molin : Examiner

Compartment: 15
Year of Entry: 2017

8	Available	4A: No Markets Available for these Forest Products	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Aspen is too far gone, and site is converting naturally and well to mixed pine.							
9	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
23	Unavailable	2A: Adjacent landowner denied access	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							



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	Other SCA		SCA Removal	34
Comments				
Does not meet SCA criteria				



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.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	42210 - Natural Red Pine	Sawtimber Well	2.5	85	81-110	<p>OPIC - FMD: Small area of high ground. Thin Red and White Pine, cut all other trees except oak & hemlock. Try to regenerate pine using prescribed burning; or scarify or plant. Will accept red or white pine regeneration. Soils: Rubicon-Croswell-Deford Complex. PVE</p> <p>Layout the road to these stands with snow free conditions; then evaluate the need to have a MNFI survey done for rare plants as found to the north.</p> <p>[10-1-07] Unmerchantable in current market conditions. Stand is an island in the marsh. It has been factored off the POW and factor limited in OI, comments updated and the merchantability code changed to 7</p>
3	42210 - Natural Red Pine	Sawtimber Well	5.5	85	111-140	<p>OPIC - FMD: Pine ridge: thin red and white pine; cut all other trees except oak & hemlock. Try to regenerate pine using prescribed burning; or scarify or plant. Will accept red or white pine regeneration. Soil=Paquin-Finch Sands. ATFD</p> <p>Layout the road to these stands with snow free conditions; then evaluate the need to have a MNFI survey done for rare plants as found to the north.</p> <p>[10-1-07] Unmerchantable in current market conditions. Stand is an island in the marsh. It has been factored off the POW and factor limited in OI, comments updated and the merchantability code changed to 7</p>
4	42210 - Natural Red Pine	Sawtimber Well	5.6	82	81-110	<p>OPIC - FMD: Ridge in marsh - difficult access. Thin RP & WP, cut all other trees (except oak & hemlock if they occur). Prescribed burn to regenerate pine, or scarify or handplant. Will accept red or white pine regeneration. Soil=Rubicon-Croswell-Deford Complex. PVE</p> <p>Layout the road to these stands with snow free conditions; then evaluate the need to have a MNFI survey done for rare plants as found to the north.</p> <p>[10-1-07] Unmerchantable in current market conditions. Stand is an island in the marsh. It has been factored off the POW and factor limited in OI, comments updated and the merchantability code changed to 7</p> <p>[4-7-08] There is disagreement between specialists regarding which limiting factor to use and it has been changed from 4D to 2G</p>
7	42210 - Natural Red Pine	Poletimber Medium	1.9	83	81-110	<p>OPIC - FMD: Small island in marsh - difficult access. Higher ground with RP, lower ground with Tamarack & tall brush. Cut all trees except RP, WP, Oak & Hemlock. Prescribed burn to regenerate pine if possible; or scarify, or hand plant with inmates. Will accept red or white pine regeneration. Soil=Rubicon-Croswell-Deford Complex. PVE</p> <p>Layout the road to these stands with snow free conditions; then evaluate the need to have a MNFI survey done for rare plants as found to the north.</p>
8	42210 - Natural Red Pine	Sawtimber Medium	7.3	82	81-110	<p>OPIC - FMD: Ridge in marsh - difficult access. Thin RP & WP, cut all other trees (except oak & hemlock if they occur). Prescribed burn to regenerate pine, or scarify or handplant. Try to regenerate using prescribed burning; or scarify or plant. Will accept red or white pine regeneration. Soil=Rubicon-Croswell-Deford Complex. PVE</p> <p>Layout the road to these stands with snow free conditions; then evaluate the need to have a MNFI survey done for rare plants as found to the north.</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
9	6113 - Lowland Maple	Poletimber Poor	16.7	20	1-50	OPIC - FMD: Low flat area of trees connecting islands of pine in a marsh. Tall, thick brush. Some small areas of higher ground with pine occur within the stand. Will accept any combination of species already there as regeneration. Soil=Deford Muck. Layout the road to these stands with snow free conditions; then evaluate the need to have a MNFI survey done for rare plants as found to the north. [4-7-08] There is disagreement between specialists regarding which limiting factor to use and it has been changed from 4D to 2G
10	42210 - Natural Red Pine	Poletimber Well	5.7	83	51-80	OPIC - FMD: Island in marsh that extends into C011, S40; cut when treating other compartment. Difficult access. Thin Red & White Pine where needed, cut all other trees except hemlock & oak (if they occur). Higher ground with more pine, lower ground with more paper birch and aspen. Will accept red or white pine regeneration. Soil=Deford-AuGres-Rubicon Deep Water Table. PArV Layout the road to these stands with snow free conditions; then evaluate the need to have a MNFI survey done for rare plants as found to the north. [4-7-08] There is disagreement between specialists regarding which limiting factor to use and it has been changed from 4D to 2G
11	4130 - Aspen	Sapling Medium	49.8	25	1-50	OPIC - FMD: Part of sale #035-89, S.Creighton Complex. Mix of aspen and tamarack regen with some b. spruce and r.maple. Soil=Deford Muck and Deford-AuGres-Rubicon Deep Water Table Complex.
12	6139 - Mixed Lowland Forest	Poletimber Medium	23.8	54	1-50	OPIC - FMD: Cut around 1990 with stand 11. Residual spruce with aspen and tamarack regen. Soil=Deford Muck.
13	42210 - Natural Red Pine	Sawtimber Well	6.3	80	111-140	OPIC - FMD: Narrow ridge in large marsh - difficult access. 98=tamarack & b. spruce soil=Paquin-Finch Sands PArVAa
14	42290 - Natural Mixed Pine	Sapling Well	24.5	24	1-50	OPIC - FMD: Seed tree cut in apx 1989; sale #83-86. Ridges in a large marsh, with difficult access. Regeneration type and density varies; species includes: red pine, white pine, jack pine, aspen and b. spruce. Soil=Markey Mucky Peat on lower ground, and Rubicon-Croswell-Deford Complex on the higher ridges. 2015: lots of variability along the different fingers...Log to saplings.
18	6121 - Tamarack	Poletimber Well	11.3	73	81-110	OPIC - FMD: Island in large marsh, difficult access. Soil=Deford Muck
19	429 - Mixed Upland Conifers	Poletimber Well	11.4	25	51-80	OPIC - FMD: Seed tree cut in apx 1989; sale #83-86. Ridges in a large marsh, with difficult access. Regeneration type and density varies; species includes: red pine, white pine, jack pine, aspen and b. spruce. Soil=Markey Mucky Peat on lower ground, and Rubicon-Croswell-Deford Complex on the higher ridges.
20	42110 - Planted Red Pine	Poletimber Well	17.9	20	1-50	OPIC - FMD: Planted in 91 and 95 with FTP C41-488. A few residual red & white pine. Some natural regen - b.spruce, w.pine, aspen. Soil=Rubicon Sand



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	6121 - Tamarack	Sapling Well	15.9	25	1-50	OPIC - FMD: Cut in 1989, sale #83-86. Regeneration is mainly aspen, with red maple, paper birch, b. spruce & tamarack. The access road in the center of the ridge was planted with red pine; now apx. 10' tall. Soil=Proper Fine Sand
22	42220 - Natural Jack Pine	Poletimber Medium	5.9	25	1-50	
23	42210 - Natural Red Pine	Sawtimber Well	32.8	143	81-110	<p>OPIC - FMD: [7/7/04] Cut this stand along with the adjacent red pine stand in section 16 (Cmp 012, stand #120 on the YOE 2006 inventory). Shelterwood - remove poor quality Red & White Pine, and remove all other trees (except oak, hemlock & cedar if present). Scarify for natural regeneration. Will accept red or white pine for regeneration.</p> <p>[11-20-06] KM Only a portion of this stand was cut. The rest of this stand is now stand 77.</p> <p>[4-22-07 JS] The reason for this is a large portion of the stand contained low ground (cedar) that was of marginal quality. There were scattered pine islands, but not worth going after at this time.</p> <p>[9-18-07] This stand is now under contract TS# 41-004-07-01 Hartman Pine. See also FTP# C41-1320 (scarification for natural red pine regeneration.) Residual BA - Red pine = 12; white pine = 21; total = 33 sq.ft./acre.</p> <p>[6-17-10] JS: Sale has been returned uncut because the adjacent owner will no longer allow access. FTP#C41-1320 is being cancelled.</p> <p>[11/03/2011 JB] FTP C41-1320 is cancelled as part of 2012 Compartment Review. Create new FTP if sale is prepped again and/or sold.</p>
24	42200 - Natural White Pine	Sawtimber Medium	43.3	89	1-50	OPIC - FMD: Cut in 2001-2002. Scattered WP, with some Hemlock & RP. Mixed regeneration: WP, B.Fir, B.Spruce, R.Maple, Aspen, Hemlock. Deford-AuGres-Rubicon Deep Water Table Complex. PArV
26	42210 - Natural Red Pine	Sawtimber Well	51.7	73	51-80	<p>OPIC - FMD: Thinned in 1990; now all ages/sizes of Red & White Pine. 98=B.Spruce & JP Duck-Crowell soils. PArVAa</p> <p>North half (north of 2 track) is very heavy with maple and aspen regeneration. What is the Desired future condition?? More mixed conifer to north.</p> <p>South 1/2 Clear cut, herbicide, trench and plant to red pine</p>
27	4130 - Aspen	Poletimber Well	42.6	24	Immature	<p>OPIC - FMD: Aspen with B.Fir & B.Spruce mixed in. Some low/wet areas. Deford-AuGres-Rubicon Deep Water Table Complex. PArV</p> <p>South tip is flooded with some larger residual poles. Stand edge does wander in and out of the adjacent stands.</p>
28	4130 - Aspen	Sapling Medium	50.4	24	Immature	<p>OPIC - FMD: Aspen regen is variable - areas of A3 & A2. Some B.Spruce & B.Fir regeneration. A few residual RP & WP. Deford-AuGres-Rubicon Deep Water Table Complex. PArV</p> <p>2015: previous comment still apply. Stand was multiple stands originally but harvested all at the same time.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	26.6	20	1-50	<p>OPIC - FMD: Burned and planted to Red Pine in 1995. Some low/wet areas within the stand. Natural R.Maple, B.Spruce and Aspen regeneration throughout. Deford-AuGres-Rubicon Deep Water Table Complex. PArV</p> <p>2015: Stand is difficult to delineate out from the photos, its a patchwork of red pine plantation and aspen with a few other random species mixed in.</p>
30	42210 - Natural Red Pine	Sawtimber Well	7.9	80	81-110	<p>OPIC - FMD: Previously thinned - mix of RP & WP. Mixed regeneration=WP, B. Spruce and B. Fir. Deford-AuGres-Rubicon Deep Water Table Complex. PArV</p> <p>Thinned in early 1990's, Most Pine is beyond desirable merchantability. Stand is surrounded by aspen and will likely convert to aspen if harvested.</p>
31	6112 - Lowland Aspen	Sapling Well	33.0	23	1-50	<p>OPIC - FMD: Aspen with some B.Fir, B.Spruce, RP and P.Birch. Some areas of low/wet ground. Deford-AuGres-Rubicon Deep Water Table Complex. PArV2015: In southern portion of stand is a small red pine ridge. South 1/2 seems to be more mixed with the fir and maple. Slight topo changes everywhere lows are filled with water.</p>
32	42210 - Natural Red Pine	Sawtimber Medium	46.1	70	51-80	<p>OPIC - FMD: Some areas of lower ground with aspen and red maple. Thin red & white pine, cut all other trees. Will accept red or white pine for regeneration. Duck-Crowell Soil. PArVAa [8/17/07] Stand is now under contract TS # 41-010-07-01 Creighton Camp Pine. Residual BA: red pine = 36, white pine = 3, others = 1; total residual BA = 40 sq.ft./acre. [12-03-09] Sale is completed TCR dtd 12-01-09.</p> <p>2015: natural regeneration is not working.</p>
34	429 - Mixed Upland Conifers	Sawtimber Medium	8.2	84	81-110	<p>OPIC - FMD: Ridge with mixed pine. Thinned in 1990. Deford-AuGres-Rubicon Deep Water Table Complex. PArV</p> <p>West 1/2 is more lowland with timber type changing to tamarack and fir.</p>
35	4130 - Aspen	Sapling Poor	32.3	6	Immature	<p>OPIC - FMD: SCA-Wood Turtles. No logging operations May through August in the east part of the stand because of wood turtle nesting time. Follow BMP guidelines where stand is close to the river. Variable BA: some areas are J5. Cut all trees except red & white pine (may cut some) and oak. Regenerate to Jack Pine. Duck-Crowell Soils. PArVAa [8/17/07] Stand is now under contract TS # 41-010-07-01 Creighton Camp Pine. Residual BA: red pine = 14, white pine = 4, others = 3; total residual BA = 21 sq.ft./acre. [12-03-09] Sale is completed TCR dtd 12-01-09. See FTP C41-1326.</p> <p>[10-19-10 JB] Sale was scarified. Needs 2013 regen. Check . (14 count results are 290T/A, need to be trenched and planted.</p>
36	42220 - Natural Jack Pine	Poletimber Medium	2.1	25	1-50	<p>OPIC - FMD: Small area naturally regenerating to JP, after being cut in 1990. Deford-AuGres-Rubicon Deep Water Table Complex. PArV</p> <p>Mix of trees predominately jack pine, naturally regenerating with various other species.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	42210 - Natural Red Pine	Sawtimber Well	28.1	70	81-110	OPIC - FMD: Must cross a creek without a bridge to get here. Many RP 1-4"DBH.
39	429 - Mixed Upland Conifers	Poletimber Medium	84.8	54	51-80	OPIC - FMD: W.Spruce planted in 1961 - many trees are not yet merchantable. BA is variable, with small grass openings throughout. Naturally growing Aspen and Jack Pine throughout the stand. Next to the S. Creighton Truck Trail.3/5/13 bb Stand was scheduled at the 2014 Compartment Review due to recommendations received from Bob Heyd due to forest health reasons (spruce bud worm). The white spruce is in very poor shape and is actually off-site, convert to jack pine. Stand is on proposal 41-014-13, "Super Duper Sale" Units 7 and 8. Red pine was reserved and there are iver buffers as well for retention also a piece of jack pine on road. FTP C41-1550 is also submitted for Jack Pine Regeneration, site will need to be planted.
40	4133 - Aspen, Mixed Pine	Poletimber Medium	5.8	57	1-50	OPIC - FMD: Cut when harvesting adjacent stand 37.Aspen is falling out and converting to mixed conifer.
42	42120 - Planted Jack Pine	Poletimber Well	0.8	56	81-110	
44	6112 - Lowland Aspen	Sapling Well	2.3	25	Immature	OPIC - FMD: Next to the S.Creighton Truck Trail. Deford-AuSable-Tawas Mucks, frequently flooded.
45	4130 - Aspen	Sapling Well	3.2	6	1-50	OPIC - FMD: Lower ground between RP ridges. Regenerate to Aspen. TSI if necessary. 98=JP & RP Deford-AuGres-Rubicon Deep Water Table Complex. PARV [8/17/07] Stand is now under contract TS # 41-010-07-01 Creighton Camp Pine. Residual BA: red pine = 5, white pine = 1, others = 5; total residual BA = 11 sq.ft./acre. [12-03-09] Sale is completed TCR dtd 12-01-09. See FTP W41-1327. [5/12/2011] FTP# W41-1327 cancelled at 2011 review and approved by area biologist and unit manager. Natural Regen Survey done Summer 2015 = Passed.
46	42220 - Natural Jack Pine	Poletimber Well	19.2	66	51-80	OPIC - FMD: Next to the S.Creighton Truck Trail. Duck-Crowell soils. PARVAa
47	4130 - Aspen	Sapling Well	4.4	6	Immature	OPIC - FMD: Slightly lower ground, wet in the spring. Regenerate to Aspen. TSI if necessary. Duck-Crowell soils. PARVAa [8/17/07] Stand is now under contract TS # 41-010-07-01 Creighton Camp Pine. Residual BA: red pine = 5, white pine = 1, others = 5; total residual BA = 11 sq.ft./acre. [12-03-09] Sale is completed TCR dtd 12-01-09. See FTP W41-1327. [5/12/2011] FTP# W41-1327 cancelled at 2011 review and approved by area biologist and unit manager. Natural Regen survey done Summer 2015 = Passed.
49	4112 - Maple, Beech, Cherry Association	Poletimber Medium	3.5	63	1-50	OPIC - FMD: Low, wet ground. Deford-AuGres-Rubicon Deep Water Table Complex. PARV 2015: Cut in 2002.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	42350 - Upland Hemlock	Sawtimber Well	5.7	85	111-140	OPIC - FMD: A small hemlock stand that was reserved when the surrounding stand was cut in 2002. Deford-AuGres-Rubicon Deep Water Table Complex. PARV
51	42210 - Natural Red Pine	Sawtimber Well	11.2	65	81-110	OPIC - FMD: Duck-Crowell soils. PARVa
52	4112 - Maple, Beech, Cherry Association	Sawtimber Well	7.3	55	51-80	OPIC - FMD: Along the Creighton River. Scattered Cherry trees, with other trees naturally regenerating an old grass stand. (JP, WP, RP, b.fir, spruce, maple, aspen)Most of this stand will be river buffer if ever harvested...
61	42290 - Natural Mixed Pine	Sawtimber Medium	2.4	80	51-80	
67	4136 - Aspen, Mixed Conifer	Poletimber Well	3.9	26	1-50	OPIC - FMD: Cut with sale #083-86. Mainly aspen with red maple, cherry and some conifers (tamarack, spruce and pine). Lower ground with tall, dense shrubs, higher ground with smaller shrubs. Soil=Rubicon-Croswell-Deford Complex PVE
68	4319 - Mixed Upland Forest	Sapling Well	9.8	26	1-50	OPIC - FMD: Part of sale #083-86. Mainly aspen with red maple, cherry and some conifers (tamarack, spruce and pine). Lower ground with tall, dense shrubs, higher ground with smaller shrubs. Soil=Rubicon-Croswell-Deford Complex PVE
70	42210 - Natural Red Pine	Sawtimber Well	1.4	80	81-110	OPIC - FMD: Small island in marsh - difficult access. soil=Markey Mucky Peat
71	6113 - Lowland Maple	Sawtimber Well	2.7	80	81-110	OPIC - FMD: Previously cut with stand 17 in C011. Mainly aspen with red maple, cherry, tamarack, spruce and pine. Soil=Deford Muck Majority of this stand appears to be uncut...
76	42290 - Natural Mixed Pine	Sawtimber Poor	11.1	145	1-50	OPIC - FMD: Large low, wet area with tall brush. Soil=Deford Muck and Markey Mucky Peat
78	6121 - Tamarack	Poletimber Well	43.6	81	81-110	OPIC - FMD: Low, wet area with tall brush. Deford Muck soil.
88	4112 - Maple, Beech, Cherry Association	Sawtimber Well	4.1	55	81-110	OPIC - FMD: Along the Creighton River. Scattered Cherry trees, with other trees naturally regenerating an old grass stand. (JP, WP, RP, b.fir, spruce, maple, aspen)



Stand	Cover Type	Acres	Managed Site	General Comments:
5	6299 - Lowland Shrub (OI)	1.2	No	OPIC - FMD: Low, wet area with tall brush. Deford Muck soil.
6	622 - Lowland Shrub	2.6	No	Looks to be a flooded area from the photo.
16	500 - Water	0.5	No	
17	6299 - Lowland Shrub (OI)	6.7	No	OPIC - FMD: Large low, wet area with tall brush. Soil=Deford Muck and Markey Mucky Peat
41	6299 - Lowland Shrub (OI)	18.2	No	OPIC - FMD: Low, brushy area with a creek flowing through. Deford-AuSable-Tawas Mucks, frequently flooded.
43	6229 - Mixed lowland shrub	2.9	No	OPIC - FMD: Low, brushy area with a creek flowing through. Deford-AuSable-Tawas Mucks, frequently flooded. Alder willow with scattered trees.
56	510- Water (OI)	5.5	No	OPIC - FMD: pond in marsh
57	510- Water (OI)	4.5	No	OPIC - FMD: pond in marsh
58	510- Water (OI)	6.6	No	OPIC - FMD: pond in marsh
59	510- Water (OI)	17.2	No	OPIC - FMD: pond in marsh
60	6229 - Mixed lowland shrub	1.4	No	OPIC - FMD: [7/7/04] Cut this stand along with the adjacent red pine stand in section 16 (Cmp 012, stand #120 on the YOE 2006 inventory). Shelterwood - remove poor quality Red & White Pine, and remove all other trees (except oak, hemlock & cedar if present). Scarify for natural regeneration. Will accept red or white pine for regeneration. [11-20-06] KM Only a portion of this stand was cut. The rest of this stand is now stand 77. [4-22-07 JS] The reason for this is a large portion of the stand contained low ground (cedar) that was of marginal quality. There were scattered pine islands, but not worth going after at this time. [9-18-07] This stand is now under contract TS# 41-004-07-01 Hartman Pine. See also FTP# C41-1320 (scarification for natural red pine regeneration.) Residual BA - Red pine = 12; white pine = 21; total = 33 sq.ft./acre. [6-17-10] JS: Sale has been returned uncut because the adjacent owner will no longer allow access. FTP#C41-1320 is being cancelled. [11/03/2011 JB] FTP C41-1320 is cancelled as part of 2012 Compartment Review. Create new FTP if sale is prepped again and/or sold.
62	6299 - Lowland Shrub (OI)	0.9	No	OPIC - FMD: Large low, wet area with tall brush. Soil=Deford Muck and Markey Mucky Peat
63	510- Water (OI)	14.3	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
64	500 - Water	24.7	No	
65	510- Water (OI)	6.8	No	OPIC - FMD: pond in marsh
66	510- Water (OI)	11.9	No	OPIC - FMD: pond in marsh
69	510- Water (OI)	4.2	No	OPIC - FMD: Along the banks of the Creighton River. Scattered trees throughout (RP, WP, JP, & Cherry).
72	6239 - Mixed Emergent Wetland	707.7	No	OPIC - FMD: Large low, wet area with tall brush. Soil=Deford Muck and Markey Mucky Peat Scattered trees and shrubs throughout.
73	122 - Road/Parking Lot	8.6	No	OPIC - FMD: S. Creighton Truck Trail R-O-W.
74	622 - Lowland Shrub	32.4	No	Scattered tag alder.
75	622 - Lowland Shrub	0.6	No	OPIC - FMD: Large low, wet area with tall brush. Soil=Deford Muck and Markey Mucky Peat
77	6229 - Mixed lowland shrub	33.7	No	OPIC - FMD: Large low, wet area with tall brush. Soil=Deford Muck and Markey Mucky Peat
79	622 - Lowland Shrub	5.3	No	OPIC - FMD: Large low, wet area with tall brush. Soil=Deford Muck and Markey Mucky Peat
80	3102 - Grass	0.1	No	OPIC - FMD: Along the banks of the Creighton River. Scattered trees throughout (RP, WP, JP, & Cherry).
81	622 - Lowland Shrub	1.6	No	OPIC - FMD: Large low, wet area with tall brush. Soil=Deford Muck and Markey Mucky Peat
100	3102 - Grass	1.0	No	OPIC - FMD: Along the banks of the Creighton River. Scattered trees throughout (RP, WP, JP, & Cherry). Soil=Deford-AuSable-Tawas Mucks
401	3102 - Grass	16.5	No	OPIC - FMD: Along the banks of the Creighton River. Scattered trees throughout (RP, WP, JP, & Cherry). Soil=Deford-AuSable-Tawas Mucks Majority of stand would be considered river buffer
402	3102 - Grass	1.2	No	OPIC - FMD: Along the banks of the Creighton River. Scattered trees throughout (RP, WP, JP, & Cherry).