

Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41138
Entry Year 2020
Acreage: 1,639
County Alger

Management Area: Danaher Kingston Outwash

Revision Date: 2018-07-19

Stand Examiner: Bob Burnham

Legal Description:

T48N R15W Sections 3, 10, 11, 14, 15

Identified Planning Goals:

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

Soil and topography:

The topography in this compartment is level with upland timber types. There are a couple low areas that have seasonal or low level water tables ponds in the south east area. The main soil type found in the compartment is the Rubicon Sand. The LTA's for this compartment is the Kingston Outwash.

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

Ownership around the compartment is mainly State lands and private industry lands to the east.

Unique Natural Features:

Michigan Natural Features Inventory (MNFI) has some listings of species that have the potential to be within the compartment.

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

Sharptail have been managed heavily in this compartment.

Watershed and Fisheries Considerations:

Fisheries Values: None (unknown)

Various shallow and seasonal ponds located in this compartment, but fisheries values are unknown. Fisheries Division has no concerns at this time.

Wildlife Habitat Considerations:

Most of this compartment is located within the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection on the Kingston Plains. Prior to European settlement, white pine and hemlock forest dominated this landscape along with northern hardwood species. A hot slash in the early 1900's consumed most of the organic content of the soils in this area, and reforestation has been slow with openland stumpfields dominating the landscape. This area has been managed as a large opening given these characteristics. Forested portions of the compartment are primarily pine or pine mixes.

Wildlife objectives include maintaining the open characteristic over much of this compartment and maintaining the birch component in the northwest part of the compartment north of the large opening. Recent management activities resulted in maintenance of the open land, providing habitat for sandhill crane, sharp-tailed grouse, bluebirds, meadowlarks, and other grassland species. Existing birch and maple bordering the grassy opening on the north can be retained at present, but may require evaluation for a harvest in five to ten years if the condition of the birch deteriorates.

Mineral Resource and Development Concerns and/or Restrictions

Sand/gravel pits are not located in this area, but there may be some sand & gravel potential within the compartment. There is no known metallic mineral potential in this area, and there is no history of mineral leasing or exploration. There is no commercial oil and gas production in the UP.

Vehicle Access:

Access is good. County Road 637 (Adams Truck Trail) and the Baker Grade allow for travel easily through the compartment.

Survey Needs:

Interior 1/16th corners will be needed in Sections 11 and 14.

Recreational Facilities and Opportunities:

Fox River Pathway follows the west edge and enters into the compartment near Ewalt Lake. The Adams Trail is a snowmobile trail.

Fire Protection:

Fire response to the area will be extended due the distance traveled from either of the offices. The majority of the area is open grass that has a history of prescribed burns. There are pockets of pine and hardwood in the area.

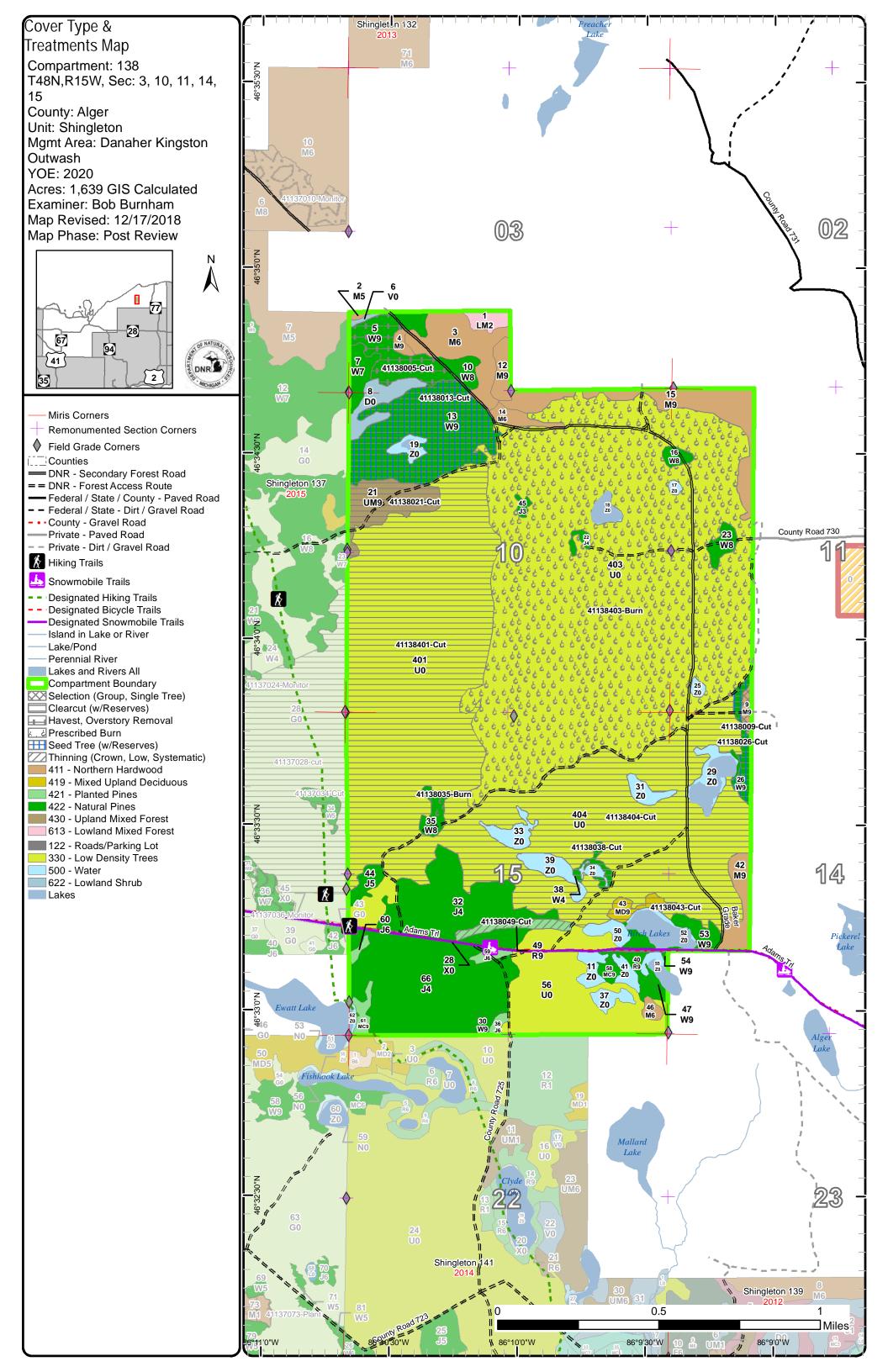
Additional Compartment Information:

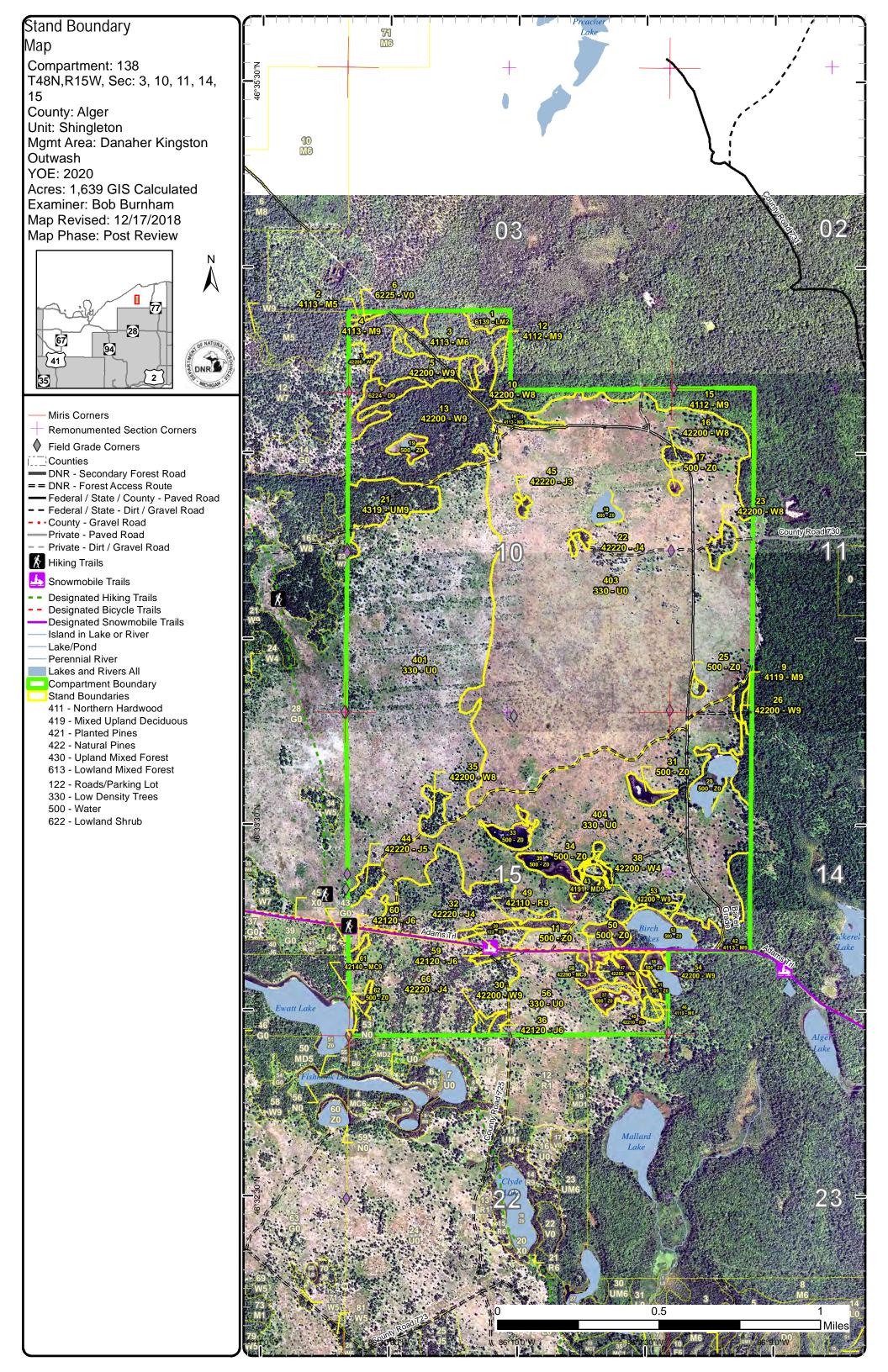
The following reports from the Inventory are attached:

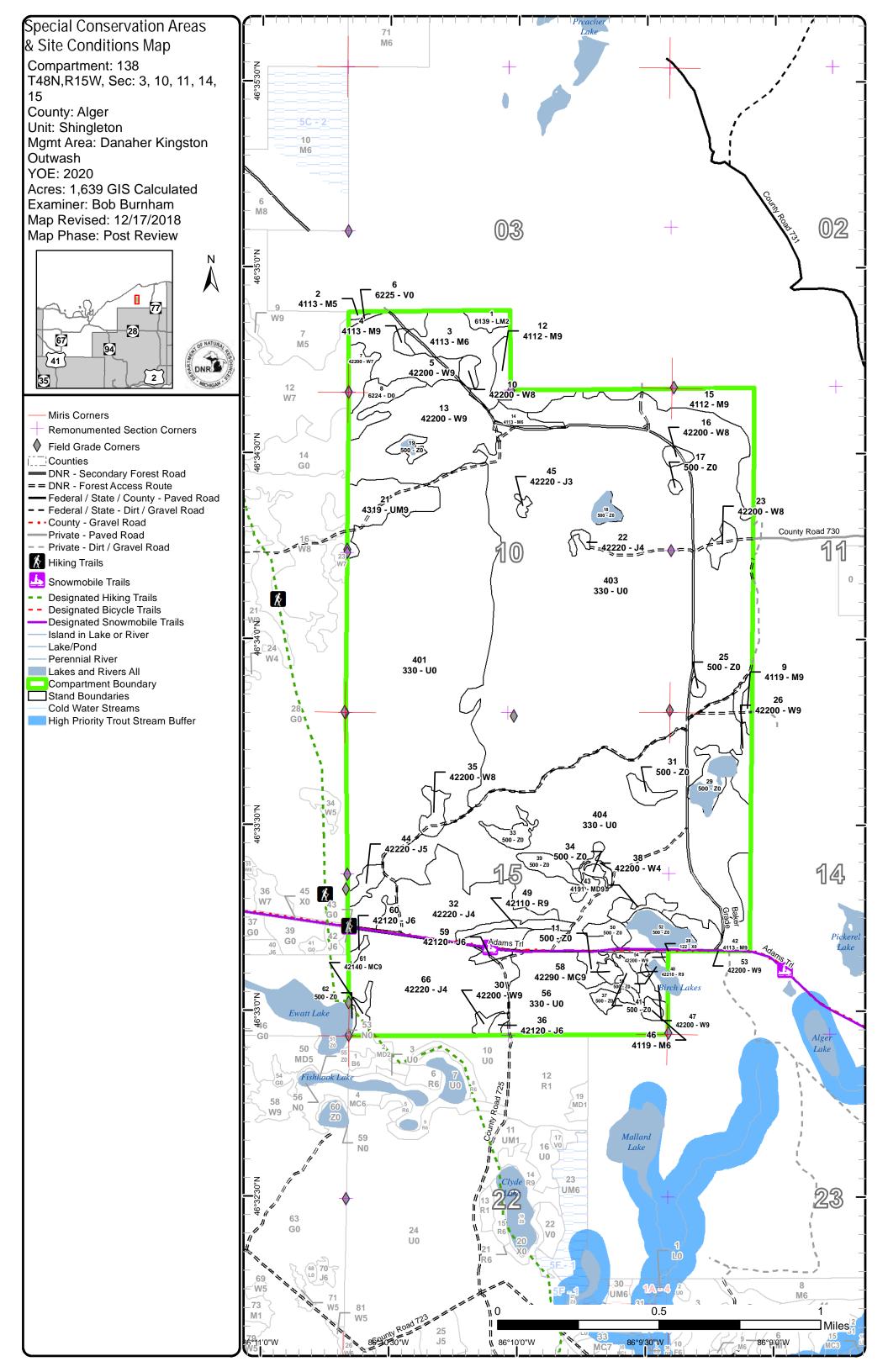
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







Report 1 – Total Acres by Cover Type and Age Class

Shingleton Mgt. Unit

Bob Burnham: Examiner

Compartment 138 Year of Entry 2020



Age Class

	No.	A STATE OF THE STA	2 / S	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\$5.0°	8 / 8	Sp. 20.	, , , , ,		,	80,00	\$ /6/	70,7	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	OK.	g Jue	OS A LOS
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Jack Pine	0	0	1	82	58	2	0	5	0	0	0	0	0	0	0	0	0	0	148
Low-Density Trees	1128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1128
Lowland Mixed Forest	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Mixed Upland Deciduous	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Natural Mixed Pines	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Northern Hardwood	0	0	0	0	0	0	0	2	45	0	0	0	0	0	0	0	0	42	89
Planted Mixed Pines	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Red Pine	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11
Treed Bog	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Upland Mixed Forest	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	21
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Water	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68
White Pine	0	0	0	0	0	0	15	5	11	35	0	0	0	0	0	0	0	75	141
Total	1212	0	6	82	58	2	21	50	56	35	0	0	0	0	0	0	0	117	1638



Report 2 – Treatment Summary

Shingleton Mgt. Unit Year of Entry: 2020

Acres of Harvest

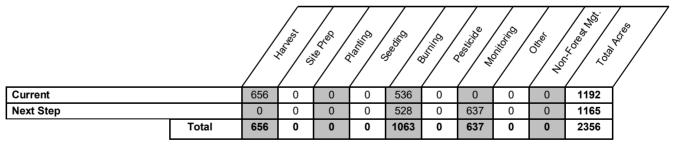
Compartment 138
Total Compartment Acres: 1,639

Commercial Harvest - 656 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method

	-	• •										
Low-Density Trees		524	0	0	0	0	0	0	0	0	524	
Mixed Upland Deciduous		6	0	0	0	0	0	0	0	0	6	
Northern Hardwood		0	3	0	0	0	0	0	0	0	3	
Red Pine		0	0	0	0	0	6	0	0	0	6	
Upland Mixed Forest		21	0	0	0	0	0	0	0	0	21	
White Pine		3	0	0	72	0	0	21	0	0	96	
	Total	555	3	0	72	0	6	21	0	0	656	

Proposed and Next Step Treatments by Method



Other Comment:

Habitat Cut: No Site Condition:

Remove overstory to release advanced understory. In areas that are heavy to mature pine without advanced regen leave approximately 20' of Prescription

residual concentrating on leaving oversized white pine. Specs:

Next Step **Treatments:**

Acceptable Most of the stand has a thick maple understory white pine mixed throughout. The current species mix is acceptable.

Regen:

Other Cut only west of the Baker Grade this entry period. The northern portion has some lower ground. Do not cut hemlock or oak.

Comment:

Proposed Start Date: 10/1 /2019

41138009-Cut 4119 - Mixed 411 - Northern Draft Field Sawtimber 111-Harvest Single Tree Uneven-Northern Hardwoods Well 140 Selection Hardwood Aged Boundary

Habitat Cut: No

Prescription Mark to 80 BA concentrate on discriminating against beech by marking all sub-merchantable beech and having producer cut them due to small

acreage. Make regen holes as necessary. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of current species

Regen:

Other There is a wet area in center of stand. No cut hemlock or oak if found.

Comment:

Proposed Start Date: 10/1 /2019

Treatments:

<u>Acceptable</u> White pine with a mix of maple, fir and spruce.

Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

35 41138035-5.5 42200 - Natural Sawtimber 55 1-50 Burn Opening 310 -Draft Field Herbaceous White Pine Medium Boundary Burn Openland

Habitat Cut: No Site Condition:

Prescription Opening maintenance burn

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Grass

Regen: **Other**

Comment:

Proposed Start Date: 10/1 /2019

Next Step Treatments:

Acceptable

Regen:

Other Do not cut hemlock and oak if found.

Comment:

Proposed Start Date: 10/1 /2019

401 41138401-Cut 330 - Low-Density 310 -Draft Field 282 6 Nonstocked Unspec Harvest Clearcut Herbaceous **Trees** ified Boundary Openland

Site Condition:

Prescription Clearcut all merchantable trees except hemlock and oak before stand is burned.

Specs:

Next Step Burn, Opening

Treatments:

Acceptable Grass

Habitat Cut: No

Regen:

After harvest the stand will be burned and ponds will not be buffered with the burn therefore harvest all trees.

Other Comment:

Proposed Start Date: 10/1 /2019

Shingleton Mgt. Unit Report 3 -- Treatments Compartment: 138 s Year of Entry: 2020 t а ВА **Treatment Cover Type Treatment** Acres Stand Size Stand **Treatment** Age **Approval** n Density Name Age Method Objective Structure Status CoverType Range Type d 403 41138403-530.2 330 - Low-Density Nonstocked Unspec Burn 310 -Draft Field Opening ified Herbaceous Boundary Burn Trees Openland **Habitat Cut: No Site Condition:** Prescription Opening has been burned in past and is ready for another burn. Ponds will not be buffered. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Grass Regen: <u>Other</u> Comment: Proposed Start Date: 10/1 /2019 241.7 330 - Low-Density 310 -Draft Field 404 41138404-Cut Nonstocked Unspec Harvest Clearcut

ified

Herbaceous

Openland

Boundary

Habitat Cut: No Site Condition:

Prescription Clearcut all merchantable trees except hemlock and oak...

Specs:

Next Step Burn, Opening

Treatments:

Acceptable Grass

Regen:

Other After harvest the stand will be burned and ponds will not be buffered with the burn therefore harvest all trees.

Comment:

Proposed Start Date: 10/1 /2019

Total Treatment 1359.3 Acreage Proposed:

Mgt. Unit

Compartment: #Type! Year of Entry:



Report 5 - PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Shingleton Mgt. Unit Compartment: 138
Year of Entry 2020



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	n Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosys influences the aquatic ecosystem and vice-versa. Becaus streams and open water wetlands, riparian areas harbor communities are ecologically and socially significant in thas aesthetics, habitat, bank stability, timber production, a	se of the unique conditions adjacent to lakes, a high diversity of plants and wildlife. Riparian eir effects on water quality and quantity, as well

S t	Shingleton	Mgt. Unit		Report 7	– Forested	Stands Compartment: 138 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6139 - Mixed Lowland Forest	Sapling Medium	4.8	16	Immature	Stand was harvested in 2002 in which the white pine was reserved creating a 2 aged stand. The stand is low but regeneration is pretty good considering, canopy closure will likely increase in the future.
2	4113 - R.Maple, Conifer	Poletimber Medium	0.8	78	81-110	Sale was cut around 2006 with the adjacent compartment and will be managed with the adjacent stand in the future.
3	4113 - R.Maple, Conifer	Poletimber Well	25.5	74	81-110	Stand was cut around 1980 as an improvement cut. The red maple is low quality and could be harvested now but recommend waiting one more entry to allow the younger growth to gain merchantability. The north end dips into lower ground and their is an old opening on the south that is filling in to trees.
4	4113 - R.Maple, Conifer	Sawtimber Well	2.1	78	51-80	Stand was harvested in 2002 with stand 5 but this stand was thinned. The red maple is not very good quality, the stand should be managed with stand 5.
5	42200 - Natural White Pine	Sawtimber Well	26.5	82	81-110	Stand was harvested in 2002 in which all the hardwoods were removed. The white pine occurs in pocket where it is heaviest. The north end dips into some lower ground and is where the black spruce occurs. [5/15/11 JB] FTP W41-1221 can be closed. Hemlock was planted instead of oak as approved by Kevin Swanson.
7	42200 - Natural White Pine	Sawtimber Poor	7.6	72	1-50	Stand appears to be an old opening that is filling in over time.
9	4119 - Mixed Northern Hardwoods	Sawtimber Well	2.6	82	111-140	Thinned by corrections in 2002. Stand has a wet area in the center. Could be cut again if adjacent stand is ready.
10	42200 - Natural White Pine	Sawtimber Medium	3.3	78	1-50	Stand was cut in 2002 resulting in a 2 aged stand. The regen is quite thick and the top could be removed but consider holding stand due to take advantage of harvest in stand 3 which will take place next entry.
12	4112 - Maple, Beech, Cherry Association	Sawtimber Well	6.2	82	81-110	Stand was cut by inmates in early 2000's and then inmates underplanted white pine in 2006. Not quite ready for harvest at this time wait 10 years.
13	42200 - Natural White Pine	Sawtimber Well	63.7	74	81-110	This stand is essentially 3 aged with many pine that have grown out of class. There are many areas that the pine BA is very high. There is a steep hillside on the south end of the stand. There are some low areas within the stand that will need to be protected if harvested.
14	4113 - R.Maple, Conifer	Poletimber Well	4.9	72	51-80	Stand contains the original Baker Grade and is a bit of a hodge-podge
15	4112 - Maple, Beech, Cherry Association	Sawtimber Well	32.8	80	51-80	Beech within stand is in poor shape due to BBD and there is heavy beech regen throughout. The stand is ready for a thinning but the beech brush will be an issue and the stand could easily hold. The south tail has white pine throughout.

s t	Shingleton	Mgt. Unit		Report 7	– Forested	Stands Compartment: 138 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	42200 - Natural White Pine	Sawtimber Medium	2.9	62	1-50	Scattered pine within opening complex.
21	4319 - Mixed Upland Forest	Sawtimber Well	21.4	65	51-80	Stand should be cut because the birch is falling apart, harvesting now would encourage aspen sprouting. Consider leaving most of white pine since this is the long term cover type.
22	42220 - Natural Jack Pine	Poletimber Poor	1.8	46	51-80	West side is a bit younger. The entire stand has likely burned with adjacent opening and therefore full of char. Stand is used by dispersed campers.
23	42200 - Natural White Pine	Sawtimber Medium	4.7	50	1-50	Very scattered white pine which have char from previous prescribed burns.
26	42200 - Natural White Pine	Sawtimber Well	8.6	86	111-140	Stand has some low areas within it.
30	42200 - Natural White Pine	Sawtimber Well	2.2	50	51-80	
32	42220 - Natural Jack Pine	Poletimber Poor	52.8	31	1-50	Stand originally consisted of jack pine strips which were planted in 1954 as part of the Kingston Project. The strips were cut in mainly in 1987 and then the remainder in 2002 to manage for a larger G type. There were also scattered trees within the stand that were not cut. The stand was supposed to be burned in 2003 but the burn was dropped. I suggest leaving the stand as is until it becomes more merchantable to harvest.
35	42200 - Natural White Pine	Sawtimber Medium	5.5	55	1-50	Stand was mostly burned from a wildfire on 7/8/2018, Birch Lakes Fire. The stand was dropped from a burn prescription in 2003 because of concern voiced by a member of the public. Letter in OI file.
36	42120 - Planted Jack Pine	Poletimber Well	1.6	65	81-110	Stand is a strip which was planted in early 50's in the original wildlife portion of the Kingston Project. Jack pine is now mature and should be harvested.
38	42200 - Natural White Pine	Poletimber Poor	3.3	52	1-50	Natural pine stand surrounding Birch Lakes, many of the trees are dying because the water has risen recently.
40	42210 - Natural Red Pine	Sawtimber Well	5.0	64	141-170	Harvesting stand will depend on the type of buffers required.
42	4113 - R.Maple, Conifer	Sawtimber Well	11.3	74	81-110	Stand was thinned by corrections in 2002 and white pine was subsequently planted. Stand is very low quality. The original Baker Grade runs through the south east. Wait one more decade then harvest stand.
43	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	5.5	54	81-110	Paper birch is falling apart, stand needs to be harvested.
44	42220 - Natural Jack Pine	Poletimber Medium	4.8	31	1-50	Stand originated from an old Jack Pine strip that was cut in 1987. The stand was originally harvested with the intention of keeping the area in grass.

S t	Shingleton	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 138 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	42220 - Natural Jack Pine	Sapling Well	1.3	15	1-50	Stand was burned in 1985 and 2003. The jack pine stimulated in the 2003 burn resulting in this pocket.
46	4119 - Mixed Northern Hardwoods	Poletimber Well	2.1	66	81-110	Small stand mostly on a hill with low quality trees. If adjacent stands to the north are cut then this stand should be harvested. Small pond on the north east.
47	42200 - Natural White Pine	Sawtimber Well	2.0	66	81-110	Trees could be cut but there won't be much to harvest once all the water is protected.
49	42110 - Planted Red Pine	Sawtimber Well	6.0	64	141-170	Stand was kept as a visual break when the remaining strips were cut in the past 2 decades. Stand could use a thinning while still providing the visual break as well as wind break for the county road.
53	42200 - Natural White Pine	Sawtimber Well	10.9	54	51-80	Stand has some mature trees in it that would benefit from a harvest especially the birch. There is an old grade in the southeast that at first glance appears to be 2 drainages due to the high water.
54	42200 - Natural White Pine	Sawtimber Well	0.3	62	81-110	
58	42290 - Natural Mixed Pine	Sawtimber Well	2.4	62	51-80	Island between Birch Lakes.
59	42120 - Planted Jack Pine	Poletimber Well	2.2	65	81-110	Stand is a planted strip and stems from the Kingston Project. Jack pine is mature and starting to break up.
60	42120 - Planted Jack Pine	Poletimber Well	1.3	65	81-110	Stand is a strip planted in the wildlife portion of the Kingston Project. Stand is mature and falling apart. Stand has an old plow line in it so it likely has burned in the past.
61	42140 - Planted Mixed Pine	Sawtimber Well	3.7	65	111-140	Stand is a strip that was planted as part of the Kingston Project. Stand is used extensively by dispersed campers since it borders Ewalt Lake and the Fox River Pathway runs through it. The stand has several old plow lines in it and char is evident on the trees.
66	42220 - Natural Jack Pine	Poletimber Poor	82.4	26	1-50	Stand is a combination of grass and naturally regenerating strips of jack pine. The original strips were cut in 1992 and are regenerating naturally quite well. The original intent was to manage the entire stand as opening but in the absence of management it wants to be treed. Let the stand grow one more entry and the trees will all be merchantable.

Compartment: 138 Year of Entry: 2020



Stand	Cover Type	Acres	Managed Site	General Comments:
6	6225 - Bog	1.0	No	
8	6224 - Treed Bog	10.5	No	
11	500 - Water	4.3	No	
17	500 - Water	0.9	No	
18	500 - Water	3.6	No	Greg's Pond
19	500 - Water	3.8	No	
25	500 - Water	1.4	No	
28	122 - Road/Parking Lot	4.2	No	ADAMS TRAIL RIGHT-OF-WAY.
29	500 - Water	10.7	No	
31	500 - Water	4.2	No	
33	500 - Water	5.7	No	
34	500 - Water	1.8	No	
37	500 - Water	3.7	No	
39	500 - Water	7.1	No	Birch Lakes
41	500 - Water	3.0	No	
50	500 - Water	4.3	No	Part of Birch Lakes
52	500 - Water	8.9	No	Part of Birch Lakes
55	500 - Water	3.3	No	Part of Birch Lakes

Compartment: 138 Year of Entry: 2020



Stand	Cover Type	Acres	Managed Site	General Comments:
56	330 - Low-Density Trees	54.1	No	This stand had several red pine strips that were harvested in 2002. Some inmate planting occurred and some natural regeneration also occurred but its not a practical way to manage red pine and the numbers are just over 200 trees per acre at best in the strips. Manage as larger stand. Small pond in center of stand.
62	500 - Water	1.2	No	Ewalt Lake
401	330 - Low-Density Trees	282.6	No	This stand has not been burned and trees are filling in. If burned it will take more work than the adjacent stands due to all the pine stumps that are intact.
403	330 - Low-Density Trees	530.2	No	GRASS OPENING MAINTANED FOR WILDLIFE. BURNED IN 1985 FTP#W41-280 and burned again in 2003 under FTP W41-989.
404	330 - Low-Density Trees	261.4	No	Stand notes say that the area was burned in 1985 under FTP 280 but its unlikely the entire acreage burned due to the intact strips at the time. The remaining strips were cut in 2002 and they will be managed as grass though some inmate planting did occur. The stand was supposed to be burned in 2003 but was subsequently dropped. Stand will continue to encroach without management.