

Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41134 Entry Year 2020 Acreage: 2,731 County Alger

Management Area: Pictured Rocks Buffer

Revision Date: 2018-08-01

Stand Examiner: Steve Touvila

Legal Description:

T49N, R15W, Sections 19, 20, 29-33

Identified Planning Goals:

To manage the compartment in accordance with the principles of sustainable forest eco-system management.

Soil and topography:

Rubicon sand 0-35% slopes, with some areas of Kalkaska sand. Terrain is rolling to steeply ridged. High bluffs in section 30 provide a view of Lake Superior to the northwest.

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

Pictured Rocks National Lakeshore is adjacent to the north. State land surrounds the majority of the compartment, with some parcels owned by Heartwood Forestland Fund IV to the south and west.

Unique Natural Features:

Kettle Hole Lake in section 30.

Archeological, Historical, and Cultural Features:

Two logging camp sites located within the compartment.

Special Management Designations or Considerations:

Within the Pictured Rocks National Lakeshore buffer zone.

Watershed and Fisheries Considerations:

Fisheries Values: None (unknown)

No flowing water, two shallow ponds (Kettle Hole and seasonally dry one to southeast).

Wildlife Habitat Considerations:

Compartment 134 is located north of Kingston Lake at the intersection of H-58 and the Hurricane Truck Trail within the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. Pictured Rocks National Lakeshore is immediately adjacent to the north. Pre-settlement land cover consisted of hemlock and white pine. Current cover largely consists of white pine and red pine, with some birch, aspen, and hardwoods near the central part of the compartment and jack pine plantation near the northern extreme.

Wildlife management objectives include providing early successional young deciduous habitat where birch regrowth is encouraged, providing age class and structural diversity in northern hardwoods, maintaining super-canopy white pines within regenerating upland conifer stands, and maintaining diversity in mature pine habitats. Hemlock and oak will be retained, and cherry and a beech component will be left within hardwoods for mast production. Species diversity will be encouraged within red and white pine habitats by leaving most cherry, maple, and oak.

Mineral Resource and Development Concerns and/or Restrictions

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

Vehicle Access:

H-58 runs north-south through the compartment. It was a gravel road, but has been paved since the last inventory cycle. Dirt two-track roads provide access throughout the compartment.

Survey Needs:

None.

Recreational Facilities and Opportunities:

Recreational facilities include the Fox River Pathway hiking trail and the snowmobile trail which is on H-58 and the Hurricane Truck Trail. The area is also used for hunting and berry picking.

Fire Protection:

Recreational use of the area has increased following the completion of the H-58 improvement project. The increased activity could lead to a greater number of human caused wildfires in the area. An abundance of grass and pine types could contribute to a greater potential for large fire growth. Access to the area is generally good with some areas of steep slopes posing the greatest challenge to fire suppression efforts.

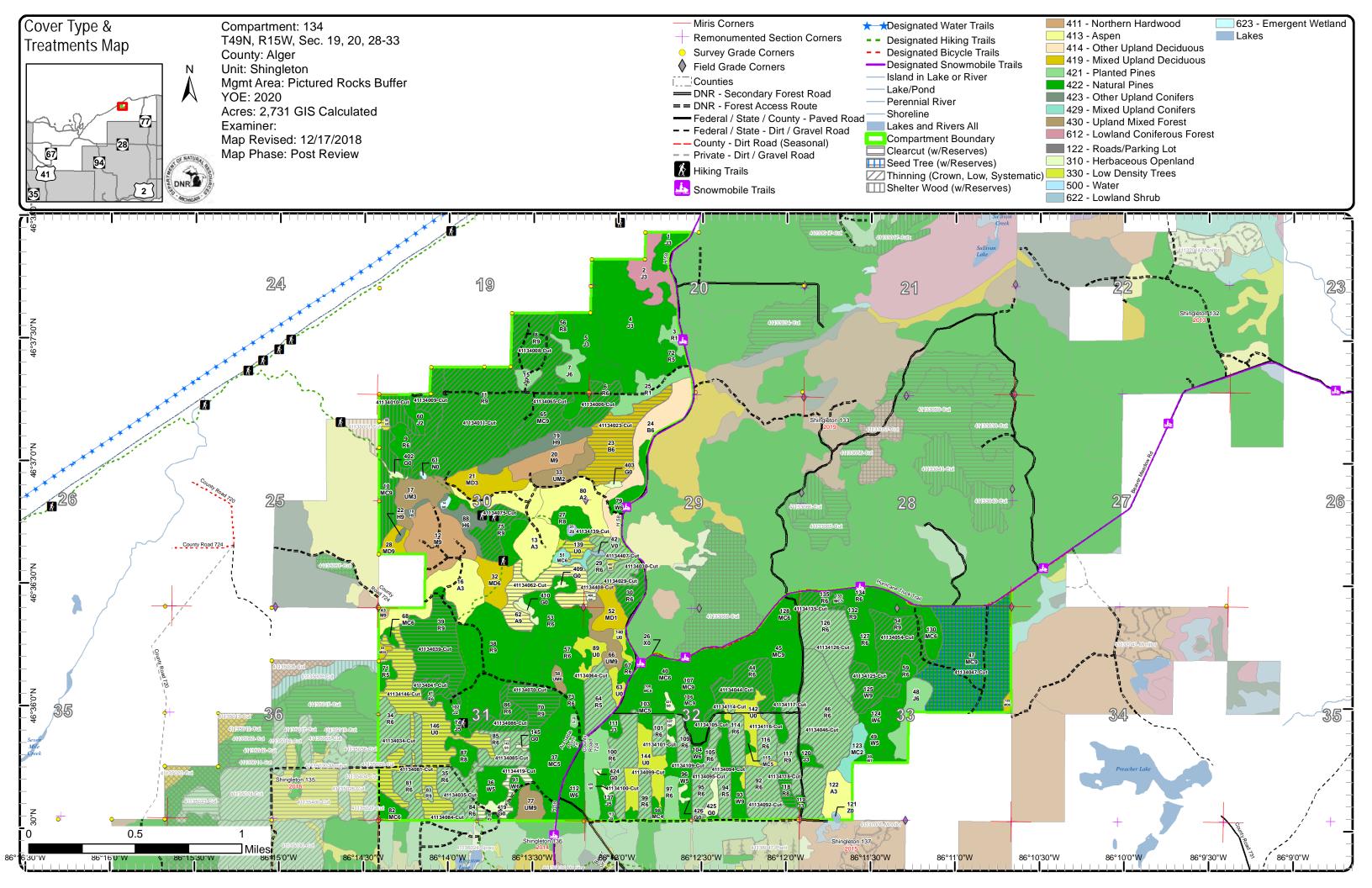
Additional Compartment Information:

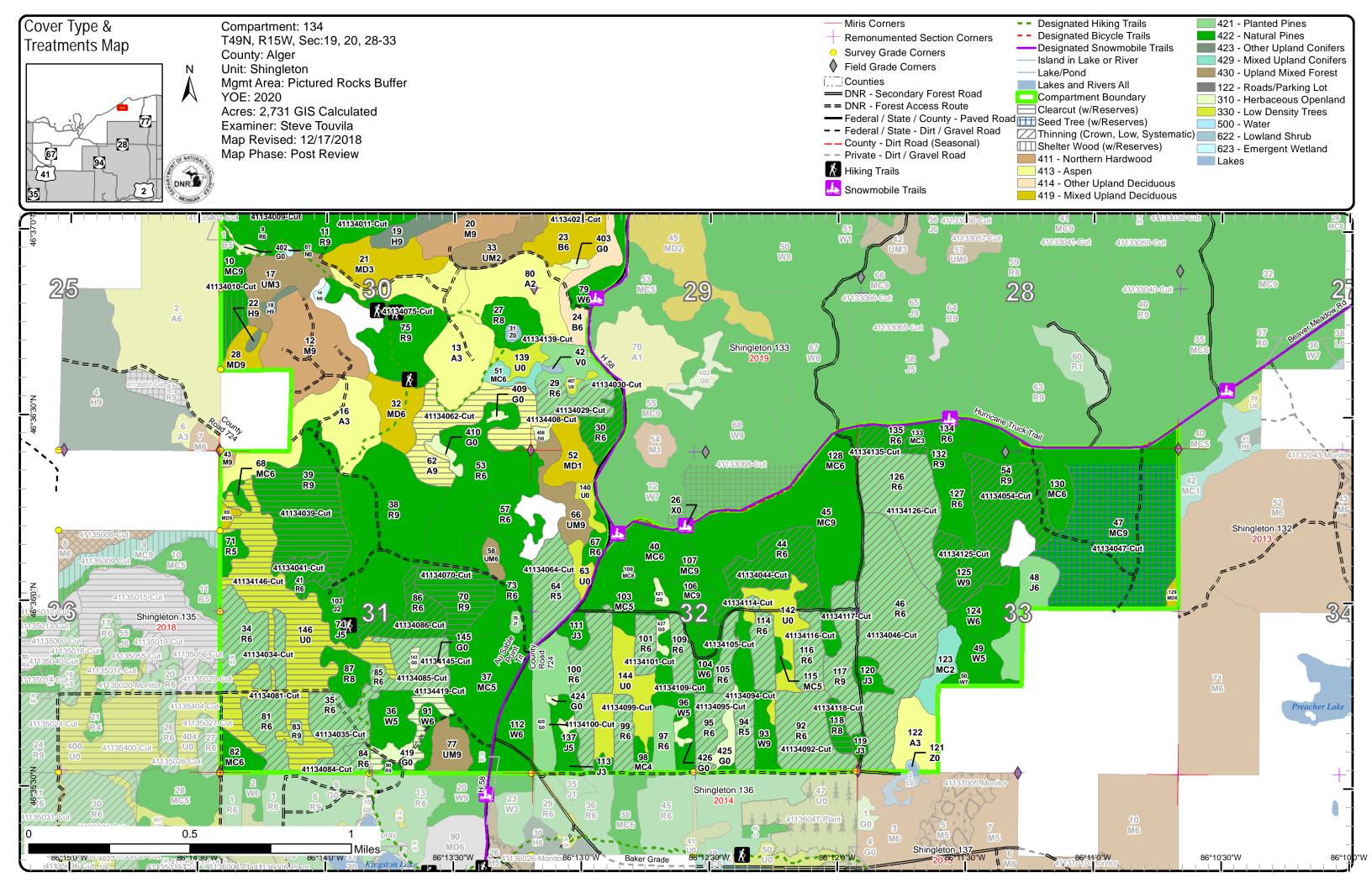
The following reports from the Inventory are attached:

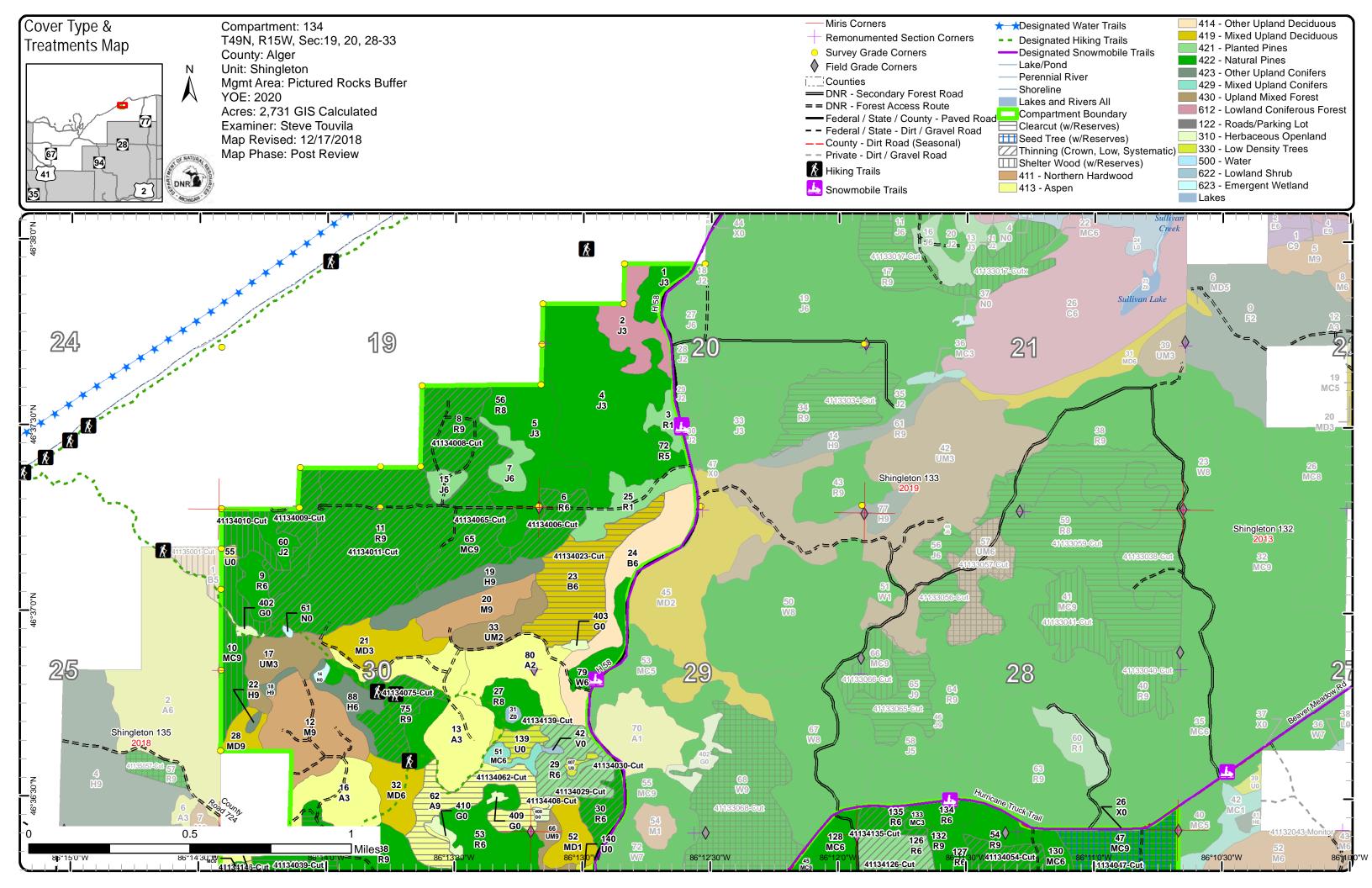
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

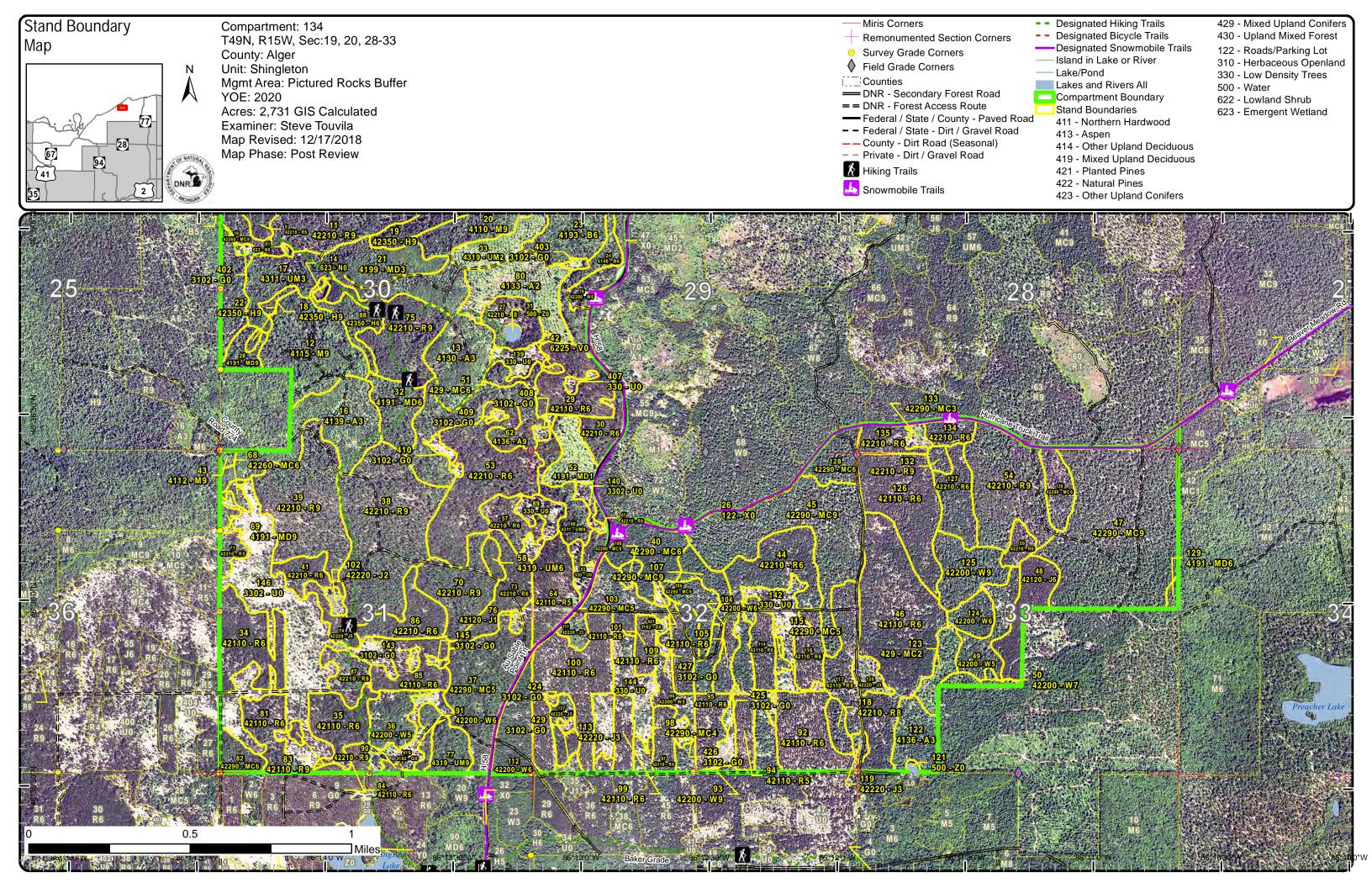
The following information is displayed, where pertinent, on the attached compartment maps:

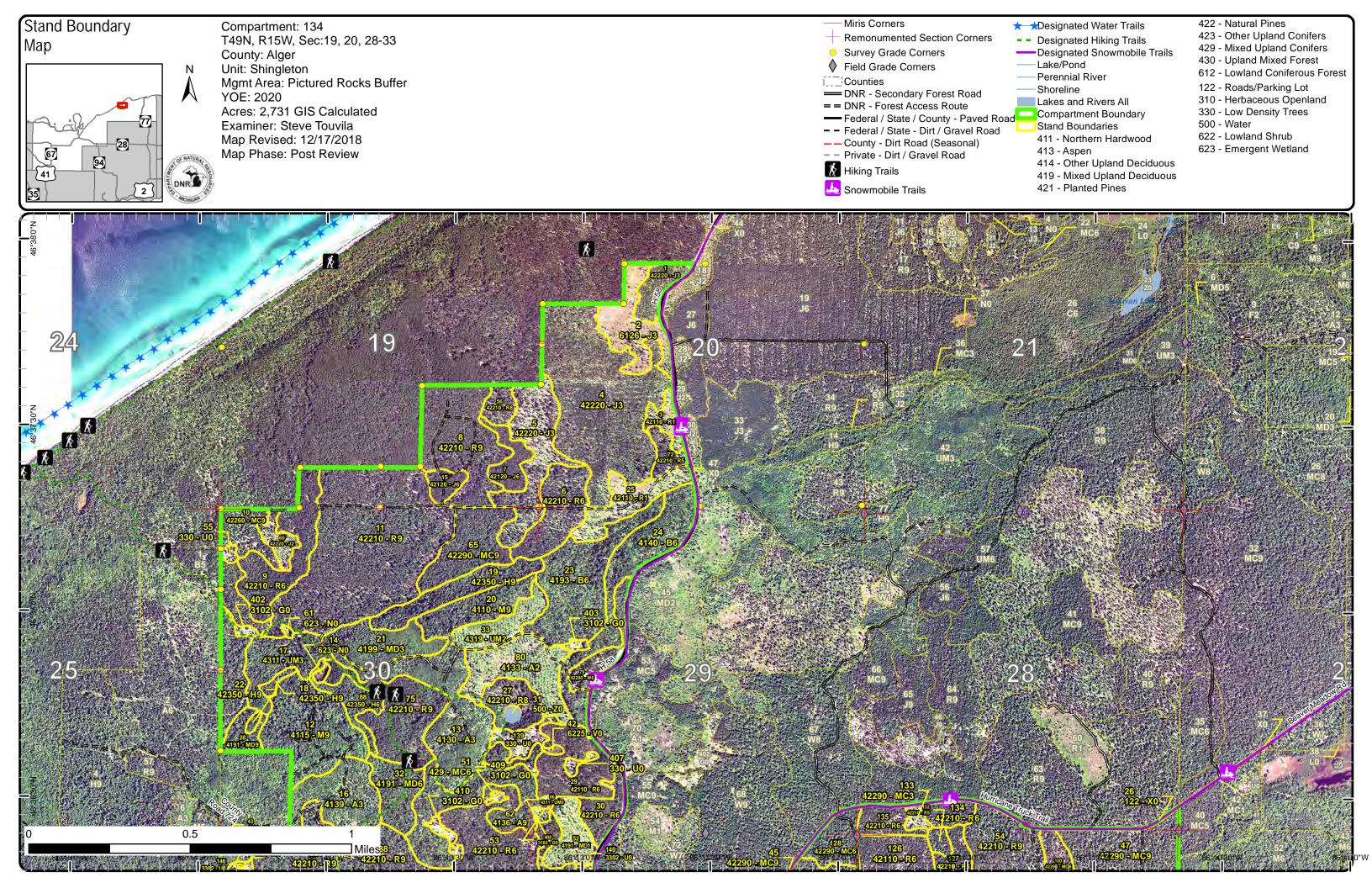
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

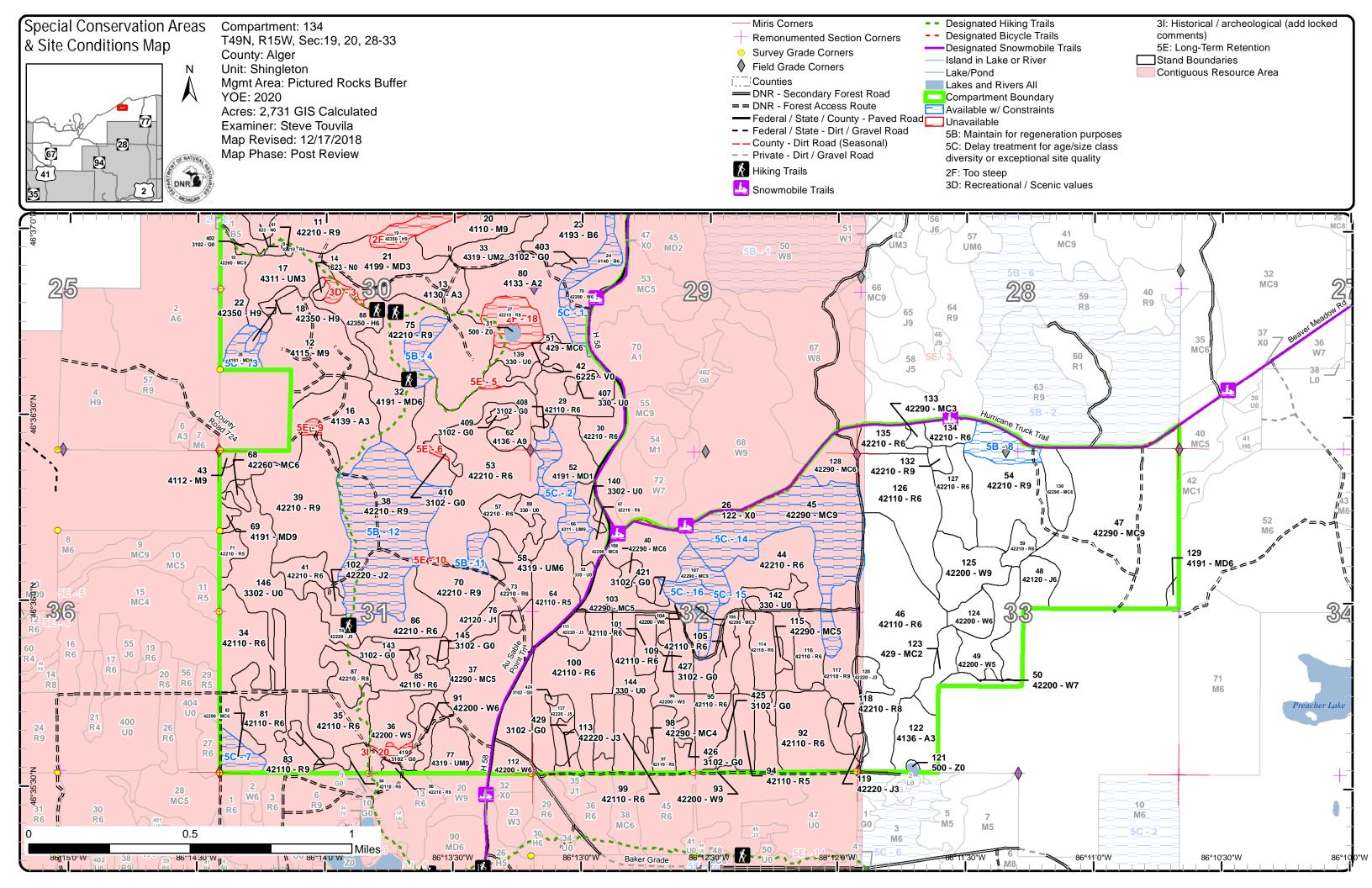


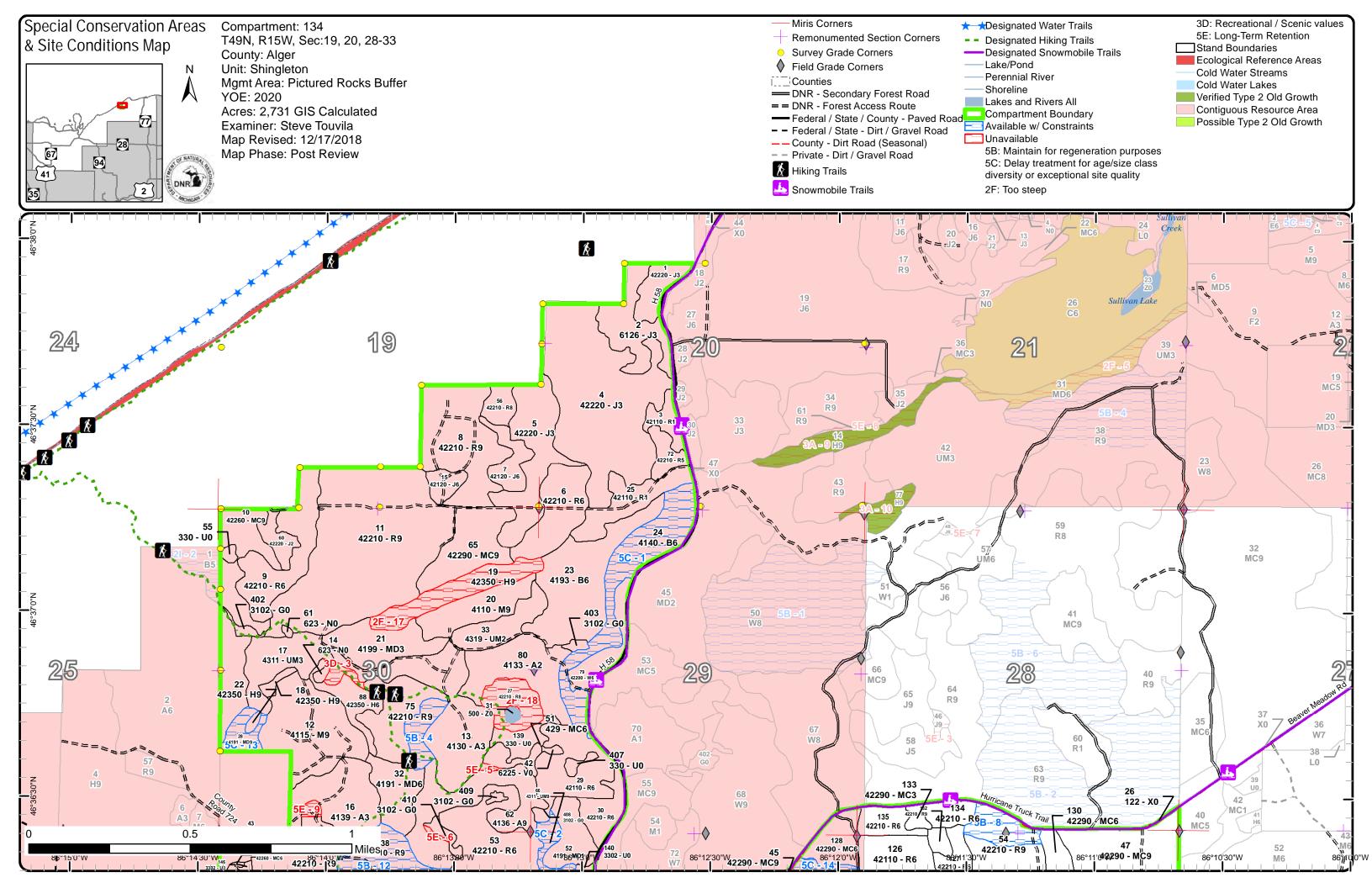












Compartment 134 Year of Entry 2020

Shingleton Mgt. Unit Steve Touvila : Examiner



Age Class

	,	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	///	/	//	/	///	/	/	/	///	/	/_/		/	/	/	/	/§ /
	¥o ^c	A SE	3 / 5			§ / ½		§ / §	\$\$\ \r\			8 6		,	5. Kg	S. S. S.	S. A.	Dr Jug	A LOS
Aspen	0	31	17	88	0	0	0	0	37	0	0	0	0	0	0	0	0	0	173
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	21	0	1	35
Herbaceous Openland	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
Jack Pine	0	25	70	98	36	15	0	0	0	0	0	0	0	0	0	0	0	0	244
Low-Density Trees	162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162
Marsh	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Mixed Upland Deciduous	0	15	0	22	0	0	8	4	17	0	0	0	0	0	0	0	0	0	66
Natural Mixed Pines	0	0	3	0	0	0	128	27	0	11	0	226	0	0	0	0	0	13	407
Northern Hardwood	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	44	66
Paper Birch	0	0	0	0	0	0	0	0	87	0	0	0	0	0	0	0	0	0	87
Red Pine	0	26	0	0	0	0	283	469	6	2	49	366	0	0	0	0	0	0	1200
Upland Conifers	0	0	11	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	17
Upland Mixed Forest	0	16	0	22	0	0	0	4	26	0	0	0	0	0	0	0	0	0	68
Urban	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
White Pine	0	0	0	0	0	24	62	20	0	5	23	0	0	0	0	0	0	19	153
Total	214	113	101	230	36	39	481	530	173	40	72	592	13	0	0	21	0	77	2730



Report 2 – Treatment Summary

Shingleton Mgt. Unit Year of Entry: 2020

Acres of Harvest

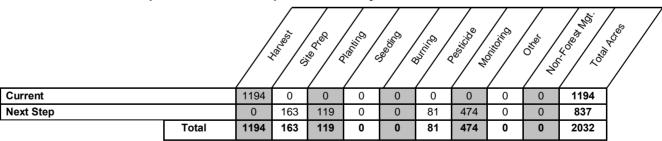
Compartment 134
Total Compartment Acres: 2,731

Commercial Harvest - 1194 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method

			111000	TO HOUSE OF THE PERSON OF THE	170 mg/s		No mon	Origin, See See See See See See See See See Se	Key Con	85 / St. 145		
Aspen		36	0	0	0	0	0	0	0	0	36	
Herbaceous Openland		13	0	0	0	0	0	0	0	0	13	
Low-Density Trees		98	0	0	0	0	0	0	0	0	98	
Natural Mixed Pines		0	0	0	117	38	27	0	0	0	181	
Paper Birch		48	0	0	0	0	0	0	0	0	48	
Red Pine	•	81	0	0	0	0	715	0	0	0	796	
White Pine	•	0	0	0	0	0	23	0	0	0	23	
	Total	276	0	0	117	38	764	0	0	0	1194	

Proposed and Next Step Treatments by Method



Habitat Cut: No

<u>Acceptable</u>

Regen:

Other The southwest part of the stand will be excluded from the sale and you will see a rather distinct line of younger trees and less BA for line placement.

Comment:

Proposed Start Date: 10/1 /2019

41134010-Cut 37.7 42260 - Natural Sawtimber 57 51-80 Harvest Shelterwood with 4193 - Birch. Even-Aged Draft Field

Retention

Aspen

Pine, Mixed Deciduous

Well

Habitat Cut: No Site Condition:

Prescription Remove all trees except Oak and White pine. Fox River Pathway: Work away from the trail, piling slash within 20 ft of the trail to create a linear slash Specs:

pile along the trail, or exclude the pathway from harvest.

Next Step Planting, Underplant

Treatments:

Acceptable Birch, Oak, Aspen, White pine

Regen: Other

plant oak and or birch after harvest

Comment:

Proposed Start Date: 10/1 /2019 Boundary

Specs:

regeneration where feasible. Retention will be the reserve trees.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable paper birch, aspen, oak, maple, beech, hemlock, red pine, white pine, balsam fir, jack pine

Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

41134029-Cut 42110 - Planted 64 25.4 Poletimber 171-Harvest Crown Thinning 42110 - Planted Even-Aged Draft Field Red Pine Red Pine Well 200 Boundary

Habitat Cut: No Site Condition:

Prescription Thin stand to 120 but up to 140 BA in the denser areas. Don't cut oak, or hemlock if found. Other species may be cut, large white pine may be left if Specs: cutting them will damage residual red pine. Leave a few large white pine for blackburnian warbler.

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other The proposed treatment line follows the old red line which left out a small portion of the stand that is steep. Line adjustments can be made. Sale is

adjacent to the snowmobile trail. Comment:

Proposed Start Date: 10/1 /2019

41134030-Cut 11.2 42210 - Natural Red Poletimber 141-Harvest 42210 - Natural Even-Aged Draft Field

Pine

Well 170

Crown Thinning

Red Pine

Boundary

Habitat Cut: No Site Condition:

Prescription Thin stand to 120 but can leave up to 140 BA in the denser areas. Try to retain all species. Don't cut oak or hemlock if found. Stand is adjacent to Specs:

H58 and the snowmobile trail. Leaving some of the large trees in this area may add to the visuals.

Next Step **Treatments:**

<u>Acceptable</u>

Regen:

Other

Comment:

Next Step Treatments: Artificial Regen(3yr)

Acceptable red pine Regen:

Other Comment:

Proposed Start Date:

10/1 /2019

41134041-Cut 9.9 42210 - Natural Red Poletimber 171-Harvest Crown Thinning 42210 - Natural Even-Aged Draft Field Pine 200 Red Pine Boundary

Habitat Cut: No Site Condition:

Prescription Thin stand to 120 BA and up to 140 BA in the areas of real high BA. Don't cut oak or hemlock if found. Try to retain a component of all species. Specs:

Next Step

Treatments:

<u>Acceptable</u> Regen:

Other Comment:

<u>Other</u>

Comment:

Proposed Start Date: 10/1 /2019

54 41134054-Cut 36.4 42210 - Natural Red Sawtimber 98 141- Harvest Crown Thinning 42210 - Natural Even-Aged Draft Field Boundary

Habitat Cut: No Site Condition:

Prescription Thin to 100 BA. Don't cut hemlock or oak if found. Try to retain a component of all species. Try to cut trees that are around 18" DBH, before they

Specs: get too large.

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Prescription Thin stand to 120 BA. Don't cut oak or hemlock if found. All other species may be cut especially if they are suppressing the red pine. Large white pine may be left if cutting them would damage residual red pine. Leave a few large white pine for blackburnian warbler. Specs:

Next Step Treatments:

<u>Acceptable</u>

Regen:

Other Stand is adjacent to H58/snowmobile trail.

Comment:

10/1 /2019 **Proposed Start Date:**

Draft Field 41134065-Cut 27.0 42290 - Natural Sawtimber 102 141-Harvest Crown Thinning 429 - Mixed Even-Aged Mixed Pine Well 170 Upland Conifers Boundary

Habitat Cut: No Site Condition:

Prescription Thin to 100 BA. Don't cut hemlock or oak if found. Try to retain a component of all species. Concentrate of removing trees that may be moving into

the 18" DBH class. Specs:

Next Step **Treatments:**

<u>Acceptable</u> Regen:

Other

Comment:

Pine

Well

Boundary

Compartment: 134

Red Pine

Retention

s Year of Entry: 2020 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type Approval** n Age Method Objective Name Structure Status d CoverType Density Age Range Type 41134070-Cut 4211 - Planted 70 22.6 42210 - Natural Red Sawtimber 101 81-110 Harvest Clearcut with Even-Aged Draft Field

Habitat Cut: No Site Condition:

Prescription Clear cut stand cutting all species to 2" DBH to facilitate red pine trench and plant. If some hemlock or oak are found near the edge of the stand they may be excluded from the treatment area if feasible. A long term retention area is identified in the northwest corner of the stand. Specs:

Next Step SitePrep, Roller Chopping; Pesticide, (Inactive)Aerial; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring,

Treatments: Artificial Regen(3yr)

Acceptable red pine

Regen: Other Comment:

Proposed Start Date: 10/1 /2019

75 41134075-Cut 22.9 42210 - Natural Red Sawtimber 141-Harvest Crown Thinning 42210 - Natural Even-Aged Draft Field Pine Well 170 Red Pine Boundary

Habitat Cut: No Site Condition:

Prescription Thin stand to an average of 120 BA. Retain a component of all species. The Fox River Pathway runs through the stand so trail protection specs will Specs: be needed. Stay at the bottom of the ridge at the south end of the stand.

Next Step Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

Draft Field 41134081-Cut 15.7 42110 - Planted Poletimber 141-Harvest Systematic 42110 - Planted Even-Aged Red Pine Red Pine Well 170 Thinning Boundary

Site Condition: Habitat Cut: No

Prescription Cut as a combination of third row thinning and marking to around 120 BA. Most of the third row thinning looks to be in the north part of the stand. Don't cut oak or hemlock if found. Oher species may be cut, but can be left to maintain BA. Leave a few large white pine for blackurnian warbler. Specs:

Next Step Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

41134084-Cut 5.2 42110 - Planted Poletimber 56 141-Harvest Crown Thinning 4211 - Planted Even-Aged Draft Field Red Pine Red Pine Well 170 Boundary

Habitat Cut: No Site Condition:

Prescription Thin stand to 120 BA. Don't cut oak or hemlock if found. All other species may be cut. The Fox River Pathway is on the east edge of the stand so Specs: trail protection specs will be needed. Leave a few large white pine for blackurnian warbler.

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other Comment:

Habitat Cut: No

pine may be left if cutting them would damage residual red pine. Leave a few large white pine for blackburnian warbler.

Specs:

Next Step Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Proposed Start Date:

10/1 /2019

41134094-Cut 9.2 42110 - Planted Poletimber 60 111-Harvest Crown Thinning 4211 - Planted Even-Aged Draft Field Red Pine Medium Red Pine 140 Boundary

Habitat Cut: No Site Condition:

Prescription Thin stand to 120 BA. Don't cut oak or hemlock if found. All other species may be cut especially if they are suppressing the red pine. Large white Specs: pine may be left if cutting them would damage residual red pine. Leave a few large white pine for blackburnian warbler.

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Habitat Cut: No

<u>Acceptable</u>

Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

101 41134101-Cut 7.7 42110 - Planted Poletimber 60 141-Harvest Crown Thinning 4211 - Planted Even-Aged Draft Field Red Pine Well 170 Red Pine Boundary

Habitat Cut: No Site Condition:

Prescription Thin stand to 120 BA. Don't cut oak or hemlock if found. All other species may be cut especially if they are suppressing the red pine. Large white Specs: pine may be left if cutting them would damage residual red pine. Leave a few large white pine for blackburnian warbler.

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

116 41134116-Cut 12.3 42110 - Planted Poletimber 60 111-Harvest Crown Thinning 4211 - Planted Even-Aged Draft Field Red Pine Well Red Pine 140 Boundary

Habitat Cut: No Site Condition:

Prescription Thin stand to 120 BA. Don't cut oak or hemlock if found. All other species may be cut especially if they are suppressing the red pine. Large white Specs: pine may be left if cutting them would damage residual red pine. Leave a few large white pine for blackburnian warbler.

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

126 41134126-Cut 42.5 42110 - Planted Poletimber 64 141-Harvest Systematic 4211 - Planted Even-Aged Draft Field Red Pine Red Pine Thinning Well 170 Boundary

Habitat Cut: No Site Condition:

Prescription Third row thin were applicable and mark to 120 BA were applicable. The stand may be up to 50% of each type of marking. Some areas are very Specs: thick thirds rows, and some areas, mainly being the interior center of the stand, will be marking to 120 BA. Mark competing species while staying

within the target BA. Some areas may be a combination of third row thinning and individual marking.

Next Step **Treatments:**

Acceptable

Regen:

Other

Comment:

Treatments:

Acceptable herbaceous openland

Regen:

Other Comment:

Proposed Start Date:

10/1 /2019

145 41134145-Cut 1.0 3102 - Grass 310 -Draft Field Nonstocked Unspec Harvest Clearcut Herbaceous ified Boundary

Openland

Habitat Cut: No Site Condition:

Prescription Cut all species except for oak and hemlock. Cut all trees down to 2" DBH to reestablish grassy opening for wildlife.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable non forested herbaceous openland

Regen:

Other Comment:

Size

Density

Stand

Age

Acres



•	Entry: 2020	DNR DNR DROES
Cover Type	Age	Approval
Objective	Structure	Status

146 41134146-Cut

Treatment

Name

87.6 3302 - Low Density Nonstocked

Unspec

Clearcut

310 -

Draft Field

OF NATURAL

Conifer Trees

ified

BA

Range

Treatment

Method

Herbaceous

Openland

Boundary

Habitat Cut: No

Site Condition:

Stand

CoverType

Prescription Cut all species except for oak and hemlock. Cut all trees down to 2" DBH to reestablish grassy opening for wildlife. No retention for wildlife opening,

Treatment

Type

Harvest

except any oak or hemlock found.

Next Step

Specs:

Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable herbaceous openland

Regen:

а

n

d

Other

Comment:

Proposed Start Date: 10/1 /2019

41134407-Cut

1.8 330 - Low-Density Nonstocked Trees

Unspec ified

0

Harvest Clearcut

310 -

Herbaceous

Openland

Draft Field Boundary

Habitat Cut: No

Site Condition: Prescription Cut all species except for oak and hemlock. Cut all trees down to 2" DBH to reestablish grassy opening for wildlife. No retention for wildlife opening,

Specs: except any oak or hemlock found.

Next Step

Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable herbaceous openland

Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

408 41134408-Cut

3102 - Grass Nonstocked Unspec ified

Harvest

Clearcut

310 -Herbaceous Draft Field Boundary

Openland

Habitat Cut: No Site Condition:

1.9

Prescription Cut all species except for oak and hemlock. Cut all trees down to 2" DBH to reestablish grassy opening for wildlife. No retention for wildlife opening,

Specs: except any oak or hemlock found.

Next Step Monitoring, Natural Regen (Re-Inventory) Treatments:

Acceptable herbaceous openland

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

419 41134419-Cut 9.1 3102 - Grass Nonstocked Unspec Harvest Clearcut with

ified

Retention

310 -Herbaceous Draft Field Boundary

Openland

Habitat Cut: No

Site Condition:

Prescription Cut all species except for oak and hemlock. Cut all trees down to 2" DBH to reestablish grassy opening for wildlife. Retention area per locked box Specs:

information. Keep equipment and any harvesting activity such as decking out of this area.

Next Step

Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable herbaceous openland

Regen:

Other Comment:

10/1 /2019 **Proposed Start Date:**

Total Treatment Acreage Proposed:

1242.9

Compartment: 134

Shingleton Mgt. Unit

Steve Touvila : Examiner Year of Entry: 2020

Availa	ability for	Managemer	nt							
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Con	dition	s	
Acres	Available	With Condition	Not Available		5B	5C	2F	3D	31	5E
173	172	0	1	Aspen						1
1	1	0	0	Bog						
36	15	0	21	Hemlock			21			
36	33	0	3	Herbaceous Openland					3	
244	244	0	0	Jack Pine						
162	162	0	0	Low-Density Trees						
2	2	0	0	Marsh						
66	58	8	0	Mixed Upland Deciduous		8				
410	312	99	0	Natural Mixed Pines		99				
66	66	0	0	Northern Hardwood						
87	47	40	0	Paper Birch		40				
1201	1078	104	19	Red Pine	104		14	3		2
16	16	0	0	Upland Conifers						
68	53	15	0	Upland Mixed Forest		15				
11	11	0	0	Urban						
2	2	0	0	Water						
152	152	0	0	White Pine						
2,733	2,424	265	45	Total Forested Acres	104	161	35	3	3	3
	89%	10%	2%	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 Available 5C: Delay treatment for 40 Unspecified Unspecified Unspecified Unspecified Unspecified Unspecified age/size class diversity or exceptional site quality Comments:		Available						
Comments:		Available	age/size class diversity or	_	Unspecified	Unspecified	Unspecified	Unspecified
	Co	omments:	<u> </u>					

Report 4 – Site Conditions

Shingleton Mgt. Unit Steve Touvila : Examiner

2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	3D: Recreational / Scenic values	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	5B: Maintain for regeneration purposes	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	5E: Long-Term Retention	1	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	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 4 – Site Conditions

Shingleton Mgt. Unit Steve Touvila : Examiner

Unavailable						
mmonto.	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
omments:						
Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
omments:						
Available	5B: Maintain for regeneration purposes	4	Unspecified	Unspecified	Unspecified	Unspecified
omments:						
Available	5B: Maintain for regeneration purposes	78	Unspecified	Unspecified	Unspecified	Unspecified
omments:						
Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
omments:						
	Available Available Available mments: Available Available	Available 5B: Maintain for regeneration purposes Available 5B: Maintain for regeneration purposes Available 5B: Maintain for regeneration purposes Available 5C: Delay treatment for age/size class diversity or exceptional site quality	Available 5B: Maintain for 4 regeneration purposes Available 5B: Maintain for 78 regeneration purposes Available 5B: Maintain for 78 regeneration purposes Available 5C: Delay treatment for age/size class diversity or exceptional site quality	Available 5B: Maintain for 4 Unspecified regeneration purposes Available 5B: Maintain for 78 Unspecified regeneration purposes Available 5C: Delay treatment for age/size class diversity or exceptional site quality	Available 5B: Maintain for regeneration purposes Available 5B: Maintain for 78 Unspecified Unspecified Available 5B: Maintain for regeneration purposes Available 5C: Delay treatment for 8 Unspecified Unspecified age/size class diversity or exceptional site quality	Available 5B: Maintain for regeneration purposes Available 5B: Maintain for regeneration purposes Available 5B: Maintain for 78 Unspecified Unspecified Unspecified Unspecified Unspecified Available 5C: Delay treatment for age/size class diversity or exceptional site quality

Report 4 – Site Conditions

Shingleton Mgt. Unit Steve Touvila : Examiner

14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	71	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
17	Unavailable	2F: Too steep	21	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
18	Unavailable	2F: Too steep	14	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
20	Unavailable	3l: Historical / archeological (add locked comments)	3	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

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: 134
Year of Entry 2020





* 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.

SCA Type 1 and Type Old-Growth forest (also termed primary forest, ancient forest, virg	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
2 Old Growth 2 Old Growth forest, or primeval forest) is an area of forest that has few or no sexhibits unique ecological features related to age, composition all forests are of natural origin. They may be dominated by late successional American beech), or may be a very old example of a stand domin species (i.e. oak, or red pine).	igns of human disturbance and that ad associated structure. Old growth

S	Shingleto	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42220 - Natural Jack Pine	Sapling Well	10.6	18	Immature	Next to H-58 (snowmobile trail) near PRNL. Jack pine with red and white pine. Some residual red pine, paper birch and red maple (<10BA). Habitat type=PVE soil=rubicon sand 0-6% slopes.
2	6126 - Lowland Jack Pine	Sapling Well	23.3	7	Immature	Borders H-58 (snowmobile trail). Adjacent to PRNL. [10-12-11] Stand is now under contract. [01/19/12] TS 41-039-10-01 has been completed TCR dtd 01/07/12. (Stand was trenched in summer of 2012 by holli and planted in spring of 2013 by Superior forestry.
3	42110 - Planted Red Pine	Sapling Poor	7.1	5	Immature	Stand was cut in 2012 as part of H58 Pine 410391001. Some scattered residual red pine were left. (Stand was trenched in summer of 2012 by holli and planted in spring of 2013 by Superior forestry Planted approx. 5000rp 500wp and some oak fpr a cost of 976.43 . Regeneration check scheduled in 2014)(3/7/14Rh) 2014 count results are 814 T/A, count again in in 2016. 2016 Regen check spring: 702 T/A, fully stocked.
4	42220 - Natural Jack Pine	Sapling Well	98.0	22	Immature	OPIC - FMD: Stand touches H-58/snowmobile trail. Jack pine with other regeneration including: white pine, red pine, aspen and red maple. Scattered residual red pine, paper birch, white pine and oak; <10BA total. Habitat type=PVE soil=rubicon sand 0-6% slopes
5	42220 - Natural Jack Pine	Sapling Well	35.2	16	Immature	OPIC - FMD: Residual RP, WP, and P.Birch. Most areas have regeneration - jack, red, white pine and r.maple. Habitat type=PVE soil=rubicon sand 0-6% slope
6	42210 - Natural Red Pine	Poletimber Well	25.2	58	111-140	Southwest part of stand has BA's of 130-190 and a patch north of the road is 150. The rest is open and 81-110. Southeast part of stand has thick 7" white pine.
						[4/15/03] Stand was cut under TS 007-00 12 Mile Pine and scarified under FTP C41-969 in 2002.[06-14-06] 1500 acorns handplanted by inmates under FTP W41-992.
7	42120 - Planted Jack Pine	Poletimber Well	10.3	37	51-80	Planted in 1981, thick regeneration that has just entered pole size. Scattered residual red pine.
8	42210 - Natural Red Pine	Sawtimber Well	45.6	101	111-140	Was thinned in 2012 as part of H-58 Pine 41-039-10-01. Ages for red pine are 112 for 13" and 88 for 9" and 98 for 10". Rather small diameters for the age but descent height. A large oak found and a few scattered oak saplings. Not much regeneration if we restart the stand to red pine. The northern 1/3 of the stand has a moderate amount of black spruce regeneration. Basal area averages 126 and ranges from 90-150.
9	42210 - Natural Red Pine	Poletimber Well	30.7	65	141-170	Natural red pine stand that is ready for a thinning. BA averages 161 within the proposed treatment area and ranges from 120-230. A few scattered oak are in the stand, mostly in the mid to south end of the stand. A few 3-5" hemlock are also mostly in mid to south end. Southwest part of the stand has less basal area and smaller diameter trees and will be left out of the harvest.

s t	Shingleton	Mgt. Unit		Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
10	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	37.7	57	51-80	OPIC - FMD: Upland mix of paper birch, red pine, oak, white pine, aspen and red maple. Regeneration is mostly white pine, with the all of the above species present. The Fox River pathway is along the south of this stand. soil=Rubicon Sand 0-6% slopes Habitat type=PVE
11	42210 - Natural Red Pine	Sawtimber Well	121.3	103	111-140	Mature red pine stand. The Fox River pathway is in the southwest corner of the stand. Final harvest and plant red pine. There are a few widely scattered oak and hemlock to retain. Stand was last thinned in 2003 as part of 12 Mile Pine 410070001.
12	4115 - Y.Birch, Hemlock NH	Sawtimber Well	44.0	85	81-110	There is lots of advanced Red Maple Regeneration. Stand is perched at the top of a high ridge and contains irregular terrain. Can see lake Superior from ridge edge. Heavily 2 entries agomany areas are M8. Dense beech regeneration. 99/1=s.maple, y.birch 99/2=r.maple, s.maple, y.birch soil=Kalkaska-Cusino Complex, 35-60% slopes and Kalkaska Sand 0-6% slopes.
13	4130 - Aspen	Sapling Well	46.4	21	Immature	Hilly terrain. Fox River pathway - Kettle Hole Loop runs along perimeter of stand. Vista management considerations are important. Cut in 1997 as part of Kettle Hole 410199501.
15	42120 - Planted Jack Pine	Poletimber Well	5.9	37	51-80	Planted in 1981, thick regeneration, has just entered pole size. Scattered residual red pine.
16	4139 - Aspen, Mixed Deciduous	Sapling Well	41.5	20	Immature	The Fox River Pathway goes through the stand. Some residual Hemlock. Hilly terrain. Cut in 1998 as part of Kettle Hole #410199501.
17	4311 - Pine, Aspen Mix	Sapling Well	22.2	20	1-50	Fox River pathway runs through the stand. Steep hillside with rolling terrain at the bottom. Thick mixed regeneration looks good. Residual white pine, red pine, and hemlock, and oak.
18	42350 - Upland Hemlock	Sawtimber Well	2.2	115	111-140	Unique stand within forest area - steep %slope, aspect and local climate make unusual. 99/2=beech, p.birch 99/1=r.maple, y.birch soil=Rubicon Sand 15-35% slopes, Kalkaska-Cusino complex 35-60% slopes
19	42350 - Upland Hemlock	Sawtimber Well	21.4	143	171-200	Unique stand. Stand is on north facing ridge. Can see Lake Superior from top of the ridge. Scattered large yellow birch and red maple throughout the stand.
20	4110 - Sugar Maple Association	Sawtimber Well	20.2	82	81-110	Thinned in 2012 as part of H-58 RPM #041100110. What's left is a good quality log stand. Lots of small regen but will need to have the canopy opened next entry.
21	4199 - Other Mixed Upland Deciduous	Sapling Well	22.4	21	Immature	Cut in 1997 as part of Kettle Hole #410199501. Scattered residual Hemlock. Hilly terrain. Thick mixed regeneration. Some scattered residual hemlock.
22	42350 - Upland Hemlock	Sawtimber Well	1.2	115	141-170	Unique stand within forest area - high %slope, aspect and local climate make unusual. Kalkaska-Cusino complex 35-60%

slopes.

S	Shingleton Mgt. Unit			Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	4193 - Birch, Aspen	Poletimber Well	47.5	70	51-80	Hilly terrain. Paper birch is rapidly dying back, even more so than stand 24. Large bigtooth aspen with a few that have died off. There's a high amount of 1' red oak regeneration covering about 8 acres in the north finger; this then reduced to moderate to low in central and south part of stand. Some advanced regeneration of paper birch, red pine and white pine. Groups of red/white pine 6" poles/saplings mostly in north finger.
24	4140 - Other Upland Deciduous	Poletimber Well	39.9	70	51-80	Stand is on top of the hill. Much less red oak regeneration than stand 23, also less paper birch regen. There's an area of thick beech regen in the center part of the stand. Paper birch is dying back but not as much as stand 23. Widely scattered red and white pine of different sizes down to saplings, a few of these are in small groups.
25	42110 - Planted Red Pine	Sapling Poor	19.1	5	Immature	[7/3/18] Regen established and looking good. Some oak regeneration as well. A few residual 9" oak, and some residual paper birch and red pine.
						[6/14/11 bb] Stand is now on proposal, 41-039-10-01 H-58 Pine. Stand is Unit 5, 19 acres. Residual BA = 6.6 red pine and 5 white pine. FTP C41-1468 submitted for hand planting mixed pine and oak. [10-12-11] Stand is now under contract. [01/19/12] TS 41-039-10-01 has been completed TCR dtd 01/07/12. (Stand was trenched in summer of 2012 by holli and planted in spring of 2013 by Superior forestry Planted approx. 895 RP/Ac cost of 3218.95). Regeneration check scheduled in 2014) (3/7/14RH) 2014 count results are 700 T/A, count again in in 2016. 2016 Spring Regen check: 650 T/A stand passed, fully stocked.
27	42210 - Natural Red Pine	Sawtimber Medium	14.0	68	51-80	Very steep slopes with Kettle Hole Lake at the bottom. Fox River Pathway - Kettle Hole Loop passes through west portion of stand. . Vista Mgt. important for Pathway experience. Vegetation on the south facing slope is sparse.
28	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	7.6	58	141-170	Kalkaska-Cusino Complex 35-60% slopes, Rubicon Sand 0-15% slopes
29	42110 - Planted Red Pine	Poletimber Well	26.6	64	171-200	Adjacent to H-58/snowmobile trail. Some small areas of the stand may be too steep to cut and were left out of the last thinning which was in 2012 as part of H-58 RPM 410411001. Except for a spots in the south central part of the stand the red pine is dense and tall, good growing site. Lots of areas where the BA is 200-220.
30	42210 - Natural Red Pine	Poletimber Well	11.2	68	141-170	Along H-58/snowmobile trail. Good looking natural red pine stand. BA averages 160 with multiple areas of 180 and a 220. A couple large 24" red pine, scattered xlog white pine.
32	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	17.4	72	81-110	Paper birch is dying back. Scattered large white pine and red pine. Balsam fir sub canopy. Big tooth aspen is large and healthy and there's much less than in stand 62 to the east.
33	4319 - Mixed Upland Forest	Sapling Medium	15.5	6	Immature	Cut in 2012 as part of H-58 RPM 410411001. Regeneration is coming in thick mainly with red maple and balsam fir.

s t	Shingletor	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	42110 - Planted Red Pine	Poletimber Well	29.7	56	171-200	Red pine plantation that hasn't been third row thinned yet. There are some patchy areas but around 70% of the stand is dense with basal areas from 180-200. A few scattered white pine.
35	42110 - Planted Red Pine	Poletimber Well	20.8	56	141-170	Red pine plantation with scattered white pine of various sizes. Fox River pathway runs through the east side of the stand. Basal area average 160 and ranges from 140-190.
36	42200 - Natural White Pine	Poletimber Medium	15.1	53	1-50	Dense 5" white pine with a small patch of red pine in north end and about 1.2 acres of larger white pine in southeast end.
37	42290 - Natural Mixed Pine	Poletimber Medium	46.3	53	81-110	Adjacent to H-58/snowmobile trail. Scattered large red and white pine. White pine is currently recruiting into the canopy changing this from an R to an MC stand.
38	42210 - Natural Red Pine	Sawtimber Well	78.3	101	81-110	The Fox River Pathway is along the west boundary of this stand. This stand was thinned in 1994 as part of North Kingston Pine, and it was thinned the entry before that.
39	42210 - Natural Red Pine	Sawtimber Well	54.3	101	81-110	Was thinned in 1994 as part of North Kingston Pine 410119201. North end is a south facing slope with mixed regeneration including beech, red maple, and aspen.
40	42290 - Natural Mixed Pine	Poletimber Well	22.6	58	81-110	Adjacent to H-58, Hurricane Truck Trail/snowmobile trail. Rolling terrain. Scattered large red and white pine. An area of large white pine with paper birch along the Hurricane Truck Trail. Then some paper birch on top of the slope on the east side.
41	42210 - Natural Red Pine	Poletimber Well	9.9	58	171-200	Thick natural red pine stand with a few scattered XLog red pine. Basal area is high and now stunting the growth of much of the red pine. BA ranges from 100-220 with a 300 measured. BA is lower in the south and west ends. A couple sapling hemlock found.
43	4112 - Maple, Beech, Cherry Association	Sawtimber Well	1.5	80	81-110	Thinned in 1998 as part of Kettle Hole #410199501. Lots of beech regeneration.
44	42210 - Natural Red Pine	Poletimber Well	31.3	60	141-170	Large blocks of thick red pine (up to 190 BA) with some white pine mixed in, along with some patchy areas. No old records of plantation and looks to be natural, only a few spots where there's 5-6 trees that appear to be in a row. Has not been thinned yet, for diversity manage as a natural stand retaining a white pine component throughout the stand.
45	42290 - Natural Mixed Pine	Sawtimber Well	70.6	102	81-110	Thinned in 1994 as part of Hurricane Sign Pine #410380001. Along the Hurricane Truck Trail/snowmobile trail. A few scattered xlog red and white pine.
46	42110 - Planted Red Pine	Poletimber Well	80.3	64	141-170	Plantation with some sparse areas. The red pine is two ages of 58 and 70 years old. Has not been third row thinned yet and is ready for a treatment. Some scattered white pine, quaking aspen, jack pine, paper birch, and red maple. The interior center of the stand contains most of the two age red pine and most of the larger diameter red pine.

s t	Shingleton	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	42290 - Natural Mixed Pine	Sawtimber Well	116.9	101	51-80	Thinned in 1995 Preacher Lake Pine. Stand consists of a mix of large red and white pine along the Hurricane Truck Trail/snowmobile trail. Much of the stand is BA of 51-80. A 10 acre portion west of the road in the central part of the stand is 110-160 consisting of more red pine than white pine. White pine regeneration is variable to 20'.
48	42120 - Planted Jack Pine	Poletimber Well	19.4	36	51-80	Thick jack pine plantation that has just entered J6. A few scattered white pine, red pine, and paper birch.
49	42200 - Natural White Pine	Poletimber Medium	17.9	48	1-50	Scattered large red and white pine. Small openings within the stand.
50	42200 - Natural White Pine	Sawtimber Poor	4.8	80	1-50	Cut in 2004 as part of Hurricane Sign Pine 410380001. Two aged stand consisting of large white pine with regeneration species including: white pine, red maple, b.fir, and hemlock. BA is 40 with a small area in the center of 50-60.
51	429 - Mixed Upland Conifers	Poletimber Well	5.5	63	51-80	Adjacent to the Fox River Pathway. Hilly terrain. Looking at this stand from stand 139 U0 the slope and spruce makes it looks like out west, nice view.
52	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	14.6	6	Immature	Cut in 2012 as part of H-58 RPM 0411001. Red maple is filling in as the most percentage of the stand. Scattered residual paper birch, white pine, red maple, and red pine, most of which are smaller pole sized. Paper birch has not regenerated.
53	42210 - Natural Red Pine	Poletimber Well	54.7	59	111-140	Natural red pine stand that may be a log stand next entry.
54	42210 - Natural Red Pine	Sawtimber Well	48.5	98	141-170	Not a lot of regeneration in the center of the stand. Could benefit from a thinning before a final treatment possibly next entry. BA within the treatment area ranges from 120-190 with an average of 150. North end of stand won't be included in treatment as BA is lower there.
56	42210 - Natural Red Pine	Sawtimber Medium	6.7	68	81-110	various different sizes of Red Pine in this stand. [6/14/11 bb] Stand is now on proposal, 41-039-10-01 H-58 Pine. Stand is Unit 4, 6 acres. Residual BA = 70 red pine and 10 white pine. [10-12-11] Stand is now under contract. [01/19/12] TS 41-039-10-01 has been completed TCR dtd 01/07/12.
57	42210 - Natural Red Pine	Poletimber Well	11.5	58	51-80	Natural pine stand with a few patchy areas.
58	4319 - Mixed Upland Forest	Poletimber Well	3.8	65	81-110	Paper birch currently has 8% dieback. Advanced regeneration in the understory, especially white pine.
59	42210 - Natural Red Pine	Poletimber Well	6.0	60	81-110	Natural pine stand that will be ready for a thinning next entry.

s t	Shingleton	Shingleton Mgt. Unit		Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
60	42220 - Natural Jack Pine	Sapling Medium	7.0	16	Immature	Some residual red and white pine (<10BA). Habitat type=PVE soil=Rubicon sand 0-6% slopes
62	4136 - Aspen, Mixed Conifer	Sawtimber Well	37.2	75	81-110	Adjacent to the Fox River Pathway. Hilly terrain. Paper birch is rapidly dying off. Bigtooth aspen is now the dominant species and is spread consistently throughout the entire stand. Some Xlog aspen with a few dying off. Fox River pathway runs along the north edge of the stand. There's some larger heathy looking paper birch near the edge of stand 51 that is delineated as a retention pocket.
64	42110 - Planted Red Pine	Poletimber Medium	22.3	56	141-170	Plantation along H/58 snowmobile trail. Thinned in 2012 as part of Pathway Pine 410191001. Basal area averages 160 with a few areas to 210. Lots of spots were the trees within the same rows are tightly spaced.
65	42290 - Natural Mixed Pine	Sawtimber Well	27.0	102	141-170	Mix of white and red pine. A couple hemlock found. BA averages 154 with a range from 120-170. Paper birch is healthy.
66	4311 - Pine, Aspen Mix	Sawtimber Well	14.9	70	81-110	Scattered large red and white pine. Paper birch and aspen is mostly healthy.
67	42210 - Natural Red Pine	Poletimber Well	5.3	58	81-110	Scattered large red and white pine and a few paper birch. Hilly terrain.
68	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	2.6	60	51-80	Nice mix. Some smaller red pine recruiting into canopy.
69	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	2.0	65	81-110	Mixed stand on east/se facing slope. Some 1' tall oak regeneration.
70	42210 - Natural Red Pine	Sawtimber Well	27.1	101	81-110	Thinned in 1994 as part of North Kingston Pine #410119201. Large red and white pine with a good amount of xlog trees. Regeneration is variable size to 20 feet tall. Paper birch regeneration is consistently scattered throughout entire stand.
71	42210 - Natural Red Pine	Poletimber Medium	5.3	65	51-80	Patchy natural red pine with some aspen. One dense area of red pine in NE corner. A trace of 1' tall red oak regeneration.
72	42210 - Natural Red Pine	Poletimber Medium	7.0	65	81-110	Stand was cut under TS 007-00 12 Mile Pine and scarified under FTP C41-969 in 2002. 100 acorns hand planted by inmates under FTP W41-992 in 2006. There's only a trace of 1' tall oak seedlings. Regeneration is on the low end.
73	42210 - Natural Red Pine	Poletimber Well	18.8	56	111-140	Natural red pine stand with a few scattered xlog red pine.
74	42220 - Natural Jack Pine	Poletimber Medium	7.5	46	81-110	Healthy jack pine stand.

s t	Shingleton	ո Mgt. Unit		Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
75	42210 - Natural Red Pine	Sawtimber Well	35.8	102	141-170	Nice looking natural red pine stand, mixed with scattered white pine and a notable amount of bigtooth aspen. Most of the paper birch is on the western side of the stand on top of the hill. This area is not in the proposed prescription as the red pine and white pine BA is 80-110. BA in the prescription area is 140-200. Fox River Pathway is in the stand. The duff layer here looks like it may support descent red pine regeneration if we choose to try multiple harvests this entry and next entry and disturb the soil.
76	42120 - Planted Jack Pine	Sapling Poor	1.5	6	Immature	Small area that was cut as part of Pathway Pine #410191001 in 2012. Trenched and planted. Residual red and white pine.
77	4319 - Mixed Upland Forest	Sawtimber Well	11.4	76	81-110	An old RR grade with deep cut banks goes through the stand. Small hemlock grove just north of the road with some large hemlock; also a dense patch of large tall white pine north of road. Paper birch is mostly healthy. Balsam fir is dying back.
79	42200 - Natural White Pine	Poletimber Well	11.7	58	51-80	White pine stand along H58/snowmobile trail.
80	4133 - Aspen, Mixed Pine	Sapling Medium	30.8	6	Immature	Cut in 2012 as part of H-58 RPM 410411001. Residual white pine of saplings and poles left, a few residual red pine, and some residual paper birch.
81	42110 - Planted Red Pine	Poletimber Well	15.7	56	141-170	Patchy red pine plantation that hasn't been third row thinned yet. Some scattered white pine ranging from pole sized to xlog size. Trees are taller in the south end of the stand. Old railroad grade runs through the stand.
82	42290 - Natural Mixed Pine	Poletimber Well	8.0	56	111-140	Previous inventory stated patchy stocking. Still patchy in spots but filling in. Still space in the canopy in many areas to let it grow another 10 years.
83	42110 - Planted Red Pine	Sawtimber Well	1.6	87	141-170	Small stand within grass opening.
84	42110 - Planted Red Pine	Poletimber Well	5.2	56	141-170	The Fox River Pathway is the east boundary of the stand. Stand was cut in 2012 as part of Pathway Pine 41-019-10-01 Pathway Pine. Basal area averages 152 and ranges from 120-190.
85	42110 - Planted Red Pine	Poletimber Well	19.2	56	141-170	Thinned in 2012 41-019-10-01 Pathway Pine. Stand is doing good and ready for another thinning.

60

56

18.2

10.9

171-200

1-50

42210 - Natural Red

Pine

42210 - Natural Red

86

87

Poletimber

Well

Sawtimber

Medium

Dense natural red pine with white pine mixed in. Ready for

thinning. A few patchy areas but other areas are basal areas of 150-210 with a 240. A few 22-24" red pine in the stand.

Old opening that has filled in with trees. The Fox River pathway is within the stand.

s t	Shingleton Mgt. Unit			Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
88	42350 - Upland Hemlock	Poletimber Well	11.2	115	111-140	Various diameter hemlock with paper birch, red maple, white pine, and red pine mixed in. The paper birch is dying off, at about 20-30% dieback currently. The outside edges of the stand is more mixed like an MC stand but quickly becomes dominated by various variable diameter hemlock. Some areas are log to Xlog hemlock. Good amount of hemlock regeneration from 3 feet to 20+ feet.
90	42210 - Natural Red Pine	Sawtimber Well	1.6	65	81-110	Stand was cut in 2012 as part of Pathway Pine 41-019-10-01 Pathway Pine.
91	42200 - Natural White Pine	Poletimber Well	5.6	46	1-50	Dry site with dense white pine poles and a few scattered red pine. On small slope in transition from grassy opening to the UM9 stand to the east.
92	42110 - Planted Red Pine	Poletimber Well	29.1	60	141-170	Thinned in 41-026-10-01 Kingston Construction. Patchy areas scattered throughout the stand but many dense areas that would benefit from another thinning.
93	42200 - Natural White Pine	Sawtimber Well	19.0	92	111-140	Area between plantations that has naturally regenerated to white pine. Small openings throughout. White pine is a wide range of diameters.
94	42110 - Planted Red Pine	Poletimber Medium	9.2	60	111-140	Thinned in 2001 as part of Kingston Construction 410261001. Some patchy areas but the thicker areas have BA up to 150-200. Ready to thin again.
95	42110 - Planted Red Pine	Poletimber Well	12.7	60	111-140	Stand was thinned in 2011 as part of Kingston Construction. Some patchy areas but the denser areas have BA's from 140- 170. Ready for another thinning.
96	42200 - Natural White Pine	Poletimber Medium	15.3	53	51-80	Old grass stand that has filled in with trees. Scattered large red and white pine. Patches of dense regeneration consisting of mainly white pine. Just north of the red pine stand there is a 2 acre patch of 35 year old 6" DBH jack pine. Variable BA with some patchy areas.
97	42110 - Planted Red Pine	Poletimber Well	8.9	60	81-110	Cut in 2011 as Kingston Construction 41-026-10-041. Plantation with some sparse areas; BA varies from 70-140 and averages 98. A few scattered large white pine.
98	42290 - Natural Mixed Pine	Poletimber Poor	5.9	62	1-50	Old grass opening filling in.
99	42110 - Planted Red Pine	Poletimber Well	9.3	55	81-110	Plantation with openings. BA rang 60-190 with an average of 142. Ready for a thinning with areas of high BA's.
100	42110 - Planted Red Pine	Poletimber Well	48.1	60	141-170	Third row thin done in 2011 as part of Kingston Construction #410261001. West side of stand is ready for another thinning. East side of stand is more patchy.

s t				Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
101	42110 - Planted Red Pine	Poletimber Well	7.7	60	141-170	Was third row thinned in 2011 as part of 41-026-10-01 Kingston Construction. Consistent BA of 140-170 throughout the stand. Stand is doing good and ready for another thinning to promote better growth.
102	42220 - Natural Jack Pine	Sapling Medium	2.4	16	Immature	A few residual jack pine, red pine, red maple. Lower basal area stand at time of harvest.
103	42290 - Natural Mixed Pine	Poletimber Medium	17.6	60	51-80	Portions of this stand are adjacent to H-58/snowmobile trail. Scattered patchy openings. West portion had a small part cut 14 years ago as part of Hurricane Sign Pine and still contains a block of 36 year old jack pine and 60 year old red pine and scattered white pine.
104	42200 - Natural White Pine	Poletimber Well	10.7	59	81-110	Natural white pine stand, between red pine plantations. Scattered large white pine.
105	42110 - Planted Red Pine	Poletimber Well	7.7	60	111-140	Plantation thinned in 2011 as part of Kingston Construction #410261001. Ready for another light thinning.
106	42290 - Natural Mixed Pine	Sawtimber Well	11.6	102	81-110	Thinned in 1994 as part of Hurricane Sign Pine #410380001. A few scattered xlog red and white pine.
107	42290 - Natural Mixed Pine	Sawtimber Well	8.3	88	111-140	Mix of large red and white pine.
108	42290 - Natural Mixed Pine	Sawtimber Medium	2.5	80	51-80	Thinned in 2004 as part of Hurricane Sign Pine 410380001.
109	42110 - Planted Red Pine	Poletimber Well	9.2	60	141-170	Was third row thinned in 2011 as part of 41-026-10-01 Kingston Construction. Ready for another thinning to promote better growth. BA is mostly consistent at 140-170 in this stand.
111	42220 - Natural Jack Pine	Sapling Well	5.0	14	Immature	Adjacent to H-58/snowmobile trail. Two age stand with jack, red and white pine left as residuals. Cut in 2004 as part of Hurricane Sign Pine.
112	42200 - Natural White Pine	Poletimber Well	20.2	60	51-80	Adjacent to H-58/snowmobile trail. A few sparse areas within the stand.
113	42220 - Natural Jack Pine	Sapling Well	2.2	13	Immature	Cut last entry - cut continues into compartment to the south. Some residual red and white pine.
114	42110 - Planted Red Pine	Poletimber Well	11.7	60	111-140	Stand was third row thinned in 2001 as part of 41-026-10-01 Kingston Construction. BA varies and is up to 180 in places.
115	42290 - Natural Mixed Pine	Poletimber Medium	2.1	53	51-80	Old opening filling in with trees.

S t	Shingleto	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
116	42110 - Planted Red Pine	Poletimber Well	12.3	60	111-140	Thinned in 2001 as part of Kingston Construction 410261001. Stand has some patchy areas with the denser areas being up to 150-170 BA. Ready to thin this entry.
117	42110 - Planted Red Pine	Sawtimber Well	22.3	65	111-140	May 2018-Red pine ranges from 60-70 years old, may have been some natural regen near time of planting. About 30% of RP are log sized These larger RP are mostly evenly distributed throughout the stand. Good growing site comparted to RP stands just to the west. Notes below says stand was third row thinned in 2011.
						OPIC - FMD: Plantation with some sparse areas. Many trees 1-3" DBH. Scattered large red and white pine. Remove every third row or equivalent. Remove all Jack pine, unless needed for retention. Do not cut oak. Habitat type=PVE. Soil=Rubicon Sand, 0-6% slopes, burned. [12/10/10] Stand is under contract 41-026-10-01 Kingston Construction. Residual BA: Red pine = 71; white pine = 9; red maple = 1; total = 81 sq.ft./acre. [12/6/11] Sale is now completed TCR dtd 12/01/11.
118	42210 - Natural Red Pine	Sawtimber Medium	6.2	78	81-110	Thinned in 2004 as part of Hurricane Sign Pine 410380001. Their are only a few red pine regenerating from the last thinning and they appear to be getting stressed from too little sun light. Recommend clearcutting now and trench/plant red pine. Cutting now will also help to break up the age class diversity in this area. BA averages about 110.
119	42220 - Natural Jack Pine	Sapling Well	2.3	14	Immature	Cut in 2014 as part of Hurricane Sign Pine 410380001. A few residual red and white pine were left. Only a couple red pine saplings regenerating. Filling in with JP, WP, and some BTA and RM.
120	42220 - Natural Jack Pine	Sapling Well	6.0	14	Immature	Cut in 2004 as part of Hurricane Sign Pine 410380001. Residual red and white pine left.
122	4136 - Aspen, Mixed Conifer	Sapling Well	17.2	14	Immature	A few residual white pine, red pine and hemlock (less than 10 BA total).
123	429 - Mixed Upland Conifers	Sapling Medium	10.9	13	Immature	[7/13/18] White pine residuals (less than 10 BA). JP, Oak and Hemlock were planted in 6/07. [5/22/07 jb] Stand had regeneration survey done this spring. Any WB that sprouted were eaten off by deer. There were really no other spp regenerating in the stand. MO, with approval, has been changed to a hemlock, white pine and jack pine mix. [6/6/07 jb] planted hemlock, oak and jack pine, check in 2008. [6/4/08 jb]Very north end needs jp. Didn't find any that really made it. Will replant.No wp necessary, those numbers were good.
124	42200 - Natural White Pine	Poletimber Well	9.4	53	51-80	Paper birch is more on the south end. Mostly pole and sapling sized white pine with scattered pole sized red pine and paper birch.
125	42200 - Natural White Pine	Sawtimber Well	22.6	98	111-140	North end of stand contains more white pine and has more regeneration. A few hemlock were found in a 1/2 acre area in the central part of the stand.

S t	Shingletor	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 134 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
126	42110 - Planted Red Pine	Poletimber Well	42.5	64	141-170	Plantation with some sparse areas. The red pine is two ages of 58 and 70. Has not been third row thinned yet and is ready for a treatment. Some scattered white pine, quaking aspen, jack pine, paper birch, and red maple. The interior center of the stand contains most of the two age red pine and most of the larger diameter red pine.
127	42210 - Natural Red Pine	Poletimber Well	17.8	53	81-110	Mix of red and white pine with a few paper birch, red maple, aspen and jack pine.
128	42290 - Natural Mixed Pine	Poletimber Well	13.4	55	81-110	Nice mixed stand. Scattered XL white pine and to a lesser extent scattered XL red pine. Red pine poles have now recruited into the canopy. There's pockets of thick 7" red pine. Hold for this entry, looks like next entry a treatment would be beneficial for the stand.
129	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	2.0	68	81-110	Small stand at the top of a ridge that continues into the next compartment. Thinned in 2006 as part of Preacher Lake Hardwoods with the compartment to the east. Paper birch is dying back.
130	42290 - Natural Mixed Pine	Poletimber Well	11.7	53	81-110	Mixed stand with the jack pine being healthy and on the smaller side yet. The stand looks different at the road as there's a pocket of dense red pine there. A few xlarge white pine throughout the stand.
132	42210 - Natural Red Pine	Sawtimber Well	3.2	105	81-110	Thinned in 1994 as part of Hurricane Sign Pine #410380001. Large red and white pine with about a 10% component of 60 year old red pine.
133	42290 - Natural Mixed Pine	Sapling Well	2.8	14	Immature	Cut in 2004 as part of Hurricane Sign Pine 410380001. Mixture of jack pine, white pine, and red maple regenerating. Residual red pine poles are scattered throughout the stand, and a few paper birch. Some additional one foot tall red maple has also now come in.
134	42210 - Natural Red Pine	Poletimber Well	7.0	53	81-110	A few pockets of thick red pine poles. A few scattered large red and white pine. Worth noting the paper birch component for this general area, this component is mostly healthy. Look at next entry for possible treatment.

42210 - Natural Red

Pine

42220 - Natural Jack

Pine

135

137

Poletimber

Well

Poletimber

Medium

9.3

7.7

64

43

141-170

51-80

Thick red pine in large blocks. All but the largest red pine are 64

years old, even the 4-5" red pine that are tightly spaced are 64. Scattered large white pine and red pine. Appears to be a natural stand, there's no sign of rows and the transition to stand 126 to the south is a very clear change to red pine rows.

Old opening that has filled in with trees. Southern 1/3 if filled with

dense 7" jack pine. The north 1/2 is still more open and most of the white pine is located there.



Stand	Cover Type	Acres	Managed Site	General Comments:
14	623 - Emergent Wetland	1.1	No	Small marsh depression. Seasonally wet.
26	122 - Road/Parking Lot	10.8	No	H58 and Hurricane Truck Trail.
31	500 - Water	1.2	No	MNFI lists as a prime example of a Kettle Hole lake.
42	6225 - Bog	0.9	No	Seasonally wet bog; lower than surrounding pine plantation.
55	330 - Low-Density Trees	1.4	No	Grassy area filling in with a mix of white pine, paper birch, and aspen.
61	623 - Emergent Wetland	0.6	No	Small depression with march grasses and low shrubs. Seasonally wet.
63	330 - Low-Density Trees	5.0	No	Part of this was J6 and cut as part of Pathway Pine #410191001 in 2012. This was then trenched/planted with JP that is 2' tall now. The rest of the stand is a grassy opening that has been filling in with trees.
89	330 - Low-Density Trees	10.0	No	Opening filling in with red pine and some aspen.
121	500 - Water	0.8	No	small pond
139	330 - Low-Density Trees	7.9	No	The Fox River Pathway is in the west part of the stand. Grassy valley, filling in with red pine, white pine, jack pine, aspen; and some black spruce along the south edge. Small pond at bottom of valley. Nice vista looking south from the north end, looks like out west. 15-35% slopes
140	3302 - Low Density Conifer Trees	3.8	No	Grassy area filling in with white pine, jack pine, and red pine.
142	330 - Low-Density Trees	19.2	No	Grass opening between red pine plantations. Scattered red and white pine, aspen, cherry, maple.
143	3102 - Grass	1.3	No	Grassy valley within a red pine plantation.
144	330 - Low-Density Trees	24.9	No	Grass area between plantations. Filling in with aspen, jack pine, white pine, also a few cherry, paper birch, red maple and red pine. A couple areas look like rows of an area that failed as a plantation.
145	3102 - Grass	1.0	No	OPIC - FMD: Grassy valley within a red pine plantation. Habitat type=PVE. Soil=Rubicon Sand, 6-15% slopes, burned
146	3302 - Low Density Conifer Trees	87.6	No	Large grassy opening with rolling terrain and scattered red pine and small aspen filling in.



Stand	Cover Type	Acres	Managed Site	General Comments:
402	3102 - Grass	1.8	No	OPIC - FMD: Steep valley with the Fox River Pathway going through it. Filling in with trees: white pine and red pine. Habitat type=PVE soil=Rubicon sand 15-35% slopes
403	3102 - Grass	1.4	No	Small grassy opening, filling in with trees (aspen, w.pine).
407	330 - Low-Density Trees	1.8	No	
408	3102 - Grass	1.9	No	Small grassy opening, slowly filling in with trees (w.pine, aspen).
409	3102 - Grass	1.0	No	Small grassy opening, slowly filling in with trees (w.pine, aspen).
410	3102 - Grass	2.8	No	Small grassy valley, slowly filling in with trees (w.pine, aspen).
419	3102 - Grass	11.9	No	Grassy valley with a few scattered trees (white pine, aspen).
421	3102 - Grass	1.6	No	Small grassy opening with a few scattered trees.
424	3102 - Grass	0.7	No	Small grassy opening with a few scattered trees, has burned before.
425	3102 - Grass	6.2	No	Grass opening between red pine plantations. A few scattered trees: white pine, red pine, red maple. Old large white pine stumps within the opening.
426	3102 - Grass	1.6	No	Small grassy opening with a few scattered trees, has burned before.
427	3102 - Grass	1.9	No	Small grassy opening with a few scattered trees.
429	3102 - Grass	1.3	No	Small grassy opening with a few scattered trees, has burned before.