



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41128

Entry Year 2022

Acreage: 1,697

County Schoolcraft

Management Area: Danaher Kingston Outwash

Revision Date: 2020-07-16

Stand Examiner: Bob Burnham

Legal Description:

T47N R14W Sections: 16 21 28 33

Identified Planning Goals:

Danaher Kingston Outwash Management

Soil and topography:

Sandy soils dominate this compartment. Terrain is level with 2 north/south ridges near the Fox River

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

The compartment is primarily contiguous state ownership, with two private parcels contained within section 16 to the north. There is one structure within the NW private parcel.

Unique Natural Features:

Spring pond is a tributary of the Fox River. It is fed by numerous springs flowing out of the base of a steep hillside encircling the pond. The outlet of the pond is approximately 20 feet wide, and shows evidence of an old wooden dam. Wood Turtle (*Clemmys insculpta*, state special concern) could occur in and along Fox River. The prescribed treatments in this compartment are unlikely to adversely impact this species if best management practices are followed along these riparian corridors. There is also potential for nesting red-shouldered hawk (*Buteo lineatus*, state threatened) and Northern goshawks (*Accipiter gentilis*, state special concern) to occur throughout this compartment in stands of northern hardwoods, white pine, and red pine (goshawk only).

Archeological, Historical, and Cultural Features:

At least one old pine camp is found within the compartment. An old wooden dam crosses the outlet of Spring Pond

Special Management Designations or Considerations:

The Fox River and adjacent stands within 200 feet of the edge of the river are within the Fox River Natural River Management Zone

Watershed and Fisheries Considerations:

This compartment contains the Fox River. The Fox River is a Natural River and is a designated trout stream less than 50' width. A 300' buffer is recommended for the Fox River in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, 200' plus 5' per 1% increase in slope; buffers are recommended to protect these areas in accordance with Best Management Practices and Fox River Natural Rivers Management Plan.

Wildlife Habitat Considerations:

Compartment 128 lies within north east Schoolcraft county in the Seney Sand Lake Plain ecological sub-subsection and is a part of the Danaher Kingston Outwash Management area with eastern bluebird, Kirtland's warbler, red crossbill, sharptailed-grouse, spruce grouse and upland sandpiper as featured species. The Fox River traverses the west side of this compartment. The growing season in this area averages between 100 and 130 days. Extreme winter low temperatures are around -40 degrees F with average snowfalls of approximately 160 inches.

Pre-settlement vegetation was dominated by conifer/hardwood mixed forest consisting of hemlock, white pine, beech, maple, yellow birch, and balsam fir. Natural disturbances likely consisted of windthrow and fire. Extensive logging followed by hot slash fires altered the vegetative and soil characteristics of the area. Currently the forest within this compartment is dominated by planted red pine. Northern hardwood and white pine also occur in sizeable stands. Aspen and jack pine stands occur to a lesser extent. Several grassy openings also exist.

Wildlife habitat management objectives include regaining some of the original structure, mesic conifer retention and

managing for species and structural diversity in the northern hardwood stands. Other wildlife priorities include retention of mature seed-bearing trees in mixed pine stands and white pine stands, recruitment and retention of hard and soft mast producing species and connectivity in conifer stands. Other wildlife species of interest include brown creeper, Blackburnian warbler, smooth green snake, black bear, ruffed grouse, and white-tailed deer.

Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial oil & gas production in this part of the state, and there is no known metallic mineral potential in this area. The state-owned Sunken Lake (Seney North) Pit is five miles to the southeast and is currently leased to the County Road Commission. There might be some potential for sand & gravel in the compartment.

Vehicle Access:

There are a series of trail roads that run through the compartment. These roads connect to the Sunken Lake Road and eventually M-77.

Survey Needs:

An additional corner in the NW of Section of 16 will be needed.

Recreational Facilities and Opportunities:

The Sunken Lake Road is a Snowmobile Trail. Additional recreation activity in this area consists of hunting, fishing, trapping as well as berry picking and ORV use.

Fire Protection:

This area is with the Fox River Zone dispatch area which is a high risk fuel type. Additional resources are pre-planned if a fire gets established in this area.

Additional Compartment Information:

The following reports from the Inventory are attached:

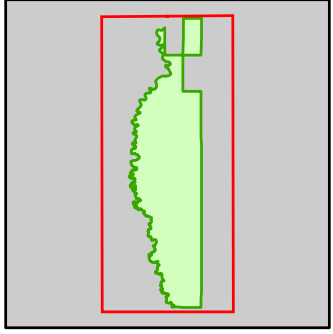
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

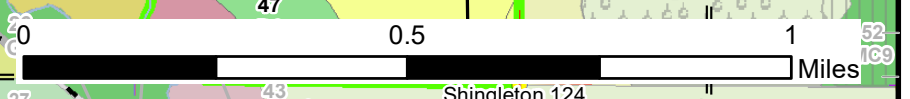
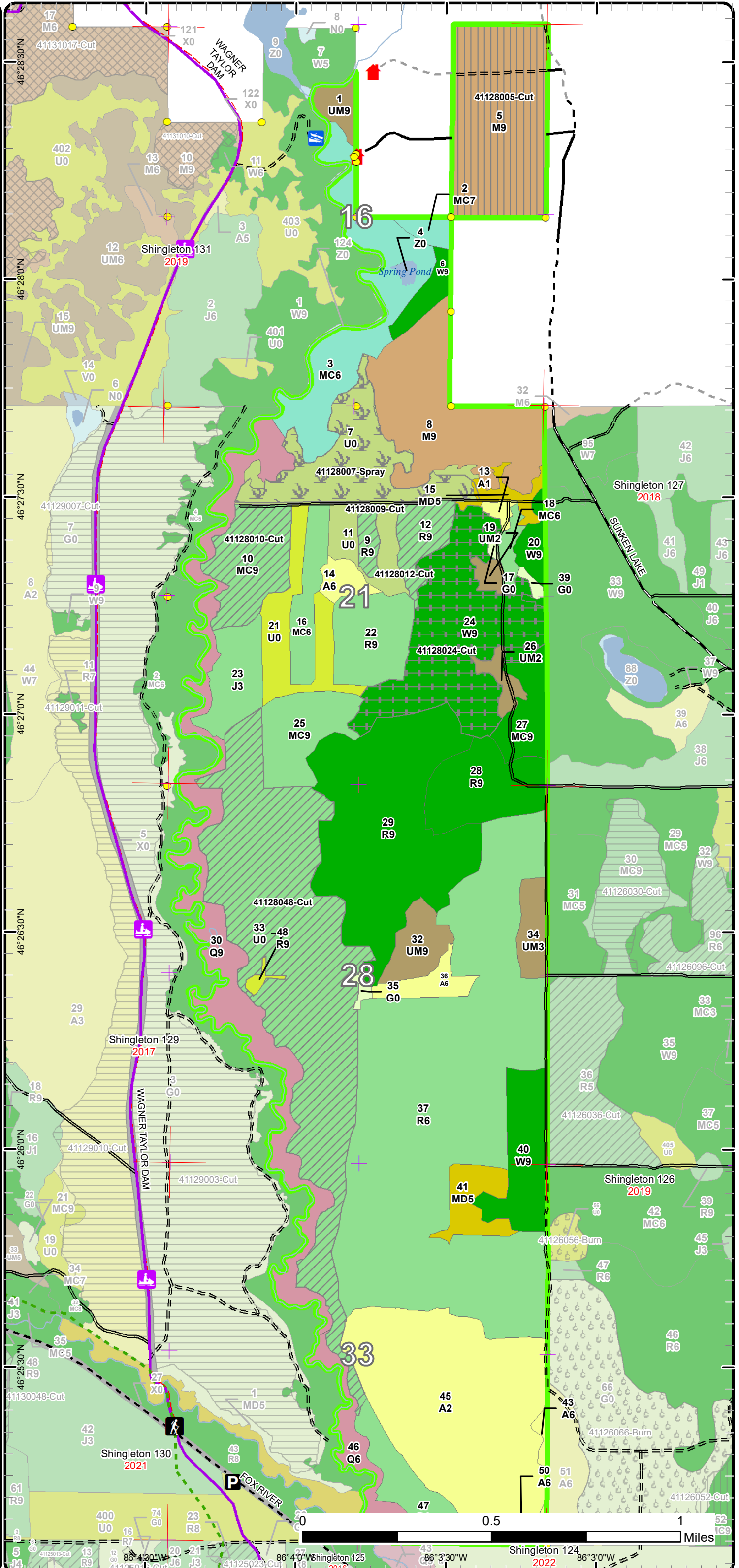
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 128
 T47N, R14W, Sec. 16, 21, 28, 33
 County: Schoolcraft
 Unit: Shingleton
 Mgmt Area: Danaher Kingston
 Outwash
 YOE: 2022
 Acres: 1,697 GIS Calculated
 Examiner: Bob Burnham
 Map Revised: 8/25/2020
 Map Phase: Web Post



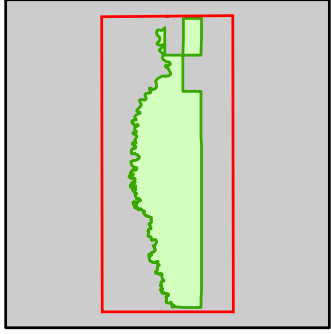
- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- 🚶 Hiking Trails
- 🚙 Snowmobile Trails
- Designated Hiking Trails
- Designated Snowmobile Trails
- Lake/Pond
- Perennial River
- Lakes and Rivers
- 🏠 Cabin
- 🚤 Boating Access Site
- P Parking Lot
- Compartment Boundary
- Treatments with Site Conditions
- Pesticide
- Harvest, Overstory Removal
- Thinning (Crown, Low, Systematic)
- Shelter Wood (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water



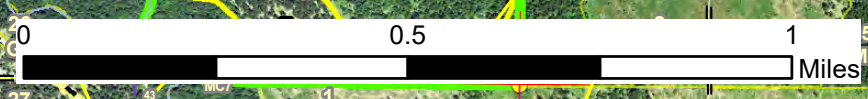
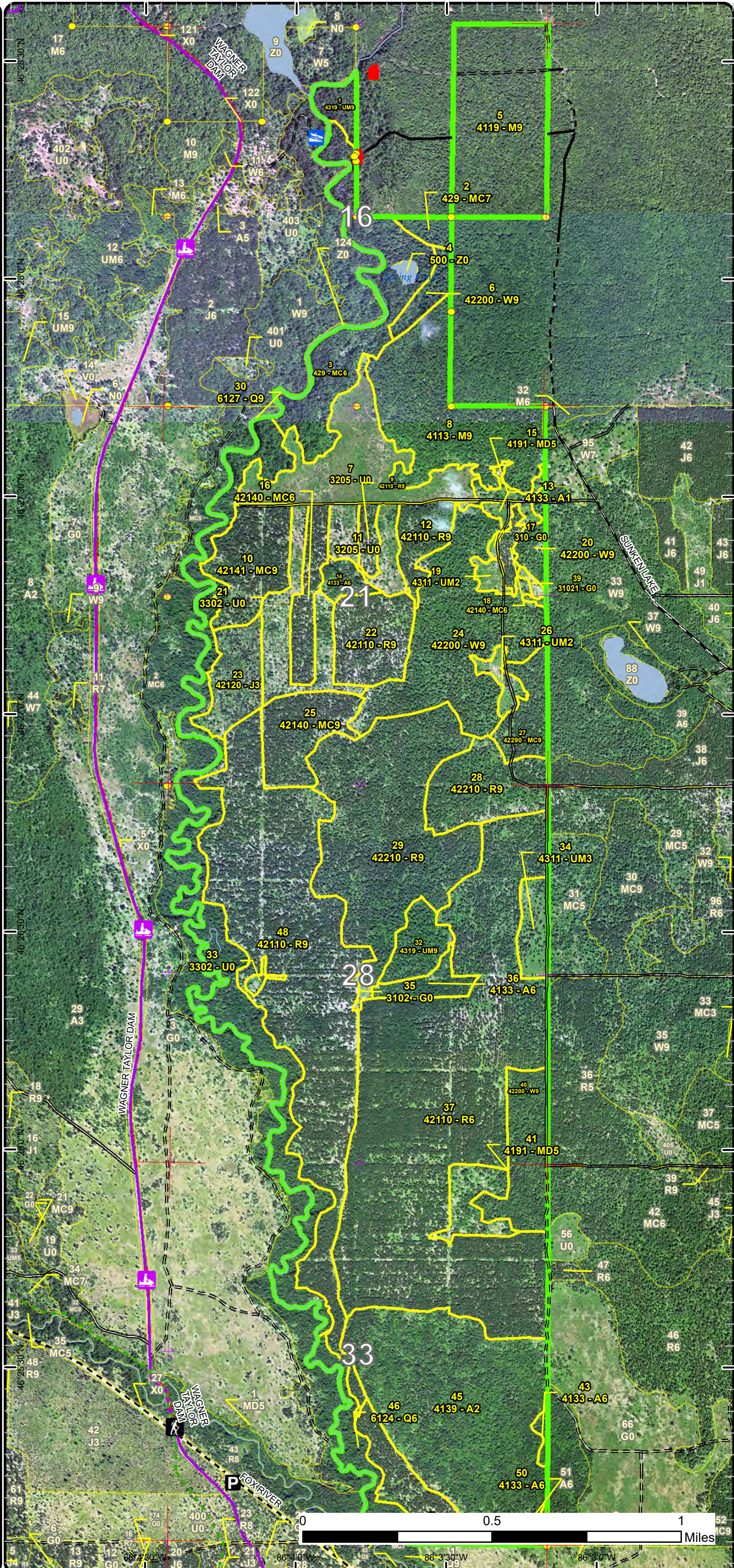
86°43'0"W Shingleton 125 86°3'30"W Shingleton 124 86°3'0"W

Stand Boundary Map

Compartment: 128
 T47N, R14W, Sec. 16, 21, 28, 33
 County: Schoolcraft
 Unit: Shingleton
 Mgmt Area: Danaher Kingston
 Outwash
 YOE: 2022
 Acres: 1,697 GIS Calculated
 Examiner: Bob Burnham
 Map Revised: 8/25/2020
 Map Phase: Web Post

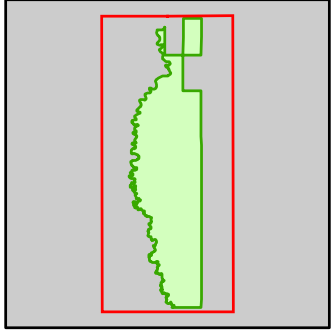


- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Hiking Trails
- Snowmobile Trails
- Designated Hiking Trails
- Designated Snowmobile Trails
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Cabin
- Boating Access Site
- P Parking Lot
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water

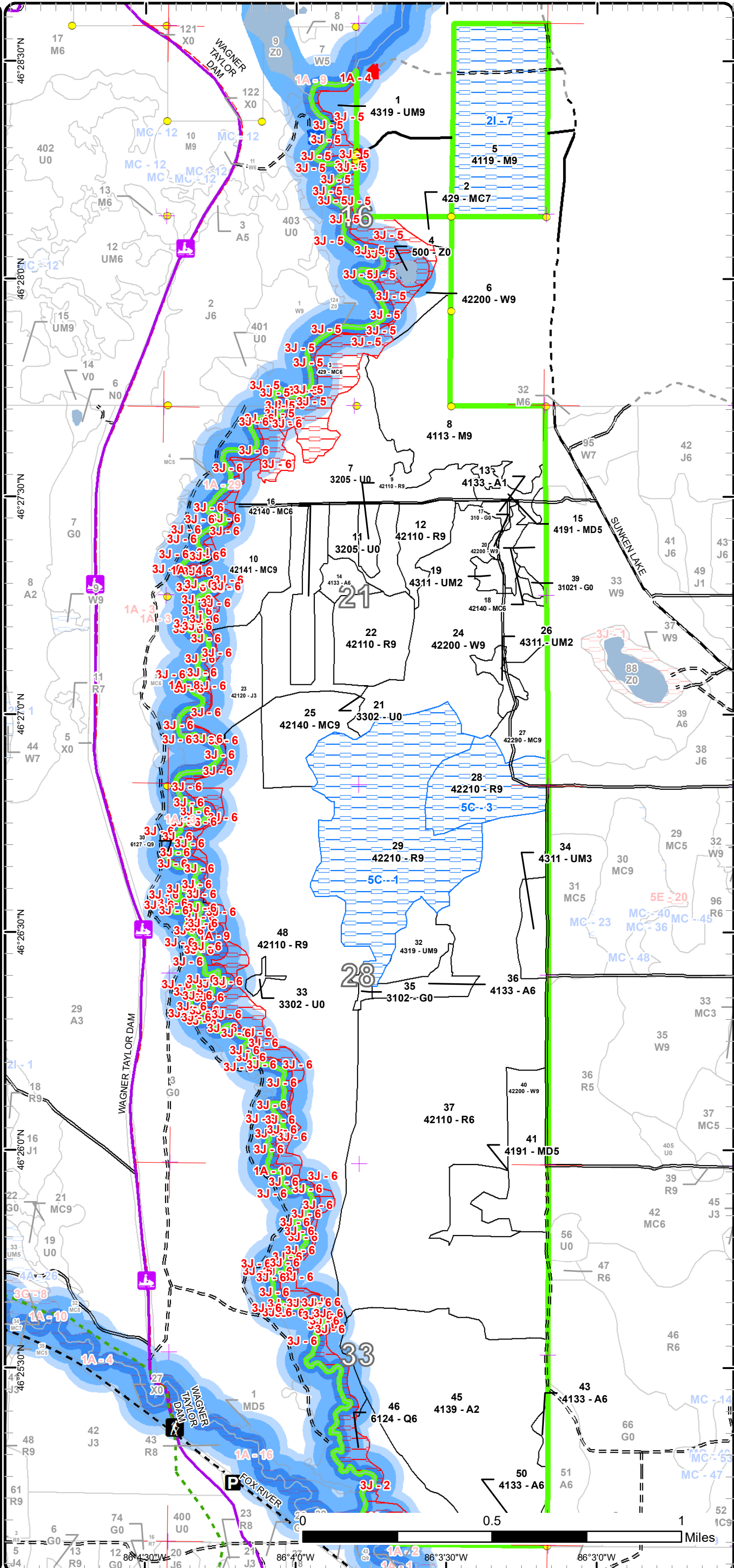


Special Conservation Areas

Compartment: 128
 T47N, R14W, Sec. 16, 21, 28, 33
 County: Schoolcraft
 Unit: Shingleton
 Mgmt Area: Danaher Kingston
 Outwash
 YOE: 2022
 Acres: 1,697 GIS Calculated
 Examiner: Bob Burnham
 Map Revised: 8/25/2020
 Map Phase: Web Post



- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Hiking Trails
- Snowmobile Trails
- Designated Hiking Trails
- Designated Snowmobile Trails
- Lake/Pond
- Perennial River
- Lakes and Rivers
- ▲ Cabin
- Boating Access Site
- P Parking Lot
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 2I: Survey needed
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 1A: Federal/State/Local Law
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



0.5 1 Miles

86°43'0"W 86°3'30"W 86°3'0"W



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	143	3	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	172
Herbaceous Openland	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Jack Pine	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Low-Density Trees	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Lowland Conifers	0	0	0	0	0	0	0	19	0	0	98	0	0	0	0	0	0	0	117
Mixed Upland Deciduous	0	0	0	0	0	0	0	16	8	0	0	0	0	0	0	0	0	0	24
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	18
Northern Hardwood	0	0	0	0	0	0	0	0	0	79	0	82	0	0	0	0	0	0	161
Planted Mixed Pines	0	0	0	0	0	24	0	63	0	0	0	0	0	0	0	0	0	0	87
Red Pine	0	0	0	0	0	0	27	53	0	162	0	0	0	0	0	0	0	490	732
Upland Conifers	0	0	0	0	0	0	0	0	6	0	0	0	62	0	0	0	0	0	68
Upland Mixed Forest	0	13	10	0	0	0	0	0	16	0	8	0	0	0	0	0	0	0	47
Upland Shrub	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
White Pine	0	0	0	0	0	0	0	0	33	9	9	0	0	0	0	0	0	90	141
Total	110	156	36	0	0	50	27	151	63	250	115	82	62	0	0	0	0	598	1700



Report 2 – Treatment Summary

Shingleton Mgt. Unit

Year of Entry: 2022

Acres of Harvest

Compartment 128

Total Compartment Acres: 1,697

Commercial Harvest - 339
 Harvests with Site Condition - 82
 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
Northern Hardwood	0	0	0	0	82	0	0	0	0	82
Planted Mixed Pines	0	0	0	0	0	34	0	0	0	34
Red Pine	0	0	0	0	0	216	0	0	0	216
White Pine	0	0	0	0	0	0	90	0	0	90
Total	0	0	0	0	82	250	90	0	0	421

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	421	0	0	0	0	52	0	0	0	473
Next Step	0	0	0	0	0	0	134	0	0	134
Total	421	0	0	0	0	52	134	0	0	606



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	Habitat Cut
-----------------------	-------------------	-------	--------------------	-----------------	--------------	-------------	-------------------	---------------------	-------------------------	------------------	----------------

Proposed Treatments:

5	41128005-Cut	82.0	4119 - Mixed Northern Hardwoods	Sawtimber Well	100	111- 140	Harvest	Shelterwood	411 - Northern Hardwood	Uneven- Aged	No
<p><u>Prescription</u> Designate all spruce and fir and Mark to cut remainder of stand with a target BA of 50. Concentrate marking larger trees to make large canopy gaps to encourage regeneration. Do not cut hemlock. Favor yellow birch where appropriate. Leave 1 healthy spruce or fir per acre for wildlife.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Any species currently on-site.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u> Survey Needed</p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>											
9	41128009-Cut	6.2	42110 - Planted Red Pine	Sawtimber Well	63	81-110	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Overall stocking is variable but there are areas that could benefit from thinning. Mark to cut. Target BA is 110 where applicable.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>											
10	41128010-Cut	34.2	42141 - Planted Mixed Pine, Mixed Deciduous	Sawtimber Well	63	81-110	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Remove every third row where appropriate. Remove all other species except oak. Mark red pine in areas of lower stocking. Stand borders the Fox River.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u> This is a variably stocked plantation, there will be areas that won't need rows removed but could red pine could benefit a traditional thinning.</p> <p><u>Comment:</u> CAN WE THIN WITH PERMIT BETWEEN 200 AND 100 FEET OF THE RIVER STAYING AT THE TOP OF THE RIDGE?</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2021</p>											



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	Habitat Cut
----------------	-------	-----------------	--------------	-----------	----------	----------------	------------------	----------------------	---------------	-------------

12	41128012-Cut	16.1	42110 - Planted Red Pine	Sawtimber Well	63	111-140	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	No
----	--------------	------	--------------------------	----------------	----	---------	---------	--------------	-------------------------	-----------	----

Prescription Overall stocking is variable but there are areas that could benefit from thinning. Target BA is 110 where applicable. Mark to cut.

Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2021

24	41128024-Cut	89.7	42200 - Natural White Pine	Sawtimber Well	90	51-80	Harvest	Overstory Removal	4220 - Natural White Pine	Two-Aged	No
----	--------------	------	----------------------------	----------------	----	-------	---------	-------------------	---------------------------	----------	----

Prescription Treatment will be an overstory removal leaving all regen as well as young white pine. Leave all white pine less than 8 inches (approximately 2-3 sticks). Use regen protection spec. Mark some super canopy white pine as well to leave.

Next Step
Treatments:

Acceptable Any species within current stand can be counted toward acceptable regen.
Regen:

Other Exclude any areas heavy to red pine on south end as these areas should be managed with stand 29.
Comment:

Site Condition

Proposed Start Date: 10/1 /2021

48	41128048-Cut	193.2	42110 - Planted Red Pine	Sawtimber Well	66	81-110	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	No
----	--------------	-------	--------------------------	----------------	----	--------	---------	---------------------	-------------------------	-----------	----

Prescription Remove every third row where appropriate. Remove all other species except oak. Mark red pine in areas of lower stocking. Stand borders the Fox River.

Next Step
Treatments:

Acceptable
Regen:

Other This is a variably stocked plantation, there will be areas that won't need rows removed but could red pine could benefit a traditional thinning.
Comment: CAN WE THIN WITH PERMIT BETWEEN 200 AND 100 FEET OF THE RIVER STAYING AT THE TOP OF THE RIDGE?

Site Condition

Proposed Start Date: 10/1 /2021

Approved Treatments:

7	41128007-Spray	51.5	3205 - Mixed Upland Shrub	Nonstocked		Unspecified	Pesticide	ERROR	42110 - Planted Red Pine	Even-Aged	No
---	----------------	------	---------------------------	------------	--	-------------	-----------	-------	--------------------------	-----------	----

Prescription Kill broadleaf competitors with herbicide. Application could also be aerial if option is available.

Specs:

Next Step Monitoring, Herbicide Use
Treatments:

Acceptable red pine
Regen:

Other Percent to Treat = 100%
Comment:

Site Condition

Proposed Start Date: 10/1 /2019



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	Habitat Cut
----------------	-------	-----------------	--------------	-----------	----------	----------------	------------------	----------------------	---------------	-------------

Total Treatment Acreage Proposed: 472.9

Report 4 – Site Conditions

Shingleton Mgt. Unit
Bob Burnham : Examiner

Compartment: 128
Year of Entry: 2022

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions			
		With Condition	Not Available		2I	5C	1A	3J
171	171	0	0	Aspen				
4	4	0	0	Herbaceous Openland				
23	23	0	0	Jack Pine			0	
31	31	0	0	Low-Density Trees				
117	0	0	117	Lowland Conifers			54	63
24	24	0	0	Mixed Upland Deciduous				
18	18	0	0	Natural Mixed Pines				
161	79	82	0	Northern Hardwood	82			
87	87	0	0	Planted Mixed Pines			0	
730	569	161	0	Red Pine		161	0	
67	6	0	62	Upland Conifers			19	43
47	45	0	3	Upland Mixed Forest			3	
74	74	0	0	Upland Shrub				
1	0	0	1	Water			1	
140	140	0	0	White Pine			0	
1,697	1,270	243	183	Total Forested Acres	82	161	77	106
	75%	14%	11%	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	5C: Delay treatment for age/size class diversity or exceptional site quality	125	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand is a slower growing site, stand is healthy and pine are not growing out of class.							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Shingleton Mgt. Unit
 Bob Burnham : Examiner

Compartment: 128
 Year of Entry: 2022

3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	37	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	1A: Federal/State/Local Law	35	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Fox River 100' zone							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	43	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	45	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Available	2I: Survey needed	82	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	1A: Federal/State/Local Law	16	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Fox River 100' zone							

Report 4 – Site Conditions

Shingleton Mgt. Unit
Bob Burnham : Examiner

Compartment: 128
Year of Entry: 2022

9	Unavailable	1A: Federal/State/Local Law	13	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Fox River 100'zone							
10	Unavailable	1A: Federal/State/Local Law	14	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Fox River 100' zone							

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



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.

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
-------	--------------------	--------------	-------	-----------	----------	--------------	------------------

1	4319 - Mixed Upland Forest	Sawtimber Well	8.4	90	111-140	N/A	Hardwood stand along fox river.
---	----------------------------	----------------	-----	----	---------	-----	---------------------------------

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	3	Pole	7		Red Maple	Medium	Variable	Sapling
Red Maple	30	Log/Pole	10	73	Balsam Fir	High	Variable	Sapling
Beech	2	Log/Pole	10		White Pine	Low	Variable	Sapling
Paper Birch	7	Log/Pole	10					
Balsam Fir	15	Pole/Sapling	7					
White Pine	35	Log/XLog	17	90				
Black Cherry	8	Pole	8					

2	429 - Mixed Upland Conifers	Sawtimber Poor	5.6	70	1-50	N/A	check cutting record for age. overstory could be removed but small. acreage
---	-----------------------------	----------------	-----	----	------	-----	---

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	16	Log/Pole	13		Red Maple	Full	10 - 20 feet	Sapling
White Spruce	32	Log/Pole	13		Balsam Fir	Medium	Variable	Sapling
White Pine	52	Log/Pole	13	70	White Pine	Low	5 - 10 feet	Sapling
					White Spruce	Medium	Variable	Sapling
					Beech	Low	5 - 10 feet	Sapling
					Black Cherry	Medium	10 - 20 feet	Sapling

3	429 - Mixed Upland Conifers	Poletimber Well	61.6	110	51-80	N/A	This is the riparian area along the fox river, management would be difficult in the portions outside the 200' buffer because the stand slopes to the river.
---	-----------------------------	-----------------	------	-----	-------	-----	---

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	30	Pole	8	50	Red Maple	Medium	Variable	Sapling
Paper Birch	6	Pole	6		Balsam Fir	High	Variable	Sapling
Quaking Aspen	2	Pole	6		White Pine	Low	Variable	Sapling
Balsam Fir	15	Pole/Sapling	7					
Black Spruce	5	Pole	6					
White Pine	40	XLog/Log/Pole	18	110				
Hemlock	2	Log/Pole	10					

4	500 - Water	Nonstocked	1.4		Unspecified	No	Spring Pond
---	-------------	------------	-----	--	-------------	----	-------------

5	4119 - Mixed Northern Hardwoods	Sawtimber Well	82.0	100	111-140	N/A	Overall health of stand is declining due to age. Regen from previous cut yielded a heavy understorey.
---	---------------------------------	----------------	------	-----	---------	-----	---

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	19	Log/Pole	11		Sugar Maple	High	Variable	Sapling
Red Maple	50	Log/Pole/XLog	12	100	Red Maple	High	Variable	Sapling
Yellow Birch	6	Log/XLog	17		Beech	Low	Variable	Sapling
Beech	2	Log/Pole	10		Balsam Fir	Medium	Variable	Sapling
White Spruce	4	Log/Pole	10		White Pine	Low	5 - 10 feet	Sapling
Hemlock	10	Log/XLog	16		White Spruce	Medium	5 - 10 feet	Sapling
Black Cherry	4	Log/Pole	10					
White Pine	5	XLog/Log	20					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																		
6	42200 - Natural White Pine	Sawtimber Well	9.0	85	51-80	N/A	Cut in Fall of 2005, Sunken Rotten Decks Sale.																																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Balsam Fir</td> <td>5</td> <td>Pole</td> <td>8</td> <td></td> </tr> <tr> <td>White Pine</td> <td>80</td> <td>Log</td> <td>16</td> <td>85</td> </tr> <tr> <td>Hemlock</td> <td>10</td> <td>Log</td> <td>14</td> <td></td> </tr> <tr> <td>White Spruce</td> <td>5</td> <td>Log</td> <td>12</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Balsam Fir	5	Pole	8		White Pine	80	Log	16	85	Hemlock	10	Log	14		White Spruce	5	Log	12		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>High</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Beech</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Balsam Fir</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>White Spruce</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	High	10 - 20 feet	Sapling	Beech	Low	10 - 20 feet	Sapling	Balsam Fir	Medium	Variable	Sapling	White Pine	Medium	Variable	Sapling	Black Cherry	Low	5 - 10 feet	Sapling	White Spruce	Low	Variable	Sapling	
Canopy Species	% Cover	Size Class	DBH	Age																																																					
Balsam Fir	5	Pole	8																																																						
White Pine	80	Log	16	85																																																					
Hemlock	10	Log	14																																																						
White Spruce	5	Log	12																																																						
Sub-Canopy Species	Density	Avg. Height	Size																																																						
Red Maple	High	10 - 20 feet	Sapling																																																						
Beech	Low	10 - 20 feet	Sapling																																																						
Balsam Fir	Medium	Variable	Sapling																																																						
White Pine	Medium	Variable	Sapling																																																						
Black Cherry	Low	5 - 10 feet	Sapling																																																						
White Spruce	Low	Variable	Sapling																																																						
7	3205 - Mixed Upland Shrub	Nonstocked	56.8		Unspecified	42110 - Planted Red Pine	Sale has been cut under 41-025-09-01 by Gigure Logging, Stand was trenched in summer of 2012 should be planted in spring of 2013 Planted spring of 2013, at a cost of \$10489.99 Count in 2014. (3/11/14RH) 3rd year Regen survey only 254 T/A. Site needs a replant. Replanted spring 2017. 1st year regen check, 1344 TPA. Passed 3rd year check but needs a release spray for cherry and aspen. Stand is on schedule to be skidder released this summer, the cherry may be to tall/advanced to be killed. The red pine seedlings have a combination of snow and J-rooting damage.																																																		
		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Pin Cherry</td> <td>Medium</td> <td>Variable</td> <td>Tall Shrub</td> </tr> <tr> <td>Red Pine</td> <td>High</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Medium	5 - 10 feet	Sapling	Pin Cherry	Medium	Variable	Tall Shrub	Red Pine	High	< 5 feet	Sapling																																						
Sub-Canopy Species	Density	Avg. Height	Size																																																						
Red Maple	Medium	5 - 10 feet	Sapling																																																						
Pin Cherry	Medium	Variable	Tall Shrub																																																						
Red Pine	High	< 5 feet	Sapling																																																						
8	4113 - R.Maple, Conifer	Sawtimber Well	78.7	81	51-80	N/A	Stand was harvested in the fall of 2014, Spaceman Hardwoods.																																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>50</td> <td>Log/Pole</td> <td>10</td> <td>81</td> </tr> <tr> <td>White Spruce</td> <td>2</td> <td>Log/Pole</td> <td>10</td> <td></td> </tr> <tr> <td>White Pine</td> <td>28</td> <td>XLog/Log</td> <td>18</td> <td></td> </tr> <tr> <td>Black Cherry</td> <td>10</td> <td>Log</td> <td>10</td> <td></td> </tr> <tr> <td>Sugar Maple</td> <td>10</td> <td>Log/Pole</td> <td>10</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	50	Log/Pole	10	81	White Spruce	2	Log/Pole	10		White Pine	28	XLog/Log	18		Black Cherry	10	Log	10		Sugar Maple	10	Log/Pole	10		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Beech</td> <td>High</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>White Spruce</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Sugar Maple</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Medium	5 - 10 feet	Sapling	Beech	High	Variable	Sapling	White Spruce	Low	Variable	Sapling	White Pine	Low	5 - 10 feet	Sapling	Sugar Maple	Low	< 5 feet	Sapling
Canopy Species	% Cover	Size Class	DBH	Age																																																					
Red Maple	50	Log/Pole	10	81																																																					
White Spruce	2	Log/Pole	10																																																						
White Pine	28	XLog/Log	18																																																						
Black Cherry	10	Log	10																																																						
Sugar Maple	10	Log/Pole	10																																																						
Sub-Canopy Species	Density	Avg. Height	Size																																																						
Red Maple	Medium	5 - 10 feet	Sapling																																																						
Beech	High	Variable	Sapling																																																						
White Spruce	Low	Variable	Sapling																																																						
White Pine	Low	5 - 10 feet	Sapling																																																						
Sugar Maple	Low	< 5 feet	Sapling																																																						
9	42110 - Planted Red Pine	Sawtimber Well	6.2	63	81-110	N/A	Stand was thinned in 2014, with Space Man hardwood. Stocking is variable, there are areas that could be thinned but many areas of lower BA.																																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>5</td> <td>Pole/Sapling</td> <td>6</td> <td></td> </tr> <tr> <td>Red Pine</td> <td>95</td> <td>Log/Pole</td> <td>14</td> <td>63</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	White Pine	5	Pole/Sapling	6		Red Pine	95	Log/Pole	14	63	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Pin Cherry</td> <td>Low</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Low	Variable	Sapling	Pin Cherry	Low	5 - 10 feet	Tall Shrub																											
Canopy Species	% Cover	Size Class	DBH	Age																																																					
White Pine	5	Pole/Sapling	6																																																						
Red Pine	95	Log/Pole	14	63																																																					
Sub-Canopy Species	Density	Avg. Height	Size																																																						
White Pine	Low	Variable	Sapling																																																						
Pin Cherry	Low	5 - 10 feet	Tall Shrub																																																						
10	42141 - Planted Mixed Pine, Mixed Deciduous	Sawtimber Well	34.2	63	81-110	N/A	Stocking varies greatly within this stand, records indicate that jack pine was planted roughly 10 years after the red pine was.																																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>2</td> <td>Pole</td> <td>6</td> <td></td> </tr> <tr> <td>Quaking Aspen</td> <td>3</td> <td>Pole</td> <td>5</td> <td></td> </tr> <tr> <td>White Pine</td> <td>10</td> <td>Log</td> <td>16</td> <td></td> </tr> <tr> <td>Red Pine</td> <td>80</td> <td>Log</td> <td>14</td> <td>63</td> </tr> <tr> <td>Jack Pine</td> <td>5</td> <td>Pole</td> <td>9</td> <td>48</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	2	Pole	6		Quaking Aspen	3	Pole	5		White Pine	10	Log	16		Red Pine	80	Log	14	63	Jack Pine	5	Pole	9	48	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Pin Cherry</td> <td>Low</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> <tr> <td>Red Maple</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Medium	Variable	Sapling	Pin Cherry	Low	5 - 10 feet	Tall Shrub	Red Maple	Low	5 - 10 feet	Sapling								
Canopy Species	% Cover	Size Class	DBH	Age																																																					
Red Maple	2	Pole	6																																																						
Quaking Aspen	3	Pole	5																																																						
White Pine	10	Log	16																																																						
Red Pine	80	Log	14	63																																																					
Jack Pine	5	Pole	9	48																																																					
Sub-Canopy Species	Density	Avg. Height	Size																																																						
White Pine	Medium	Variable	Sapling																																																						
Pin Cherry	Low	5 - 10 feet	Tall Shrub																																																						
Red Maple	Low	5 - 10 feet	Sapling																																																						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
11	3205 - Mixed Upland Shrub	Nonstocked	16.8		Unspecified	No	There is merchantable timber that could be cleaned up but wait until the adjacent stands are rotated.		
				Sub-Canopy Species	Density	Avg. Height		Size	
				Jack Pine	Low	>20 feet		Pole	
				Pin Cherry	Medium	10 - 20 feet	Tall Shrub		
12	42110 - Planted Red Pine	Sawtimber Well	16.1	63	111-140	N/A	Stand was thinned in 2006, Sunken Rotten Decks Sale. Stocking is variable, east side of stand has better soil.		
				Canopy Species	% Cover	Size Class		DBH	Age
				White Pine	15	XLog/Log		22	
				Red Pine	85	Log	14	63	
				Sub-Canopy Species	Density	Avg. Height	Size		
				Red Maple	High	Variable	Sapling		
				White Pine	Low	5 - 10 feet	Sapling		
				Pin Cherry	Low	5 - 10 feet	Tall Shrub		
13	4133 - Aspen, Mixed Pine	Sapling Poor	2.6	14	Immature	N/A	Stand cut in 2006, Sunken Rotten Decks trenched 5/4/16 Planted spring 2018 to JP. site check fall 2018 needs replant of JP. Site replanted spring 2019. Check fall 2019 passed. Jack pine is alive but will likely get shaded out over time. No further action recommended at this time.		
				Canopy Species	% Cover	Size Class		DBH	Age
				Red Maple	5	Sapling		1	
				Quaking Aspen	75	Sapling		2	14
				White Pine	10	Sapling		2	
				Jack Pine	10	Sapling	1	2	
14	4133 - Aspen, Mixed Pine	Poletimber Well	7.2	47	51-80	N/A	Steep knob ridge of aspen on north end.		
				Canopy Species	% Cover	Size Class		DBH	Age
				Quaking Aspen	55	Pole	8	47	
				White Pine	25	Log/Pole	16		
				Red Pine	10	Log	10		
				Jack Pine	5	Pole	6		
				Red Maple	5	Pole	7		
				Sub-Canopy Species	Density	Avg. Height	Size		
				White Pine	Medium	5 - 10 feet	Sapling		
				Pin Cherry	Low	5 - 10 feet	Tall Shrub		
				Beech	Low	< 5 feet	Sapling		
				Red Maple	Low	5 - 10 feet	Sapling		
15	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	7.6	70	1-50	N/A			
				Canopy Species	% Cover	Size Class		DBH	Age
				Quaking Aspen	35	Pole/Sapling	5		
				White Pine	35	Log/Pole	16	70	
				Black Cherry	10	Pole/Sap/Log	8		
				Red Maple	20	Pole	8		
				Sub-Canopy Species	Density	Avg. Height	Size		
				Pin Cherry	Medium	5 - 10 feet	Tall Shrub		
16	42140 - Planted Mixed Pine	Poletimber Well	18.2	48	81-110	N/A	Red pine stand planted in 1957 due to mortality from scleroderris jack pine was planted in 1972.		
				Canopy Species	% Cover	Size Class		DBH	Age
				Red Pine	41	Log	12	63	
				Jack Pine	56	Pole	8	48	
				White Pine	3	Pole	8		
				Sub-Canopy Species	Density	Avg. Height	Size		
				Jack Pine	Low	5 - 10 feet	Sapling		
				White Pine	Low	5 - 10 feet	Sapling		
				Pin Cherry	Low	5 - 10 feet	Tall Shrub		
17	310 - Herbaceous Openland	Nonstocked	1.0		Unspecified	No	This stand is a frost pocket		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
18	42140 - Planted Mixed Pine	Poletimber Well	5.4	48	51-80	N/A	Red pine plantation that had mostly failed, jack pine was planted in 1972 and looks healthy..
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Quaking Aspen		5	Pole	6		White Pine	
White Pine		10	Log	14		Quaking Aspen	
Red Pine		35	Log	14	63	Low	
Jack Pine		50	Pole	8	48	5 - 10 feet	
						Sapling	
19	4311 - Pine, Aspen Mix	Sapling Medium	4.1	14	Immature	N/A	Stand was cut in 2006, Sunken Rotten Decks Trenched 5/4/16 Planted spring 2018 to JP. 1st year check done fall 2018, replant. site replanted spring 2019. check fall 2019. Re-Inventoried summer 2020, jack pine stocking is sufficient but much of the planted stock is getting shaded out by aspen and white pine but no further action is recommended.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Quaking Aspen		50	Sapling	2	14	Pin Cherry	
White Pine		25	Sapling	3		Low	
Jack Pine		20	Sapling	1	2	< 5 feet	
Red Maple		5	Sapling	1		Tall Shrub	
20	42200 - Natural White Pine	Sawtimber Well	9.0	90	51-80	N/A	Stand was cut in 2006, Sunken Rotten Decks which created second age. Could manage with stand to the east in the future.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
White Pine		83	Log/Pole	16	90	White Pine	
Red Pine		5	XLog/Log	18		Quaking Aspen	
Jack Pine		12	Pole	9		Red Maple	
						Medium	
						10 - 20 feet	
						Sapling	
21	3302 - Low Density Conifer Trees	Nonstocked	29.5		Unspecified	No	Old opening that is filling in. Don't clean-up stand until surrounding stands are rotated to help encourage consolidation.
Sub-Canopy Species		Density	Avg. Height	Size			
White Pine		Low	>20 feet	Pole			
Jack Pine		Low	>20 feet	Pole			
22	42110 - Planted Red Pine	Sawtimber Well	30.3	63	81-110	N/A	Red Pine stand that was inter-planted with jack pine in areas that failed. Failures may have been result of scleroderris mortality.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Maple		2	Pole	8		Pin Cherry	
White Pine		12	XLog/Log	18		White Pine	
Red Pine		70	Log	12	63	Red Maple	
Jack Pine		16	Pole	7	48	Low	
						5 - 10 feet	
						Sapling	
23	42120 - Planted Jack Pine	Sapling Well	23.3	16	Unspecified	N/A	Jack pine is healthy, red pine logs are scattered and its not feasible to try and remove them.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
Red Pine		25	Log	12	63	Pin Cherry	
Jack Pine		75	Sapling	3	16	Medium	
						5 - 10 feet	
						Tall Shrub	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																	
24	42200 - Natural White Pine	Sawtimber Well	89.7	90	51-80	N/A	2 or 3 aged pine stand. Stand was thinned in 2006, Sunken Rotten Decks Sale which created full understory.																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>75</td> <td>Log/XLog/Pole</td> <td>16</td> <td>90</td> </tr> <tr> <td>Red Pine</td> <td>23</td> <td>Log</td> <td>16</td> <td></td> </tr> <tr> <td>Quaking Aspen</td> <td>2</td> <td>Pole</td> <td>8</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	White Pine	75	Log/XLog/Pole	16	90	Red Pine	23	Log	16		Quaking Aspen	2	Pole	8		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>Full</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>High</td> <td>Variable</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Bigtooth Aspen	Full	10 - 20 feet	Sapling	Red Maple	Medium	10 - 20 feet	Sapling	White Pine	High	Variable	Sapling	
Canopy Species	% Cover	Size Class	DBH	Age																																				
White Pine	75	Log/XLog/Pole	16	90																																				
Red Pine	23	Log	16																																					
Quaking Aspen	2	Pole	8																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Bigtooth Aspen	Full	10 - 20 feet	Sapling																																					
Red Maple	Medium	10 - 20 feet	Sapling																																					
White Pine	High	Variable	Sapling																																					
25	42140 - Planted Mixed Pine	Sawtimber Well	29.2	63	81-110	N/A	Stand was originally planted to red pine in 57 and then inter-planted to jack pine in 72 in areas that failed.																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>5</td> <td>XLog/Log</td> <td>18</td> <td></td> </tr> <tr> <td>Red Pine</td> <td>50</td> <td>Log</td> <td>12</td> <td>63</td> </tr> <tr> <td>Jack Pine</td> <td>45</td> <td>Pole</td> <td>9</td> <td>48</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	White Pine	5	XLog/Log	18		Red Pine	50	Log	12	63	Jack Pine	45	Pole	9	48	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Pin Cherry</td> <td>Low</td> <td>5 - 10 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Low	Variable	Sapling	Pin Cherry	Low	5 - 10 feet	Tall Shrub					
Canopy Species	% Cover	Size Class	DBH	Age																																				
White Pine	5	XLog/Log	18																																					
Red Pine	50	Log	12	63																																				
Jack Pine	45	Pole	9	48																																				
Sub-Canopy Species	Density	Avg. Height	Size																																					
White Pine	Low	Variable	Sapling																																					
Pin Cherry	Low	5 - 10 feet	Tall Shrub																																					
26	4311 - Pine, Aspen Mix	Sapling Medium	6.2	14	1-50	N/A	Harvested in 2006, Sunken Rotten Decks Trenched 5/4/16 Planted spring 2018 to JP. checked in fall 2018, needs replant of JP. site replanted spring 2019. Checked fall 2019, passed. This is a small stand and the advanced regen will likely shade out much of the planting stock but that is good at this point. Cancel all future treatments.																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>50</td> <td>Sapling</td> <td>2</td> <td>14</td> </tr> <tr> <td>White Pine</td> <td>25</td> <td>Sapling</td> <td>3</td> <td></td> </tr> <tr> <td>Jack Pine</td> <td>20</td> <td>Sapling</td> <td>1</td> <td>2</td> </tr> <tr> <td>Red Maple</td> <td>5</td> <td>Sapling</td> <td>1</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	50	Sapling	2	14	White Pine	25	Sapling	3		Jack Pine	20	Sapling	1	2	Red Maple	5	Sapling	1		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Pin Cherry</td> <td>Low</td> <td>< 5 feet</td> <td>Tall Shrub</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Pin Cherry	Low	< 5 feet	Tall Shrub				
Canopy Species	% Cover	Size Class	DBH	Age																																				
Quaking Aspen	50	Sapling	2	14																																				
White Pine	25	Sapling	3																																					
Jack Pine	20	Sapling	1	2																																				
Red Maple	5	Sapling	1																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Pin Cherry	Low	< 5 feet	Tall Shrub																																					
27	42290 - Natural Mixed Pine	Sawtimber Well	18.3	60	51-80	N/A																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>5</td> <td>Pole</td> <td>9</td> <td></td> </tr> <tr> <td>White Pine</td> <td>50</td> <td>Log</td> <td>11</td> <td>60</td> </tr> <tr> <td>Red Pine</td> <td>15</td> <td>Log</td> <td>12</td> <td></td> </tr> <tr> <td>Jack Pine</td> <td>30</td> <td>Pole</td> <td>9</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	5	Pole	9		White Pine	50	Log	11	60	Red Pine	15	Log	12		Jack Pine	30	Pole	9		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Medium	Variable	Sapling	Red Maple	Low	5 - 10 feet	Sapling
Canopy Species	% Cover	Size Class	DBH	Age																																				
Quaking Aspen	5	Pole	9																																					
White Pine	50	Log	11	60																																				
Red Pine	15	Log	12																																					
Jack Pine	30	Pole	9																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
White Pine	Medium	Variable	Sapling																																					
Red Maple	Low	5 - 10 feet	Sapling																																					
28	42210 - Natural Red Pine	Sawtimber Well	36.6	80	51-80	N/A	Cut in 1998, Sunken Lake Red Pine. Wait till the understory becomes merchantable.																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>25</td> <td>Log</td> <td>14</td> <td></td> </tr> <tr> <td>Red Pine</td> <td>75</td> <td>Log</td> <td>14</td> <td>80</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	White Pine	25	Log	14		Red Pine	75	Log	14	80	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>High</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>High</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Red Pine</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Medium	10 - 20 feet	Sapling	Bigtooth Aspen	High	10 - 20 feet	Sapling	White Pine	High	Variable	Sapling	Red Pine	Low	5 - 10 feet	Sapling		
Canopy Species	% Cover	Size Class	DBH	Age																																				
White Pine	25	Log	14																																					
Red Pine	75	Log	14	80																																				
Sub-Canopy Species	Density	Avg. Height	Size																																					
Red Maple	Medium	10 - 20 feet	Sapling																																					
Bigtooth Aspen	High	10 - 20 feet	Sapling																																					
White Pine	High	Variable	Sapling																																					
Red Pine	Low	5 - 10 feet	Sapling																																					
29	42210 - Natural Red Pine	Sawtimber Well	124.6	81	81-110	N/A	Stand was thinned in the 90's.																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>30</td> <td>Log/Pole</td> <td>16</td> <td></td> </tr> <tr> <td>Red Pine</td> <td>65</td> <td>Log</td> <td>14</td> <td>81</td> </tr> <tr> <td>Red Maple</td> <td>5</td> <td>Pole</td> <td>9</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	White Pine	30	Log/Pole	16		Red Pine	65	Log	14	81	Red Maple	5	Pole	9		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Quaking Aspen</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Medium	10 - 20 feet	Sapling	White Pine	Medium	Variable	Sapling	Quaking Aspen	Low	10 - 20 feet	Sapling	
Canopy Species	% Cover	Size Class	DBH	Age																																				
White Pine	30	Log/Pole	16																																					
Red Pine	65	Log	14	81																																				
Red Maple	5	Pole	9																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Red Maple	Medium	10 - 20 feet	Sapling																																					
White Pine	Medium	Variable	Sapling																																					
Quaking Aspen	Low	10 - 20 feet	Sapling																																					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
-------	--------------------	--------------	-------	-----------	----------	--------------	------------------

30	6127 - Lowland Pine	Sawtimber Well	98.4	90	81-110	N/A	This stand is in the natural river buffer along fox river. Stand is a ridge that slopes to the river, more bottom land than upland.
-----------	---------------------	----------------	------	----	--------	-----	---

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	20	Log/Pole	10		Red Maple	Medium	Variable	Sapling
Paper Birch	5	Log/Pole	10		Balsam Fir	Medium	Variable	Sapling
Quaking Aspen	5	Pole	7		Pin Cherry	Low	< 5 feet	Tall Shrub
White Pine	40	Log	16	90	White Spruce	Low	5 - 10 feet	Sapling
Red Pine	10	Pole/Log	8					
Black Cherry	5	Pole	8					
Black Spruce	5	Pole	8					
Balsam Fir	5	Pole	8					
White Spruce	5	Pole/Log	9					

32	4319 - Mixed Upland Forest	Sawtimber Well	15.6	73	51-80	N/A	Stand was thinned with Kara's Pine. Low quality hardwood.
-----------	----------------------------	----------------	------	----	-------	-----	---

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	50	Log/Pole	10	73	Red Maple	High	5 - 10 feet	Sapling
Quaking Aspen	5	Pole	9		White Pine	Medium	Variable	Sapling
White Pine	35	Log	16		Beech	Low	5 - 10 feet	Sapling
Red Pine	10	Log	14		Pin Cherry	Low	5 - 10 feet	Tall Shrub

33	3302 - Low Density Conifer Trees	Nonstocked	1.8		Unspecified	No	
-----------	----------------------------------	------------	-----	--	-------------	----	--

34	4311 - Pine, Aspen Mix	Sapling Well	12.9	4	1-50	N/A	Stand was cut in 2016, Kara's Pine. This was a seedtree cut. The cut failed to regenerate red pine but aspen, white pine and maple have fully regenerated.
-----------	------------------------	--------------	------	---	------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	10	Sapling	1		Pin Cherry	Low	5 - 10 feet	Tall Shrub
Bigtooth Aspen	45	Sapling	1	4				
White Pine	20	Sapling/Pole	3					
Red Pine	25	Log	12	68				

35	3102 - Grass	Nonstocked	1.6		Unspecified	No	
-----------	--------------	------------	-----	--	-------------	----	--

36	4133 - Aspen, Mixed Pine	Poletimber Well	10.1	40	51-80	N/A	Off site aspen looks like a mix of ages.
-----------	--------------------------	-----------------	------	----	-------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	5	Pole/Sap/Log	8		Red Maple	Low	5 - 10 feet	Sapling
Red Oak	5	Pole/Sapling	6		White Pine	Medium	Variable	Sapling
Bigtooth Aspen	55	Pole	7	40	Red Oak	Low	< 5 feet	Sapling
White Pine	30	Log/Pole	10					
Red Pine	5	Log/Pole	10					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
-------	--------------------	--------------	-------	-----------	----------	--------------	------------------

37 42110 - Planted Red Pine Poletimber Well 296.6 59 81-110 N/A Stand was third row thinned in 2016, Kara's Pine.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	5	Log	12		White Pine	Low	Variable	Sapling
Red Pine	90	Pole	9	59	Bigtooth Aspen	Medium	5 - 10 feet	Sapling
Red Maple	5	Pole/Log	9		Red Maple	Medium	5 - 10 feet	Sapling
					Red Oak	Low	5 - 10 feet	Sapling

39 31021 - Cool Season Grass Nonstocked 1.5 Unspecified No Frost Pocket

40 42200 - Natural White Pine Sawtimber Well 32.6 71 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	2	Log/Pole	10		White Pine	Medium	Variable	Sapling
Paper Birch	10	Log/Pole	10		Red Maple	Medium	Variable	Sapling
Bigtooth Aspen	8	Pole	8					
White Pine	60	Log/Pole	10	71				
Red Pine	20	Log	14					

41 4191 - Mixed Upland Deciduous with Conifer Poletimber Medium 15.9 60 1-50 N/A This is an old opening that has filled in.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	30	Log/Pole	12		Quaking Aspen	Low	5 - 10 feet	Sapling
Red Maple	50	Pole	8	60	White Pine	Medium	Variable	Sapling
Red Oak	10	Log	14		Red Maple	Low	5 - 10 feet	Sapling
Paper Birch	10	Pole/Log	9		Red Pine	Low	5 - 10 feet	Sapling

43 4133 - Aspen, Mixed Pine Poletimber Well 2.5 43 51-80 N/A Harvest when adjacent stand is harvested.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	50	Pole	7	43	White Pine	Low	< 5 feet	Sapling
Red Maple	10	Pole	8					
Red Oak	10	Log	14	70				
White Pine	25	Log	10					
Paper Birch	5	Pole	6					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
-------	--------------------	--------------	-------	-----------	----------	--------------	------------------

45	4139 - Aspen, Mixed Deciduous	Sapling Medium	143.2	4	Immature	N/A	Sale was cut in the fall of 2016. Regen is spotty in some areas but the site index and soils in this area are not the greatest but regen should continue to fill in.
-----------	-------------------------------	----------------	-------	---	----------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	35	Sapling	1	4
Quaking Aspen	10	Sapling	1	
Red Maple	20	Sapling	1	
White Pine	15	Sapling	1	
Red Oak	5	Sapling	2	
Red Oak	10	Log	14	70
White Pine	5	Log	14	

Sub-Canopy Species	Density	Avg. Height	Size
Pin Cherry	Low	< 5 feet	Tall Shrub

46	6124 - Lowland Spruce-Fir	Poletimber Well	18.7	63	Unspecified	N/A	This stand is a ridge/slope to the river.
-----------	---------------------------	-----------------	------	----	-------------	-----	---

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	20	Pole	8	
Balsam Fir	30	Pole/Sap/Log	6	63
Black Spruce	30	Pole/Log/Sap	8	
White Pine	15	Log	12	
Black Cherry	5	Pole/Log	8	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	5 - 10 feet	Sapling
Black Spruce	Low	< 5 feet	Sapling
Tag Alder	Low	5 - 10 feet	Tall Shrub
Red Maple	Medium	5 - 10 feet	Sapling

47	42110 - Planted Red Pine	Poletimber Well	26.6	59	81-110	N/A	Harvested in fall of 2016, Kicken Aspen Sale.
-----------	--------------------------	-----------------	------	----	--------	-----	---

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	3	Pole	6	
Quaking Aspen	2	Pole	6	
White Pine	5	Pole	9	
Red Pine	90	Pole	9	59

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	Variable	Sapling
Pin Cherry	Low	< 5 feet	Tall Shrub

48	42110 - Planted Red Pine	Sawtimber Well	193.2	66	81-110	N/A	Stocking varies greatly throughout stand, very south end is much better stocking. Red Pine was planted in 57 and jack pine in 72. Jack Pine was inter-planted due to scledederris mortality.
-----------	--------------------------	----------------	-------	----	--------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	5	Log/Pole	10	
Red Pine	80	Log	12	66
Jack Pine	15	Pole	9	50

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	Variable	Sapling
Jack Pine	Low	5 - 10 feet	Sapling
Pin Cherry	Low	< 5 feet	Sapling

50	4133 - Aspen, Mixed Pine	Poletimber Well	5.7	45	51-80	N/A	Harvest when adjacent compartment is prepared.
-----------	--------------------------	-----------------	-----	----	-------	-----	--

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	50	Pole	7	45
White Pine	30	Pole	9	
Red Oak	5	Log	10	
Red Maple	15	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	Variable	Sapling
Quaking Aspen	Medium	5 - 10 feet	Sapling