

Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41089 Entry Year 2022

Acreage: 1,805 County Delta

Management Area: Garden Thompson Plains

Revision Date: 2020-05-08

Stand Examiner: Adam Petrelius

Legal Description:

T40N R18W, Sections 9, 10, 11, 12

Identified Planning Goals:

Compartment 89 lies within the Garden/Thompson Plains Management Area. A large portion of the compartment also lies within the Garden Grade Grouse Enhanced Management Site (GEMS). GEMS are a collection of intensively managed lands spread across the Peninsula to provide walk-in hunting opportunities. These areas act as a destination site for grouse hunters, while providing a unique opportunity for hunting and wildlife viewing, and ultimately supporting local economies.

Soil and topography:

The topography within the compartment is mostly flat with a few steeper ridges. Elevation values range between 600-748 feet. Most of the compartment is forested with only a few stands classified as marsh or treed bog. Aspen is the dominant cover type. Other abundant cover types include lowland cedar, mixed northern hardwood, lowland aspen, and lowland deciduous forest. Numerous soil types are located in this compartment. A few of the most abundant soils are Roscommon Mucky Sand, Kalkaska Sand, and Carbondale/Rifle/Lupton Soils. Major habitat types within the compartment, in order of abundance, are Unclassified Lowland, ATFD, PVE, and PArV.

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

State land within this compartment was acquired between 1907 and 1970. Most of the land was acquired around 1940. The compartment boundary borders private and state land. The southern boundary and northern boundaries border state land. The eastern and western boundary borders private land. A few camps are located on the private parcels adjacent to the boundary. Permanent residences border the western edge. The compartment is used mostly by hunters, ORV users, and snowmobile riders.

Unique Natural Features:

Bald Eagle (Haliaeetus leucocephalus, state threatened) are known from the general area and there is potential for these raptors to occur within this compartment. In addition, Osprey (Pandion haliaetus, state threatened) are known from the general area and there is potential for these raptors to occur within this compartment. There is also potential for nesting red-shouldered hawk (Buteo lineatus, state threatened) to occur throughout this compartment in stands of northern hardwoods, mixed swamp conifer, and mature aspen.

Archeological, Historical, and Cultural Features:

Evidence of historical sites has been documented in the area and these areas have been protected from disturbance during timber harvests and wildlife habitat work.

Special Management Designations or Considerations:

A large portion of lowland conifers along the lakeshore has been designated as a wildlife corridor. In addition, the majority of the compartment lies within the Garden Grade GEMS.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Compartment 89 lies within eastern Delta county at the top of the Garden Peninsula in the Escanaba/Door Peninsula ecological sub-subsection and is a part of the Garden Thompson Plains Management area with American woodcock, ruffed grouse, white-tailed deer and wild turkey as featured species. This compartment is also part of the Garden Grade Grouse Enhanced Management Site (GEMS). The growing season is approximately 140 days. Extreme minimum winter temperature is –30 F. Snowfall in this area is relatively light averaging about 60 inches per year.

Pre-settlement lowland forest types were dominated by cedar, but also contained tamarack, red maple, paper birch, black

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spruce, aspen, balsam fir, and balsam poplar. Uplands were primarily covered with hemlock, white pine, or a mixture of the two. Due to the shallow soils and proximity to Lake Michigan, windthrow appeared to be the primary natural disturbance factor. Beaver ponding likely occurred along the Little Fishdam River and its tributaries, which run through this compartment. Current lowland forest composition is similar to pre-settlement conditions with cedar being the dominant species. Upland forest composition has shifted heavily toward aspen.

Wildlife habitat management objectives for this compartment are diverse. GEMS forest stands will be managed according to the Garden Grade GEMS management plan. Aspen and white birch will be managed to provide age and structural diversity within the early successional forest types. Oak will be managed for optimum mast production. Other wildlife priorities include maintaining open-land habitat, retaining soft and hard mast producing species in harvested stands and ensuring connectivity of forest types along the Lake Michigan shoreline for neotropical migrants. Other wildlife species of interest include black bear, phoebe, and evening grosbeak.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel. There is between 10 and 50 feet of glacial drift. The Silurian Cabothead Shale and Burnt Bluff subcrop below the glacial drift. The Burnt Bluff is used for stone. The nearest gravel pit is 3 miles to the northeast. There is limited gravel potential on State lands.

Vehicle Access:

The Cooks/Garden Grade snowmobile trail travels through the compartment and is the main access route. The majority of all other roads within the compartment have been designated as hunter walking trails and are gated. These trails have been closed to motor vehicle use.

Survey Needs:

Survey needs are present in the NE corner of the compartment bordering a private 40 acre parcel. Land adjacent to this parcel has been scheduled for harvest.

Recreational Facilities and Opportunities:

The Cooks/Garden grade snowmobile trail travels through the middle of the compartment and receives moderate use by ORV riders also. An extensive network of hunter walking trails exist along with interpretive signs, gates, and parking areas.

Fire Protection:

Response time to fires within this compartment from the Thompson field office will be moderate to fast. The fire office is located 8 miles to the east, and travel would be along US-2. The compartment receives moderate use throughout fire season and human caused fires are a concern. Both spring and summer fires are likely to occur here. Mixed fuel types and higher humidity values make this area less conducive to a large wildfire. Water sources are abundant and include Lake Michigan, Little Fishdam River, and a small lake adjacent to the MDOT rest area. In 2007 a 41 acre fire burned in this compartment through a recently harvested aspen stand.

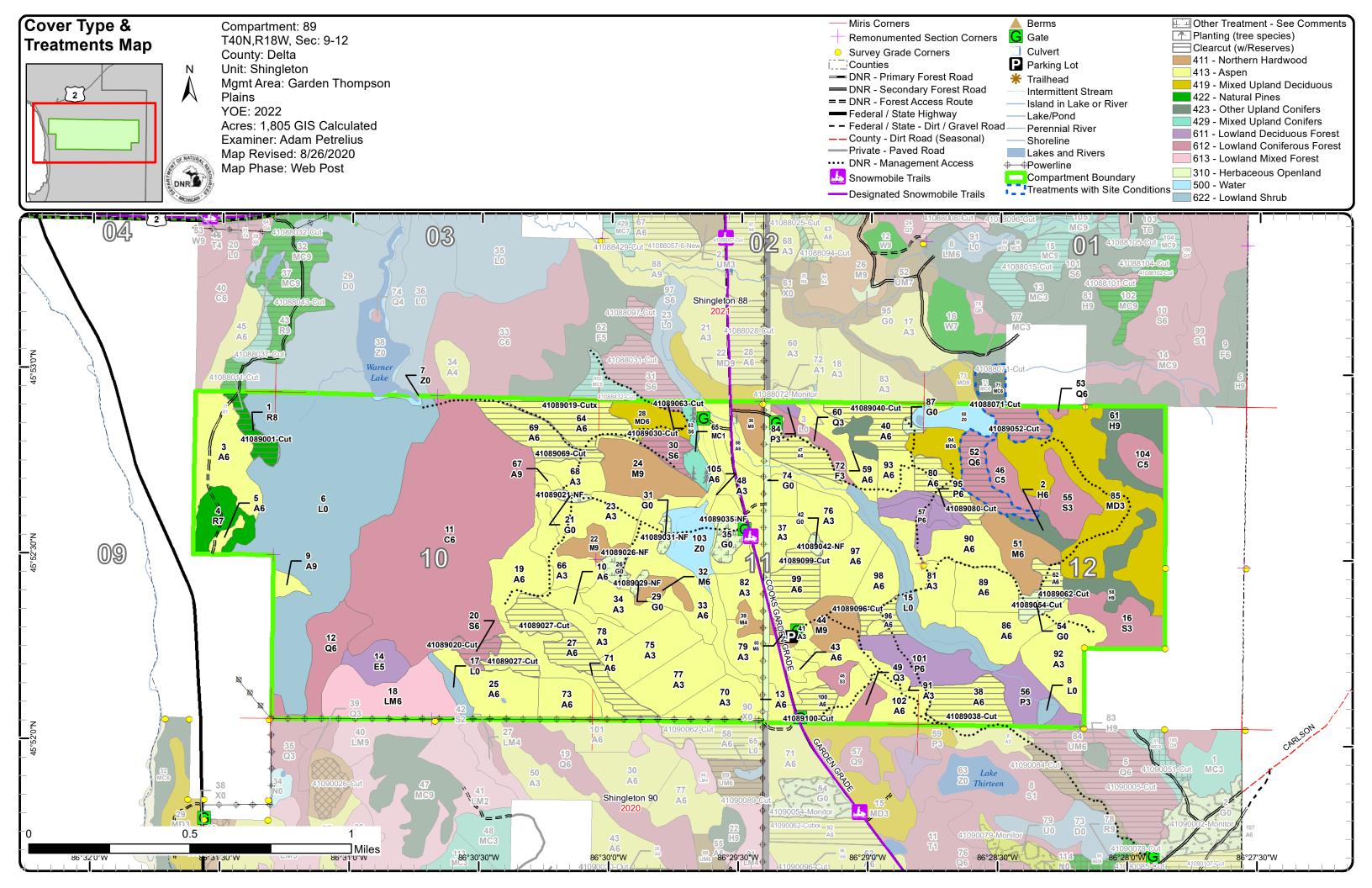
Additional Compartment Information:

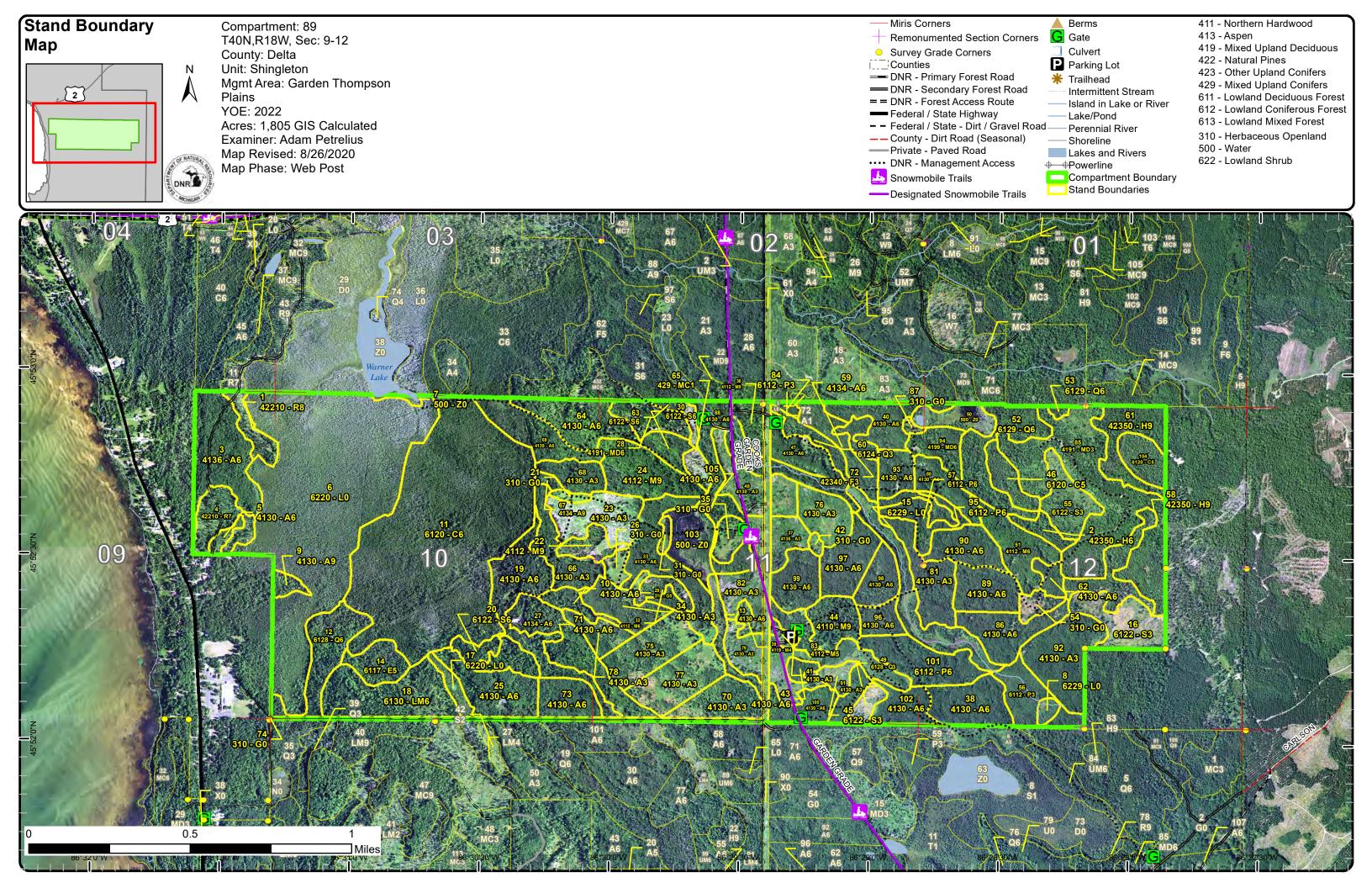
The following reports from the Inventory are attached:

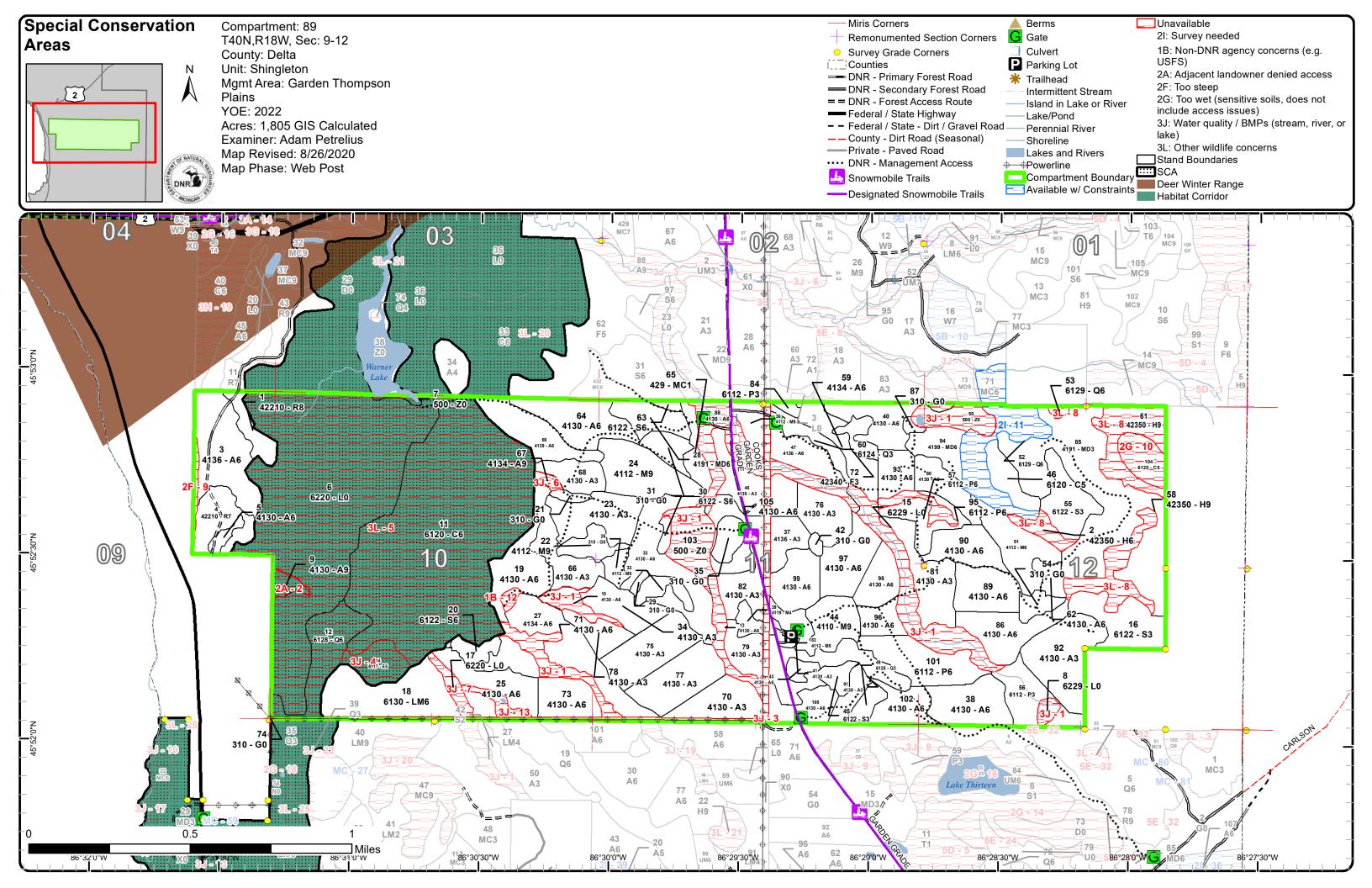
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







Shingleton Mgt. Unit Adam Petrelius : Examiner



Age Class

	Jack	KO CO	3 /2	2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 /	S S	3 /8		3/8	\$ / &	P. / 8			Sa la	& /s	\$ \\ \{\partial \text{S} \\ \partial \text{S} \\ \text{S} \\ \partial \t		No. of the second secon	ž Jres	No. No.
Aspen	0	161	95	150	145	120	32	91	0	0	0	0	0	0	0	0	0	0	794
Cedar	0	0	0	0	0	0	0	0	0	21	195	0	0	0	0	0	0	0	216
Hemlock	0	0	0	0	0	0	0	6	0	21	0	16	0	0	0	0	0	0	42
Herbaceous Openland	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
Lowland Aspen/Balsam Poplar	0	2	0	40	17	0	0	0	0	0	0	0	0	0	0	0	0	0	59
Lowland Conifers	0	5	0	0	8	0	0	0	25	26	0	0	0	0	0	0	0	0	63
Lowland Deciduous	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	12
Lowland Mixed Forest	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Lowland Shrub	221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	221
Lowland Spruce/Fir	0	26	17	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	59
Mixed Upland Deciduous	0	0	82	0	11	12	0	0	0	0	0	0	0	0	0	0	0	0	105
Northern Hardwood	0	0	0	0	20	7	0	0	0	14	46	0	0	0	0	0	0	0	87
Red Pine	0	0	0	0	0	0	0	0	16	8	0	0	0	0	0	0	0	0	24
Upland Conifers	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Upland Spruce/Fir	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Water	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Total	298	201	194	225	207	139	32	97	61	98	241	16	0	0	0	0	0	0	1807



Report 2 – Treatment Summary

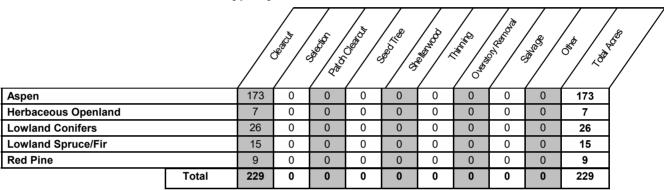
Shingleton Mgt. Unit Year of Entry: 2022

Acres of Harvest

Compartment 89
Total Compartment Acres: 1,805

Commercial Harvest - 204 Harvests with Site Condition - 26 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method

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Current		229	0	7	0	0	0	0	0	18	255	
Next Step		0	9	9	0	0	34	238	0	7	296	
	Total	229	9	16	0	0	34	238	0	25	551	

Shingleton Mgt. Unit

Report 3 -- Treatments

Compartment: 89 Year of Entry: 2022 OF NATURAL DIES

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Treatment Name Acres Stand CoverType

Size Stand Density Age BA Range

Treatment Type Treatment Method Cover Type Objective Age Structure Habitat Cut

Proposed Treatments:

71 41088071-Cut 6.6 42380 - Non Pine Poletimber 67 81-110 Harvest Clearcut with 429 - Mixed Even-Aged No Upland Conifer, Mixed Deciduous Retention Upland Conifers

Wilked Deciduous

<u>Prescription</u> Cut all trees except hemlock and oak. Dense areas of hemlock which are inoperable should be excluded with sale boundary. These areas <u>Specs:</u> will be the retention patches along with river buffer to the west. Harvest with adjacent stand to the south.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable any species

Other Comment:

Regen:

<u>Site Condition</u> Survey Needed <u>Proposed Start Date:</u> 10/1 /2021

1 41089001-Cut 8.5 42210 - Natural Sawtimber 87 51-80 Harvest Clearcut with 4211 - Planted Even-Aged No Red Pine Medium Retention Red Pine

Prescription Cut all trees live and dead down to 2 inches. Edge retention only to support plantation management.

Specs:

Next Step Pesticide, Skidder - Site Prep; SitePrep, Trenching; Planting, Initial Plant; Pesticide, Skidder - Release; Monitoring, Artificial

Treatments: Regen(1yr); Monitoring, Artificial Regen(3yr); Pesticide, Aerial - Site Prep; Pesticide, Aerial - Release

Acceptable red pine

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2020

20 41089020-Cut 6.0 6122 - Black Spruce Poletimber 86 81-110 Harvest Clearcut with 6122 - Black Even-Aged No Well Retention Spruce

<u>Prescription</u> Cut all trees except oak and hemlock. Retention has already been deducted and is located in river buffer.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable mixed coniferous and deciduous species

Regen:

Other Sale was turned back in to state a few years ago. Old paint will still be present.

Comment:

Site Condition

Proposed Start Date: 10/1 /2021

Shingleton Mgt. Unit Report 3 -- Treatments Compartment: 89 s Year of Entry: 2022 t а **Treatment** Size Stand BA **Treatment Treatment Cover Type** Acres Stand Age Habitat n Density Method Objective Structure Name CoverType Age Range Type Cut d 21 41089021-NF 310 - Herbaceous Nonstocked Unspec NonForestMqt Other - Specify 310 -Nο Openland ified Herbaceous Openland **Prescription** Opening Maintenance: Prescribed fire, farming (spraying, dozing, disking, raking, seeding (native or naturalized species only), fertilizing, liming),, chainsaw or Specs: mechanical removal of competing trees and establishment of native hard and soft mast producers such as red oak, mtn ash or others Next Step Treatments: Acceptable Regen: Other current and previous work accomplished under FTP W41-1639. Comment: Will include various treatments (see prescription specs above) Site Condition Proposed Start Date: 10/1 /2021 41089026-NF 4.3 310 - Herbaceous 310 -No Nonstocked Unspec NonForestMgt Other - Specify Openland ified Herbaceous Openland Prescription Opening Maintenance: Specs: Prescribed fire, farming (spraying, dozing, disking, raking, seeding (native or naturalized species only), fertilizing, liming)., chainsaw or mechanical removal of competing trees and establishment of native hard and soft mast producers such as red oak, mtn ash or others Next Step Treatments: <u>Acceptable</u> Regen: **Other** former and current work accomplished under FTP W41-1639 Comment: Will include various treatments (see prescription specs above)

Site Condition

Proposed Start Date: 10/1 /2021

41089027-Cut 36.4 4134 - Aspen, Poletimber 61 111-Harvest Clearcut with 413 - Aspen Even-Aged No Spruce/Fir Well 140 Retention

Prescription Cut all trees except hemlock and oak. Retention is already deducted in creek buffer. Leave at minimum 1, 8 inch, 8 feet long log per acre on Specs:

site for drumming logs.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable mixed coniferous and deciduous species

Regen:

<u>Other</u> Sale was turned back into the state a few years ago. Old paint will be present.

Comment:

Site Condition

Proposed Start Date: 10/1 /2021

Shingleton Mgt. Unit Report 3 -- Treatments Compartment: 89 s Year of Entry: 2022 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age Habitat n Density Method Objective Structure Name CoverType Age Range Type Cut d 29 41089029-NF 310 - Herbaceous Nonstocked Unspec NonForestMqt Other - Specify 310 -Openland ified Herbaceous Openland **Prescription** Opening Maintenance: Prescribed fire, farming (spraying, dozing, disking, raking, seeding (native or naturalized species only), fertilizing, liming),, chainsaw or Specs: mechanical removal of competing trees and establishment of native hard and soft mast producers such as red oak, mtn ash or others Next Step Treatments: Acceptable Regen: Other former and current work accomplished under FTP W41-1639 Comment: will include various treatments (see prescription specs above) Site Condition Proposed Start Date: 10/1 /2021 41089030-Cut 111-Harvest Clearcut 6122 - Black 7.7 6122 - Black Spruce Poletimber Even-Aged No Spruce 140 Prescription Cut all trees except hemlock and oak. This will be the only retention due to small stand size. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable mixed coniferous and deciduous species Regen: **Other** Comment: Site Condition Proposed Start Date: 10/1 /2021

41089031-NF

Prescription Opening Maintenance:
Specs: Prescribed fire, farming (spraying, dozing, disking, raking, seeding (native or naturalized species only), fertilizing, liming)., chainsaw or

ified

mechanical removal of competing trees and establishment of native hard and soft mast producers such as red oak, mtn ash or others

Unspec NonForestMgt

Other - Specify

310 -

Herbaceous Openland

Next Step Treatments:

Acceptable

Regen:
Other

former and current work accomplished under FTP W41-1639.

2.2 310 - Herbaceous Nonstocked

Openland

Comment:

Will include various treatments (see prescription specs above)

Site Condition

Proposed Start Date: 10/1 /2021

No

Shingleton Mgt. Unit Report 3 -- Treatments Compartment: 89 s Year of Entry: 2022 t а **Treatment** Size Stand BA **Treatment Treatment Cover Type** Acres Stand Age Habitat n Density Method Objective Structure Name CoverType Age Range Type Cut d 35 41089035-NF 7 0 310 - Herbaceous Nonstocked Unspec NonForestMqt Other - Specify 310 -Nο Openland ified Herbaceous Openland **Prescription** Opening Maintenance: Prescribed fire, farming (spraying, dozing, disking, raking, seeding (native or naturalized species only), fertilizing, liming),, chainsaw or Specs: mechanical removal of competing trees and establishment of native hard and soft mast producers such as red oak, mtn ash or others Next Step Treatments: Acceptable Regen: Other former and current work accomplished under FTP W41-1639 Comment: Will include various treatments (see prescription specs above) Site Condition Proposed Start Date: 10/1 /2021 41089038-Cut 20.9 Poletimber 51-80 Clearcut with 4130 - Aspen Harvest 413 - Aspen Even-Aged No Retention Well Prescription Cut all trees except hemlock and oak where present. Two inch spec should be used on hardwood trees. Buffer creek 100 feet. This will be the retention area. Minimize impacts to snowmobile trail if possible. Less than 3% retention is acceptable to promote best possible aspen Specs: regeneration. Leave at minimum 1, 8 inch, 8 feet long log per acre on site for drumming logs. Do not cut serviceberry and dogwood. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Aspen regeneration is expected, however mixed deciduous and coniferous species are acceptable. Regen: Other Comment: Site Condition

Proposed Start Date: 10/1 /2026

41089040-Cut

Well Retention

Harvest

Clearcut with

51-80

30

Prescription Specs: Cut all trees except hemlock and oak where present. Two inch spec should be used on hardwood trees. Buffer creek 100 feet. This will be the retention area. Minimize impacts to snowmobile trail if possible. Less than 3% retention is acceptable to promote best possible aspen regeneration. Leave at minimum 1, 8 inch, 8 feet long log per acre on site for drumming logs. Do not cut serviceberry and dogwood.

Next Step Monitoring, Natural Regen (Re-Inventory)

4130 - Aspen

15 6

Treatments:

Acceptable Aspen regeneration is expected, however mixed deciduous and coniferous species are acceptable.

Poletimber

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2026

Even-Aged

Nο

413 - Aspen

Shingleton Mgt. Unit Report 3 -- Treatments Compartment: 89 Year of Entry: 2022 s t а **Treatment** Size Stand BA **Treatment Treatment Cover Type** Acres Stand Age n Objective CoverType Method Structure Name Density Age Range Type d 42 41089042-NF 310 - Herbaceous Nonstocked NonForestMqt Other - Specify 310 -Openland Herbaceous Openland **Prescription** Opening Maintenance: Prescribed fire, farming (spraying, dozing, disking, raking, seeding (native or naturalized species only), fertilizing, liming),, chainsaw or Specs: mechanical removal of competing trees and establishment of native hard and soft mast producers such as red oak, mtn ash or others Next Step Treatments: Acceptable Regen: Other former and current work accomplished under FTP W41-1639 Comment: will include various treatments (see prescription specs above) Site Condition Proposed Start Date: 10/1 /2021 47 41089047-12.7 Poletimber 51-80 Clearcut with 4130 - Aspen Harvest 413 - Aspen Even-Aged Retention Well Cutx Prescription Cut all trees except hemlock and oak where present. Two inch spec should be used on hardwood trees. Buffer creek 100 feet. This will be the retention area. Minimize impacts to snowmobile trail if possible. Less than 3% retention is acceptable to promote best possible aspen Specs: regeneration. Leave at minimum 1, 8 inch, 8 feet long log per acre on site for drumming logs. Do not cut serviceberry and dogwood. Monitoring, Natural Regen (Re-Inventory) Next Step Treatments:

Acceptable Aspen regeneration is expected, however mixed deciduous and coniferous species are acceptable.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2026

6129 - Mixed 86 612 - Lowland Even-Aged 41089052-Cut 25.5 Poletimber 111-Harvest Clearcut with Nο Coniferous Lowland Well 140 Retention Coniferous Forest Forest

Prescription Cut all trees except hemlock and oak. Dense areas of hemlock which are inoperable should be excluded with sale boundary. These areas will be the retention patches. Do not cut cedar unless needed for harvesting operations. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable mixed coniferous and deciduous species

Regen:

Other Comment:

Site Condition Survey Needed Proposed Start Date: 10/1 /2021 Habitat

Cut

Nο

No

Proposed Start Date: 10/1 /2026

Other Comment:
Site Condition

Shingleton Mgt. Unit

Report 3 -- Treatments

Compartment: 89

Year of Entry: 2022 s t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age Habitat n Method Objective Structure Name CoverType Density Age Range Type Cut d Harvest 80 41089080-Cut 12.5 4130 - Aspen Poletimber 81-110 Clearcut with 413 - Aspen Even-Aged Well Retention Prescription Cut all trees except hemlock and oak where present. Two inch spec should be used on hardwood trees. Buffer creek 100 feet. This will be the retention area. Minimize impacts to snowmobile trail if possible. Less than 3% retention is acceptable to promote best possible aspen Specs: regeneration. Leave at minimum 1, 8 inch, 8 feet long log per acre on site for drumming logs. Do not cut serviceberry and dogwood. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Aspen regeneration is expected, however mixed deciduous and coniferous species are acceptable. Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2026 1.4 310 - Herbaceous Nonstocked Harvest Clearcut 310 -No 41089087-Cut Openland Herbaceous Openland Prescription Cut all trees to 2 inches. Specs: Next Step NonForestMqt, Other - Specify **Treatments:** Acceptable any species or none. WLD managed opening. Regen: Other Comment: Site Condition Proposed Start Date: 10/1 /2026 41089099-Cut 15.3 4130 - Aspen Poletimber 41 81-110 Harvest Clearcut with 413 - Aspen Even-Aged No Well Retention Prescription Cut all trees except hemlock and oak where present. Two inch spec should be used on hardwood trees. Minimize impacts to snowmobile Specs: trail if possible. Less than 3% retention is acceptable to promote best possible aspen regeneration. Leave at minimum 1, 8 inch, 8 feet long log per acre on site for drumming logs. Do not cut serviceberry and dogwood. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Aspen regeneration is expected, however mixed deciduous and coniferous species are acceptable. Regen: Other Comment:

Site Condition

Proposed Start Date: 10/1 /2026

Shingleton Mgt. Unit

Report 3 -- Treatments

Compartment: 89 Year of Entry: 2022 OF NATURAL PROPERTY OF NAT

а **Treatment** Size Stand BA **Treatment Treatment Cover Type** Acres Stand Age Habitat n Method Objective Structure Name CoverType Density Age Range Type Cut d 100 41089100-Cut 7 7 4130 - Aspen Poletimber 81-110 Harvest Clearcut 413 - Aspen Even-Aged

Well

Prescription Specs: Cut all trees except hemlock and oak where present. Two inch spec should be used on hardwood trees. Minimize impacts to snowmobile trail if possible. Less than 3% retention is acceptable to promote best possible aspen regeneration. Leave at minimum 1, 8 inch, 8 feet long

log per acre on site for drumming logs. Do not cut serviceberry and dogwood. Aspen regeneration is expected, however mixed deciduous

and coniferous species are acceptable.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen regeneration is expected, however mixed deciduous and coniferous species are acceptable.

Regen:

s

t

<u>Other</u>

Comment:

Site Condition

Proposed Start Date: 10/1 /2026

Approved Treatments:

64 41089019- 21.9 4130 - Aspen Poletimber 50 81-110 Harvest Clearcut with 413 - Aspen Even-Aged No Cutx Retention

Prescription Cut all trees except hemlock and oak where present. Two inch spec should be used on hardwood trees. Minimize impacts to snowmobile trail if possible. Less than 3% retention is acceptable to promote best possible aspen regeneration. Leave at minimum 1, 8 inch, 8 feet long log on site for drumming logs. Aspen regeneration is expected, but mixed coniferous and deciduous trees are acceptable.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen regeneration is expected, but mixed coniferous and deciduous trees are acceptable.

Regen:

Other Do not cut serviceberry and dogwood.

Comment:

Site Condition

Proposed Start Date: 10/1 /2021

41089063-Cut 1.5 6122 - Black Spruce Poletimber 83 81-110 Harvest Clearcut with 6122 - Black Even-Aged No Well Retention Spruce

Prescription Cut all trees down to 2 inches except hemlock and oak. Retention will be located in east in creek buffer which will be 100 feet.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable All species. Evaluate regeneration success next inventory cycle. Stand is fairly dry and could possibly be trenched and planted if natural

Regen: regeneration fails.

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2020

Shingleton Mgt. Unit Report 3 -- Treatments Compartment: 89 S Year of Entry: 2022 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n Method Objective Structure Density Name CoverType Age Range Type Cut d 96 41089096-Cut 6.3 4130 - Aspen Poletimber 51-80 Harvest Clearcut with 413 - Aspen Even-Aged Well Retention Prescription Cut all trees except hemlock and oak where present. Two inch spec should be used on hardwood trees. Minimize impacts to snowmobile trail if possible. Less than 3% retention is acceptable to promote best possible aspen regeneration. Leave at minimum 1, 8 inch, 8 feet long Specs: log on site for drumming logs. Aspen regeneration is expected, but mixed coniferous and deciduous trees are acceptable. Buffer creek 100 Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Aspen regeneration is expected, but mixed coniferous and deciduous trees are acceptable. Regen: <u>Other</u> Do not cut serviceberry and dogwood. Treatment boundary was changed during inventory in fall 2019 to reflect recent beaver activity.

Total Treatment Acreage Proposed: 261.5

Proposed Start Date: 10/1 /2021

Comment:
Site Condition

Shingleton Mgt. Unit
Adam Petrelius: Examiner

Availa	ability for	Managemer	nt								
Total	Acres	Acres Avail	Acres	De	omina	nt Sit	e Con	dition	S		
Acres	Available	With Condition	Not Available		21	1B	2A	2F	2G	3J	3L
793	724	0	69	Aspen		2	4	3		61	0
216	10	0	206	Cedar					11		194
43	0	0	43	Hemlock							43
46	25	0	21	Herbaceous Openland						21	1
59	54	0	5	Lowland Aspen/Balsam Poplar						5	
63	13	25	25	Lowland Conifers	25					0	24
12	0	0	12	Lowland Deciduous						12	
35	35	0	0	Lowland Mixed Forest						0	
221	0	0	221	Lowland Shrub						34	186
58	58	0	0	Lowland Spruce/Fir							0
105	105	0	0	Mixed Upland Deciduous							
87	87	0	0	Northern Hardwood							
24	24	0	0	Red Pine							
7	7	0	0	Upland Conifers							
6	6	0	0	Upland Spruce/Fir							
30	0	0	30	Water						28	2
1,805	1,148	25	631	Total Forested Acres	25	2	4	3	11	161	450
	64%	1%	35%	Relative Percent							<u>-</u>

^{*}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 Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	118	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
(Comments:						

Report 4 – Site Conditions

Shingleton Mgt. Unit
Adam Petrelius: Examiner

2	Unavailable	2A: Adjacent landowner denied access	4	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
		nopy in upland coniferous (non- rridor for migrating birds. These					
3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	21	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	12	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
		nopy in upland coniferous (non- rridor for migrating birds. These					
5	Unavailable	3L: Other wildlife concerns	406	Unspecified	Unspecified	Unspecified	Unspecified
		nopy in upland coniferous (non- rridor for migrating birds. These					
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 4 – Site Conditions

Shingleton Mgt. Unit
Adam Petrelius: Examiner

Compartment: 89 Year of Entry: 2022

REEDH5

8	Unavailable	3L: Other wildlife concerns	44	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
9	Unavailable	2F: Too steep	3	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
11	Available	2I: Survey needed	32	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
12	Unavailable	1B: Non-DNR agency concerns (e.g. USFS)	2	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
13	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	4	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

Shingleton Mgt. Unit

Compartment: 089 Year of Entry: 2022



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	Habitat Area	Habitat Corridor	SCA	422

Shingleton Mgt. Unit Compartment: 89
Year of Entry 2022



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

Conservation Area	Туре	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Habitat Area	An area that provide some specific need for the life cycle of wild and Waterfowl Production Areas, deer wintering complexes in to openings and savannas. Habitat areas are distinct from critical endangered or threatened species (such as Kirtland's warbler of general in nature, are not primarily associated with threatened covered by species recovery plans that are developed in cooper.	owland conifer communities, grassland habitat designated for recovery of or piping plover areas) in that they are more or endangered species, and are not



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
1	42210 - Nat	tural Red P	ine Sa	awtimber	Medium	n 8.2	87	51-80	N/A		[10/29/15 TI] Stand was cut as part of Rest Area South Sale # 41-040-11-
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	01. TCR date 6/19/15.
	White Pine	5	Pole/Log	9		Quak	ing Aspen	High	10 - 20 feet	Sapling	
	Red Pine	95	Log/Pole/XLo	g 14	87	Ва	lsam Fir	High	10 - 20 feet	Sapling	
						Blac	k Spruce	Medium	5 - 10 feet	Sapling	
2	42350 - Up	land Hemlo	ock I	Poletimb	er Well	6.0	66	81-110	N/A		Cooks Grade Birch Sale (2004) - Residual values - hemlock 32ft, white
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	pine 6ft, cherry 2 ft.regen good. Residual hemlock from harvest is now canopy. regeneration is subcanopy. Good regeneration on higher ground
No	rthern White Cedar	10	Pole	7		Re	d Maple	Medium	5 - 10 feet	Sapling	with many species. Lower ground is mostly black spruce and
	White Pine	10	Pole/Log	9		Pa	oer Birch	Low	5 - 10 feet	Sapling	regeneration is a little more sparse but should fill in.new hemlock
	Hemlock	80	Pole/Log	9	66	Bals	am Poplar	Low	5 - 10 feet	Sapling	stand created
						Ва	lsam Fir	Medium	< 5 feet	Sapling	
						Blac	k Spruce	Medium	< 5 feet	Sapling	
						Н	emlock	Low	5 - 10 feet	Sapling	
3	4136 - Asper	ı, Mixed Co	nifer I	Poletimb	er Well	34.8	43	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	2	Pole/Sapling	j 5		Bigto	oth Aspen	Low	10 - 20 feet	Sapling	
	Paper Birch	2	Pole/Sapling	5		Ва	lsam Fir	High	10 - 20 feet	Sapling	
	Bigtooth Aspen	76	Pole	8	43						
	Balsam Fir	10	Pole/Sapling	9 6							
	White Pine	5	Pole/Log	9							
	Red Pine	5	Log	14							
4	42210 - Nat	tural Red P	ine :	Sawtimb	er Poor	16.2	71	1-50	N/A		[10/29/2015 TI] Stand was cut as part of Rest Area South Sale #41-040-
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	11-01. TCR Date 6/19/2015. Future stand will be Aspen with a red
	Red Pine	75	Log/Pole	12	71	Quak	ing Aspen	Full	5 - 10 feet	Sapling	pine log component
	Red Oak	5	Log	12		R	ed Oak	Low	10 - 20 feet	Sapling	
	White Pine	20	Log	12		Ва	lsam Fir	Low	5 - 10 feet	Sapling	
						Re	d Maple	Medium	5 - 10 feet	Sapling	
5	4130	- Aspen		Poletimb	er Well	2.9	42	81-110	N/A		-
-	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Paper Birch	10	Pole	6	J		Isam Fir	Medium	5 - 10 feet	Sapling	
	Bigtooth Aspen	80	Pole	8	42				<u> </u>]
	White Pine	10	Pole/Log	9							
6	6220 - A	lder/willow		Nonsto	cked	186.6		Immature	No		flooded, a lot of dead cedar
7	500 -	- Water		Nonsto	cked	1.6		Immature	No		



	Level 4 Co	ver Type	8	Size De	nsity	Acres Stand	d Age BA Range	Managed S	Site	General Comments
8	6229 - Mixed	lowland sh	rub	Nonsto	cked	2.8 0		No		
9	4130 -	Aspen	S	awtimb	er Well	3.8 6	1 81-110	N/A		Stand was offered as part of Rest Area South timber sale, however
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy S	Species Density	Avg. Height	Size	access could not be obtained through private and stand was turned back into state. Volume from stand was 67 cords aspen, 12 cords fir, 4 cords
	Quaking Aspen	85	Log/Pole	14	61	Balsam F	ir High	10 - 20 feet	Sapling	red maple.
	Balsam Fir	10	Pole	7					1	
	Red Maple	5	Pole	8						
10	4130 -	Aspen	P	oletimb	er Well	6.9 50	0 81-110	N/A		Stand has BMP issues and will serve as retention of mature aspen
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy S	Species Density	Avg. Height	Size	component for adjacent stands.
	Red Maple	5	Pole	7		Balsam F	ir High	10 - 20 feet	Sapling	
	Bigtooth Aspen	90	Pole	7	50				1	
	Balsam Fir	5	Pole	6						
11	6120 - Low	land Ceda	r Po	oletimb	er Well	194.6 90	0 111-140	N/A		small strip cuts and patch cuts scattered throughout. harvests occurred in 1977, 1986, and 1984. Areas of stand dying due to the flooding to the
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy S	Species Density	Avg. Height	Size	West.
	Black Spruce	10	Pole	8		Black Spru	ice Low	10 - 20 feet	Sapling	
No	rthern White Cedar	70	Pole/Log/Sap	9	90	Northern White	Cedar Medium	10 - 20 feet	Sapling	
	Tamarack	10	Pole	5		Tamarac	k Low	5 - 10 feet	Sapling	
	Red Maple	5	Pole	8		Alder	Low	5 - 10 feet	Tall Shrub	
	Paper Birch	5	Pole	8						
12	6128 - Lowland C	oniforque								
	Decid	duous	Mixed Po	oletimb	er Well	23.3 70)	N/A		
	Canopy Species	duous	Mixed Po		er Well	23.3 70 Sub-Canopy S		N/A Avg. Height	Size	
		duous					Species Density	Avg. Height	Size Sapling	
	Canopy Species	duous % Cover	Size Class	DBH		Sub-Canopy S	Species Density Fir Medium	Avg. Height 10 - 20 feet		
	Canopy Species Red Maple	% Cover 5	Size Class Pole	DB H	Age	Sub-Canopy S Balsam F	Species Density ir Medium nce Medium	Avg. Height 10 - 20 feet 10 - 20 feet	Sapling	
	Canopy Species Red Maple Bigtooth Aspen	% Cover 5 30	Size Class Pole Pole/Log	DBH 8	Age	Sub-Canopy S Balsam F Black Spru	Species Density ir Medium nce Medium	Avg. Height 10 - 20 feet 10 - 20 feet	Sapling Sapling	
	Canopy Species Red Maple Bigtooth Aspen Balsam Fir	## Cover 5 30 20	Size Class Pole Pole/Log Pole	8 8 7	Age	Sub-Canopy S Balsam F Black Spru	Species Density ir Medium nce Medium	Avg. Height 10 - 20 feet 10 - 20 feet	Sapling Sapling	
	Canopy Species Red Maple Bigtooth Aspen Balsam Fir Black Spruce	% Cover 5 30 20 20	Size Class Pole Pole/Log Pole Pole	8 8 8 7 8	Age	Sub-Canopy S Balsam F Black Spru	Species Density ir Medium nce Medium	Avg. Height 10 - 20 feet 10 - 20 feet	Sapling Sapling	
	Canopy Species Red Maple Bigtooth Aspen Balsam Fir Black Spruce rthern White Cedar White Pine	% Cover 5 30 20 20 20 20	Size Class Pole Pole/Log Pole Pole Pole XLog	8 8 8 7 8 6 20	Age	Sub-Canopy S Balsam F Black Spru	Species Density ir Medium uce Medium e Cedar Medium	Avg. Height 10 - 20 feet 10 - 20 feet	Sapling Sapling	A large portion of this stand serves as retention patch and river buffer.
Noi	Canopy Species Red Maple Bigtooth Aspen Balsam Fir Black Spruce rthern White Cedar White Pine	% Cover 5 30 20 20 20 5 5	Size Class Pole Pole/Log Pole Pole Pole XLog	B	70	Sub-Canopy S Balsam F Black Spru Northern White	Species Density ir Medium ice Medium ce Cedar Medium	Avg. Height 10 - 20 feet 10 - 20 feet 10 - 20 feet	Sapling Sapling	A large portion of this stand serves as retention patch and river buffer.
13	Canopy Species Red Maple Bigtooth Aspen Balsam Fir Black Spruce rthern White Cedar White Pine	% Cover 5 30 20 20 20 5 Aspen	Size Class Pole Pole/Log Pole Pole Pole XLog	B	70 er Well	Sub-Canopy S Balsam F Black Spru Northern White	Species Density ir Medium ice Medium ice Medium ice Medium ice Medium ice Tedar Medium ice Density	Avg. Height 10 - 20 feet 10 - 20 feet 10 - 20 feet N/A Avg. Height	Sapling Sapling Sapling	A large portion of this stand serves as retention patch and river buffer.
13	Canopy Species Red Maple Bigtooth Aspen Balsam Fir Black Spruce rthern White Cedar White Pine 4130 - Canopy Species	## Cover 5 30 20 20 5 5 5 5 5 5 5 5 5	Size Class Pole Pole/Log Pole Pole Pole XLog	B	70 er Well	Sub-Canopy S Balsam F Black Spru Northern White	Species Density ir Medium ice Medium ice Medium ice Medium ice Medium ice Tedar Medium ice Density	Avg. Height 10 - 20 feet 10 - 20 feet 10 - 20 feet N/A Avg. Height	Sapling Sapling Sapling	A large portion of this stand serves as retention patch and river buffer.

Report 7 - Stands



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments	- MICHIGAN .
14	6117 - Lowland Con	Deciduous, iferous	Mixed Po	oletimber	Medium	n 11.9	70		N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Paper Birch	35	Pole/Log	10	70	Re	d Maple	Medium	10 - 20 feet	Sapling		
	Balsam Poplar	20	Pole/Log	10		Bal	sam Fir	Medium	10 - 20 feet	Sapling		
	Balsam Fir	15	Pole	8		Bla	ick Ash	Medium	10 - 20 feet	Sapling		
	White Spruce	10	Log/Pole	12			Alder	Medium	5 - 10 feet	Tall Shrub		
No	rthern White Cedar	5	Pole/Log	9								
	Black Ash	15	Pole	7								
15	6229 - Mixed	l lowland sh	nrub	Nonsto	cked	26.6	0		No			
16		ack Spruce		Sapling		21.1	7	1-50	N/A			
	Canopy Species		Size Class	DBH	Age							
	Black Spruce	60	Sapling	1	7							
	Tamarack	30	Sapling	1								
	White Pine	10	Sapling	1								
17	6220 - A	lder/willow		Nonsto	cked	5.0	0		No			
18	6130 - Fir, <i>i</i>	Aspen, Mar	ole F	Poletimb	er Well	34.8	24	1-50	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Red Maple	10	Pole/Sapling	5		Bal	sam Fir	Medium	5 - 10 feet	Sapling		
	Paper Birch	10	Pole/Sapling									
	Bigtooth Aspen	30	Pole/Sapling		24							
	Balsam Fir	22	Pole/Sapling	5								
	Black Spruce	15	Pole/Sapling									
	Tamarack	10	Pole/Sapling									
	White Pine	3	Pole/Sapling	5								
19	4130	- Aspen	F	Poletimb		20.4	44	81-110	N/A		GEMS treatment scheduled for 2032.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Red Maple	20	Pole	9		Bal	sam Fir	High	10 - 20 feet	Sapling		
	Bigtooth Aspen	60	Pole	8	44							
	Balsam Fir	10	Pole	8								
	Paper Birch	10	Log/Pole	12								



Stanc	Level 4 Co	over Type		Size De	ensity	Acres	Stand Age	BA Range	Managed S	ite	General Comments
20	6122 - Bla	ack Spruce	•	Poletimb	er Well	6.0	86	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	H Age						
	Black Spruce	85	Pole	8	86						
	Quaking Aspen	5	Pole	8							
No	rthern White Cedar	5	Pole	8							
	Balsam Fir	5	Pole	8							
21	310 - Herbace	eous Open	land	Nonst	ocked	2.1	ı	Unspecified	Managed Op	pening	Under W41-1639: *Various wildlife shrubs planted/caged around perimeter, 2017. *Farmed, planted clover/rye, 2017. *Mowed, 2018, 2019.
22	4112 - Maple, Asso	Beech, Ch	nerry	Sawtimb	er Well	8.1	80	51-80	N/A		Stand was cut as part of Furry Ridges Sale #41-007-12-01. TCR Date 10/8/2018.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Sugar Maple	40	Log/Pole	12		Sug	gar Maple	Medium	10 - 20 feet	Sapling	
	Red Maple	60	Log/Pole	12	80	Re	ed Maple	Medium	10 - 20 feet	Sapling	
23		- Aspen		Saplin	_	21.7	5	1-50	N/A		Stand was cut as part of Furry Ridges Sale #41-007-12-01. TCR Date 10/8/2018.
	Canopy Species	% Cover	Size Class		l Age						.0.0,20.00
	Quaking Aspen	100	Sapling	1	5						GEMS treatment planned for 2052.
24	4112 - Maple, Asso	Beech, Ch	nerry	Sawtimb	er Well	24.9	95	81-110	N/A		Cut with Furry Ridges Sale in 2015. Stand was more of a thinning than a selection harvest and not many regeneration gaps were created. Next
	Canopy Species	% Cover	Size Class	DBH	H Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	time the stand is harvested make sure to create gaps.
	Sugar Maple	10	Log/Pole	11		Sug	gar Maple	Low	5 - 10 feet	Sapling	
	Red Maple	80	Log/Pole	10	95	Re	ed Maple	Low	5 - 10 feet	Sapling	
	Paper Birch	10	Log/Pole	10			Beech	Low	5 - 10 feet	Sapling	
				'		Ва	lsam Fir	Low	< 5 feet	Sapling	
25	4130 -	- Aspen		Poletimb	er Well	23.5	35	51-80	N/A		GEMS treatment planned in 2037. creek in stand
	Canopy Species	% Cover	Size Class	DBH	H Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Bigtooth Aspen	85	Pole/Saplin		35		ılsam Fir	Medium	5 - 10 feet	Sapling	
	Balsam Fir	10	Pole/Saplin	_							_
	White Pine	5	Pole	9							
26	310 - Herbace	eous Open	land	Nonst	ocked	4.3	ļ	Unspecified	Managed Op	pening	Under W41-1639: *Various wildlife shrubs planted/caged around perimeter of stand, 2017. *Farmed and planted with clover/rye, 2017. *Mowed 2018, 2019.



Stand	d Level 4 C	el 4 Cover Type Size Density Acres Stand Age BA Range Managed Site	General Comments	MICHIGAN .								
27	4134 - Aspe	en, Spruce	Fir F		er Well	36.4	61	111-140	N/A		Stand was part of furry ridges sale but was turned back in	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Quaking Aspen	40	Pole	8	61	Bal	lsam Fir	Medium	5 - 10 feet	Sapling		
	Balsam Fir	20	Pole	8		Re	d Maple	Medium	5 - 10 feet	Sapling		
	Paper Birch	30	Pole	8								
	Red Maple	10	Pole	8								
28	4191 - Mixed Upla Co	and Decidu onifer	ous with F	Poletim	er Well	11.9	43	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Red Maple	18	Pole/Sapling	6		Re	d Maple	Low	5 - 10 feet	Sapling		
	Paper Birch	22	Pole/Sapling	6	43	Pap	oer Birch	Low	5 - 10 feet	Sapling		
	Bigtooth Aspen	20	Pole/Sapling	6		Bal	lsam Fir	Low	5 - 10 feet	Sapling		
	Balsam Fir	10	Pole/Sapling	5		Blac	k Spruce	Low	5 - 10 feet	Sapling		
	White Spruce	5	Pole/Sapling	5		Wh	ite Pine	Low	5 - 10 feet	Sapling		
	Black Spruce	10	Sapling/Pole	4								
	White Pine	5	Pole/Sapling	5								
	Jack Pine	5	Sapling/Pole	4								
	Jack Pine Black Cherry	5	Sapling/Pole Pole/Sapling									
29	Black Cherry 310 - Herbac	5	Pole/Sapling	5 Nonst	ocked per Well	1.2		nspecified	Managed Op	ening	food plot	
	Black Cherry 310 - Herbac	5 seous Oper	Pole/Sapling	5 Nonst		7.7				pening Size	food plot	
	Black Cherry 310 - Herbac 6122 - Bl	5 seous Oper	Pole/Sapling	5 Nonst	oer Well	7.7 Sub-Car	78	111-140	N/A		food plot	
	Black Cherry 310 - Herbac 6122 - Bl Canopy Species	5 eeous Oper ack Spruce % Cover	Pole/Sapling lland F Size Class	Nonst Poletimi	oer Well	7.7 Sub-Car	78 nopy Species	111-140 Density	N/A Avg. Height	Size	food plot	
	310 - Herbac 6122 - Bl Canopy Species Red Maple	5 seous Oper lack Spruce % Cover	Pole/Sapling lland F Size Class Pole	Nonst Poletimi DBI	oer Well	7.7 Sub-Car	78 nopy Species d Maple	111-140 Density Low	N/A Avg. Height 5 - 10 feet	Size Sapling	food plot	
	Black Cherry 310 - Herbac 6122 - Bl Canopy Species Red Maple Bigtooth Aspen	seous Oper lack Spruce % Cover 20 5	Pole/Sapling lland Size Class Pole Pole	Nonst Poletiml DBI 8 9	er Well	7.7 Sub-Car	78 nopy Species d Maple k Spruce	111-140 Density Low Medium	N/A Avg. Height 5 - 10 feet 10 - 20 feet	Size Sapling Sapling	food plot	
	Black Cherry 310 - Herbac 6122 - Bl Canopy Species Red Maple Bigtooth Aspen Black Spruce	seous Oper lack Spruce % Cover 20 5 65	Pole/Sapling lland Size Class Pole Pole Pole Pole	Nonst Poletimh BBI 8 9 8	er Well	7.7 Sub-Car	78 nopy Species d Maple k Spruce	111-140 Density Low Medium	N/A Avg. Height 5 - 10 feet 10 - 20 feet	Size Sapling Sapling	food plot	
	Black Cherry 310 - Herbac 6122 - Bl Canopy Species Red Maple Bigtooth Aspen Black Spruce White Pine	5 eeous Oper ack Spruce % Cover 20 5 65 5 5	Pole/Sapling lland Size Class Pole Pole Pole Log/Pole Pole/Log	Nonst PoletimP DBI 8 9 8 12	per Well	7.7 Sub-Car	78 nopy Species d Maple k Spruce Isam Fir	111-140 Density Low Medium	N/A Avg. Height 5 - 10 feet 10 - 20 feet	Size Sapling Sapling	food plot Under W41-1639: *Various wildlife shrubs planted/caged around perimeter, 2017.	
30	Black Cherry 310 - Herbac 6122 - Bl Canopy Species Red Maple Bigtooth Aspen Black Spruce White Pine Paper Birch 310 - Herbac	seous Oper ack Spruce % Cover 20 5 65 5 5	Pole/Sapling Iland Size Class Pole Pole Pole Log/Pole Pole/Log	Nonst Poletimi Bi 8 9 8 12 9 Nonst	per Well	7.7 Sub-Car Rec Blac Bal	78 nopy Species d Maple k Spruce Isam Fir	Density Low Medium Medium	N/A Avg. Height 5 - 10 feet 10 - 20 feet 5 - 10 feet	Size Sapling Sapling	Under W41-1639:	
30	Black Cherry 310 - Herbac 6122 - Bl Canopy Species Red Maple Bigtooth Aspen Black Spruce White Pine Paper Birch 310 - Herbac	seous Oper lack Spruce % Cover 20 5 65 5 5 eeous Oper	Pole/Sapling Iland Size Class Pole Pole Pole Log/Pole Pole/Log Iland Pole/Log Pole/Log	Nonst Poletimi Bi 8 9 8 12 9 Nonst	78	7.7 Sub-Car Rec Blac Bal 2.2	78 nopy Species d Maple k Spruce Isam Fir	Density Low Medium Medium	N/A Avg. Height 5 - 10 feet 10 - 20 feet 5 - 10 feet No	Size Sapling Sapling	Under W41-1639: *Various wildlife shrubs planted/caged around perimeter, 2017.	
30	Black Cherry 310 - Herbac 6122 - Bl Canopy Species Red Maple Bigtooth Aspen Black Spruce White Pine Paper Birch 310 - Herbac 4112 - Maple, Asso	seous Oper ack Spruce Cover 20 5 65 5 seous Oper Beech, Chociation	Pole/Sapling Iland Size Class Pole Pole Pole Log/Pole Pole/Log Iland	Nonst Poletimi Bi 8 9 8 12 9 Nonst	78 78 Docked	7.7 Sub-Car Rec Blac Bal 2.2 6.2 Sub-Car	78 nopy Species d Maple k Spruce lsam Fir	Density Low Medium Medium Medium specified	N/A Avg. Height 5 - 10 feet 10 - 20 feet 5 - 10 feet No	Size Sapling Sapling Sapling	Under W41-1639: *Various wildlife shrubs planted/caged around perimeter, 2017.	
30	Black Cherry 310 - Herbac 6122 - Bl Canopy Species Red Maple Bigtooth Aspen Black Spruce White Pine Paper Birch 310 - Herbac 4112 - Maple, Asso	seous Oper ack Spruce Cover 20 5 65 5 5 seous Oper Beech, Chociation Cover	Pole/Sapling Pole/Sapling Iland Size Class Pole Pole Pole Log/Pole Pole/Log Iland Perry F Size Class	Nonst Poletimi Bi 8 9 8 12 9 Nonst Poletimi DBI	78 Docked Der Well	7.7 Sub-Car Rec Blac Bal 2.2 6.2 Sub-Car	78 nopy Species d Maple k Spruce lsam Fir U 86	Density Low Medium Medium Medium specified 81-110 Density	N/A Avg. Height 5 - 10 feet 10 - 20 feet 5 - 10 feet No N/A Avg. Height	Size Sapling Sapling Sapling	Under W41-1639: *Various wildlife shrubs planted/caged around perimeter, 2017.	
30	Black Cherry 310 - Herbac 6122 - Bl Canopy Species Red Maple Bigtooth Aspen Black Spruce White Pine Paper Birch 310 - Herbac 4112 - Maple, Assoc Canopy Species Sugar Maple	seous Oper lack Spruce % Cover 20 5 65 5 5 seous Oper , Beech, Chociation % Cover 70	Pole/Sapling Pole/Sapling Iland Size Class Pole Pole Pole Log/Pole Pole/Log Iland Pole/Log Size Class Pole/Log	Nonst Poletimi 8 9 8 12 9 Nonst Poletimi DBI 9	78 Docked Docked Age 86	7.7 Sub-Car Rec Blac Bal 2.2 6.2 Sub-Car Sug Rec	78 nopy Species d Maple k Spruce lsam Fir U 86 nopy Species ar Maple	Density Low Medium Medium Medium Section 10 Nested 110 Density Low	N/A Avg. Height 5 - 10 feet 10 - 20 feet 5 - 10 feet No N/A Avg. Height 10 - 20 feet	Size Sapling Sapling Sapling Sapling	Under W41-1639: *Various wildlife shrubs planted/caged around perimeter, 2017.	
30	Black Cherry 310 - Herbacc 6122 - Bl Canopy Species Red Maple Bigtooth Aspen Black Spruce White Pine Paper Birch 310 - Herbacc 4112 - Maple, Asso Canopy Species Sugar Maple Red Maple	seous Oper lack Spruce % Cover 20 5 65 5 seous Oper , Beech, Chociation % Cover 70 15	Pole/Sapling Pole/Sapling Island Pole Size Class Pole Pole Log/Pole Pole/Log Island Pole/Log Log/Pole Log/Pole Log/Pole Log/Pole Pole/Log	Nonst Poletimi Bi 8 9 8 12 9 Nonst Poletimi DBI DBI 9 10	78 Docked Docked Age 86	7.7 Sub-Car Rec Blac Bal 2.2 6.2 Sub-Car Sug Rec Bal	78 nopy Species d Maple k Spruce lsam Fir U 86 nopy Species ar Maple d Maple	Density Low Medium Medium Medium specified 81-110 Density Low Medium	N/A Avg. Height 5 - 10 feet 10 - 20 feet 5 - 10 feet No N/A Avg. Height 10 - 20 feet 10 - 20 feet	Size Sapling Sapling Sapling Sapling Sapling Size Sapling Sapling	Under W41-1639: *Various wildlife shrubs planted/caged around perimeter, 2017.	



Stand	Level 4 Co	over Type	5	Size De	ensity	Acres S	tand Age E	BA Range	Managed S	Site	General Comments
33	4130	- Aspen	P	oletimb	er Well	30.6	25	1-50	N/A		GEMS treatment planned in 2042.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cand	py Species	Density	Avg. Height	Size	
	Quaking Aspen	95	Pole/Sapling	6	25	Red	Maple	Low	5 - 10 feet	Sapling	
	Balsam Fir	5	Pole	7		Bals	am Fir	Low	5 - 10 feet	Sapling	
34	4130	- Aspen		Saplin	g Well	14.7	14	1-50	N/A		Last Shot Aspen (2005) .TSI in 2005. most of stand burned shortly after
	Canopy Species	% Cover	Size Class	DBH	l Age		py Species	Density	Avg. Height	Size	harvest (6/17/2011 AP) Stand was planted with 8 large oak trees and 2,700 small
	Red Maple	10	Sapling	1		Red	l Oak	Low	< 5 feet	Seeding	oak saplings in spring of 2011.
	Quaking Aspen	81	Sapling	1	14	Bals	am Fir	Medium	10 - 20 feet	Sapling	GEMS treatment planned in 2047.
	Balsam Fir	5	Sapling	3							
	Hemlock	4	Pole/Log	9							
35	310 - Herbaco	eous Openl	land	Nonst	ocked	7.0	U	Inspecified	Managed O _l	pening	Under W41-1639: *Various wildlife shrubs planted/caged around perimeter, 2018.
36	4112 - Maple, Asso	Beech, Ch ciation	erry S	awtimb	er Well	7.4	95	81-110	N/A		Last Shot Aspen (2005) also cut as part of Intersection Aspen in 2014.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cand	py Species	Density	Avg. Height	Size	
	Red Maple	90	Log/Pole	12	95	Red	Maple	Medium	5 - 10 feet	Sapling	
	Paper Birch	10	Log/Pole	10		Ве	ech	Low	5 - 10 feet	Sapling	
						Bals	am Fir	Low	5 - 10 feet	Sapling	
37	4136 - Aspen			Saplin		13.0	8	1-50	N/A		Cut with sale Intersection Aspen.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cand	py Species	Density	Avg. Height	Size	GEMS treatment planned in 2042.
	Quaking Aspen	30	Sapling	1	8	Bals	am Fir	Medium	5 - 10 feet	Sapling	·
	White Pine	10	Log/XLog	16							
	Bigtooth Aspen	40	Sapling	1	8						
	Red Maple	5	Sapling	1							
	Balsam Fir	10	Sapling	1							
No	rthern White Cedar	5	Pole	8							
38	4130	- Aspen	P	oletimb	er Well	20.9	27	51-80	N/A		GEMS treatment planned in 2027
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cand	py Species	Density	Avg. Height	Size	
1											
	Bigtooth Aspen	70	Pole/Sapling	6	27	Bals	am Fir	High	10 - 20 feet	Sapling	
		70 5	Pole/Sapling Pole/Sapling		27	Bals	am Fir	High	10 - 20 feet	Sapling	
	Bigtooth Aspen			6	27	Bals	am Fir	High	10 - 20 feet	Sapling	

Report 7 - Stands



Stanc	Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
39	4119 - Mixed No	orthern Hard	dwoods	Poletimbe	er Poor	3.7	41	1-50	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Balsam Fir	10	Pole	7		Ва	ılsam Fir	Low	5 - 10 feet	Sapling	
	Red Maple	40	Pole/Log	9	41	WI	hite Pine	Low	5 - 10 feet	Sapling	
	White Pine	10	Log	12							
	Bigtooth Aspen	10	Pole	8							
	Black Cherry	30	Pole	8							
40	4130	- Aspen		Poletimbe	er Well	16.7	30	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	90	Pole/Saplin	ig 7	30	Ва	ılsam Fir	Medium	10 - 20 feet	Sapling	
	Balsam Fir	5	Pole/Saplin	ig 6		Re	ed Maple	Medium	10 - 20 feet	Sapling	
	Red Maple	5	Pole/Saplin	ig 7			·				
41	4130	- Aspen		Sapling	Well	7.1	14	1-50	N/A		Last Shot Aspen (2005). TSI in 2005. GEMS treatment planned in
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	2047
	Red Maple	5	Sapling	1		Re	ed Maple	Low	5 - 10 feet	Sapling	
	Paper Birch	5	Sapling	1							
	Quaking Aspen	88	Sapling	3	14						
Serv	viceberry (Juneberry)	2	Sapling	3							
42	310 - Herbac	eous Open	land	Nonsto	cked	1.6			Managed Op	ening	
43	4130	- Aspen		Poletimbe	er Well	3.3	33	81-110	N/A		GEMS treatment planned in 2032
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	10	Pole	7		Ва	ılsam Fir	High	5 - 10 feet	Sapling	
	Bigtooth Aspen	80	Pole	8	33						-
	Balsam Fir	10	Pole	6							
44	4110 - Sugar M	laple Asso	ciation	Sawtimbe	er Well	14.0	95	81-110	N/A		Intersection Aspen 41-010-12-01, Intersection Aspen Sale. Unit 4
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Residual BA = red maple 6', sugar maple 53', ironwood 6' and paper birch 1'. Total is 66'
	Sugar Maple	90	Log/Pole	12	95	Re	ed Maple	Low	5 - 10 feet	Sapling	BIOTI 1. TOTAL IS GO
	Red Maple	10	Log/Pole	11	95		Beech	Low	5 - 10 feet	Sapling	
						Ir	onwood	Low	5 - 10 feet	Sapling	
45	6122 - BI	ack Spruce		Sapling	Well	4.8	6	1-50	N/A		Intersection Aspen 41-010-12-01, Intersection Aspen Sale. Unit 5
	Canopy Species		Size Class								
	DI I- O	55	Sapling	1 1	6						
	Black Spruce										
	Tamarack	20	Sapling	1							
	•										

Report 7 - Stands



Stand	d Level 4 C	over Type	S	ize De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
46	6120 - Lo	wland Ceda	ar Pole	etimbei	Mediun	n 9.8	86	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	20	Pole/Sapling	5		Re	d Maple	Low	10 - 20 feet	Sapling	
No	orthern White Cedar	50	Pole/Sapling	5	86	Ва	lsam Fir	Medium	10 - 20 feet	Sapling	
	White Pine	10	Log/XLog	14		Blac	k Spruce	Medium	5 - 10 feet	Sapling	
	Hemlock	20	Log/Pole	11	86	Та	ng Alder	Medium	5 - 10 feet	Tall Shrub	
47	4130	- Aspen	Po	oletimb	er Well	13.6	30	51-80	N/A		GEMS treatment planned in 2027
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	75	Pole/Sapling	7	30		lsam Fir	Medium	5 - 10 feet	Sapling	
	Red Maple	10	Pole/Sapling	7		Wh	nite Pine	Low	10 - 20 feet	Sapling	
	Balsam Fir	10	Pole/Sapling	7							-
	White Pine	5	Log/Pole	10							
48	4130	- Aspen		Sapling	Well	19.6	8	1-50	N/A		Cut with sale Intersection Aspen.
	Canopy Species	% Cover	Size Class	DBH	Age						GEMS treatment planned in 2047
	Bigtooth Aspen	40	Sapling	1	8						
	Quaking Aspen	40	Sapling	1							
	Red Maple	10	Sapling	1							
	Balsam Fir	5	Sapling	1							
	Red Pine	5	Log/Pole	12							
49	6128 - Lowland Dec	Coniferous	Mixed	Sapling	ı Well	5.3	6	1-50	N/A		Intersection Aspen Sale. Unit 6 Residual BA = hemlock 15'. A buffe strip was left along south line to satisfy green-up requirement.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Red Maple	20	Sapling	1							
	Black Spruce	10	Sapling	1	6						
	Tamarack	30	Sapling	1	6						
	White Pine	30	Sapling/Pole	1							
	Hemlock	5	Log/Pole	13							
	Balsam Fir	5	Sapling	1							
50	500 -	- Water		Nonsto	cked	11.0	I.	mmature	No		

Report 7 - Stands Compartment: 89

	Çş	giotoii ing	ju Omi				•				Year of Entry: 2022
Stanc	l Level 4 Co	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
51	4112 - Maple, Asso	Beech, Ch	nerry	Poletimb	er Wel	19.8	39	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	
	Red Maple	40	Pole/Sapling	g 6	39	Red	d Maple	Medium	5 - 10 feet	Sapling	
	Paper Birch	5	Pole/Sapling	g 6		Bal	sam Fir	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	5	Pole/Sapling	g 6							-
	Balsam Fir	5	Pole/Saplino	g 6							
	Black Cherry	5	Pole/Sapling	g 6							
	Sugar Maple	40	Pole/Sapling	g 6	39						
52	6129 - Mixed Co Fo	oniferous Lo orest	owland	Poletimb	er Wel	25.5	86	111-140	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	
	Red Maple	15	Pole	9		Red	d Maple	Low	10 - 20 feet	Sapling	
	Paper Birch	3	Pole	9		He	emlock	Medium	10 - 20 feet	Sapling	
	Balsam Fir	5	Pole	7		Wh	ite Pine	Medium	10 - 20 feet	Sapling	
	Black Spruce	22	Pole	8	86	Bal	sam Fir	Medium	10 - 20 feet	Sapling	
No	rthern White Cedar	20	Pole	9		Quaki	ing Aspen	Medium	10 - 20 feet	Sapling	
	White Pine	10	Log/XLog	14		Black	k Spruce	Medium	5 - 10 feet	Sapling	
	Hemlock	20	Log/Pole	11	86						-
	Tamarack	5	Pole	7							
53	6129 - Mixed Co Fo	oniferous Lo orest	owland	Poletimb	er Wel	1.2	70	111-140	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	
	Red Maple	6	Pole	6		Northern	White Cedar	Low	10 - 20 feet	Sapling	
	Paper Birch	7	Pole	6		Не	emlock	Medium	10 - 20 feet	Sapling	
	Black Spruce	25	Pole	7							-
No	rthern White Cedar	32	Pole	6	70						
	Hemlock	30	Pole	9							
54	310 - Herbaco	eous Open	land	Nonsto	cked	5.4			Managed Op	pening	
55	6122 - Bla	ack Spruce	9	Sapling	Well	16.6	15	1-50	N/A		Cooks Grade Birch Sale (2004) - Residual values - hemlock 32ft, white
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	pine 6ft, cherry 2 ft.regen good. Residual hemlock from harvest is now canopy, regeneration is subcanopy. Good regeneration on higher grou
	White Pine	20	Sapling	2		Red	d Maple	Medium	5 - 10 feet	Sapling	with many species. Lower ground is mostly black spruce and
	Black Spruce	60	Sapling	2	15	Pap	er Birch	Low	5 - 10 feet	Sapling	regeneration is a little more sparse but should fill in.
	Tamarack	20	Sapling	2		Balsa	ım Poplar	Low	5 - 10 feet	Sapling	Dense hemlock area was split and new stand created
				-		Bal	sam Fir	Medium	< 5 feet	Sapling	
						-	1.0	A.A. 11	. = 6 (0 !:	1

< 5 feet

5 - 10 feet

Medium

Low

Sapling

Sapling

Black Spruce

Hemlock

Report 7 – Stands

DNR MICHIGAN

Compartment: 89

Year of Entry: 2022

Stand	·			Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments	MICHIGAN .
56	6112 - Lov	vland Aspe	en	Sapling	y Well	16.9	27	1-50	N/A		GEMS treatment planned in 2052. A large percentage of the	nis stand is
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	flooded.	
	Red Maple	30	Sapling	4		Ва	lsam Fir	Medium	5 - 10 feet	Sapling		
	Paper Birch	10	Sapling	4			Alder	High	5 - 10 feet	Tall Shrub		
	Bigtooth Aspen	50	Sapling	4	27							
	Balsam Fir	10	Sapling	4								
57	6112 - Lov	vland Aspe	en F	Poletimb	er Well	12.0	30	51-80	N/A		Gems treatment planned 2042	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Quaking Aspen	70	Pole	7	30	Ba	lsam Fir	Medium	10 - 20 feet	Sapling		
	Balsam Fir	10	Pole	7			Alder	Medium	5 - 10 feet	Tall Shrub		
	Red Maple	10	Pole	8		Re	d Maple	Medium	10 - 20 feet	Sapling		
	Paper Birch	10	Pole	8								
58	42350 - Upl	and Hemlo	ock S	Sawtimb	er Well	16.4	105	201+	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Maple	5	Pole	8		H	emlock	Low	< 5 feet	Sapling		
	Paper Birch	5	Pole	7								
	Hemlock	90	Log/Pole/XLog	g 14	105							
59	4134 - Aspe	en, Spruce	Fir F	Poletimb	er Well	14.7	30	1-50	N/A		GEMS treatment planned in 2037	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Quaking Aspen	75	Pole/Sapling	5	30	Ва	lsam Fir	High	10 - 20 feet	Sapling		
	Balsam Fir	20	Pole/Sapling	6								
<u> </u>	Red Maple	5	Pole/Sapling	6								
60	6124 - Lowla	and Spruce	-Fir	Sapling	y Well	7.6	30	1-50	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Balsam Fir	15	Sapling/Pole	4			Alder	Medium	5 - 10 feet	Tall Shrub		
	Black Spruce	40	Sapling/Pole	4	30	Ba	lsam Fir	Medium	10 - 20 feet	Sapling		
	Quaking Aspen	10	Sapling/Pole	4								
	Tamarack	15	Sapling/Pole	4								
	Red Maple	15	Sapling/Pole	4								
No	orthern White Cedar	5	Pole	8								
61	42350 - Upl	and Hemlo	ock S	Sawtimb	er Well	20.5	81	141-170	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Hemlock	60	Log	12	81	Ва	lsam Fir	Medium	10 - 20 feet	Sapling		
No	orthern White Cedar	10	Pole	9							•	
	Paper Birch	10	Log/Pole	12								
	Red Maple	20	Log/Pole	12								

Shingleton Mgt. Unit Report 7 - Stands



Stan	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed S	iite	General Comments
62	4130	- Aspen	F	Poletimb	er Well	4.9	39	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	10	Pole/Sapling	6	39	Re	ed Maple	Medium	5 - 10 feet	Sapling	
	Bigtooth Aspen	80	Pole/Sapling	6	39	Ва	alsam Fir	Low	5 - 10 feet	Sapling	
	Sugar Maple	10	Pole/Sapling	6	39			·			
63	6122 - B	lack Spruce	; F	Poletimb	er Well	1.5	83	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	5	Pole/Log	9		Ва	alsam Fir	Medium	5 - 10 feet	Sapling	
	Paper Birch	5	Pole/Log	9		Bla	ck Spruce	Low	5 - 10 feet	Sapling	
	White Spruce	5	Pole/Log	9					1	'	
	Black Spruce	75	Pole/Log	9	83						
	Tamarack	5	Pole/Log	9							
	Quaking Aspen	5	Pole/Log	9							
64	4130	- Aspen	F	Poletimb	er Well	22.8	50	81-110	N/A		GEMS treatment planned in 2022.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	5	Pole	7		Ва	alsam Fir	High	10 - 20 feet	Sapling	
	Bigtooth Aspen	90	Pole	7	50						
	Balsam Fir	5	Pole	6							
65	429 - Mixed I	Upland Con	ifers	Sapling	Poor	7.3	4	1-50	N/A		Cut with Furry Ridges Sale in 2015.
	Canopy Species	% Cover	Size Class	DBH	Age						Stand is being removed from the gems treatment rotation. It is not an
	Balsam Fir	50	Sapling	1	4						Aspen stand.
	White Pine	20	Sapling	1							
	Jack Pine	10	Sapling	1							
	Red Maple	20	Sapling	1							
66	4130	- Aspen		Sapling	Well	17.1	2	Immature	N/A		GEMS treatment scheduled for 2057. Harvested with 2017 GEMS sale in
	Canopy Species	% Cover	Size Class	DBH	Age						winter 2019.
	Quaking Aspen	95	Sapling	1	2						
	Balsam Fir	5	Sapling	1							
67	4134 - Asp			Sawtimb		1.9	50	111-140	N/A		Retention patch and BMP issues
	Canopy Species		Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	30	Log/Pole	10		Ва	alsam Fir	High	10 - 20 feet	Sapling	
	Bigtooth Aspen	50	Log/Pole	12	50						
	Balsam Fir	20	Pole	8							



Stand	d Level 4 Co	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
68	4130 -	- Aspen		Saplin	g Well	10.7	2	1-50	N/A		GEMS treatment planned for 2057. Harvested in winter 2018 with GEMS 2017 sale.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	2017 Sale.
	Balsam Fir	5	Sapling	1	2	Bal	sam Fir	High	< 5 feet	Sapling	
	Quaking Aspen	95	Sapling	1	2						
69	4139 - Aspen, N	Mixed Decid	duous F	Poletimb	er Well	19.8	46	81-110	N/A		GEMS treatment planned in 2027
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	opy Species	Density	Avg. Height	Size	
	Red Maple	25	Pole	9		Bal	sam Fir	High	10 - 20 feet	Sapling	
	Bigtooth Aspen	55	Pole	9	46						
	Balsam Fir	10	Pole	6							
	Paper Birch	5	Pole	8							
	White Spruce	5	Log	12							
70	4130 -	- Aspen		Saplin	g Well	17.1	14	1-50	N/A		Last Shot Aspen (2005) .TSI in 2005. most of stand burned shortly after
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	opy Species	Density	Avg. Height	Size	harvest (6/17/2011 AP) Stand was planted with 8 large oak trees and 2,700 sma
	Red Maple	10	Sapling	1		Re	ed Oak	Low	< 5 feet	Seeding	oak saplings in spring of 2011.
	Quaking Aspen	80	Sapling	1	14	Bal	sam Fir	Medium	5 - 10 feet	Sapling	
	Balsam Fir	5	Sapling	3						1	GEMS treatment planned in 2047.
	Hemlock	5	Pole/Log	9							
71	4130 -	- Aspen	F	Poletimb	er Well	12.0	61	111-140	N/A		Serves as retention patch and is mostly a creek buffer.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	opy Species	Density	Avg. Height	Size	
	Quaking Aspen	60	Pole	9	61	Bal	sam Fir	Medium	5 - 10 feet	Sapling	
	Red Maple	30	Pole	9						1	1
	Balsam Fir	10	Pole	8							
72	42340 - Upla	and Spruce/	Fir	Saplin	g Well	5.5	30	51-80	N/A		GEMS treatment originally planned in 2017. removed from gems
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	opy Species	Density	Avg. Height	Size	treatment rotation since it is not aspen
	Balsam Fir	30	Sapling/Pole	4		Bal	sam Fir	Medium	10 - 20 feet	Sapling	
	Bigtooth Aspen	20	Sapling/Pole	4		Blac	k Spruce	Medium	5 - 10 feet	Sapling	
	Black Spruce	40	Sapling/Pole	9 4	30					1	1
	Red Maple	10	Sapling/Pole	4							
	4120	- Aspen	F	Poletimb	er Well	13.8	35	51-80	N/A		GEMS treatment planned in 2052.
73	4130 -					Sub-Car	nopy Species	Density	Avg. Height	Size	
73	Canopy Species	% Cover	Size Class	DBH	l Age						1
73		% Cover	Size Class Pole/Sapling		35		sam Fir	Medium	5 - 10 feet	Sapling	
73	Canopy Species	85	Pole/Sapling	6					5 - 10 feet	Sapling	
73	Canopy Species Bigtooth Aspen			6					5 - 10 feet	Sapling	
73	Canopy Species Bigtooth Aspen Balsam Fir	85 10 5	Pole/Sapling Pole/Sapling Pole	j 6	35				5 - 10 feet	Sapling	



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
75	4130	- Aspen		Saplin	g Well	23.1	14	1-50	N/A		Last Shot Aspen (2005) .TSI in 2005. most of stand burned shortly after
	Canopy Species	% Cover	Size Class	DBF	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	harvest (6/17/2011 AP) Stand was planted with 8 large oak trees and 2,700 small
	Red Maple	10	Sapling	1		R	ed Oak	Low	< 5 feet	Seeding	oak saplings in spring of 2011.
	Quaking Aspen	81	Sapling	1	14	Ва	lsam Fir	Medium	10 - 20 feet	Sapling	CEMC to a three and in larger and in 2040
	Balsam Fir	5	Sapling	3							GEMS treatment planned in 2042
	Hemlock	4	Pole/Log	9							
76	4130	- Aspen		Saplin	g Well	14.7	8	1-50	N/A		Cut with sale Intersection Aspen
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	GEMS treatment planned in 2052
	Quaking Aspen	35	Sapling	1		Ва	lsam Fir	Medium	< 5 feet	Sapling	0_110
	Bigtooth Aspen	50	Sapling	1	8			,			
	Balsam Fir	10	Sapling	1							
	Red Maple	5	Sapling	1							
77	4130	- Aspen		Saplino	g Well	23.4	14	1-50	N/A		Last Shot Aspen (2005) .TSI in 2005. most of stand burned shortly after
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	harvest (6/17/2011 AP) Stand was planted with 8 large oak trees and 2,700 small
	Red Maple	10	Sapling	1		R	ed Oak	Low	< 5 feet	Seeding	oak saplings in spring of 2011.
	Quaking Aspen	81	Sapling	1	14	Ва	lsam Fir	Medium	10 - 20 feet	Sapling	CEMS treatment planned in 2007
	Balsam Fir	5	Sapling	3							GEMS treatment planned in 2037
	Hemlock	4	Pole/Log	9							
78	4130	- Aspen		Saplin	g Well	9.2	14	1-50	N/A		Last Shot Aspen (2005) .TSI in 2005. most of stand burned shortly after
	Canopy Species	% Cover	Size Class	DBF	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	(6/17/2011 AP) Stand was planted with 8 large oak trees and 2,700 small
	Red Maple	10	Sapling	1		R	ed Oak	Low	< 5 feet	Seeding	oak saplings in spring of 2011.
	Quaking Aspen	81	Sapling	1	14	Ва	lsam Fir	Medium	10 - 20 feet	Sapling	GEMS treatment planned in 2052
	Balsam Fir	5	Sapling	3							GENIS treatment planned in 2002
	Hemlock	4	Pole/Log	9							
79	4130	- Aspen		Sapling	g Well	15.3	8	1-50	N/A		Cut with Intersection Aspen in 2012.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	GEMS treatment planned in 2052.
	Quaking Aspen	85	Sapling	1	8	Ва	lsam Fir	Medium	5 - 10 feet	Sapling	'
	Red Maple	15	Sapling	1							
80	4130	- Aspen	F	Poletimb		12.5	30	81-110	N/A		GEMS treatment planned in 2027
	Canopy Species	% Cover			l Age		nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	70	Pole	8	30		Isam Fir	Medium	10 - 20 feet	Sapling	
	Balsam Fir	5	Pole	8		Re	d Maple	Medium	5 - 10 feet	Sapling	
	Red Maple	15	Pole/Sapling								
	Paper Birch	10	Pole/Sapling	9 6							

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and	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed S	ite	General Comments	Місно
1	4130	- Aspen		Sapling	y Well	20.6	2	1-50	N/A		cut with gems 2017 sale	
	Canopy Species	% Cover	Size Class	DBH	Age							
	Quaking Aspen	100	Sapling	1	2							
82	4130	- Aspen		Sapling	ı Well	11.6	8	1-50	N/A		Cut with sale Intersection Aspen	
	Canopy Species	% Cover	Size Class	DBH	Age						GEMS treatment planned in 2047	
	Quaking Aspen	100	Sapling	1	8						GEWIG REGILITER PLANTING III 2047	
83	4112 - Maple, Asso	Beech, Ch	erry Po	oletimber	- Mediur	n 2.8	41	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Black Cherry	70	Pole	8	41	Quak	king Aspen	Medium	5 - 10 feet	Sapling		
	Bigtooth Aspen	15	Pole	8								
	Red Maple	15	Pole	8								
84	6112 - Lov	wland Aspe	n	Sapling		1.6	3	1-50	N/A		gem treatment planned 2057	
	Canopy Species		Size Class	DBH	Age	Sub-Ca	nopy Species		Avg. Height	Size		
	Quaking Aspen	90	Sapling	1	3		Alder	Medium	5 - 10 feet	Tall Shrub		
	Balsam Fir	10	Sapling	1								
85	4191 - Mixed Upla Co	and Decidud onifer	ous with	Sapling	j Well	82.4	15	1-50	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Maple	20	Sapling	3	15	Ва	lsam Fir	Medium	5 - 10 feet	Sapling		
	Paper Birch	10	Sapling	3							-	
	Bigtooth Aspen	10	Sapling	3								
	Balsam Fir	15	Sapling	3								
	White Pine	15	Sapling	3								
	Black Cherry	20	Sapling	3	15							
	Hemlock	10	Log/Pole	12								
86	4130	- Aspen		Poletimb	er Well	20.2	25	51-80	N/A		GEMS treatment planned in 2042	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
		10	Sapling/Pole	e 4		Ва	lsam Fir	Medium	10 - 20 feet	Sapling		
	Balsam Fir											



Stand	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
88	4130	- Aspen	F	Poletimb	er Well	26.9	61	111-140	N/A		Stand serves as retention for adjacent stands and is a river buffer.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	80	Pole	8	61	Ва	ılsam Fir	Medium	10 - 20 feet	Sapling	
	Paper Birch	10	Pole	8		Re	ed Maple	Medium	10 - 20 feet	Sapling	
	Red Maple	10	Pole/Log	9							
89	4130	- Aspen	F	Poletimb	er Well	17.2	30	51-80	N/A		GEMS treatment planned in 2032
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	75	Pole	7	30	Ва	ılsam Fir	Medium	10 - 20 feet	Sapling	
	Red Maple	10	Pole	8		Re	ed Maple	Medium	10 - 20 feet	Sapling	
	Paper Birch	5	Pole	7							
	Balsam Fir	10	Pole	7							
90	4130	- Aspen	F	Poletimb	er Well	15.3	30	81-110	N/A		GEMS treatment planned in 2047
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	85	Pole	8	30	Ва	ılsam Fir	Medium	10 - 20 feet	Sapling	
	Red Maple	10	Pole	8		Re	ed Maple	Medium	10 - 20 feet	Sapling	
	Balsam Fir	5	Pole	7							
91	4130	- Aspen		Sapling	g Well	16.7	8	1-50	N/A		Cut with sale Intersection Aspen
											GEMS treatment planned in 2042
92	4130	- Aspen		Sapling	g Well	29.8	25	1-50	N/A		GEMS treatment planned for 2047
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	2	Sapling	4		Ва	ılsam Fir	Medium	5 - 10 feet	Sapling	
	Paper Birch	2	Sapling	2							
	Bigtooth Aspen	82	Sapling	4	25						
	Balsam Fir	10	Sapling	4							
	White Pine	4	Sapling/Pole	4							
93	4130	- Aspen	F	Poletimb	er Well	9.9	30	51-80	N/A		GEMS treatment planned in 2042
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	90	Pole/Sapling	5	30	Ва	ılsam Fir	High	10 - 20 feet	Sapling	
	Balsam Fir	10	Pole/Sapling	6		Re	ed Maple	Medium	10 - 20 feet	Sapling	



Stan	d Level 4 C	over Type	;	Size D	ensity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
94	4199 - Other Mixe	d Upland D	eciduous P	oletiml	ber Well	11.2	39	51-80	N/A		Mixed stand. Drainage located in the middle. About 3 acres of this stand is an aspen clone. Just wait till the entire stand mature to harvest.
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	is an aspen cione. Just wait till the entire stand mature to harvest.
	Red Maple	30	Pole/Sapling	6	39	Re	d Maple	Medium	5 - 10 feet	Sapling	
	Paper Birch	5	Pole/Sapling	6		Ва	lsam Fir	Low	5 - 10 feet	Sapling	
	Bigtooth Aspen	30	Pole/Sapling	6							
	Balsam Fir	5	Pole/Sapling	6							
	Black Cherry	5	Pole/Sapling	6							
	White Pine	10	Pole/Sapling	6							
	Sugar Maple	15	Pole/Sapling	6							
95	6112 - Lo	wland Aspe	n P	oletim	ber Well	5.3	30	51-80	N/A		Wet depression and drainage. Removed from GEMS treatment plan and
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	will serve as retention for surrounding area.
	Quaking Aspen	70	Pole	7	30	Ва	lsam Fir	Medium	10 - 20 feet	Sapling	
	Balsam Fir	10	Pole	7			Alder	Medium	5 - 10 feet	Tall Shrub	
	Red Maple	10	Pole	8		Re	d Maple	Medium	10 - 20 feet	Sapling	
	Paper Birch	10	Pole	8						-	
96	4130	- Aspen	Р	oletiml	ber Well	7.9	27	51-80	N/A		Boundary will change due to recent beaver activity. GEMS treatment
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	planned in 2022
	Bigtooth Aspen	80	Pole/Sapling	6	27	Ва	lsam Fir	Low	5 - 10 feet	Sapling	
	Paper Birch	10	Pole/Sapling	6							
	Red Maple	10	Pole/Sapling	6							
97	4130	- Aspen	Р	oletiml	ber Well	18.7	41	81-110	N/A		GEMS treatment planned in 2032
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	80	Pole	8	41	Ва	lsam Fir	Medium	5 - 10 feet	Sapling	
	Black Cherry	10	Pole	8							
	Balsam Fir	10	Pole	8							
98	4130	- Aspen	Р	oletiml	ber Well	11.7	27	mmature	N/A		GEMS treatment planned in 2042
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	90	Pole/Sapling	6	27		lsam Fir	Medium	10 - 20 feet	Sapling	
	Balsam Fir	10	Pole/Sapling	6							
99	4130	- Aspen	Р	oletim	ber Well	15.3	41	81-110	N/A		GEMS treatment planned in 2027
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Bigtooth Aspen	80	Pole	9	41	Ва	Isam Fir	Medium	10 - 20 feet	Sapling	
	J 1										
	Black Cherry	10	Pole	8							

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Stand	Level 4 Co	Level 4 Cover Type			Size Density		Acres Stand Age BA		Managed Site		General Comments	MICHIGAN .
100	4130 - Aspen		Р	Poletimber Well		7.7 44 8		81-110	0 N/A		GEMS treatment planned in 2027	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Bigtooth Aspen	80	Pole	8	44	Ва	lsam Fir	Medium	10 - 20 feet	Sapling		
	Red Maple	10	Pole	8								
	Balsam Fir	10	Pole	7								
101	6112 - Lov	wland Aspen		Poletimber Well		23.4	27	1-50	N/A		GEMS treatment planned in 2037	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Black Cherry	10	Pole/Sapling	5		Ва	lsam Fir	Medium	10 - 20 feet	Sapling		
	Quaking Aspen	70	Pole	7	27							
	Red Maple	10	Pole/Sapling	5								
	Balsam Fir	10	Pole/Sapling	5								
102	4130	- Aspen	Aspen		Poletimber Well		19.0 27 8		N/A		GEMS treatment planned in 2047	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Bigtooth Aspen	70	Pole	7	27	Re	d Maple	Medium	10 - 20 feet	Sapling		
	Red Maple	10	Pole	5		Ва	lsam Fir	Medium	10 - 20 feet	Sapling		
	Paper Birch	10	Pole/Sapling	6								
	Balsam Fir	10	Pole/Sapling	6								
103	500 -	500 - Water Nonstocked		17.0	0		No		Beaver Flooding that was created in last 10 years.			
104	6120 - Lov			etimber	etimber Medium		81	1-50	N/A		Flooded stand, very wet	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	White Pine	5	Pole	9		Ta	ng Alder	Medium	5 - 10 feet	Tall Shrub		
No	rthern White Cedar	70	Pole	8	81							
	Black Spruce	25	Pole	8								
105	4130	4130 - Aspen Poletimber Well		9.9	25	51-80	N/A		GEMS treatment planned in 2037			
	Canopy Species	% Cover		DBH	Age		nopy Species	Density	Avg. Height	Size		
	Red Maple	10	Pole/Sapling	6			d Maple	Low	5 - 10 feet	Sapling		
	Bigtooth Aspen	70	Pole/Sapling	6	25	Ва	lsam Fir	Low	5 - 10 feet	Sapling		
	Balsam Fir	10	Pole/Sapling	6								
	Black Cherry	5	Pole/Sapling	6								
	Paper Birch	5	Pole/Sapling	6								