

Compartment Review Presentation

Escanaba Forest Management Unit

Compartment 33109 Entry Year 2023 Acreage: 1,523

County Menominee

Management Area: Menominee End Moraine

Revision Date: 2021-06-04

Stand Examiner: Dan Beaudo

Legal Description:

T35N, R29W, Sections 11, 12, 13, 14, 25, and 36.

T35N, R28W, Sections 19, 30, and 31.

Identified Planning Goals:

The compartment is within a landscape of more sandy soils containing aspen, pine and oak. Upland types are aspen, mixed deciduous, mixed conifer, oak, and white pine. Lowland types consist of black spruce, hardwood and open lowland. Recommended treatments on mature aspen retaining some oak seed trees then planting pine to promote the long term goal of the Oak-Pine Barrens natural community, shelterwood harvest leaving a low basal area of mature oak/pine, and treatments on the Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA with opportunities for expansion but dependent upon funding.

Oak wilt epicenters have been treated in the past by clearcutting leaving pine and vibratory plowing to sever oak root grafts. Oak wilt surveillance with treatment of epicenter will continue contingent upon funding.

Soil and topography:

Soils include well drained sandy over loamy soils and excessively drained sands. Major soil types include Grayling Sands and Pemene-Rubicon complex. Topography is nearly level to moderately steep.

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

Ownership around this compartment is a mix of State, private and County. Most of the private land is small to 40 acre parcels with some larger land owners and clubs. Land use around this compartment is mainly forest, with a mix of private residences. The county maintains a recreation site between the two blocks of this compartment. There is mineral exploration in progress around the northern block of this compartment.

Unique Natural Features:

This compartment is part of the Shakey Lakes Oak-Pine Barrens ERA containing some of the Element Occurence for the oak-pine barrens natural community.

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

Shakey Lakes Oak-Pine Barrens ERA

Watershed and Fisheries Considerations:

Compartment 33109: NLMMU – Jennifer Johnson: This compartment contains Muskrat Lake and small unnamed ponds. A 100' buffer is recommended around these water bodies.

Given recent Great Lakes high-water levels, standing water in the form of vernal pools or temporary waterbodies may exist throughout all compartments. Therefore, buffers are recommended to protect these areas in accordance with Best Management Practices.

Wildlife Habitat Considerations:

-Wildlife Division-

Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial oil & gas production in this part of the state. The closest active sand/gravel pits are about five miles to the east. There is good sand & gravel potential in the compartment on the uplands. Aquila's Back Forty project is adjacent to the north block of this Compartment and there may be potential for discovery of additional sulfide deposits, like Back Forty, in the area. Mineral rights adjacent to the north block on the northeast side of the compartment are currently under lease. The State does not own all the mineral rights within the compartment. Because the

mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

Vehicle Access:

Most of the compartment has good access by conventional two-wheel drive vehicles.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

No developed recreational opportunities on state land in this area. There is a county campground between the two blocks of this compartment. Opportunities for hunting, hiking, wildlife viewing, photography, ORV and trapping currently exist.

Fire Protection:

This area is prone to fire due to the droughty soils, timber types and is within the Shakey Lakes Wildfire Zone Dispatch area. Access for fire protection is very good. There is an abundant source of water including Shakey Lakes and the Menominee River.

Additional Compartment Information:

Yearly oak wilt monitoring has detected oak wilt epicenters within the compartment. Any oak wilt identification that occurs during this 10 year inventory period can be treated by using oak wilt treatment guidelines. The oak wilt epicenters will be identified and the appropriate distance away from the center will be cleared for vibratory plow operations, harvested and/or herbicide to minimize the spread of oak wilt.

The following reports from the Inventory are attached:

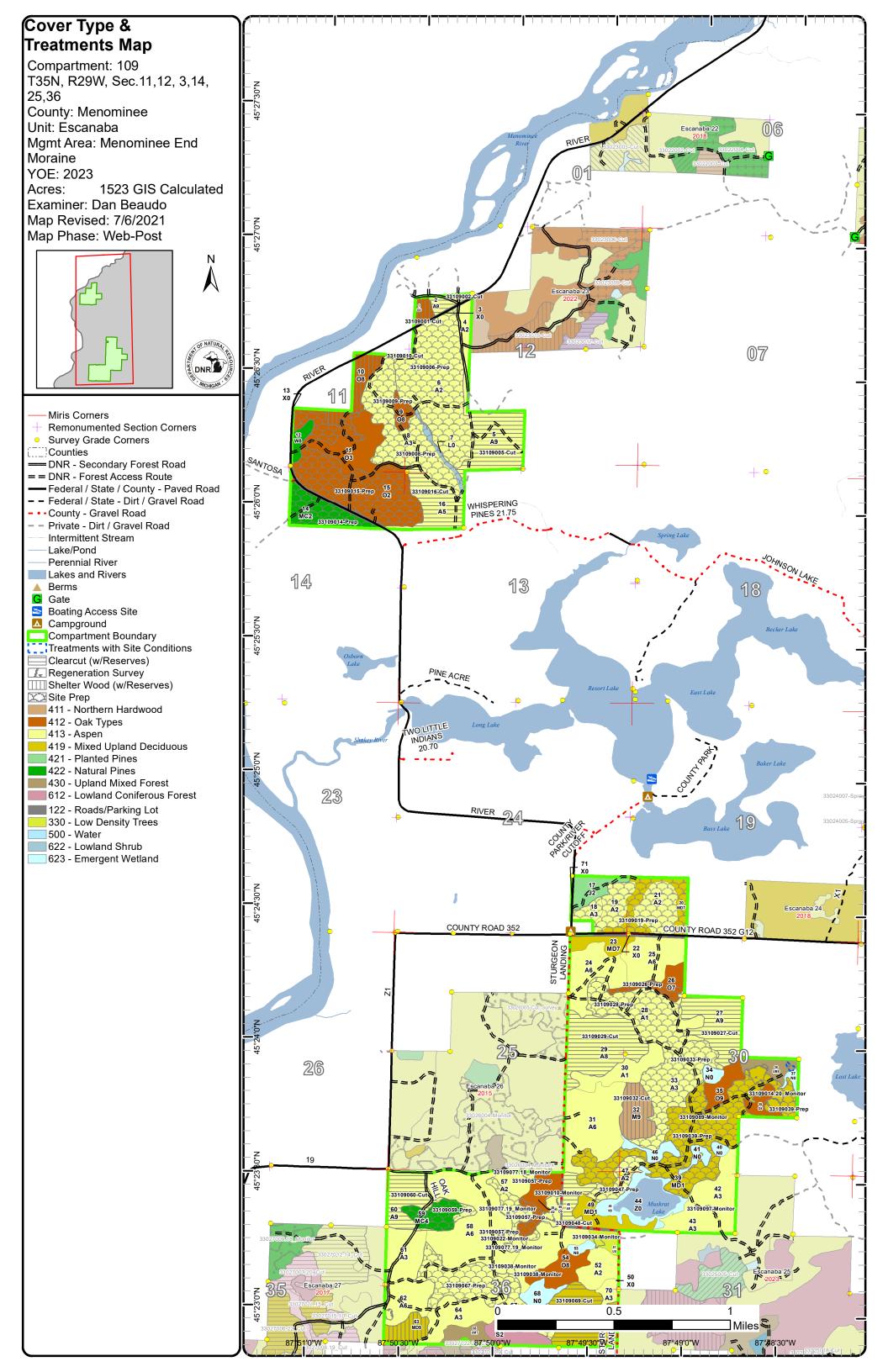
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

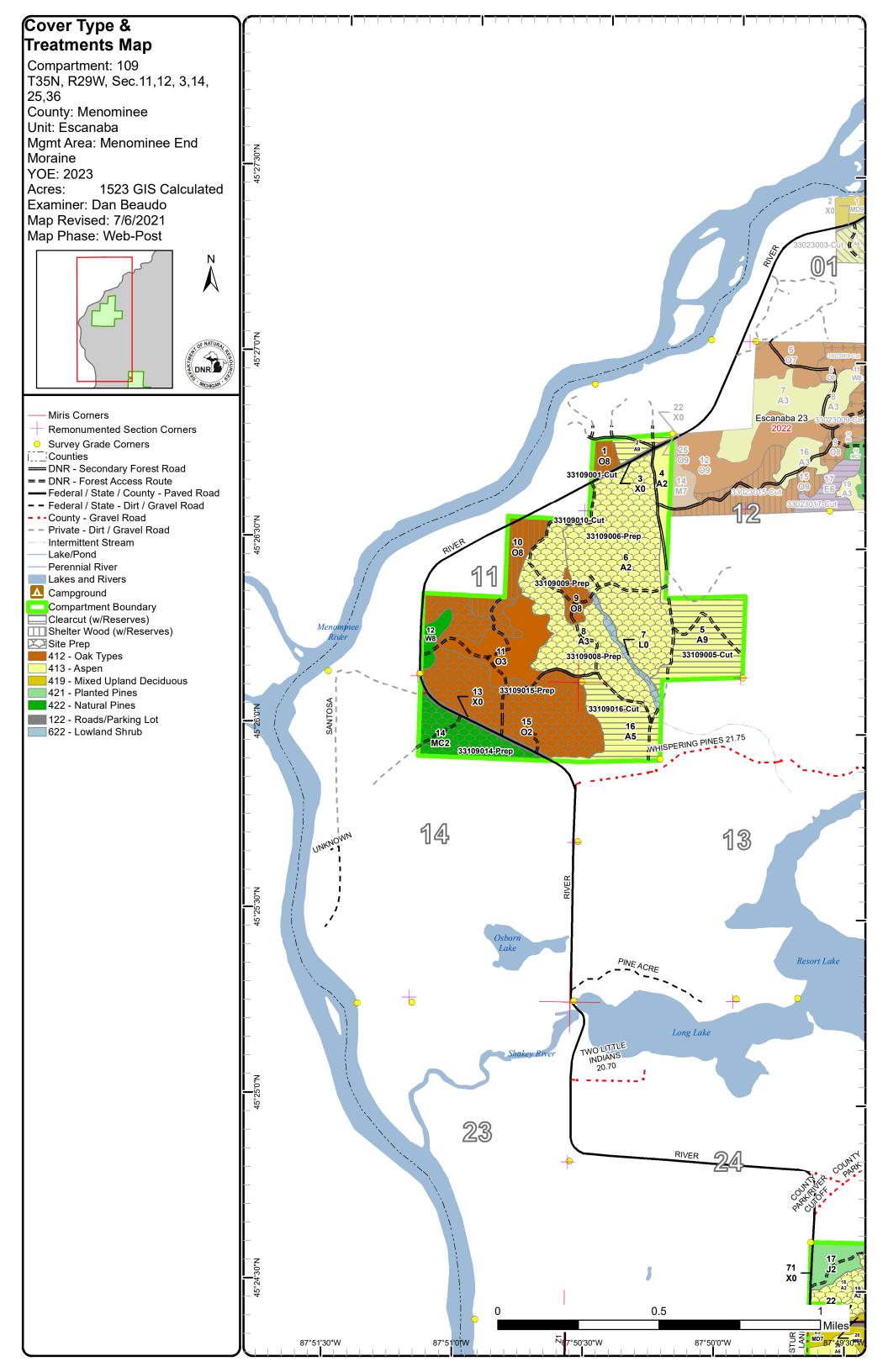
The following information is displayed, where pertinent, on the attached compartment maps:

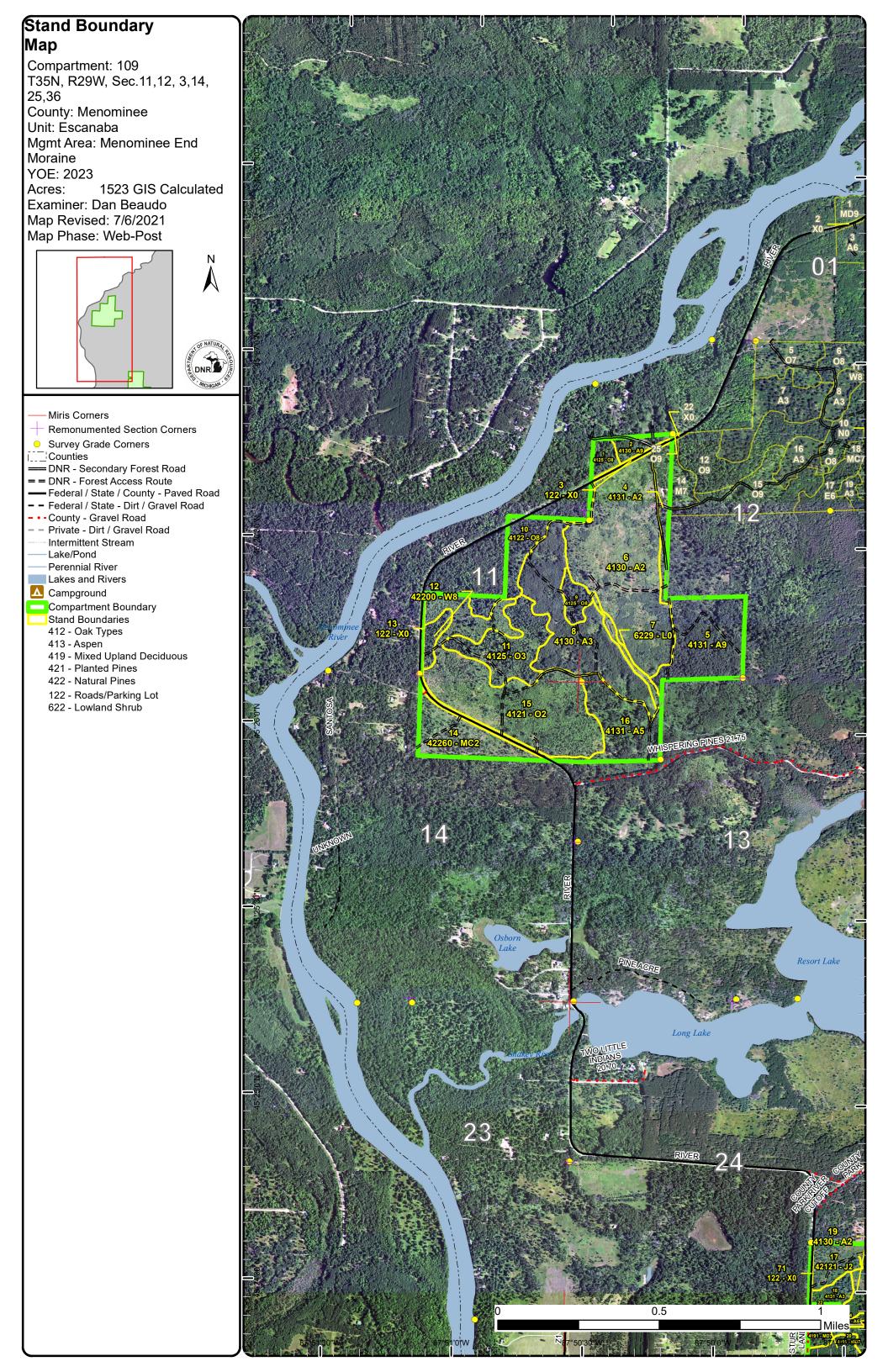
Base feature information, stand boundaries, cover types, and numbers Proposed treatments

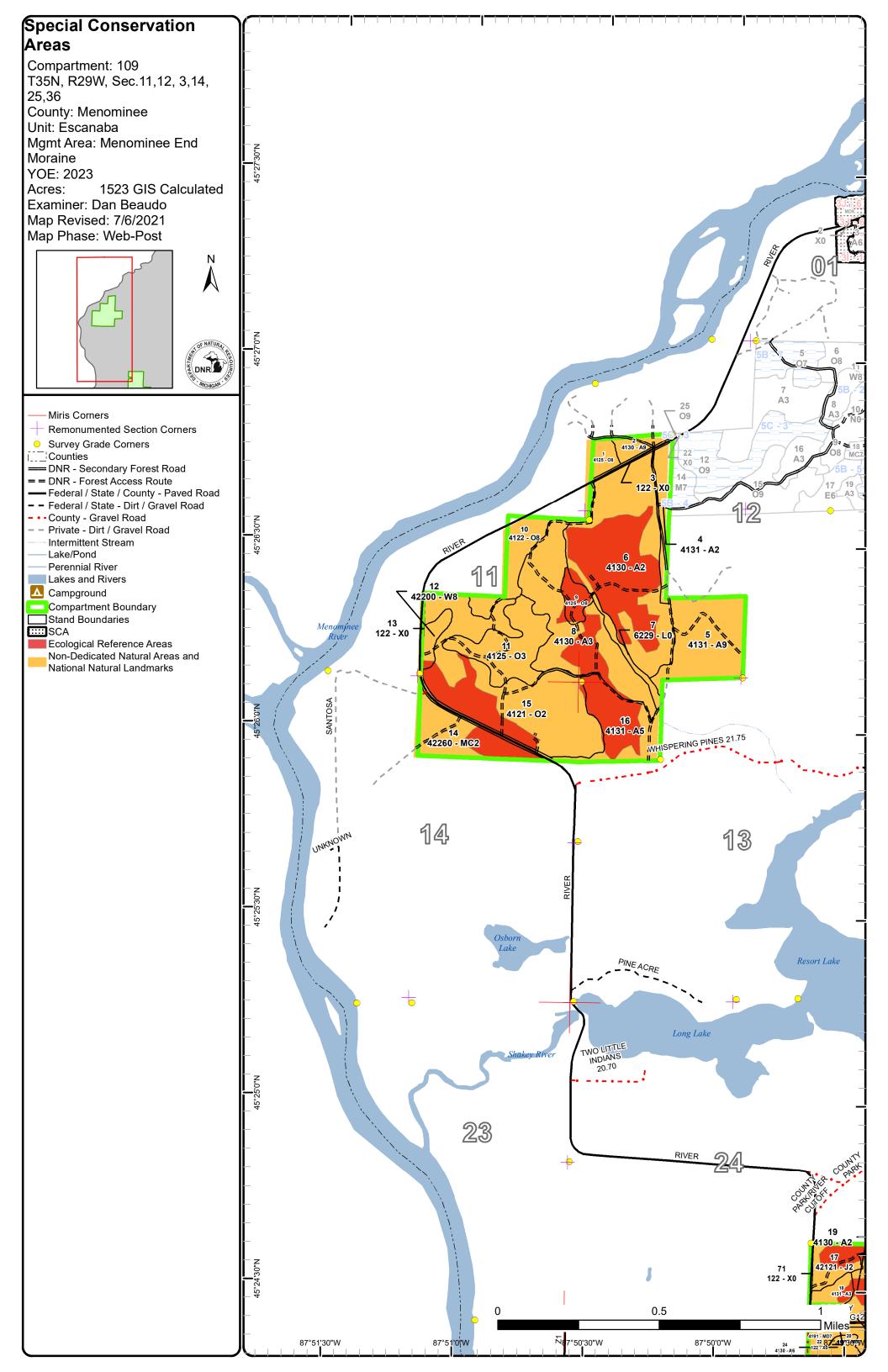
Site condition boundaries

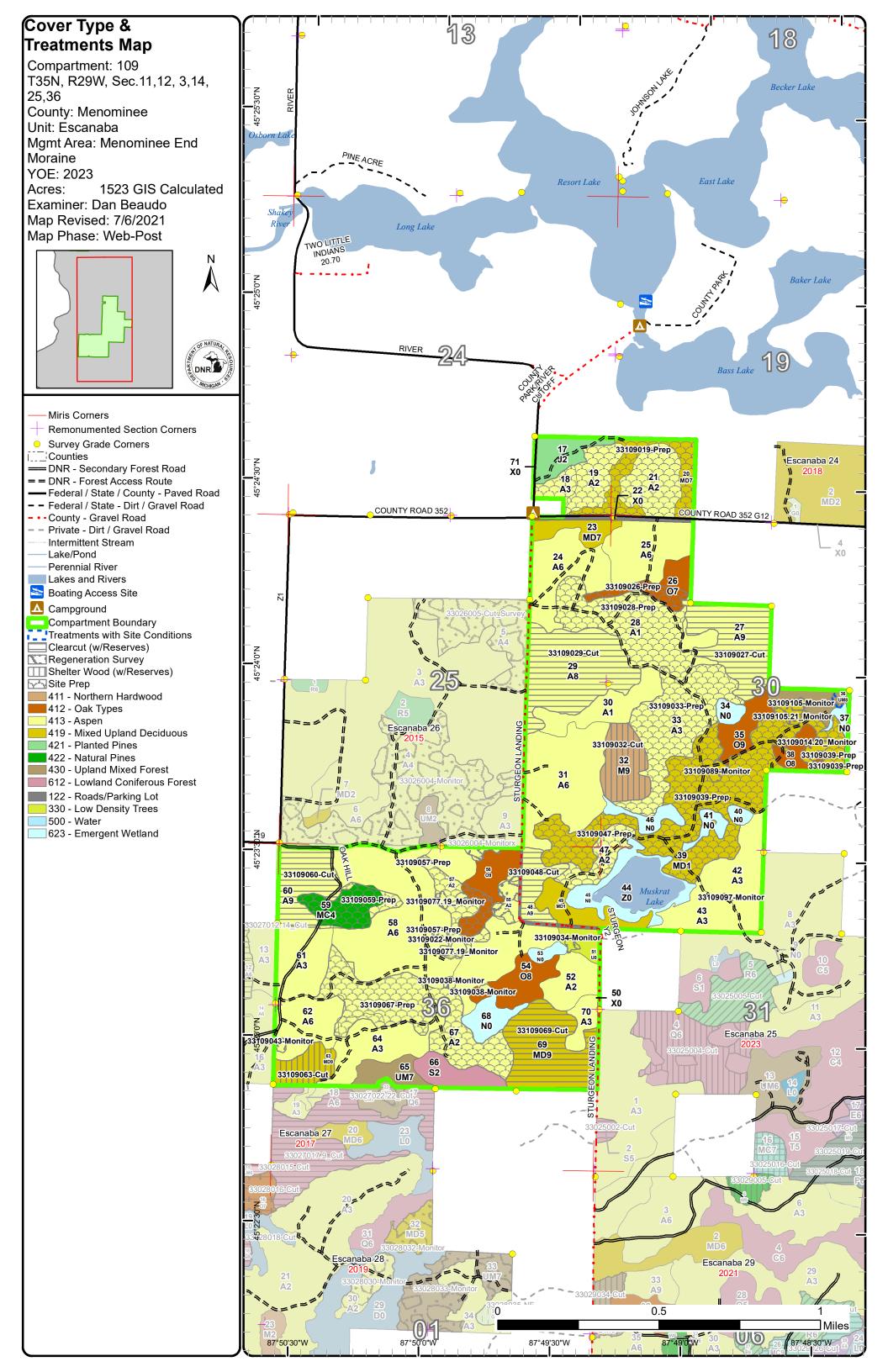
Details on the road access system

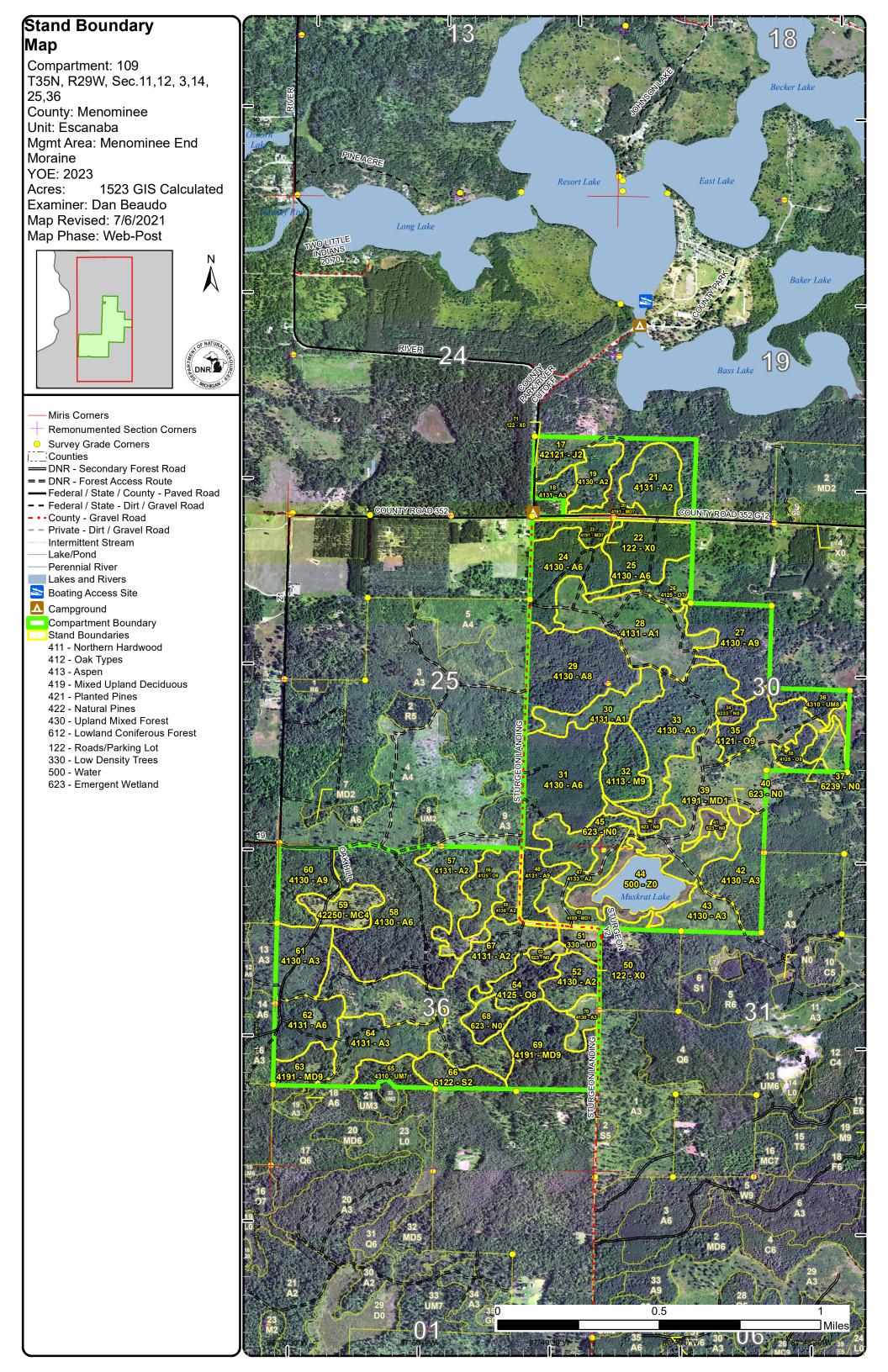


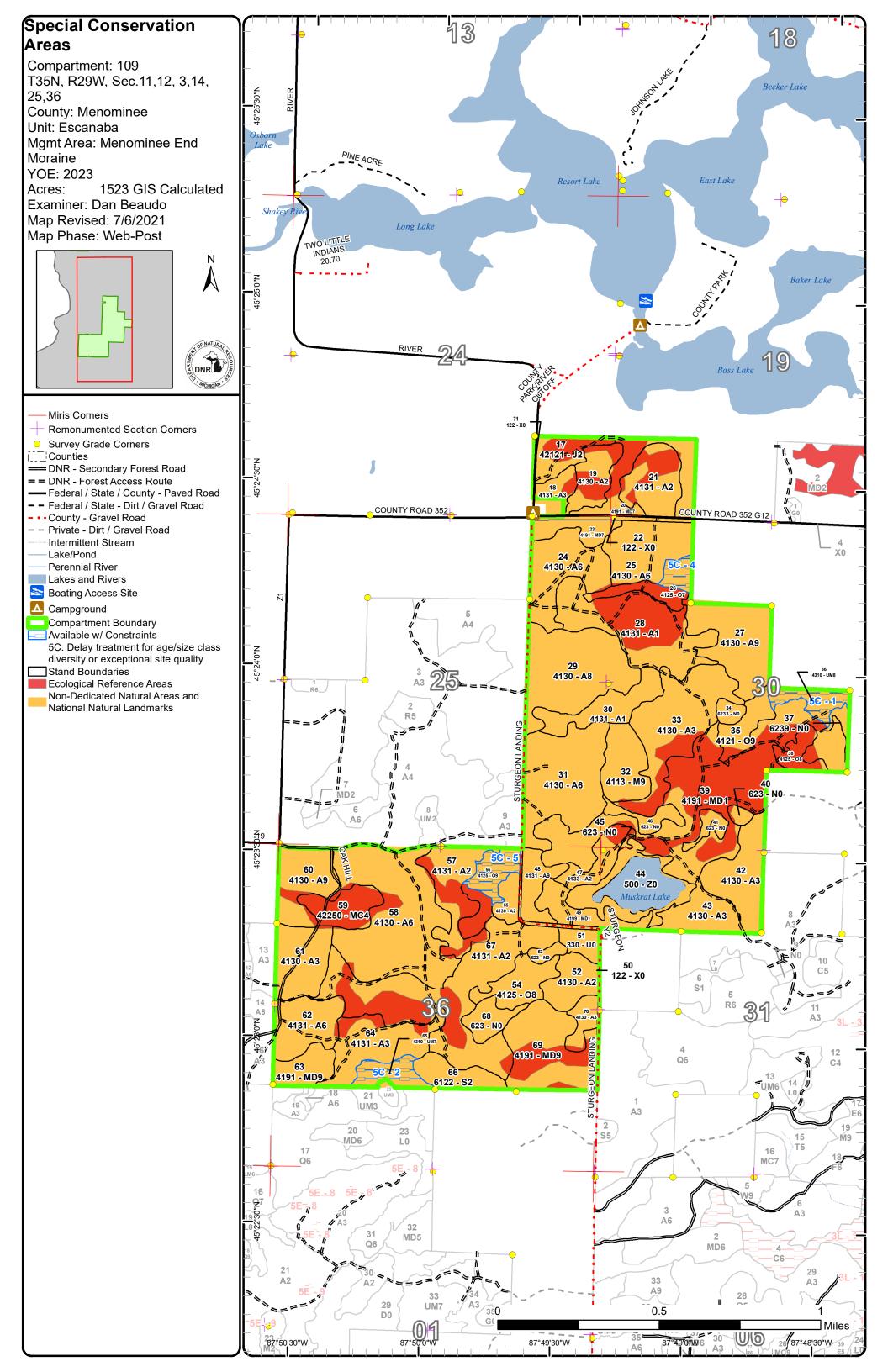












Escanaba Mgt. Unit

Dan Beaudo: Examiner



Age Class

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Aspen	0	25	330	83	76	100	78	0	0	0	0	12	0	0	0	0	0	227	930
Jack Pine	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Low-Density Trees	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Shrub	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12
Marsh	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
Mixed Upland Deciduous	0	13	0	0	0	0	0	0	0	20	0	12	0	0	0	0	0	149	194
Natural Mixed Pines	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	15	39
Northern Hardwood	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	19
Oak	0	0	110	0	0	0	0	0	19	21	13	23	0	0	0	0	0	15	201
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	20
Urban	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Water	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
White Pine	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	93	50	440	107	76	105	78	0	19	80	13	47	0	0	0	0	0	418	1524



Report 2 – Treatment Summary

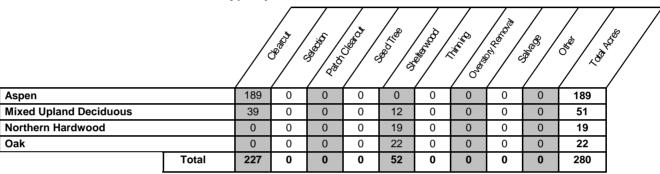
Escanaba Mgt. Unit Year of Entry: 2023

Acres of Harvest

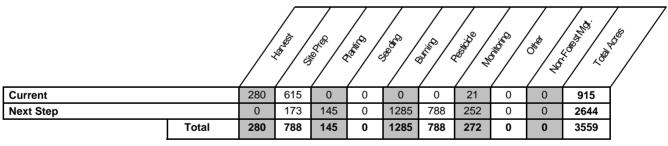
Compartment 109
Total Compartment Acres: 1,523

Commercial Harvest - 280 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



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Year of Entry: 2023 **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n Method CoverType Objective Name Density Age Range Type Structure Cut

Proposed Treatments:

33109001-Cut 5.0 4125 - Black, N. Pin Sawtimber 1-50 Harvest Shelterwood 4122 - Oak, Pine Even-Aged No Oak Medium

Prescription Cut merchantable trees except retain a minimum of 4 trees per acre of pine and healthy mast producing oaks.

Specs:

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable Species in the canopy layers.

Regen:

Mature stand with dead trees present. Promote seedlings from acorns to minimize root grafted systems. This will decrease the spread of oak Other wilt through the root systems which will creates a healthier stand more capable to withstand oak wilt disease. Comment:

The shelterwood system lies somewhere in between the visual extremes of clearcutting and selection management. The parent forest is removed in several stages, with each stage successively establishing optimum environmental conditions for tree regeneration and then nursing the regeneration along to a point where the remaining parent forest can be harvested. Red oaks and white pine stands will often benefit from shelterwood harvesting.

Site Condition

Proposed Start Date: 10/1 /2022

4130 - Aspen 33109002-Cut 5.6 Sawtimber 59 81-110 Harvest Clearcut with 4121 - Oak, Even-Aged No Well Retention Aspen

Prescription Cut all trees greater than 3" dbh except cut oak greater than 6" dbh.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Species within the canopy layers.

Regen:

Other Aspen is mature with dead oak trees present, regenerate stand while sprouting is still available. This is a small aspen stand that will be allowed to regenerate naturally due to the fragmentation by roads within the stand. Comment:

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch, and jack pine require full sunlight. Oak sprouting responds well to full sunlight with rapid growth keeping up to aspen sprouts. This aids desired regeneration to reach heights in a shorter length of time that will put buds out of browser's reach.

Site Condition

Proposed Start Date: 10/1 /2022

33109005-Cut 37.7 4131 - Aspen, Oak Sawtimber 47 81-110 4310 - Pine, Harvest Clearcut Even-Aged Nο Oak Mix

Prescription Cut all trees greater than 3" dbh except leave some healthy oak to retain for mast and seed. Next Steps of trench, herbicide and plant red pine. Natural white pine seedlings and white pine seed from adjacent trees will provide pine diversity. Specs:

SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Herbicide Use Next Step Treatments:

Acceptable Species of pine and oak that will over time bring this stand to resemble more of the Oak-Pine Barrens habitat type.

Other Comment:

Regen:

This is a mature aspen stand with dead oak present. This stand is within the Shakey Lakes Oak-Pine Barrens ERA but not within an Element Occurrence. The proposed treatment will help remove aspen and other species not indicative of the Oak-Pine Barrens habitat. Then follow up with planting red pine to full stock will ensure pine will remain a dominant species and oak seed trees will provide seed for dispersed oak trees. Planted pine seedling failure will provide open areas and should not be followed up with a re-planting. Over time this stand will be thinned down to densities that better resemble the Oak-Pine Barrens habitat.

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch, and jack pine require full sunlight. Oak sprouting responds well to full sunlight with rapid growth keeping up to aspen sprouts. This aids desired regeneration to reach heights in a shorter length of time that will put buds out of browser's reach.

Site Condition

Year of Entry: 2023

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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
6	33109006-	87.1	4130 - Aspen	Sapling	10	Immatu	SitePrep	Roller Chopping	31021 - Cool		No
	Prep			Medium	l	re			Season Grass		

<u>Prescription</u> A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available: <u>Specs:</u>

- 1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.
- 2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.
- 3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.
- 4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

<u>Next Step</u> Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Other Treatments:

Treatments.

<u>Acceptable</u> Species of the oak-pine barrens natural community. <u>Regen:</u>

Other This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will be dependent upon funding.

Site Condition

Proposed Start Date: 10/1 /2022

8 33109008- 57.6 4130 - Aspen Sapling 20 Immatu SitePrep Roller Chopping 31021 - Cool No Prep Well re Season Grass

<u>Prescription</u> A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available: <u>Specs:</u>

- 1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.
- 2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.
- 3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.
- 4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

<u>Next Step</u> Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening <u>Treatments:</u>

<u>Acceptable</u> Species within the Oak-Pine Barrens natural community. <u>Regen:</u>

Other This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will be dependent upon funding.

Site Condition

Year of Entry: 2023

a n d	Treatment Name	Acres Star Cover	-			Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
9	33109009-	6.2 4125 - Bla	ack, N. Pin Sawt	mber 10	4 1-50	SitePrep	Roller Chopping	31021 - Cool		No
	D	^	Note Ma	1:				Casaan Crass		

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available: Specs:

- 1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.
- 2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.
- 3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.
- 4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening Treatments:

Acceptable Species of the oak-pine barrens natural community. Regen:

Other This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will be Comment: dependent upon funding.

Site Condition

S

Proposed Start Date: 10/1 /2022

33109010-Cut 16.8 4122 - Oak, Pine Sawtimber 104 51-80 Harvest Shelterwood 4122 - Oak, Pine Uneven-No Medium Aged

Prescription Shelterwood cut merchantable trees except leave 20 basal area, or minimum of 4 trees per acre, of oak and pine for shade, mast and seed Specs: production.

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

Acceptable Species in the canopy layers. Regen:

The shelterwood system lies somewhere in between the visual extremes of clearcutting and selection management. The parent forest is Other Comment: removed in several stages, with each stage successively establishing optimum environmental conditions for tree regeneration and then nursing the regeneration along to a point where the remaining parent forest can be harvested. Red oaks and white pine stands will often benefit from shelterwood harvesting.

Site Condition

Year of Entry: 2023

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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
14	33109014-	23.6	42260 - Natural	Sapling	27	1-50	SitePrep	Roller Chopping	31021 - Cool		No
	Prep		Pine, Mixed	Medium					Season Grass		

Specs:

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step Treatments: Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

Deciduous

Acceptable Species of the oak-pine barrens natural community.

Regen: Other

This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will

dependent upon funding. Comment:

Site Condition

Proposed Start Date: 10/1 /2022

15 33109015-83.0 4121 - Oak, Aspen Sapling 13 Immatu SitePrep Roller Chopping 31021 - Cool No Medium Season Grass Prep re

Specs:

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem. 4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step

Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

Treatments:

Acceptable Species of the oak-pine barrens natural community.

Regen:

Other This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will

dependent upon funding.

Site Condition

Comment:

Season Grass



r	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
1	6 33109016-Cut	27.0	1131 - Aspen Oak	Polotimbo	r 16	1-50	Harveet	Clearcut with	31021 - Cool		No

Medium Prescription Cut all trees greater than 3" dbh except leave a minimum of 4 trees per acre of pine and oak trees.

Specs:

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A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:

1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.

Retention

- 2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.
- 3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little
- 4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody

Next Step SitePrep, Roller Chopping; Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening **Treatments:**

Acceptable Species of the oak-pine barrens natural community.

Regen:

This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will be Other Comment: dependent upon funding, except the initial step of clearcutting.

Site Condition

Proposed Start Date: 10/1 /2022

21 33109019-60.8 4131 - Aspen, Oak Sapling 14 Immatu SitePrep Roller Chopping 31021 - Cool No Prep Medium Season Grass re

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Specs:

Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening Next Step Treatments:

Acceptable Species of the oak-pine barrens natural community.

Regen:

This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will Other Comment: dependent upon funding.

Site Condition

Year of Entry: 2023

31021 - Cool Season Grass

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

1-50

Specs:

33109026-

Prep

S

t а n d 26

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

SitePrep

Roller Chopping

Next Step Treatments: Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

7.6 4125 - Black, N. Pin Sawtimber

Poor

Oak

Acceptable Species of the oak-pine barrens natural community.

Regen:

Other This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will

Comment: dependent upon funding.

Site Condition

Proposed Start Date: 10/1 /2022

33109027-Cut 34.1 4130 - Aspen Sawtimber 49 51-80 Harvest Clearcut 4310 - Pine. Even-Aged No Oak Mix Well

Prescription Cut all trees greater than 3" dbh except leave some healthy oak to retain for mast and seed. Next Steps of trench, herbicide and plant red

pine. Natural white pine seedlings and white pine seed from adjacent trees will provide pine diversity. Specs:

Next Step SitePrep, Trenching: Pesticide, Skidder - Site Prep: Planting, Initial Plant: Monitoring, Herbicide Use Treatments:

Acceptable Species of pine and oak that will over time bring this stand to resemble more of the Oak-Pine Barrens natural community.

Regen:

Other Comment: This is a mature aspen stand with dead oak present. This stand is within the Shakey Lakes Oak-Pine Barrens ERA but not within an Element Occurrence. The proposed treatment will help remove aspen and other species not indicative of the Oak-Pine Barrens habitat. Then follow up with planting red pine to full stock will ensure pine will remain a dominant species and oak seed trees will provide seed for dispersed oak trees. Planted pine seedling failure will provide open areas and should not be followed up with a re-planting. Over time this stand will be thinned down to densities that better resemble the Oak-Pine Barrens habitat.

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch, and jack pine require full sunlight. Oak sprouting responds well to full sunlight with rapid growth keeping up to aspen sprouts. This aids desired regeneration to reach heights in a shorter length of time that will put buds out of browser's reach.

Site Condition

Year of Entry: 2023

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Treatment Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat CoverType Method Objective Structure Name Density Age Range Type Cut

d Name CoverType Density Age Range Type Method Objective Structure Cut

28 33109028- 44.2 4131 - Aspen, Oak Prep Poor re Season Grass

<u>Prescription</u> A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available: <u>Specs:</u>

- 1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.
- 2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.
- 3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.
- 4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

<u>Next Step</u> Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening <u>Treatments:</u>

Acceptable Species of the oak-pine barrens natural community.

Regen:

Other This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will be dependent upon funding.

Site Condition

Proposed Start Date: 10/1 /2022

29 33109029-Cut 48.5 4130 - Aspen Sawtimber 50 51-80 Harvest Clearcut 4310 - Pine, Even-Aged No Medium Oak Mix

<u>Prescription</u> Specs: Cut all trees greater than 3" dbh except leave some healthy oak to retain for mast and seed. Next Steps of trench, herbicide and plant red pine. Natural white pine seedlings and white pine seed from adjacent trees will provide pine diversity.

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

Acceptable Species of pine and oak that will over time bring this stand to resemble more of the Oak-Pine Barrens natural community. Regen:

Other Comment: This is a mature aspen stand with dead oak present. This stand is within the Shakey Lakes Oak-Pine Barrens ERA but not within an Element Occurrence. The proposed treatment will help remove aspen and other species not indicative of the Oak-Pine Barrens habitat. Then follow up with planting red pine to full stock will ensure pine will remain a dominant species and oak seed trees will provide seed for dispersed oak trees. Planted pine seedling failure will provide open areas and should not be followed up with a re-planting. Over time this stand will be thinned down to densities that better resemble the Oak-Pine Barrens habitat.

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch, and jack pine require full sunlight. Oak sprouting responds well to full sunlight with rapid growth keeping up to aspen sprouts. This aids desired regeneration to reach heights in a shorter length of time that will put buds out of browser's reach.

Site Condition

Escanaba Mgt. Unit

Report 3 -- Treatments



Upland Forest

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
32	33109032-Cut	18.8	4113 - R.Maple,	Sawtimbe	r 87	81-110	Harvest	Shelterwood	4319 - Mixed	Even-Aged	No

Prescription Cut all merchantable trees except leave a minimum of 4 trees per acre of pine and oak.

Well

Specs:

S

t

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Species within the canopy layers.

Regen:

Other Comment:

This is a mature stand with mortality present.

Conifer

The shelterwood system lies somewhere in between the visual extremes of clearcutting and selection management. The parent forest is removed in several stages, with each stage successively establishing optimum environmental conditions for tree regeneration and then nursing the regeneration along to a point where the remaining parent forest can be harvested. Red oaks and white pine stands will often benefit from shelterwood harvesting.

Site Condition

Proposed Start Date: 10/1 /2022

33109033-46.6 4130 - Aspen Sapling 10 Immatu SitePrep Roller Chopping 31021 - Cool No Well Season Grass Prep re

Specs:

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

Treatments:

Acceptable Species of the oak-pine barrens natural community.

Regen: Other

This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will

Comment: dependent upon funding.

Site Condition

Year of Entry: 2023

S

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
39	33109039-	93.8	4191 - Mixed	Sapling	10	Immatu	SitePrep	Roller Chopping	31021 - Cool		No
	Prep		Upland Deciduous	Poor		re			Season Grass		

Specs:

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step Treatments: Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

with Conifer

Acceptable Species of the oak-pine barrens natural community.

Regen: Other

This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will

dependent upon funding. Comment:

Site Condition

Proposed Start Date: 10/1 /2022

47 33109047-12.1 4133 - Aspen, Sapling 10 Immatu SitePrep Roller Chopping 31021 - Cool Nο Mixed Pine Medium Season Grass Prep re

Specs:

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem. 4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step

Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

Treatments:

Acceptable Species of the oak-pine barrens natural community.

Regen:

Other This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will

dependent upon funding.

Site Condition

Comment:



Year of Entry: 2023

Oak Mix

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
48	33109048-Cut	11.5	4131 - Aspen, Oak	Sawtimbe	r 101	111-	Harvest	Clearcut	4310 - Pine,	Even-Aged	No

Specs:

S

Prescription Cut all trees greater than 3" dbh except leave some healthy oak to retain for mast and seed. Next Steps of trench, herbicide and plant red pine. Natural white pine seedlings and white pine seed from adjacent trees will provide pine diversity.

Next Step

SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Herbicide Use

Well

Treatments:

Acceptable Species of pine and oak that will over time bring this stand to resemble more of the Oak-Pine Barrens natural community.

140

Regen:

<u>Other</u> Comment: This is a mature aspen stand with dead oak present. This stand is within the Shakey Lakes Oak-Pine Barrens ERA but not within an Element Occurrence. The proposed treatment will help remove aspen and other species not indicative of the Oak-Pine Barrens habitat. Then follow up with planting red pine to full stock will ensure pine will remain a dominant species and oak seed trees will provide seed for dispersed oak trees. Planted pine seedling failure will provide open areas and should not be followed up with a re-planting. Over time this stand will be thinned down to densities that better resemble the Oak-Pine Barrens habitat.

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch, and jack pine require full sunlight. Oak sprouting responds well to full sunlight with rapid growth keeping up to aspen sprouts. This aids desired regeneration to reach heights in a shorter length of time that will put buds out of browser's reach.

Site Condition

Proposed Start Date: 10/1 /2022

33109056-5.9 4125 - Black, N. Pin Sawtimber 87 81-110 SitePrep Roller Chopping 31021 - Cool No Well Season Grass Prep Oak

Specs:

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step

Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

Treatments:

Acceptable Species of the oak-pine barrens natural community.

Regen:

Other This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will

Comment: dependent upon funding.

Site Condition

Year of Entry: 2023

Season Grass

S

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
57	33109057-	12.7	A131 - Asnan Oak	Sanling	10	111-	SitePren	Roller Channing	31021 - Cool		No

140

Specs:

Prep

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step Treatments: Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

Medium

Acceptable Species of the oak-pine barrens natural community.

Regen:

This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will Other

Comment: dependent upon funding.

Site Condition

Proposed Start Date: 10/1 /2022

59 33109059-17.5 42250 - Pine, Oak Poletimber 25 Immatu SitePrep Roller Chopping 31021 - Cool No Poor Season Grass Prep re

Specs:

Prescription A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step **Treatments:**

Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

Acceptable Species of the oak-pine barrens natural community.

Regen: Other

This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will

dependent upon funding. Comment:

Site Condition

Year of Entry: 2023

a n d	Treatment Name	Acres	Stand CoverType		Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
60	33109060-Cut	23.2	4130 - Aspen	Sawtimber	52	111-	Harvest	Clearcut	4310 - Pine,	Even-Aged	No
				Well		140			Oak Mix		

Cut all trees greater than 3" dbh except leave some healthy oak to retain for mast and seed. Next Steps of trench, herbicide and plant red pine. Natural white pine seedlings and white pine seed from adjacent trees will provide pine diversity. Specs:

Next Step SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Herbicide Use Treatments:

Acceptable Species of pine and oak that will over time bring this stand to resemble more of the Oak-Pine Barrens natural community. Regen:

<u>Other</u> Comment:

S

This is a mature aspen stand with dead oak present. This stand is within the Shakey Lakes Oak-Pine Barrens ERA and partially within an Element Occurrence. The proposed treatment will help remove aspen and other species not indicative of the Oak-Pine Barrens habitat. Then follow up with planting red pine to full stock will ensure pine will remain a dominant species and oak seed trees will provide seed for dispersed oak trees. Planted pine seedling failure will provide open areas and should not be followed up with a re-planting. Over time this stand will be thinned down to densities that better resemble the Oak-Pine Barrens habitat.

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch, and jack pine require full sunlight. Oak sprouting responds well to full sunlight with rapid growth keeping up to aspen sprouts. This aids desired regeneration to reach heights in a shorter length of time that will put buds out of browser's reach.

Site Condition

Proposed Start Date: 10/1 /2022

33109063-Cut 11.8 4191 - Mixed Sawtimber 101 1-50 Harvest Shelterwood 4319 - Mixed Even-Aged No **Upland Deciduous** Well **Upland Forest** with Conifer

Prescription Cut all merchantable trees except leave a minimum of 4 trees per acre of oak and pine trees. Specs:

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

Acceptable Species within the canopy layers. Regen:

Other Mature forest with past areas treated for oak wilt. Regenerate to a healthy stand leaving some mast and seed trees. Comment:

The shelterwood system lies somewhere in between the visual extremes of clearcutting and selection management. The parent forest is removed in several stages, with each stage successively establishing optimum environmental conditions for tree regeneration and then nursing the regeneration along to a point where the remaining parent forest can be harvested. Red oaks and white pine stands will often benefit from shelterwood harvesting.

Site Condition

Year of Entry: 2023

S t a n

Treatment Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat Method Structure Objective Name CoverType Density Age Range Type Cut

d Name CoverType Density Age Range Type Method Objective Structure Cut

67 33109067- 56.1 4131 - Aspen, Oak Sapling 12 1-50 SitePrep Roller Chopping 31021 - Cool No
Prep Medium Season Grass

Prescription Specs:

A 4-step process is recommended to be incorporated for setting back succession in the Oak-Pine Barrens as funding is available:1. Depending on the merchantability of the trees, this stand could first be treated with a clearcut to remove the merchantable species except leave 4 oak/pine trees per acre. Then the stand will need to be treated by reducing the height of smaller saplings using a skidsteer or skidder mounted pulverizer or if the roller chopping would be effective. Leave 4 trees per acre of oak and pine where present. This will also stimulate sprouting to maximize mortality of the root system with the next step.2. The following year, or before aspen gets too tall, new aspen growth should be herbicide treated to remove the aspen and unwanted species. The use of a wiper applicator to only apply herbicide to the emergent species would target only the aspen, maple, cherry that would be taller above the grasses. Sprayer application would penetrate the grasses which would help set back the pennsylvania sedge.3. The following year a prescribed burn would remove dead debris and help promote conditions for desired grasses such as big and little bluestem.4. Then ideal/range fire return interval for ground fires is 1-3 years for restored sites to promote herbaceous diversity and remove woody cover.

Next Step Pesticide, Skidder - Site Prep; Burn, Opening; Burn, Opening

Treatments:

Acceptable Species of the oak-pine barrens natural community.

Regen:

Other This process to set back succession while trying to maintain Element Occurrence areas of the Shakey Lakes Oak-Pine Barrens ERA will dependent upon funding.

Site Condition

Proposed Start Date: 10/1 /2022

33109069-Cut 38.8 4191 - Mixed Sawtimber 87 111-Harvest Clearcut 4310 - Pine. Even-Aged No **Upland Deciduous** Well 140 Oak Mix with Conifer

<u>Prescription</u> Specs: Cut all trees greater than 3" dbh except leave some healthy oak to retain for mast and seed. Next Steps of trench, herbicide and plant red pine. Natural white pine seedlings and white pine seed from adjacent trees will provide pine diversity.

Next Step SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Herbicide Use Treatments:

Acceptable Species of pine and oak that will over time bring this stand to resemble more of the Oak-Pine Barrens natural community. Regen:

Other Comment:

This is a mature stand with dead oak present. This stand is within the Shakey Lakes Oak-Pine Barrens ERA but not within an Element Occurrence. The proposed treatment will help remove aspen and other species not indicative of the Oak-Pine Barrens habitat. Then follow up with planting red pine to full stock will ensure pine will remain a dominant species and oak seed trees will provide seed for dispersed oak trees. Planted pine seedling failure will provide open areas and should not be followed up with a re-planting. Over time this stand will be thinned down to densities that better resemble the Oak-Pine Barrens habitat.

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch, and jack pine require full sunlight. Oak sprouting responds well to full sunlight with rapid growth keeping up to aspen sprouts. This aids desired regeneration to reach heights in a shorter length of time that will put buds out of browser's reach.

Site Condition

Proposed Start Date: 10/1 /2022

Approved Treatments:

33109010-4130 - Aspen 55 2.1 Sapling Immatu Monitoring Natural Regen 4191 - Mixed Even-Aged No Monitor Medium (Re-Inventory) Upland re Deciduous with

Prescription Regen survey and monitor for oak wilt.

Specs:

Next Step Treatments:

Acceptable Oak, maple, aspen and pine.

Regen:

Other Percent to Treat = 100%

Comment:

Site Condition

Conifer

Escanaba	Mgt. Unit	Report 3	
Escanaba	Mgt. Unit	Report 3	

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Compartment: 109 Year of Entry: 2023

t									rear or Entry	y. 2023	DNR
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habita Cut
Prop	osed Start Date	<u>:</u> 3 /25/202	21								
39	33109014.20_ Monitor	3.0 L	4191 - Mixed Jpland Deciduous with Conifer	Sapling Poor	10	Immatu re	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Even-Aged	No
Pres Spec		r for oak wi	It and regeneration								
	Step tments:										
Acce Rege	eptable Oak, as en:	spen, and r	red maple.								
Othe Com	<u>er</u> Percen iment:	t to Treat =	= 100%								
Site	Condition										
<u>Prop</u>	osed Start Date	: 6 /19/20 ⁻	17								
57	33109022- Monitor	0.9 4	1131 - Aspen, Oak	Sapling Medium	10	111- 140	Monitoring	Natural Regen (Re-Inventory)	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	No
Pres Spec		survey and	d monitor for oak wi	lt.							
	: Step tments:										
Acce Rege	<u>eptable</u> Oak, m <u>en:</u>	aple, aspe	n and pine.								
Othe Com	er Percen iment:	t to Treat =	= 100%								
Site	Condition										
Prop	osed Start Date	<u>:</u> 3 /25/202	21								
51	33109034- Monitor	0.9 3	330 - Low-Density Trees	Nonstocke	ed	Unspec ified	Monitoring	Natural Regen (Re-Inventory)	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	No
Pres Spec		survey and	d monitor for oak wi	lt.							
	: Step tments:										
Acce Rege	e <u>ptable</u> Oak, m en:	aple, aspe	n and pine.								
Othe Com	er Percen iment:	t to Treat =	= 100%								
Site	Condition										
Prop	osed Start Date	<u>:</u> 3 /25/202	21								

Treatments

S t	Escanaba	n Mgt. Unit		Repo	rt 3 ⁻	Treatments		Compartmen Year of Entry		DNR DNR
a n Treatme d Name		Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habita Cut
67 331090 Monit		4131 - Aspen, Oak	Sapling Medium	12	1-50	Monitoring	Natural Regen (Re-Inventory)	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	No
Prescription F Specs:	Regen survey and	d monitor for oak wil	t.							
Next Step Treatments:										
Acceptable (Regen:	Oak, maple, aspe	n and pine.								
Other F Comment:	Percent to Treat =	= 100%								
Site Condition										
Proposed Star	t Date: 3 /25/20	21								
62 331090 Monit		4131 - Aspen, Oak	Poletimbe Well	er 44	51-80	Monitoring	Natural Regen (Re-Inventory)	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	No
Specs:	Regen survey and	d monitor for oak wil	t.							
Next Step Treatments:										
Acceptable (Regen:	Dak, maple, aspe	n and pine.								
Other F Comment:	Percent to Treat =	= 100%								
Site Condition										
Proposed Star	t Date: 3 /25/20	21								
55 3310907 Monit		4130 - Aspen	Sapling Medium	3	Immatu re	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Even-Aged	No
Prescription N Specs:	Monitor for oak wi	It and regeneration.								
Next Step Treatments:										
Acceptable (Regen:	Dak, aspen, and r	red maple.								
Other F Comment:	Percent to Treat =	= 100%								
Site Condition										

Proposed Start Date: 6 /19/2017

S t	Escanaba	ı Mgt. Unit		Repoi	rt 3 1	Γreatments		Compartmen Year of Entry	/	OF NATURAL PROPERTY OF NAT
a n Treatment d Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
57 33109077.19_ Monitor	2.4	4131 - Aspen, Oak	Sapling Medium	10	111- 140	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Even-Aged	No
Prescription Monitor Specs:	or for oak wi	ilt and regeneration.								
Next Step Treatments:										
Acceptable Oak, a Regen:	aspen, and r	red maple.								
Other Perce	nt to Treat =	= 100%								
Site Condition										
Proposed Start Date	e: 6/19/20	17								
39 33109089- Monitor	1.6 l	4191 - Mixed Jpland Deciduous with Conifer	Sapling Poor	10	Immatu re	Monitoring	Natural Regen (Re-Inventory)	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	No
Prescription Reger Specs:	n survey, mo	onitor for oak wilt.								
Next Step Treatments:										
Acceptable Oak, r Regen:	maple, aspe	n, birch and pine.								
Other Perce	nt to Treat =	= 100%								
Site Condition										
Proposed Start Date	e: 3 /25/202	21								
42 33109097- Monitor	0.4	4130 - Aspen	Sapling Well	13	Immatu re	Monitoring	Natural Regen (Re-Inventory)	413 - Aspen	Even-Aged	No
Prescription Reger Specs:	n survey and	d monitor for oak wil	t.							
Next Step Treatments:										

Comment:
Site Condition

<u>Other</u>

Proposed Start Date: 3 /25/2021

<u>Acceptable</u> Aspen, maple and oak. <u>Regen:</u>

Percent to Treat = 100%

S t		Escana	ba Mgt. Unit		Repoi	rt 3 1	Treatments		Compartmen Year of Entry	,	DNR DNR
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
39	33109105.21_ Monitor	_ 3.1	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	10	Immatu re	Monitoring	Natural Regen (Re-Inventory)	4121 - Oak, Aspen	Even-Aged	No
Pres Spec		or for oak	wilt and regeneration								
	Step tments:										
Acce Rege	e <u>ptable</u> Oak, a en:	aspen, an	d red maple.								
Othe Com	<u>r</u> Perce ment:	nt to Trea	t = 100%								
	Condition osed Start Date	<u>e:</u> 6/19/2	2017								
36	33109105- Monitor	0.5	4310 - Pine, Oak Mix	Sawtimbe Medium		51-80	Monitoring	Natural Regen (Re-Inventory)	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	No
Pres Spec		n survey, ı	monitor for oak wilt.								
	Step tments:										
Acce Rege		maple, as _l	pen, birch and pine.								
Othe Com	r Perce	nt to Trea	t = 100%								

Total Treatment 915 Acreage Proposed:

Site Condition Age-Class or Site Quality

Proposed Start Date: 3 /25/2021

Escanaba Mgt. Unit

Dan Beaudo : Examiner Year of Entry: 2023

Availability for Management Total Acres Avail Acres Acres Available With Condition Not Available 5C

5C	Not Available	With Condition	Available	Acres
Aspen	0	0	928	928
Jack Pine	0	0	12	12
Low-Density Trees	0	0	6	6
Lowland Shrub	0	0	5	5
Lowland Spruce/Fir	0	0	12	12
Marsh	0	0	47	47
Mixed Upland Deciduous	0	0	194	194
Natural Mixed Pines	0	0	38	38
Northern Hardwood	0	0	19	19
Oak 16	0	16	185	201
Upland Mixed Forest 20	0	20	0	20
Urban	0	0	17	17
Water	0	0	18	18
White Pine	0	0	5	5
Total Forested Acres 35		35	1,488	1,523
Relative Percent	0%	2%	98%	

*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	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Save for age and cla	ass diversity.					
2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: _ower density of larg	ge trees to save for age and si	ze class	diversity.			
	,	,		•			

Report 4 - Site Conditions

Compartment: 109

Dan Beaudo : Examiner

4 Available 5C: Delay treatment for age/size class diversity or exceptional site quality

Comments:

5 Available 5C: Delay treatment for 10 Unspecified Unspecified Unspecified Unspecified Unspecified Unspecified

Comments:

Escanaba Mgt. Unit

exceptional site quality

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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				

Escanaba Mgt. Unit Compartment: 109





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.

Conservat Area	ion Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area					
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wilproposed for legal dedication, but for which legal dedication by le nomination process is defined by Part 351, Wilderness and Natu Environmental Protection Act, 1994 PA 451. The program is adm require the submittal of a Natural Areas Nomination Packet to the proposed sites in various stages of review. Final dedication of no Areas is accomplished through legislative action.	egislature has not occurred. The Iral Areas, of the Natural Resources and ninistered by the DNR. Nominations e DNR. This is an active program, with					
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	Natural Areas, of the Natural Resources administered by the DNR. Nominations e DNR. This is an active program, with ominated Natural, Wilderness and Wild						
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public ma submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation For						

Stan	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed \$	Site	General Comments	
1	4125 - Blad	ck, N. Pin O	ak Sa	awtimber	Medium	5.0	89	1-50	N/A		Majority of the trees are northern pin oak with some aspen, red oak, pine	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	and red maple. Over mature stand with dead oak trees present. This stand should be treated to promote oak, pine and aspen regeneration	
	Northern Pin Oak	75	Log	14	89	Haze	elnut (Spp.)	Medium	5 - 10 feet	Tall Shrub	before mortality sets back the ability for stump and root sprouting.	
	Bigtooth Aspen	10	Log/Pole	10		Iro	onwood	Medium	Variable	Sapling		
	Quaking Aspen	5	Log/Pole	10								
	Red Oak	10	Log	14								
2	4130	4130 - Aspen Sawtimber Well 5.6 59		59	81-110	N/A		Aspen starting to get conks. Mature stand ready for final harvest to				
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	promote stump and root sprouting. Dead oak trees present. Trace of red and jack pine.	
	Bigtooth Aspen	90	Log/Pole	10	59	Haze	elnut (Spp.)	Medium	5 - 10 feet	Tall Shrub		
	Northern Pin Oak	10	Log/Pole	10		North	ern Pin Oak	Low	Variable	Sapling		
3	122 - Roa	d/Parking L	ot	Nonsto	cked	2.0	U	nspecified	No		River Road-an asphalt County road and right of way.	
4	4131 - A	Aspen, Oak	(Sapling N	/ledium	10.3	11	1-50	N/A		The northern portion of this stand was treated in 2009 by the Savanna	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Oak and Aspen 33-023-08 timber sale. All species were cut except oak, red and white pine. Good aspen and oak regeneration. The southern	
	Quaking Aspen	20	Sapling	2	11	Haze	elnut (Spp.)	Medium	5 - 10 feet	Tall Shrub	portions was an opening that is filling in with aspen and oak with some	
	Northern Pin Oak	20	Sapling	2		Quak	king Aspen	Medium	Variable	Sapling	mature large trees present.	
	White Oak	20	Log	12	104	North	ern Pin Oak	Medium	Variable	Sapling		
	Bigtooth Aspen	40	Sapling	2	11							
5	4131 - /	Aspen, Oak	;	Sawtimbe	er Well	37.7	47	81-110	N/A		Portions of this stand was cut in 1982 under contract 17-82 which	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	removed some of the jack pine and aspen. This produced a stand with variable aspen diameters as noted in 2006 comments of more smaller	
	Quaking Aspen	60	Log/Pole	10	47		elnut (Spp.)	Medium	5 - 10 feet	Tall Shrub	diameter than larger diameter aspen. The majority of the stand is now	
	Bigtooth Aspen	15	Log/Pole	12		North	ern Pin Oak	Low	Variable	Sapling	merchantable with some signs of being over mature such as conk	
	Northern Pin Oak	10	Log	14							formation on the aspen and dead oak trees present.	
	White Oak	10	Log/Pole	12							trace of pine spruce fir	
	Red Maple	5	Log/Pole	12								
6	4130	- Aspen	5	Sapling N	/ledium	87.1	10 I	mmature	N/A		Part of this stand contains an Element Occurrance area of the Shakey	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Lakes Oak-Pine Barrens ERA. This area was burned in May of 1994. Aspen and hazel have filled in this stand since prescribed burn has been	
	Quaking Aspen	40	Sapling	2	10		elnut (Spp.)	High	5 - 10 feet	Tall Shrub	used. There is trace amounts of larger oak and pine. Management	
	Black Cherry	15	Sapling	2				1		1	objective is Oak pine barrens conditions. May take several successive	
	Red Maple	5	Sapling	1							burns to achieve oak-pine barrens conditions.	
	Bigtooth Aspen	40	Sapling	2	10							
7	6229 - Mixed	d lowland sh	nrub	Nonsto	cked	4.5	U	nspecified	No		Lowland brush stand with some scattered tree species.	

Stand	d Level 4 C	over Type	:	Size De	nsity	Acres	Stand Age I	BA Range	Managed 9	Site	General Comments						
8	4130	- Aspen		Sapling	Well	53.1	20	Immature	N/A		Variable size to the aspen being 1-8" dbh. Stand has been prescribed						
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	burned in the past. This area was burned in May of 1994. Aspen and hazel have filled in this stand since prescribed burn has been used.						
	Quaking Aspen	70	Sapling/Pole	4	20	Che	erry (spp.)	Medium	Variable	Sapling	There is trace amounts of larger oak and pine. Management objective is						
ı	Northern Pin Oak	10	Log/Pole	12		Haze	Inut (Spp.)	Medium	5 - 10 feet	Tall Shrub	Oak pine barrens conditions. May take several successive burns to						
	Bigtooth Aspen	20	Sapling/Pole	4							achieve oak-pine barrens conditions.						
											Part of this stand contains an Element Occurrence area of the Shakey Lakes Oak-Pine Barrens ERA.						
9	4125 - Blad	ck, N. Pin O	ak Sa	wtimber	Medium	6.2	104	1-50	N/A		Most of this stand is within an Element Occurrence area of the Shakey Lakes Oak-Pine Barrens ERA. There is clumps of dead oak and trace						
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	amounts of pine, red oak and aspen.						
I	Northern Pin Oak	100	Log/Pole	12	104	Quak	king Aspen	Low	Variable	Sapling							
						Oa	ak (spp.)	High	Variable	Sapling							
						Haze	Inut (Spp.)	High	5 - 10 feet	Tall Shrub							
10			Sa	Sawtimber Medium								16.8	104	51-80	N/A		Part of this stand was shelterwood treated in 2009 by the Savanna Oak and Aspen 33-023-08. A shelterwood harvest was used, 40 BA of a mix
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	of species was retained. Trace amounts of cherry, red and jack pine.						
I	Northern Pin Oak	50	Log	12	104	Quak	king Aspen	Medium	Variable	Sapling							
	White Pine	30	XLog/Log	18		Haze	Inut (Spp.)	High	5 - 10 feet	Tall Shrub							
	Quaking Aspen	5	Log	12		Oa	ak (spp.)	Low	Variable	Sapling							
	Red Maple	5	Log	12		Re	d Maple	Low	10 - 20 feet	Sapling							
	White Oak	10	Log	12													
11	4125 - Blad	ck, N. Pin O	ak	Sapling	Well	26.9	13	Immature	N/A		Stand was treated in 2008 by the Savanna Oak Wilt 33-024-08 timber sale. Most of it was part of a prescribe burn in 2017. Good oak						
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	regeneration with some mature pine present.						
l	Northern Pin Oak	85	Sapling/Pole	4	13	Haze	Inut (Spp.)	High	5 - 10 feet	Tall Shrub							
	Red Oak	10	Sapling/Pole	4													
	Quaking Aspen	5	Sapling	2													
12	42200 - Nati				Medium	5.0	47	51-80	N/A		Conifer stand mostly made up of white pine with some pin oak, jack and white pine. Regeneration from past oak wilt treatment is aspen, oak and						
	Canopy Species		Size Class	DBH			nopy Species		Avg. Height	Size	some pine.						
	White Pine	90	Log/Pole	10	47		oth Aspen	Medium	Variable	Sapling	Book of this second contains on Flore 100						
ı	Northern Pin Oak	5	Log/Pole	12			king Aspen	Medium	Variable	Sapling	Part of this stand contains an Element Occurrence area of the Shakey Lakes Oak-Pine Barrens ERA.						
	Jack Pine	5	Pole	8		North	ern Pin Oak	Medium	Variable	Sapling	Lakes Sak Find Banons Etta.						
13	122 - Roa	d/Parking Lo	ot	Nonsto	cked	5.3	l	Jnspecified	No		River Road and Menominee County Right Of Way.						

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Stan	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age	BA Range	Managed	Site	General Comments	
14	42260 - Natural Pi	ne, Mixed D	eciduous	Sapling	Medium	23.6	27	1-50	N/A		Stand had oak wilt epicenters scattered within it and identified by the	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	2015 oak wilt surveillance. All trees were cut greater than 3" dbh except red and white pine by the Southern Oak Wilt 33-022-16 timber sale.	
	Jack Pine	30	Sapling	4	27	Asp	en (spp.)	Medium	< 5 feet	Sapling	Aspen and oak regeneration is filling in the open areas.	
	White Pine	30	Pole/Sapling	g 6	27	Oa	ık (spp.)	Medium	< 5 feet	Sapling	The east half of this stand contains an Element Occurrence area of the	
	Northern Pin Oak	20	Sapling	2							Shakey Lakes Oak-Pine Barrens ERA.	
	Quaking Aspen	10	Sapling	2							Charley Larest Gart Into Barrento Livit.	
	Red Pine	10	Pole/Sapling	g 6								
15	4121 - (Dak, Aspen	:	Sapling	apling Medium		13	Immature	N/A	,	Much of this stand was treated by the Savanna Oak Wilt 33-024-08	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	timber sale. The roller chopped areas have a high density of aspen a oak sprouting/regeneration. Trace of maple, birch, and white pine.	
	Red Oak	25	Sapling	2	13	Haze	Inut (Spp.)	Medium	5 - 10 feet	Tall Shrub		
	Northern Pin Oak	35	Sapling	2	13						Part of this stand contains an Element Occurrence area of the Shakey	
	Quaking Aspen	30	Sapling	2							Lakes Oak-Pine Barrens ERA.	
	Jack Pine	5	Sapling/Pole	e 4								
	Red Pine	5	Sapling/Pole	e 4								
16	16 4131 - Aspen, Oak		P	oletimbe	r Medium	n 27.9	46	1-50	N/A		The majority of this stand is within an Element Occurrence area of the	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Shakey Lakes Oak-Pine Barrens ERA. The rest of the stand is part of a burn buffer up to the private land. Variable age and density of trees in thi	
	Quaking Aspen	60	Pole/Log	8	46	Haze	Inut (Spp.)	High	5 - 10 feet	Tall Shrub		
	Northern Pin Oak	25	Log/Pole	12		Oa	ık (spp.)	Medium	Variable	Sapling		
	Red Oak	10	Log/Pole	12		Quak	ing Aspen	Medium	10 - 20 feet	Sapling		
	Jack Pine	5	Log/Pole	12						·	•	
17	42121 - Planted Dec	I Jack Pine, iduous	Mixed	Sapling	Medium	12.3	9	Immature	N/A		This stand was harvested by the G-12 Oak Wilt 33-021-07 timber sale. The stand was then trenched with a passive trencher in 2011 and plante	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	with 2-0 jack pine on 5/5/12 at a rate of 788 trees per acre. Maybe 50 % of the jack pine is growing good. Oak sprouting with some aspen, cherry	
	Jack Pine	75	Sapling	3	9	Sw	eet Fern	Medium	5 - 10 feet	Tall Shrub	b and maple filling in. Part of this stand contains an Element Occurre	
	Northern Pin Oak	15	Sapling	3		Haze	Inut (Spp.)	Medium	5 - 10 feet	Tall Shrub	stand was treated by the G-12 Oak Wilt 33-021-07 timber sale. Ma pine with aspen, oak and maple regeneration. Trace of red pine, jar pine, cherry and spruce. Part of this stand contains an Element	
18	4131 - /	Aspen, Oak		Saplin	g Well	5.8	14	1-50	N/A	ı		
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	White Pine	15	Log	14		Wh	nite Pine	Medium	10 - 20 feet	Sapling	Occurrence area of the Shakey Lakes Oak-Pine Barrens ERA.	
	Northern Pin Oak	30	Sapling	2	14	Ja	ck Pine	Low	Variable	Sapling		
	Quaking Aspen	20	Sapling	2				,		,	•	
	additing / topon											
	Bigtooth Aspen	25	Sapling	2	14							

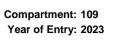


Stand	d Level 4 C	over Type		Size Density			Stand Age E	BA Range	Managed 9	Site	General Comments			
19	4130	- Aspen	S	apling I	Medium	14.0 14 Imm		Immature	N/A		Stand was treated by the G-12 Oak Wilt 33-021-07 timber sale. Good			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	regeneration of aspen, oak, maple with some residual large pine preser Aspen is thick with open areas filling in with cherry, oak and pine. Part			
	Quaking Aspen	50	Sapling	3	14	Haze	Inut (Spp.)	Medium	5 - 10 feet	Tall Shrub				
	Bigtooth Aspen	30	Sapling	4		WI	nite Pine	Low	5 - 10 feet	Sapling	Oak-Pine Barrens ERA.			
	Black Cherry	10	Sapling	2		North	ern Pin Oak	Medium	Variable	Sapling				
	White Pine	5	Log	14										
	Red Pine	5	Log	14										
20	4191 - Mixed Upla Co	and Decidu	ous with S	awtimb	er Poor	20.0 86		1-50	N/A		This stand was treated by the G-12 Oak Wilt 33-021-07 timber sale. Th stand has 30-50 basal area of oak retained with some large pine. About			
	Canopy Species	% Cover	Size Class	DBH Age		Sub-Ca	nopy Species	Density	Avg. Height	Size	15% of the oak are dead standing. Regeneration of pine, oak, maple at aspen understory. Part of this stand contains an Element Occurrence			
	Northern Pin Oak	40	Log	12	86	Haze	Inut (Spp.)	Medium		area of the Shakey Lakes Oak-Pine Barrens ERA.				
	White Pine	10	Log	14		Asp	en (spp.)	Medium	Variable	Sapling				
	Jack Pine	10	Log/Pole	10		Oa	ık (spp.)	Medium	Variable	Sapling				
	Red Pine	10	Log/Pole	12		Pin	es (spp.)	Low	< 5 feet	Seeding				
 21	4131 - A	spen, Oak	S	Sapling Medium		20.9	14	Immature	N/A		Stand was treated by the G-12 Oak Wilt 33-021-07 timber sale. There			
	Canopy Species	% Cover	Size Class	DBH	I Age						scattered areas of dead oak stump sprouts. Trace of pine, cherry, spruand red oak. Mature retention trees of maple, oak and pine.			
	Bigtooth Aspen	30	Sapling	4							and red bak. Mature retention trees of maple, bak and pline.			
	Quaking Aspen Northern Pin Oak	40	Sapling	3	14						Part of this stand contains an Element Occurrence area of the Shakey			
			Sapling								Lakes Oak-Pine Barrens ERA.			
	Red Maple	10 Saplin		2										
22	122 - Road	d/Parking L	ot	Nonsto	ocked	4.9 0 Unspecified 9.1 91 1-50			pecified No		County Road 352/G-12			
23	4191 - Mixed Upla Co	and Decidu	ous with S	awtimb	er Poor				N/A		Stand was treated in 2007 by the G-12 Oak Wilt 33-021-07 timber sale. This has produced an uneven aged stand with dense regeneration of			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	aspen.			
	Quaking Aspen	5	Log	10		Haze	Inut (Spp.)	Medium	5 - 10 feet	Tall Shrub				
	Bigtooth Aspen	5	Log	10		Asp	en (spp.)	High	Variable	Sapling				
	Northern Pin Oak	40	Log	14	91	Oa	ık (spp.)	Medium	Variable	Sapling				
	Red Pine	25	Log	14		Re	d Maple	Low	Variable	Sapling				
	Red Maple	20	Log	12							•			
	White Pine	5	Log	14										
24	4130	- Aspen	Р	oletimb	er Well	29.5	28	Immature	N/A		This stand was treated by the Shakey Lakes Block 33-44-90 timber sa			
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Trace amounts of red maple, birch, cherry, jack and red pine			
	Bigtooth Aspen	15	Pole	8		Haze	Inut (Spp.)	Medium	5 - 10 feet	Tall Shrub				
	Quaking Aspen	70	Pole/Sapling	6	28	WI	nite Pine	Low	5 - 10 feet	Sapling				
	Northern Pin Oak	10	Pole/Log	8							•			
	White Pine	5	Log	16										



Stanc	Level 4 C		Size Density			Acres Stand Age BA Range			Site	General Comments	
25	4130	- Aspen	F	Poletimb		26.9	37	111-140	N/A		Stand was treated under contract #42-83 in 1984. Clearcut except leave
	Canopy Species		Size Class		l Age		nopy Species		Avg. Height	Size	trace of birch and cherry. Some small oak wilt patches were treated in
	Quaking Aspen	60	Pole	6	37	Hazel	nut (Spp.)	Low	5 - 10 feet	Tall Shrub	2007.
	Bigtooth Aspen	20	Pole/Log	8							
	Red Maple	15	Sapling/Pole								
- 1	Northern Pin Oak	5	Sapling/Pole	3							
26	4125 - Blac	k, N. Pin O	ak S	Sawtimb	er Poor	12.9	90	1-50	N/A		Few scattered oak - clumps of Jack Pine. Understory hazel. This stand was than burned under FTP W33-612. Some of the stand had red oak
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size	removed by the G-12 Oak Wilt timber sale in 2007 due to oak wilt.Part
	Northern Pin Oak	90	Log	14	90	Northe	rn Pin Oak	Medium	Variable S	Sapling	of this stand contains an Element Occurrence area of the Shakey Lake
	Jack Pine	10	Pole	6		Swe	eet Fern	High	5 - 10 feet	Tall Shrub	Oak-Pine Barrens ERA.
						Big E	Bluestem	Low	Unspecified	Non-Wood	
						Little	Bluestem	Medium	Unspecified	Non-Wood	
						Hazel	nut (Spp.)	Medium	5 - 10 feet	Tall Shrub	
27	4130	- Aspen	5	Sawtimber Well			49	51-80	N/A		1.5 acres of this stand was cut in the winter of 2012-13 on contract 021
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size	13-01 to treat oak wilt. This stand had a vibratory plow line put around than all pin/red oak and aspen was cut. The rest of the stand is over
	Quaking Aspen	75	Log/Pole	10	49	Hazel	nut (Spp.)	Low	5 - 10 feet	Tall Shrub	
	Northern Pin Oak	15	Log	16		Northe	rn Pin Oak	Low	5 - 10 feet	Sapling	wind thrown trees and low areas have signs of recent flooding.
	Jack Pine	5	Log	10							
	Bigtooth Aspen	5	Log	12							
28	4131 - A	spen, Oak		Sapling	Poor	49.0	49.0 14 Immature				This stand was roller chopped in the spring of 2007, with the intent of
	Canopy Species	% Cover Size Class		DBH Age		Sub-Canopy Species	Density	Avg. Height	ght Size	killing of the aspen and hazel. This stand was than burned under FTP W33-612 on 6/14/07.	
	Quaking Aspen	50	Sapling	2	14	Hazel	nut (Spp.)	High	5 - 10 feet	Tall Shrub	
- 1	Northern Pin Oak	40	Sapling	4		Little	Bluestem	Low	Unspecified	Non-Wood	Part of this stand contains an Element Occurrence area of the Shakey
	Jack Pine	10	Sapling	2		Brac	ken Fern	Low	Unspecified	Non-Wood	Lakes Oak-Pine Barrens ERA.
29	4130	- Aspen	Sa	Sawtimber Medium		n 48.5 50		51-80	N/A		This stand is mature with some trees over mature having conks and
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	mortality. 3 acres of this stand was cut in the winter of 2012-13 on contract 021-13-01 to treat oak wilt. This stand had a vibratory plow lin
	Quaking Aspen	60	Log/Pole	10	50	Northe	rn Pin Oak	Medium	Variable	Sapling	put around it, than all pin/red oak and aspen were cut. Low areas show
	Bigtooth Aspen	20	Log	14		Hazel	nut (Spp.)	High	5 - 10 feet	Tall Shrub	signs of flooding within the last couple years. Trace amounts of pine,
	Red Maple	5	Log/Pole	12		Aspe	en (spp.)	Medium	Variable	Sapling	cherry, balm and red oak.
I	Northern Pin Oak	15	Log	14							
30	4131 - A	spen, Oak		Sapling	Poor	18.8	8 I	mmature	N/A		Stand was treated in 2013 by the Scattered Oak Wilt 33-021-13 timber
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Car	nopy Species	Density	Avg. Height	Size	sale. The aspen and red oak were removed. Trace amounts of red map and northern pin oak trees.
	Quaking Aspen	40	Sapling	1	8	Hazel	nut (Spp.)	High	5 - 10 feet	Tall Shrub	
	Bigtooth Aspen	40	Sapling	1							
	Northern Pin Oak	20	Sapling	1							

Escanaba Mgt. Unit Report 7 – Stands





Stan	d Level 4 C	over Type		Size De	ensity	Acres S	tand Age B	A Range	Managed S	Site	General Comments		
31	4130	- Aspen		Poletimb	er Well	48.7	35	111-140	N/A		This stand was clearcut under contract #35-85-01 between 1985 and		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cano	py Species	Density	Avg. Height	Size	1987. Trace amounts of oak and cherry.		
	Quaking Aspen	75	Pole	8	35	Northern	Pin Oak	Low	Variable	Sapling			
	Bigtooth Aspen	15	Pole	8		Hazelnı	ut (Spp.)	Low	5 - 10 feet	Tall Shrub			
	Red Maple	10	Pole	8									
32	4113 - R.M	laple, Conif	er :	Sawtimb	er Well	18.8 87 81-110		N/A		Variable stand with a higher concentration of red maple for the area.			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cano	py Species	Density	Avg. Height	Size	Stand is mature with dead trees on the ground and overall poor quality.		
	Red Maple	60	Log/Pole	10	87	White	e Pine	Medium	Variable	Sapling			
	White Pine	15	Log	16		Hazelnı	ut (Spp.)	Medium	5 - 10 feet	Tall Shrub			
	Quaking Aspen	10	Log/Pole	10									
	Red Pine	5	Log	14									
	Northern Pin Oak	Pin Oak 10		12									
33	4130	- Aspen		Sapling	g Well	46.6	10 I	Immature	N/A		Stand was treated by the Muskrat Oak Wilt 33-021-11 timber sale. All oa		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Cano	py Species	Density	Avg. Height	Size	greater than 3", jack pine greater than 4" and aspen were cut exc leave a healthy aspen every 33'. Aspen and oak has dense reger		
	Bigtooth Aspen	45	Sapling	2	10	Hazelnı	ut (Spp.)	High	5 - 10 feet	Tall Shrub	Trace of birch, cherry and pine.		
	Quaking Aspen	35	Sapling	1							. Death of this extend and taken on Element Occurrence are a filler Obel and		
	Northern Pin Oak	15	Sapling	1							Part of this stand contains an Element Occurrence area of the Shakey Lakes Oak-Pine Barrens ERA.		
	Red Maple	5	Sapling	1							Editos out i ino Buriono Ervi.		
34	6233 - W	et Meadow		Nonst	ocked	3.5	U	Inspecified	No		Aspen saplings and some jack pine scattered in a tall grassy wet area.		
35	4121 - C	ak, Aspen	;	Sawtimb	er Well	11.3 70 81-110		N/A		Larger oak with pole to log sized aspen. Oak wilt epicenter treated sou			
	Canopy Species	% Cover	Size Class	s DBH Age		Sub-Cano	py Species	Density	Avg. Height	Size	tip of stand.		
	Northern Pin Oak	60	Log/Pole	12	70	Hazelnı	ut (Spp.)	Medium	5 - 10 feet	Tall Shrub			
	Bigtooth Aspen	20	Log/Pole	10		Oak	(spp.)	Low	Variable	Sapling	Lakes Oak-Pine Barrens ERA.		
	Red Maple	5	Log/Pole	10									
	Quaking Aspen	15	Pole	8									
36	4310 - Piı	ne, Oak Mix	s Sa	awtimbe	r Medium	9.5	81	51-80	N/A		This is a mature stand containing both upland and lowland areas. Oak wilt epicenters have been treated within this stand. The most current		
	Canopy Species	% Cover	Size Class	DBH	l Age						treatment was in during the winter of 2020/21 by the 109 Oak Wilt 33-02		
	140 to D1	35	Log	16	81						20 timber sale. Trace amounts of balsam, spruce, balm, ash and cherry		
	White Pine												
	White Pine Northern Pin Oak	35	Log/Pole	12									
		35 10	Log/Pole Log/Pole	12 10									
	Northern Pin Oak												
	Northern Pin Oak Red Maple	10	Log/Pole	10									

Escanaba Mgt. Unit



Stanc	d Level 4 Co	over Type	S	Size De	nsity	Acres S	Stand Age B	3A Range	Managed	Site	General Comments		
38	4125 - Blac	<u> </u>			Medium		72	81-110	N/A		A 3.1 acre piece of this stand was harvested in 2017 on contract 33-022 01 to treat oak wilt. This area was along the north line. In 2014, an oak		
	Canopy Species		Size Class		Age		opy Species		Avg. Height	Size	wilt epicenter was located in the stand. It was about 0.3 acre in size,		
	Northern Pin Oak	85	Log/Pole	10	72		n Pin Oak	Low	5 - 10 feet	Sapling	treated with vibratory plow and all trees(except pine, white oak and		
	Jack Pine	5	Log/Pole	10			k Pine	Low	5 - 10 feet	Sapling	spruce) removed under contract 33-021-14-01. OPIC - FMD: Lots of dead oak. Low quality over mature pin oak. Pockets of overmature		
	Quaking Aspen	10	Pole	6	L	Red	d Pine	Low	5 - 10 feet	Sapling	aspen. (See compartment header for additional information regarding		
											ERA management objectives and treatments) 16.9 acres of this stand were final harvested in the winter of 2010-11 on contract 021-11-01. The stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand is being managed for Savanna/Oak Pi Barrens.		
39	4191 - Mixed Upla Co	nd Deciduo nifer	ous with	Sapling	Poor	101.2	10	Immature	N/A		Areas treated for oak wilt are scattered within this stand originating from the adjacent mature oak stands. This is a more open stand with scattered		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cand	opy Species	Density	Avg. Height	Size	mature oak and pine. Regeneration of aspen, oak, pine and maple is present.		
-	Northern Pin Oak	40	Sapling	2	10	Hazeln	ut (Spp.)	Low	5 - 10 feet	Tall Shrub	present.		
	Red Maple	15	Sapling	1		Swee	et Fern	Low	5 - 10 feet	Tall Shrub	Part of this stand contains an Element Occurrence area of the Shakey		
	Bigtooth Aspen	10	Sapling	2		Big BI	luestem	Low	Unspecified	Non-Wood	Lakes Oak-Pine Barrens ERA.		
	White Pine	10	Log/Pole/Sap	12		Little B	Bluestem	Medium	Unspecified	Non-Wood			
	Red Pine	5	Log/Pole/Sap	10		Mixes Sed	ges/Grasses	High	Unspecified	Non-Wood			
40	623 - Emer			Nonsto Nonsto		2.2		Unspecified Unspecified	No No		During wet years this contains water. This contains water during a wet year.		
											• •		
42	4130 -	Aspen	;	Sapling	Well	25.6	13	Immature	N/A		Stand was final harvested on contract 023-06-01 in 11/08. This sale is		
42	4130 - Canopy Species	- Aspen	Size Class		y Well		13 opy Species		N/A Avg. Height	Size	Stand was final harvested on contract 023-06-01 in 11/08. This sale is filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop		
42						Sub-Cano					filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to		
42	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano Hazeln	opy Species	Density	Avg. Height	Size	filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand		
	Canopy Species Quaking Aspen	% Cover 35	Size Class Sapling	DBH	Age	Sub-Cano Hazeln	opy Species out (Spp.)	Density High	Avg. Height 5 - 10 feet	Size Tall Shrub	filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand is being managed for Savanna/Oak Pine Barrens. Trace amounts of		
	Canopy Species Quaking Aspen Bigtooth Aspen	% Cover 35 35	Size Class Sapling Sapling/Pole	DBH 3 4	Age	Sub-Cano Hazeln	opy Species out (Spp.)	Density High	Avg. Height 5 - 10 feet	Size Tall Shrub	filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand		
	Canopy Species Quaking Aspen Bigtooth Aspen Northern Pin Oak Red Maple	% Cover 35 35 15	Size Class Sapling Sapling/Pole Log/Pole Sapling	DBH 3 4 10	13	Sub-Cano Hazeln	ppy Species out (Spp.) In Pin Oak	Density High	Avg. Height 5 - 10 feet	Size Tall Shrub Sapling	filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand is being managed for Savanna/Oak Pine Barrens. Trace amounts of beech and pine. Oak wilt was found in the stand during 2015 oak wilt surveillance. 17.1		
ı	Canopy Species Quaking Aspen Bigtooth Aspen Northern Pin Oak Red Maple	% Cover 35 35 15 15	Size Class Sapling Sapling/Pole Log/Pole Sapling	DBH 3 4 10 3 Sapling	13	Sub-Cand Hazeln Northern	ppy Species ut (Spp.) n Pin Oak	High Medium Immature	Avg. Height 5 - 10 feet Variable	Size Tall Shrub Sapling	filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand is being managed for Savanna/Oak Pine Barrens. Trace amounts of beech and pine. Oak wilt was found in the stand during 2015 oak wilt surveillance. 17.1 acres was treated with timber harvest under the Southern Oak Wilt 33-		
ı	Canopy Species Quaking Aspen Bigtooth Aspen Northern Pin Oak Red Maple	% Cover 35 35 15 15 Aspen	Size Class Sapling Sapling/Pole Log/Pole Sapling	DBH 3 4 10 3 Sapling	13 13 Well	Sub-Cand Hazeln Northern 16.2 Sub-Cand	popy Species out (Spp.) on Pin Oak	High Medium Immature	Avg. Height 5 - 10 feet Variable N/A	Size Tall Shrub Sapling Size	filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand is being managed for Savanna/Oak Pine Barrens. Trace amounts of beech and pine. Oak wilt was found in the stand during 2015 oak wilt surveillance. 17.1 acres was treated with timber harvest under the Southern Oak Wilt 33-022-16 timber sale. In 2009 on contract Baked Muskrat 33-038-08 all aspen, birch, and red maple were removed. A couple of small epi-		
43	Canopy Species Quaking Aspen Bigtooth Aspen Northern Pin Oak Red Maple 4130	% Cover 35 35 15 15 Aspen % Cover	Size Class Sapling Sapling/Pole Log/Pole Sapling Size Class	3	13 13 1 Well	Sub-Cand Hazeln Northern 16.2 Sub-Cand	ppy Species out (Spp.) on Pin Oak 10 oppy Species	High Medium Immature Density Density	Avg. Height 5 - 10 feet Variable N/A Avg. Height	Size Tall Shrub Sapling Size	filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand is being managed for Savanna/Oak Pine Barrens. Trace amounts of beech and pine. Oak wilt was found in the stand during 2015 oak wilt surveillance. 17.1 acres was treated with timber harvest under the Southern Oak Wilt 33-022-16 timber sale. In 2009 on contract Baked Muskrat 33-038-08 all aspen, birch, and red maple were removed. A couple of small epicenters of oak wilt were removed as part of the timber sale. These area		
43	Canopy Species Quaking Aspen Bigtooth Aspen Northern Pin Oak Red Maple 4130 Canopy Species Quaking Aspen	% Cover 35 35 15 15 40	Size Class Sapling Sapling/Pole Log/Pole Sapling Size Class Sapling	3	13 13 1 Well	Sub-Cand Hazeln Northern 16.2 Sub-Cand	ppy Species out (Spp.) on Pin Oak 10 oppy Species	High Medium Immature Density Density	Avg. Height 5 - 10 feet Variable N/A Avg. Height	Size Tall Shrub Sapling Size	filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand is being managed for Savanna/Oak Pine Barrens. Trace amounts of beech and pine. Oak wilt was found in the stand during 2015 oak wilt surveillance. 17.1 acres was treated with timber harvest under the Southern Oak Wilt 33-022-16 timber sale. In 2009 on contract Baked Muskrat 33-038-08 all aspen, birch, and red maple were removed. A couple of small epi-		
43	Canopy Species Quaking Aspen Bigtooth Aspen Northern Pin Oak Red Maple 4130 Canopy Species Quaking Aspen Northern Pin Oak	% Cover 35 35 15 15 40 15	Size Class Sapling Sapling/Pole Log/Pole Sapling Size Class Sapling Sapling	3	13 13 1 Well	Sub-Cand Hazeln Northern 16.2 Sub-Cand	ppy Species out (Spp.) on Pin Oak 10 oppy Species	High Medium Immature Density Density	Avg. Height 5 - 10 feet Variable N/A Avg. Height	Size Tall Shrub Sapling Size	filed in comp 6. 15.4 acres of this stand had the oak final harvested in the winter of 2010-11 on contract 021-11-01. This stand was cut to stop the spread of oak wilt disease. There was a vibratory plow line put in to severe the oak roots. Some of the oak stumps will sprout, but the stand is being managed for Savanna/Oak Pine Barrens. Trace amounts of beech and pine. Oak wilt was found in the stand during 2015 oak wilt surveillance. 17.1 acres was treated with timber harvest under the Southern Oak Wilt 33-022-16 timber sale. In 2009 on contract Baked Muskrat 33-038-08 all aspen, birch, and red maple were removed. A couple of small epicenters of oak wilt were removed as part of the timber sale. These area		



Stan	d Level 4 Cover Type	Size Density	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
44	500 - Water	Nonstocked	17.9	ι	Jnspecified	No		Muskrat Lake. Water level is high in 2020-21. A high number of water fowl are using the lake at this time.
45	623 - Emergent Wetland	Nonstocked	16.0	l	Jnspecified	No		This area is holding water during 2020-21. Shoreline around Muskrat Lake vary with water level.
46	623 - Emergent Wetland	Nonstocked		n opy Species ck Pine	Unspecified Density Medium	No Avg. Height Variable	Size Sapling	Contains water during wet years like 2020-21. Some trees species scattered on higher areas of this wet area.
47	4133 - Aspen, Mixed Pine Canopy Species % Cover Si			nopy Species		N/A Avg. Height	Size	This stand was treated for oak wilt by the Scattered Oak Wilt 33-021-13 timber sale. Infected oak along with all aspen and oak greater than 3" were cut. Regenerating to oak, aspen and pine.
	Quaking Aspen 25 Northern Pin Oak 30	Sapling 3 10 Sapling 2 10 Sapling 2 10 g/Pole/Sap 10	Haze	Inut (Spp.)	High	5 - 10 feet	Tall Shrub	Part of this stand contains an Element Occurrence area of the Shakey Lakes Oak-Pine Barrens ERA.
48	4131 - Aspen, Oak Canopy Species % Cover Si	Sawtimber Well	11.5 Sub-Ca	101	111-140 Density	N/A Avg. Height	Size	Stand is over mature aspen and oak with mortality setting in. Parts of the original stand have been cut due to oak wilt presence.
	Quaking Aspen 35 I Bigtooth Aspen 5 Northern Pin Oak 50 Red Maple 10	Log 10 101 Log 12 12 Log 14 101 Log 10		Inut (Spp.) ern Pin Oak	Medium Medium	5 - 10 feet Variable	Tall Shrub Sapling	
49	4199 - Other Mixed Upland Decid		13.4		Immature	N/A	Size	Several small oak wilt epicenters have been treated within this stand over the years. It is now primarily regenerating aspen, oak and maple with
	Bigtooth Aspen 15 Quaking Aspen 15 Red Maple 15	Sapling 2 5 Sapling 2 5 Sapling 1 5 Sapling 1 5 Sapling 1 1 Sapling 1 1		nopy Species Inut (Spp.)	Bensity High	Avg. Height 5 - 10 feet	Tall Shrub	hazel shrub.
50	122 - Road/Parking Lot	Nonstocked	4.1	l	Jnspecified	No		Sturgeon Landing Road maintained by the Menominee County Road Commission.
51	330 - Low-Density Trees	Nonstocked	6.2	l	Jnspecified	No		Two different oak wilt treatments have occurred within this stand by trenching and clearcut except pine. Most recent oak wilt epicenter treatment was by the 109 Oak Wilt 33-021-20 timber sale. There is residual pine, oak stump sprouts and seedlings, cherry, maple and hazelnut.



Stand	Level 4 C	over Type		Size Density	Acres Stand Age B	A Range	Managed 9	Site	General Comments	
52	4130	- Aspen	\$	Sapling Medium	14.0 12 I	mmature	N/A		Stand was treated in 2008 by the Puzzle Piece Oak Wilt 33-025-08 timber sale. There is scattered large pine, oak, aspen. Mostly aspen wit	
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	some oak and pine regeneration and hazelnut shrub currently present.	
	Bigtooth Aspen	45	Sapling	2 12	Hazelnut (Spp.)	High	5 - 10 feet	Tall Shrub	Trace of other species like cherry and some pine regeneration.	
	Quaking Aspen	25	Sapling	1	Cherry (spp.)	Low	Variable	Sapling		
	Red Pine	5	Log	14	Mixes Sedges/Grasses	High	Unspecified	Non-Wood		
١	Northern Pin Oak	10	Sapling	1						
	Red Maple	15	Sapling	1						
53	623 - Eme	rgent Wetla	nd	Nonstocked	2.9 U	nspecified	No		Small wet meadow or emergent wetlands.	
54	4125 - Blad	ck, N. Pin C	ak Sa	wtimber Mediu	n 15.1 87	51-80	N/A		There was an oak wilt epicenter treated the winter of 2020/21 by the 10	
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	Oak Wilt 33-021-20 timber sale. The rest of the stand is oak, pine with pockets of aspen and oak regeneration.	
١	Northern Pin Oak	60	Log	14 87	Aspen (spp.)	Medium	Variable	Sapling		
	White Pine	15	Log	16	Oak (spp.)	Medium	Variable	Sapling		
	Red Pine	5	Log/Pole	12	Hazelnut (Spp.)	High	5 - 10 feet	Tall Shrub		
	Red Maple	10	Pole/Log	8						
	Bigtooth Aspen	5	Log	14						
	Quaking Aspen	5	Log	12						
55	4130	- Aspen	5	Sapling Medium	6.1 3 I	mmature	N/A		All species were removed except oak, red pine and white pine by the Unbalanced Aspen 33-034-08 timber sale in 2010. In 2017, an oak wilt	
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	epicenter was treated in the center of the stand by the Broken Witch	
١	Northern Pin Oak	15	Log	12	Hazelnut (Spp.)	High	5 - 10 feet	Tall Shrub	O.W. 33-022-17 timber sale. Two oak wilt epicenters were treated at th	
	Bigtooth Aspen	50	Sapling	2 3	Aspen (spp.)	Medium	Variable	Sapling	north and south ends of this stand by the 109 Oak Wilt 33-021-20 timbersale in 2021. First, they were trenched fall of 2019 with vibratory plow	
	Quaking Aspen	25	Sapling	1	Oak (spp.)	Low	Variable	Sapling	then clearcutting the winter of 2020/21 within the perimeter. Aspen and	
	Red Maple	10	Sapling	2					oak sprouts are prevalent in the older treatment. There is a strip of mature oak between the treatments.	
56	4125 - Blad	ck, N. Pin C	ak S	Sawtimber Well	16.3 87	81-110	N/A		Mature oak stand that was treated in 2010 by the Unbalanced Aspen 33	
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	034-08 timber sale. All merchantable species were removed except oak red and white pine. Since then oak wilt epicenters have been treated	
١	Northern Pin Oak	80	Log	12 87	Hazelnut (Spp.)	High	5 - 10 feet	Tall Shrub	reducing the stand size. There is aspen, maple and oak regeneration w	
	Bigtooth Aspen	10	Log	14	Aspen (spp.)	Medium	Variable	Sapling	trace amounts of other species.	
	Quaking Aspen	5	Log	12	Oak (spp.)	Low	Variable	Sapling	Part of this stand contains an Element Occurrence area of the Shakey	
	Red Maple	5	Log	12				1	Lakes Oak-Pine Barrens ERA.	
	Red Maple								There are small treated oak wilt patches within this stand by differen	
57	'	Aspen, Oak	5	Sapling Medium	24.8 10	111-140	N/A			
	'		Size Class	Sapling Medium	24.8 10 Sub-Canopy Species	111-140 Density	Avg. Height	Size	timber sales over the years. All merchantable species except oak, red	
57	4131 - A								timber sales over the years. All merchantable species except oak, red	
57	4131 - A	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height		timber sales over the years. All merchantable species except oak, red pine and white pine were removed in 2010 by the Unbalanced Oak 33-034-008 timber sale. Most of the stand is younger regeneration with scattered areas of larger oak and some pine. Trace amounts of other	
57	4131 - A Canopy Species Northern Pin Oak	% Cover	Size Class Sapling	DBH Age	Sub-Canopy Species	Density	Avg. Height		timber sales over the years. All merchantable species except oak, red pine and white pine were removed in 2010 by the Unbalanced Oak 33-034-008 timber sale. Most of the stand is younger regeneration with	



Stand	Level 4 C	Cover Type		Size Density			Stand Age	BA Range	Managed 3	Site	General Comments
58	4130	- Aspen	F	Poletimber V	Vell 72.7		27	Immature			Most of this stand was treated by the Unbalanced Aspen 33-034-08
	Canopy Species	% Cover	Size Class	DBH Ag	je	Sub-Ca	nopy Species	s Density	Avg. Height	Size	timber sale. Larger aspen and red maple were removed along with some jack and red pine. Oak was retained except for areas of oak wilt
	Quaking Aspen	40	Pole	6 2	7	Haze	Inut (Spp.)	High	5 - 10 feet	Tall Shrub	epicenters.
	Bigtooth Aspen	40	Pole	8		Asp	en (spp.)	Medium	Variable	Sapling	
١	Northern Pin Oak	15	Pole	6		Che	rry (spp.)	Low	Variable	Sapling	
	Red Maple	5	Pole	8		Re	d Maple	Low	Variable	Sapling	
59	42250 -	Pine, Oak	F	Poletimber Po		14.6	25	Immature	N/A		Grass opening with scattered pin oak, jack pine and cherry.
	Canopy Species	% Cover	Size Class	DBH Ag	je	Sub-Car	nopy Species	s Density	Avg. Height	Size	
	Jack Pine	60	Pole	6 2	5	Mixes Se	dges/Grasses	s Full	Unspecified	Non-Wood	
١	Northern Pin Oak	30	Pole	8		Sw	eet Fern	Medium	5 - 10 feet	Tall Shrub	
	Black Cherry	10	Sapling	4				,			
60	4130	4130 - Aspen		Sawtimber Well		23.2 52		111-140	N/A		Mature aspen stand with some oak, maple, cherry, spruce and pine.
	Canopy Species	% Cover	Size Class	ize Class DBH Ag		Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Quaking Aspen	40	Log	10 5	2	Re	d Maple	Medium	Variable	Sapling	
	Bigtooth Aspen	40	Log	12 5	2				,	'	
	Red Maple	5	Pole	8							
	White Pine	10	XLog	18							
	Red Pine	5	Log	16							
61	4130	- Aspen		Sapling We	ell	22.7	12	Immature	N/A		Stand was harvested in 2009 by the 33-024-07 timber sale with the
	Canopy Species	% Cover	Size Class	DBH Ag	je	Sub-Ca	nopy Species	s Density	Avg. Height	Size	adjacent compartment. Good aspen regeneration. Some residual large pine and oak. Trace of maple, jack and red pine.
	Bigtooth Aspen	55	Sapling	3 1	2	Mixes Se	dges/Grasses	s High	Unspecified	Non-Wood	
	Quaking Aspen	30	Sapling	2							
	White Pine	5	Log	16							
١	Northern Pin Oak	10	Log/Pole	10							
62	4131 - A	spen, Oak	F	Poletimber V	Vell	21.6	44	51-80	N/A		Aspen stand with some variable size. Oak wilt epicenters have been
	Canopy Species	% Cover	Size Class	DBH Ag	je	Sub-Ca	nopy Species	s Density	Avg. Height	Size	treated in the past. Most recent oak wilt epicenter treatment was in 2020- 21 by the 109 Oak Wilt 33-021-20 timber sale.
	Bigtooth Aspen	60	Pole	8 4	4	Haze	Inut (Spp.)	Medium	5 - 10 feet	Tall Shrub	
	Quaking Aspen	20	Pole	6							
N	Northern Pin Oak	20	Log/Pole	12							

rt 7 – Stands Compartment: 109
Year of Entry: 2023

DNR DINCHIGAN

Stanc				Size De	ensity	Acres	Stand Age B	A Range	Managed \$	Site	General Comments
63	4191 - Mixed Upla Co	and Decidu onifer	ous with	Sawtimb	er Well	11.8	101	1-50	N/A		This is a mature stand with dead oak and past oak wilt epicenters that were treated. Trace amounts of birch, cherry, balsam, spruce and
	Canopy Species	% Cover	Size Class	DBH	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	tamarack.
	White Pine	20	XLog	18	87	Re	ed Maple	Medium	Variable	Sapling	
	Red Pine	15	Log	14		Asp	en (spp.)	Medium	Variable	Sapling	
I	Northern Pin Oak	35	Log	12	101	Oa	ak (spp.)	Medium	Variable	Sapling	
	Red Maple	10	Log	10		W	nite Pine	Low	Variable	Sapling	
	Bigtooth Aspen	20	Log	12		Ja	ack Pine	Low	Variable	Sapling	
64	4131 - <i>A</i>	4131 - Aspen, Oak		Sapling Well		28.1 25		mmature	N/A		Stand was treated in 2008 by the Oak Hill Oak Wilt 33-023-07 timber
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	sale. Good regeneration with some large pine residual trees present.
	Bigtooth Aspen	60	Sapling	4	25		Inut (Spp.)	Medium	5 - 10 feet	Tall Shrub	
	Quaking Aspen	20	Sapling	4						1	_
	Northern Pin Oak	20	Sapling	4							
65	4310 - Pi	ne, Oak Miz	x 5	Sawtimb	er Poor	10.2	87	1-50	N/A		Scattered large pine, aspen, maple, oak over aspen, oak, maple
	Canopy Species	% Cover	Size Class	DBF	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	regeneration.
	White Pine	30	XLog	18	87	Re	ed Maple	Medium	Variable	Sapling	
	Red Pine	25	Log	14		Asp	en (spp.)	Medium	Variable	Sapling	
I	Northern Pin Oak	35	Log	12	87	Oa	ak (spp.)	Medium	Variable	Sapling	
	Red Maple	10	Log	10		W	nite Pine	Low	Variable	Sapling	
						Ja	nck Pine	Low	Variable	Sapling	
66	6122 - B	lack Spruce	ck Spruce Sapling N			12.3 58		1-50	N/A		Overall small diameter poor quality and wet. Trace cedar, maple and or
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	60	Sapling/Pole	4	58	Le	atherleaf	High	5 - 10 feet	Tall Shrub	
	Tamarack	40	Sapling	3		Mixes Se	edges/Grasses	High	Unspecified	Non-Wood	
67	4131 - <i>A</i>	Aspen, Oak	5	Sapling I	Medium	78.5	12	1-50	N/A		Part of this stand contains Element Occurrence areas of the Shakey
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Lakes Oak-Pine Barrens ERA. Various timber harvests have occurred to primarily treat oak wilt areas.
	Northern Pin Oak	20	Log	12	91	Haze	elnut (Spp.)	High	5 - 10 feet	Tall Shrub	
	Red Maple	15	Sapling	2		Oa	ak (spp.)	Medium	Variable	Sapling	
	Quaking Aspen	30	Sapling	2							-
	Bigtooth Aspen	30	Sapling	2	12						
	White Pine	5	XLog/Log	18							
68	623 - Emei	rgent Wetla	nd	Nonst	ocked	9.0		mmature	No		Variable wet areas with others supporting tag alder, pine, spruce and
					Γ	Sub-Ca	nopy Species	Density	Avg. Height	Size	tamarack.
							Alder	Medium	5 - 10 feet	Tall Shrub	
						W	nite Pine	Low	Variable	Sapling	

Report 7 - Stands



Compartment: 109

Year of Entry: 2023

Stand	Level 4 Co	over Type		Size De	ensity	Acres	Stand Age I	BA Range	Managed 9	Site	General Comments
69 419		pland Deciduous with Conifer		Sawtimb	Sawtimber Well		87	111-140	N/A		Stand has been treated for oak wilt in the past and has been reduced in size over the years. The southern portion was clearcut in 1989 except
Cano	py Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	leave pine by contract #24-86. The northern portions had red oak removed with oak wilt treatments. Northern pin oak remains with aspen,
Norther	rn Pin Oak	30	Log	12	87	Haze	elnut (Spp.)	Low	5 - 10 feet	Tall Shrub	
Quakir	ng Aspen	20	Pole/Log	8	32	Asp	en (spp.)	Low	Variable	Sapling	
Bigtoot	oth Aspen	15	Log/Pole	10		WI	nite Pine	Low	Variable	Sapling	Part of this stand contains an Element Occurrence area of the Shakey Lakes Oak-Pine Barrens ERA.
Whit	ite Pine	15	Log	16		Oa	ak (spp.)	Low	Variable	Sapling	Lakes Oak-Fille Balletis EKA.
Jacl	ck Pine	5	Log	12					1		•
Red	d Pine	5	Log	14							
70	4130	4130 - Aspen		Sapling Well		6.9 13		Immature	N/A		Oak wilt treatment occurred in 2007-08 by the Puzzle Piece Oak Wilt 33-
Cano	py Species	% Cover	Size Class	s DBH Age		Sub-Canopy Species		Density	Avg. Height	Size	1 025-08 timber sale. Good regeneration of aspen, maple, oak and cherry with trace amounts of spruce, fir and pine.
Norther	rn Pin Oak	10	Sapling	1		Haze	elnut (Spp.)	Low	5 - 10 feet	Tall Shrub	
Quakir	ng Aspen	35	Sapling	1	13	WI	nite Pine	Low	Variable	Sapling	
Dietooi	oth Aspen	35	Sapling	1	13	Oa	ak (spp.)	Low	Variable	Sapling	
Digitool	out / topen							-		•	•
	d Maple	10	Sapling	1							
Red	· .	10	Sapling Sapling	1							