

Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72253 Entry Year 2023 Acreage: 1,853

County Crawford

Management Area: Camp Grayling

Revision Date: 2021-02-15

Stand Examiner: Joan Charlebois

Legal Description: T27N R02W Sections 7. 8. 9

Identified Planning Goals:

To provide an area that allows for National Guard training while restoring and maintaining the identified pine barrens and intermittent wetland natural communities.

Soil and topography:

Upland soils are predominantly Graycalm and Grayling sands. The few small wetlands are on Tawas-Lupton and Tawas-Leafriver mucks. There is steep kettlehole terrain associated with the lakes and wetlands.

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

The compartment is surrounded by State ownership within the Camp Grayling Military Reservation. The area is under the long-term lease agreement L-1479, made in 1948 with the State Military Board. Military needs take precedence over resource management needs on long-term lease lands. The DNR will coordinate all prescribed activities with the National Guard to ensure they are compatible with military training needs. The compartment borders the north edge of the Range 30 Complex.

Unique Natural Features:

Pine barrens and intermittent wetlands have been identified within the compartment. There is the potential for rare barrens-associated plants, animals and insects to occur within the compartment, as well as reptile and avian species around the lakes.

Archeological, Historical, and Cultural Features:

There are known archeological features within the compartment. Their protection has been built into proposed management plans.

Special Management Designations or Considerations:

The Military Reservation is a Special Conservation Area (SCA). Eight wetlands within the compartment are part of the larger Frog Lakes Complex Intermittent Wetland Ecological Reference Area (ERA). The entire compartment is within the North Camp Grayling Pine Barrens Management Area, with management guided by a restoration plan.

Watershed and Fisheries Considerations:

Duck Lake and the south body of water in the Frog Lakes complex are within the compartment. These shallow lakes offer pan fishing opportunities.

Wildlife Habitat Considerations:

Restoring the compartment's pine barrens will improve habitat for the wide range of opening-dependent game and non-game species.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact outwash sand and gravel. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift are the Coldwater Shale and Marshall Sandstone. The Marshall was used as a building stone in the past. The nearest gravel pit is one-half mile to the west and potential appears to be good. This is part of the State Military leased land. There has been no drilling and there are no leases in this compartment. The closest production is the Conners Marsh Field, five miles to the southeast, which produces gas from the Ordovician Prairie du Chien.

Vehicle Access:

County roads include Stephan Bridge Road, Lewiston Grade Road and Bucks East-West Truck Trail. Additional access is by way of section line two-tracks. Vehicle access is temporarily restricted within the compartment when there is firing on the adjacent Range 30 Complex.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

The area's primary use is for Military training. Dispersed recreation in the form of hunting, fishing and snowmobiling occur when the adjacent Range 30 Complex is inactive.

Fire Protection:

The area has a history of large wildfires that were instrumental in maintaining pine barrens on the landscape. Currently, pine barrens restoration and management is achieved through timber harvesting and controlled burning. Access is good for fire protection. Duck Lake and the Frog Lakes are the nearest water points.

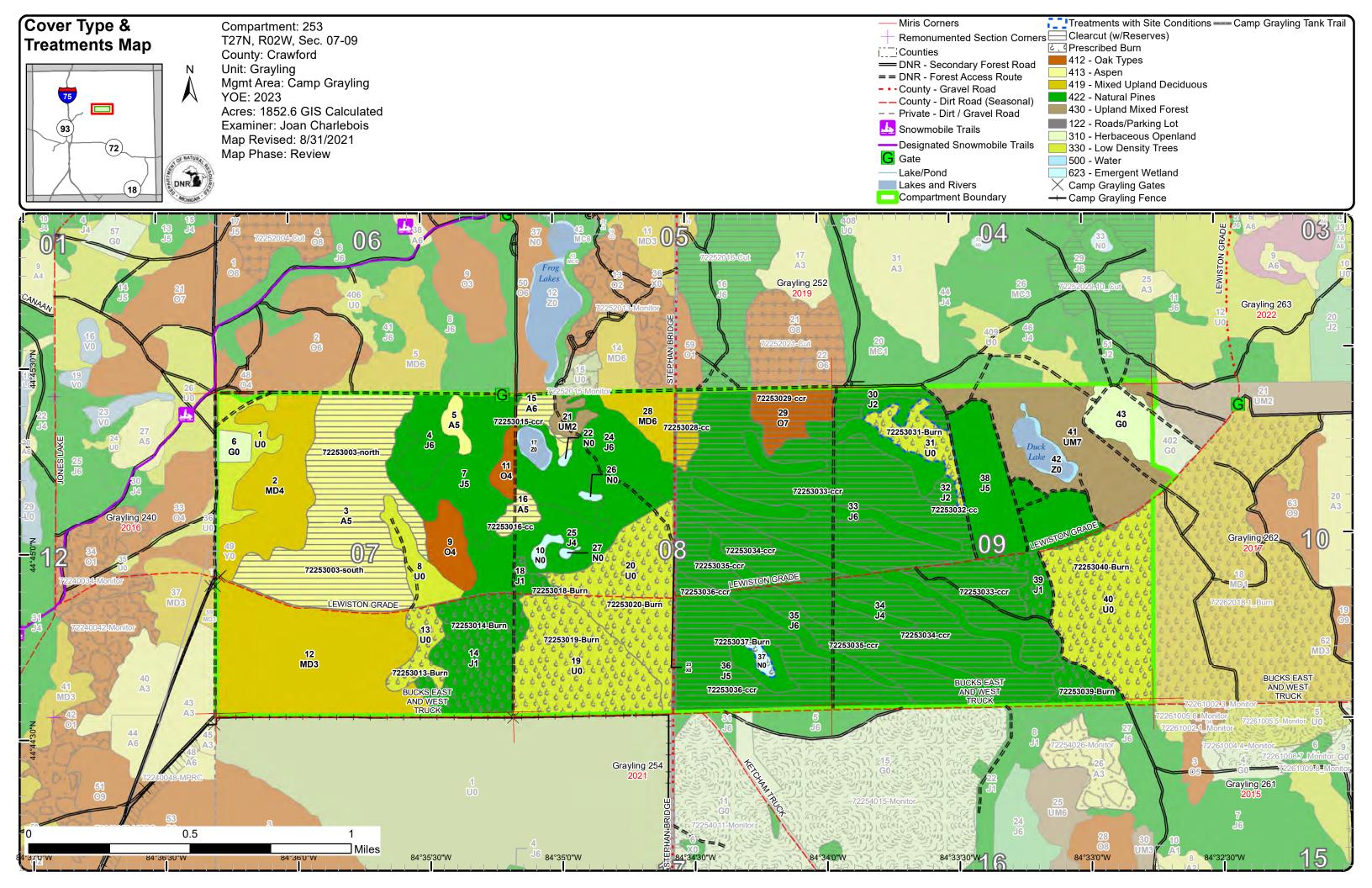
Additional Compartment Information:

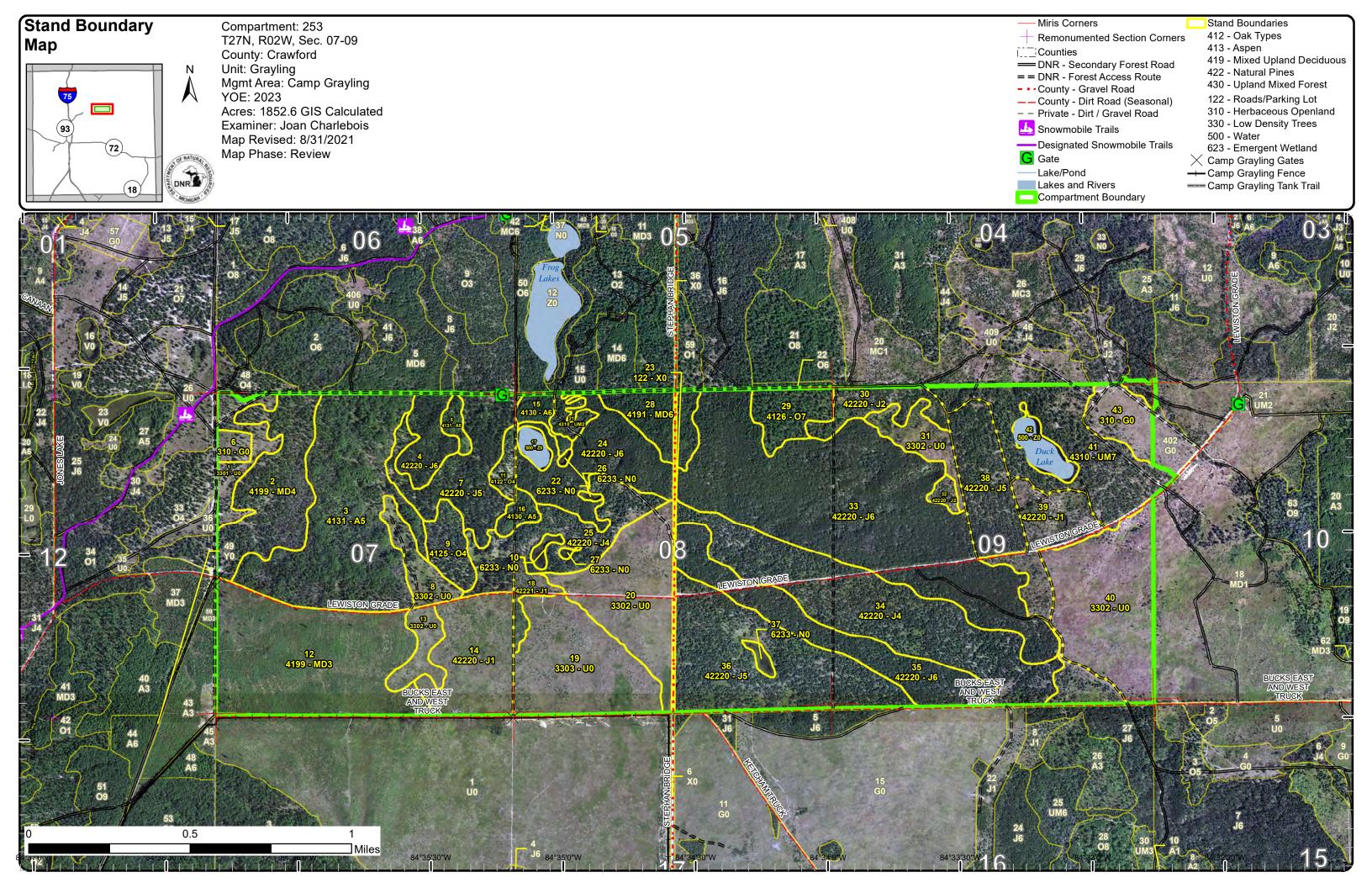
The following reports from the Inventory are attached:

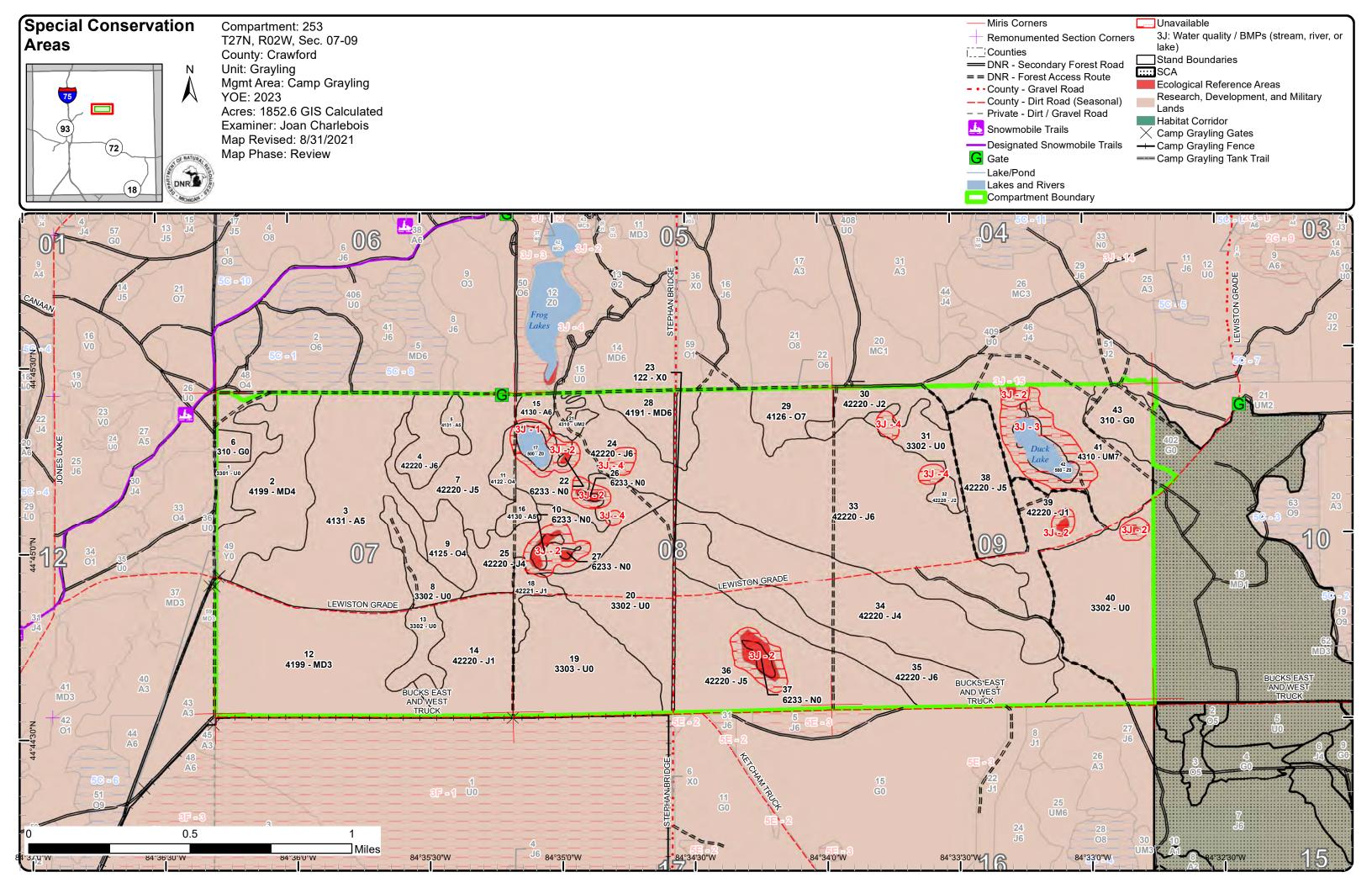
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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

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







Joan Charlebois : Examiner

Compartment 253 Year of Entry 2023



Age Class

			,	,	7	,	,	,	,	,	,	,	,	,		,	,	,	, ,	
	/	/ \$ /	/ /	/	_ /	_ /	_ /	_ /	/ /	_ /	_ /	_ /	_ /	_ /	_ /	_ /	_ /	/ /		
		Kor C	§ / §		\$ \ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	3 /		3 / s	8/8	8 / §	\$ / \$,5 ³ /_5	NE / E			
	/ 🔻			<u> </u>		<u>/ </u>			<u>/ `</u>		/ ~	/ 💆	/ ~	<u>/ ~ </u>	<u>/ ~ </u>			/ 5		
Aspen	0	0	0	0	0	13	150	0	0	0	0	0	0	0	0	0	0	0	163	
Herbaceous Openland	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	
Jack Pine	0	58	64	27	0	56	731	0	0	0	0	0	0	0	0	0	0	0	936	
Low-Density Trees	322	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	322	
Marsh	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
Mixed Upland Deciduous	0	135	0	0	0	0	93	0	0	0	0	0	0	0	0	0	0	0	228	
Oak	0	0	0	0	0	8	18	0	0	0	0	23	0	0	0	0	0	0	49	
Upland Mixed Forest	0	0	8	0	0	0	84	0	0	0	0	0	0	0	0	0	0	0	92	
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Water	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	
Total	384	193	72	27	0	77	1076	0	0	0	0	23	0	0	0	0	0	0	1852	



Report 2 – Treatment Summary

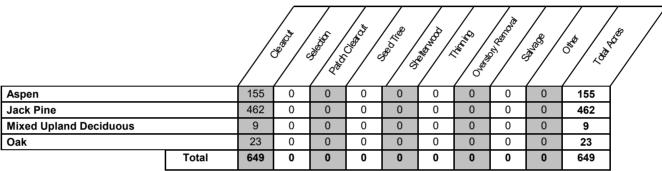
Grayling Mgt. Unit Year of Entry: 2023

Acres of Harvest

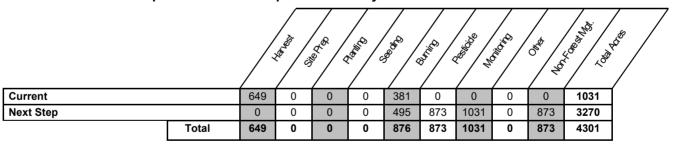
Compartment 253
Total Compartment Acres: 1,853

Commercial Harvest - 649 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method





Habitat

Cut

Compartment: 253

Year of Entry: 2023

S t a n

d

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

Proposed Treatments:

3 72253003- 70.6 4131 - Aspen, Oak Poletimber 54 51-80 Harvest Clearcut 4131 - Aspen, Even-Aged No north Oak

Prescription Harvest stems 2"+ DBH except RP & WP. No designated island retention.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A moderately stocked mix of aspen with oak & RM. Poorly stocked areas are expected and accepted where the pre-harvest cover was

Regen: sparse

Other Add drumming log spec. The proposed start date for the south half of stand 3 was delayed by five years in order to stagger aspen

Comment: regeneration for wildlife.

Site Condition

Proposed Start Date: 10/1 /2022

70.7 4131 - Aspen, Oak Poletimber 54 51-80 Harvest Clearcut 4131 - Aspen, Even-Aged No south Oak

Prescription Harvest stems 2"+ DBH except RP & WP. No designated island retention.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A moderately stocked mix of aspen with oak & RM. Poorly stocked areas are expected and accepted where the pre-harvest cover was

Regen: sparse.

Other Add drumming log spec. The proposed start date for this half of stand 3 was delayed by five years in order to stagger aspen regeneration for

Comment: wildlife.

Site Condition

Proposed Start Date: 10/1 /2027

13 72253013- 15.4 3302 - Low Density Nonstocked Unspec Burn Opening 3302 - Low No Burn Conifer Trees ified Density Conifer Trees

<u>Prescription</u> Burn periodically for pine barrens restoration and maintenance. Vary the burn season when conditions allow.

Specs:

Next Step NonForestMgt, Other - Specify; Pesticide, Hand Application; Monitoring, Prescribed Burn

Treatments:

Acceptable Pine barrens with JP cover at 30% (+/- 10%).

Regen:

Other Subunit 1C. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Non commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and other slash management may be done to

facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Grayling Mgt. Unit Report 3 -- Treatments Compartment: 253 s Year of Entry: 2023 t а **Treatment** Stand Size Stand BA **Treatment Treatment** Cover Type Acres Age Habitat n Method Name CoverType Density Age Range Type Objective Structure Cut d 14 72253014-58.4 42220 - Natural Sapling 8 Immatu Burn Opening 3302 - Low No Density Conifer Burn Jack Pine Poor re Trees Prescription Burn periodically for pine barrens restoration and maintenance. Vary the burn season when conditions allow. Specs: Next Step NonForestMgt, Other - Specify; Pesticide, Hand Application; Monitoring, Prescribed Burn Treatments: Pine barrens with JP cover at 30% (+/- 10%). Acceptable Regen: Other Subunit 1C. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Non commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and other slash management may be done to Comment: facilitate burning. Herbicide may be used to target invasive plants. Site Condition Proposed Start Date: 10/1 /2022 72253015-ccr 6.6 4130 - Aspen Poletimber 54 81-110 Harvest Clearcut 4131 - Aspen, Even-Aged No Well Oak Prescription Harvest stems 2"+ DBH except leave the RP & WP, and exclude the south edge within the adjacent lake RMZ and ERA Site Condition polygons. The draft treatment boundary has been edited to approximate the intended exclusions. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable A moderately stocked mixture of aspen with RM & oak.

Regen:

Other Add drumming log spec.

Comment:

Site Condition

Proposed Start Date: 10/1 /2022

4130 - Aspen 51-80 Even-Aged 72253016-cc 7.0 Poletimber 45 Harvest Clearcut 4131 - Aspen, No Medium Oak

Prescription Harvest stems 2"+ DBH except RP & WP. No retention due to small stand size.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A mix of aspen with oak, RM & pine.

Regen:

Other Add drumming log spec.

Comment:

Site Condition

S t		Graylin	g Mgt. Unit		Repo	rt 3 `	Treatments		Compartmer Year of Entr		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
18	72253018- Burn	10.0	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Poor	17	Immatu re	Burn	Opening	3302 - Low Density Conifer Trees		No
Spec Next	s: Step NonFo		for pine barrens res				,		itions allow.		
		arrens witl	n JP cover at 30% (·	+/- 10%).							
Othe Com	_ <u>iment:</u> occurr	ences. No	D. Refer to the Nort on-commercial treat ay be done to facilita	nents such	n ás thin	ning, prur	ning ladder fuels	, brush-hogging, r			
Site	<u>Condition</u>										
Prop	osed Start Date	e: 10/1 /20	022								
19	72253019- Burn	79.6	3303 - Mixed Low Density Trees	Nonstock	ed	Unspec ified	Burn	Opening	3302 - Low Density Conifer Trees		No
Pres Spec		eriodically	for pine barrens res	storation ar	nd main	tenance.	Vary the burn se	eason when condi	tions allow.		
	<u>Step</u> NonFo tments:	orestMgt, C	Other - Specify; Pe	sticide, Hai	nd Appli	ication; N	Monitoring, Preso	cribed Burn			
Acce		arrens witl	h JP cover at 30% (+/- 10%).							

Regen:

Other Comment: Subunit 1D. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Non commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Proposed Start Date: 10/1 /2022

20 72253020-72.7 3302 - Low Density Nonstocked Unspec Burn Opening 3302 - Low No **Conifer Trees Density Conifer** ified Burn Trees

Prescription Burn periodically to maintain as a barrens. Vary the burn season when conditions allow. Specs:

Next Step NonForestMgt, Other - Specify; Pesticide, Hand Application; Monitoring, Prescribed Burn Treatments:

Acceptable Pine barrens with JP cover at 30% (+/- 10%). Regen:

Subunits 1B & 1D. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for Other occurrences. Non-commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and other slash Comment: management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Report 3 -- Treatments

Compartment: 253 Year of Entry: 2023

No

No

s t а

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

Harvest

28 72253028-cc 9.1 4191 - Mixed Poletimber 51-80 **Upland Deciduous** Well with Conifer

Clearcut 3303 - Mixed Low Density

Trees

Prescription Harvest trees 2"+ DBH except for RP, WP & green-marked open-grown WO. Within 100 feet of perimeter roads, cut all trees 1"+ DBH

Specs: (including snags).

Next Step Monitoring, Prescribed Burn

; NonForestMgt, Other - Specify; Pesticide, Hand Application; Burn, Opening Treatments:

Acceptable Low-density tree cover that includes patches of oak and pine.

Regen:

Other Subunit 2A. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. After harvest, burn periodically to maintain as a barrens. Non-commercial treatments such as thinning, pruning ladder fuels, brush-hogging, Comment:

roller-chopping, and other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Proposed Start Date: 10/1 /2022

72253029-ccr 23.1 4126 - White, Sawtimber 102 1-50 Harvest Clearcut with 3303 - Mixed No Black, N. Pin Oak Poor Retention Low Density

Prescription Harvest trees 2"+ DBH except for RP, WP, JP & green-marked open-grown WO. Within 100 feet of roads and adjacent forested cover, cut

Specs: all stems 1"+ DBH (including snags).

Next Step Monitoring, Prescribed Burn

; Burn, Opening; Pesticide, Hand Application; NonForestMgt, Other - Specify Treatments:

Acceptable Low-density tree cover that includes patches of oak and pine.

Regen:

Subunit 2A. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Other Comment:

After harvest, burn periodically to maintain as a barrens. Non-commercial treatments such as thinning, pruning ladder fuels, brush-hogging,

roller-chopping, and other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Proposed Start Date: 10/1 /2022

3302 - Low 17.2 42220 - Natural Immatu Harvest Clearcut with 72253030-ccr Sapling Jack Pine Medium Retention **Density Conifer** re

Trees

Prescription Harvest trees 2"+ DBH except for RP, WP & WO. Within 100 feet of roads and adjacent forested cover, cut all trees 1"+ DBH (including Specs: snags). Exclude for retention the edge of the kettlehole that stand 31's wetland occupies. The treatment boundary has been edited to

approximate the proposed retention island.

Next Step Burn, Opening; Monitoring, Prescribed Burn

, NonForestMgt, Other - Specify, Pesticide, Hand Application Treatments:

Acceptable Pine barrens with JP cover at 30% (+/- 10%).

Regen:

Other Subunit 2B. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Comment:

After harvest, burn periodically to maintain as a barrens. Allow fire to carry through the retention island if conditions allow but avoid direct ignition with drip torch fuel within it. Non-commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and

other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

No

No

Compartment: 253

Year of Entry: 2023

S t а

> n d 31

ı											MICHIGAN
1	Treatment	Acres	Stand	Size	Stand	BA	Treatment	Treatment	Cover Type	Age	Habitat
l	Name		CoverType	Density	Age	Range	Туре	Method	Objective	Structure	Cut

72253031-19.8 3302 - Low Density Nonstocked Unspec Burn Opening 3302 - Low Burn Conifer Trees ified **Density Conifer** Trees

Prescription Burn periodically for pine barrens restoration and maintenance. Vary the burn season and allow fire to carry into the OFS wetland if Specs: conditions allow. Avoid direct ignition with drip torch fuel within the wetland and the kettlehole it occupies.

Next Step Monitoring, Prescribed Burn

; NonForestMgt, Other - Specify; Pesticide, Hand Application Treatments:

Acceptable Pine barrens with JP cover at 30% (+/- 10%).

Regen:

Other Subunit 2B. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Non Comment: commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition BMPs

Proposed Start Date: 10/1 /2022

72253032-cc 44 42220 - Natural Sapling 27 Immatu Harvest Clearcut 3302 - Low No Jack Pine Medium re **Density Conifer** Trees

Prescription Harvest trees 2"+ DBH except for RP, WP & WO. Within 100 feet of roads and adjacent forested cover, cut all trees 1"+ DBH (including Specs: snags). No island retention due to small stand size and proximity to other retention.

Next Step Burn, Opening; Monitoring, Prescribed Burn

; NonForestMgt, Other - Specify; Pesticide, Hand Application **Treatments:**

Acceptable Pine barrens with JP cover at 30% (+/- 10%).

Regen:

Subunit 2B. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Other Comment: After harvest, burn periodically to maintain as a barrens. Non-commercial treatments such as thinning, pruning ladder fuels, brush-hogging,

roller-chopping, and other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Proposed Start Date: 10/1 /2022

42220 - Natural Poletimber 51-80 Clearcut with 3302 - Low 72253033-ccr 193.1 Harvest Jack Pine **Density Conifer** Well Retention Trees

Prescription Harvest trees 2"+ DBH except for RP, WP & WO. Within 100 feet of perimeter roads and adjacent unprescribed stands, cut all trees 1"+ Specs: DBH (including snags). Exclude ~20% of the stand in fire-skip simulated islands for retention (each no more than 10% of the stand total). Site part of that retention to exclude the OFS wetland kettlehole by stand 32. Aside from that wetland island, locate retention islands at least 100 feet away from perimeter roads and adjacent unprescribed stands in order to facilitate follow-up Rx burning and JP seed dispersal. The

draft treatment boundary has been edited to approximate the proposed retention islands. Burn, Opening; NonForestMgt, Other - Specify; Pesticide, Hand Application; Monitoring, Prescribed Burn Next Step

Acceptable Pine barrens with JP cover at 30% (+/- 10%).

Regen:

Treatments:

Other Subunits 2A, 2B & 2D. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for Comment: occurrences. After harvest, burn periodically to maintain as a barrens. Allow fire to carry through retention islands if conditions allow. Avoid direct ignition with drip torch fuel within the OFS wetland and its surrounding retention island. Non-commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

s	
t	
а	

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
34	72253034-ccr	105.1	42220 - Natural	Poletimbe	er 53	1-50	Harvest	Clearcut with	3302 - Low		No

Jack Pine Poor Retention **Density Conifer**

Trees Prescription Harvest trees 2"+ DBH except for RP, WP & WO. Within 100 feet of perimeter roads and adjacent tree cover, cut all trees 1"+ DBH

(including snags). Exclude ~20% of the stand in fire-skip simulated islands for retention (each no more than 10% of the stand total), located at least 100 feet away from perimeter roads and adjacent unprescribed stands in order to facilitate follow-up Rx burning and JP seed

dispersal. The draft treatment boundary has been edited to approximate the proposed retention islands.

Next Step Burn, Opening; NonForestMgt, Other - Specify; Pesticide, Hand Application; Monitoring, Prescribed Burn

Treatments:

Acceptable Pine barrens with JP cover at 30% (+/- 10%).

Regen:

Specs:

Other Subunits 2A, 2B, 2C & 2D. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Get HAL site location and exclude if indicated. After harvest, burn periodically to maintain as a barrens. Allow fire to carry Comment: through retention islands if conditions allow. Non-commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-

chopping, and other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Proposed Start Date: 10/1 /2022

72253035-ccr 52.5 42220 - Natural Poletimber 52 51-80 Harvest Clearcut with 3302 - Low No **Density Conifer** Jack Pine Well Retention Trees

Prescription Harvest trees 2"+ DBH except for RP, WP & WO. Within 100 feet of perimeter roads and adjacent unprescribed stands, cut all trees 1"+ DBH (including snags). Exclude ~20% of the stand in fire-skip simulated islands for retention (each no more than 10% of the stand total). Specs: located at least 100 feet away from perimeter roads and adjacent unprescribed stands in order to facilitate follow-up Rx burning and JP seed dispersal. The draft treatment boundary has been edited to approximate the proposed retention islands.

Burn, Opening; NonForestMgt, Other - Specify; Pesticide, Hand Application; Monitoring, Prescribed Burn Next Step Treatments:

Acceptable Pine barrens with JP cover at 30% (+/- 10%). Regen:

Other Comment: Subunits 2A, 2C & 2D. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Get HAL site location and exclude if indicated. After harvest, burn periodically to maintain as a barrens. Allow fire to carry through retention islands if conditions allow. Non-commercial treatments such as thinning, pruning ladder fuels, brush-hogging, rollerchopping, and other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Proposed Start Date: 10/1 /2022

90.0 42220 - Natural Poletimber 54 51-80 Harvest Clearcut with 3302 - Low 72253036-ccr Jack Pine Medium **Density Conifer** Retention Trees

Prescription Harvest trees 2"+ DBH except for RP, WP & WO. Within 100 feet of roads and adjacent unprescribed stands, cut all trees 1"+ DBH (including snags). For retention: exclude the topographic depression surrounding stand 37's ERA wetland and additional island(s), up to Specs: 20% of the stand total. Locate retention islands at least 100 feet away from roads and adjacent unprescribed stands in order to facilitate follow-up Rx burning and JP seed dispersal. The draft treatment boundary has been edited to approximate the proposed retention islands.

Burn, Opening; NonForestMgt, Other - Specify; Pesticide, Hand Application; Monitoring, Prescribed Burn Next Step **Treatments:**

Acceptable Pine barrens with JP cover at 30% (+/- 10%).

Regen: **Other**

Subunits 2A, 2C & 2D. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. After harvest, burn periodically to maintain as a barrens. Allow fire to carry through retention islands if conditions allow. Non-Comment: commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and other slash management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Proposed Start Date: 10/1 /2022

Nο

Report 3 -- Treatments

Compartment: 253 Year of Entry: 2023

Meadow

DNR DNR BOOK

Treatment Stand BA **Treatment Treatment** Cover Type Acres Stand Size Age Habitat n Name CoverType Density Age Range Type Method Objective Structure Cut d 37 72253037-3.1 6233 - Wet Meadow Nonstocked Unspec Burn Other 6233 - Wet No

<u>Prescription</u> Allow fire to carry into this wetland if conditions allow when the surrounding uplands are burned for pine barrens maintenance. Avoid direct <u>Specs:</u> ignition with drip torch fuel within the wetland and the kettlehole it occupies.

ified

Next Step Monitoring, Prescribed Burn

Treatments:

s

t a

Acceptable Regen:

Other Part of the Frog Lakes Complex ERA.

Comment:

Site Condition BMPs

Burn

Proposed Start Date: 10/1 /2022

Sapling 72253039-27.0 42220 - Natural 16 Immatu 3302 - Low No 39 Burn Opening Jack Pine Poor **Density Conifer** Burn re Trees

<u>Prescription</u> Burn periodically to maintain as a barrens. Vary the burn season when conditions allow.

Specs:

 $\underline{\underline{\text{Next Step}}} \quad \text{NonForestMgt, Other - Specify;} \quad \text{Pesticide, Hand Application;} \quad \text{Monitoring, Prescribed Burn}$

Treatments:

Acceptable Pine barrens with JP cover at 30% (+/- 10%).

Regen:

Other Subunit 2D. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Non commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and other slash management may be done to

facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Proposed Start Date: 10/1 /2022

40 72253040- 95.2 3302 - Low Density Nonstocked Unspec Burn Opening 3302 - Low No Burn Conifer Trees ified Density Conifer Trees

<u>Prescription</u> Burn periodically to maintain as a barrens. Vary the burn season and allow fire to carry into the ERA wetland when conditions allow. Avoid <u>Specs:</u> direct ignition with drip torch fuel within the wetland and the depression it occupies.

Next Step NonForestMgt, Other - Specify; Pesticide, Hand Application; Monitoring, Prescribed Burn

Treatments:

Acceptable Pine barrens with JP cover at 30% (+/- 10%).

Regen:

Other West end of Subunit 3B. Refer to the North Camp Grayling Pine Barrens Management Plan for detailed guidance. See MNFI layer for occurrences. Non-commercial treatments such as thinning, pruning ladder fuels, brush-hogging, roller-chopping, and other slash

management may be done to facilitate burning. Herbicide may be used to target invasive plants.

Site Condition

Proposed Start Date: 10/1 /2022

Total Treatment 1030.6 Acreage Proposed:

Compartment: 253

Grayling Mgt. Unit

Joan Charlebois : Examiner Year of Entry: 2023

Availability for Management

Total Acres Acres Acres Acres Acres Dominant Site Conditions

Acres Available With Condition Not Available

3J	Not Available	With Condition	Available	Acres
Aspen 2	2	0	162	163
Herbaceous Openland	0	0	29	29
Jack Pine 43	43	0	893	936
Low-Density Trees 6	6	0	316	322
Marsh 9	9	0	0	9
Mixed Upland Deciduous	0	0	229	229
Oak 1	1	0	46	47
Upland Mixed Forest 24	24	0	68	92
Urban	0	0	5	5
Water 19	19	0	0	19
Total Forested Acres 104	104		1,747	1,851
Relative Percent	6%		94%	

*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Sit No	e Dominant Site o. Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	Unavailable 3J: Water quality / BMPs (stream, river, or lake)		Unspecified	Unspecified	Unspecified	Unspecified
	Comments: South Frog Lake RN	MZ, up to top edge of lake bas	sin.				
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	52	3K: Rare or unique landforms	Unspecified	Unspecified	Unspecified
	Comments: Part of the Frog Lak	xes Complex Intermittent Wet	land ERA				
3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	33	1C: Other dept or div proc/practices	Unspecified	Unspecified	Unspecified
	Comments: Duck Lake RMZ, up	o to top edge of the lake basin					

Report 4 – Site Conditions

Grayling Mgt. Unit

Joan Charlebois : Examiner

Compartment: 253
Year of Entry: 2023

4 Unavailable 3J: Water quality / BMPs 10 Unspecified Unspecified

8/31/2021 11:00:10 AM - Page 2 of 2 TONELLOM1

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				

Grayling Mgt. Unit Compartment: 253
Year of Entry 2023



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

Conservation Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for include the 5,847 acre Forest Fire Experiment Station, the 12,000 Area, the Beaver Islands Archipelago Wildlife Research Area (the High and Hog Islands, all state owned land on Beaver, South Fow Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Res Nursery, and over 144,000 acres of Military Lands.	O acre Houghton Lake Wildlife Research at includes most of Garden Island, all of and North Fox Islands), the Cusino
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Natura context of their natural community classification system. Element (Excellent) or B (Good) and a Global (G) or State (S) element (ra threatened (2), or rare (3) serve as an initial base of ERAs. They the State. The system is comprised of individual or associations of managed for restoration and maintenance of natural ecological p submit recommendations for lands as ERAs using the DNR Constitution.	I Features Inventory (MNFI) within the Occurrences with viability ranks of A rity) ranking of endangered (1), may be located upon any ownership in of natural community types that are rocesses and values. The public may



Stand	Level 4 Co	over Type	S	ize De	nsity	Acres	Stand Age B	A Range	Managed \$	Site	General Comments
1	3301 - Low Densi	ty Deciduo	us Trees I	Nonsto	cked	22.2	U	nspecified	No		Upland opening in shallow valley that has seen periodic disturbance,
						Sub-Ca	nopy Species	Density	Avg. Height	Size	including a noted 1958 wildfire. Stump-origin oak occurs scattered and in patches, along with open-grown JP and traces of QA & RM. Too much
						North	ern Pin Oak	Low		Sapling	snow to make groundcover calls.
						Ja	ick Pine	Low		Sapling	
						Ja	ick Pine	Trace	Unspecified	Pole	
						North	ern Pin Oak	Low		Pole	
						Servicebe	erry (Juneberry)	Trace	Variable	Tall Shrub	
						Blad	ck Cherry	Trace	Variable	Tall Shrub	
						Quak	king Aspen	Trace	10 - 20 feet	Sapling	
						Prai	rie Willow	Trace	< 5 feet	Tall Shrub	
2	4199 - Other Mixed	•		letimb	er Pooi	r 66.4	53	1-50	N/A		Old notes indicate that this area burned in a 1958 wildfire, but trees cored last YOE point to a more recent regen event. The stand is primarily
C	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	stump-origin oak poles with similar aged A-JP-RM, and traces of O-RP
	Red Maple	10	Pole/Sapling	5		Wit	ch Hazel	Trace	5 - 10 feet	Tall Shrub	saw that survived the fire. The previously dense oak cover in the stand's
	White Oak	15	Pole	7		Servicebe	erry (Juneberry)	Trace	10 - 20 feet	Tall Shrub	east half has seen significant mortality. This stand & the adjacent aspen stand 3 resulted from the same regen event and don't have a clear
Q	uaking Aspen	10	Pole/Sapling	5		Hawt	horn (spp.)	Trace	< 5 feet	Tall Shrub	boundary; the two types grade into each other.
В	igtooth Aspen	10	Pole/Sap/Log	6		Blad	ck Cherry	Low	Variable	Tall Shrub	,, ,, ,,
No	orthern Pin Oak	40	Pole	7	53	Ja	ick Pine	Low	5 - 10 feet	Sapling	
	Jack Pine	15	Pole/Sapling	7		North	ern Pin Oak	Low	5 - 10 feet	Sapling	
3	4131 - A	spen, Oak	Pole	etimbe	Mediu	m 142.4	54	51-80	N/A		Old notes indicate that this area burned in a 1958 wildfire, but cores point
C	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	to a more recent regen event. Cover is a mosaic of dense BTA clones separated by poorer stocking in similar aged QA-O-RM, and traces of
	Red Maple	15	Pole/Sapling	5		Wit	ch Hazel	Trace	5 - 10 feet	Tall Shrub	mature O-RP saw that survived the fire. Significant mortality in the mixed
	White Oak	5	Log/XLog/Pole	14		Servicebe	erry (Juneberry)	Trace	10 - 20 feet	Tall Shrub	oak pole component. The QA clones are breaking up. OFS point is a
Q	uaking Aspen	15	Pole/Log	8		Blac	ck Cherry	Low	Variable	Tall Shrub	QA clone with large burls below DBH. The poorer-stocked O-QA-RM areas of this stand drag the average canopy closure down into the 50-
В	igtooth Aspen	45	Pole/Log	8	54	W	hite Oak	Low	Variable	Sapling	75% category. This aspen stand & the adjacent MD stand 2 resulted
Black	/Red (Hybrid) Oak	15	Pole	8	54	Hawt	horn (spp.)	Trace	5 - 10 feet	Tall Shrub	
	Jack Pine	2	Pole/Log	8							types grade into each other.
1	Red Pine	3	Log/Pole	12							
4	42220 - Nati	ural Jack P	Pine Po	oletimb	er Wel	I 21.6	53	51-80	N/A		JP cover varies from full to moderate stocking. Old notes indicate it was
C	Canopy Species %	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	within a 1958 wildfire, but trees cored point to a more recent regen event. JP in the densely-stocked areas are self-pruned and self-
В	igtooth Aspen	2	Pole/Sapling	6		North	ern Pin Oak	Trace	Variable	Sapling	thinning. The lower-stocked areas have more open-grown form. Most of
No	rthern Pin Oak	10	Pole/Log/Sap	7		W	hite Oak	Low	Variable	Sapling	the stand's oak and traces of aspen are from the same regen event as the JP. Mature JP & oak saw that survived the fire are scattered across
	Jack Pine	85	Pole	6	53	Blac	ck Cherry	Trace	Variable	Tall Shrub	the JP. Mature JP & oak saw that survived the fire are scattered across the stand.
	White Oak	3	Log/Pole	14							



Stand	d Level 4 Co	ver Type	S	ize De	ensity	Acres	Stand Age B	A Range	Managed S	Site	General Comments			
5	4131 - As	spen, Oak	Pole	etimbe	r Mediu	m 5.8	46	51-80	N/A		Stand encompasses two BTA clones and a small QA clone. Lower- stocked cover around the clones includes JP, O-RM stump-origin poles,			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	and oak saw. Noted to have been burned within a 1958 wildfire, but			
	Red Maple	5	Pole/Sapling	5		Blac	ck Cherry	Low	Variable	Tall Shrub	aspen cores point to a mid-1970's regen event.			
	White Oak	5	Pole/Sap/Log	5		Servicebe	erry (Juneberry)	Trace	Variable	Tall Shrub				
	Quaking Aspen	10	Pole/Sapling	6										
	Bigtooth Aspen	50	Pole	6	46									
Bla	ck/Red (Hybrid) Oak	15	Pole/Sapling	7										
	Jack Pine	15	Pole	7										
6	310 - Herbace	eous Open	land	Nonsto	ocked	6.5	Ur	nspecified	No		Encroaching tree cover was cleared off of this opening used for Military training. Too much snow to make groundcover calls.			
7	42220 - Natu	ıral Jack P	ine Pole	etimbe	r Mediu	m 54.8	52	51-80	N/A		Was noted to have burned within a 1958 wildfire, but trees cored point to			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	a more recent regen event. The stand is a mosaic of J6 patches with J4 in between, along with oak residual and regen from the fires, small			
	Bigtooth Aspen	2	Pole/Sap/Log	7		Northe	ern Pin Oak	Trace	Variable	Sapling	pockets of aspen, and traces of RM. Frost pocket depressions are in with JP sapling cover.			
	Northern Pin Oak	7	Pole/Sapling	5		Ja	ck Pine	Low	Variable	Sapling				
	Jack Pine	90	Pole	8	52	Blad	ck Cherry	Trace	Variable	Tall Shrub				
	Quaking Aspen	1	Pole/Sapling	5					1					
8	3302 - Low Dens	sity Conife	r Trees	Nonsto	ocked	17.9	Ur	nspecified	No		JP, NPO & aspen colonizing a shallow valley opening. Tree cover is			
						Sub-Ca	nopy Species	Density	Avg. Height	Size	primarily pole-sapling sized, but there are a few oak saw. Too much snow to make groundcover calls.			
						Ja	ck Pine	Low	Variable	Sapling				
						Quak	ing Aspen	Trace	>20 feet	Pole				
						Servicebe	erry (Juneberry)	Trace	Variable	Tall Shrub				
						Northe	ern Pin Oak	Trace	5 - 10 feet	Sapling				
						Prai	rie Willow	Low	< 5 feet	Tall Shrub				
						Northe	ern Pin Oak	Low	>20 feet	Pole				
						Blad	ck Cherry	Low	Variable	Tall Shrub				
						Ja	ck Pine	Low	>20 feet	Pole				
9	4125 - Black	k, N. Pin O	ak Po	oletimb	er Poor	r 18.0	56	1-50	N/A		Stump-origin oak with JP and minor amounts of A-RM. Old notes			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	indicated it was within a 1958 wildfire, but trees cored suggest that the 1965 wildfire reburned this area. Some of the oak stump sprouts have			
	Red Maple	2	Sapling/Pole	3		Ja	ck Pine	Trace	5 - 10 feet	Sapling	shifted into the small saw class. Unusual amount of mortality for oak thi			
	White Oak	10	Pole/Sapling	7		Servicebe	erry (Juneberry)	Trace	5 - 10 feet	Tall Shrub	young: not just weeding down to fewer stems per stump-clump, but			
	Northern Pin Oak	65	Pole/Sap/Log	8	56	Northe	ern Pin Oak	Trace	5 - 10 feet	Sapling	ontire stump clumps doed			
	Jack Pine	15	Pole/Sapling	7										
	Bigtooth Aspen	8	Pole/Sapling	5										
10	6233 - We	et Meadow		Nonsto	ocked	3.0	Ur	nspecified	No		Marsh wetland in kettlehole: rushes with perimeter salix, glyceria, woolgrass. This wetland is part of the Frog Lakes Complex Intermittent Wetland ERA.			



											Year of Entry: 2023		
Stan	d Level 4 Co	over Type	,	Size De	ensity	Acres	Stand Age B	A Range	Managed S	Site	General Comments MICHIGAN		
11	4122 - 0	Oak, Pine	P	Poletimb	er Poor	7.7	47	1-50	N/A		Stump-origin NPO with open-grown JP and small clumps of aspen, on		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	rolling terrain. Traces of oak saw. Poor stocking increases to moderate in the north end. Old notes indicate the stand was within a 1958 wildfire		
	Quaking Aspen	2	Sapling/Pole	3		Serviceber	ry (Juneberry)	Trace	5 - 10 feet	Tall Shrub			
	Bigtooth Aspen	3	Pole/Sapling	6		Black	k Cherry	Trace	Variable	Tall Shrub			
	Northern Pin Oak	60	Pole/Sapling	6	47								
	Jack Pine	35	Sapling/Pole	3									
12	4199 - Other Mixe	d Upland D	eciduous	uous Sapling We		Sapling Well		134.9	8 I	mmature	N/A		Was final harvested by early 2013 (#619-12), cutting stems 2"+ DBH
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	except RP-WP >16" DBH in west half (~3 dozen xlog trees). The harves was requested by the Military to clear ground for a new machine gun		
	Bigtooth Aspen	34	Sapling	2	8	Whi	ite Oak	Low	< 5 feet	Seeding	range. Filling in well to O-A with RM and traces of pine. On gently rolling		
	Red Maple	10	Sapling	1	8	Prairi	e Willow	Trace	< 5 feet	Tall Shrub	terrain: oak with RM-A on the lower slopes, aspen with RM-O on the		
Bla	nck/Red (Hybrid) Oak	10	Sapling	1	8	Black	k Cherry	Low	Variable	Tall Shrub	upper slopes. Impressive single-stem WO component along with well-developed stump-origin oak. Oak seedling layer browsed; advanced		
	White Oak	36	Sapling	1	8	Serviceber	ry (Juneberry)	Low	Variable	Tall Shrub	sapling layer secure. JP mostly perimeter.		
	Jack Pine	4	Sapling	1		Black/Red	(Hybrid) Oak	Low	< 5 feet	Seeding			
	Red Pine	1	Sapling	1							-		
	Quaking Aspen	5	Sapling	1	8								
13	3302 - Low Den	sity Conife	r Trees	Nonst	ocked	15.4	Uı	nspecified	No		Was final harvested by early 2013 (#619-12), cutting stems 2"+ DBH		
						Sub-Can	opy Species	Density	Avg. Height	Size	except RP-WP >16" DBH in west end. The harvest was requested by the Military to clear ground for a new machine gun range. This area was		
						Jac	k Pine	Medium	< 5 feet	Sapling	sparse pre-harvest. JP is filling in around the scattered NPO stump-		
						Norther	rn Pin Oak	Low	5 - 10 feet	Sapling	origin regen. Diffuse boundary with stand 14 to the east.		
						Prairi	e Willow	Low	< 5 feet	Tall Shrub			
						Black	k Cherry	Low	5 - 10 feet	Tall Shrub			
						Serviceber	ry (Juneberry)	Trace	< 5 feet	Tall Shrub			
						Jac	k Pine	Low	< 5 feet	Seeding			
14	42220 - Nat	ural Jack F	Pine	Sapling	g Poor	58.4	8 I	mmature	N/A		Was final harvested by early 2013 (#619-12), cutting stems 2"+ DBH.		
	Canopy Species	% Cover	over Size Class	DBH	I Age	Sub-Can	opy Species	Density	Avg. Height	Size	The harvest was requested by the Military to clear ground for a new machine gun range. Variable distribution in JP regen, from LDT to		
	Jack Pine	75	Sapling	1	8	Prairi	e Willow	Low	< 5 feet	Tall Shrub			
											ingresses to the porth with small notables of conen		

Low

Trace

Low

5 - 10 feet

5 - 10 feet

< 5 feet

Tall Shrub

Seeding

Northern Pin Oak

Quaking Aspen

Bigtooth Aspen

Sapling

Sapling

Sapling

8

8

8

1

1

Black Cherry

Serviceberry (Juneberry)

Jack Pine

15

5

5

Tall Shrub increases to the north, with small patches of aspen.



Stand	Level 4 Co	over Type	;	Size De	ensity	Acres	Stand Age E	BA Range	Managed Site		General Comments	
15	4130	- Aspen	F	Poletimb	er Well	8.1	54	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
	Red Maple	5	Pole/Sapling	5		Wh	ite Oak	Low	Variable	Sapling		
	White Oak	5	Log/Pole	12		Blac	k Cherry	Low	Variable	Tall Shrub		
E	Bigtooth Aspen	75	Pole/Log	8	54						•	
Black	k/Red (Hybrid) Oak	5	Log/Pole	14								
	Jack Pine	8	Log/Pole	12								
	Red Pine	1	Log/XLog/Pole	e 16								
	White Pine	1	Pole	6								
16	4130	- Aspen	Ро	letimbe	r Mediu	m 7.0	45	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBł	H Age	Sub-Car	nopy Species	Density	Avg. Height	Size		
(Quaking Aspen	70	Pole/Sap/Log	7	45	Quak	ing Aspen	Low	Variable	Sapling		
	Jack Pine	15	Pole/Log	8		Black/Red	d (Hybrid) Oak	Trace	Variable	Sapling		
E	Bigtooth Aspen	5	Log/Pole	10		Blac	k Cherry	Low	Variable	Sapling		
Black	k/Red (Hybrid) Oak	10	Pole/Log/Sap	7		Servicebe	rry (Juneberry) Low	Variable	Tall Shrub		
					•	Hawth	norn (spp.)	Trace	Variable	Tall Shrub		
						Wh	ite Oak	Trace	10 - 20 feet	Sapling		
17	500 -	Water		Nonst	ocked	6.3	0 L	Inspecified	No		South body of water in the Frog Lakes complex. Full ice cover. Rimme with leatherleaf & rushes. The south edge is part of the Frog Lakes Complex Intermittent Wetland ERA.	
18	42221 - Natural Deci	Jack Pine, duous	Mixed	Sapling	g Poor	10.0	17	Immature	N/A		Part of the same harvest as stand 19, cut 2"+ DBH in 2004 (#024-04). The stand's south half was burned (along with stand 19) in April 2006	
	Canopy Species	% Cover	Size Class	DBł	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	(C72-529). Most of the stand was then within #619-12, cutting stems 2"+DBH in 2013 for a machine gun range. The current cover is from the	
	Jack Pine	70	Sapling	3	17	Blac	k Cherry	Low	Variable	Tall Shrub	earlier treatments: patches of JP with stump-origin NPO and traces of	
N	lorthern Pin Oak	25	Sapling	3	17	Prair	ie Willow	Trace	< 5 feet	Tall Shrub	, , ,	
Е	Bigtooth Aspen	3	Sapling	2	15	Servicebe	rry (Juneberry) Trace	Variable	Tall Shrub		
19	3303 - Mixed Lo	ow Density	Trees	Nonst	ocked	79.6	l	Inspecified	Managed O	pening	Was final harvested in 2004 (#024-04), cutting stems 2"+ DBH, and	
						Sub-Car	nopy Species	Density	Avg. Height	Size	burned in 2006 (C72-529) for pine barrens management. Was then within a 2013 harvest for a new machine gun range (#619-12), but mo	
						Northe	rn Pin Oak	Low	10 - 20 feet	Sapling	of the current regen resulted from the earlier treatments. Set regen age	
						Jac	ck Pine	Low	Variable	Sapling	to the burn. The low-density JP and stump-origin oak sapling cover	
						Prair	ie Willow	Trace	< 5 feet	Tall Shrub	occurs scattered and in patches. Too much snow to make groundcover calls. Steep kettlehole on north edge.	
						Blac	k Cherry	Low	Variable	Tall Shrub	ound. Gloop Retaining on Horar days.	
						Servicebe	rry (Juneberry) Low	Variable	Tall Shrub		



tand	Level 4 C	Cover Type	\$	Size De	nsity	Acres	Stand Age	BA Range	Managed Site		General Comments	
20	3302 - Low Der	nsity Conife	r Trees	Nonsto	cked	72.7		Unspecified	Managed O _l		Was final harvested by early 2013 (#619-12), cutting stems 2"+ DBH. The harvest was requested by the Military to clear ground for a new machine gun range. JP is steadily filling in toward the forested benchmark. Stump-origin NPO cover increases to the north. Kettlehold topography in the north half. Too much snow to make groundcover calls	
							nopy Species		Avg. Height	Size		
							ick Pine	Medium	< 5 feet	Sapling		
							ick Pine	Low	< 5 feet	Seeding	benchmark. Stump-origin NPO cover increases to the north. Kettlehole topography in the north half. Too much snow to make groundcover calls	
						North	ern Pin Oak	Low	5 - 10 feet	Sapling		
						Servicebe	erry (Juneberry	/) Low	< 5 feet	Tall Shrub		
21		ine, Oak Mix		apling N		7.6	17	1-50	N/A		Was final harvested in 2004 (#024-04), cutting merch stems. Stand has two age classes: patchy distribution in large sapling/small pole NPO &	
	Canopy Species		Size Class		Age						JP residual from the cut, and JP-O that regenerated from the cut, along with patch of aspen along the west edge. A MiFI limitation prevents reflecting the second age class. The fingers of the harvest that had majority residual cover were shifted to stand 24	
N	orthern Pin Oak	30	Sapling	2	17							
	Jack Pine	50	Sapling/Pole	2	17							
E	Bigtooth Aspen	5	Sapling/Pole	4	17							
	White Oak	14	Sapling/Pole	2								
	Red Pine	1	Pole/Sapling	6								
22	6233 - W	Vet Meadow	1	Nonsto	cked	0.9	l	Unspecified	No		Marsh wetland in kettlehole: rushes with woolgrass, glyceria, and patches of leatherleaf. This wetland is part of the Frog Lakes Complex Intermittent Wetland ERA.	
23	122 - Roa	nd/Parking L	ot	Nonsto	cked	5.0	l	Unspecified	No		Stephan Bridge Road corridor.	
24	42220 - Nat	tural Jack P	rine P	oletimb	er Well	60.2	55	81-110	N/A		JP filled in well following a 1965 wildfire. The stand has relatively uniform cover in small pole JP. Full stocking resulted in decent self-pruning & straight form, but the stagnating JP cover is self-thinning. Oak stump sprouts from the fire have moved into the pole class. Aspen mixes in by	
(Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
N	orthern Pin Oak	7	Pole/Sapling	7		North	ern Pin Oak	Trace	< 5 feet	Sapling		
	Jack Pine	90	Pole/Sapling	6	55	Blac	ck Cherry	Low	< 5 feet	Tall Shrub	stands 15, 22, 26 & 29. Traces of mature JP that pre-date the fire are	
	White Oak	1	Pole/Sapling	6		W	hite Oak	Trace	< 5 feet	Sapling	scattered across the stand. Less than 2 acres of stand 21's denser residual cover was merged with this stand. OFS point in the center is a	
Е	Bigtooth Aspen	2	Pole	7				- '			steep-sided kettlehole with a small wetland at the bottom. OFS point on the west edge is a ditch bog. Rolling to steeply rolling terrain.	
25	42220 - Nat	tural Jack P	ine Po	oletimb	er Poor	r 55.7	46	1-50	N/A		Patchy JP cover filling in an area noted to have burned in a 1958 wildf	
(Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Trees cored last YOE pointed to a more recent regen event. Open-grow form is common, with cleaner stems only in the dense patches. The subcanopy blurs into the canopy layer, making the canopy appear fuller. Stump-origin NPO pole cover is mostly on the stand's perimeter, along with traces of aspen. About a dozen residual NPO saw in the SW end. Terrain is steeply rolling, with frost pocket depressions. OFS point is a sub-acre wetland.	
N	orthern Pin Oak	10	Pole/Sap/Log	6		Northe	ern Pin Oak	Trace	5 - 10 feet	Sapling		
	Jack Pine	85	Pole	7	46	Ja	ick Pine	Low	Variable	Sapling		
(Quaking Aspen	2	Pole/Sapling	5		Blac	ck Cherry	Low	Variable	Tall Shrub		
Е	Bigtooth Aspen	2	Pole/Sapling	6		Prai	rie Willow	Trace	< 5 feet	Tall Shrub		
	White Oak	1	Pole/Sapling	5		Servicebe	erry (Juneberry	/) Trace	Variable	Tall Shrub		
26	6233 - W	Vet Meadow	ı	Nonsto	cked	1.0	l	Unspecified	No		Marsh wetland in kettlehole: rushes with patches of leatherleaf, some glyceria & woolgrass. This wetland is part of the Frog Lakes Complex	

DNR DNR

Stand	Level 4 Co	over Type	s	ize De	nsity	Acres Stand Age B	A Range	Managed S	Site	General Comments		
27	6233 - W	et Meadov	1 v	Vonsto	cked	0.9 U	nspecified	No		wo kettleholes (separated by a low ridge) that contain wetlands: ruvith woolgrass, trace of leatherleaf. This wetland is part of the Frogakes Complex Intermittent Wetland ERA.		
28	4191 - Mixed Upla Co	and Decidu nifer	uous with Po	letimb	er Wel	I 27.3 52	51-80	N/A		oted to have burned within a 1965 wildfire. Two-aged stand with pole gen from the fire (JP-BRO-WO-A-RM) and residual saw that survived		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	regen from the fire (JP-BRO-WO-A-RM) and residual saw that survived the fire (WO-BRO-JP-RP). Due to a MiFI limitation, the immature and mature oak had to be merged into one canopy record per species. The younger age was chosen to represent the BRO, and the mature age for the WO.		
	Red Maple	10	Pole/Sapling	5		White Oak	Low	Variable	Sapling			
	White Oak	15	Log/Pole/XLog	12	106	Black/Red (Hybrid) Oak	Trace	< 5 feet	Sapling			
	Bigtooth Aspen	14	Pole	7		Black Cherry	Low	Variable	Tall Shrub			
Bla	ck/Red (Hybrid) Oak	25	Pole/Sap/Log	6	52				-			
	Jack Pine	35	Pole	7	52							
29	4126 - White, E	Black, N. P	in Oak Sa	wtimb	er Poo	r 23.1 102	1-50	N/A		Was shelterwood harvested in 2009 (#652-06), cutting stems 2"+ DBł except RP-WP-green marked (26 sq. ft.) with WO favored for residual		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	over the hybridized BRO/NPO. Scattered canopy RP-JP-WP and the occasional uncut aspen pole. Combined full understory cover in O-RM-A. Most of the dense oak sapling cover is above the browse line.		
	White Oak	76	Log/Pole/XLog	14	102	Red Maple	Low	10 - 20 feet	Seeding			
Bla	ck/Red (Hybrid) Oak	20	Log/XLog	15		White Oak	High	Variable	Sapling			
	Red Pine	2	Log/XLog	16		Bigtooth Aspen	Low	10 - 20 feet	Sapling			
	Jack Pine	1	Pole/Log	9		Black/Red (Hybrid) Oak	Medium	Variable	Sapling			
	White Pine	1	Pole/Log	9		White Oak	Low	< 5 feet	Seeding			
				,		Witch Hazel	Trace	5 - 10 feet	Tall Shrub			
30	42220 - Nati				Medium		mmature	N/A		Was final harvested in 1994 (#201-93) cutting stems 4"+ DBH. JP sapling regen from the cut, along with stump-origin oak & small patches		
	Canopy Species		Size Class		Age	Sub-Canopy Species	Density	Avg. Height	Size	of struggling QA. The harvest left scattered residual pole JP & NPO, and		
	Quaking Aspen	2	Sapling	2	27	Black Cherry	Low	Variable	Tall Shrub	traces of red pine.		
	Northern Pin Oak	5	Sapling/Pole	4	27							
	Jack Pine	92	Sapling/Pole	4	27							
	Red Pine	1	Log/Pole	11								
31	3302 - Low Den	sity Conife	er Trees 1	Vonsto	cked	19.8 U	nspecified	Managed O	pening	Was part of the same harvest as stands 30 & 32 (cut 4"+ DBH in 1994,		
						Sub-Canopy Species	Density	Avg. Height	Size	#201-93) but was then burned in a 1999 wildfire (Crawford #44). Fire let only small patches of JP saps alive. The oak & cherry re-sprouted. Rolling terrain, with small marsh wetland inclusion in the NW (OFS point). Too much snow to make groundcover calls.		
						Black Cherry	Low	Variable	Tall Shrub			
						Northern Pin Oak	Trace	Variable	Sapling			
						Jack Pine	Low	Variable	Sapling			
						Serviceberry (Juneberry)		Variable	Tall Shrub			
						Prairie Willow	Trace	< 5 feet	Tall Shrub			
32	42220 - Nati	ural Jack F	Pine Sa	pling N	Лedium	1 4.4 27 I	mmature	N/A		Was final harvested in 1994 (#201-93) cutting stems 4"+ DBH. Filled in		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	with JP sapling regen and traces of NPO stump sprouts. Same harvest as stand 30 but split off by burned stand 31. Almost no residual in this		
	Northern Pin Oak	2	Sapling	3	27	Black Cherry	Low	Variable	Tall Shrub	portion of the harvest.		
	Jack Pine	98	Sapling	3	27							



Stan	d Level 4 C	over Type	5	Size De	nsity	Acres	Stand Age	BA Range	Managed Site		General Comments	
33	42220 - Nat	tural Jack P	rine P	oletimb	er Well	240.8	54	51-80	N/A		JP filled in densely following a 1965 wildfire. The stand has relatively uniform cover in small pole JP. Full stocking resulted in good self-	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Northern Pin Oak	4	Pole/Sapling	5		Blac	ck Cherry	Low	< 5 feet	Tall Shrub	pruning & straight form, but growth is stagnating; the JP cover is self-thinning. NPO stump sprouts from the fire are moving into the pole class. Mature overstory oak mix in along the transition zone with adjacent oak types to the north & northwest. Traces of aspen occur there also. Older JP that pre-date the fire are scattered across the stage.	
	Jack Pine	95	Pole/Sapling	6	54	Northe	ern Pin Oak	Trace	Variable	Sapling		
	Bigtooth Aspen	1	Pole	7		Wh	nite Oak	Trace	Variable	Sapling		
											and there is a pocket of mature JP along the west edge of stand 34. Ran across one xlog WP. On rolling terrain. OFS point in the NE is a steep-sided kettlehole with a small wetland at the bottom.	
34	42220 - Nat	tural Jack P	ine Po	oletimb	er Poor	131.4	53	1-50	N/A		JP slowly filling in following 1958 wildfire. Variable distribution, open-grown form common. Blurred line between canopy and subcanopy levels. JP regen makes the canopy appear fuller. Dotted with small kettleholes, no wetlands encountered. A four-acre inclusion in the SE was final harvested in 2004 (#024-04), cutting merch stems.	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Northern Pin Oak	1	Pole/Log/Sap	7		Northe	ern Pin Oak	Trace	Variable	Sapling		
	Jack Pine	99	Pole/Log	8	53	Ja	ck Pine	Medium	Variable	Sapling		
						Blac	ck Cherry	Trace	Variable	Tall Shrub		
35	42220 - Nat	tural Jack P	ine P	oletimb	er Well	65.8	52	51-80	N/A		JP established better within this vortice strip left by the1958 wildfire. Patches of dense pole cover are separated by sparser, open-grown JP. Occasional NPO stump-origin clumps.	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	S Density	Avg. Height	Size		
	Jack Pine	98	Pole/Sapling	6	52		ern Pin Oak	Trace	Variable	Sapling		
	Northern Pin Oak	2	Pole	7			ck Cherry	Low	Variable	Tall Shrub		
	4000										I	
36	42220 - Nat					111.0	54	51-80	N/A		JP slowly filling in following 1958 wildfire. Variable distribution; from sparse & open-grown to densely-stocked patches. Blurred line between	
	Canopy Species		Size Class		Age		nopy Species		Avg. Height	Size	canopy and subcanopy levels. JP regen makes the canopy appear	
	Northern Pin Oak	3	Pole/Sap/Log				ck Pine	Low	Variable	Sapling	fuller. Scattered NPO, mostly stump-sprouts, traces of QA. Canopy averages near the low end of 50-75% cover. Stand is dotted with frost	
	Jack Pine	97	Pole	7	54		ern Pin Oak	Trace	Variable	Sapling	nocket depressions	
						Blac	ck Cherry	Trace	Variable	Tall Shrub		
37	6233 - W	/et Meadow	1	Nonsto	ocked	3.1	0 (Unspecified	No		Full ice cover. Rimmed with sedge. This wetland is part of the Frog Lakes Complex Intermittent Wetland ERA.	
38	42220 - Nat	tural Jack P	ine Pol	etimbe	Medium	n 45.7	51	1-50	N/A		Former range area. Start of tree colonization visible on the 1963 air photos. Open-grown form common. Blurred line between the canopy and	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	subcanopy layers. JP regen makes the canopy appear fuller. Scattered	
	Northern Pin Oak	3	Pole/Sapling	6		Blac	ck Cherry	Trace	Variable	Tall Shrub	stump-origin NPO poles.	
	Jack Pine	97	Pole	7	51	Ja	ck Pine	Medium	Variable	Sapling		
39	42220 - Nat	tural Jack P	ine	Sapling	Poor	54.3	16	Immature	N/A		Was final harvested in 2004 (#024-04), cutting merch stems. Part of the 2012 By human part of th	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	same harvest as stand 40 but was excluded from the 2012 Rx burn and now meets the forested benchmark. Cover is patchy JP sapling regen	
	Jack Pine	95	Sapling/Pole	2	16	Blac	ck Cherry	Trace	Variable	Tall Shrub	from the cut and sap-pole residual. Stump-origin oak from the cut also.	
	Northern Pin Oak	5	Sapling/Pole	3	17						Ground is flat except for a kettlehole with the OFS point bog (leatherleaf w/ perimeter woolgrass).	



MICHIGAN .	General Comments	ite	Managed S	A Range	nd Age B	Acres	nsity	Size De	e s	over Type	Level 4 C	Stand
	Was final harvested in 2004 (#024-04), cutting merch stems	ening	Managed Op	specified	Uı	94.3	cked	Nonst	fer Trees	sity Conif	3302 - Low Der	40
	stand was then burned in Sept 2012 (M72-641, includes ad 262 stand 18), part of the North Camp Grayling Pine Barrer	Size	Avg. Height	Density	/ Species	Sub-Can						
	Management Area. The harvest & burn left patches of sap-	Seeding	< 5 feet	Low	ine	Jac						
	scattered across the stand. JP is filling in post-burn but the cover abo B' tall hasn't reached the forested benchmark yet. Variable distribution JP. Looks like a pine barrens. Too much snow to make groundcover calls. OFS point in NE is a wetland in a steep kettlehole, part of the F		Unspecified	Trace	ine	Jac						
			5 - 10 feet	Trace	in Oak	Northe						
			< 5 feet	Low	ine	Jac						
_	Lakes Complex Intermittent Wetland ERA.	Tall Shrub	Variable	Low	nerry	Black						
			< 5 feet	Low	Juneberry)	Serviceber						
	Stand was within an area that appeared heavily burnt-over on the 1938 air photos, with scattered residual cover increasing toward the lake. Current canopy is broadly two-aged across the JP & oak, with poles their		N/A	1-50	55	84.2	er Poor	Sawtimb	⁄lix S	ne, Oak M	4310 - Pi	41
		Size	Avg. Height	Density	y Species	Sub-Can	Age	DBI	er Size Class	% Cove	Canopy Species	(
mid-50's and sawtimber 85+ years old. Variable canopy distribution;	Sapling	10 - 20 feet	Low	in Oak	Northe	87	g 13	Log/Pole/XLog	40	lorthern Pin Oak	No	
the sideslope	drifts off either side of 50%. Canopy closure increases on the sideslop down to the lake; oak increases there also. Well-established JP saplir understory makes the canopy appear fuller. Mortality increasing in the overmature JP & NPO. Stand's SE edge picks up the now-forested pa of the adjacent former range. OFS point is a small wetland that is part the Frog Lakes Complex intermittent wetland ERA.	Sapling	10 - 20 feet	Medium	ine	Jac	55	8	Pole/Log	54	Jack Pine	
		Tall Shrub	Variable	Low	nerry	Black		g 12	Log/Pole/XLog	3	Red Pine	
w-forested part		Tall Shrub	5 - 10 feet	Trace	Juneberry)	Serviceber		11	Log/Pole	2	White Oak	
d that is part of								8	Pole/Log	1	Quaking Aspen	C
	Duck Lake. Full ice cover. Rimmed with rushes, woolgrass, calamagrostis. Informal lake access point at SE end. Small wetland north end ties into the lake through a narrow channel. Former range area. Start of tree colonization visible on the 1963 air photos. West edge of range that is now forested was shifted to stand 41. The majority Non-forested portion is a grassy opening with colon		No	specified	0 Uı	13.0	cked	Nonst		- Water	500	42
			No	specified	Uı	22.2	cked	Nonst	enland	eous Ope	310 - Herbac	43
			Avg. Height	Density	/ Species	Sub-Can						
, <u></u>	JP and scattered stump-origin NPO.	Pole	>20 feet	Trace	in Oak	Northe						
		Sapling	Variable	Low	ine	Jac						