



Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72011

Entry Year 2021

Acreage: 2,097

County Oscoda

Management Area: AuSable Outwash

Revision Date: 2019-07-09

Stand Examiner: Kevin Ehlert

Legal Description:

T27N, R02E Section 4 and 5 and T28N, R02E Section 32 and 33, Elmer Township.

Identified Planning Goals:

To maintain species and structural diversity while addressing sustainability, forest health, wildlife habitats, aesthetics and recreational opportunities throughout the compartment.

Soil and topography:

The soils types within the compartment consist of well-drained Grayling and Graycalm sands. The topography throughout the compartment consists of flat to rolling terrain.

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

Ownership within the compartment is primarily State land with the exception of a large area of privately owned parcels located in Sections 32 and 33. Scattered residences, mostly seasonal, exist on these parcels. There is heavy residential use of the State land.

Unique Natural Features:

None known. The potential to have threatened or endangered species of plants and animals within the compartment does exist. Kirtland's Warbler habitat is directly adjacent to the west boundary of the compartment

Archeological, Historical, and Cultural Features:

See Locked Comments.

Special Management Designations or Considerations:

No special designations. Compartment is a major recreational area. The recreational trail system is a major factor to consider when prescribing forest treatments.

Watershed and Fisheries Considerations:

This compartment is in the Au Sable River watershed, and contains a portion of Noodles Lake. Fisheries has no concerns with the prescribed management activities.

Wildlife Habitat Considerations:

To manage and maintain existing cover types and habitats for both non-game and game species. There is several managed wildlife openings within this compartment and plans to continue managing them in an open state.

Mineral Resource and Development Concerns and/or Restrictions

The nearest active sand/gravel pit is located three miles to the southeast, but there appears to be good sand & gravel potential within the compartment. The compartment is located within the southern extent of the Antrim Shale gas play. Some of the compartment has been developed for natural gas, but all wells within the compartment have been plugged and abandoned. There is still active production occurring to the northeast and north. There is unlikely to be further Antrim development within the compartment, and there is no other known oil & gas potential in this area. There is no known metallic mineral potential in this part of the state.

Vehicle Access:

Most of the compartment is easily accessible from the county roads system. County roads include Richardson, Penn, Noodles Lake, Nancy Brown, Farrington and Centerline. There are several state forest roads that branch off of these roads in which dead end at closed oil and gas well sites. Any newly constructed forest access routes due to the treatment of stands within the compartment need to be closed when treatments are done.

Survey Needs:

Survey corners exist throughout most of the compartment and therefore there should be no survey needs at this time.

Recreational Facilities and Opportunities:

There are no recreational facilities, but there are several designated recreational trails that traverse through the compartment. These trails include portions of the Muskrat Lake Snowmobile Trail #4/9, the Mio Loop ORV trail, and the Mio ORV Route. Muskrat Lake State Forest Campground (temporarily closed) and an ORV staging area exist within the adjacent compartment to the south. Other recreational opportunities include hunting, mushroom/berry picking, and bird and wildlife watching in this compartment.

Fire Protection:

Access for fire equipment is not a problem. Most of the compartment is accessible by County Roads. Nearby water sources include Noodles Lake and Muskrat Lake. The fire protection for this compartment is the Mio DNR and the Tri-Town Fire Department.

Additional Compartment Information:

A spacing study for White Pine Weevil is located in the N1/2 of Section 5. Several stands harvested during the 2001 YOE were recommended for the planting of Jack Pine and were not planted. These stands have naturally regenerated to a mix of species. This study has not continued.

The following reports from the Inventory are attached:

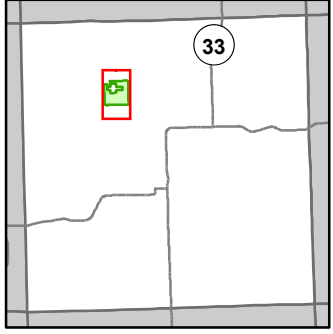
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

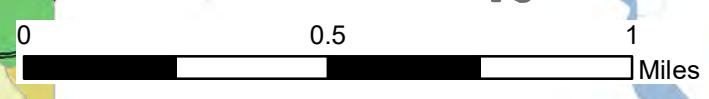
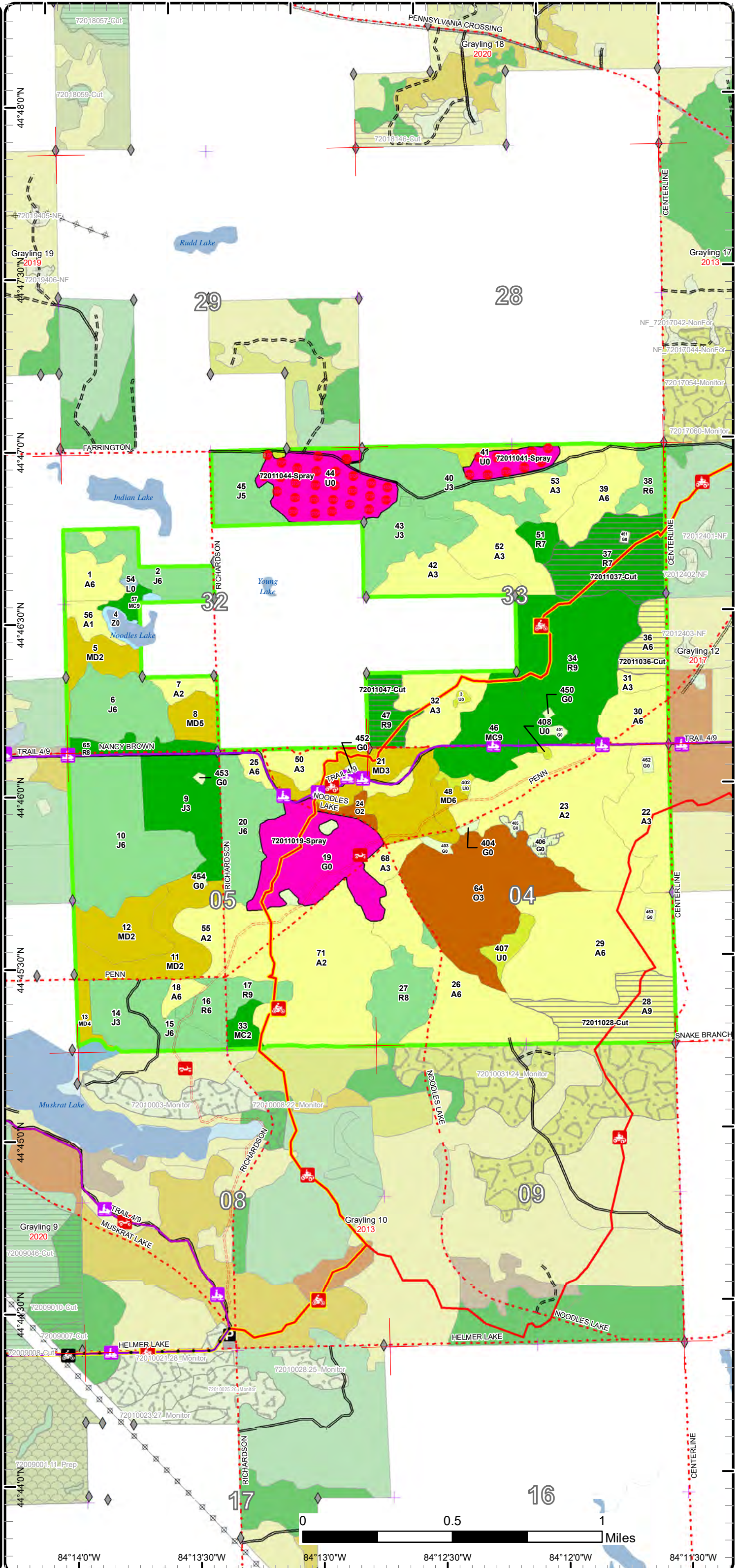
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 11
 T28N, R02E, Sec. 32-33nT27N,
 R02E, Sec. 4-5
 County: Oscoda
 Unit: Grayling
 Mgmt Area: AuSable Outwash
 YOE: 2021
 Acres: 2,097 GIS Calculated
 Examiner: Kevin Ehlert
 Map Revised: 11/26/2019
 Map Phase: Post-Review



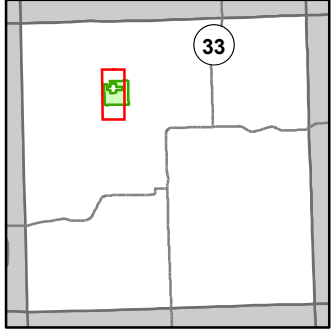
- Miris Corners
- Remonumented Section Corners
- Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- Motorcycle Trails (SOS License)
- MCCCT Trails
- ORV Trails
- ORV Routes
- Snowmobile Trails
- ORV License
- Designated ATV
- Designated ORV Route
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- Lake/Pond
- Lakes and Rivers
- Parking Lot
- Sign
- Pipeline
- Powerline
- Compartment Boundary
- ****INCORRECT ATTRIBUTES****
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub



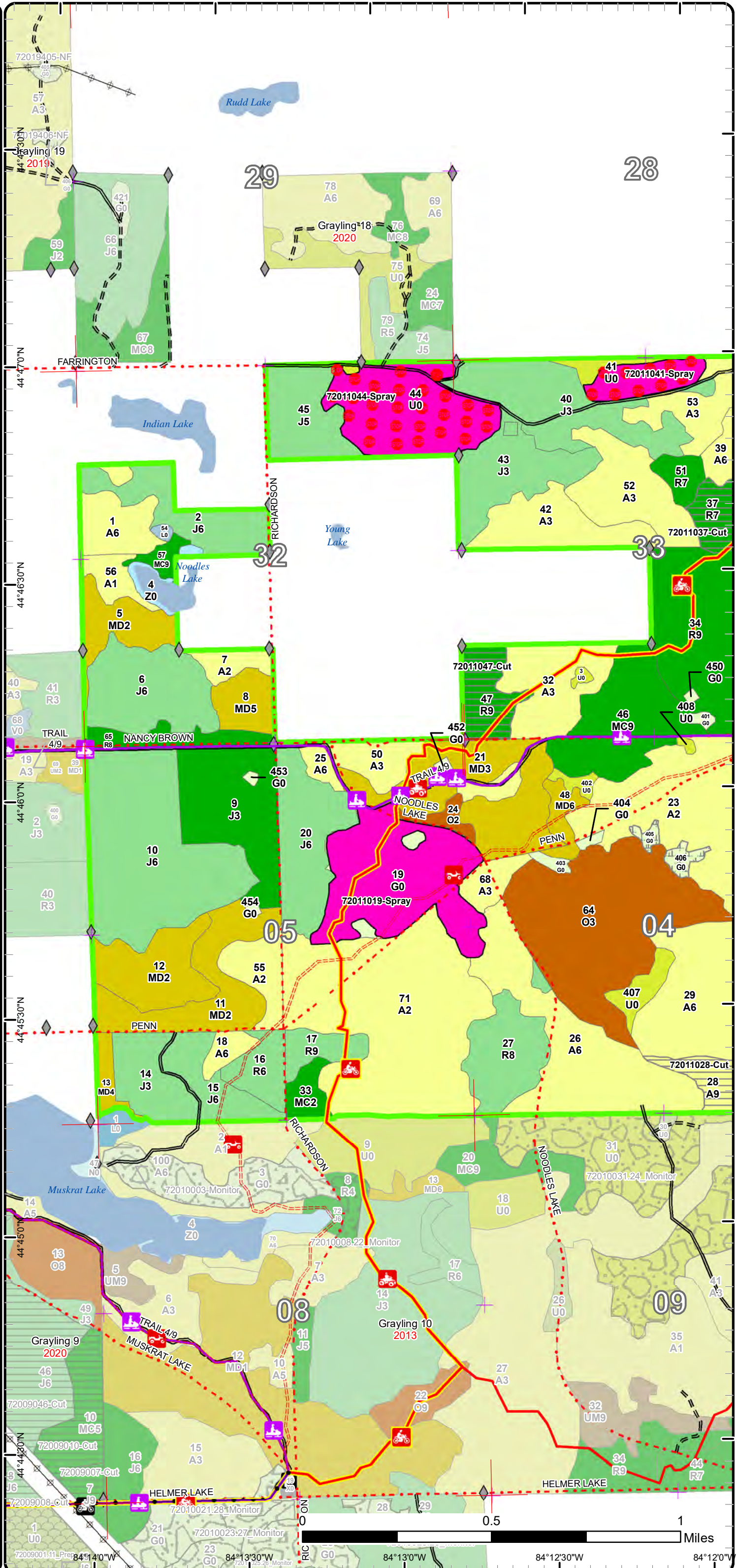
84°14'0"W 84°13'30"W 84°13'0"W 84°12'30"W 84°12'0"W 84°11'30"W

Cover Type & Treatments Map

Compartment: 11
 T28N, R02E, Sec. 32-33nT27N,
 R02E, Sec. 4-5
 County: Oscoda
 Unit: Grayling
 Mgmt Area: AuSable Outwash
 YOE: 2021
 Acres: 2,097 GIS Calculated
 Examiner: Kevin Ehlert
 Map Revised: 11/26/2019
 Map Phase: Post-Review

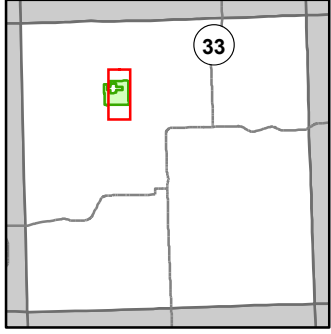


- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- 🏍️ Motorcycle Trails (SOS License)
- 🏍️ MCCCT Trails
- 🏍️ ORV Trails
- 🏍️ ORV Routes
- 🏍️ Snowmobile Trails
- ORV License
- Designated ATV
- Designated ORV Route
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- Lake/Pond
- Lakes and Rivers
- P Parking Lot
- ⏹ Sign
- ⚡ Powerline
- Compartment Boundary
- **INCORRECT ATTRIBUTES****
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub

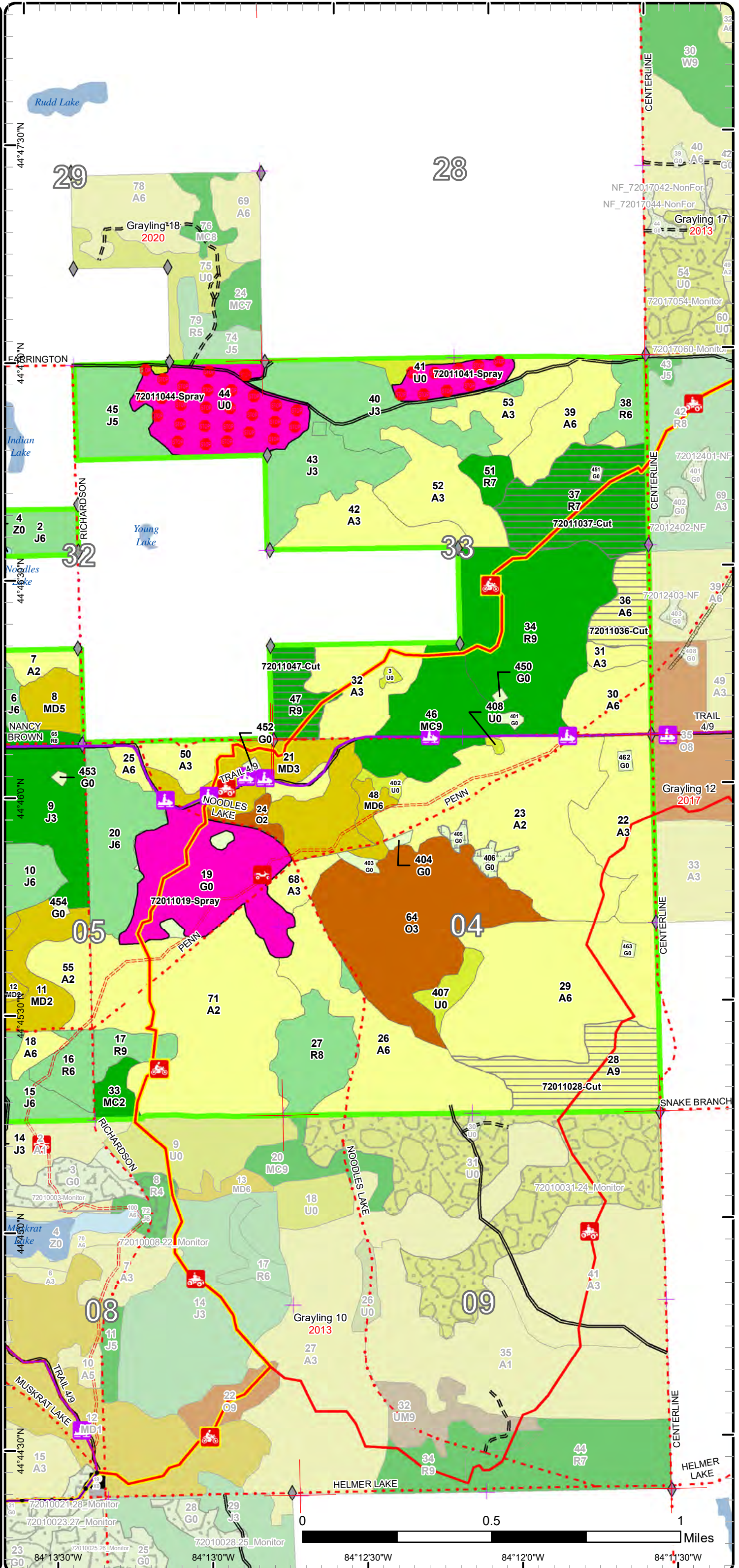


Cover Type & Treatments Map

Compartment: 11
 T28N, R02E, Sec. 32-33nT27N,
 R02E, Sec. 4-5
 County: Oscoda
 Unit: Grayling
 Mgmt Area: AuSable Outwash
 YOE: 2021
 Acres: 2,097 GIS Calculated
 Examiner: Kevin Ehlert
 Map Revised: 11/26/2019
 Map Phase: Post-Review

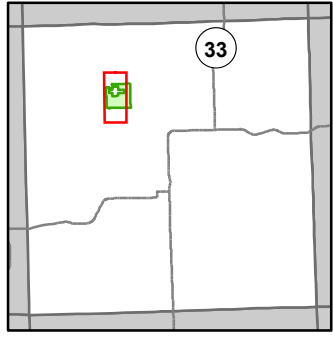


- Miris Corners
- Remonumented Section Corners
- Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- MCCCT Trails
- ORV Trails
- ORV Routes
- Snowmobile Trails
- ORV License
- Designated ATV
- Designated ORV Route
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- Lake/Pond
- Lakes and Rivers
- Parking Lot
- Sign
- Pipeline
- Compartment Boundary
- **INCORRECT ATTRIBUTES**
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 310 - Herbaceous Openland
- 330 - Low Density Trees

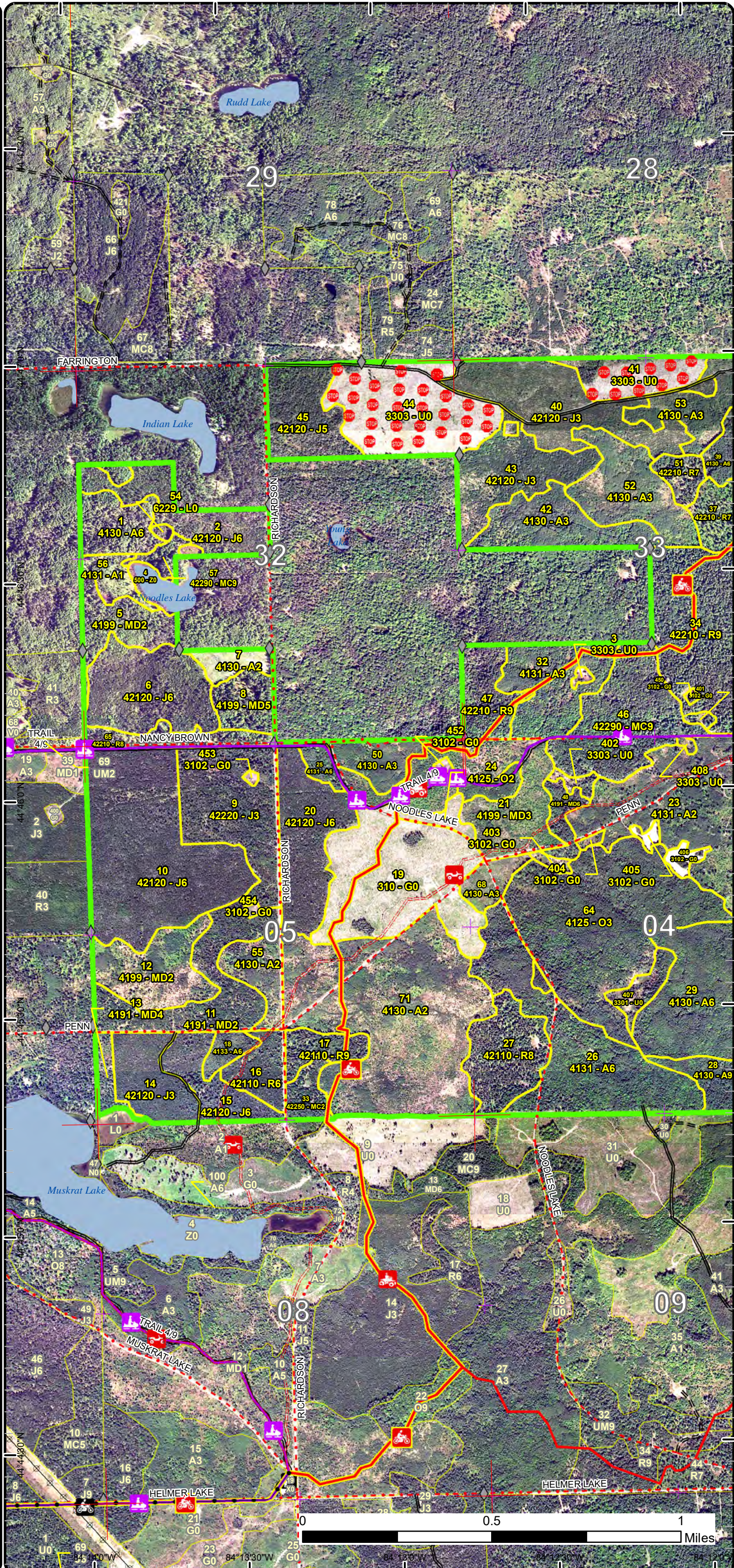


Stand Boundary Map

Compartment: 11
 T28N, R02E, Sec. 32-33nT27N,
 R02E, Sec. 4-5
 County: Oscoda
 Unit: Grayling
 Mgmt Area: AuSable Outwash
 YOE: 2021
 Acres: 2,097 GIS Calculated
 Examiner: Kevin Ehlert
 Map Revised: 11/26/2019
 Map Phase: Post-Review

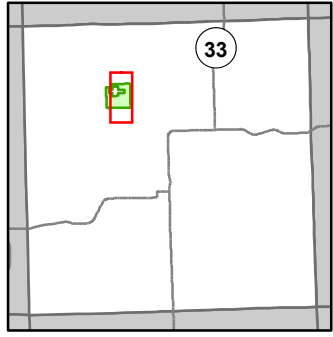


- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- Motorcycle Trails (SOS License)
- MCCCT Trails
- ORV Trails
- ORV Routes
- Snowmobile Trails
- ORV License
- Designated ATV
- Designated ORV Route
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- Lake/Pond
- Lakes and Rivers
- P Parking Lot
- Sign
- + Powerline
- Compartment Boundary
- Stand Boundaries
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub

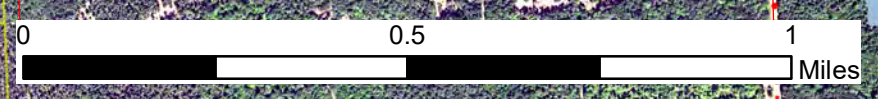
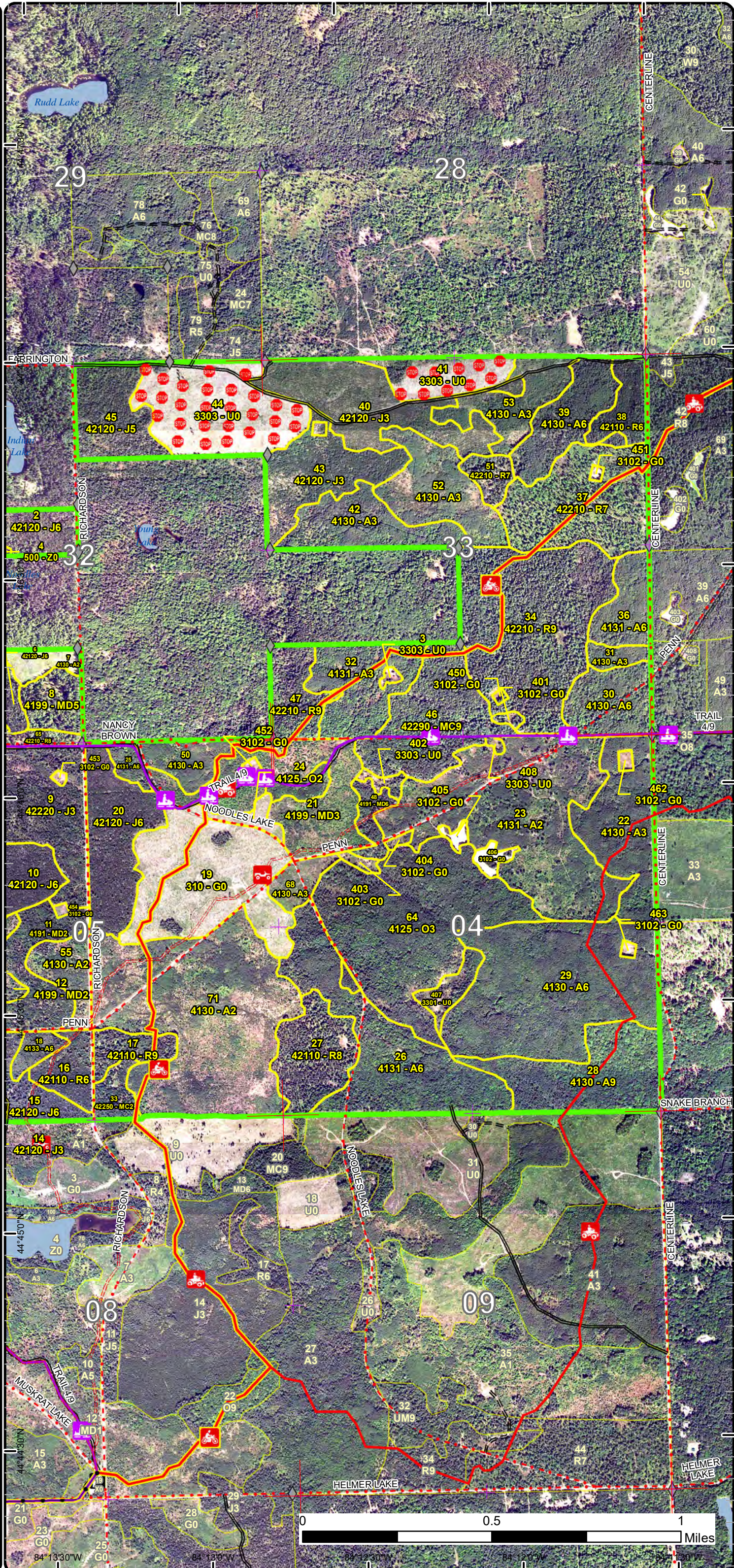


Stand Boundary Map

Compartment: 11
 T28N, R02E, Sec. 32-33nT27N,
 R02E, Sec. 4-5
 County: Oscoda
 Unit: Grayling
 Mgmt Area: AuSable Outwash
 YOE: 2021
 Acres: 2,097 GIS Calculated
 Examiner: Kevin Ehlert
 Map Revised: 11/26/2019
 Map Phase: Post-Review



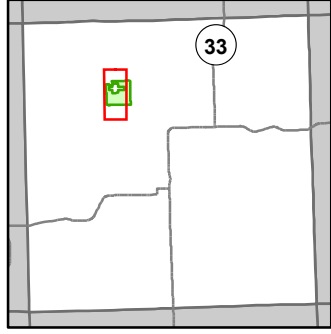
- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- 🚲 MCCCT Trails
- 🚲 ORV Trails
- 🚲 ORV Routes
- 🚲 Snowmobile Trails
- ORV License
- Designated ATV
- - - Designated ORV Route
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- Lake/Pond
- Lakes and Rivers
- P Parking Lot
- STOP Sign
- Pipeline
- Compartment Boundary
- Stand Boundaries
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 310 - Herbaceous Openland
- 330 - Low Density Trees



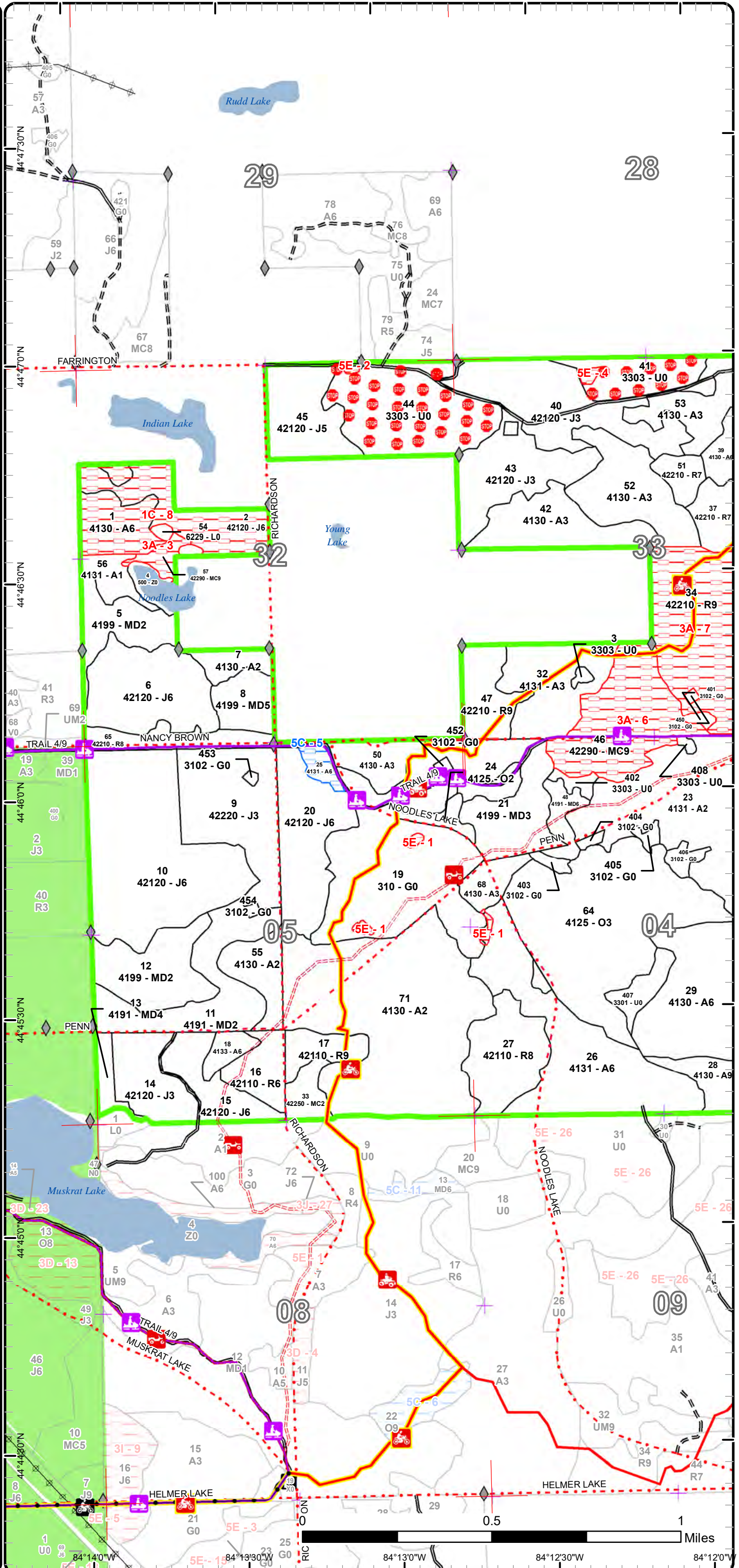
84°13'30"W 84°13'0"W 84°12'30"W 84°12'0"W 84°11'30"W

Special Conservation Areas

Compartment: 11
 T28N, R02E, Sec. 32-33nT27N,
 R02E, Sec. 4-5
 County: Oscoda
 Unit: Grayling
 Mgmt Area: AuSable Outwash
 YOE: 2021
 Acres: 2,097 GIS Calculated
 Examiner: Kevin Ehlert
 Map Revised: 11/26/2019
 Map Phase: Post-Review

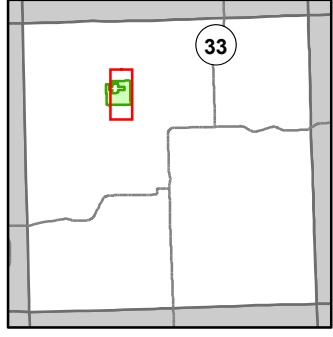


- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- 🏍️ Motorcycle Trails (SOS License)
- 🏍️ MCCCT Trails
- 🚙 ORV Trails
- 🚙 ORV Routes
- 🚙 Snowmobile Trails
- ORV License
- Designated ATV
- Designated ORV Route
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- Lake/Pond
- Lakes and Rivers
- P Parking Lot
- STOP Sign
- ⚡ Powerline
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 1C: Other dept or div proc/practices
- 3A: Conservation Values incompatible with harvest at this time
- 5E: Long-Term Retention
- Stand Boundaries
- Kirtland Warbler Habitat

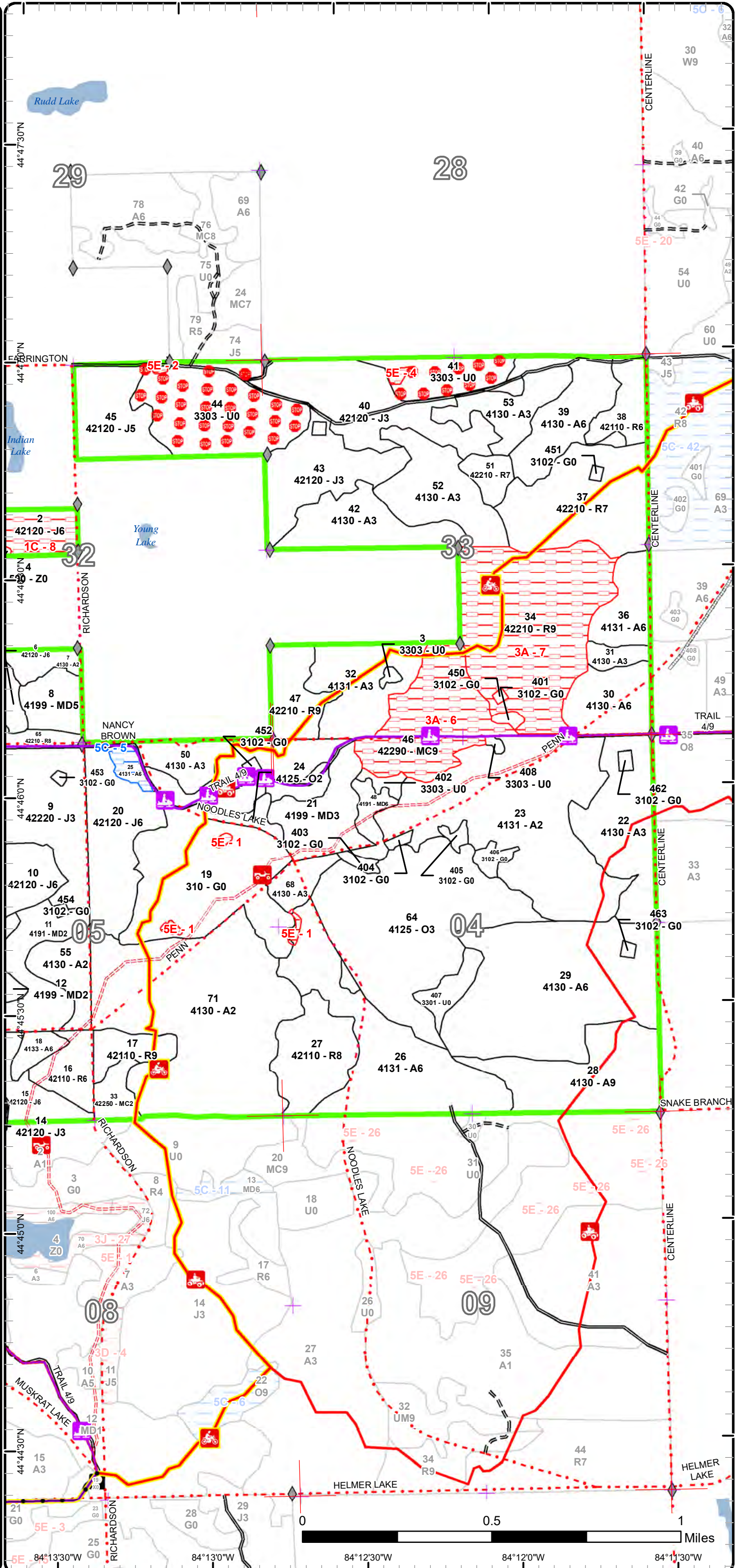


Special Conservation Areas

Compartment: 11
 T28N, R02E, Sec. 32-33nT27N,
 R02E, Sec. 4-5
 County: Oscoda
 Unit: Grayling
 Mgmt Area: AuSable Outwash
 YOE: 2021
 Acres: 2,097 GIS Calculated
 Examiner: Kevin Ehlert
 Map Revised: 11/26/2019
 Map Phase: Post-Review



- Miris Corners
- + Remonumented Section Corners
- ◆ Field Grade Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- 🚲 MCCCT Trails
- 🚲 ORV Trails
- 🚲 ORV Routes
- 🚲 Snowmobile Trails
- ORV License
- Designated ATV
- Designated ORV Route
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)
- Lake/Pond
- Lakes and Rivers
- P Parking Lot
- STOP Sign
- Pipeline
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 1C: Other dept or div proc/practices
- 3A: Conservation Values incompatible with harvest at this time
- 5E: Long-Term Retention
- Stand Boundaries



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	28	346	117	237	30	75	0	0	0	0	0	0	0	0	0	0	0	833
Herbaceous Openland	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92
Jack Pine	0	0	54	88	293	0	0	0	0	0	0	0	0	0	0	0	0	0	435
Low-Density Trees	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93
Lowland Shrub	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Mixed Upland Deciduous	0	0	93	42	43	0	0	9	0	0	0	0	0	0	0	0	0	0	187
Natural Mixed Pines	0	0	0	9	0	0	0	0	0	0	0	0	0	0	5	0	0	51	65
Oak	0	5	0	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	109
Red Pine	0	0	0	0	30	0	14	8	91	20	12	0	0	0	0	0	0	98	273
Water	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	194	33	493	256	707	30	89	17	91	20	12	0	0	0	5	0	0	149	2096



Report 2 – Treatment Summary

Grayling Mgt. Unit

Year of Entry: 2021

Acres of Harvest

Compartment 11

Total Compartment Acres: 2,097

Commercial Harvest - 147
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	69	0	0	0	0	0	0	0	0	69
Red Pine	78	0	0	0	0	0	0	0	0	78
Total	147	0	0	0	0	0	0	0	0	147

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	147	0	0	0	0	144	0	0	6	297
Next Step	0	156	78	0	0	78	298	78	0	689
Total	147	156	78	0	0	222	298	78	6	986



S
t
a
n
d

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

Approved Treatments:

19	72011019-Spray	72.4	310 - Herbaceous Openland	Nonstocked	0		Pesticide	ERROR	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Release spray to achieve 80% free to grow status for planted red pine. Go around pockets that have little to no competition. Aerial spray along with C72-791.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> ; Monitoring, Herbicide Use</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Well stocked RP</p> <p><u>Regen:</u></p> <p><u>Other</u> Percent to Treat = 100%</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2019</p>											
28	72011028-Cut	50.0	4130 - Aspen	Sawtimber Well	51	111-140	Harvest	Clearcut with Retention	4131 - Aspen, Oak	Even-Aged	No
<p><u>Prescription</u> Final harvest all species 2" and up except red and white pine over 18" DBH. Follow standard retention guidelines using area based retention. Protect the ATV trail that runs through the stand. Include drumming log spec.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Expect a fully stocked stand of aspen with mixed deciduous and scattered red and white pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Consider some of the steeper area in the East half of the stand for retention. PVT line needed on East boundary.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>											
36	72011036-Cut	18.8	4131 - Aspen, Oak	Poletimber Well	51	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Final harvest stand. Follow standard retention guidelines using area based retention. Include drumming log spec. Protect the pipeline that runs parallel to Centerline Road.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> A fully stocked stand of aspen and mixed associated species including oak and maple.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>											



S
t
a
n
d

Treatment ID	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
37	72011037-Cut	58.0	42210 - Natural Red Pine	Sawtimber Poor	79	1-50	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Final harvest all species. Use 1" cutting spec to eliminate as much of the currently present non desirable sub canopy as possible. Utilize area based retention, focusing around groups of legacy trees, particularly on the East boundary of the stand. Include ORV trail protection specs. Use necessary means including roller chopping, trenching, and pesticide to prep site for red pine planting.</p> <p><u>Next Step</u> SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Artificial Regen(1yr);</p> <p><u>Treatments:</u> Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand</p> <p><u>Acceptable Regen:</u> Well stocked stand of planted red pine</p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>											
41	72011041-Spray	15.5	3303 - Mixed Low Density Trees	Nonstocked	0	Unspecified	Pesticide	ERROR	42110 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Release spray to reduce deciduous competition.</p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Planted red pine</p> <p><u>Other Comment:</u> Percent to Treat = 100%</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2019</p>											
44	72011044-Spray	56.3	3303 - Mixed Low Density Trees	Nonstocked	0	Unspecified	Pesticide	ERROR	42110 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Planted red pine</p> <p><u>Other Comment:</u> Percent to Treat = 100%</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2019</p>											
47	72011047-Cut	20.2	42210 - Natural Red Pine	Sawtimber Well	83	141-170	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Final harvest all species 2" and up. Utilize area based retention. Retain legacy trees through placement of retention. Include low stump spec. Utilize necessary site prep including roller chopping, trenching, and pesticide application to establish a fully stocked red pine plantation. Protect ATV trail.</p> <p><u>Next Step</u> SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Artificial Regen(1yr);</p> <p><u>Treatments:</u> Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand</p> <p><u>Acceptable Regen:</u> A fully stocked stand of planted red pine.</p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>											



S
t
a
n
d

Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
405 72011405-NF	2.1	3102 - Grass	Nonstocked			NonForestMgt	Other - Specify	3102 - Grass		No
<p><u>Prescription</u> Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing, brushing, tree and shrub planting, Rx burning and herbicide application.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>										
406 72011406-NF	3.8	3102 - Grass	Nonstocked			NonForestMgt	Other - Specify	3102 - Grass		No
<p><u>Prescription</u> Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing, brushing, tree and shrub planting, Rx burning and herbicide application.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u></p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2020</p>										

Total Treatment 297.1
Acreage Proposed:

Report 4 – Site Conditions

Grayling Mgt. Unit
Kevin Ehlert : Examiner

Compartment: 11
Year of Entry: 2021

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions			
		With Condition	Not Available		5C	1C	3A	5E
832	804	6	23	Aspen	6	22	0	1
92	91	0	2	Herbaceous Openland				2
435	404	0	32	Jack Pine		32	0	
93	91	0	2	Low-Density Trees				2
1	1	0	0	Lowland Shrub			0	
186	186	0	0	Mixed Upland Deciduous				
65	9	0	56	Natural Mixed Pines			56	
110	110	0	0	Oak				
274	176	0	98	Red Pine	0		98	
8	8	0	0	Water			0	
2,097	1,879	6	212	Total Forested Acres	6	53	154	5
	90%	0%	10%	Relative Percent				

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Unavailable	3A: Conservation Values incompatible with harvest at this time	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand adds structural diversity to the area adjacent to Noodles Lake.							

Report 4 – Site Conditions

Grayling Mgt. Unit
Kevin Ehlert : Examiner

Compartment: 11
Year of Entry: 2021

4	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Delay harvest and treat with stand 20. This will allow stands 21 and 50 to advance more before harvesting this small stand adjacent to snowmobile trail.							
6	Unavailable	3A: Conservation Values incompatible with harvest at this time	51	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	3A: Conservation Values incompatible with harvest at this time	98	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	1C: Other dept or div proc/practices	53	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 5 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
----------	--------------	-------------	----------------	-------

Comments



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																									
1	4130 - Aspen	Poletimber Well	21.6	35	81-110	N/A	Mixed stand. Multiple aspen clones with pockets that are more open with oak or mixed conifer. Southwest and Southeast corners contain some larger log size red and white pines that were retained in previous harvest.																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>75</td> <td>Pole/Sap/Log</td> <td>7</td> <td>35</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Bigtooth Aspen	75	Pole/Sap/Log	7	35																																					
Canopy Species	% Cover	Size Class	DBH	Age																																												
Bigtooth Aspen	75	Pole/Sap/Log	7	35																																												
2	42120 - Planted Jack Pine	Poletimber Well	31.8	33	51-80	N/A	Planted jack pine with scattered pin oak, cherry and some saw size red pine and white pine left behind during previous harvest. The jack pine is in the low end of the pole category, averaging 1-2 sticks. Basal area will increase as more of the stems become merchantable size.																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>91</td> <td>Pole/Sapling</td> <td>5</td> <td>33</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Jack Pine	91	Pole/Sapling	5	33	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Black Cherry</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Black Cherry	Low	5 - 10 feet	Sapling																											
Canopy Species	% Cover	Size Class	DBH	Age																																												
Jack Pine	91	Pole/Sapling	5	33																																												
Sub-Canopy Species	Density	Avg. Height	Size																																													
Black Cherry	Low	5 - 10 feet	Sapling																																													
3	3303 - Mixed Low Density Trees	Nonstocked	1.2	0		No	Open area within stand 32 located in a kettle depression. Low density scattered jack and white pine. There are a few of these areas nearby within stand 32, but this is the only one large enough to meet mapping standards. Grown over road runs near west end of this opening.																																									
4	500 - Water	Nonstocked	7.9			No	A portion of Noodles Lake. Beaver dam in the middle. There is a lot of beaver activity in adjacent stand 5 coming from the lake.																																									
5	4199 - Other Mixed Upland Deciduous	Sapling Medium	21.2	33	Immature	N/A	Stand is a mix of aspen, oak, and red maple that is just below threshold for pole size class. There are also some scattered large log size red and white pine that were retained in previous harvest.																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>30</td> <td>Sapling/Pole</td> <td>4</td> <td></td> </tr> <tr> <td>Red Pine</td> <td>8</td> <td>Log</td> <td>13</td> <td></td> </tr> <tr> <td>Bigtooth Aspen</td> <td>35</td> <td>Sapling/Pole</td> <td>4</td> <td>33</td> </tr> <tr> <td>Red Maple</td> <td>25</td> <td>Sapling/Pole</td> <td>4</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Northern Pin Oak	30	Sapling/Pole	4		Red Pine	8	Log	13		Bigtooth Aspen	35	Sapling/Pole	4	33	Red Maple	25	Sapling/Pole	4																							
Canopy Species	% Cover	Size Class	DBH	Age																																												
Northern Pin Oak	30	Sapling/Pole	4																																													
Red Pine	8	Log	13																																													
Bigtooth Aspen	35	Sapling/Pole	4	33																																												
Red Maple	25	Sapling/Pole	4																																													
6	42120 - Planted Jack Pine	Poletimber Well	44.7	34	51-80	N/A	Stand of planted jack pine that is in process of transitioning to pole class. Scattered red pine residual from previous harvest throughout. BA will increase as more of the jack pine reaches merchantable size.																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>90</td> <td>Pole/Sapling</td> <td>5</td> <td>34</td> </tr> <tr> <td>Red Pine</td> <td>10</td> <td>Log</td> <td>12</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Jack Pine	90	Pole/Sapling	5	34	Red Pine	10	Log	12		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Black Cherry</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Black Cherry	Low	5 - 10 feet	Sapling																						
Canopy Species	% Cover	Size Class	DBH	Age																																												
Jack Pine	90	Pole/Sapling	5	34																																												
Red Pine	10	Log	12																																													
Sub-Canopy Species	Density	Avg. Height	Size																																													
Black Cherry	Low	5 - 10 feet	Sapling																																													
7	4130 - Aspen	Sapling Medium	8.8	4	Immature	N/A	Stand was harvested in August of 2015. No chipping of limbs and tops < 2" allowed. Coming back mostly to Aspen. Some RM and Oak which are being affected by heavy browse. Passes regen. Aspen is ~ 6' tall, RM / O are 2-4'																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>90</td> <td>Sapling</td> <td>1</td> <td>4</td> </tr> <tr> <td>Red Maple</td> <td>7</td> <td>Sapling</td> <td>1</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Bigtooth Aspen	90	Sapling	1	4	Red Maple	7	Sapling	1																																	
Canopy Species	% Cover	Size Class	DBH	Age																																												
Bigtooth Aspen	90	Sapling	1	4																																												
Red Maple	7	Sapling	1																																													
8	4199 - Other Mixed Upland Deciduous	Poletimber Medium	15.0	33	51-80	N/A	Stand is a mixture of oak, aspen, jack pine, and scattered RP logs. East side of stand borders Richardson Road. A more open area toward the middle of the stand appears to have been an old landing.																																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>30</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>35</td> <td>Pole/Sapling</td> <td>5</td> <td>33</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>20</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> <tr> <td>Jack Pine</td> <td>10</td> <td>Pole</td> <td>7</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Northern Pin Oak	30	Pole/Sapling	5		Red Maple	35	Pole/Sapling	5	33	Bigtooth Aspen	20	Pole/Sapling	5		Jack Pine	10	Pole	7		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>Northern Pin Oak</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Low	5 - 10 feet	Sapling	Black Cherry	Low	< 5 feet	Sapling	Northern Pin Oak	Low	5 - 10 feet	Sapling				
Canopy Species	% Cover	Size Class	DBH	Age																																												
Northern Pin Oak	30	Pole/Sapling	5																																													
Red Maple	35	Pole/Sapling	5	33																																												
Bigtooth Aspen	20	Pole/Sapling	5																																													
Jack Pine	10	Pole	7																																													
Sub-Canopy Species	Density	Avg. Height	Size																																													
Red Maple	Low	5 - 10 feet	Sapling																																													
Black Cherry	Low	< 5 feet	Sapling																																													
Northern Pin Oak	Low	5 - 10 feet	Sapling																																													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
9	42220 - Natural Jack Pine	Sapling Well	51.3	26	1-50	N/A	Stand is mostly immature planted jack pine. There are some scattered log size red pine. The North end has a larger component of the log/pole size red and jack pine along Nancy Brown Road and Trail 4/9. Merchantable Red Pine was left along with small Jack Pine, when stand was cut in 1992. Cut resulted in mixed jack pine and oak regeneration. There are a couple small inclusions of aspen in the stand. East side of stand borders Richardson Road.
Canopy Species		% Cover	Size Class	DBH	Age		
Jack Pine		70	Sapling/Pole	3	26		
Red Pine		10	Log/Pole	12	69		
Northern Pin Oak		10	Sapling/Pole	3			
Quaking Aspen		10	Sapling/Pole	3			
10	42120 - Planted Jack Pine	Poletimber Well	98.8	37	51-80	N/A	Planted jack pine stand. A few scattered red pine residual from previous harvest. OPIC - FMD: Contains MSU research spacing plots for white pine weevil study on jack pine.
Canopy Species		% Cover	Size Class	DBH	Age		
Jack Pine		98	Pole/Sapling	5	37		
11	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	41.8	26	Immature	N/A	Stand was harvested in 1993. Immature stand. Mix of Jack Pine(natural) with Oak regeneration also scattered throughout stand. Aspen, Cherry and some Red Pine/Jack Pine pole timber scattered throughout stand(10-20BA).
Canopy Species		% Cover	Size Class	DBH	Age		
Jack Pine		35	Sapling/Pole	3	26		
Quaking Aspen		25	Sapling	2			
Red Maple		15	Sapling	2			
12	4199 - Other Mixed Upland Deciduous	Sapling Medium	32.7	15	Immature	N/A	Mixed stand. Contains scattered clones of aspen, with oak, red maple, cherry and jack pine filling in the open spaces. overall, it is a patchwork of open grass/shrub mixed in with immature trees. The aspen is 20-30' tall, ok is 10-20' tall, and jp is 10-15' tall. 2009 Notes: Stand is an immature Oak, Jack Pine and Aspen stand that is not fully stocked. Old notes: Timber sale # 72-047-01-01 (Richardson Road Jack Pine). Cut by T. R. Timber in 2004. An FTP has been submitted to artificially regenerate any areas that do not regenerate naturally. 11/24/2004 mm
Canopy Species		% Cover	Size Class	DBH	Age		
Quaking Aspen		25	Sapling	2			
Northern Pin Oak		30	Sapling	1	15		
Jack Pine		10	Sapling	2			
Red Maple		20	Sapling	1			
Black Cherry		15	Sapling	1			
13	4191 - Mixed Upland Deciduous with Conifer	Poletimber Poor	6.9	34	1-50	N/A	OI Stand Year Origin was 1985. Low density stand of pin oak, jack pine, cherry and red maple. South end adjacent to muskrat lake. Lots of open areas in this stand. Old notes indicate that it was possibly not planted with stand 14 to serve as a fuel break.
Canopy Species		% Cover	Size Class	DBH	Age		
Black Cherry		25	Pole/Sapling	5			
Northern Pin Oak		35	Pole/Sapling	7	34		
Jack Pine		20	Pole	6			
Quaking Aspen		10	Pole/Sapling	5			
14	42120 - Planted Jack Pine	Sapling Well	24.7	33	Immature	N/A	Immature jack pine plantation. Pretty much the same as 15 with less rp logs and slightly smaller diameter. Diameters should be large enough next YOE to be in the J6 size class.
Canopy Species		% Cover	Size Class	DBH	Age		
Jack Pine		95	Sapling/Pole	4	33		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																
15	42120 - Planted Jack Pine	Poletimber Well	20.6	36	1-50	N/A	OI Stand Year Origin was 1983. planted jack pine with scattered oak, aspen mixed in. Also contains scattered super canopy rp. many stems just under pole class. ~2.5 acre inclusion of log size RP towards center of stand.																																
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>85</td> <td>Pole/Sapling</td> <td>5</td> <td>36</td> </tr> <tr> <td>Northern Pin Oak</td> <td>7</td> <td>Sapling/Pole</td> <td>4</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Jack Pine	85	Pole/Sapling	5	36	Northern Pin Oak	7	Sapling/Pole	4																							
Canopy Species	% Cover	Size Class	DBH	Age																																			
Jack Pine	85	Pole/Sapling	5	36																																			
Northern Pin Oak	7	Sapling/Pole	4																																				
16	42110 - Planted Red Pine	Poletimber Well	15.1	36	141-170	N/A	planted red pine. some q aspen scattered trpughout. Super canopy rp is about 15 sqft/ac. A few dying jp poles. low density oak in sub canopy, otherwise its mostly open. OI Stand Year Origin was 1983.																																
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>90</td> <td>Pole</td> <td>7</td> <td>36</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Red Pine	90	Pole	7	36	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Trace</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Northern Pin Oak	Low	10 - 20 feet	Sapling	Black Cherry	Trace	5 - 10 feet	Sapling													
Canopy Species	% Cover	Size Class	DBH	Age																																			
Red Pine	90	Pole	7	36																																			
Sub-Canopy Species	Density	Avg. Height	Size																																				
Northern Pin Oak	Low	10 - 20 feet	Sapling																																				
Black Cherry	Trace	5 - 10 feet	Sapling																																				
17	42110 - Planted Red Pine	Sawtimber Well	11.9	99	141-170	N/A	Understory is a mix of JP which established after sale of 1992, and advanced Oak regen. Some more open pockets throughout. 30-40 sqft/ac of 20-25" RP throughout much of the stand(aged 135-145). A few sub merch aspen clones. BA as high as 250 in pockets.																																
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>84</td> <td>Log/XLog</td> <td>15</td> <td>99</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>16</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Red Pine	84	Log/XLog	15	99	Bigtooth Aspen	16	Pole/Sapling	5		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Jack Pine</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Northern Pin Oak	Medium	5 - 10 feet	Sapling	Jack Pine	Low	10 - 20 feet	Sapling	Bigtooth Aspen	Low	10 - 20 feet	Sapling				
Canopy Species	% Cover	Size Class	DBH	Age																																			
Red Pine	84	Log/XLog	15	99																																			
Bigtooth Aspen	16	Pole/Sapling	5																																				
Sub-Canopy Species	Density	Avg. Height	Size																																				
Northern Pin Oak	Medium	5 - 10 feet	Sapling																																				
Jack Pine	Low	10 - 20 feet	Sapling																																				
Bigtooth Aspen	Low	10 - 20 feet	Sapling																																				
18	4133 - Aspen, Mixed Pine	Poletimber Well	6.5	36	81-110	N/A	Large pocket of Aspen over topped Red Pine plantation.																																
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>60</td> <td>Pole/Sapling</td> <td>6</td> <td>36</td> </tr> <tr> <td>Red Pine</td> <td>40</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Quaking Aspen	60	Pole/Sapling	6	36	Red Pine	40	Pole/Sapling	5		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Northern Pin Oak	Low	10 - 20 feet	Sapling	Black Cherry	Low	5 - 10 feet	Sapling								
Canopy Species	% Cover	Size Class	DBH	Age																																			
Quaking Aspen	60	Pole/Sapling	6	36																																			
Red Pine	40	Pole/Sapling	5																																				
Sub-Canopy Species	Density	Avg. Height	Size																																				
Northern Pin Oak	Low	10 - 20 feet	Sapling																																				
Black Cherry	Low	5 - 10 feet	Sapling																																				
19	310 - Herbaceous Openland	Nonstocked	75.8	0		4211 - Planted Red Pine	10/2018: Regen check results- 12.7% mortality, 818 trees per acre of Red pine, average height is 2.2'. 60% Free to grow. Stand was chopped/trenched in 2015 and planted in 2016. Release spray done in September 2017 with skidder. Appears that spray was most effective against oak. Lots of cherry and aspen were not affected due to skips, or being sheltered from contact with herbicide. OPIC - FMD: 2009 Notes: Jack Pine stand with some scattered Oak, Aspen and Red Pine. Recommend final harvest and replant to Jack Pine. Old notes: "Hold until 2011 then CC and plant or seed." Stand harvested under 72-028-11-01, First Sale Jack Pine, will be replanted to Jack pine under FTP C72-752. Two Retention Islands were left in this stand. Variance approved to change M.O. to RP, incorporate stand 69, and do addn'l site prep. C72-752 chopped & trenched in 2015 and planted in 2016. Yr 1 regen survey found 793 RP & 2,419 A/O/C per acre. Release herbicide applied with skidder in September 2017.																																
		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>Medium</td> <td>< 5 feet</td> <td>Seeding</td> </tr> <tr> <td>Quaking Aspen</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>Cherry (spp.)</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>Jack Pine</td> <td>Trace</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>Oak (spp.)</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height		Size	Red Pine	Medium	< 5 feet	Seeding	Quaking Aspen	Low	< 5 feet	Sapling	Cherry (spp.)	Low	< 5 feet	Sapling	Jack Pine	Trace	< 5 feet	Sapling	Oak (spp.)	Low	< 5 feet	Sapling											
Sub-Canopy Species	Density	Avg. Height	Size																																				
Red Pine	Medium	< 5 feet	Seeding																																				
Quaking Aspen	Low	< 5 feet	Sapling																																				
Cherry (spp.)	Low	< 5 feet	Sapling																																				
Jack Pine	Trace	< 5 feet	Sapling																																				
Oak (spp.)	Low	< 5 feet	Sapling																																				
20	42120 - Planted Jack Pine	Poletimber Well	41.8	36	51-80	N/A	Planted jack pine, transitioning into pole size class. Scattered red pine logs left during previous harvest.																																
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>90</td> <td>Pole/Sapling</td> <td>5</td> <td>36</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Jack Pine	90	Pole/Sapling	5	36	<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Northern Pin Oak	Low	5 - 10 feet	Sapling			Contains MSU research spacing plots for white pine weevil study on jack pine.														
Canopy Species	% Cover	Size Class	DBH	Age																																			
Jack Pine	90	Pole/Sapling	5	36																																			
Sub-Canopy Species	Density	Avg. Height	Size																																				
Northern Pin Oak	Low	5 - 10 feet	Sapling																																				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																															
21	4199 - Other Mixed Upland Deciduous	Sapling Well	59.7	15	Immature	N/A	Immature oak/mixed deciduous stand regenerated from 2004 harvest. Two larger pockets of aspen regeneration were delineated out as stand 50. Contains some deep frost pocket like holes. Old Notes: Mix of Oak-Aspen both declining in health. Manage for both. Consult with Bielecki to review for possible frost pocket concerns. Stand was harvested in spring of 2004 (Nancy Brown Road Oak 720370101)																															
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>40</td> <td>Sapling</td> <td>1</td> <td>15</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>25</td> <td>Sapling</td> <td>1</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>30</td> <td>Sapling</td> <td>1</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Northern Pin Oak	40	Sapling	1	15	Bigtooth Aspen	25	Sapling	1		Red Maple	30	Sapling	1		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Low	< 5 feet	Sapling				
Canopy Species	% Cover	Size Class	DBH	Age																																		
Northern Pin Oak	40	Sapling	1	15																																		
Bigtooth Aspen	25	Sapling	1																																			
Red Maple	30	Sapling	1																																			
Sub-Canopy Species	Density	Avg. Height	Size																																			
White Pine	Low	< 5 feet	Sapling																																			
22	4130 - Aspen	Sapling Well	44.8	27	Immature	N/A	Immature Aspen stand. Stand's east side borders Centerline Road. MCCCT Trail runs through stand. A few super canopy pin oak near Centerline Road.																															
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>50</td> <td>Sapling/Pole</td> <td>4</td> <td>27</td> </tr> <tr> <td>Quaking Aspen</td> <td>25</td> <td>Sapling/Pole</td> <td>3</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>15</td> <td>Sapling</td> <td>3</td> <td></td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>10</td> <td>Sapling</td> <td>3</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Bigtooth Aspen	50	Sapling/Pole	4	27	Quaking Aspen	25	Sapling/Pole	3		Red Maple	15	Sapling	3		Black/Red (Hybrid) Oak	10	Sapling	3												
Canopy Species	% Cover	Size Class	DBH	Age																																		
Bigtooth Aspen	50	Sapling/Pole	4	27																																		
Quaking Aspen	25	Sapling/Pole	3																																			
Red Maple	15	Sapling	3																																			
Black/Red (Hybrid) Oak	10	Sapling	3																																			
23	4131 - Aspen, Oak	Sapling Medium	112.3	16	1-50	N/A	Stand is an oak shelterwood that was cut in summer of 2003. Timber sale #72-039-01-01 Nancy Brown Shelterwood. The residual oak seems to be declining and is 108 years old. Residual is heaviest along the road and ATV trail. The regen from this harvest is a mixture of aspen clones, pin oak, and red maple with a trace of scattered jack and white pine.																															
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>45</td> <td>Sapling</td> <td>2</td> <td>16</td> </tr> <tr> <td>Northern Pin Oak</td> <td>10</td> <td>Log</td> <td>14</td> <td>109</td> </tr> <tr> <td>Northern Pin Oak</td> <td>25</td> <td>Sapling</td> <td>1</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>20</td> <td>Sapling</td> <td>1</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Quaking Aspen	45	Sapling	2	16	Northern Pin Oak	10	Log	14	109	Northern Pin Oak	25	Sapling	1		Red Maple	20	Sapling	1												
Canopy Species	% Cover	Size Class	DBH	Age																																		
Quaking Aspen	45	Sapling	2	16																																		
Northern Pin Oak	10	Log	14	109																																		
Northern Pin Oak	25	Sapling	1																																			
Red Maple	20	Sapling	1																																			
24	4125 - Black, N. Pin Oak	Sapling Medium	5.3	5	Immature	N/A	Cut in the Spring/Summer of 2014. Regen is mostly in the 3-5' tall range. Some browse occurring. Stand harvested under 72-028-11-01, this portion of original stand 19 was not trenched or planted.																															
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>75</td> <td>Sapling</td> <td>1</td> <td>5</td> </tr> <tr> <td>Red Maple</td> <td>20</td> <td>Sapling</td> <td>1</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Northern Pin Oak	75	Sapling	1	5	Red Maple	20	Sapling	1																						
Canopy Species	% Cover	Size Class	DBH	Age																																		
Northern Pin Oak	75	Sapling	1	5																																		
Red Maple	20	Sapling	1																																			
25	4131 - Aspen, Oak	Poletimber Well	5.7	54	81-110	N/A	Stand was previously part of stand 21, but was not cut in the 2004 harvest. Old notes said to leave for diversity.																															
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>60</td> <td>Pole/Log</td> <td>8</td> <td>54</td> </tr> <tr> <td>Northern Pin Oak</td> <td>25</td> <td>Log</td> <td>14</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>15</td> <td>Pole/Log</td> <td>8</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Quaking Aspen	60	Pole/Log	8	54	Northern Pin Oak	25	Log	14		Red Maple	15	Pole/Log	8		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Trace</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Medium	10 - 20 feet	Sapling	White Pine	Trace	5 - 10 feet	Sapling
Canopy Species	% Cover	Size Class	DBH	Age																																		
Quaking Aspen	60	Pole/Log	8	54																																		
Northern Pin Oak	25	Log	14																																			
Red Maple	15	Pole/Log	8																																			
Sub-Canopy Species	Density	Avg. Height	Size																																			
Red Maple	Medium	10 - 20 feet	Sapling																																			
White Pine	Trace	5 - 10 feet	Sapling																																			
26	4131 - Aspen, Oak	Poletimber Well	74.2	36	1-50	N/A	Stand is a mix of pole size aspen clones and mostly sub merchantable pockets of oak and red maple that are present where the aspen didn't fill in. The North boundary East of Noodles Lake road is adjacent to a steep slope down into stand 64, and eventually to stand 407. A couple of old access routes run through the stand. Some more mature aspen along N/E boundary where difficult to access with slope. Fuelwood harvest records show that most of the stand was cut between 1981 and 1983. All deciduous trees with stump diameter > 4" were designated for cutting. Some scattered log size red pine throughout, and a 2 acre pocket of red pine logs along Noodles Lake Rd. OPIC - FMD: leave spur open off county roads for parking, keep road closure visible. MUCC wants a record kept of complaint and call on roads.																															
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>50</td> <td>Pole/Sapling</td> <td>6</td> <td>36</td> </tr> <tr> <td>Red Maple</td> <td>25</td> <td>Sapling/Pole</td> <td>4</td> <td></td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>25</td> <td>Sapling/Pole</td> <td>4</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Quaking Aspen	50	Pole/Sapling	6	36	Red Maple	25	Sapling/Pole	4		Black/Red (Hybrid) Oak	25	Sapling/Pole	4																	
Canopy Species	% Cover	Size Class	DBH	Age																																		
Quaking Aspen	50	Pole/Sapling	6	36																																		
Red Maple	25	Sapling/Pole	4																																			
Black/Red (Hybrid) Oak	25	Sapling/Pole	4																																			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																											
27	42110 - Planted Red Pine	Sawtimber Medium	33.3	72	81-110	N/A	Stand contains mostly red pine with a few white pines. Heavy thinning in past harvest has allowed sub-canopy to become fairly well stocked with oak, red maple, and aspen. Sub canopy heights range from 5-20' but vary throughout the stand. Oak seems more common the further West you go. Pine will hold until next YOE, but decision will need to be made on whether to let this stand convert to hardwood or re-establish red pine after harvest. Old notes: Ground cover consists of Braken Fern over Blueberry. Recommend thinning or shelterwood cut. Thin to 90 BA. Old notes: "Remove O & JP. Retain 10 BA of oak scattered throughout the stand. Stand variable density - treat with adjacent stands."																																											
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>90</td> <td>Log</td> <td>14</td> <td>72</td> </tr> <tr> <td>White Pine</td> <td>10</td> <td>Log</td> <td>14</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Red Pine	90	Log	14	72	White Pine	10	Log	14		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Black/Red (Hybrid) Oak</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Trace</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Black/Red (Hybrid) Oak	Medium	5 - 10 feet	Sapling	Red Maple	Medium	10 - 20 feet	Sapling	Bigtooth Aspen	Low	10 - 20 feet	Sapling	White Pine	Trace	10 - 20 feet	Sapling									
Canopy Species	% Cover	Size Class	DBH	Age																																														
Red Pine	90	Log	14	72																																														
White Pine	10	Log	14																																															
Sub-Canopy Species	Density	Avg. Height	Size																																															
Black/Red (Hybrid) Oak	Medium	5 - 10 feet	Sapling																																															
Red Maple	Medium	10 - 20 feet	Sapling																																															
Bigtooth Aspen	Low	10 - 20 feet	Sapling																																															
White Pine	Trace	10 - 20 feet	Sapling																																															
28	4130 - Aspen	Sawtimber Well	50.0	51	111-140	N/A	Mixed stand of aspen and oak. Aspen cut in 1968 leaving oak mast trees. Leave spur open off county roads for parking, keep road closure visible. MUCC wants a record kept of call on road closure. ATV trail through stand.																																											
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>71</td> <td>Log/Pole</td> <td>10</td> <td>51</td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>15</td> <td>Log</td> <td>14</td> <td>94</td> </tr> <tr> <td>Red Maple</td> <td>10</td> <td>Log/Pole</td> <td>10</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Bigtooth Aspen	71	Log/Pole	10	51	Black/Red (Hybrid) Oak	15	Log	14	94	Red Maple	10	Log/Pole	10		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Trace</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Beech</td> <td>Trace</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Bigtooth Aspen	Medium	10 - 20 feet	Sapling	Red Maple	Medium	10 - 20 feet	Sapling	Black/Red (Hybrid) Oak	Low	10 - 20 feet	Sapling	White Pine	Trace	5 - 10 feet	Sapling	Beech	Trace	10 - 20 feet	Sapling
Canopy Species	% Cover	Size Class	DBH	Age																																														
Bigtooth Aspen	71	Log/Pole	10	51																																														
Black/Red (Hybrid) Oak	15	Log	14	94																																														
Red Maple	10	Log/Pole	10																																															
Sub-Canopy Species	Density	Avg. Height	Size																																															
Bigtooth Aspen	Medium	10 - 20 feet	Sapling																																															
Red Maple	Medium	10 - 20 feet	Sapling																																															
Black/Red (Hybrid) Oak	Low	10 - 20 feet	Sapling																																															
White Pine	Trace	5 - 10 feet	Sapling																																															
Beech	Trace	10 - 20 feet	Sapling																																															
29	4130 - Aspen	Poletimber Well	108.7	34	111-140	N/A	Nice stand of mixed aspen with some oak and maple mixed in. East end has more bigtooth aspen, quaking more dominant in the West. Nice stand, not yet ready for harvest. Multiple old temporary management access routes in the stand, mostly grown over. MCCCT Cycle trail runs through the stand.																																											
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>30</td> <td>Pole/Sap/Log</td> <td>7</td> <td></td> </tr> <tr> <td>Quaking Aspen</td> <td>55</td> <td>Pole/Sap/Log</td> <td>6</td> <td>34</td> </tr> <tr> <td>Red Maple</td> <td>10</td> <td>Sapling/Pole</td> <td>6</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Bigtooth Aspen	30	Pole/Sap/Log	7		Quaking Aspen	55	Pole/Sap/Log	6	34	Red Maple	10	Sapling/Pole	6		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Black/Red (Hybrid) Oak</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Black/Red (Hybrid) Oak	Medium	5 - 10 feet	Sapling	Red Maple	Medium	10 - 20 feet	Sapling												
Canopy Species	% Cover	Size Class	DBH	Age																																														
Bigtooth Aspen	30	Pole/Sap/Log	7																																															
Quaking Aspen	55	Pole/Sap/Log	6	34																																														
Red Maple	10	Sapling/Pole	6																																															
Sub-Canopy Species	Density	Avg. Height	Size																																															
Black/Red (Hybrid) Oak	Medium	5 - 10 feet	Sapling																																															
Red Maple	Medium	10 - 20 feet	Sapling																																															
30	4130 - Aspen	Poletimber Well	25.6	33	51-80	N/A	Bigtooth aspen stand just above threshold for pole size class. Some super-canopy oak, red and white pine. Scattered low density wp, rm, oak and beech saps in sub-canopy. Bisected by Penn Rd. OPIC - FMD: Stand has a scattering of merchantable species.																																											
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>70</td> <td>Pole/Sapling</td> <td>5</td> <td>33</td> </tr> <tr> <td>Red Maple</td> <td>15</td> <td>Pole/Sapling</td> <td>5</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Bigtooth Aspen	70	Pole/Sapling	5	33	Red Maple	15	Pole/Sapling	5		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Beech</td> <td>Low</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Low	5 - 10 feet	Sapling	Red Maple	Medium	10 - 20 feet	Sapling	Black/Red (Hybrid) Oak	Low	5 - 10 feet	Sapling	Beech	Low	10 - 20 feet	Sapling									
Canopy Species	% Cover	Size Class	DBH	Age																																														
Bigtooth Aspen	70	Pole/Sapling	5	33																																														
Red Maple	15	Pole/Sapling	5																																															
Sub-Canopy Species	Density	Avg. Height	Size																																															
White Pine	Low	5 - 10 feet	Sapling																																															
Red Maple	Medium	10 - 20 feet	Sapling																																															
Black/Red (Hybrid) Oak	Low	5 - 10 feet	Sapling																																															
Beech	Low	10 - 20 feet	Sapling																																															
31	4130 - Aspen	Sapling Well	6.0	27	Immature	N/A	Immature Aspen stand. Stand borders Centerline Road. Some scattered wp coming up.																																											
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>80</td> <td>Sapling</td> <td>3</td> <td>27</td> </tr> <tr> <td>Red Maple</td> <td>15</td> <td>Sapling</td> <td>2</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Bigtooth Aspen	80	Sapling	3	27	Red Maple	15	Sapling	2		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> </tbody> </table>				Sub-Canopy Species	Density	Avg. Height	Size	Red Pine	Low	< 5 feet	Sapling																					
Canopy Species	% Cover	Size Class	DBH	Age																																														
Bigtooth Aspen	80	Sapling	3	27																																														
Red Maple	15	Sapling	2																																															
Sub-Canopy Species	Density	Avg. Height	Size																																															
Red Pine	Low	< 5 feet	Sapling																																															
32	4131 - Aspen, Oak	Sapling Well	35.0	28	Immature	N/A	Previous stand was mixed deciduous, and final harvested in 1991. Bigtooth aspen is the dominant cover type, but also has red maple and oak mixed in. A small component of scattered mixed pine throughout.																																											
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>51</td> <td>Sapling/Pole</td> <td>4</td> <td>28</td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>30</td> <td>Sapling</td> <td>3</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>10</td> <td>Sapling/Pole</td> <td>3</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Bigtooth Aspen	51	Sapling/Pole	4	28	Black/Red (Hybrid) Oak	30	Sapling	3		Red Maple	10	Sapling/Pole	3																													
Canopy Species	% Cover	Size Class	DBH	Age																																														
Bigtooth Aspen	51	Sapling/Pole	4	28																																														
Black/Red (Hybrid) Oak	30	Sapling	3																																															
Red Maple	10	Sapling/Pole	3																																															



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																						
33	42250 - Pine, Oak	Sapling Medium	9.1	27	Immature	N/A	Stand was cut in 1992. Stand is and mix of J2/O2. Some oak poles, but most of the stand still sub-merchantable.																																						
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>65</td> <td>Sapling/Pole</td> <td>4</td> <td>27</td> </tr> <tr> <td>Northern Pin Oak</td> <td>30</td> <td>Sapling/Pole</td> <td>4</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Jack Pine	65	Sapling/Pole	4	27	Northern Pin Oak	30	Sapling/Pole	4		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Trace</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Northern Pin Oak</td> <td>Low</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Trace	5 - 10 feet	Sapling	Northern Pin Oak	Low	< 5 feet	Sapling	Black Cherry	Low	5 - 10 feet	Sapling										
Canopy Species	% Cover	Size Class	DBH	Age																																									
Jack Pine	65	Sapling/Pole	4	27																																									
Northern Pin Oak	30	Sapling/Pole	4																																										
Sub-Canopy Species	Density	Avg. Height	Size																																										
White Pine	Trace	5 - 10 feet	Sapling																																										
Northern Pin Oak	Low	< 5 feet	Sapling																																										
Black Cherry	Low	5 - 10 feet	Sapling																																										
34	42210 - Natural Red Pine	Sawtimber Well	98.2	80	81-110	N/A	Harvested in spring of 2004 (720380101 Nancy Brown Selection). Prescription was to distribute 100 ft. X 300 ft openings throughout stand, not to exceed 25% of the stand area. Thin remainder to 70 BA. Openings have filled in mostly with red maple. Pockets of high density white pine and hybrid/white oak regeneration filling in under the mature red and white pine. Average red pine DBH is 16", an older age class is commonly scattered throughout the stand. Many of the super-canopy trees measured 22-24"DBH, some up to 28"DBH, and cored age ranged from 132 to 164 years on a few samples. This stand, along with stand 37, 46, and 47 all contain these scattered super canopy conifers, which in many cases qualify as legacy trees. The area is somewhat unique to the surrounding state forest land which has had more management influence.																																						
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>60</td> <td>Log/XLog</td> <td>16</td> <td>80</td> </tr> <tr> <td>White Pine</td> <td>25</td> <td>Log/XLog</td> <td>16</td> <td></td> </tr> <tr> <td>Northern Pin Oak</td> <td>10</td> <td>Log/Pole/XLog</td> <td>15</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Red Pine	60	Log/XLog	16	80	White Pine	25	Log/XLog	16		Northern Pin Oak	10	Log/Pole/XLog	15		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Beech</td> <td>Trace</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Northern Pin Oak	Low	5 - 10 feet	Sapling	Red Maple	Medium	10 - 20 feet	Sapling	White Pine	Medium	5 - 10 feet	Sapling	Beech	Trace	5 - 10 feet	Sapling	
Canopy Species	% Cover	Size Class	DBH	Age																																									
Red Pine	60	Log/XLog	16	80																																									
White Pine	25	Log/XLog	16																																										
Northern Pin Oak	10	Log/Pole/XLog	15																																										
Sub-Canopy Species	Density	Avg. Height	Size																																										
Northern Pin Oak	Low	5 - 10 feet	Sapling																																										
Red Maple	Medium	10 - 20 feet	Sapling																																										
White Pine	Medium	5 - 10 feet	Sapling																																										
Beech	Trace	5 - 10 feet	Sapling																																										
36	4131 - Aspen, Oak	Poletimber Well	18.8	51	111-140	N/A	Big tooth aspen with older mixed oak. More oak as you go West. A few scattered RP saw. Oak and RM in sub-canopy.																																						
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>60</td> <td>Pole/Log</td> <td>8</td> <td>51</td> </tr> <tr> <td>White Oak</td> <td>10</td> <td>Log/XLog</td> <td>14</td> <td></td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>20</td> <td>Log/XLog</td> <td>14</td> <td>97</td> </tr> <tr> <td>Red Maple</td> <td>10</td> <td>Pole/Sapling</td> <td>7</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Bigtooth Aspen	60	Pole/Log	8	51	White Oak	10	Log/XLog	14		Black/Red (Hybrid) Oak	20	Log/XLog	14	97	Red Maple	10	Pole/Sapling	7		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Black/Red (Hybrid) Oak</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> <tr> <td>White Pine</td> <td>Trace</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Black/Red (Hybrid) Oak	Low	5 - 10 feet	Sapling	Red Maple	Medium	10 - 20 feet	Sapling	White Pine	Trace	10 - 20 feet	Sapling
Canopy Species	% Cover	Size Class	DBH	Age																																									
Bigtooth Aspen	60	Pole/Log	8	51																																									
White Oak	10	Log/XLog	14																																										
Black/Red (Hybrid) Oak	20	Log/XLog	14	97																																									
Red Maple	10	Pole/Sapling	7																																										
Sub-Canopy Species	Density	Avg. Height	Size																																										
Black/Red (Hybrid) Oak	Low	5 - 10 feet	Sapling																																										
Red Maple	Medium	10 - 20 feet	Sapling																																										
White Pine	Trace	10 - 20 feet	Sapling																																										
37	42210 - Natural Red Pine	Sawtimber Poor	58.0	79	1-50	N/A	Unique stand. Natural red pine with some white pine mixed in. Was shelterwood cut in 2012, leaving 40-50sqft/acre of basal area. Dominant stand age is 78, but cored trees varied between late 70s up to 178 years old. Some legacy trees in the stand which are generally larger diameter, exhibit plate-like/thick bark, and have a distinctly different appearance than the red pines in the 80 year age range. Sub canopy is pretty much all hardwood. 2012 Harvest was planned to be followed up by prescribed burns to facilitate red pine regeneration, which did not occur. OPIC - FMD: 2009: Red Pine/White Pine stand mixed with Oak, Red Maple and some Aspen. Somewhat of an heavy hardwood understory (Red Maple). ORV trail traverses through the stand. Recommend heavy shelterwood cut(leave about 40-50BA), followed by an underburn. Should leave heavier along ORV trail. Try for natural Red Pine following the burn. Will except a combination of other species for regeneration. Red Maple/Aspen competition will play a major role in what ever happens within this stand. Pursue two burns for red maple control. If unable to burn, reevaluate whether to continue to manage for Red Pine. Old notes: CC in 2011 and replant to Red Pine. JC update: Was cut by late 2012 (#031-11), merch stems except green-marked (cruise ave residual 30 BA RP-WP, higher along ORV trail). FTP C72-728 submitted for burning. Canopy updates were estimated based on treatment report and old OI data, not a site visit.																																						
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>90</td> <td>Log/XLog</td> <td>16</td> <td>79</td> </tr> <tr> <td>White Pine</td> <td>10</td> <td>Log/Pole/XLog</td> <td>14</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Red Pine	90	Log/XLog	16	79	White Pine	10	Log/Pole/XLog	14		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Maple</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Quaking Aspen</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>Medium</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Red Maple	Medium	Variable	Sapling	Quaking Aspen	Medium	Variable	Sapling	Black/Red (Hybrid) Oak	Medium	5 - 10 feet	Sapling										
Canopy Species	% Cover	Size Class	DBH	Age																																									
Red Pine	90	Log/XLog	16	79																																									
White Pine	10	Log/Pole/XLog	14																																										
Sub-Canopy Species	Density	Avg. Height	Size																																										
Red Maple	Medium	Variable	Sapling																																										
Quaking Aspen	Medium	Variable	Sapling																																										
Black/Red (Hybrid) Oak	Medium	5 - 10 feet	Sapling																																										



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																									
38	42110 - Planted Red Pine	Poletimber Well	15.1	34	111-140	N/A	Red Pine plantation with scattered natural Jack Pine. Evaluate next yoe for first thin. Also, scattered Red Pine sawtimber scattered throughout stand. East side of stand borders Centerline Road. Old Notes: R3 stand with natural JP regen and a scattering of Red pine logs throughout the stand.																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>85</td> <td>Pole</td> <td>7</td> <td>34</td> </tr> <tr> <td>Jack Pine</td> <td>15</td> <td>Pole</td> <td>7</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Red Pine	85	Pole	7	34	Jack Pine	15	Pole	7		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Black/Red (Hybrid) Oak</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Black/Red (Hybrid) Oak	Low	5 - 10 feet	Sapling	Red Maple	Low	5 - 10 feet	Sapling	
Canopy Species	% Cover	Size Class	DBH	Age																												
Red Pine	85	Pole	7	34																												
Jack Pine	15	Pole	7																													
Sub-Canopy Species	Density	Avg. Height	Size																													
Black/Red (Hybrid) Oak	Low	5 - 10 feet	Sapling																													
Red Maple	Low	5 - 10 feet	Sapling																													
39	4130 - Aspen	Poletimber Well	29.7	44	81-110	N/A	Stand consists quaking aspen clones with pockets of jack pine in between. A trace of larger red pine saw timber scattered throughout the stand. Some of the aspen is developing conks. Most of the aspen is in the 5-8" range. The oak is smaller, with most of it still below the pole class.																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>65</td> <td>Pole</td> <td>6</td> <td>44</td> </tr> <tr> <td>Jack Pine</td> <td>15</td> <td>Pole</td> <td>8</td> <td></td> </tr> <tr> <td>Black/Red (Hybrid) Oak</td> <td>18</td> <td>Sapling/Pole</td> <td>4</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Quaking Aspen	65	Pole	6	44	Jack Pine	15	Pole	8		Black/Red (Hybrid) Oak	18	Sapling/Pole	4		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Black/Red (Hybrid) Oak</td> <td>Medium</td> <td>10 - 20 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Black/Red (Hybrid) Oak	Medium	10 - 20 feet	Sapling
Canopy Species	% Cover	Size Class	DBH	Age																												
Quaking Aspen	65	Pole	6	44																												
Jack Pine	15	Pole	8																													
Black/Red (Hybrid) Oak	18	Sapling/Pole	4																													
Sub-Canopy Species	Density	Avg. Height	Size																													
Black/Red (Hybrid) Oak	Medium	10 - 20 feet	Sapling																													
40	42120 - Planted Jack Pine	Sapling Well	53.9	15	Immature	N/A	Planted jack pine with scattered deciduous. JP is 10-15' on average. OPIC - FMD: 2009 Notes: Jack pine plantation with scattered pockets of Oak and Aspen natural regeneration. Old notes: CC and replant. Cut in winter/spring 2002; Sale # 72-036-01-01; Farrington Road Jack Pine. FTP created to plant to jack pine. 06/26/2002 mm 49 acres of the 113 acres were trenched and planted in accordance to FTP C72-469 in 6/2004. Natural regeneration established in remaining portion - check next inventory.																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>95</td> <td>Sapling</td> <td>2</td> <td>15</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Jack Pine	95	Sapling	2	15																				
Canopy Species	% Cover	Size Class	DBH	Age																												
Jack Pine	95	Sapling	2	15																												
41	3303 - Mixed Low Density Trees	Nonstocked	21.2	0	Unspecified	4211 - Planted Red Pine	Yr 3 survey on 10/3/19: 773 TPA red pine, 70% FTG, and 2.1' avg height. A-O-C competition ranges from 4-6' tall, and JP is 1-3' on average. Walk through in June 2019 indicates that stand should be sprayed, and passes for mortality. Competition heaviest in E end, Parts of stand in W end can be skipped in release spray. Main competition is cherry, but some clumps of aspen within the stand as well. Low density oak and trace of jack pine regen also causing some competition. Variance to change MO to planted red pine and allow use of herbicide if needed approved on 8-24-2016. Was trenched in 2016 (C72-791), RP planted May 2017. Yr 1 regen survey in June 2018 found 690 RP & 1,666 C-M-A.																									
		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>Low</td> <td>< 5 feet</td> <td>Seeding</td> </tr> <tr> <td>Cherry (spp.)</td> <td>Medium</td> <td>< 5 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Medium</td> <td>< 5 feet</td> <td>Seeding</td> </tr> <tr> <td>Quaking Aspen</td> <td>Low</td> <td>< 5 feet</td> <td>Seeding</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height		Size	Red Pine	Low	< 5 feet	Seeding	Cherry (spp.)	Medium	< 5 feet	Sapling	Red Maple	Medium	< 5 feet	Seeding	Quaking Aspen	Low	< 5 feet	Seeding								
Sub-Canopy Species	Density	Avg. Height	Size																													
Red Pine	Low	< 5 feet	Seeding																													
Cherry (spp.)	Medium	< 5 feet	Sapling																													
Red Maple	Medium	< 5 feet	Seeding																													
Quaking Aspen	Low	< 5 feet	Seeding																													
42	4130 - Aspen	Sapling Well	31.5	28	Immature	N/A	Immature aspen stand with mix of other upland deciduous species.																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Bigtooth Aspen</td> <td>80</td> <td>Sapling/Pole</td> <td>4</td> <td>28</td> </tr> <tr> <td>Red Maple</td> <td>12</td> <td>Sapling/Pole</td> <td>4</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Bigtooth Aspen	80	Sapling/Pole	4	28	Red Maple	12	Sapling/Pole	4																
Canopy Species	% Cover	Size Class	DBH	Age																												
Bigtooth Aspen	80	Sapling/Pole	4	28																												
Red Maple	12	Sapling/Pole	4																													
43	42120 - Planted Jack Pine	Sapling Well	36.8	28	1-50	N/A	Immature planted jack pine stand. Some scattered oak, aspen and cherry. Will become a J6 as more stems reach pole class. West end of stand contains a steep slope with lower density jack pine and cherry leading to a kettle hole on adjacent private property.																									
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>95</td> <td>Sapling/Pole</td> <td>4</td> <td>28</td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Jack Pine	95	Sapling/Pole	4	28																				
Canopy Species	% Cover	Size Class	DBH	Age																												
Jack Pine	95	Sapling/Pole	4	28																												



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments					
44	3303 - Mixed Low Density Trees	Nonstocked	57.6	0	Unspecified	4211 - Planted Red Pine	Yr 3 survey 10/3/19. 763 TPA Red Pine, 70%FTG, 2.1' avg height.. A-O-C competition ranges from 4-6' tall, and JP is 1-3' on average. Walk through in June 2019 indicates that stand should be sprayed, and passes for mortality. Took random linear plots during walk through, some isolated areas/rows had higher mortality, but usually due to skips in trenching around stumps/slash. Competition heaviest in E end, but whole stand would benefit from release spray. Main competition is cherry, but some larger clumps of aspen within the stand as well. Low density oak and trace of jack pine regen also causing some competition.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Red Pine	Low	< 5 feet	Seeding	
								Black Cherry	Medium	< 5 feet	Tall Shrub	
								Red Maple	Medium	< 5 feet	Seeding	
Quaking Aspen	Medium	< 5 feet	Seeding									
Oak (spp.)	Low	< 5 feet	Sapling									
							Variance to change MO to planted red pine and allow use of herbicide approved on 8-24-2016. Trenched 2016 (C72-791), RP planted May 2017. Yr 1 regen survey in June 2018 found 690 RP & 1,666 C-M-A. 2009 Notes: Mature Jack Pine stand with some scattered Oak and Red Pine within the stand.					
45	42120 - Planted Jack Pine	Poletimber Medium	30.9	36	51-80	N/A	Jack pine stand, not yet ready for harvest. A portion on the West side along the road is slightly older and more well stocked, but not enough difference to split stands.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Jack Pine	90	Pole/Sapling	6	36
								Sub-Canopy Species	Density	Avg. Height	Size	
Black Cherry	Low	5 - 10 feet	Sapling									
Black/Red (Hybrid) Oak	Low	5 - 10 feet	Sapling									
46	42290 - Natural Mixed Pine	Sawtimber Well	50.8	82	141-170	N/A	Stand is very similar to stand 34 with the exception of having a larger component of white pine. White and red pine averages 16"DBH. An older age class is commonly scattered throughout the stand. Super-canopy trees measured 22-24"DBH, some up to 28"DBH, and cored age ranged from 132 to 164 years on a few samples. This stand, along with stand 37, 34, and 47 all contain these scattered super canopy conifers, which in many cases qualify as legacy trees. The area is somewhat unique to the surrounding state forest land which has had more management influence.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Red Pine	38	Log/XLog	16	
								White Pine	45	Log/XLog	16	82
								Red Maple	10	Log/Pole	12	
Sub-Canopy Species	Density	Avg. Height	Size									
Northern Pin Oak	Low	5 - 10 feet	Sapling									
Red Maple	Medium	10 - 20 feet	Sapling									
White Pine	Low	Variable	Sapling									
47	42210 - Natural Red Pine	Sawtimber Well	20.1	83	141-170	N/A	Mixed red and white pine stand. Based on cores, origin is approximately 1936. There are some large diameter snags, and some super canopy red and white pine that are apparently older. Average DBH is 15", with quite a few nearing 20". Scattered pin oak saw and poles which appear to be rapidly declining. Sub-canopy is low to medium stocked and contains pin oak, white oak, white pine, red maple and some beech. Some areas of steep slope on a ridge that runs approximately N/S through the stand. A couple potential legacy trees.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Red Pine	60	Log/XLog	16	83
								White Pine	25	Log/XLog	16	
								Sub-Canopy Species	Density	Avg. Height	Size	
								Northern Pin Oak	Low	5 - 10 feet	Sapling	
White Oak	Trace	5 - 10 feet	Sapling									
Red Maple	Low	10 - 20 feet	Sapling									
White Pine	Low	Variable	Sapling									
Beech	Trace	5 - 10 feet	Sapling									
48	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	8.8	60	51-80	N/A	Mixed stand. Aspen, JP Pin O. Several kettles, not much flat area. Appears to be retention of adjacent stands from prior sales. Due to small stand size and topography, I would leave this stand for structural diversity adjacent to immature stands.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Jack Pine	40	Pole/Log	9	60
								Quaking Aspen	30	Pole	8	
								Northern Pin Oak	20	Log/Pole	10	
Sub-Canopy Species	Density	Avg. Height	Size									
Northern Pin Oak	Low	5 - 10 feet	Sapling									
Jack Pine	Low	5 - 10 feet	Sapling									



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
50	4130 - Aspen	Sapling Well	20.6	15	Immature	N/A	Two larger pockets of aspen regeneration were delineated out of stand 21 as stand 50. Contains some deep frost pocket like holes. Stand was harvested in spring of 2004 (Nancy Brown Road Oak 720370101)	
Canopy Species		% Cover	Size Class	DBH	Age			
Bigtooth Aspen	85	Sapling	1	15				
Red Maple	10	Sapling	1					
51	42210 - Natural Red Pine	Sawtimber Poor	8.2	62	1-50	N/A	Small stand of low density open grown saw size red pine with little to no sub canopy.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Pine	95	Log	14	62				
52	4130 - Aspen	Sapling Well	36.3	17	Immature	N/A	Cut in winter/spring 2002; Sale # 72-036-01-01; Farrington Road Jack Pine. FTP created to plant to jack pine. 06/26/2002 mm 49 acres of the 113 acres were trenched and planted in accordance to FTP C72-469 in 6/2004. Natural regeneration established in remaining portion. This section is mostly aspen/maple with pockets of oak. Variable density with some more open areas. Jack pine present along some of the skid routes.	
Canopy Species		% Cover	Size Class	DBH	Age			
Bigtooth Aspen	70	Sapling	2	17				
Red Maple	15	Sapling	2					
Northern Pin Oak	10	Sapling	2					
53	4130 - Aspen	Sapling Well	26.2	17	Immature	N/A	Area of mostly aspen regen with some scattered oak and maple. Aspen is 20 - 30' tall. Some jack pine scattered in sub-canopy. OPIC - FMD: 2009 Notes: Jack pine plantation with scattered pockets of Oak and Aspen natural regeneration. Old notes: CC and replant. Cut in winter/spring 2002; Sale # 72-036-01-01; Farrington Road Jack Pine. FTP created to plant to jack pine. 06/26/2002 mm 49 acres of the 113 acres were trenched and planted in accordance to FTP C72-469 in 6/2004. Natural regeneration established in remaining portion - check next inventory.	
Canopy Species		% Cover	Size Class	DBH	Age			
Bigtooth Aspen	95	Sapling	2	17				
		Sub-Canopy Species	Density	Avg. Height	Size			
		Jack Pine	Trace	5 - 10 feet	Sapling			
54	6229 - Mixed lowland shrub	Nonstocked	1.2	0		No	Lowland pocket containing a some scattered jack pine seedlings and lowland shrubs. Standing water present.	
55	4130 - Aspen	Sapling Medium	16.4	15	Immature	N/A	Aspen/Mixed deciduous stand, variable density. Aspen is present in scattered clumps with oak and maple filling in between. Very similar to stand 71 to the East without presence of jack pine clumps. Timber sale # 72-047-01-01 (Richardson Road Jack Pine). Cut by T. R. Timber in 2004. An FTP has been submitted to artificially regenerate any areas that do not regenerate naturally. 11/24/2004	
Canopy Species		% Cover	Size Class	DBH	Age			
Quaking Aspen	60	Sapling	1	15				
Northern Pin Oak	13	Sapling	1					
Red Maple	10	Sapling	1					
Black Cherry	10	Sapling	1					
56	4131 - Aspen, Oak	Sapling Poor	9.4	6	Immature	N/A	Stand was harvested in 1991, and regenerated to aspen. Most of the pole size aspen that resulted from the 1991 harvest has recently been harvested by beavers. Trails lead toward the large beaver dam in Noodles Lake. Low density stand of mixed deciduous with scattered red, white, and jack pine. Contains an inclusion of open water in a low spot in the Southwest corner.	
Canopy Species		% Cover	Size Class	DBH	Age			
Quaking Aspen	40	Sapling/Pole	1	6				
Red Maple	31	Sapling	1					
Northern Pin Oak	20	Sapling	1					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																	
57	42290 - Natural Mixed Pine	Sawtimber Well	5.3	135	111-140	N/A	Stand of large log size red and white pine. Borders Noodles Lake and a separate lowland pocket. Leave for structural diversity.																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>45</td> <td>Log/XLog/Pole</td> <td>14</td> <td>135</td> </tr> <tr> <td>Red Pine</td> <td>30</td> <td>Log/Pole/XLog</td> <td>13</td> <td></td> </tr> <tr> <td>Jack Pine</td> <td>20</td> <td>Pole/Log</td> <td>9</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		White Pine	45	Log/XLog/Pole	14	135	Red Pine	30	Log/Pole/XLog	13		Jack Pine	20	Pole/Log	9		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Black Cherry</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Medium</td> <td>Variable</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Medium	Variable	Sapling	Black Cherry	Low	5 - 10 feet	Sapling	Red Maple	Medium	Variable	Sapling
Canopy Species	% Cover	Size Class	DBH	Age																																				
White Pine	45	Log/XLog/Pole	14	135																																				
Red Pine	30	Log/Pole/XLog	13																																					
Jack Pine	20	Pole/Log	9																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
White Pine	Medium	Variable	Sapling																																					
Black Cherry	Low	5 - 10 feet	Sapling																																					
Red Maple	Medium	Variable	Sapling																																					
64	4125 - Black, N. Pin Oak	Sapling Well	104.4	34	Immature	N/A	Stand is mostly immature oak. Was an A5 stand prior to cut in 1985. Small scattered pockets of aspen that were not cut during that harvest scattered throughout. Also contains some scattered log size red pine.																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Black/Red (Hybrid) Oak</td> <td>60</td> <td>Sapling/Pole</td> <td>3</td> <td>34</td> </tr> <tr> <td>Quaking Aspen</td> <td>20</td> <td>Pole/Sap/Log</td> <td>8</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>18</td> <td>Sapling/Pole</td> <td>3</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Black/Red (Hybrid) Oak	60	Sapling/Pole	3	34	Quaking Aspen	20	Pole/Sap/Log	8		Red Maple	18	Sapling/Pole	3																			
Canopy Species	% Cover	Size Class	DBH	Age																																				
Black/Red (Hybrid) Oak	60	Sapling/Pole	3	34																																				
Quaking Aspen	20	Pole/Sap/Log	8																																					
Red Maple	18	Sapling/Pole	3																																					
65	42210 - Natural Red Pine	Sawtimber Medium	14.2	57	51-80	N/A	Stand is a narrow strip of scattered Red Pine sawtimber with scattered Jack pine and Red pine pole timber with a jack pine/grass understory. Stand is an old fuel break. Contains a small pond toward the center of the stand in a low spot. South boundary is the snowmobile trail running parallel to Nancy Brown Road which splits the stand.																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Red Pine</td> <td>75</td> <td>Log/Pole</td> <td>12</td> <td>57</td> </tr> <tr> <td>Jack Pine</td> <td>20</td> <td>Pole/Log/Sap</td> <td>9</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Red Pine	75	Log/Pole	12	57	Jack Pine	20	Pole/Log/Sap	9		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Jack Pine</td> <td>Low</td> <td>5 - 10 feet</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Jack Pine	Low	5 - 10 feet	Sapling													
Canopy Species	% Cover	Size Class	DBH	Age																																				
Red Pine	75	Log/Pole	12	57																																				
Jack Pine	20	Pole/Log/Sap	9																																					
Sub-Canopy Species	Density	Avg. Height	Size																																					
Jack Pine	Low	5 - 10 feet	Sapling																																					
68	4130 - Aspen	Sapling Well	9.7	5	Immature	N/A	Stand harvested under 72-028-11-01, First Sale Jack Pine, boundary exclusion retention left in this stand. Regeneration is a mix of aspen, oak, and red maple. A few sparse areas, but most of the stand regenerated well.OPIC - FMD: 2009 Notes: Stand keyed out to be A6 this time, was a J6 last time. Stand is a mix of Aspen and Jack Pine. Recommend final harvest and replant to Jack Pine. No retention to maximize reproduction of Aspen. Old notes: "Hold until 2011 then CC." Was part of the Nancy Brown Road Oak timbersale (720370101) but did not get cut before contract expiration. UPDATE:																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>60</td> <td>Sapling</td> <td>1</td> <td>5</td> </tr> <tr> <td>Northern Pin Oak</td> <td>15</td> <td>Sapling</td> <td>1</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>25</td> <td>Sapling</td> <td>1</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Quaking Aspen	60	Sapling	1	5	Northern Pin Oak	15	Sapling	1		Red Maple	25	Sapling	1																			
Canopy Species	% Cover	Size Class	DBH	Age																																				
Quaking Aspen	60	Sapling	1	5																																				
Northern Pin Oak	15	Sapling	1																																					
Red Maple	25	Sapling	1																																					
71	4130 - Aspen	Sapling Medium	134.4	15	Immature	N/A	Aspen/Mixed deciduous stand, variable density. Aspen is present in scattered clumps with oak and maple filling in between. Some pockets of jack pine where deciduous regeneration didn't fill in. Timber sale # 72-047-01-01 (Richardson Road Jack Pine). Cut by T. R. Timber in 2004.																																	
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Quaking Aspen</td> <td>63</td> <td>Sapling</td> <td>1</td> <td>15</td> </tr> <tr> <td>Northern Pin Oak</td> <td>15</td> <td>Sapling</td> <td>1</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>15</td> <td>Sapling</td> <td>1</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age		Quaking Aspen	63	Sapling	1	15	Northern Pin Oak	15	Sapling	1		Red Maple	15	Sapling	1																			
Canopy Species	% Cover	Size Class	DBH	Age																																				
Quaking Aspen	63	Sapling	1	15																																				
Northern Pin Oak	15	Sapling	1																																					
Red Maple	15	Sapling	1																																					
401	3102 - Grass	Nonstocked	1.7			No	Grassy opening with a couple scattered white pines. Appears to have possibly been an old landing site. Old borrow pit within open area.																																	
402	3303 - Mixed Low Density Trees	Nonstocked	3.1			No	Open area. Small pockets of JP and aspen. looks like c small frost pocket.																																	
403	3102 - Grass	Nonstocked	2.2			No	Grass, low density scattered cherry. Slopes down from road into stand 64 leading toward kettle hole stand 407.																																	
404	3102 - Grass	Nonstocked	1.2			No	Grass opening with sparsely scattered cherry, aspen and oak.																																	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
405	3102 - Grass	Nonstocked	2.1			Managed Opening	OPIC - FMD: Wildlife maintained opening. Historically maintained. JC update: Rye planted in 2014, mast & RGS mix in 2015, and limed & clover planted in 2016 (W72-754).
406	3102 - Grass	Nonstocked	3.8			Managed Opening	OPIC - FMD: Wildlife maintained opening. Historically maintained. JC update: Planted buckwheat & clover in 2014, mast & RGS mix in 2015, and limed & clover planted in 2016 (W72-754). A couple small pockets of sapling/pole size mixed upland deciduous trees.
407	3301 - Low Density Deciduous Trees	Nonstocked	8.8			No	Deep kettle hole, a few scattered cherry, maple, and aspen.
408	3303 - Mixed Low Density Trees	Nonstocked	0.9		Immature	No	Open area with scattered Jack Pine a nee pin oak saplings.
450	3102 - Grass	Nonstocked	0.6			No	Former well site.
451	3102 - Grass	Nonstocked	0.7	0		No	Old wellsite. Mix of low density saplings and grass.
452	3102 - Grass	Nonstocked	0.8			No	Inactive well site
453	3102 - Grass	Nonstocked	0.7			No	Former well site. Grass opening. Access road is now grown over.
454	3102 - Grass	Nonstocked	0.7			No	Inactive well site. Access road has grown over.
462	3102 - Grass	Nonstocked	1.2			No	Former wellsite.
463	3102 - Grass	Nonstocked	0.9			No	Former wellsite.