



Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72204

Entry Year 2026

Acreage: 1,292

County Crawford

Management Area: Camp Grayling

Stand Examiner: Victor Porteous

Legal Description:

T 26N R 04W Sections 1, 2, & 3

Identified Planning Goals:

The primary goal is to provide for military training while maintaining for forest health, productivity, species and structural diversity, and sustainability throughout the compartment and to meet restrictions placed on Hanson grant lands. To meet this goal, we should promote mixed stands of pine and oak for diversity of habitat and wildlife species use.

Soil and topography:

Soils within the compartment include a large area of Graycalm Sands in the east and a mix of Croswell Sands, Grayling Sands, Graycalm-Grayling Sands, and Croswell-AuGres soil in the center and to the north. Soil in the west and south west portion of the compartment are made up of Kinross-Augres complex, Dawson-Loxley Peats and Kinross Muck. Topography within the compartment is level to rolling terrain in the east, north, and center portions. The west and southwest portion is largely flat and seasonally wet.

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

The entire compartment is comprised of Hanson Grant Lands and military board lands except for a parcel in the NW of Section 1. The compartment also contains a small parcel of the Grayling Army Airfield in the NW corner. AuSable Trail and Sherwood Forest Subdivisions border the east side of the compartment and are heavily residential areas.

Unique Natural Features:

Michigan Natural Feature Inventory has listed the Calypso (*Calypso bulbosa*), Eastern Massasauga (*Sistrurus catenatus*), Henry's Elfin (*Incisalia henrici*), Hill's Thistle (*Cirsium hillii*), and secretive locust (*Appalachia arcane*) as unique or natural features within this compartment. Also, Lake Margrethe North intermittent wetland complex (as described by MNFI) exist throughout Section 3 of this compartment. Care needs to be taken to protect this bog wetland complex.

Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

Special Management Designations or Considerations:

This compartment is part of the Hanson Military Reserve. This land was gifted to the State in 1913 (Act 172) by Mr. Hanson for the following purposes: 1) as a permanent encampment and maneuvering ground for the military, 2) as a game preserve for the breeding and protection of game, 3) as a forest reserve. The MDNR manages the natural resources on Hanson lands as long as management does not conflict with military training needs. Hunting is prohibited on Hanson Grant lands. This compartment also contains five forty-acre parcels in Section 2 and a small piece in Section 1 that are open to hunting.

Watershed and Fisheries Considerations:

This compartment contains a portion of the upper Au Sable River near Pollack Bridge Road. This section of river was historically impaired by the Salling Dam which was removed in 1991. This reach is still recovering from that impairment, and a grant application has been submitted for instream habitat work in this reach. A narrow strip of land just north of Sherwood Forest Subdivision provides for public access to the AuSable River. Currently this access is undeveloped but could be developed in the future.

Wildlife Habitat Considerations:

This compartment appears to be a winter deer yarding area due to heavy deer densities during winter months and presence of thick jack pine cover. Wildlife should investigate and confirm the quality of this yard and winter range. Opening work would be recommended if yarding or winter use by deer is confirmed. Currently over browsing is an issue and negatively affecting the deer population in the area through habitat degradation. This compartment has limited hunting opportunities due to Hanson deed restrictions. The center of Section 3 is part of Lake Margrethe North intermittent wetland complex which hosts a diversity of unique plants and wildlife which are all part of delicate understudied ecosystem. Early notes have mixed pine and oak forests with a hardwood wetlands around the bogs. Efforts should be made to study and direct future management of this area.

Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial metallic mineral production in this part of the state. The nearest known active sand/gravel pit is more than three miles southeast. Potential for development of sand & gravel within the compartment is considered low. The nearest oil & gas production, past or present, is several miles away. The compartment is mostly within the Camp Grayling reservation and long-term lease area and includes lands deeded to the State Military Board and Hanson grant lands. The State does not control the majority of mineral rights within the compartment, and the mineral rights are classified as non-leasable.

Vehicle Access:

Vehicle access into the compartment can be obtained from several two tracks off of AuSable Trail and north off of M-72 West at the snowmobile parking lot.

Survey Needs:

None.

Recreational Facilities and Opportunities:

The compartment is host to a number of designated recreational trails. The Blue Bear Snowmobile Trail (# 7) traverses the compartment. An ORV Route follows the Blue Bear Snowmobile Trail. Dispersed recreational opportunities include fishing, bird watching, and hunting in areas designated as open.

Fire Protection:

This compartment falls within jurisdiction of the Grayling DNR, The Grayling Township Volunteer Fire Department and the National Guard for fire suppression. The AuSable River, Lake Margrethe and several fire hydrants on the east side of compartment are the closest water source for fire suppression and several trails traverse through most all of the compartment providing adequate access.

Additional Compartment Information:

Several experimental oak patchcuts were completed in Section 2 in the late 1990's. Old notes suggest very poor oak regeneration as a result of these patch cuts. Poor regeneration was attributed to creating frost conditions with the small size of the cuts, heavy sedge precluding development of seedlings from acorns, and heavy wildlife browse impacting stump sprouting and seedling development. These cuts have since filled in with a good stocking of oak regeneration. Recent large cuts of oak have resulted in a non-forested condition with heavy browse apparent but also very few oak trees actually stump sprouted. The oak resource, which is primarily N. Pin Oak, is aging and becoming less responsive to management in already non-favorable conditions. Caution should be taken when regenerating oak in this area. Site conversion to mixed pine with scattered oak should be considered when managing.

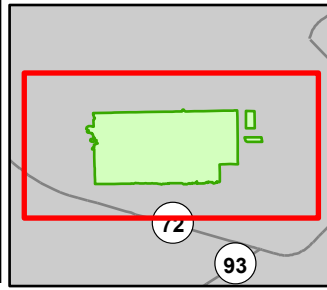
The following reports from the Inventory are attached:

- 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**

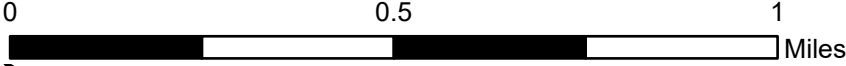
The following information is displayed, where pertinent, on the attached compartment maps:

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

Cover Type & Treatments Map



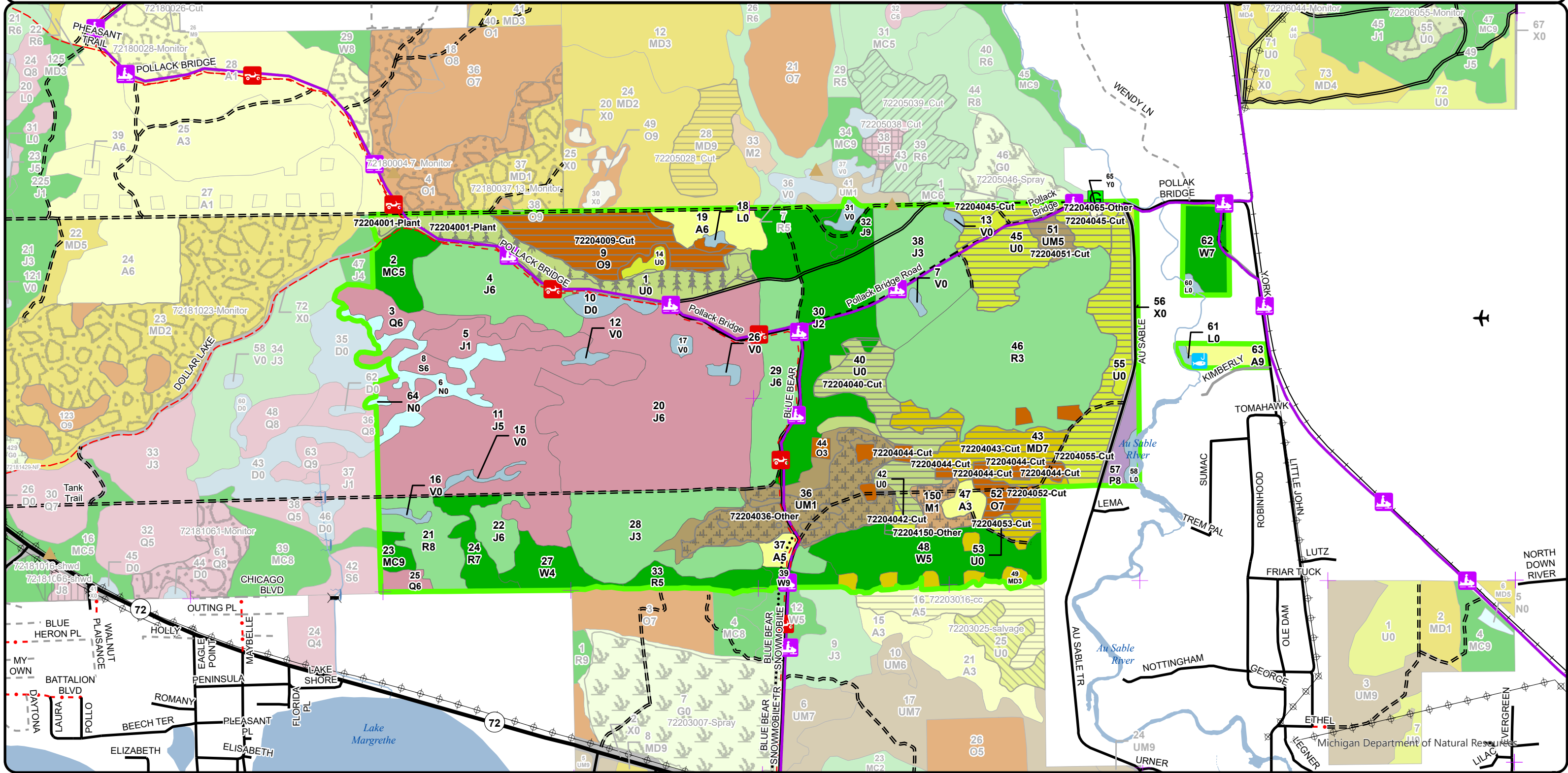
Compartment: 72204
 T26N, R04W, Sec. 1-4
 County: Crawford
 Unit: Grayling
 Mgmt Area: Camp Grayling
 YOE: 2026
 Acres: 1291.8 GIS Calculated
 Examiner: Victor Porteous
 Map Revised: 06/21/2024
 Map Phase: Pre-Review



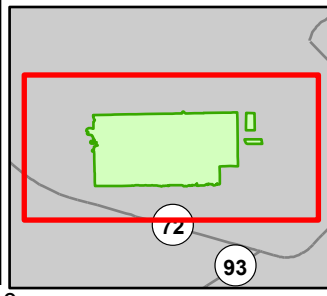
- Airport
- Berms
- Gate
- Bridges
- Culvert
- Fishing Access Site
- Remonumented Section Corners
- ORV Routes
- Snowmobile Trails

- Designated ORV Routes
- Designated Snowmobile Trails
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State Highway
- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Paved Road
- Private - Dirt / Gravel Road
- DNR - Management Access
- Active Railroads
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Powerline
- Compartment Boundary

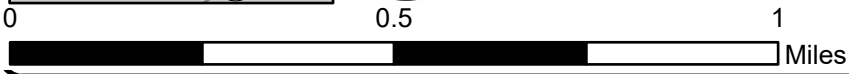
- Counties
- Other Treatment - See Comments
- Planting (Tree Species)
- Clearcut (w/Reserves)
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 110 - Low Intensity Urban
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand/Soil



Stand Boundary Map

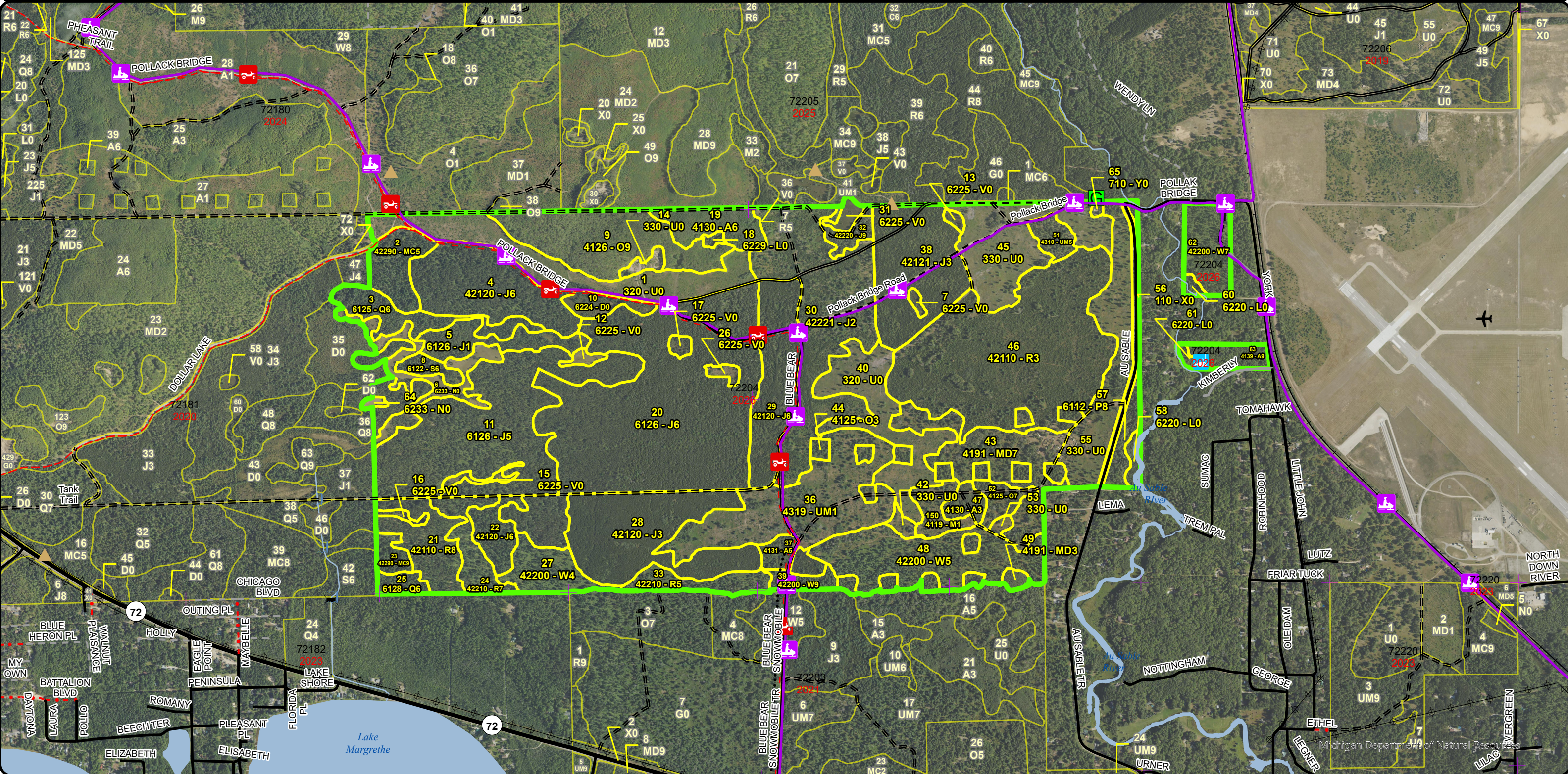


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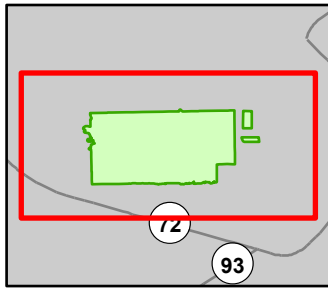
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**Special Conservation Areas
& Site Conditions Map**

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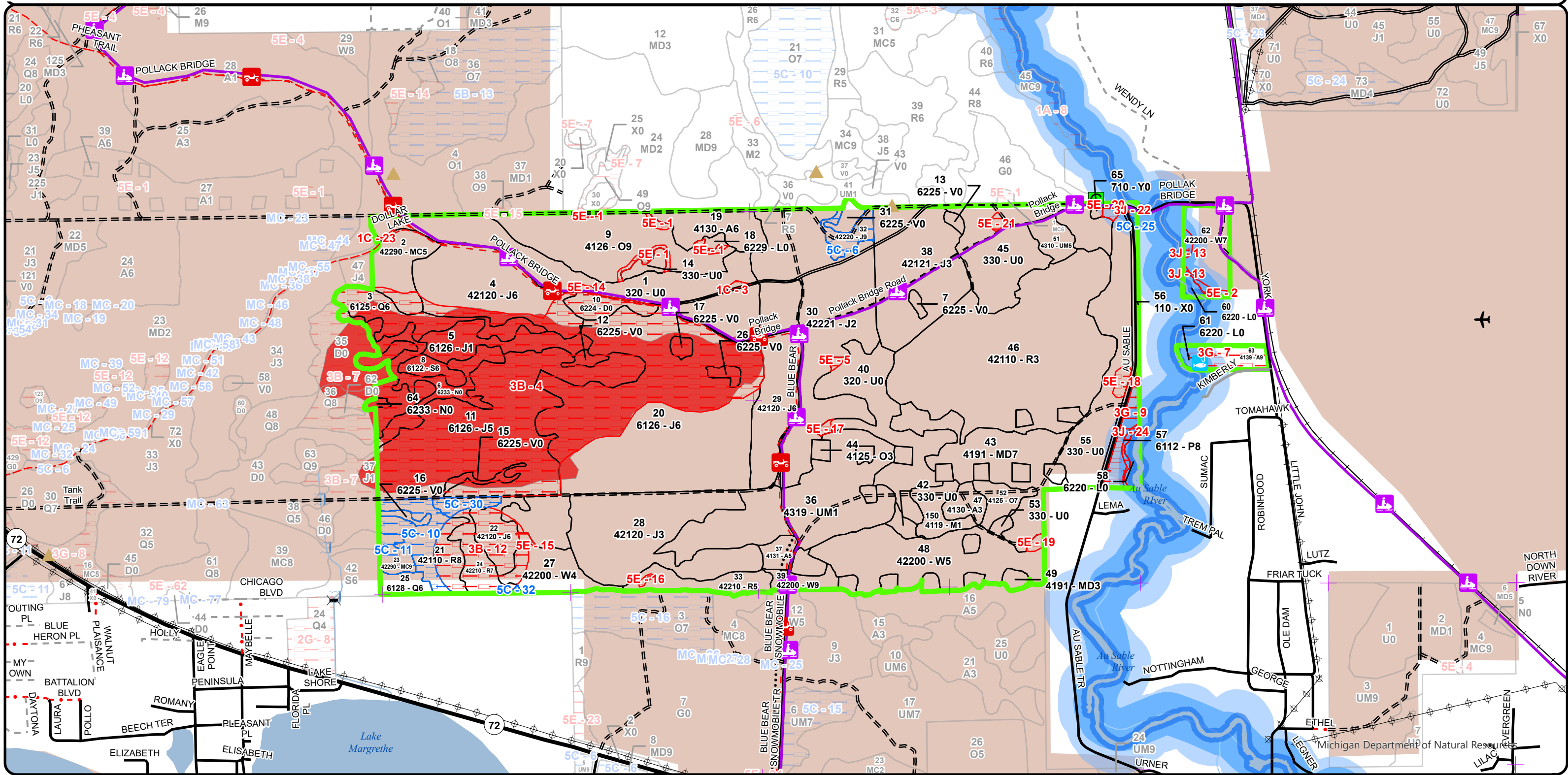


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- Remonumented Section Corners
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- Active Railroads
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Powerline
- Compartment Boundary
- Counties
- Available w/ Constraints
- Unavailable

- 1C: Other dept or div proc/practices
- 3G: Other Influence zones - See comments
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands





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+	Unseen-Aged	Total
Aspen	0	0	5	0	15	5	0	8	0	0	0	0	0	0	0	0	0	0	33
Bog	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Jack Pine	0	0	74	138	16	314	0	0	6	0	0	0	0	0	0	0	0	0	548
Low-Density Trees	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Conifers	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	24
Lowland Shrub	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Spruce/Fir	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Marsh	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Mixed Upland Deciduous	0	0	0	8	0	0	37	0	0	0	0	0	0	0	0	0	0	0	45
Natural Mixed Pines	0	0	0	0	0	0	15	0	0	0	0	0	5	0	0	0	0	0	20
Northern Hardwood	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Oak	0	0	0	14	0	0	0	0	0	0	0	51	0	0	0	0	0	0	65
Red Pine	0	0	118	0	0	12	0	0	0	0	0	36	0	0	0	0	0	0	166
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Treed Bog	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Upland Mixed Forest	0	60	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Upland Shrub	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
Urban	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
White Pine	0	0	0	0	0	0	66	17	0	0	0	0	0	0	0	0	0	0	83
Total	222	69	197	160	37	331	125	55	6	0	0	87	5	0	0	0	0	0	1293



Report 2 – Treatment Summary

Grayling Mgt. Unit

Compartment 204

Year of Entry: 2026

Acres of Harvest

Total Compartment Acres: 1,292

Commercial Harvest - 207
 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	Oversory Removal	Salvage	Other	Total Acres
Low-Density Trees	76	0	0	0	0	0	0	0	0	76
Mixed Upland Deciduous	37	0	0	0	0	0	0	0	0	37
Oak	53	0	0	0	0	0	0	0	0	53
Upland Mixed Forest	6	0	0	0	0	0	0	0	0	6
Upland Shrub	35	0	0	0	0	0	0	0	0	35
Total	207	0	0	0	0	0	0	0	0	207

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	207	0	36	0	0	0	0	51	0	294
Next Step	0	334	167	0	0	176	508	203	0	1388
Total	207	334	203	0	0	176	508	254	0	1682



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

9	72204009-Cut	39.8	4126 - White, Black, N. Pin Oak	Sawtimber Well	103	111-140	Harvest	Clearcut with Retention	412 - Oak Types	Even-Aged	No
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Prescription Specs: Harvest all stems 2" and greater except, leave all red pine and white pine. Retention has been designated around old gravel pits to prevent further erosion. A retention island protecting the steep slope down to stand 18 lowland has been drawn in as well. Include shrub protection spec for hawthorn and serviceberry. Include standard military specs. Include soft oak wilt restrictions.

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

Acceptable Regen: Oak is management objective but, aspen, maple, and pine are all acceptable species as well.

Other Comment: If producer is unable to chip sale, a portion of the tops should be spread throughout hill climb/gravel pit (stand 14) and used to block illegal trails/roads within stand.

*Check with military to see if they will allow no chipping to deter deer browse as well as illegal ATV use through stand.

Site Condition

Proposed Start Date: 10/1 /2024

40	72204040-Cut	34.7	320 - Upland Shrub	Nonstocked	0	Unspecified	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
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Prescription Specs: Harvest all stems 1" and up to prepare site for red pine planting. Protect retention established through previous harvest. The treatment area has been drawn to square up boundaries to make for more ideal planting conditions. Treatment will be implemented outside of the compartment YOE to expedite planting.

Next Step Treatments: SitePrep, Roller Chopping; Pesticide, Aerial - Site Prep; Monitoring, Herbicide Use; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand; SitePrep, Trenching

Acceptable Regen: Planted red pine

Other Comment: Include sale spec 3.6.1- Order of Cutting, to require stands 40, 42, 43, 44, 45, 51, 52, 53, and 55 be cut prior to cutting stand 9.

Site Condition

Proposed Start Date: 10/1 /2024

42	72204042-Cut	2.9	330 - Low-Density Trees	Nonstocked			Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
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Prescription Specs: Harvest all stems 1" and up to prepare site for red pine planting. No retention needed due to stand size. The treatment area has been drawn to square up boundaries to make for more ideal planting conditions. Treatment will be implemented outside of the compartment YOE to expedite planting.

Next Step Treatments: SitePrep, Trenching; SitePrep, Roller Chopping; Pesticide, Aerial - Site Prep; Monitoring, Herbicide Use; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand

Acceptable Regen: Planted red pine.

Other Comment: Include sale spec 3.6.1- Order of Cutting, to require stands 40, 42, 43, 44, 45, 51, 52, 53, and 55 be cut prior to cutting stand 9.

Site Condition

Proposed Start Date: 10/1 /2024



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
43 72204043-Cut	36.9	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Poor	56	1-50	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription Specs:</u> Harvest all stems 1" and up to prepare site for red pine planting. No retention needed due to declining health. The treatment area has been drawn to square up boundaries to make for more ideal planting conditions. Treatment will be implemented outside of the compartment YOE to expedite planting.</p> <p><u>Next Step Treatments:</u> SitePrep, Trenching; SitePrep, Roller Chopping; Pesticide, Aerial - Site Prep; Monitoring, Herbicide Use; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand</p> <p><u>Acceptable Regen:</u> Planted red pine</p> <p><u>Other Comment:</u> Include sale spec 3.6.1- Order of Cutting, to require stands 40, 42, 43, 44, 45, 51, 52, 53, and 55 be cut prior to cutting stand 9.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										
44 72204044-Cut	7.0	4125 - Black, N. Pin Oak	Sapling Well	27	1-50	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription Specs:</u> Harvest all stems 1" and up to prepare site for red pine planting. No retention due to size and shape of stand. The treatment area has been drawn to include portions of stand 44 to square up boundaries to make for more ideal planting conditions. Treatment will be implemented outside of the compartment YOE to expedite planting.</p> <p><u>Next Step Treatments:</u> SitePrep, Trenching; SitePrep, Roller Chopping; Pesticide, Aerial - Site Prep; Monitoring, Herbicide Use; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand</p> <p><u>Acceptable Regen:</u> Red pine plantation</p> <p><u>Other Comment:</u> Include sale spec 3.6.1- Order of Cutting, to require stands 40, 42, 43, 44, 45, 51, 52, 53, and 55 be cut prior to cutting stand 9.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										
45 72204045-Cut	37.5	330 - Low-Density Trees	Nonstocked	0	Immature	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription Specs:</u> Harvest all stems 1" and up to prepare site for red pine planting. Protect retention established through previous harvest. Treatment will be implemented outside of the compartment YOE to expedite planting.</p> <p><u>Next Step Treatments:</u> SitePrep, Roller Chopping; Pesticide, Aerial - Site Prep; Monitoring, Herbicide Use; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand; SitePrep, Trenching</p> <p><u>Acceptable Regen:</u> Red pine plantation</p> <p><u>Other Comment:</u> Include sale spec 3.6.1- Order of Cutting, to require stands 40, 42, 43, 44, 45, 51, 52, 53, and 55 be cut prior to cutting stand 9.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										
51 72204051-Cut	6.3	4310 - Pine, Oak Mix	Poetimber Medium	35	1-50	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription Specs:</u> Harvest all stems 1" and up to prepare site for red pine planting. No retention needed due to stand size. Treatment will be implemented outside of the compartment YOE to expedite planting.</p> <p><u>Next Step Treatments:</u> SitePrep, Trenching; SitePrep, Roller Chopping; Pesticide, Aerial - Site Prep; Monitoring, Herbicide Use; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand</p> <p><u>Acceptable Regen:</u> Red pine plantation.</p> <p><u>Other Comment:</u> Include sale spec 3.6.1- Order of Cutting, to require stands 40, 42, 43, 44, 45, 51, 52, 53, and 55 be cut prior to cutting stand 9.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
52 72204052-Cut	6.6	4125 - Black, N. Pin Oak	Sawtimber Poor	108	1-50	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Harvest all stems 1" and up to prepare site for red pine planting. No retention needed due to declining health and small stand size.</p> <p><u>Specs:</u> Treatment will be implemented outside of the compartment YOE to expedite planting.</p> <p><u>Next Step</u> SitePrep, Trenching; SitePrep, Roller Chopping; Pesticide, Aerial - Site Prep; Monitoring, Herbicide Use; Planting, Initial Plant;</p> <p><u>Treatments:</u> Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand</p> <p><u>Acceptable</u> Planted red pine.</p> <p><u>Regen:</u></p> <p><u>Other</u> Include sale spec 3.6.1- Order of Cutting, to require stands 40, 42, 43, 44, 45, 51, 52, 53, and 55 be cut prior to cutting stand 9.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										
53 72204053-Cut	1.4	330 - Low-Density Trees	Nonstocked			Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Harvest all stems 1" and up to prepare site for red pine planting. No retention needed due to stand size. Treatment will be implemented outside of the compartment YOE to expedite planting.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; SitePrep, Roller Chopping; Pesticide, Aerial - Site Prep; Monitoring, Herbicide Use; Planting, Initial Plant;</p> <p><u>Treatments:</u> Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand</p> <p><u>Acceptable</u> Planted red pine</p> <p><u>Regen:</u></p> <p><u>Other</u> Include sale spec 3.6.1- Order of Cutting, to require stands 40, 42, 43, 44, 45, 51, 52, 53, and 55 be cut prior to cutting stand 9.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										
55 72204055-Cut	33.9	330 - Low-Density Trees	Nonstocked	0	Unspecified	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Harvest all stems 1" and up to prepare site for red pine planting. Protect retention established through previous harvest. Treatment will be implemented outside of the compartment YOE to expedite planting.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); Other, Pre-Commercial Thinning - Hand;</p> <p><u>Treatments:</u> SitePrep, Roller Chopping; SitePrep, Trenching</p> <p><u>Acceptable</u> Planted red pine</p> <p><u>Regen:</u></p> <p><u>Other</u> Include sale spec 3.6.1- Order of Cutting, to require stands 40, 42, 43, 44, 45, 51, 52, 53, and 55 be cut prior to cutting stand 9.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										
65 72204065-Other	0.7	710 - Sand, Soil	Nonstocked	0	Immature	Other	Other	790 - Other Bare/Sparsely Vegetated		No
<p><u>Prescription</u> Maintain site for stockpiling material dredged from sand traps. Currently used for Williams Tract and Ausable Trail sand traps.</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> When the site will no longer be used for additional sand deposits, re-contour and re-vegetate with site appropriate species as indicated in</p> <p><u>Comment:</u> IC4287 "Vegetation Restoration of ROW, Well Sites and Other Cleared Sites on State Forest Land - NLP" or current equivalent guidance.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</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
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Approved Treatments:

1	72204001-Plant	36.2	320 - Upland Shrub	Nonstocked	0	Unspecified	Planting	Replant	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> <u>Specs:</u> <u>Next Step</u> ; ; Other, Pre-Commercial Thinning - Hand <u>Treatments:</u> <u>Acceptable</u> Fully stocked red pine stand. <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2023</p>											
36	72204036-Other	42.5	4319 - Mixed Upland Forest	Sapling Poor	3	1-50	Other	Other	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	No
<p><u>Prescription</u> <u>Specs:</u> <u>Next Step</u> Pesticide, (Inactive)Aerial <u>Treatments:</u> <u>Acceptable</u> Fully stocked red pine stand. <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2024</p>											
150	72204150-Other	7.6	4119 - Mixed Northern Hardwoods	Sapling Poor	3	1-50	Other	Other	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	No
<p><u>Prescription</u> PCT by hand or mechanically <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Mixed pine oak stand. <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2024</p>											

Total Treatment Acreage Proposed: 294

Report 4 – Site Conditions

Grayling Mgt. Unit

Compartment: 204

Victor Porteous : Examiner

Year of Entry: 2026

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions						
		With Condition	Not Available		5C	1C	3B	3G	3J	5E	
33	25	0	8	Aspen				8			
13	7	0	7	Bog			7				
547	336	6	206	Jack Pine	6		206				0
85	80	0	4	Low-Density Trees	0				1	4	
7	0	0	7	Lowland Aspen/Balsam Poplar				6	1		
25	5	0	20	Lowland Conifers	0		20				
7	7	0	0	Lowland Shrub				0			
5	0	0	5	Lowland Spruce/Fir			5				
20	0	0	20	Marsh			20				
46	46	0	0	Mixed Upland Deciduous							
20	12	4	3	Natural Mixed Pines	4	0	3				
9	9	0	0	Northern Hardwood							
64	60	0	4	Oak							4
156	129	18	8	Red Pine	18		8				0
1	1	0	0	Sand, Soil							0
7	0	0	7	Treed Bog			7				
66	66	0	0	Upland Mixed Forest							
79	76	0	3	Upland Shrub		1	0				2
8	8	0	0	Urban					0	0	
83	76	0	7	White Pine			3		2	2	
1,280	943	28	309	Total Forested Acres	28	1	278	14	4	4	12
	74%	2%	24%	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	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
Long-term retention associated with stand 9							

Report 4 – Site Conditions

Grayling Mgt. Unit

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2	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Unavailable	1C: Other dept or div proc/practices	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	3B: Threatened, endangered, and special concern species	259	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Lake Margrethe North - Intermittent Wetland Complex							
5	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Small jack pine stand surrounding a bog. Small stand size and species composition makes successful regeneration difficult.							
7	Unavailable	3G: Other Influence zones - See comments	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Small acreage adjacent to heavy residential area.							

Report 4 – Site Conditions

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Victor Porteous : Examiner

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9	Unavailable	3G: Other Influence zones - See comments	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Small sliver of harvestable timber adjacent to the Ausable River, with lowland conditions, and heavy residential adjacent with private drives that cut through.							
10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Older healthy pine stand. Previous management intent was big tree management and to push stand towards old growth characteristics.							
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Older healthy pine stand. Previous management intent in area was big tree management and to push stands towards old growth characteristics.							
12	Unavailable	3B: Threatened, endangered, and special concern species	30	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Bald eagle nest, 660' timing restriction buffer.							
13	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: AuSable River buffer 150ft.							
14	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

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Victor Porteous : Examiner

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15	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
20	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: AuSable River buffer 150ft.							

Report 4 – Site Conditions

Grayling Mgt. Unit

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23	Unavailable	1C: Other dept or div proc/practices	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
24	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: AuSable River buffer 150ft.							
25	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Small sliver of state land between pvt and Ausable trail.							
30	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Older healthy pine stand. Previous management intent was big tree management and to push stand towards old growth characteristics.							
32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Older healthy pine stand. Previous management intent was big tree management and to push stand towards old growth characteristics.							

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
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Comments



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																		
1	320 - Upland Shrub	Nonstocked	43.6	0	Unspecified	4211 - Planted Red Pine	Trail to access stand 14 was trenched and planted across to remove trail. Continued use of ORV'ers has caused mortality of trees planted here and allowed trail to come back to its original condition.																																		
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Sub-Canopy Species	Density	Avg. Height	Size																																						
Northern Pin Oak	Low	5 - 10 feet	Sapling																																						
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Red Pine	Trace	< 5 feet	Seeding																																						
2	42290 - Natural Mixed Pine	Poletimber Medium	15.4	56	51-80	N/A	Changed from 2-aged to even-aged aged since almost all of the older pin oak has died. Also changed from upland to upland with lowlands due to some seasonally wet areas.																																		
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Canopy Species	% Cover	Size Class	DBH	Age																																					
Red Pine	5	Log/XLog	16																																						
Jack Pine	50	Pole	7	56																																					
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3	6125 - Lowland Black Spruce, Jack Pine	Poletimber Well	20.2	60	51-80	N/A	Stand gets wetter and smaller in the east half. Old comments- Narrow strip between upland jack pine plantation and lowland jack pine plantation. This stand is the transition between the two. Spruce where more than likely released when the stand was harvested in the late 70's. Jack pine was then inter planted between clumps of spruce. Spruce understory is growing in clumps.																																		
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4	42120 - Planted Jack Pine	Poletimber Well	42.1	45	51-80	N/A	Called stand upland with lowland since there are large portions of stand what look seasonally wet with sheep laurel and blueberry. Old comments- Same age as adjacent stands. This stand contains more upland species than adjacent plantaion stands. Oak to the north, spruce to the south. Stand does not drop much in elevation. South edge is a transition from upland to lowland. Planted jack pine with natural jack pine mixed in. Previous inventory suggested natural origin but stand was part of larger planting block and contains evidence of rows.																																		
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
5	6126 - Lowland Jack Pine	Sapling Poor	15.6	39	1-50	N/A	Old comments - Water table appears to be higher in this stand compared to adjacent stands. Dense pockets of understory jack pine mixed with open areas. These areas may contain standing water during parts of the year. Previous inventory called this stand a treed bog. Part of a larger intermittent wetland complex. Harvested in late 70's. Stand was either avoided when adjacent stands were planted or plantation failed. Natural plant community as since succeeded.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
White Pine		5	Sapling/Pole	4		Black Spruce		Low	< 5 feet	Sapling
Jack Pine		68	Sapling/Pole	4	39	Blueberry/Bilberry/Cranberry		High	< 5 feet	Tall Shrub
Black Spruce		10	Sapling/Pole	4		Jack Pine		Low	< 5 feet	Sapling
Red Pine		2	Pole	6		Tamarack		Low	< 5 feet	Sapling
Tamarack		15	Sapling/Pole	4						
6	6233 - Wet Meadow	Nonstocked	18.9			No	Old comments- Scattered trees along perimeter. Ground cover changes yearly from grass to water to shrub depending on the water table.			
Sub-Canopy Species		Density	Avg. Height	Size						
Jack Pine		Low		Sapling						
Tamarack		Low		Sapling						
7	6225 - Bog	Nonstocked	1.2	0		No	Bog separated into new stand.			
8	6122 - Black Spruce	Poletimber Well	4.8	60	111-140	N/A	Part of surrounding plantation but with a higher mix of spruce and natural pine. This stand is seperated by low ground which is seasonally wet.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Jack Pine		20	Pole	8		Jack Pine		Low	< 5 feet	Sapling
Red Pine		20	Log/Pole	10		White Pine		Low	Variable	Sapling
White Pine		10	Log/Pole	10		Black Spruce		Low	< 5 feet	Sapling
Black Spruce		50	Pole	8	60					
9	4126 - White, Black, N. Pin Oak	Sawtimber Well	43.8	103	111-140	N/A	2024-Heavily declining Oak throughout stand. West side of stand is dominated by White Oak, east side more Hybrid Red Oak interspersed with some W. Oak. Component of Aspen scattered throughout, but most is on north side. Centrally located pocket has good Red and White Pine regeneration. Some Hawthorn and Serviceberry, seems to be on ridgetops on eastern side. 2014-Stand is made up of several ridges with a south aspect. White oak is more prevelent along the bottom of the ridges. A heavy white pine understory is also present here. Understory is minimal along the top of the ridges.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
White Pine		2	Pole	6		Red Pine		Low	>20 feet	Sapling
Bigtooth Aspen		5	Pole/Log	9		White Oak		Medium	< 5 feet	Sapling
Red Maple		1	Pole	6		Black Cherry		Low	< 5 feet	Seeding
White Oak		35	Pole/Log	9		Red Maple		Low	>20 feet	Pole
Red Pine		2	Pole/Log	8		White Pine		Low	>20 feet	Sapling
Black/Red (Hybrid) Oak		55	Log/Pole	12	103	Hawthorn (spp.)		Low	10 - 20 feet	Tall Shrub
10	6224 - Treed Bog	Nonstocked	6.7			No		Old comments- Trees range from seedling to pole size. Evenly distributed. Good example of an evolving intermittent wetland succeeding to a lowland conifer forest.		
Sub-Canopy Species		Density	Avg. Height	Size						
Black Spruce		Trace		Pole						
Jack Pine		Medium		Sapling						
White Pine		Medium		Sapling						
Red Pine		Low		Sapling						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																										
11	6126 - Lowland Jack Pine	Poletimber Medium	97.8	45	1-50	N/A	Lowland jack pine with a mosaic of openings and wet areas. Sheep laurel and blueberry understory most places. Old comments- Planted jack pine stand. Originally planted with surrounding pine stands. Stand appears to have been subject to mortality early on due to the seasonably higher water table in this area. Jack pine and black spruce filling in canopy gaps.																																										
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12	6225 - Bog	Nonstocked	1.8			No	Seasonally to yearly wet. Water table fluctuates as a natural process with this community.																																										
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13	6225 - Bog	Nonstocked	1.3	0	Unspecified	No	Small bog split into new stand from parent stand 38.																																										
14	330 - Low-Density Trees	Nonstocked	2.8			No	Old gravel pit.																																										
15	6225 - Bog	Nonstocked	2.7			No	Old comments- Seasonally to yearly wet. Water table fluctuates as a natural process within this community.																																										
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16	6225 - Bog	Nonstocked	1.6		Immature	No	Forested drain filled in with leatherleaf and blue berry. Part of surrounding pine plantation but had a higher water table more often than surrounding stand, causing its non-forested condition.																																										
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18	6229 - Mixed lowland shrub	Nonstocked	1.1			No	Small kettle hole in surrounding hills. Seasonally wet.																																										
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
19	4130 - Aspen	Poletimber Well	14.9	36	81-110	N/A	Very steep slope down to bog. Aspen with a small component of oak. Old comments- Stand consists of a large bowl that faces to the east. Aspen is growing well on this site due to the fact that it is protected from extreme conditions of adjacent south facing slopes. Parent stand was dominant with oak but had a good mix of aspen. Harvested under contract # 72-008-87-01, Yellow Oak Block in mid 1988. 226 crds. of mixed oak, 165 crds. of aspen, and 52 crds. of red maple.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Black/Red (Hybrid) Oak		7	Pole	7		Red Maple		High	>20 feet	Sapling	
Red Maple		5	Pole	6							
Bigtooth Aspen		88	Pole	8	36						
20	6126 - Lowland Jack Pine	Poletimber Well	162.6	45	51-80	N/A	Old comments- Planted jack pine. Stand is driest to the south and east. As you move north and west stand becomes more wet with an increase of blueberry and other wetland species in the understory. Sub-surface water flow and wetland depressions present in this part. Heavy deer use during winter months for cover. Trenched and seeded in 1979. Stand is part of the Lake Margrethe North intermittent wetland complex as described by MNFI. This plant community is an ERA which contains a host of threatened or rare flora and fauna. Only the north portion of this stand lies within the ERA itself but this stand should be considered as part of the surrounding upland sites which buffer the intermittent wetland.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Black Spruce		5	Pole	6		Black Spruce		Trace	Variable	Sapling	
Jack Pine		86	Pole	7	45	Northern Pin Oak		Low	Variable	Sapling	
Red Pine		1	Pole/Log	9		Black Cherry		Low	Variable	Sapling	
White Pine		5	Log/Pole/XLog	10							
Northern Pin Oak		3	Pole	7							
21	42110 - Planted Red Pine	Sawtimber Medium	21.7	100	81-110	N/A	Changed origin from 1908 to 1924 after coring multiple trees, but there are older natural red pine and white pine throughout (mostly on east side of stand). Also changed stand to upland with lowlands. Areas heavy to sheep laurel seem to be wetter. Harvested 2021, Kevin Pine #72-647-16. Old comments- Old red pine plantation with natural white pine. Highest BA towards the east with the least amount of understory. Red maple and spruce become present in the canopy towards the west. Water table also rises. Multiple fires have occurred in this area, prescribed or otherwise. Heavy deer use during winter months. Understory maple has been browsed for years.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Black Spruce		2	Pole	8		Red Maple		Low	Variable	Sapling	
White Pine		10	XLog/Log	20		White Pine		Low	Variable	Sapling	
Red Pine		88	XLog/Log	18	100	Black Spruce		Low	Variable	Sapling	
						Northern White Cedar		Trace	>20 feet	Pole	
22	42120 - Planted Jack Pine	Poletimber Well	10.8	45	81-110	N/A	Changed stand to even-aged due to oak mortality. Called stand upland with lowland due what looks like fluctuating ground water and sheep laurel in places. Old comments- Mix of planted jack pine and natural white, red, jack pine. Oak canopy was removed forty plus years ago. Stand was either supplemental planted or was part of adjacent jack pine stand to the east and failed. White pine is of good form.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		10	Pole/Log	9		Black Spruce		Low	Variable	Sapling	
Black Spruce		3	Pole	8		White Pine		Medium	Variable	Sapling	
White Pine		15	Log/Pole	10							
Jack Pine		60	Pole	9	45						
Red Pine		5	Log	12							
Northern Pin Oak		7	Log	14							
23	42290 - Natural Mixed Pine	Sawtimber Well	5.0	116	81-110	N/A	Natural red and white pine spruce in sub canopy. Legacy white pines throughout. Old comments- Small ridge along the north contains oak component with a heavier white pine understory. Red maple and spruce increase off this ridge with the understory converting to spruce. Spruce seedlings are present here.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		18	Log	14		Black Spruce		Medium	>20 feet	Pole	
Red Pine		45	Log	17	116	Red Maple		Low	Variable	Sapling	
White Oak		2	Log	12		Northern White Cedar		Trace	>20 feet	Pole	
White Pine		30	XLog/Log	20		White Pine		Low	Variable	Sapling	
Northern Pin Oak		5	Log	15							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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24	42210 - Natural Red Pine	Sawtimber Poor	13.8	106	51-80	N/A	Stand was opened up more than adjacent stand 21 due to canopy gap creation. Harvested 2021, Kevin Pine #72-647-16.
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Canopy Species	% Cover	Size Class	DBH	Age
Black Spruce	5	Pole	8	
White Pine	30	Pole/Log/XLog	9	56
Red Pine	65	XLog/Log	19	106

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

25	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	4.5	66	111-140	N/A	White cedar is hollow for the most part. Stand is seasonally wet but should be solid enough to operate on during dry summer months or frozen winter months. Heavy deer use as cover during winter months.
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Canopy Species	% Cover	Size Class	DBH	Age
White Pine	4	Log/XLog	16	
Red Pine	3	Log/XLog	16	
Black Spruce	44	Pole	8	66
Paper Birch	4	Log/Pole	10	
Northern White Cedar	25	Log/Pole	10	100
Red Maple	20	Log	12	

Sub-Canopy Species	Density	Avg. Height	Size
Black Spruce	Medium	Variable	Sapling

26	6225 - Bog	Nonstocked	2.0			No	Seasonally to yearly wet. Water fluctuates as a natural process in this community.
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Sub-Canopy Species	Density	Avg. Height	Size
Jack Pine	Trace		Sapling
Blueberry/Bilberry/Cranberry	Medium		Tall Shrub
Tamarack	Trace		Sapling
Leatherleaf	Medium		Tall Shrub

27	42200 - Natural White Pine	Poletimber Poor	15.6	53	1-50	N/A	Used old cutting record from 1971 for canopy age, but has some variability. Understory white pine left after harvest now dominates the canopy percentage. Pole, log, and x-log pine scattered throughout with some open areas as well. Stand met regen objectives. Stand harvested 2019, 204 Painted Firewood #72-634-16.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	5	Sapling	1	
White Pine	78	Pole/Sap/Log	5	53
White Oak	2	Log	14	
Northern Pin Oak	5	Sapling	1	
Red Pine	10	Log/XLog	16	

Old comments- Large diameter northern pin oak stand. Mortality is occurring in the oak. White pine, red pine, and red maple are succeeding through the canopy. Stand may have been thinned forty years ago. Understory varies in age but averages to forty. Heavy deer browse on all oak regeneration.

28	42120 - Planted Jack Pine	Sapling Well	58.0	27	Immature	N/A	Edge call made from north side of stand and using aerial imagery to confirm previous stand examiner's data. Changed stand to upland with lowland due to some areas of hummocky ground containing sheep laurel. Old comments- Old railroad grade runs along north edge of stand. Heavy deer use during winter months for cover. Harvested under contract # 72-014-96-01, Amy Jack Block in 1996. Planted under FTP C72-389 in April of 1997. Inclusion of jack pine to the east which was planted in 1989.
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Canopy Species	% Cover	Size Class	DBH	Age
Jack Pine	100	Sapling/Pole	4	27



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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29	42120 - Planted Jack Pine	Poletimber Well	34.4	28	1-50	N/A	There is some humacky ground towards the south half but still looks like upland throughout. Old comments- Natural jack pine stand with inter planted jack pine. The younger age class of jack pine appears to be concentrated to the north and south. Previous inventory referenced 15 acres as being seeded due to poor stocking. Stand was harvested in 1988 under contract# 72-007-87-01, Tank Trap Block. FTP was drafted and submitted for this YOE. FTP# C72-384 was submitted April 1996 to plant open areas to jack pine. Planting summary was completed in June of '96.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern Pin Oak		10	Pole	6		Black/Red (Hybrid) Oak		Low	< 5 feet	Seeding	
Jack Pine		90	Pole	5	28	Black Cherry		Medium	Variable	Sapling	

30	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Medium	74.2	18	1-50	N/A	Mosaic of jack pine, open cherry, and oak. Changed stand to even aged (not enough older oak left to call 2 aged). Old comments-Minimal deciduous regeneration because of heavy deer browse. Snow limited. Maybe more oak under 3 ft which have not been browsed. Super canopy oak experiencing mortality. Sub-canopy oak and aspen are browsed individuals. Sub-canopy jack are seedlings. Portions of the stand have an oak management objective. All portions fail for oak and pass for jack pine. Harvested under contract # 72-032-05-01, Blue Bear Snow in July of 2006. Left all red pine and white pine as well as scattered individual retention trees and painted out islands. Harvest was made up of eight different stands, six oak and two jack pine. Needs more regeneration work.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		5	Sapling	2							
Northern Pin Oak		10	Sapling	2							
Black Cherry		10	Sapling	1							
Northern Pin Oak		5	Log/XLog	16	108						
Quaking Aspen		3	Sapling	2							
Jack Pine		65	Sapling	2	18						

31	6225 - Bog	Nonstocked	2.9			No	Blueberry bog
Sub-Canopy Species		Density	Avg. Height	Size			
Leatherleaf		High		Tall Shrub			
Blueberry/Bilberry/Cranberry		High		Tall Shrub			

32	42220 - Natural Jack Pine	Sawtimber Well	5.9	72	51-80	N/A	Natural jack pine stand surrounding a small bog.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Northern Pin Oak		20	Log	12		White Pine		Low	Variable	Sapling
Jack Pine		78	Log/Pole	10	72	Black Cherry		Medium	< 5 feet	Sapling
White Pine		2	Log	10		Northern Pin Oak		Low	< 5 feet	Sapling

33	42210 - Natural Red Pine	Poletimber Medium	11.5	43	51-80	N/A	Stand was not opened up enough to facilitate good regeneration but, existing red and white pine pole timber was released and now make up canopy. Stand harvested in 2019 204 Painted Firewood (72-634-16). Rx says 30-50 BA, but is over 100 in places. Oak stand with under planted red pine. White pine is natural and approximately the same age as the red pine. Oak is experiencing mortality.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		25	Pole	9		Northern Pin Oak		Low	5 - 10 feet	Sapling	
Red Pine		75	Pole/Log	9	43	White Pine		Trace	< 5 feet	Sapling	
						Red Pine		Trace	< 5 feet	Sapling	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
36	4319 - Mixed Upland Forest	Sapling Poor	59.6	3	1-50	N/A	Planted red pine among a lot of residual oak and pine. RP should dominate canopy next rotation. Old comments- Was cut July 2006 (#032-05), leaving all RP-WP, marked leave trees and ret islands.. Sparse regen heavily browsed. Residual NPO mortality. Most of the stand (42 acres) was chopped in 2016 and trenched in 2017 (C72-804), excluding pockets of oak residual and regen left for diversity. Was site-prep sprayed June 2019. Planted 1052 TPA PRT RP in May 2021. Sept 2021 Yr 1 survey: 848 TPA, 81% FTG, 9.6% mortality. BC is the primary competitor, O-RM secondary. Oct 2023 Yr 3 survey: 911 TPA, 80% FTG, 7% mortality, primary competitor BC, secondary oak.																																													
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White Pine	5	Log/Pole	10																																																	
37	4131 - Aspen, Oak	Poletimber Medium	4.6	42	51-80	N/A	Old railroad grade runs through this stand. Snowmobile trail is also adjacent.																																													
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38	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	46.0	28	1-50	N/A	Some pole size areas but, still overall sapling sized. Old comments- Jack pine is dense. Oak has overtopped the jack pine in most places. Stand will be a nice mix in the future providing it self thins. Stand was harvested in 1989 under contract # 72-009-87-01, Refrigerator Block. FTP# C72-384 was submitted April 1996 to plant open areas to red pine. Planting summary was completed in June of '96 and indicated jack pine was planted instead.																																													
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39	42200 - Natural White Pine	Sawtimber Well	5.2	56	81-110	N/A	Jack pine and red maple understory in current canopy gaps. Will recruit into the canopy. White pine put on good diameter growth since release. Oak stump sprouts represent canopy oak.																																													
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40	320 - Upland Shrub	Nonstocked	35.8	0	Unspecified	42221 - Natural Jack Pine, Mixed Deciduous	Stand regenerated to mostly cherry with a heavily browsed component of oak. A pocket of aspen/cherry in middle of stand. Stand 34 merged with stand 40 following harvest. Jamaican Jack #72-635-16, harvested Jan 2021. Stand 40 old comments- Oak and jack pine both experiencing mortality. Heavy jack pine snapping and debris on forest floor. Younger age class of oak is doing well. Stand 34 old comments- Jack pine plantation. Scattered older stems of natural jack pine. Mortality is occurring in the oak and older stems of jack pine. Minimal understory.																																													
42	330 - Low-Density Trees	Nonstocked	2.4			No	Grassy opening with some cherry, oak, and jack pine.																																													
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43	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Poor	37.3	56	1-50	N/A	Changed from 2-aged to even aged. Most of the 108 year old oak has died and cannot be another age class. Stand 50 merged with stand 43 due to similar characteristics. Stand 43 old comments- Meets 30% crown closure. Stand contains two aspen clones with scattered canopy oak and jack pine. Primarily a cherry brush stand in the understory. Stand 50 old comments- Harvested under contract # 72-034-05-01, Patchy Oak in June of 2006, cutting all oak, aspen, jack pine, and red maple 2" and up. Left red and white pine. Successfully expanded aspen clone in previous harvest but not enough to overcome cherry in this stand. Oak regeneration was low from previous harvest and has experienced heavy deer browse. Black cherry is dominate throughout most parts of this stand. Eight acres in the stand's SW were chopped in 2016 and trenched in 2017 (C72-804). That has now been split off as stand 150.																																														
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44	4125 - Black, N. Pin Oak	Sapling Well	13.6	27	1-50	N/A	Old comments- Oak is growing well. Most patches are fully stocked with oak growing from stump sprout (average 7 stems/stump.) Aspen is only dominate where a clone was located. Even mix of pine in most.																																														
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45	330 - Low-Density Trees	Nonstocked	40.6	0	Immature	42221 - Natural Jack Pine, Mixed Deciduous	A few small pockets of aspen, heavily browsed oak, and scattered jack pine seedlings following harvest, but has failed to meet natural regen objectives. Small bog in north excluded from harvest. Final harvest Completed Jan of 2021. Leave all red and white pine. Old comments: Jack pine is two aged. Previous harvest left oak and more than likely unmerchantable jack pine. Stand was then planted through. Older pine and oak are dying out of the stand.																																														
46	42110 - Planted Red Pine	Sapling Well	118.0	16	1-50	N/A	Changed stand to even-aged, not enough in residuals to call 2-aged. Red pine looks healthy. Some jp and cherry competition in places, but overall stand looks good. Old comments- 40% of stand is free to grow, more if all pine is included. White pine was left from previous harvest. Oak super canopy is in retention islands and was not planted through. Natural jack pine will succeed with this stand. Harvested under contract # 72-036-05-01, AuSable Trail Sale in August of 2006. Trenched and planted spring of 2008 under FTP C72-562.																																														
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47	4130 - Aspen	Sapling Well	5.3	18	Immature	N/A	Old comments- Aspen regenerated well. Expanded outside of old stand 87 to the west. Harvested under contract # 72-034-05-01, Patchy Oak in June of 2006. Cut all oak, aspen, jack pine, and red maple 2" and up. Left red and white pine. Old stand 87 passes aspen MO.																																														
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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48	42200 - Natural White Pine	Poletimber Medium	44.8	50	1-50	N/A	2024- Stand 41 merged with Stand 48 to maintain mapping guidelines. NW section of stand was Stand 41- Heavily declining Jack Pine and Hybrid Oak with some scattered W Pine. Roughly 1 acre patch on W side around 80 BA, rest of stand 41 sparse, maybe 20-30 BA, less than 30-40% canopy cover. Good Red Maple regeneration coming in most of this area, should convert well to mixed hardwood deciduous cover type. Majority of stand 48 covered under 72-634-16 Painted Firewood. Essentially converted stand to White Pine typing. Cored several W. Pine in 6-10" DBH class, avg age of 50 years. Scattered R Pine throughout, with pocket near center of stand heavy to R Pine. Occasional scattered White Oak. Appearance of a shelterwood, with many stump sprouted R Oak that have already reached 6-8 ft recruitment size. 2019-Stand harvested in 2019, 204 Painted Firewood (72-634-16). Inclusion of aspen in the SE corner. Oak is experiencing mortality throughout the stand. Pine is succeeding.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Pine	90	Pole	9	50	Red Oak	Low		5 - 10 feet	Sapling
Red Pine	9	Log/Pole	11		White Pine	Low		< 5 feet	Sapling
White Oak	1	Pole	6		Aspen (spp.)	Low		5 - 10 feet	Sapling

49	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	8.4	27	Immature	N/A	2024- Two easternmost pockets are A3 stands, with western of those two approaching pole size class. Others are varied cover types and canopy closures. Oak/Maple mix, Cherry/Oak mix, etc. All have components of oak. 2014-Eastern most pocket is an A 3 stand. Aspen becomes less of a component as you move west. Pine becomes more prevalent. Western most patches have the lowest stocking.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Pine	10	Sapling	4		Northern Pin Oak	Low		5 - 10 feet	Seeding
Red Maple	3	Sapling	3	27	Jack Pine	Medium		< 5 feet	Sapling
Red Pine	2	Sapling	4		White Pine	Medium		< 5 feet	Sapling
Quaking Aspen	25	Sapling/Pole	5	27					
Jack Pine	15	Sapling	4						

51	4310 - Pine, Oak Mix	Poletimber Medium	6.3	35	1-50	N/A	Old comments- Stand is progressing slowly. White pine was left from harvest, should help fill in gaps later on.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	32	Pole/Sapling	5	35	Jack Pine	Low		< 5 feet	Sapling
Black Cherry	10	Sapling	4		Black Cherry	Medium		Variable	Sapling
Northern Pin Oak	28	Pole/Sapling	5	35					
Bigtooth Aspen	20	Pole	7						
White Pine	10	Log/Pole	10						

52	4125 - Black, N. Pin Oak	Sawtimber Poor	6.6	108	1-50	N/A	Widely spaced over-mature wolfy pin oak with open areas containing cherry brush and some oak. Old comments- Naturally open stand with an old cherry understory. Both are experiencing mortality.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Northern Pin Oak	91	XLog	20	108	Black Cherry	High		10 - 20 feet	Pole
Jack Pine	2	Log/Pole	10		Jack Pine	Trace		Variable	Sapling
Black Cherry	5	Pole	8		Northern Pin Oak	Low		5 - 10 feet	Sapling
White Pine	2	Log/Pole	10						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																															
53	330 - Low-Density Trees	Nonstocked	1.4			No	Grassy opening with a few large pin oaks and some cherry brush.																																																															
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55	330 - Low-Density Trees	Nonstocked	37.8	0	Unspecified	4191 - Mixed Upland Deciduous with Conifer	Stand failed to meet natural regen objective following harvest. Mostly cherry with some scattered jp seedlings. Merged opening (stand 54) in southwest with stand 55. White pine and red pine residuals throughout. Ausable Trail Oak #72-633-16. Harvested 11/18, chipped 04/19, and closed 05/20 once the final wood was removed from PU2. Heavy oak and jack pine mortality. Oak was thinned 47 years ago except for a small pocket to the south which is on a small ridge with better site quality. White oak and most of the older age class of jack pine are in this area. Aspen exists in several small clones.																																																															
56	110 - Low Intensity Urban	Nonstocked	7.5			No	S. AuSable Trl.																																																															
57	6112 - Lowland Aspen	Sawtimber Medium	7.4	57	81-110	N/A	Somewhat open aspen with heavy shrubs in understory. Old comments- Oak is on upland site along north boundary. Aspen is in the river floodplain.																																																															
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58	6220 - Alder/willow	Nonstocked	3.1			No	Tag alder and Ausable River.																																																															
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60	6220 - Alder/willow	Nonstocked	1.5			No	Tag alder with a few scattered cedar, birch, pine in stand. Old comments- Year around wet stand along river. AuSable river runs through this stand.																																																															
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61	6220 - Alder/willow	Nonstocked	1.6			No	Mostly open grass lowland with some willow and tag alder. Ausable River included in stand.																																																															



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																
62	42200 - Natural White Pine	Sawtimber Poor	17.4	66	1-50	N/A	<p>Stand has a shelterwood appearance following harvest with basal area ranging from 20-100 (around 50 on avg). Some white pine regen in southern half of stand. Some large portions of stand where ba is higher, consist mostly of scattered cherry brush in understory. A couple pockets of aspen regen in places too (mostly in north). Overall stand met regen objectives following harvest. RMZ and portion east of trail not included in harvest but, too small to make separate stands. Harvested in winter of 2016/2017. All oak, red maple, and aspen were harvested, leaving all white and red pine.</p> <p>Some mortality in the oak. White pine and maple succeeding through the canopy. Heavy deer use during winter months. Paper birch and white oak present in southern portions of the stand. Scattered older stems of white and red pine. Stand has a small inclusion of cedar/tamarack in the SW corner.</p>																																																
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63	4139 - Aspen, Mixed Deciduous	Sawtimber Well	7.9	66	81-110	N/A	<p>Changed stand age from 2 aged to even. Most of the 100 year old oak has died. A few remnant oak and pine in that age class but not enough to separate. Old comments-High visual influence area. Stand is an access point to the AuSable River. Aspen will hold another 10 years.</p>																																																
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64	6233 - Wet Meadow	Nonstocked	1.0	0		No	<p>Old comments- Marsh with perimeter leatherleaf. OPIC - FMD: Dense leatherleaf over sphagnum moss in standing water. Falls within a large intermittent wetland ERA.</p>																																																
65	710 - Sand, Soil	Nonstocked	0.7	0	Immature		<p>Stockpiling site for spoils dredged from the Williams Sand Trap (F72-727). Most recent deposition was October 2018.</p>																																																
150	4119 - Mixed Northern Hardwoods	Sapling Poor	8.8	3	1-50	N/A	<p>Was cut in 2006 (#034-05), leaving the RP-WP. Sparse oak regen heavily browsed; BC-dominated regen. This portion of the original stand 50 was chopped in 2016 and trenched in 2017 (C72-804). Was site-prep sprayed June 2019. Planted 1043 TPA PRT RP in May 2021. Sept 2021 Yr 1 survey: 848 TPA, 81% FTG, 9.6% mortality. Oct 2023 Yr 3 survey: 911 TPA, 80% FTG, 7% mortality, primary competitor BC, secondary oak. This was FRS data aggregated with stand 36.</p>																																																
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