



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12113

Entry Year 2025

Acreage: 3,343

County Dickinson

Management Area: Cassidy Creek

Stand Examiner: Jacob Siler

Legal Description:

T41N,R29W Sections 4, 5, 6, 7, 8, 17,18. T41N,R30W Sections 1, 12, 13, 24. T42N, R29W Section 32.

Identified Planning Goals:

This compartment has a high recreational potential that influences our efforts at managing a healthy, diverse area with more emphasis on fish and wildlife habitats within this unusually rugged area.

Soil and topography:

Soils are shallow and rocky. The topography is unusually rugged in this compartment.

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

This area was once owned by Hanna Minning Company and was the site of the Groveland Mine. After the mine closed in the early 1980s a large portion of land was gifted to the state. A recreational area now occupies much of land. Recreation heavily revolves around the mine ponds, adjacent roads and rugged terrain. Popular recreation for this area includes hunting, fishing, camping, and snowmobiling. The potential establishment of a solar field on heavily degraded and unproductive mine tailings may bring another use for a portion of the gifted land. Michigan Minning LLC currently has ownership of the pit and some adjacent land to the north. Private ownership surrounding the compartment is small and made up by handful of private landowners.

Unique Natural Features:

This site was likely in the middle of a mountain range. It's now only the roots of the range, but it is rugged, diverse and beautiful. It has large ponds that were designed for mining use but now provide a more diverse site.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

This is a widely used recreation area in the summer, fall and winter. Summer brings lots of campers and fishermen. Fall brings bird and deer hunters. Winter brings ice fisherman and snowmobilers.

Watershed and Fisheries Considerations:

There is the Pine Creek, Mouny's Creek, the North, South, East and West Pond. Steel Creek and Pine Creek flow within this compartment and are designated Type 1 trout streams. A portion of the Groveland Mine Complex is also within this compartment and includes East Pond and South Pond. Unnamed streams and wetlands are also within this compartment. For all designated trout streams less than 50 feet in width, a 300' buffer is recommended in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, 100' plus 5' per 1% increase in slope. For all non-designated trout streams, waterbodies and wetlands should include a 100' buffer.

Wildlife Habitat Considerations:

This is a very diverse area that provides habitat requirements for a variety of game and nongame species. The riparian areas will continue to be managed in a fashion that will benefit eagles and ospreys with the maintenance of super canopy trees in the overstory, to provide nest and perch sites. Herons have maintained rookeries in this complex of lakes, historically and current habitat features exist to encourage them to nest here again. Loons nest on Island Pond. Any harvest activities will need to take these species nesting time and locations into account during harvest operations. Hardwood stands scheduled for harvest will be treated in a way that provides structural and species diversity. Dense lowland and upland conifer sites provide both winter and summer habitat requirements for species such as deer, bobcat, and snowshoe hare. Turkeys occupy many of the forest edges and large open areas.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of thin to discontinuous glacial till over bedrock. The glacial drift thickness varies between 10 and 100 feet. The Precambrian Archean granite/gneiss and minor Michigamme formation outcrop below the glacial drift. There is not an economic use for these rocks, although the granite/gneiss might have building stone potential. The Groveland Iron mine is located to the north. This compartment was not previously leased for metallic exploration but could have potential. A gravel pit is located in Section 5. There is no economic oil and gas production in the UP.

Vehicle Access:

Lots of roads both opened and closed to ORV use. A snowmobile trail occupies the east boundary, south pond access road, of the compartment in the winter. Roads are not plowed and often in rougher shape. ORV use in mine tailings and low areas is an ongoing issue.

Survey Needs:

Survey may be needed.

Recreational Facilities and Opportunities:

Many diverse opportunities for hunting, fishing and snowmobiling abound in this compartment. Boat ramps/access sites are of good quality. Access roads have been improved in recent years.

Fire Protection:

This is a possible fire area because of the amount of public use. There would be a problem with the rugged terrain but there is a lot of water available.

Additional Compartment Information:**The following reports from the Inventory are attached:**

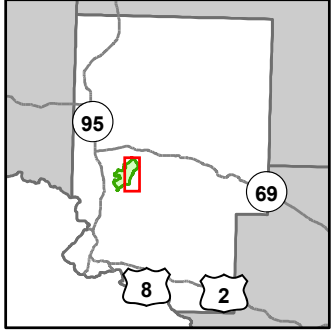
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

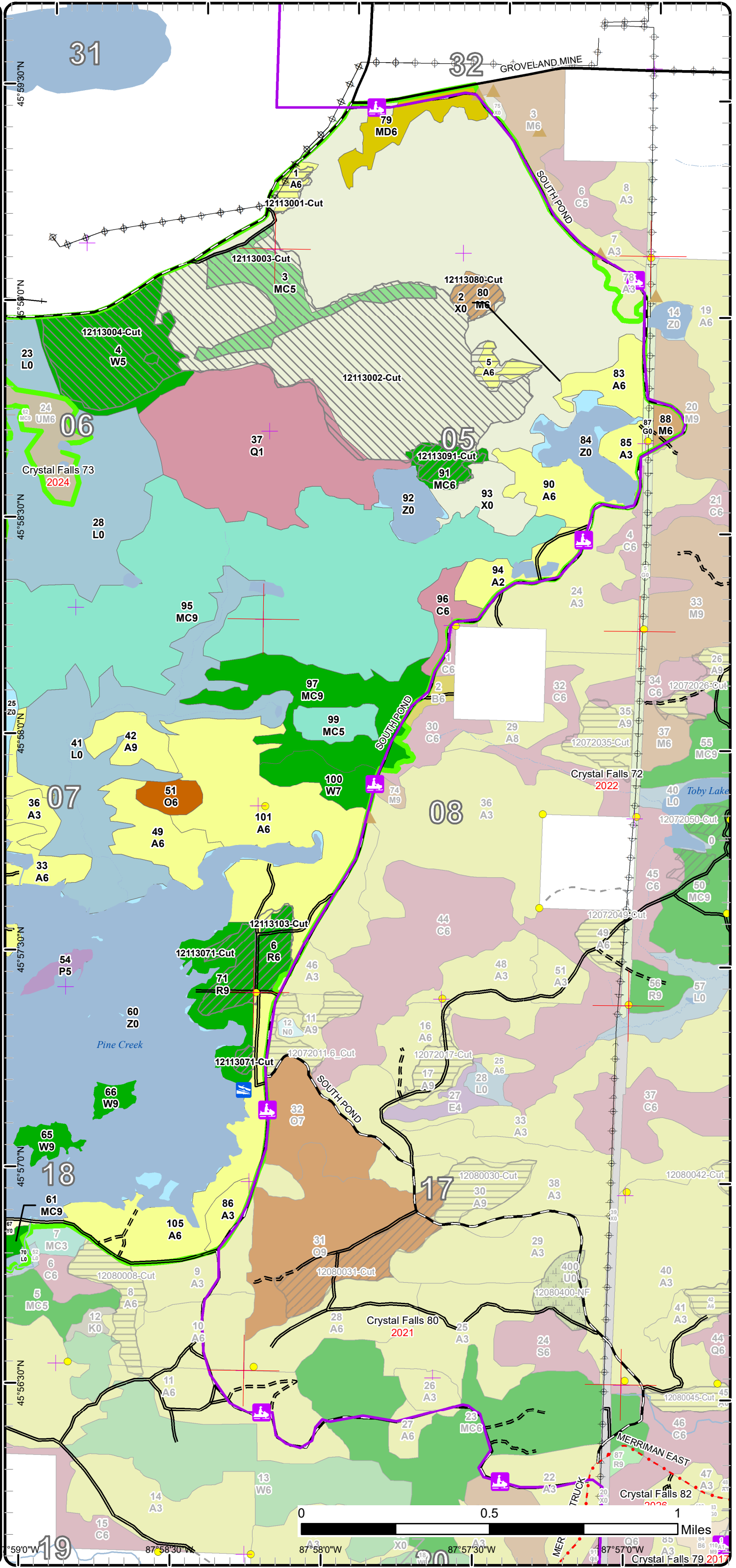
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 113
 T41N, R29W, Sec. 05-08, 17-18
 T41N, R30W, Sec. 12-13, 24
 T42N, R29W, Sec. 31-32
 County: Dickinson
 Unit: Crystal Falls
 Mgmt Area: Cassidy Creek
 YOE: 2025
 Acres: 3343.3 GIS Calculated
 Examiner: Jacob Siler
 Map Revised: 8/1/2023
 Map Phase: Review

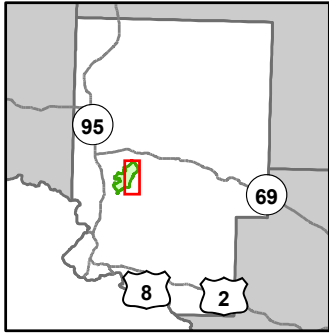


- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- County - Gravel Road
- Private - Dirt / Gravel Road
- Active Railroads
- Snowmobile Trails
- Designated Snowmobile Trails
- Intermittent Stream
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers
- ▲ Berms
- Boating Access Site
- + Powerline
- Compartment Boundary
- Other Harvest - See Comments
- Clearcut (w/Reserves)
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 710 - Sand/Soil
- 790 - Other Bare/Sparsely Vegetated

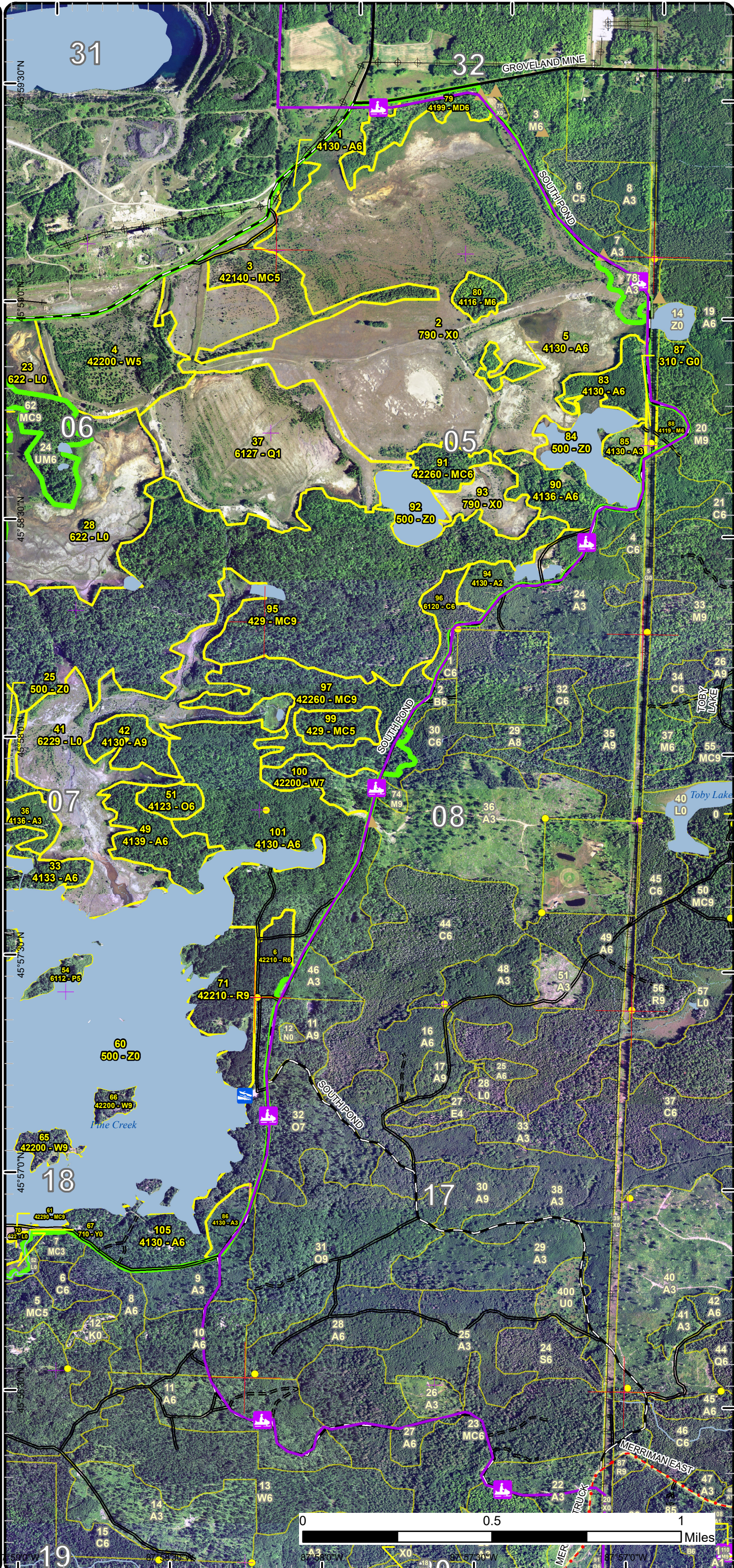


Stand Boundary Map

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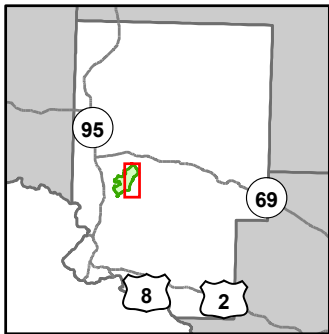


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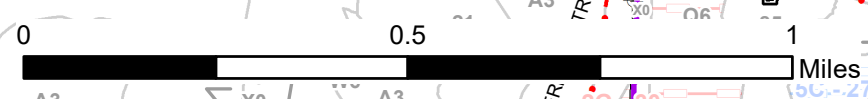
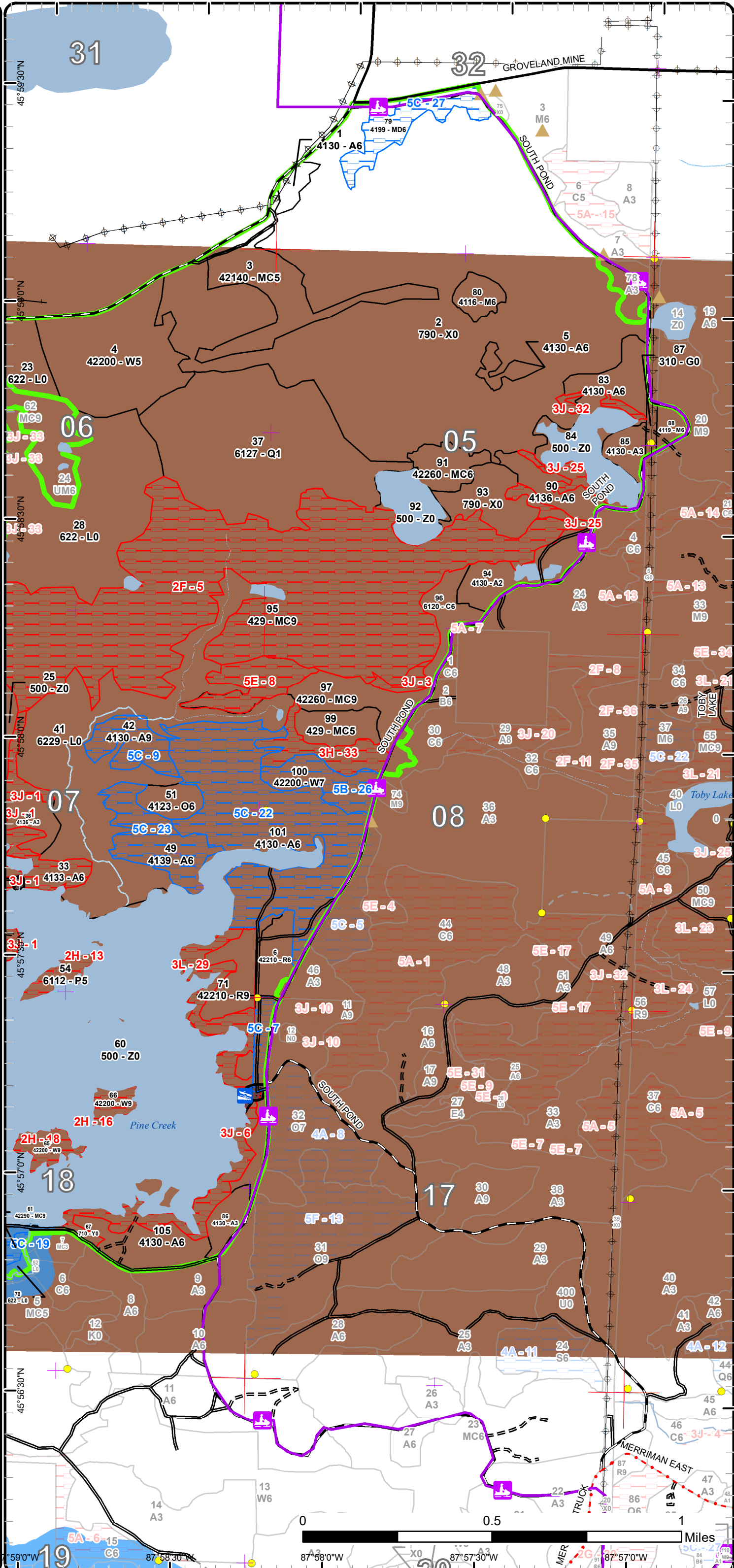


Special Conservation Areas

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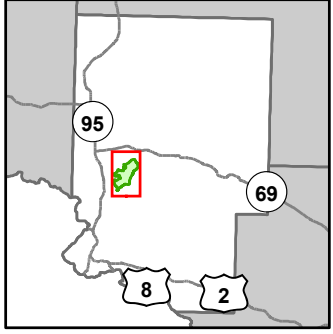
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- Compartment Boundary
- Available w/ Constraints
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable
- 2F: Too steep
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3J: Water quality / BMPs (stream, river, or lake)
- 3L: Other wildlife concerns
- 5E: Long-Term Retention
- Stand Boundaries
- SCA
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Wildlife Management Areas
- Boat Access Site



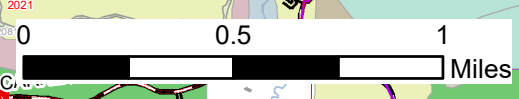
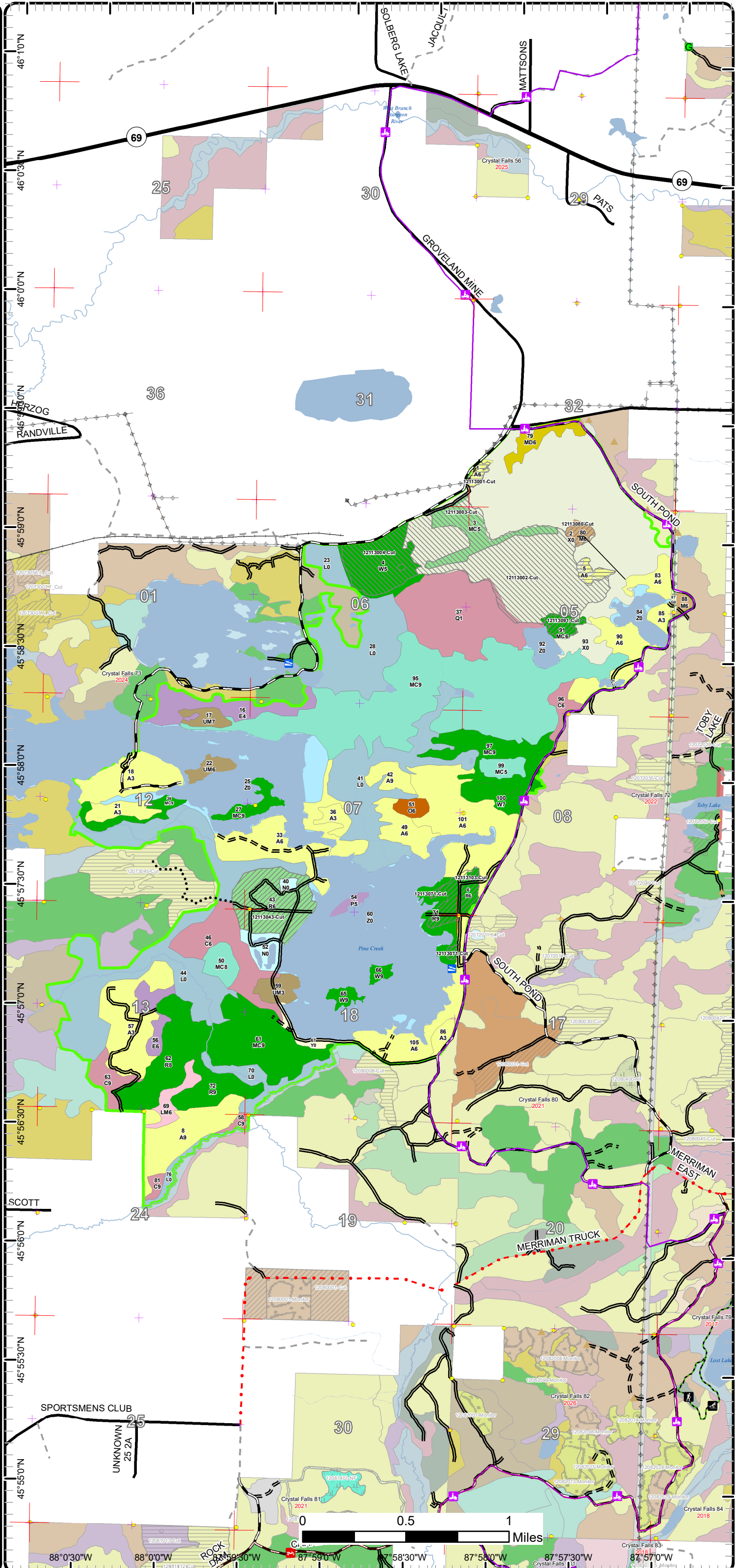
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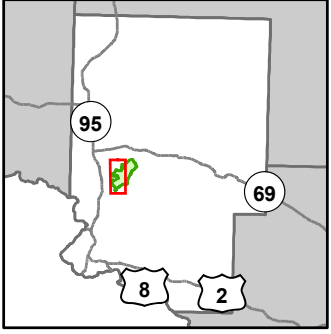
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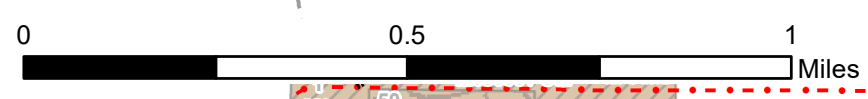
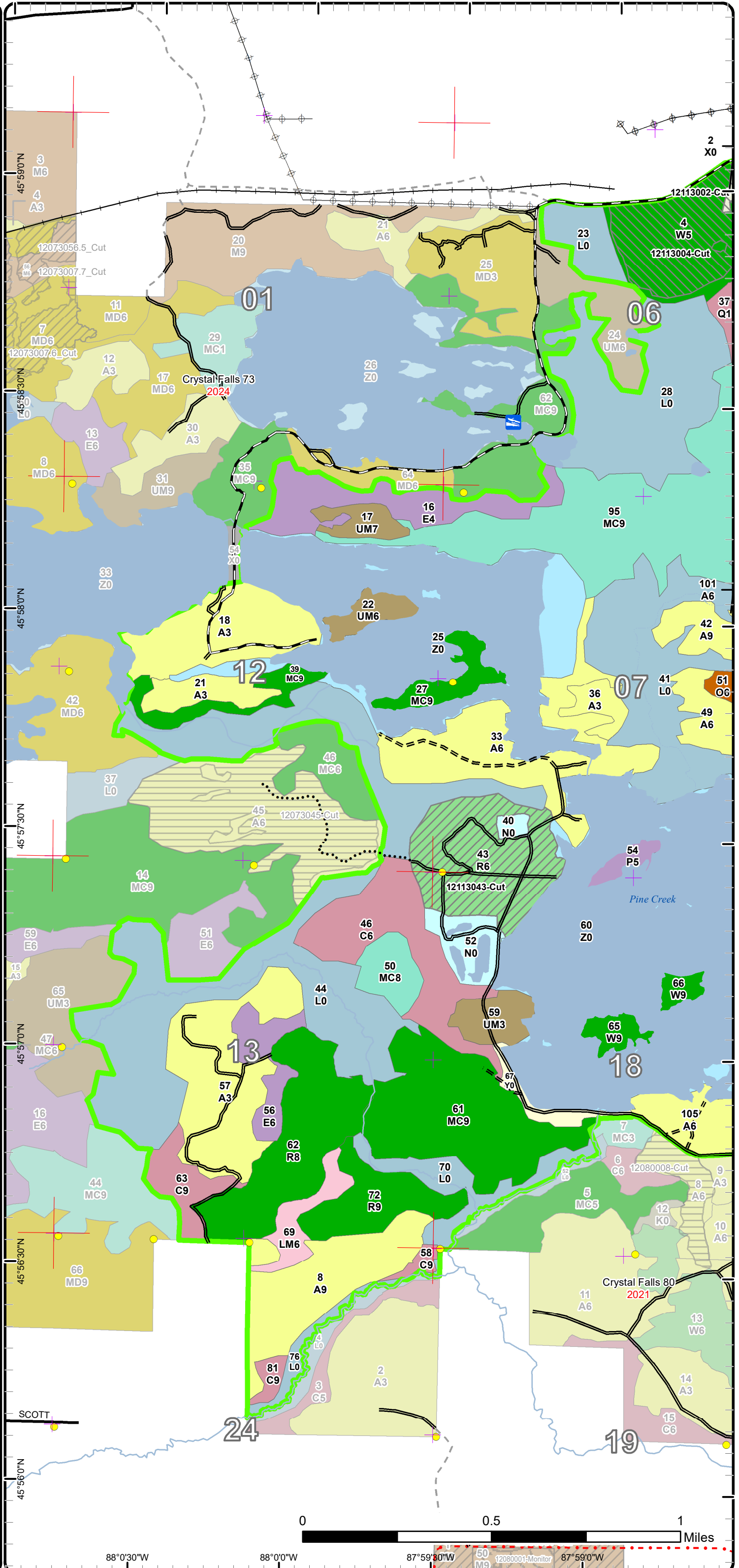
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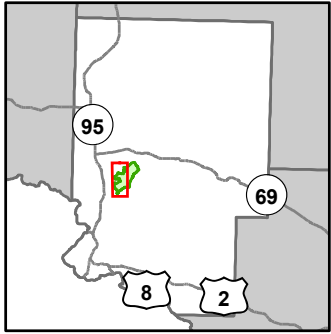
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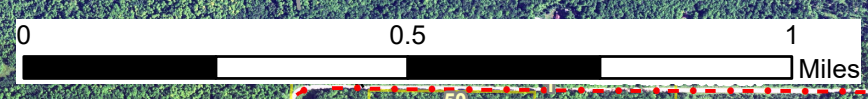
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Report 1 – Total Acres by Cover Type and Age Class



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+	Unseen-Aged	Total
Aspen	0	24	142	18	0	129	97	82	0	74	0	0	0	0	0	0	0	0	566
Bare/Sparsely Vegetated	439	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	439
Cedar	0	0	0	0	0	0	0	0	0	0	75	5	0	15	0	0	0	0	95
Herbaceous Openland	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Aspen/Balsam Poplar	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Conifers	0	0	0	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	0	18	44	0	0	0	0	0	62
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	15
Lowland Shrub	475	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	475
Marsh	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	19
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	87	105	0	0	0	0	0	192
Northern Hardwood	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	12
Oak	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	8
Planted Mixed Pines	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Red Pine	0	0	0	0	0	0	11	66	0	37	0	101	0	0	0	0	0	0	214
Sand, Soil	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Upland Conifers	0	0	0	0	0	12	0	0	0	16	0	0	315	0	0	0	0	0	343
Upland Mixed Forest	0	0	16	0	0	0	0	0	0	0	11	0	12	0	0	0	0	0	39
Water	584	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	584
White Pine	0	0	0	60	0	0	0	0	0	0	14	0	17	0	0	0	0	0	91
Total	1532	24	193	193	0	147	108	148	8	139	119	226	493	15	0	0	0	0	3343



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2025

Acres of Harvest

Compartment 113
Total Compartment Acres: 3,343

Commercial Harvest - 462
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	Overshoot Removal	Salvage	Other	Total Acres
Aspen	77	0	0	0	0	0	0	0	0	77
Bare/Sparsely Vegetated	0	0	0	0	0	0	0	0	160	160
Natural Mixed Pines	0	0	0	0	0	33	0	0	0	33
Northern Hardwood	0	0	0	0	0	7	0	0	0	7
Planted Mixed Pines	0	0	0	0	0	0	0	0	38	38
Red Pine	0	0	0	0	0	95	0	0	0	95
White Pine	0	0	0	0	0	0	0	0	53	53
Total	77	0	0	0	0	135	0	0	251	463

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	463	0	0	0	0	0	0	0	0	463
Next Step	0	0	0	0	0	0	100	0	0	100
Total	463	0	0	0	0	0	100	0	0	563



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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Proposed Treatments:

33	12113033-Cut	12.4	4133 - Aspen, Mixed Pine	Poletimber Well	59	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription Specs:</u> Cut all trees 2 inches and greater at DBH. Green tree 1 maple per acre of treatment. Do not cut white pine, oak, cedar and hemlock. Buffer ponds 100'.</p> <p><u>Next Step Treatments:</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Acceptable Regen:</u> Aspen, pine, maple, spruce, fir and oak</p> <p><u>Other Comment:</u> Keep west part of stand excluded. I would recommend this get cut in the winter.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>											

83	12113083-Cut	13.3	4130 - Aspen	Poletimber Well	56	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription Specs:</u> Cut all trees 2 inches and greater at DBH. Green tree one maple or basswood per acre. Leave all conifer. Buffer stand 84 pond 100' along open water area and 50' along wetland area.</p> <p><u>Next Step Treatments:</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Acceptable Regen:</u> aspen, balsam poplar, maple, birch, basswood and oak</p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>											

90	12113090-Cut	11.8	4136 - Aspen, Mixed Conifer	Poletimber Well	60	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription Specs:</u> Cut all trees 2 inches and greater. Red line out pine and low areas. Do not cut red pine, white pine, oak, cedar and hemlock. Leave all trees north of road/clearing for buffer. Additionally, red line 50' buffer from clearing to NE corner of stand.</p> <p><u>Next Step Treatments:</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Acceptable Regen:</u> aspen, northern hardwood associates, and pine.</p> <p><u>Other Comment:</u> Several factors may lead to greater treatment size variability, i.e., hill, wet areas, and excluded species.</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
97 12113097-Cut	23.7	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	116	141-170	Harvest	Crown Thinning	42141 - Planted Mixed Pine, Mixed Deciduous	Two-Aged	No
<p><u>Prescription</u> Exclude stream on North side of stand. Exclude south half of stand. Mark to a residual BA of 90. Leave all species represented. Open up several canopy gaps for white pine regeneration.</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 Regen:</u> red pine, white pine, maple, birch, aspen, oak</p> <p><u>Other Comment:</u> Summer harvest optimal</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										
105 12113105-Cut	26.3	4130 - Aspen	Poletimber Well	65	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Cut all trees that are 2 inches and greater at DBH. Do not cut oak, cedar, hemlock, white pine and red pine. Do not cut sub-merchantable spruce and fir. Buffer pond 100 feet.</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 Regen:</u> aspen, maple, pine and oak</p> <p><u>Other Comment:</u> Spec to protect confer regen recommended.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2024</p>										

Approved Treatments:

1 12113001-Cut	5.1	4130 - Aspen	Poletimber Well	55	51-80	Harvest	Clearcut	4130 - Aspen	Even-Aged	No
<p><u>Prescription</u> Cut all trees 2 inches and greater at DBH. Do not cut oak.</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 Regen:</u> aspen, balsam poplar, ash, oak, maple, birch and pine</p> <p><u>Other Comment:</u></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
2 12113002-Cut	159.7	790 - Other Bare/Sparsely Vegetated	Nonstocked			Harvest	Other - Specify	110 - Low Intensity Urban		No
<p><u>Prescription</u> Cut all trees 2 inches and greater at DBH. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2024</p>										
3 12113003-Cut	38.3	42140 - Planted Mixed Pine	Poletimber Medium	18	Immature	Harvest	Other - Specify	110 - Low Intensity Urban		No
<p><u>Prescription</u> Cut all trees 2 inches and greater at DBH. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2024</p>										
4 12113004-Cut	52.5	42200 - Natural White Pine	Poletimber Medium	26	1-50	Harvest	Other - Specify	110 - Low Intensity Urban		No
<p><u>Prescription</u> Cut all trees 2 inches and greater at DBH. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2024</p>										
5 12113005-Cut	7.7	4130 - Aspen	Poletimber Well	61	141-170	Harvest	Clearcut	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Cut all trees 2 inches and greater at DBH. Do not cut oak. <u>Specs:</u> <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> aspen, balsam poplar, ash, oak, maple, birch and pine <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition</u> <u>Proposed Start Date:</u> 10/1 /2024</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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43	12113043-Cut	66.1	42110 - Planted Red Pine	Poletimber Well	63	171- 200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	No
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Prescription Remove every third row. Additionally, remove 1/3 of basal area where stand has already been thinned or rows poorly established; Target BA
Specs: of 110.

Next Step
Treatments:

Acceptable Red pine
Regen:

Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2023

71	12113071-Cut	16.2	42210 - Natural Red Pine	Sawtimber Well	84	111- 140	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	No
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Prescription Thin to a target of 120 or remove 1/3 BA. Leave White pine. Leave a 100 foot no cut buffer along mine pond. Protect snowmobile trail.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Site Condition

Proposed Start Date: 12/15/2021

80	12113080-Cut	7.4	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	88	81-110	Harvest	Crown Thinning	4110 - Sugar Maple Association	Even-Aged	No
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Prescription Cut all spruce, balsam, birch, aspen, & balsam poplar with 1 or more pulpwood sticks. Mark remaining stand to a basal area of 60. Do not
Specs: mark oak or pine.

Next Step
Treatments:

Acceptable maple, pine, spruce, fir, birch, aspen, oak and balsam poplar
Regen:

Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2024

91	12113091-Cut	9.7	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	111	81-110	Harvest	Crown Thinning	429 - Mixed Upland Conifers	Two-Aged	No
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Prescription Cut all spruce, balsam, birch, maple, aspen, & balsam poplar with 1 or more pulpwood sticks. Mark 1/3 of red pine basal area to be
Specs: harvested.

Next Step
Treatments:

Acceptable aspen, balsam poplar, pine, spruce, fir, maple, oak, birch
Regen:

Other One of the goals is to keep white pine canopy closure. Only red pine will be marked.
Comment:

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
6 12113103-Cut	12.3	42210 - Natural Red Pine	Poletimber Well	55	141-170	Harvest	Low Thinning	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Thin to a target of 120 or remove 1/3 BA. Leave White pine. Protect snowmobile trail.</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>Proposed Start Date: 12/15/2021</p>										

Total Treatment
Acreage Proposed: 462.5

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Jacob Siler : Examiner

Compartment: 113

Year of Entry: 2025

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions										
		With Condition	Not Available		5B	5C	2A	2F	2G	2H	3H	3J	3L	5E	
565	259	150	156	Aspen		150	58						94	4	
439	439	0	0	Bare/Sparsely Vegetated									0		
95	87	0	8	Cedar					8						
3	3	0	0	Herbaceous Openland											
6	0	0	6	Lowland Aspen/Balsam Poplar						6					
115	115	0	0	Lowland Conifers											
62	0	0	62	Lowland Deciduous					62						
15	15	0	0	Lowland Mixed Forest											
475	475	0	0	Lowland Shrub		0	0								0
21	21	0	0	Marsh											
19	0	19	0	Mixed Upland Deciduous		19									
192	36	87	69	Natural Mixed Pines		87		17		17	14	4			17
12	12	0	0	Northern Hardwood											
8	8	0	0	Oak											
34	34	0	0	Planted Mixed Pines											
215	94	60	61	Red Pine		60	0	32						21	8
10	10	0	0	Sand, Soil											
343	12	0	331	Upland Conifers				331							
38	27	0	11	Upland Mixed Forest						11					
584	584	0	0	Water						0		0			
90	60	17	14	White Pine		17				14					
3,343	2,290	334	719	Total Forested Acres		17	317	58	380	70	49	14	97	25	25
	69%	10%	22%	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	3J: Water quality / BMPs (stream, river, or lake)	59	2F: Too steep	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Jacob Siler : Examiner

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Year of Entry: 2025

2	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Island							
3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2F: Too steep	17	3J: Water quality / BMPs (stream, river, or lake)	5E: Long-Term Retention	Unspecified	Unspecified
Comments:							
5	Unavailable	2F: Too steep	315	2G: Too wet (sensitive soils, does not include access issues)	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
Comments: This is rugged terrain. This area is marbled with steep rocky slopes and thin wet bands. Lots of small creeks.							
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Treat with Stand 101. Currently this portion of the stand is sandwiched between two units of a timber sale and would ultimately create some level of confusion and/or conflict.							

Report 4 – Site Conditions

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Jacob Siler : Examiner

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8	Unavailable	5E: Long-Term Retention	17	2F: Too steep	3J: Water quality / BMPs (stream, river, or lake)	3L: Other wildlife concerns	Unspecified
Comments: This area contains steep terrain, stream and patch of un-thinned pine for cover.							
9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Not all of this stand may be harvestable. At this point stand 42 can be treated with stand 101 and 49.							
10	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Island							
11	Unavailable	2F: Too steep	16	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Aspen is old and falling out. Access is difficult with stream, swamp, and giant rock outcropping. White pine is filling in from below and replacing aspen. I think it's best this stand converts to full pine stand with time.							
12	Unavailable	2A: Adjacent landowner denied access	58	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Island							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Jacob Siler : Examiner

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Year of Entry: 2025

14	Unavailable	5E: Long-Term Retention	8	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Island							
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified
Comments:							
18	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Island							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Jacob Siler : Examiner

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19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	87	Unspecified	Unspecified	Unspecified	Unspecified
Comments: I believe it would be best to wait for the aspen to mature before treating this stand again.							
20	Unavailable	2F: Too steep	32	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Rocky							
21	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	102	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
23	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
24	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	44	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Jacob Siler : Examiner

Compartment: 113

Year of Entry: 2025

25	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	2G: Too wet (sensitive soils, does not include access issues)	5E: Long-Term Retention	Unspecified	Unspecified
Comments: Buffer, species exclusion and wet area							
26	Available	5B: Maintain for regeneration purposes	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: At this point we are managing the understory and leaving overstory for a cover component.							
27	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
28	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	60	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This stand will likely be managed for its aspen component.							
29	Unavailable	3L: Other wildlife concerns	21	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Wildlife Corridor/ BMP Buffer							
31	Unavailable	3L: Other wildlife concerns	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Wildlife request leaving for nesting duck habitat.							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Jacob Siler : Examiner

Compartment: 113

Year of Entry: 2025

32	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	3	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
Comments:							
33	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Wildlife wants this half of stand left as is. Wildlife is open to future treatment.							

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	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.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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1	4130 - Aspen	Poletimber Well	5.1	55	51-80	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	65	Pole	7	55	White Pine	Trace	Variable	Sapling
Balsam Poplar	15	Pole	8		White Ash	High	Variable	Sapling
White Ash	15	Pole	8		Ironwood	Low	Variable	Sapling
Red Oak	5	Pole	7		Paper Birch	Trace	Variable	Sapling
					White Spruce	Trace	Variable	Sapling
					Red Oak	Low	Variable	Sapling

2	790 - Other Bare/Sparsely Vegetated	Nonstocked	420.5			No	An area of the W portion of this stand was planted in 2005 but failed. The rest of this stand is sparse vegetated with mostly sapling sized trees and some small clumps of larger trees.
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Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	Low	Variable	Sapling
Black Spruce	Low	Variable	Sapling
Jack Pine	Low	Variable	Sapling
Black Locust	Trace	Variable	Sapling
Quaking Aspen	Low	Variable	Sapling
Paper Birch	Medium	Variable	Sapling
Balsam Fir	Low	Variable	Sapling
Balsam Poplar	Low	Variable	Sapling
White Pine	Low	Variable	Sapling
Northern White Cedar	Low	Variable	Sapling
Tamarack	Low	Variable	Sapling
White Spruce	Low	Variable	Sapling

3	42140 - Planted Mixed Pine	Poletimber Medium	34.5	18	Immature	N/A	Planted in 2005. A mix of red pine, white pine, and a small amount of cedar.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	8	Pole	8		Northern White Cedar	Low	Variable	Seeding
Tamarack	8	Pole	6		Autumn Olive	Low	5 - 10 feet	Tall Shrub
Balsam Poplar	2	XLog	18		White Pine	Medium	Variable	Sapling
Quaking Aspen	5	Pole	6		Red Pine	Medium	Variable	Sapling
Paper Birch	2	Sapling/Pole	3		Black Locust	Trace	Variable	Sapling
Black Locust	5	Pole	6		Paper Birch	Low	Variable	Sapling
Red Pine	50	Pole	6	18	Jack Pine	Low	Variable	Sapling
Jack Pine	20	Pole	5					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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4	42200 - Natural White Pine	Poletimber Medium	59.6	26	1-50	N/A	Small older patch of timber present in southeast. No record of any planting.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	2	Pole	8		White Spruce	Low	Variable	Sapling
Jack Pine	2	Pole	8		White Pine	Medium	Variable	Sapling
Paper Birch	2	Sapling/Pole	4		Tamarack	Medium	Variable	Sapling
Tamarack	5	Pole	8		Quaking Aspen	Low	Variable	Sapling
Red Pine	15	Pole	8		Paper Birch	Low	Variable	Sapling
White Pine	69	Log/Pole	10	26	Autumn Olive	Low	5 - 10 feet	Tall Shrub
Quaking Aspen	5	Pole/Sapling	5		Balsam Poplar	Low	Variable	Sapling

5	4130 - Aspen	Poletimber Well	5.1	61	141-170	N/A	Trace amount of oak.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	1	Pole	8		White Spruce	Low	Variable	Sapling
Quaking Aspen	20	Log/Pole	10		White Pine	Medium	Variable	Pole
Bigtooth Aspen	79	Log/Pole	10	61	Red Pine	Medium	Variable	Pole
					Paper Birch	Low	Variable	Sapling
					White Pine	Low	Variable	Sapling
					Balsam Fir	Medium	Variable	Sapling
					Balsam Poplar	Low	Variable	Sapling

6	42210 - Natural Red Pine	Poletimber Well	11.4	55	141-170	N/A		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	100	Pole	8	55	Quaking Aspen	High	10 - 20 feet	Sapling
					Black Cherry	Low	5 - 10 feet	Sapling

8	4136 - Aspen, Mixed Conifer	Sawtimber Well	58.4	83	81-110	N/A	Trace amounts of cedar and big tooth aspen. Major SBW damage most balsam and spruce are dead. (2018) Transferred from 12073 to 12113 (2018). This stand has challenging terrain, access issues, BMP factors. (2023)	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	10	Log	17		White Spruce	Low	Variable	Sapling
Black Spruce	5	Pole/Log	9		Black Spruce	Low	Variable	Sapling
Quaking Aspen	50	Log/Pole	13	83	White Pine	Medium	Variable	Sapling
Paper Birch	5	Pole	8		Red Maple	Medium	Variable	Sapling
White Pine	5	Log	17		Balsam Fir	Medium	Variable	Sapling
Red Maple	25	Pole	8		Oak (spp.)	Trace	Variable	Sapling
					Paper Birch	Low	Variable	Sapling

16	6115 - Lowland Ash	Poletimber Poor	43.6	118	1-50	N/A	Trace amount of pine on west side of stand.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black Spruce	15	Pole/Log	9		Cattail spp.	Medium	Unspecified	Non-Wood
Tamarack	10	Pole/Log	9		Balsam Fir	Medium	Variable	Sapling
Northern White Cedar	5	Pole/Log	8		Tag Alder	Medium	5 - 10 feet	Tall Shrub
Black Ash	70	Pole	7	118	Northern White Cedar	Low	10 - 20 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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17 4319 - Mixed Upland Forest Sawtimber Poor 10.8 98 1-50 N/A Cut in 2017. Sale Name: Bunny Slipper. Sale Number:12-064. Trace amounts of cedar.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	40	Log/Pole	10	98	Balsam Fir	Medium	Variable	Sapling
Sugar Maple	5	Log/Pole	10		White Pine	Low	Variable	Sapling
Red Oak	5	Log/Pole	12		Quaking Aspen	High	Variable	Sapling
Red Pine	20	XLog/Log	18		Red Pine	Low	5 - 10 feet	Sapling
White Pine	30	XLog/Log	18	98	Red Oak	Trace	10 - 20 feet	Sapling
					Ironwood	Trace	Variable	Sapling
					Red Maple	Low	Variable	Sapling

18 4130 - Aspen Sapling Well 52.6 17 Immature N/A Scattered older trees a few older aspen present. Trace red pine.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	5	Pole	8		Balsam Fir	Low	< 5 feet	Sapling
Quaking Aspen	79	Sapling/Pole	4	17	Red Pine	Trace	< 5 feet	Sapling
Red Oak	2	Sapling/Pole	3		White Pine	Low	< 5 feet	Sapling
Balsam Fir	5	Sapling/Pole	4		White Spruce	Low	< 5 feet	Sapling
Paper Birch	2	Sapling/Pole	4					
Sugar Maple	2	Pole/Log	8					
White Pine	5	Log	14					

21 4130 - Aspen Sapling Well 15.7 6 Immature N/A Trace amount of oak log and saplings. Trace amount of pole sized hemlock. Cut in 2017. Sale name: Bunny Slipper. Sale Number: 12-064.

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	2	Log/XLog	14	
Red Pine	2	Log/XLog	14	
Red Maple	15	Sapling	1	
White Pine	2	Sapling	1	
Red Pine	2	Sapling	1	
Quaking Aspen	60	Sapling	1	6
Balsam Fir	5	Sapling/Pole	3	
Balsam Poplar	10	Sapling	1	
Northern White Cedar	2	Pole	8	

22 4311 - Pine, Aspen Mix Poletimber Well 11.6 110 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	40	XLog/Log	18	110	Balsam Fir	Low	Variable	Sapling
Red Pine	2	XLog/Log	18		White Spruce	Low	Variable	Sapling
Bigtooth Aspen	15	Pole/Log	10					
Quaking Aspen	18	Log/Pole	10					
Balsam Fir	10	Pole/Log	8					
Red Maple	15	Pole/Log	8					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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23 622 - Lowland Shrub Nonstocked 19.5 No

25 500 - Water Nonstocked 195.6 No

27 42260 - Natural Pine, Mixed Deciduous Sawtimber Well 17.2 110 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	10	Pole/Log	8		Balsam Fir	Medium	Variable	Sapling
Quaking Aspen	10	Log/Pole	12		White Spruce	Low	Variable	Sapling
Paper Birch	2	Pole	8					
Red Pine	15	Log/XLog	18					
White Pine	53	XLog/Log	18	110				
Bigtooth Aspen	10	Log/Pole	12					

28 622 - Lowland Shrub Nonstocked 102.5 No

33 4133 - Aspen, Mixed Pine Poletimber Well 75.3 59 81-110 N/A Trace white spruce in canopy. Some older aspen present.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Poplar	5	Pole	8		Balsam Fir	Medium	Variable	Sapling
Red Maple	15	Pole/Log	8		White Spruce	Low	Variable	Sapling
Quaking Aspen	38	Log	8	59	Ironwood	Low	Variable	Sapling
White Pine	15	XLog/Log	18		Sugar Maple	Low	Variable	Sapling
Red Pine	10	XLog/Log	18		Red Pine	Low	Variable	Pole
Bigtooth Aspen	10	Log	13		White Pine	Low	Variable	Pole
Black Ash	2	Pole	6		Red Maple	Low	Variable	Sapling
Paper Birch	5	Pole/Log	8					

36 4136 - Aspen, Mixed Conifer Sapling Well 9.7 20 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	10	Sapling/Pole	3	
White Spruce	5	Sapling/Pole	3	
White Pine	5	Log	14	
Quaking Aspen	45	Sapling	3	20
Balsam Poplar	5	Sapling	3	
Bigtooth Aspen	30	Sapling	3	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																							
37	6127 - Lowland Pine	Sapling Poor	115.3	21	Immature	N/A	Poor quality mine tailings sight. Some areas of this stand could have been planted with adjacent stands. However, records don't indicate it was planted and it looks to be vastly natural.																																																							
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39	42290 - Natural Mixed Pine	Sawtimber Well	16.7	110	111-140	N/A	Stand 39 was once part of stand 21 but was not cut as per site condition. 2018																																																							
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40	623 - Emergent Wetland	Nonstocked	3.0			No	This was once a gravel pit but was converted into a wetland. Should avoid using as a source for fill/gravel.																																																							
41	6229 - Mixed lowland shrub	Nonstocked	114.9			No																																																								
42	4130 - Aspen	Sawtimber Well	15.5	81	111-140	N/A	SW NE, Section 7, T41N R29W. This 40 was undivided interest. It looks as though the state now has 100% surface rights, after a large land gift in the 80s. Verify ownership again before cutting.																																																							
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43	42110 - Planted Red Pine	Poletimber Well	66.1	63	171-200	N/A	Aspen cut out of stand 14 years ago and two areas had a third row thinning.																																																							
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44	622 - Lowland Shrub	Nonstocked	201.5			No																																																								



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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46 6120 - Lowland Cedar Poletimber Well 56.3 93 81-110 N/A Basal area variable across stand; east half has higher BA and west side is lower. Very wet.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	50	Pole/Log	9	93	Tag Alder	Medium	5 - 10 feet	Tall Shrub
Black Ash	20	Pole	5		Northern White Cedar	Low	Variable	Seeding
Black Spruce	15	Log/Pole	10		Balsam Fir	Low	Variable	Seeding
Red Maple	2	Pole	6		Black Ash	Medium	Variable	Sapling
Balsam Poplar	2	Pole/Log	8		Quaking Aspen	Low	Variable	Sapling
Red Pine	2	Log	14		Black Spruce	Low	Variable	Seeding
Balsam Fir	2	Log/Pole	10					
Paper Birch	2	Log/Pole	10					
Quaking Aspen	5	Log	14					

49 4139 - Aspen, Mixed Deciduous Poletimber Well 26.2 48 81-110 N/A More diverse stand than 101. This stand also has a few wet areas. SW NE, Section 7, T41N R29W. This 40 was undivided interest. It looks as though the state now has 100% surface rights, after a large land gift in the 80s. Verify ownership again before cutting.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	25	Pole	8	48	Black Ash	Low	Variable	Sapling
Red Oak	10	Log/Pole	10		White Spruce	Low	Variable	Sapling
Bigtooth Aspen	24	Pole	6	48	Balsam Fir	Medium	Variable	Sapling
Black Ash	10	Log/Pole	10		White Pine	Low	Variable	Sapling
Balsam Poplar	10	Log/Pole	10		Red Oak	Low	Variable	Sapling
Red Pine	3	Log/Pole	10		Red Oak	Low	< 5 feet	Seeding
Red Maple	15	Pole/Log	8					
White Pine	3	Log/Pole	14					

50 429 - Mixed Upland Conifers Sawtimber Medium 16.3 80 51-80 N/A Aspen is old and falling out. Access is difficult with stream, swamp, and giant rock outcropping. White pine is filling in from below and replacing aspen.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	15	Log	16		White Pine	High	Variable	Sapling
Red Maple	10	Log/Pole	10		White Spruce	Low	Variable	Sapling
White Pine	25	Log	16		Red Pine	Medium	Variable	Sapling
Quaking Aspen	30	Log	14	80	Balsam Fir	Medium	Variable	Sapling
Balsam Fir	10	Log/Pole	10					
White Spruce	10	Log/Pole	10					

51 4123 - Red Oak Poletimber Well 8.4 77 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	5	Log/Pole	10		Red Oak	Medium	Variable	Sapling
Bigtooth Aspen	20	Log/Pole	12		White Pine	Medium	Variable	Sapling
White Pine	10	Log/Pole	14					
Red Oak	65	Log/Pole	14	77				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments					
52	623 - Emergent Wetland	Nonstocked	18.2			No	This was an old gravel pit that was converted into a wetland. Sapling and pole sized trees. Should avoid having this used as a gravel source as it's supposed to function as a wetland.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								White Spruce	Low	Variable	Sapling	
								Red Pine	Low	Variable	Sapling	
								White Pine	Low	Variable	Sapling	
								Tamarack	Low	Variable	Sapling	
								Balsam Poplar	Low	Variable	Sapling	
Quaking Aspen	Low	Variable	Sapling									
54	6112 - Lowland Aspen	Poletimber Medium	6.3	45	51-80	N/A	This is an island in the South Pond. This island fluctuates between being one island and several small islands. For the most part this island is swamp with a few tree covered high spots. Trace white pine.					
								Canopy Species	% Cover	Size Class	DBH	Age
	Red Pine	40	Log/Pole	10								
	Quaking Aspen	60	Pole/Log	9	45							
56	6118 - Lowland Deciduous with Cedar	Poletimber Well	18.4	100	51-80	N/A	trace hemlock, red pine, white pine, sugar maple and birch					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Balsam Fir	Low	Variable	Seeding	
								Black Spruce	Low	Variable	Seeding	
								Canopy Species	% Cover	Size Class	DBH	Age
								Red Maple	5	Pole/Log	8	
								Northern White Cedar	30	Log/Pole	13	100
Black Ash	55	Pole/Log	9	100								
Black Spruce	5	Pole/Log	8									
Quaking Aspen	5	Log	13									
57	4133 - Aspen, Mixed Pine	Sapling Well	69.1	13	Immature	N/A	White pine and red pine are super canopy. Trace amount of hemlock.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								White Pine	Low	5 - 10 feet	Sapling	
								Red Pine	Low	5 - 10 feet	Sapling	
								Cherry (spp.)	Low	5 - 10 feet	Sapling	
								Canopy Species	% Cover	Size Class	DBH	Age
								Balsam Poplar	10	Sapling	3	
Red Maple	2	Sapling	3									
White Pine	15	Log/XLog	17	105								
Quaking Aspen	38	Sapling	3	13								
Northern White Cedar	5	Pole	8									
Red Pine	10	Log/XLog	17									
Bigtooth Aspen	20	Sapling	3									
58	6120 - Lowland Cedar	Sawtimber Well	3.5	120	111-140	N/A	OPIC - FMD: WATER MANAGEMENT CONCERNS.DEERYARD.(2008) Transferred from 12073 to 12113 (2018)					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Balsam Fir	Medium	Variable	Sapling	
	Tag Alder	High	5 - 10 feet	Tall Shrub								
Canopy Species	% Cover	Size Class	DBH	Age								
Northern White Cedar	100	Log/Pole	11	120								



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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59	4319 - Mixed Upland Forest	Sapling Well	15.9	15	Immature	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	10	Sapling	1	15
Balsam Fir	10	Sapling	1	15
Quaking Aspen	30	Sapling	1	15
White Pine	15	Log/Pole	12	98
Red Pine	5	Sapling	1	15
White Pine	5	Sapling	1	15
White Spruce	10	Sapling	1	15
Red Maple	5	Pole/Log	8	98
Red Pine	10	Log/Pole	12	98

60	500 - Water	Nonstocked	346.3			No	
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61	42290 - Natural Mixed Pine	Sawtimber Well	87.4	105	111-140	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age
White Pine	31	Log	14	105
Quaking Aspen	8	Log	13	
Red Maple	8	Pole	8	
Balsam Poplar	1	Pole/Log	9	
Red Pine	50	Log	14	105
Paper Birch	2	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	Low	Variable	Sapling
Quaking Aspen	High	Variable	Sapling
Red Oak	Trace	Variable	Sapling
White Pine	Medium	Variable	Sapling
Balsam Fir	High	Variable	Sapling
Red Pine	Low	Variable	Sapling
Red Maple	Low	Variable	Sapling

The aspen was cut out of this stand. Basal area is very variable, and topography is rocky. A few spots of red pine are very thick and look to be accessible but are only a few acres in size. Trace amount of tamarack, cherry, black spruce and cedar in canopy. This stand also has a stream running through the middle and borders Pine Creek on the west side.

62	42210 - Natural Red Pine	Sawtimber Medium	67.9	105	1-50	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age
Northern White Cedar	2	Pole/Log	8	
Red Pine	76	Log/XLog	16	105
White Pine	20	Log/XLog	16	
Red Oak	2	Log	12	

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Trace	Variable	Sapling
Red Pine	Trace	Variable	Sapling
Balsam Fir	Low	Variable	Sapling
Red Maple	Medium	Variable	Sapling
Paper Birch	Low	Variable	Sapling
Aspen (spp.)	High	Variable	Sapling
Balsam Poplar	Medium	Variable	Sapling

Cut in 2017. Sale Name: Bunny Slipper. Sale Number:12-064. Scattered pine of varying basal area. Pine is thick on rock tops and thinner in aspen subcanopy areas. Trace amounts of older aspen. Rock and difficult terrain. This is essentially a two aged stand with aspen regenerating in the subcanopy.

63	6120 - Lowland Cedar	Sawtimber Well	18.7	90	171-200	N/A	Trace paper birch, white pine and aspen
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Canopy Species	% Cover	Size Class	DBH	Age
Black Spruce	2	Log/Pole	10	
Northern White Cedar	98	Log/Pole	10	105

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	Variable	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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65	42200 - Natural White Pine	Sawtimber Well	8.1	98	111-140	N/A	This is a rock island in the South Pond
Canopy Species	% Cover	Size Class	DBH	Age			
Paper Birch	10	Log/Pole	10				
Sugar Maple	5	Log/Pole	12				
Red Maple	5	Log/Pole	12				
Red Pine	10	Log	14				
White Pine	70	Log	14	98			
Sub-Canopy Species	Density	Avg. Height	Size				
Balsam Fir	Low	Variable	Pole				

66	42200 - Natural White Pine	Sawtimber Well	5.6	98	111-140	N/A	
Canopy Species	% Cover	Size Class	DBH	Age			
Red Maple	10	Pole/Log	8				
White Pine	70	Log/Pole	14	98			
Red Pine	10	Log/Pole	14				
Paper Birch	10	Pole/Log	10				
Sub-Canopy Species	Density	Avg. Height	Size				
Balsam Fir	Low	Variable	Sapling				

67	710 - Sand, Soil	Nonstocked	10.0			No	Dam on South Pond.
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69	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	14.9	100	111-140	N/A	Creek with buffer
Canopy Species	% Cover	Size Class	DBH	Age			
Black Spruce	2	Log/Pole	10				
Black Ash	58	Pole/Sapling	7	100			
Northern White Cedar	40	Log/Pole	10	100			
Sub-Canopy Species	Density	Avg. Height	Size				
Balsam Fir	Low	Variable	Sapling				
Black Spruce	Low	Variable	Sapling				

70	622 - Lowland Shrub	Nonstocked	26.9	0		No	
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71	42210 - Natural Red Pine	Sawtimber Well	36.7	84	111-140	N/A	There is one little inclusion that was just cut but not worth taking separately. Also, not enough to make a sale out of unless something else needed cutting there.(2010)
Canopy Species	% Cover	Size Class	DBH	Age			
Red Pine	70	Pole/Log	10	84			
White Pine	30	Pole/Log	10	84			
Sub-Canopy Species	Density	Avg. Height	Size				
Quaking Aspen	Low	>20 feet	Sapling				
Bigtooth Aspen	Low	>20 feet	Sapling				
White Spruce	Low	>20 feet	Sapling				
Balsam Fir	Low	>20 feet	Sapling				

72	42210 - Natural Red Pine	Sawtimber Well	32.5	105	111-140	N/A	This stand is steep, and some areas are wet.
Canopy Species	% Cover	Size Class	DBH	Age			
Red Pine	70	Log	14	105			
Red Maple	5	Pole/Log	8				
Black Ash	10	Pole	6				
White Pine	10	Log/Pole	14	105			
Quaking Aspen	5	Log/Pole	12				
Sub-Canopy Species	Density	Avg. Height	Size				
White Pine	High	Variable	Sapling				
Red Pine	Low	Variable	Sapling				
Balsam Fir	Low	Variable	Sapling				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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76 622 - Lowland Shrub Nonstocked 9.7 104 No OPIC - FMD: OI Stand Year Origin was 1919

Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	Low	>20 feet	Pole

79 4199 - Other Mixed Upland Deciduous Poletimber Well 19.3 91 51-80 N/A trace wp, cedar, yellow birch, black ash

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	20	Log	12	91	Quaking Aspen	Medium	Variable	Sapling
Paper Birch	5	Pole/Log	9		White Ash	Medium	Variable	Sapling
Balsam Poplar	10	Pole	8		Balsam Fir	Low	10 - 20 feet	Sapling
White Ash	20	Pole	6		White Spruce	Low	10 - 20 feet	Sapling
Sugar Maple	10	Log/Pole	11		Black Ash	Low	Variable	Sapling
Quaking Aspen	20	Log/Pole	10		Ironwood	Low	10 - 20 feet	Pole
Basswood	15	Log/Pole	10					

80 4116 - Mixed N. Hardwood - Aspen Poletimber Well 7.4 88 81-110 N/A Trace white pine.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	20	Pole	9		Balsam Fir	Medium	Variable	Sapling
White Pine	10	Log	18		Paper Birch	Low	Variable	Sapling
Paper Birch	2	Pole	8		White Spruce	Medium	Variable	Sapling
Balsam Fir	2	Log/Pole	10		Ironwood	Medium	Variable	Sapling
White Spruce	3	Pole	6		Sugar Maple	Low	Variable	Sapling
Basswood	30	Log	16					
Red Oak	1	Pole	7					
Sugar Maple	30	Log/Pole	16	88				
Balsam Poplar	2	Pole	8					

81 6120 - Lowland Cedar Sawtimber Well 4.7 103 171-200 N/A OPIC - FMD: OI Stand Year Origin was 1920.
Trace amounts of aspen and balsam poplar.
Transferred from 12073 to 12113 (2018)

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	100	Log/Pole	10	103	Alder	Low	5 - 10 feet	Tall Shrub

83 4130 - Aspen Poletimber Well 16.4 56 111-140 N/A Trace amounts of paper birch, white spruce and red maple.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	25	Pole	8	56	Balsam Fir	Low	Variable	Sapling
Basswood	2	Log/Pole	10		Red Pine	Trace	Variable	Sapling
Balsam Fir	1	Pole	8		White Pine	Trace	Variable	Sapling
Sugar Maple	5	Log/Pole	10		Sugar Maple	Low	Variable	Sapling
Bigtooth Aspen	67	Pole	8	56				

84 500 - Water Nonstocked 26.0 No



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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85 4130 - Aspen Sapling Well 7.9 7 Immature N/A Trace pole sized bam, red pine, and paper birch. For the most part an even aged stand. Second age comes from residual and buffer.

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	2	Pole	8	
Quaking Aspen	2	Log	10	
Red Oak	1	Log	12	
Balsam Fir	1	Sapling	1	
White Pine	5	Log/XLog	14	110
Basswood	1	Log	12	
Quaking Aspen	87	Sapling	1	7
White Spruce	1	Sapling/Pole	4	

86 4130 - Aspen Sapling Well 8.2 20 Immature N/A Trace oak saplings against trail.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	71	Sapling	2	20	White Pine	Medium	5 - 10 feet	Sapling
Bigtooth Aspen	20	Sapling	2					
White Pine	2	Log/Pole	12					
Red Oak	2	Log	12					
Red Pine	5	Log/Pole	12					

87 310 - Herbaceous Openland Nonstocked 2.7 No

88 4119 - Mixed Northern Hardwoods Poletimber Well 4.7 86 81-110 N/A Stand slopes down to very wet ground. Leave stand as is. Portions of this stand could be treated when stand 20 is thinned again.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black Ash	5	Pole	7		Sugar Maple	Low	10 - 20 feet	Sapling
Quaking Aspen	15	Pole/Log	9		Ironwood	Low	Variable	Sapling
Northern White Cedar	10	Pole/Log	9		Balsam Fir	High	Variable	Sapling
Sugar Maple	35	Pole/Log	9	86				
Red Maple	5	Pole/Log	9					
Hemlock	5	Log/Pole	12					
Basswood	20	Log/Pole	10					
Yellow Birch	5	Pole/Log	9					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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90 4136 - Aspen, Mixed Conifer Poletimber Well 21.8 60 51-80 N/A Multiple ages of aspen here and some patchy hardwood and pine. BA is variable.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	5	Pole	6		Northern White Cedar	Trace	Variable	Sapling
Paper Birch	10	Pole	6		Sugar Maple	Low	Variable	Sapling
Red Pine	8	Log/Pole	12		Ironwood	Low	Variable	Sapling
White Pine	7	Log	12		White Spruce	Low	Variable	Sapling
Quaking Aspen	40	Pole	9	60	Balsam Fir	Medium	Variable	Sapling
White Spruce	5	Pole	8		Paper Birch	Low	Variable	Sapling
Red Maple	5	Pole/Log	8		Red Pine	Medium	Variable	Sapling
Northern White Cedar	5	Pole/Log	9		White Pine	Medium	Variable	Sapling
Sugar Maple	10	Pole/Log	8					
Balsam Poplar	5	Pole	8					

91 42260 - Natural Pine, Mixed Deciduous Poletimber Well 11.7 111 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	1	Log/Pole	10		Red Pine	Medium	Variable	Sapling
White Pine	25	XLog/Log	18		White Pine	Medium	Variable	Sapling
Red Pine	44	XLog/Log	18	111	Balsam Fir	Medium	Variable	Sapling
Paper Birch	2	Pole/Log	8					
Red Oak	1	Pole	6					
Red Maple	2	Log/Pole	10					
Quaking Aspen	25	Log/Pole	12					

92 500 - Water Nonstocked 15.9 No

93 790 - Other Bare/Sparsely Vegetated Nonstocked 18.9 No

94 4130 - Aspen Sapling Medium 19.8 19 Immature N/A This stand was part of the same cut as stand 24 of compartment 72. Cut under Groveland Gravel timber sale. Trace red pine in canopy. Gravel pit in stand.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	5	Log	18		Red Pine	Low	5 - 10 feet	Sapling
Balsam Poplar	5	Sapling	2		Northern White Cedar	Low	< 5 feet	Seeding
Northern White Cedar	2	Pole	8		White Pine	Medium	5 - 10 feet	Sapling
Quaking Aspen	88	Sapling	3	19	Balsam Fir	High	< 5 feet	Seeding



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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95	429 - Mixed Upland Conifers	Sawtimber Well	314.9	113	141-170	N/A	This is rough terrain. Very rocky area with multiple streams. Trace hemlock.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	22	XLog/Log	18		Ironwood	Trace	Variable	Sapling
White Pine	35	XLog/Log	18	113	Red Pine	Low	Variable	Sapling
Balsam Fir	5	Pole	6		Balsam Fir	High	Variable	Sapling
Paper Birch	5	Pole/Log	10		White Pine	Medium	Variable	Sapling
Quaking Aspen	5	Log/Pole	10		Jack Pine	Trace	Variable	Sapling
White Spruce	5	Pole	8		White Spruce	Low	Variable	Sapling
Sugar Maple	5	Pole/Log	10		Paper Birch	Low	Variable	Sapling
Black Ash	5	Pole	6		Red Maple	Medium	Variable	Sapling
Red Maple	10	Log/Pole	10		Quaking Aspen	Low	Variable	Sapling
Red Oak	3	Log	14		Sugar Maple	Low	Variable	Sapling

96	6120 - Lowland Cedar	Poletimber Well	11.9	122	171-200	N/A	Stream in stand and wetter on the north half.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	70	Pole/Log	9	122	White Spruce	Low	Variable	Sapling
Black Ash	16	Pole/Log	8		Tamarack	Low	Variable	Sapling
Black Spruce	10	Pole	8		Northern White Cedar	Low	< 5 feet	Seeding
Paper Birch	2	Pole/Log	9		Balsam Fir	Low	Variable	Sapling
Balsam Fir	2	Pole	6		Black Ash	Low	Variable	Sapling
					Black Ash	Medium	< 5 feet	Seeding
					Sugar Maple	Trace	Variable	Sapling

97	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	59.1	116	141-170	N/A	Trace amount of hemlock and red oak in canopy. NE NE, Section 7, T41N R29W. This 40 was undivided interest. It looks as though the state now has 100% surface rights, after a large land gift in the 80s. Verify ownership again before cutting, if cut.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	5	Log/Pole	10		Balsam Fir	Medium	>20 feet	Pole
Northern White Cedar	2	Pole	8		White Spruce	Low	10 - 20 feet	Sapling
White Pine	36	Log/XLog	16	116	Balsam Fir	Medium	10 - 20 feet	Sapling
Red Pine	30	Log/XLog	16		White Pine	Medium	5 - 10 feet	Sapling
Red Maple	10	Log/Pole	10		Northern White Cedar	Low	>20 feet	Pole
Paper Birch	2	Log/Pole	10		Red Pine	Low	5 - 10 feet	Sapling
Quaking Aspen	15	Log/XLog	14	74				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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99 429 - Mixed Upland Conifers Poletimber Medium 12.1 45 1-50 N/A Most of aspen is around outer edges of stand. Center is grass and mixed pine saps/poles with young spruce /fir saplings.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	20	Log	12		Balsam Fir	Low	5 - 10 feet	Sapling
Balsam Fir	10	Pole	5		White Pine	Low	5 - 10 feet	Sapling
Red Pine	20	Pole/Log	10		Red Pine	Low	5 - 10 feet	Sapling
Quaking Aspen	30	Pole	6	45	White Spruce	Low	5 - 10 feet	Sapling
Red Maple	8	Pole	5					
Sugar Maple	2	Sapling	4					
White Spruce	10	Pole	5					

100 42200 - Natural White Pine Sawtimber Poor 16.6 116 1-50 N/A Variable BA of pine left across stand.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	65	Log/XLog	16	116	Wild Red Raspberry	Medium	< 5 feet	Tall Shrub
Red Pine	20	Log/XLog	16		Aspen (spp.)	High	Variable	Sapling
Red Oak	15	Log/XLog	14		White Pine	High	Variable	Sapling
					Red Oak	Low	Variable	Sapling
					Ironwood	Trace	Variable	Sapling
					Balsam Poplar	Trace	Variable	Sapling
					Red Maple	Low	Variable	Sapling

101 4130 - Aspen Poletimber Well 103.0 48 Unspecified N/A Trace amounts of jack pine in canopy. A few small areas are of lower quality that would be better suited to growing pine.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	2	Log/Pole	14		Hazelnut (Spp.)	High	< 5 feet	Tall Shrub
Red Maple	5	Pole	8		White Spruce	Low	Variable	Sapling
Quaking Aspen	40	Pole	8	48	Balsam Fir	Low	Variable	Sapling
Bigtooth Aspen	37	Pole	8	48	Red Oak	Trace	< 5 feet	Seeding
Paper Birch	5	Pole	8		Red Pine	Low	Variable	Sapling
White Pine	10	Log/XLog	14		White Pine	Medium	Variable	Sapling
Red Oak	1	Log/Pole	10		Red Oak	Trace	Variable	Sapling
					Cherry (spp.)	Trace	Variable	Sapling
					Red Maple	Trace	Variable	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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105	4130 - Aspen	Poletimber Well	55.2	65	51-80	N/A	mixed aspen with mixed conifer sub-canopy. Trace white ash, red maple, cherry in canopy.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	2	Pole	6		Red Oak	Low	Variable	Sapling
Red Pine	5	Log	14		Balsam Fir	Low	Variable	Sapling
White Pine	5	XLog/Log	18		Red Maple	Medium	Variable	Sapling
Balsam Poplar	10	Pole	8		White Spruce	Low	Variable	Sapling
Quaking Aspen	59	Pole	8	65	Black Spruce	Low	Variable	Sapling
Jack Pine	2	Pole	7		White Pine	High	Variable	Sapling
Bigtooth Aspen	10	Pole/Log	8		Red Pine	Low	Variable	Sapling
Paper Birch	2	Pole	8					
Red Oak	5	Log	12					