



Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61109

Entry Year: 2026

Acreage: 1,806

County: Kalkaska

Management Area: Kalkaska Sandy Moraines

Stand Examiner: Paul Roell

Legal Description:

T27N, R6W, Sec's 1 & 12. T27N, R5W, Sec. 7

Identified Planning Goals:

Management in the Kalkaska Sandy Moraines area will emphasize continuing to balance the age class of aspen on suitable sites, the thinning the northern hardwoods, balancing age classes of red pine and jack pine and regenerating the aging oak resource. Management will strive to sustainably produce various forest products; enhance game and non-game wildlife habitat; protect areas of unique character and provide for forest-based recreational uses. Expected trends within this 10-year planning period are increased recreational pressure, managing oil and gas development, introduced pests and diseases and the difficulty in regenerating oak.

Soil and topography:

Upland areas of the compartment consist of Rubicon sands and island lake sands surrounded by Kalkaska sandy loams. Lowland areas are Tawas-Lupton Mucks and Ausable-Bowstring Mucks.

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

Fairly large blocks of State Land are intermixed with private property throughout the larger area around the compartment. To the west of the compartment is The Grand Traverse Regional Land Conservancy's Upper Manistee Headwaters: The Milock Family Preserve.

Unique Natural Features:

None known at this time.

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:

None known at this time.

Watershed and Fisheries Considerations:

The North Branch of the Manistee River flows through Compartment 109, and the East Lakes lie just to the north. All necessary precautions should be taken to protect these watersheds.

Wildlife Habitat Considerations:

Located within the northeastern region of Kalkaska County, the glacial geology underlying this Compartment 109 consists of ice-contact ridges, a broad flat outwash plain with sandy soils, and a broad flat outwash plain with peat/muck. State ownership within this compartment is almost entire, except for two blocks of private land within Sec. 01. Also, within this section, there is an old beaver flooding. The north branch of the Manistee River flows through this compartment, while East Lakes are just outside the boundary.

An ice-contact ridge with few kettle lakes comprises the west part of section 01 and the NW portion of section 12. Presettlement vegetation was mostly hardwoods forests of beech and sugar maple. Current vegetation saw a decrease in hardwoods, while also an increase of aspen. Management practices should reflect on keeping the forested stands at a mid-successional stage, which would be a common situation on this land type association. Inclusion of large coarse woody debris (CWD) is also desirable. These practices will benefit several species such as white-tailed deer, ruffed grouse, woodcock, and red-tailed hawk.

The jack pine stands, grasslands, and shrublands found within the pitted outwash plain are fire-dependent. Large wildfires were once reported by GLO surveyors. From presettlement times, there has been an increase of aspen. When applicable, management practices should mimic wildfires of various intensities. Timber sales should include dead and dying logs and the creation of leave-strips. Prescribed burning is an acceptable and essential part of maintaining the current open lands. Smaller openings can be maintained by felling encroachment.

The east parts of Section 1 & Section 12, and the northwest portion of Section 7 are comprised of a broad outwash plain with very poorly drained peat or muck. Lowland conifer forests dominate both presettlement and current vegetation. Maintaining these areas while mimicking natural disturbances may be a practical management objective. Windthrows were reported, so habitat cuts could be utilized to mimic these disturbances. Animals often found in this community may include white-tailed deer, red-shouldered hawk, black bear, spotted salamander, and massasauga rattlesnake.

The southeast half of Section 7 is comprised of an ice contact ridge with many kettle lakes. Topography includes steep, large, ridges. Soils are excessively drained sand. Conifer forests once dominated these areas during presettlement times. Within this compartment, present vegetation is comprised of aspen stands with mixed hardwoods, and pine plantations. GLO surveys reported an occasional wildfire. Wildlife considerations may include prescribed burning, maintaining the mixed aspen/shrubland stands, and timber practices that maintain tree species diversification and coarse woody debris (CWD).

Mineral Resource and Development Concerns and/or Restrictions

There is no known metallic mineral potential in this part of the state. The closest known active sand/gravel pit is approximately two miles north. There is some potential for sand & gravel within the compartment on the uplands, but demand for aggregate in the area may be limited to local road maintenance. The compartment occurs at the southern margin of the northern Silurian reef hydrocarbon play. Some test wells have been drilled in and around the compartment targeting Silurian reefs but limited production. There has been some minor production from the Antrim Shale and Traverse Group. In addition, there continues to be some production of hydrocarbons from the Collingwood Formation just south of the compartment. The Collingwood, however, has not been proven to be a successful economic play in the state, and there has not been any significant interest in further development of the formation in recent years. New oil & gas leases were issued to Lambda Energy in the compartment in 2023 but no well permit applications have been submitted for the area to date. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

Vehicle Access:

There is adequate access throughout the compartment.

Survey Needs:

None known at this time.

Recreational Facilities and Opportunities:

Both the Blue Bear snowmobile trail and Kalkaska ORV route run through sections 1, 12, and 7. Both these motorized trails utilize a portion of Sunset Trail Road (County Road). Section 7 also has a small section of the North Country Trail (NCT) non-motorized recreational trail, and a section of Kalkaska ORV Trail, which is 50 inch width designed for ATV use. Appropriate trail protection specifications should be included in the timber sale contracts to reduce impacts on all of these recreational trails.

Fire Protection:

Fire response will be provided from the Kalkaska Field Office. Just a few red pine stands scattered throughout the compartment are the only real concern, plus most have good access along main roads

Additional Compartment Information:

The following reports from the Inventory are attached:

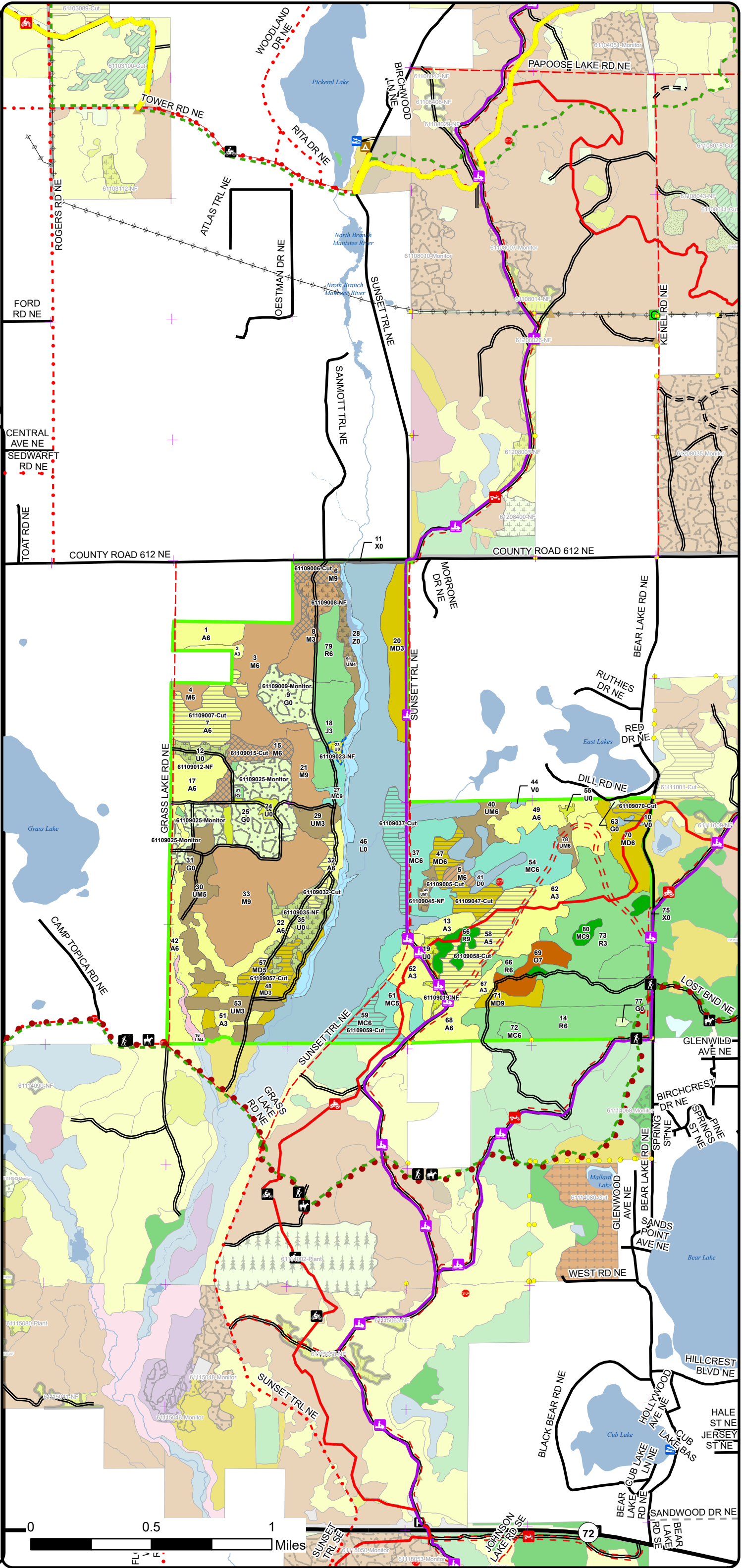
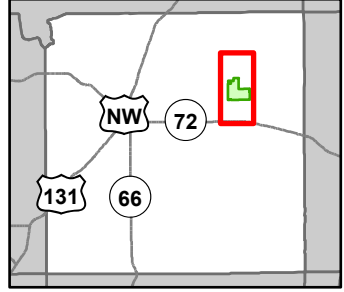
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

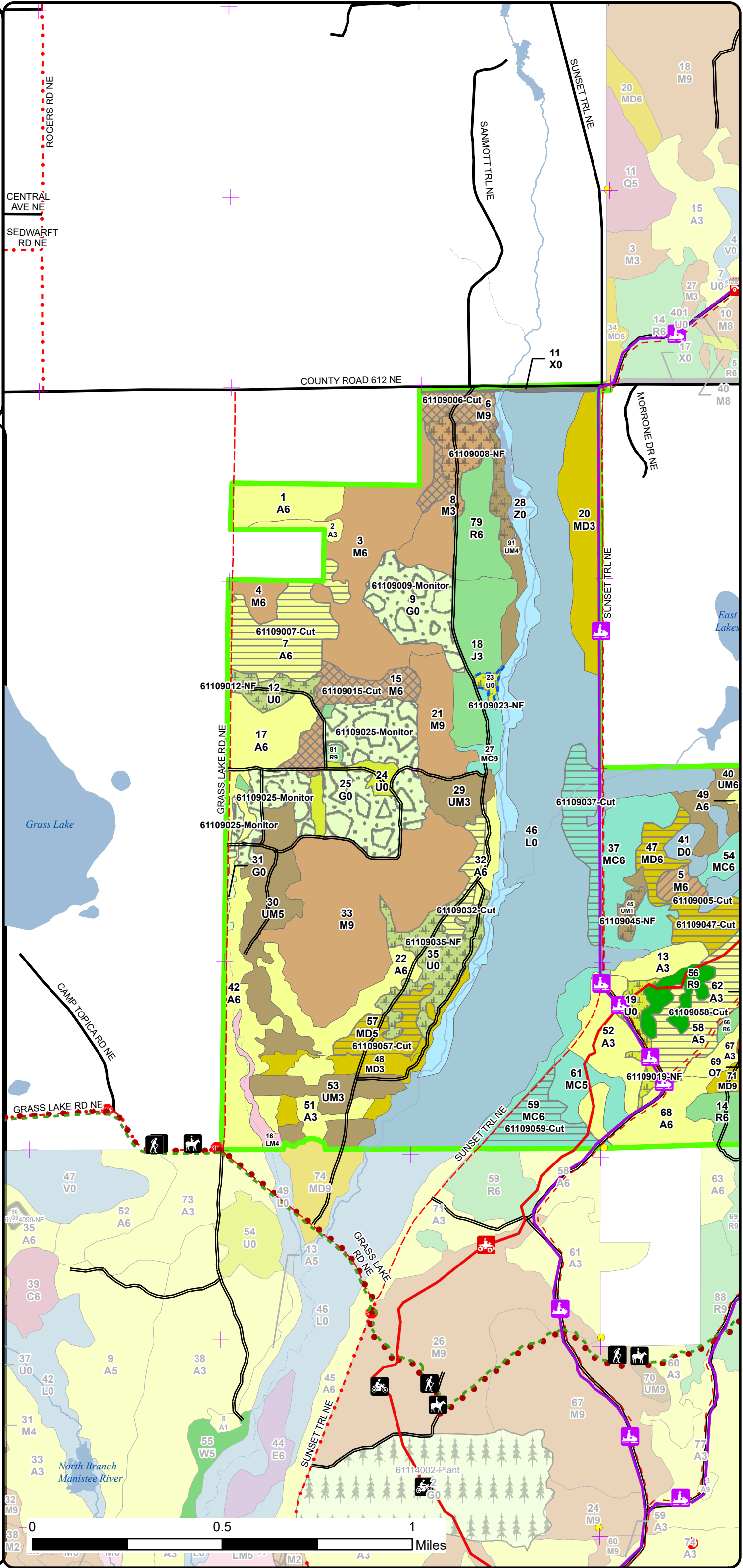
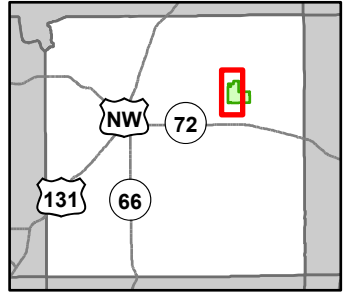
Compartment: 61109
 T27N, R5W, Sec: 7
 County: Kalkaska
 Unit: Traverse City
 Mgmt Area: Kalkaska Sandy Moraines
 YOE: 2026
 Acres: 1805.8 GIS Calculated
 Examiner: Paul Roell
 Map Revised: 10/14/2024
 Map Phase: Post Review



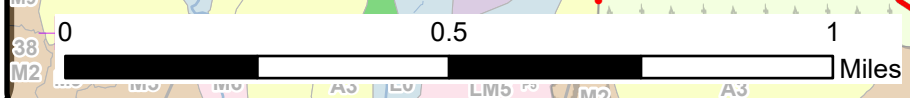
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- Horse Trails
- Motorcycle Trails (SOS License)
- Motorcycle Trails (DNR License)
- MCCCT Trails
- Motorcycle Trails
- ORV Trails
- ORV Routes
- Snowmobile Trails
- Designated Equestrian Trails
- Designated Hiking Pathways
- Designated ORV Routes
- Designated ATV Trails
- Designated MCCCT Trails
- Remonumented Section Corners
- Survey Grade Corners
- Gas Station
- Berms
- Gate
- Boating Access Site
- Campground
- Parking Lot
- Sign
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State Highway
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- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Intermittent Pond
- Intermittent Stream
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- Lakes and Rivers
- Powerline
- Compartment Boundary
- Treatments with Site Conditions
- Other Treatment - See Comments
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Regeneration Survey
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
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- 429 - Mixed Upland Conifers
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- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
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- 330 - Low Density Trees
- 500 - Water
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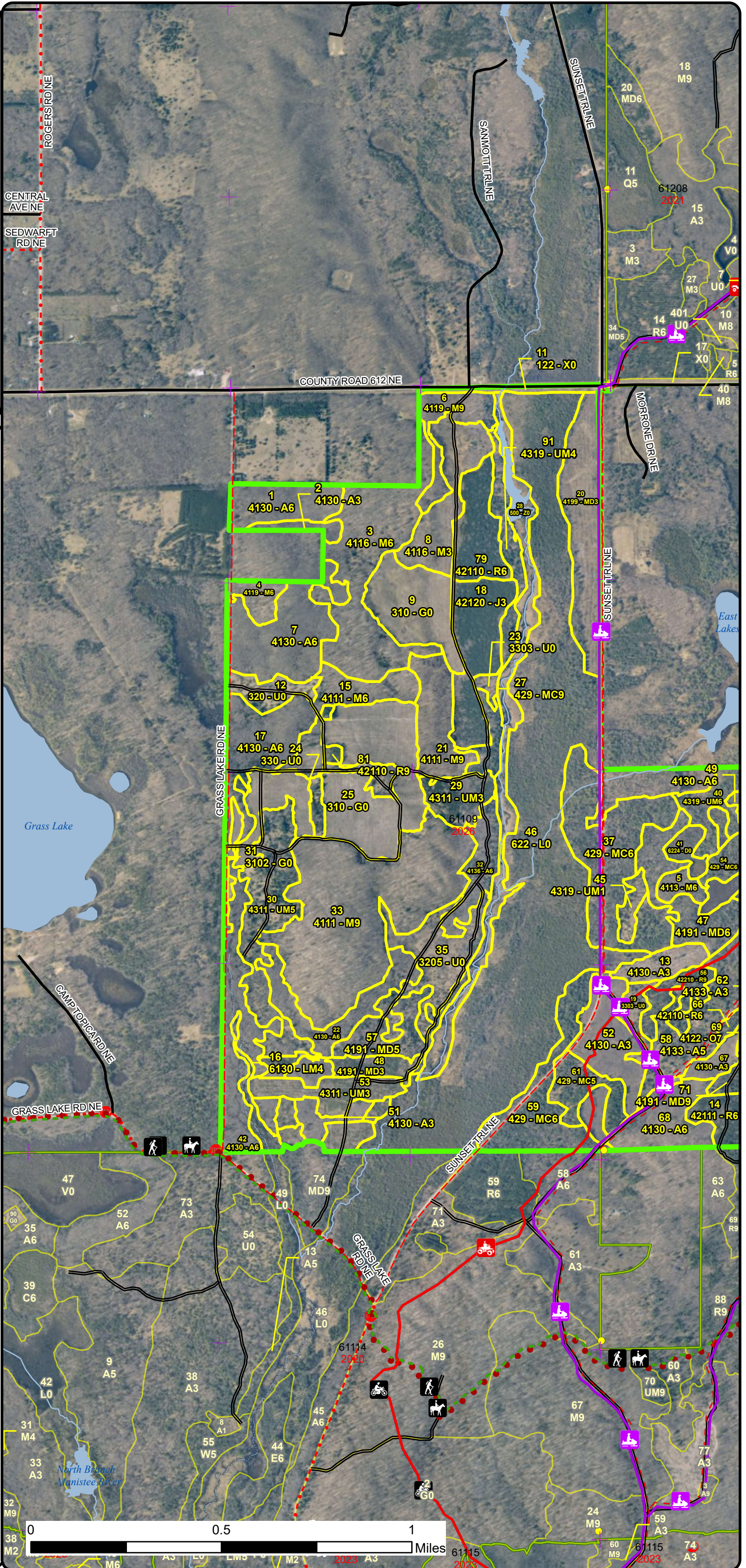
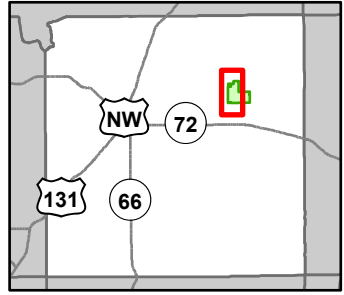


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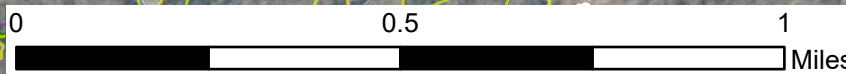


Stand Boundary Map

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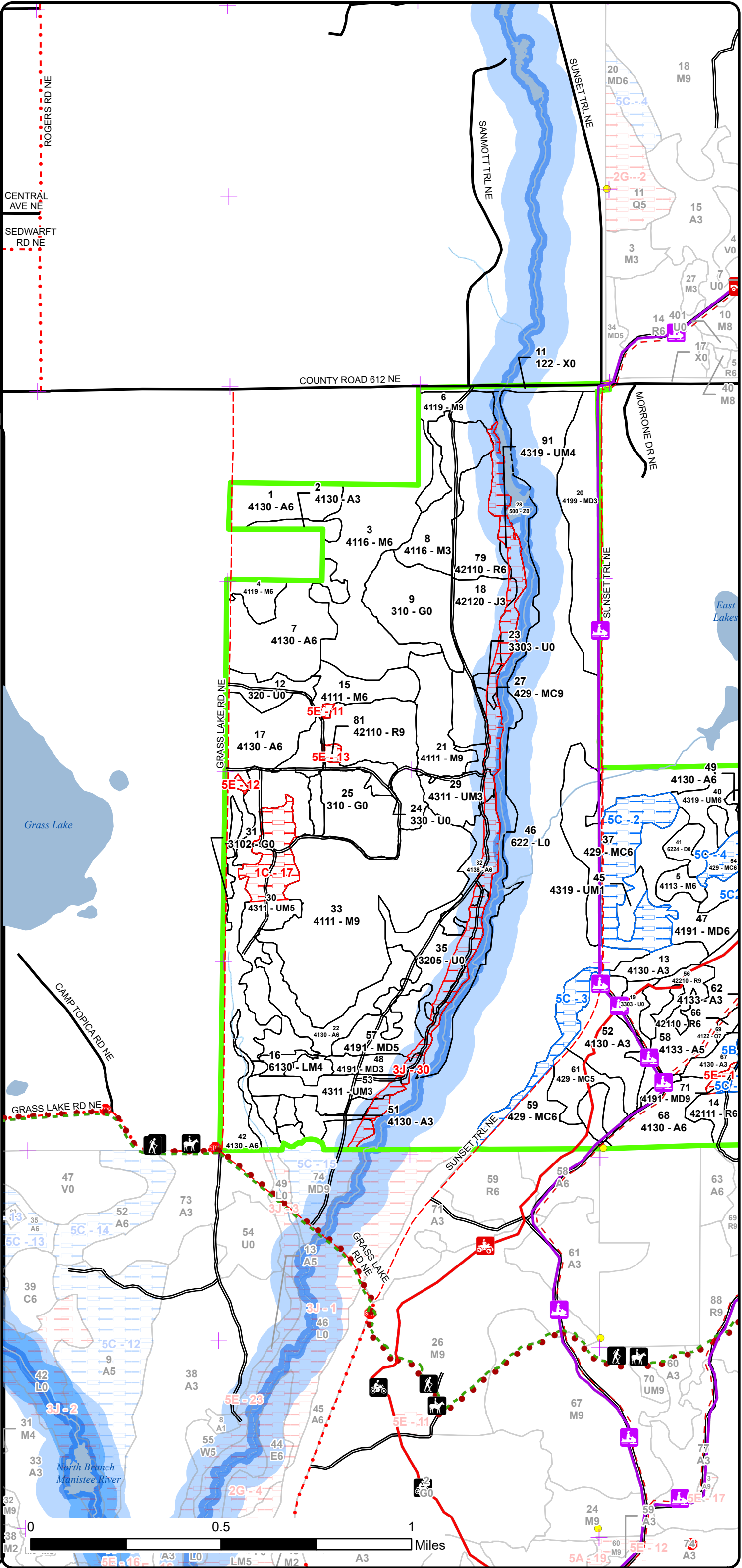
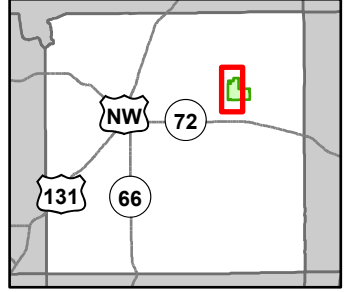


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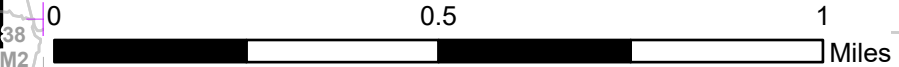


Special Conservation Areas & Site Conditions Map

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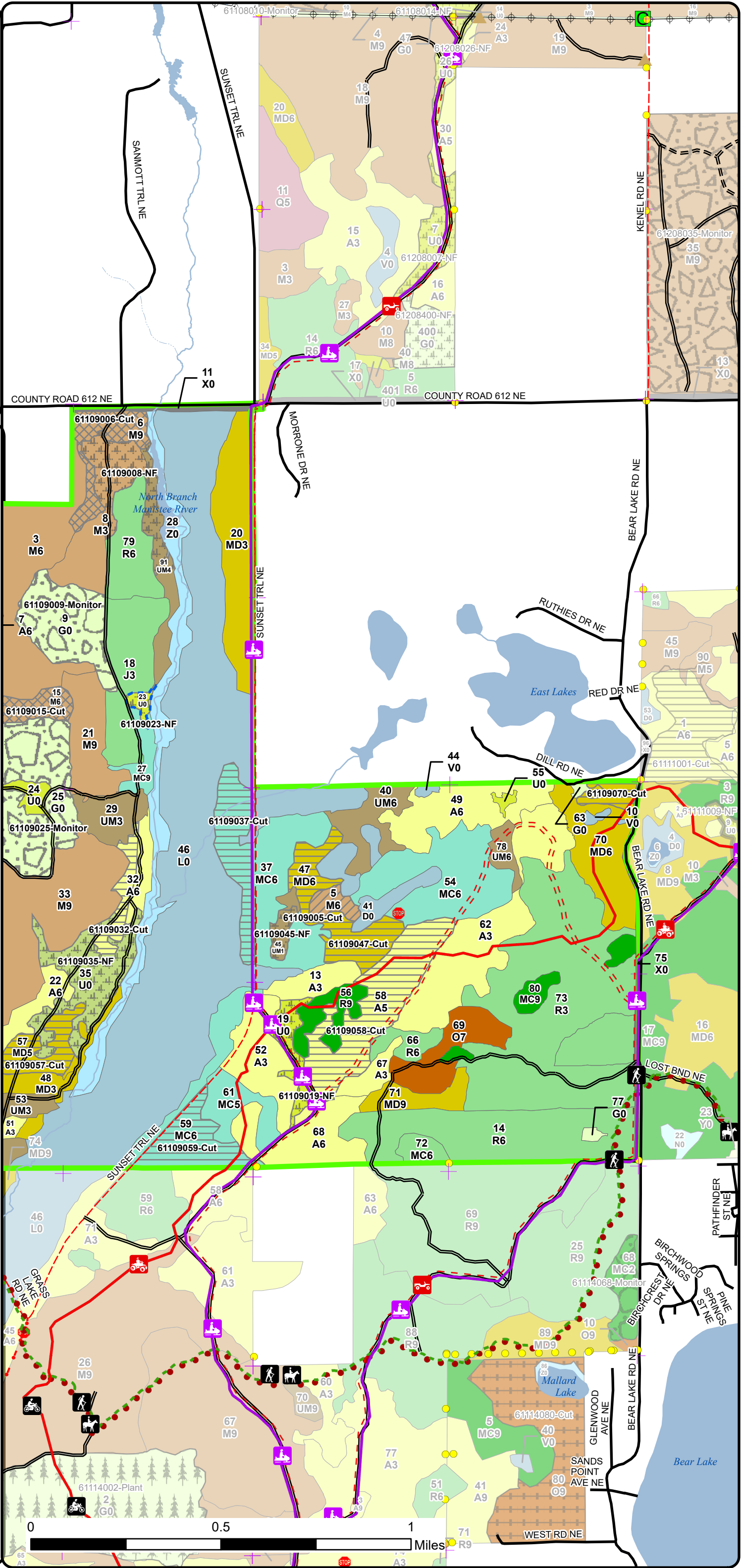
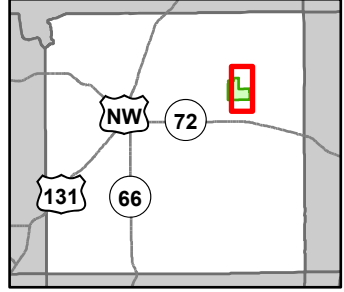


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- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer

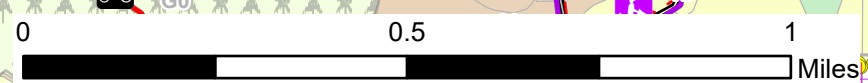


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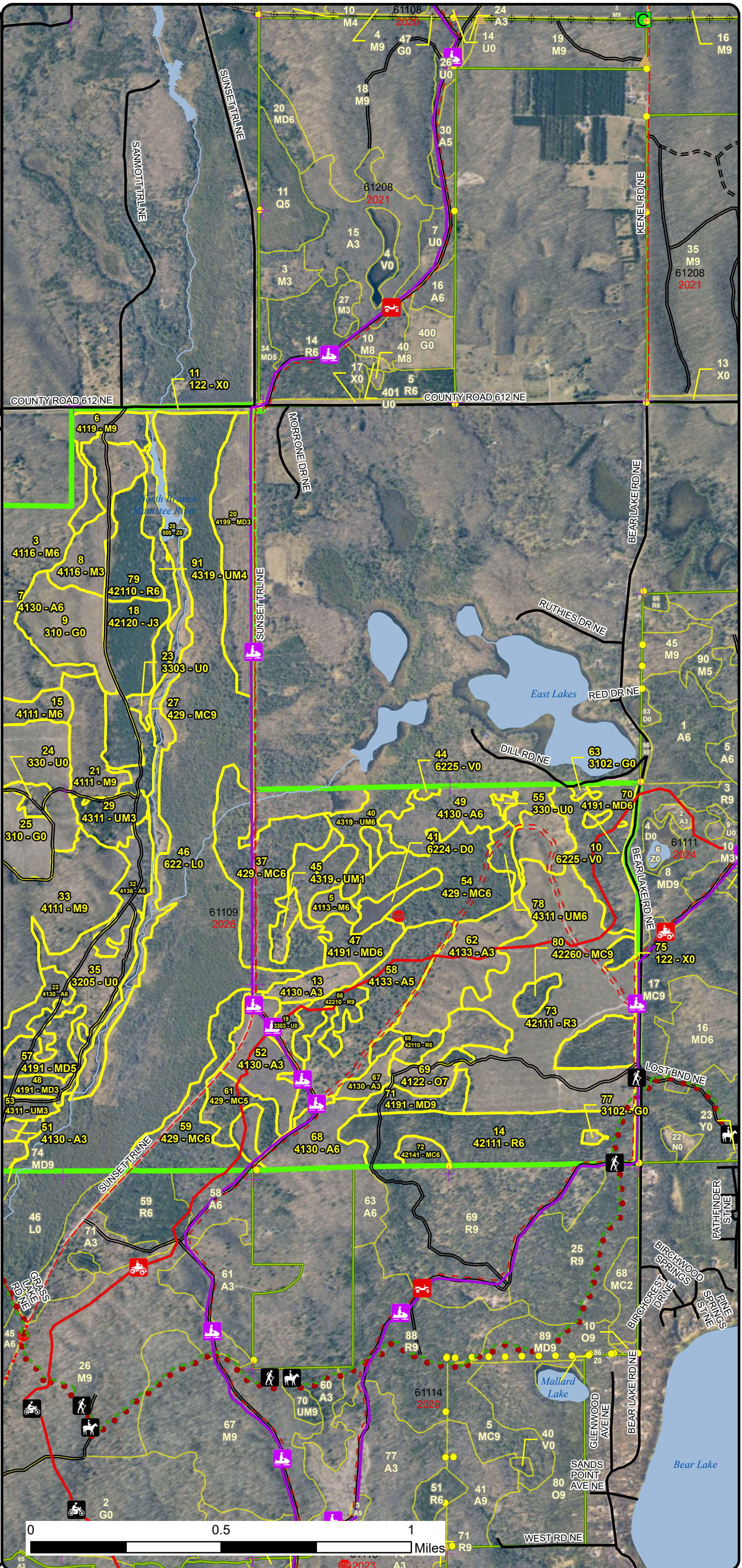
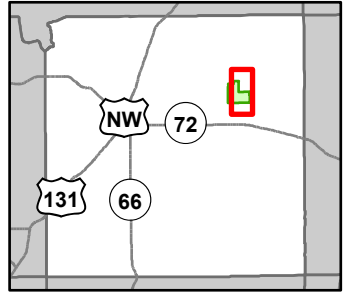


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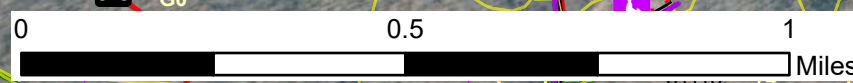


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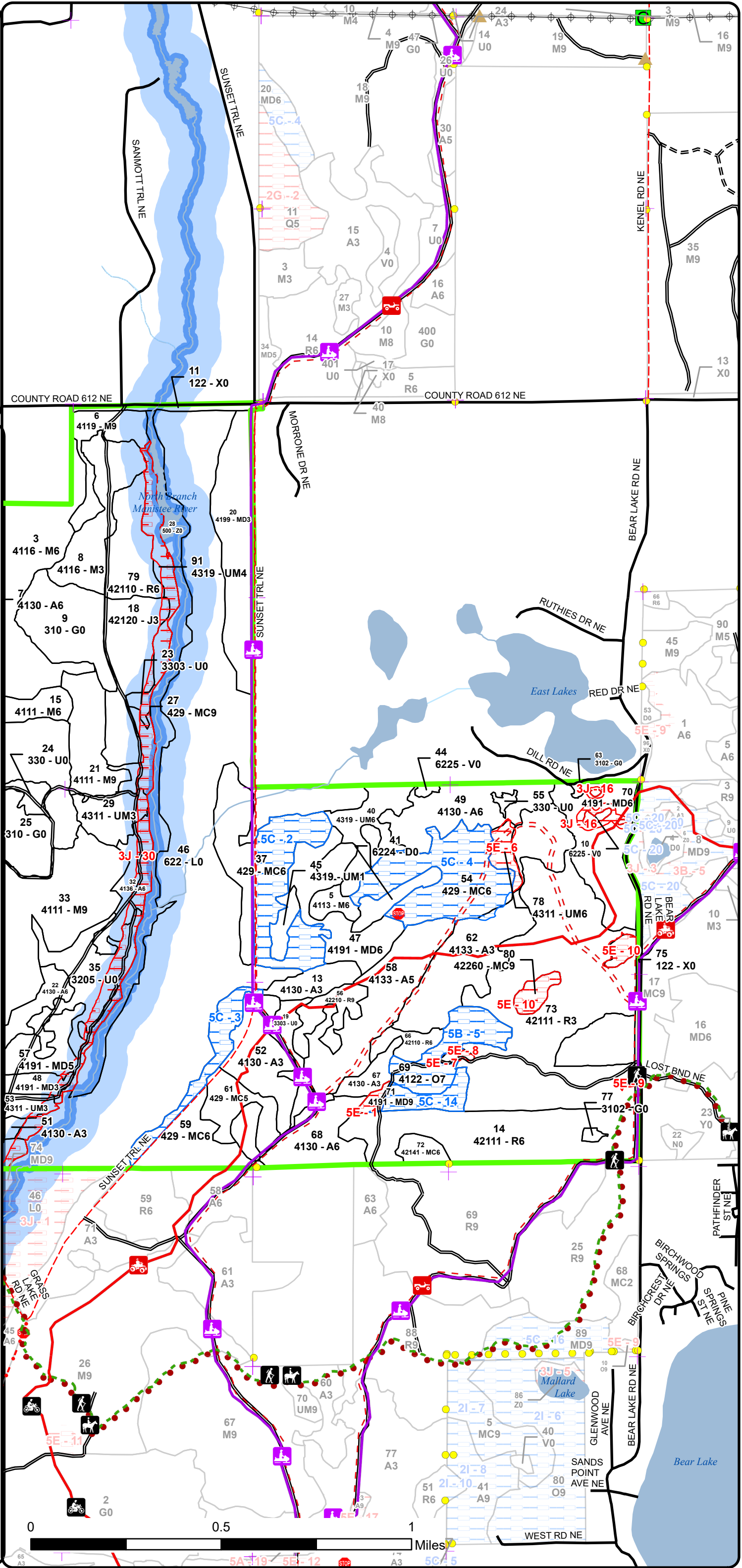
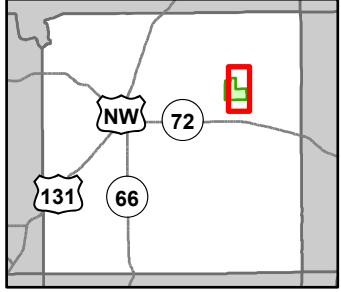


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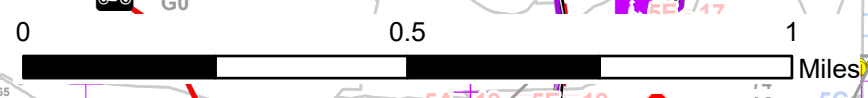


Special Conservation Areas & Site Conditions Map

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- 5E: Long-Term Retention
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- Unavailable
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- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams



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	58	11	43	72	170	0	0	0	0	0	0	0	0	0	0	0	0	354
Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Herbaceous Openland	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105
Jack Pine	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Low-Density Trees	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Lowland Mixed Forest	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Shrub	263	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	263
Mixed Upland Deciduous	0	37	0	15	18	33	24	0	0	0	11	0	0	0	0	0	0	0	138
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9
Northern Hardwood	0	26	0	0	7	0	0	5	57	56	103	0	0	0	0	0	0	0	253
Oak	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	19
Planted Mixed Pines	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Red Pine	0	117	0	21	0	0	80	3	11	0	0	0	0	0	0	0	0	0	232
Treed Bog	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Upland Conifers	0	0	0	0	0	14	0	33	94	7	0	0	0	0	0	0	0	0	147
Upland Mixed Forest	0	0	41	0	38	19	0	0	15	0	0	0	0	0	0	0	0	0	113
Upland Shrub	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Urban	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Water	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Total	497	238	52	110	141	236	109	41	177	72	133	0	0	0	0	0	0	0	1804



Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry: 2026

Acres of Harvest

Compartment 109
Total Compartment Acres: 1,806

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	Overshoot Removal	Salvage	Other	Total Acres
Aspen	85	0	0	0	0	0	0	0	0	85
Mixed Upland Deciduous	43	0	0	0	0	0	0	0	0	43
Northern Hardwood	0	34	0	0	0	5	0	0	0	40
Upland Conifers	40	0	0	0	0	0	0	0	0	40
Total	168	34	0	0	0	5	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	0	0	0	0	101	0	76	383
Next Step	0	0	0	0	0	0	202	0	0	202
Total	207	0	0	0	0	0	303	0	76	585



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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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Approved Treatments:

<p>5 61109005-Cut 5.1 4113 - R.Maple, Conifer Poletimber Well 65 111-140 Harvest Crown Thinning 411 - Northern Hardwood Uneven-Aged No</p> <p><u>Prescription</u> mark to cut the stand down to a residual basal area of 70-80 square feet per acre. Target the trees with top dieback or poor form for harvest. <u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>
<p>6 61109006-Cut 14.3 4119 - Mixed Northern Hardwoods Sawtimber Well 87 111-140 Harvest Single Tree Selection 411 - Northern Hardwood Uneven-Aged No</p> <p><u>Prescription</u> mark to cut the stand down to a residual basal area of 70-80 square feet per acre. Target the trees with top dieback or poor form for harvest. <u>Specs:</u> Create some 150'-200' regen gaps. It would be probably best to line these out and try to get 3 of these in the sale area.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u></p> <p><u>Acceptable</u> hard and soft maple, cherry, and some oak or basswood <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>
<p>7 61109007-Cut 36.9 4130 - Aspen Poletimber Well 45 81-110 Harvest Clearcut with Retention 413 - Aspen Even-Aged No</p> <p><u>Prescription</u> Final harvest stand to regenerate aspen. Mark to leave no more than 2 trees per acre of large pine or oak if desired and feasible. <u>Specs:</u> Protect the rec trails, include drumming log spec and have considerations for oak wilt in mind during sale prep.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u></p> <p><u>Acceptable</u> aspen, red maple, mixed hardwood and pine <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</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
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8	61109008-NF	21.2	4116 - Mixed N. Hardwood - Aspen	Sapling Well	4	Immature	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub	No
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Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could also seed in some native grasses and forbs.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

9	61109009-Monitor	28.9	310 - Herbaceous Openland	Nonstocked		Unspecified	Monitoring	Artificial Regen(3yr)	4211 - Planted Red Pine	Even-Aged	No
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Prescription
Specs:

Next Step
Treatments:

Acceptable planted red pine which meets minimum stocking requirements
Regen:

Other Percent to Treat = 100%
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

12	61109012-NF	9.6	320 - Upland Shrub	Nonstocked		Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub	No
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Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could also seed in some native grasses and forbs.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025



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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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15	61109015-Cut	20.1	4111 - S.Maple, Hard Mast Association	Poletimber Well	85	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	No
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Prescription mark to cut the stand down to a residual basal area of 70-80 square feet per acre. Target the trees with top dieback or poor form for harvest.
Specs: Create some 150'-200' regen gaps. It would be probably best to line these out and try to get about 4 of these in the sale area.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable sugar and red maple, cherry, oak and some basswood

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

19	61109019-NF	10.0	3303 - Mixed Low Density Trees	Nonstocked		Immature	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
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Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could also seed in some native grasses and forbs.

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

23	61109023-NF	2.3	3303 - Mixed Low Density Trees	Nonstocked		Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
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Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could also seed in some native grasses and forbs.

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition: BMPs

Proposed Start Date: 10/1 /2025



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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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25	61109025-Monitor	71.8	310 - Herbaceous Openland	Nonstocked	0	Unspecified	Monitoring	Artificial Regen(3yr)	4211 - Planted Red Pine	Even-Aged	No
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Prescription
Specs:

Next Step
Treatments:

Acceptable fully stocked stand of red pine that meets minimum regen levels
Regen:

Other Percent to Treat = 100%
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

32	61109032-Cut	8.0	4136 - Aspen, Mixed Conifer	Poletimber Well	49	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Final harvest stand to regenerate aspen. Leave white pine under 6 inch in diameter. Mark to leave no more than 2 trees per acre of large
Specs: pine or oak if desired and feasible.

area retention is accounted for within the river buffer site condition.

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

Acceptable aspen, red maple, pine and oak
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

35	61109035-NF	28.6	3205 - Mixed Upland Shrub	Nonstocked		Immature	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
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Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs
Specs: and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could also seed in some native grasses and forbs.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025



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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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37	61109037-Cut	20.6	429 - Mixed Upland Conifers	Poletimber Well	75	111-140	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	No
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Prescription Final harvest stand to regenerate aspen. Leave white pine under 6 inch in diameter. Mark to leave no more than 2 trees per acre of large pine or oak if desired and feasible.

Specs: sign and protect rec trail during the harvest. if cut in the wintertime encourage producer to haul wood south to 72

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, red maple and mixed pine

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

45	61109045-NF	3.9	4319 - Mixed Upland Forest	Sapling Poor	15	Immature	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
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Prescription Selectively fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could also seed in some native grasses and forbs.

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

47	61109047-Cut	23.8	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	52	81-110	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	No
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Prescription Final harvest stand to regenerate aspen. Mark to leave no more than 2 trees per acre of large pine or oak if desired and feasible. .

Specs:

sign and protect rec trail during the harvest and include the drumming log spec. if cut in the wintertime encourage producer to haul wood south to 72

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, red maple, and mixed pine

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/1 /2025



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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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57 61109057-Cut	14.0	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	38	51-80	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	No
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Prescription Final harvest stand to regenerate aspen. Leave all white pine under 6 inch in diameter. Mark to leave no more than 2 trees per acre of large pine or oak if desired and feasible.

Specs: Include Drumming log spec

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

Acceptable aspen, red maple, cherry and mixed pine
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

58 61109058-Cut	39.6	4133 - Aspen, Mixed Pine	Poletimber Medium	46	1-50	Harvest	Clearcut with Retention	4131 - Aspen, Oak	Even-Aged	No
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Prescription Final harvest stand to regenerate aspen. Leaving white pine under 6 inch in diameter and all white oak. Mark to leave no more than 2 trees per acre of large pine or oak if desired and feasible.

Specs: sign and protect rec trail during the harvest include the drumming log spec. if cut in the wintertime encourage producer to haul wood south to 72

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

Acceptable aspen, red maple, cherry, oak and pine
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025

59 61109059-Cut	19.6	429 - Mixed Upland Conifers	Poletimber Well	60	81-110	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	No
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Prescription Final harvest stand to regenerate aspen. Leave white pine under 6 inch in diameter. Mark to leave no more than 2 trees per acre of large pine or oak if desired and feasible.

Specs: Protect rec trail during harvest.

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

Acceptable aspen, red maple, mixed hardwood and pine
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/1 /2025



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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
70 61109070-Cut	5.0	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	43	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Final harvest stand to regenerate aspen. Mark to leave no more than 2 trees per acre of large pine or oak if desired and feasible. .</p> <p><u>Specs:</u> Retention for this harvest and future harvests on stand 70 has been put in site condition layer.</p> <p>sign and protect rec trail during the harvest.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> aspen, red maple, oak, and pine</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										

Total Treatment 383.3
Acreage Proposed:

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell: Examiner

Compartment: 109

Year of Entry: 2026

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions				
		With Condition	Not Available		5B	5C	1C	3J	5E
353	345	0	7	Aspen		0		7	0
3	3	0	0	Bog					
105	105	0	0	Herbaceous Openland					0
31	29	0	2	Jack Pine				2	
22	21	0	1	Low-Density Trees				1	
6	6	0	0	Lowland Mixed Forest					
263	263	0	0	Lowland Shrub					
138	118	9	12	Mixed Upland Deciduous		9		10	2
9	0	0	9	Natural Mixed Pines					9
254	254	0	0	Northern Hardwood				0	0
19	0	19	0	Oak	19				0
5	5	0	0	Planted Mixed Pines					
232	230	0	2	Red Pine				0	2
15	15	0	0	Treed Bog					
148	57	86	4	Upland Conifers		86		4	
113	74	0	39	Upland Mixed Forest			16	17	5
38	31	0	8	Upland Shrub				8	
11	11	0	0	Urban					
40	40	0	0	Water				0	
1,806	1,607	115	84	Total Forested Acres	19	95	16	49	18
	89%	6%	5%	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	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell: Examiner

Compartment: 109

Year of Entry: 2026

2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	32	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	42	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Available	5B: Maintain for regeneration purposes	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell: Examiner

Compartment: 109

Year of Entry: 2026

8	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Traverse City Mgt. Unit

Paul Roell: Examiner

Compartment: 109

Year of Entry: 2026

16	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	3	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	1C: Other dept or div proc/practices	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
30	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	46	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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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
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.



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	18.7	37	51-80	N/A	Cut in 1986 using a green tree method.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	5	Sapling/Pole	3		Maple (spp.)	High	Variable	Sapling
Basswood	5	Log/Pole	10					
Bigtooth Aspen	40	Pole	7	37				
Sugar Maple	25	Pole/Log	9					
Quaking Aspen	20	Pole/Sapling	6	37				
Beech	5	Log/Pole	10					

2	4130 - Aspen	Sapling Well	4.4	16	Immature	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	20	Sapling	2	
Bigtooth Aspen	65	Sapling	3	16
Sugar Maple	15	Sapling	1	

3	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	57.0	75	81-110	N/A	
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	25	Pole/Log/Sap	7	75	Red Maple	Low	Variable	Sapling
Beech	10	Pole/Log	8		Sugar Maple	Medium	Variable	Sapling
Red Maple	20	Pole/Log/Sap	7					
Paper Birch	10	Pole/Sapling	5					
Basswood	15	Pole/Log/Sap	6					
Bigtooth Aspen	20	Pole	8					

4	4119 - Mixed Northern Hardwoods	Poletimber Well	7.3	34	51-80	N/A	Good access of Grass Lake Rd NE to the west. Good sugar maple and aspen regen.
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Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	50	Sapling/Pole/Log	4	34
Red Maple	10	Pole/Sapling	6	
White Pine	10	Sapling/Pole	3	
Basswood	5	Pole/Log	9	
Bigtooth Aspen	15	Pole/Log	8	52
Ironwood	5	Pole/Sapling	6	
Beech	5	Pole/Log/Sap	9	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																	
5	4113 - R.Maple, Conifer	Poletimber Well	5.1	65	111-140	N/A																																																		
<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Balsam Fir</td> <td>15</td> <td>Pole/Sap/Log</td> <td>5</td> <td></td> </tr> <tr> <td>Paper Birch</td> <td>5</td> <td>Pole</td> <td>5</td> <td></td> </tr> <tr> <td>White Pine</td> <td>10</td> <td>Pole</td> <td>6</td> <td></td> </tr> <tr> <td>Black Cherry</td> <td>10</td> <td>Pole/Log</td> <td>8</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>50</td> <td>Pole/Log</td> <td>8</td> <td>65</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>10</td> <td>Log</td> <td>10</td> <td></td> </tr> </tbody> </table>		Canopy Species	% Cover	Size Class	DBH	Age	Balsam Fir	15	Pole/Sap/Log	5		Paper Birch	5	Pole	5		White Pine	10	Pole	6		Black Cherry	10	Pole/Log	8		Red Maple	50	Pole/Log	8	65	Bigtooth Aspen	10	Log	10		<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>White Pine</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Red Maple</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> <tr> <td>Balsam Fir</td> <td>Low</td> <td>Variable</td> <td>Sapling</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Low	Variable	Sapling	Red Maple	Low	Variable	Sapling	Balsam Fir	Low	Variable	Sapling		
Canopy Species	% Cover	Size Class	DBH	Age																																																				
Balsam Fir	15	Pole/Sap/Log	5																																																					
Paper Birch	5	Pole	5																																																					
White Pine	10	Pole	6																																																					
Black Cherry	10	Pole/Log	8																																																					
Red Maple	50	Pole/Log	8	65																																																				
Bigtooth Aspen	10	Log	10																																																					
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White Pine	Low	Variable	Sapling																																																					
Red Maple	Low	Variable	Sapling																																																					
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6	4119 - Mixed Northern Hardwoods	Sawtimber Well	14.3	87	111-140	N/A																																																		
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8	4116 - Mixed N. Hardwood - Aspen	Sapling Well	26.4	4	Immature	N/A	Stand was harvested fall/winter of 2020/21																																																	
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9	310 - Herbaceous Openland	Nonstocked	28.9		Unspecified	4211 - Planted Red Pine	2023 - Stands Year 1 Regeneration Survey was completed 10/16/2023. Stand is currently 863 trees per acre and 97% Free to Grow at this time. 2023 - Stand was planted to red pine, 922 TPA 2022 - July 2022 Stand was Site Prep Sprayed with Contract Helicopter 2021 - Stand was trenched																																																	
10	6225 - Bog	Nonstocked	1.5		Unspecified	No																																																		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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11 122 - Road/Parking Lot Nonstocked 5.1 Unspecified No

12 320 - Upland Shrub Nonstocked 9.6 Unspecified No

13 4130 - Aspen Sapling Well 9.7 5 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	5	Log/Pole	10	75
Red Maple	30	Sapling	1	5
Bigtooth Aspen	35	Sapling	1	5
Red Pine	5	Log	12	
Quaking Aspen	25	Sapling	1	5

14 42111 - Planted Red Pine, Mixed Deciduous Poletimber Well 73.0 58 81-110 N/A

Planted in 1966. Planting records mention that due to oak slash rows may be variable. VERY VARIABLE. Thinned in 2020 sale went good

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Pole/Log	7	
Bigtooth Aspen	10	Pole/Log	8	
Red Oak	15	Pole/Log	7	
Red Pine	65	Pole	8	58

Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	Low	Variable	Sapling

15 4111 - S.Maple, Hard Mast Association Poletimber Well 20.1 85 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	5	Log/XLog	14	
White Pine	5	Pole/Log	8	
Basswood	5	Pole/Log	9	
Beech	15	Pole/Log	8	
Red Maple	15	Pole/Log	8	
Sugar Maple	55	Pole/Log	8	85

Sub-Canopy Species	Density	Avg. Height	Size
Beech	Medium	Variable	Sapling
Sugar Maple	Low	Variable	Sapling

16 6130 - Fir, Aspen, Maple Poletimber Poor 5.6 36 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Northern White Cedar	15	Pole	6	65
White Pine	10	Log	10	
Balsam Fir	25	Pole	6	
Quaking Aspen	35	Sapling/Pole	4	36
Red Maple	10	Pole/Log/Sap	5	
Black Cherry	5	Sapling/Pole	5	

Sub-Canopy Species	Density	Avg. Height	Size
Tag Alder	Low	5 - 10 feet	Tall Shrub
Red Maple	Low	Variable	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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17	4130 - Aspen	Poletimber Well	28.5	45	81-110	N/A				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Quaking Aspen		10	Pole	7		Red Maple		High	Variable	Sapling
Northern White Cedar		2	Pole	8						
Black Cherry		5	Pole	6						
White Pine		8	Log/Pole	13						
Sugar Maple		5	Pole	6						
Bigtooth Aspen		65	Pole	8	45					
Red Maple		5	Pole	6						

18	42120 - Planted Jack Pine	Sapling Well	30.8	22	Immature	N/A				
Canopy Species		% Cover	Size Class	DBH	Age					
Jack Pine		98	Sapling	4	22					
Red Maple		2	Sapling/Pole	4						

19	3303 - Mixed Low Density Trees	Nonstocked	10.0		Immature	No	
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20	4199 - Other Mixed Upland Deciduous	Sapling Well	37.4	6	Immature	N/A	Sale closed fall of 2019. There were a few large maples, one beech and some pines left			
Canopy Species		% Cover	Size Class	DBH	Age					
Balsam Fir		5	Sapling	3						
Quaking Aspen		20	Sapling	1	6					
Bigtooth Aspen		15	Sapling	1						
White Pine		10	Sapling	3						
Red Maple		30	Sapling	1	6					
Black Cherry		20	Sapling	1	6					

21	4111 - S.Maple, Hard Mast Association	Sawtimber Well	21.4	88	81-110	N/A	This stand was last thinned in 2009			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Maple		20	Log/Pole	10		Beech		Medium	Variable	Sapling
Beech		15	Log/Pole	10		Ironwood		Full	5 - 10 feet	Sapling
Sugar Maple		55	Log/Pole	10	88	Sugar Maple		Low	Variable	Sapling
Basswood		10	Log/Pole	10						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																	
22	4130 - Aspen	Poletimber Well	21.1	36	81-110	N/A	Previously final harvested around 1986. Great access off N Grass Lake Rd NE. Wet stand with fingers of wet drainage areas throughout the stand.																																																																	
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25	310 - Herbaceous Openland	Nonstocked	71.8	0	Unspecified	4211 - Planted Red Pine	2023 -Stand was planted to 922 TPA of Red Pine. Stands year 1 regeneration survey was completed 10/16/2023. There currently is 881 trees per acre and stand is 99% free to grow at this time. 2023 - Stand was Planted to Red Pine, 922 TPA 2022 - July 2022 Stand was Site Prep Sprayed with Contract Helicopter Stand was trenched spring of 2021																																																																	
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28	500 - Water	Nonstocked	40.2		Unspecified	No	river/creek corridor with lowland shrubs																																																																	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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29 4311 - Pine, Aspen Mix Sapling Well 12.8 17 Immature N/A Well stocked, Planted to the west with possible natural seeding in on the east side.

Canopy Species	% Cover	Size Class	DBH	Age
Jack Pine	40	Sapling	4	17
Red Pine	5	Pole	6	
Bigtooth Aspen	15	Sapling	3	18
Sugar Maple	20	Sapling	4	
Red Oak	5	Sapling/Pole	4	
White Pine	10	Sapling	4	
Red Maple	5	Sapling	3	

30 4311 - Pine, Aspen Mix Poletimber Medium 37.5 35 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	15	Sapling/Pole	4		Bigtooth Aspen	Low	5 - 10 feet	Sapling
White Pine	50	Sapling/Pole/Log	4	35	White Pine	Low	5 - 10 feet	Sapling
Bigtooth Aspen	10	Sapling/Pole	4					
Black Cherry	15	Pole/Sap/Log	5					
Balsam Fir	5	Pole/Sapling	6					
Red Maple	5	Pole/Sapling	7					

31 3102 - Grass Nonstocked 1.9 Immature No

32 4136 - Aspen, Mixed Conifer Poletimber Well 14.7 49 81-110 N/A

Some beaver activity on the east side along the two track. Larger white pine throughout stand.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	40	Pole/Log	8	49	Beech	Low	Variable	Sapling
Black Cherry	5	Pole	6		Balsam Fir	Low	Variable	Sapling
Red Maple	10	Pole/Log	9		Red Maple	Low	Variable	Sapling
Paper Birch	5	Pole	8		White Pine	Low	Variable	Sapling
Quaking Aspen	20	Pole/Log	8	37				
Balsam Fir	15	Pole/Sapling	6					
White Pine	5	Log	12					

33 4111 - S.Maple, Hard Mast Association Sawtimber Well 102.5 90 81-110 N/A

Good access to the west off N Grass Lake Rd NE. North of this stand is a red pine plantation and to the west is a non-forested area that is the site of an old Civilian Conservation Corp (CCC) camp. This stand was last thinned in 2010.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	5	Pole/Sapling	5		Sugar Maple	Low	Variable	Sapling
Red Maple	20	Pole/Log	8		Beech	Medium	Variable	Sapling
Sugar Maple	40	Log	10	90	Ironwood	Medium	5 - 10 feet	Sapling
Beech	15	Pole/Log	9					
Basswood	20	Log	12					

35 3205 - Mixed Upland Shrub Nonstocked 28.6 Immature No Opening that is filling in with cherry and white pine



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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37 429 - Mixed Upland Conifers Poletimber Well 52.5 75 111-140 N/A Stand has wet areas throughout

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	30	Log/Pole	10	75	Balsam Fir	Medium	5 - 10 feet	Sapling
Paper Birch	5	Pole/Sapling	5		White Pine	Low	Variable	Sapling
Red Maple	15	Pole/Sapling	6		Aspen (spp.)	Low	Variable	Sapling
Red Pine	5	Log/Pole	10					
Balsam Fir	30	Pole	6					
Quaking Aspen	15	Pole/Sap/Log	6					

40 4319 - Mixed Upland Forest Poletimber Well 15.1 73 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	20	Pole	6	66	Red Maple	Low	Variable	Sapling
White Pine	35	Pole/Log	8	73	Balsam Fir	Medium	Variable	Sapling
Balsam Fir	15	Pole	7		White Pine	Low	Variable	Sapling
Paper Birch	5	Pole	6					
Bigtooth Aspen	20	Pole/Log	8					
Quaking Aspen	5	Pole/Log	8					

41 6224 - Treed Bog Nonstocked 15.1 Immature No

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	10 - 20 feet	Sapling
Black Spruce	Low	10 - 20 feet	Sapling
Northern White Cedar	Low	Variable	Sapling
Tamarack	Low	10 - 20 feet	Sapling

42 4130 - Aspen Poletimber Well 32.3 36 81-110 N/A

Previously final harvested around 1986. Great access off N Grass Lake Rd NE. Wet stand with fingers of wet drainage areas throughout the stand.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	40	Pole	6	36	Balsam Fir	Low	Variable	Sapling
Bigtooth Aspen	30	Pole	7	36	Beech	Low	Variable	Sapling
Black Cherry	5	Pole/Sapling	5					
Balsam Fir	5	Sapling/Pole	4					
Red Maple	10	Pole/Log/Sap	5					
White Pine	10	Log	10					

44 6225 - Bog Nonstocked 1.1 Unspecified No



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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45 4319 - Mixed Upland Forest Sapling Poor 5.2 15 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	10	Sapling/Pole	4	
Black Cherry	15	Pole/Sapling	6	
Red Maple	25	Sapling/Pole	4	
White Pine	50	Sapling/Pole	4	15

46 622 - Lowland Shrub Nonstocked 262.6 Unspecified No With low density mix deciduous trees

47 4191 - Mixed Upland Deciduous with Conifer Poletimber Well 23.8 52 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	15	Pole/Sap/Log	5		White Pine	Low	Variable	Sapling
Red Maple	20	Pole/Sap/Log	6		Red Maple	Low	Variable	Sapling
Quaking Aspen	10	Log/XLog	15		Balsam Fir	Low	Variable	Sapling
White Pine	25	Pole/Log	8	52				
Bigtooth Aspen	25	Pole/Log	8	52				
Paper Birch	5	Pole	5					

48 4191 - Mixed Upland Deciduous with Conifer Sapling Well 15.2 20 Immature N/A Mixed stand that varies in density. Red pine strip plantation through the center of this stand. Good access off Grass Lake Rd NE.

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	10	Sapling/Pole	4	20
Jack Pine	30	Sapling/Pole	4	20
Red Oak	5	Sapling/Pole	4	20
Bigtooth Aspen	25	Sapling	4	
Red Maple	30	Sapling	3	20

49 4130 - Aspen Poletimber Well 28.2 44 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	55	Pole/Log	8	44	Maple (spp.)	Low	Variable	Sapling
Black Cherry	5	Pole	6		White Pine	Low	Variable	Sapling
White Pine	5	Log/Pole	10					
Red Maple	5	Pole/Sapling	6					
Quaking Aspen	25	Pole	7	44				
Balsam Fir	5	Pole	6					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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51 4130 - Aspen Sapling Well 13.9 26 Unspecified N/A Well stocked, easy access, stand splits a young red pine strip plantation.

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	30	Sapling/Pole	4	26
Red Maple	20	Sapling	3	
Black Cherry	20	Sapling	3	
Quaking Aspen	30	Sapling/Pole	4	26

52 4130 - Aspen Sapling Well 28.7 23 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	5	Sapling/Pole	3	
Bigtooth Aspen	50	Sapling	4	23
Black Cherry	5	Sapling	3	
Balsam Fir	5	Sapling	3	
Red Maple	5	Sapling	3	23
Quaking Aspen	30	Sapling	3	23

53 4311 - Pine, Aspen Mix Sapling Well 23.6 16 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	15	Sapling	2	16
Bigtooth Aspen	10	Sapling	3	
Sugar Maple	5	Sapling	2	
Red Pine	55	Sapling	2	16
Black Cherry	5	Sapling	2	
Quaking Aspen	10	Sapling	3	16

54 429 - Mixed Upland Conifers Poletimber Well 41.8 78 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	15	Pole/Sap/Log	7		White Pine	Low	Variable	Sapling
Balsam Fir	15	Pole/Sap/Log	6		Balsam Fir	Low	Variable	Sapling
Quaking Aspen	10	Pole/Sap/Log	7					
White Pine	35	Pole/Log/Sap	8	78				
Red Pine	10	Log/Pole	10					
Bigtooth Aspen	15	Pole/Log	8					

55 330 - Low-Density Trees Nonstocked 1.3 Unspecified No



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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56 42210 - Natural Red Pine Sawtimber Well 11.4 75 81-110 N/A Adjacent to the snowmobile trail. Access off Sunset Trail.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	10	Log/Pole	11		Maple (spp.)	Low	Variable	Sapling
Red Pine	65	Log	11	75				
Balsam Fir	5	Pole	6					
Red Maple	5	Pole	6					
Red Oak	5	Pole/Log	8					
Quaking Aspen	10	Pole	6					

57 4191 - Mixed Upland Deciduous with Conifer Poletimber Medium 18.0 38 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	10	Pole	8		Aspen (spp.)	Low	Variable	Sapling
White Pine	15	Log	11		White Pine	Low	Variable	Sapling
Red Maple	20	Sapling/Pole	4		Maple (spp.)	Low	Variable	Sapling
Quaking Aspen	25	Pole/Sap/Log	6	38				
Black Cherry	15	Sapling/Pole	4					
Balsam Fir	10	Sapling/Pole	4					
Red Oak	5	Pole/Log	8					

58 4133 - Aspen, Mixed Pine Poletimber Medium 39.6 46 1-50 N/A

This stand has low density and is mostly low quality aspen and open grown pine mixed throughout. There are a few red oaks scattered throughout and the black cherry is very shrubby with multiple stems.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	5	Pole/Sapling	5		White Pine	Medium	Variable	Sapling
White Pine	25	Pole/Sap/Log	6		Red Maple	Low	Variable	Sapling
Bigtooth Aspen	20	Pole/Log	8	53				
Black Cherry	20	Pole/Sapling	5					
Red Oak	5	Sapling/Pole	4					
Red Pine	5	Log/Pole	10					
Quaking Aspen	20	Pole	6	46				

59 429 - Mixed Upland Conifers Poletimber Well 32.5 60 81-110 N/A

Cedar found towards the west side and moving into a lowland covertype. Good access of Sunset Trail.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	10	Pole/Sap/Log	6		Red Maple	High	Variable	Sapling
Bigtooth Aspen	20	Pole/Log	8		White Pine	Low	Variable	Sapling
White Pine	30	Pole/Log/Sap	7	60	Balsam Fir	Low	Variable	Sapling
Balsam Fir	25	Pole/Sap/Log	5					
Black Spruce	15	Pole/Sap/Log	6					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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61 429 - Mixed Upland Conifers Poletimber Medium 14.3 42 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black Cherry	5	Pole/Log	8		Balsam Fir	Low	Variable	Sapling
Red Maple	15	Pole/Sapling	6		White Pine	Low	Variable	Sapling
Quaking Aspen	20	Pole/Sapling	6					
White Pine	25	Pole/Sapling	6	42				
Balsam Fir	30	Pole/Sapling	6	42				
Black Spruce	5	Pole/Sapling	6					

62 4133 - Aspen, Mixed Pine Sapling Well 48.3 8 Immature N/A Timber sale was completed in 2016 regen looks good

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	25	Sapling/Pole/Log	4		Balsam Fir	Low	Variable	Sapling
Quaking Aspen	20	Sapling	1	8	White Pine	Low	Variable	Sapling
Red Oak	15	Sapling/Pole	1		Maple (spp.)	Low	Variable	Sapling
Bigtooth Aspen	30	Sapling	2	8				
Red Maple	10	Sapling	1					

63 3102 - Grass Nonstocked 1.1 Unspecified No

66 42110 - Planted Red Pine Poletimber Well 6.9 58 81-110 N/A thinned in 2018

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	85	Pole/Log	8	58	Beech	Low	Variable	Sapling
Quaking Aspen	5	Pole/Sap/Log	5					
Red Oak	5	XLog/Log	18					
Red Maple	5	Pole/Log	8					

67 4130 - Aspen Sapling Well 6.5 14 Immature N/A Harvested in 2010.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	20	Sapling	2	
Black Cherry	5	Sapling	2	
Bigtooth Aspen	50	Sapling	3	14
Quaking Aspen	25	Sapling	2	14

68 4130 - Aspen Poletimber Well 21.3 46 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	10	Pole/Sap/Log	7		White Pine	Low	Variable	Sapling
Paper Birch	5	Pole	6		Red Maple	Low	Variable	Sapling
Bigtooth Aspen	70	Pole/Log	8	46				
Red Maple	10	Pole/Sap/Log	5					
White Pine	5	Pole/Log	8					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																						
69	4122 - Oak, Pine	Sawtimber Poor	19.3	94	1-50	N/A	Stand was harvested in 2018. Rx was to cut all red maple, aspen, white pine, and red pine... unless marked with green paint. Leave all Oak.																																						
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70	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	33.3	43	51-80	N/A																																							
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71	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	10.7	94	111-140	N/A																																							
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72	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Well	5.4	56	81-110	N/A																																							
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White Oak	20	Sapling	3																																										
73	42111 - Planted Red Pine, Mixed Deciduous	Sapling Well	117.4	8	Immature	N/A	Regeneration Survey completed Fall of 2020 results showed 19% mortality 669 TPA and 90 percent free to grow trees. Average tree height was 1.7 ft. Did a quantitative regeneration survey on 10/24/2018 the stand averaged 20 percent mortality. We need to release spray the stand and do another regen survey next fall.																																						
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Red Maple	5	Sapling	1																																										
75	122 - Road/Parking Lot	Nonstocked	5.9		Unspecified	No																																							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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77 3102 - Grass Nonstocked 1.1 Unspecified No

78 4311 - Pine, Aspen Mix Poletimber Well 5.2 44 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	10	Pole	6		White Pine	Low	Variable	Sapling
Bigtooth Aspen	45	Pole	6	44	Red Maple	Low	Variable	Sapling
White Pine	45	Log	12					

79 42110 - Planted Red Pine Poletimber Well 20.8 28 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	6	Sapling	3	
Red Pine	94	Pole/Sapling	5	28

80 42260 - Natural Pine, Mixed Deciduous Sawtimber Well 9.3 87 141-170 N/A Retention from when stand 73 was harvested.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	20	Log/Pole	11		White Pine	Low	Variable	Sapling
Red Pine	25	Log/Pole	11	87	Balsam Fir	Low	Variable	Sapling
Red Maple	10	Pole	6		Maple (spp.)	Low	Variable	Sapling
Quaking Aspen	10	Log/Pole	11		Aspen (spp.)	Low	Variable	Sapling
White Pine	35	Pole/Log	9	87				

81 42110 - Planted Red Pine Sawtimber Well 2.7 69 111-140 N/A Retention pocket

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	100	Log	12	69	Red Oak	Low	Variable	Sapling
					White Pine	Low	Variable	Sapling
					Red Maple	Low	Variable	Sapling
					Red Pine	Low	Variable	Sapling
					Beech	Medium	Variable	Sapling

91 4319 - Mixed Upland Forest Poletimber Poor 13.7 49 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	5	Log/Pole	10		Black Cherry	Medium	Variable	Sapling
Quaking Aspen	10	Pole/Sapling	6		White Pine	Medium	5 - 10 feet	Sapling
Black Cherry	25	Pole/Sap/Log	6	49				
Balsam Fir	20	Pole/Sapling	6					
Red Maple	15	Pole	6					
White Pine	25	Pole/Log	8	49				