

Compartment Review Presentation

Cadillac Forest Management Unit

Compartment 63119

Entry Year: 2027

Acreage: 3,477

County: Missaukee

Management Area: Kalkaska Sandy Moraines

Stand Examiner: Joe Ventimiglia

Legal Description:

T24N R7W: Sections 4, 5, 8, 9, 16, 17

Identified Planning Goals:

Manage compartment for a mix of timber, wildlife, recreational and ecological concerns. Management plan and practiced silviculture methods will be implemented within management activities.

Soil and topography:

Soils are composed of rubicon sands. Site quality increases nearer the Manistee River and Hopkins and Ham Creeks. The lowest site indices are within the oak-pine barrens restoration area.

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

A large portion of this compartment was formerly owned by Consumers Power and was acquired by the State of Michigan. Much of the former Consumers land was along the Manistee River. Overall, the compartment is mostly solid state ownership. Desirable parcels for acquisition would be the 80 acre parcel in the southeast corner of the compartment.

Unique Natural Features:

This compartment contains oak-pine barrens and northern wet meadow communities. Evidence of wood turtle has been identified and potential exists for Blanding's turtle in the Hopkins and Ham Creeks. Potential exists for massasauga and prairie warbler in the upland brush areas.

Archeological, Historical, and Cultural Features:

Numerous Native American archeological sites have been documented. The high banks area bordering the Manistee River was used as log rollaways in the late 1800's pine logging era.

Special Management Designations or Considerations:

A large portion of this compartment is being managed as shrub and herbaceous open land through the use of prescribed fire. Future goals for this open land are to maintain a fire return interval that enhances wildlife habitat, blueberry production, and vegetation associated with barrens. The Hopkins Burn Units were burned actively in the last 20 years with plans to continue such burning as funding and weather allows. The treatment map lays out the plans for the burns including adding a new burn unit. (Stand 48)

Watershed and Fisheries Considerations:

The mainstream of the Manistee, Hopkins Creek and Ham Creek flow through this compartment. Extensive past beaver activity has been documented along Ham and Hopkins Creeks. Occupied dens and some blockage were identified near the north edge of the compartment. Both Ham and Hopkins Creeks are designated tributaries under the Upper Manistee River State Natural River designation. The Upper Manistee River Natural River Plan has very specific native vegetation buffers for the mainstream and tributaries (pages 40-42, inclusive.) The mainstream buffer is 175 feet, except if the proposed treatment meets one of the eight criteria. On Ham Creek the buffer would be 100 feet, if the slope is 0-10%; 115 feet, if the slope is 11-20%; 135 feet, if the slope is 21-32%; and 155 feet, if the slope is 33+%. On Hopkins Creek, in addition to the above standards, there is a 100foot no cut zone, unless it meets one of the (a) through (h) criteria in the plan.

Wildlife Habitat Considerations:

Approximately 880 acres of this compartment are lands purchased with restricted Game and Fish or State Game Funds. This compartment offers a wide variety of valuable wildlife habitats. The river and creek corridors are valuable deer winter areas. They provide excellent habitat and travel areas for bear and bobcat. The management objective for the central (approximately) 700 acres of the area in proximity to the campground is to maintain an open grassland that provides blueberry and fruit bearing shrubs for songbirds and turkey. The surrounding oak, aspen, and pine areas provide adjacent food and cover for many different species. By maintaining this variety of cover types and age classes, this compartment can continue to provide valuable habitats to deer, ruffed grouse, woodcock, turkey, bear, bobcat, and numerous songbirds. Featured species of special interest include deer and bear. Timber sale specifications to benefit wildlife (where applicable) will include brush pile creation along lowland edges, protection of mast-bearing wildlife shrubs and ironwood, protection of standing dead snags, and creation of drumming logs (1-2 per acre) and woody debris (tops or whole trees) in aspen cuts.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel, post-glacial alluvium, and minor coarse-textured till. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan Formation is quarried for gypsum in other areas of the state. Gravel pits are not located in the immediate area, but potential is good, especially the upland areas. State Pit 467 is located approximately three miles east (Section 18, T24N R7W). The northern portion of the compartment is located on the edge of Springfield Field. The field has produced from gas the Traverse Limestone. The bulk of the State mineral rights in the compartment are currently leased for oil and gas development.

Vehicle Access:

A forest road access plan is detailed on the compartment map. Identified are state and county roads as well as forest roads and trails under the jurisdiction of the DNR. As future timber sales occur logging roads and old State forest two tracks may be blocked to vehicle access as needed.

Survey Needs:

This compartment is almost solid state ownership. No surveying is needed at this time. The compartment boundary along the west edge of section 5 follows a bluff line heading north. This property line is very irregular and does not head straight north.

Recreational Facilities and Opportunities:

There are numerous recreational opportunities within this compartment including: Hopkins Creek rustic & designated equestrian campground, the Shore to Shore riding and hiking trail, the North Missaukee ORV trail, the Mis-Kal ORV route, Michigan Cross Country Cycle Trail (MCCCT), and Snowmobile trail #6. Proposed timber treatments negatively impacting campers should be taken into consideration. Providing a tree'd buffer adjacent to campsites, and harvesting during the winter months are two potential mitigating practices. Trail protection specifications should be included in any timber sale potentially impacting trails. Specifically, appropriate measures identified in DNR Policy & Procedures "32.22XX" (Best Management Practices for Forest and Wildlife Management Adjacent to Recreational Trails) should be taken into consideration when setting up timber sales. Furthermore, guidance provided in the "Logging Operations and Horse Events on State Lands" document should be followed for timber treatments impacting the Shore to Shore riding and hiking trail. There are numerous fishing and hunting opportunities and dispersed camping is very common in this compartment. Blueberry picking is popular within this compartment. (T.M.N. 12/16/14)

Fire Protection:

The areas of red pine provide the potential for large fire growth. There are some urban area concerns within the compartment. The potential for poor access exists with the varying terrain within the compartment. An area near Hopkins Creek Campground is managed for blueberries by prescribed fire.

Additional Compartment Information:

The following reports from the Inventory are attached:

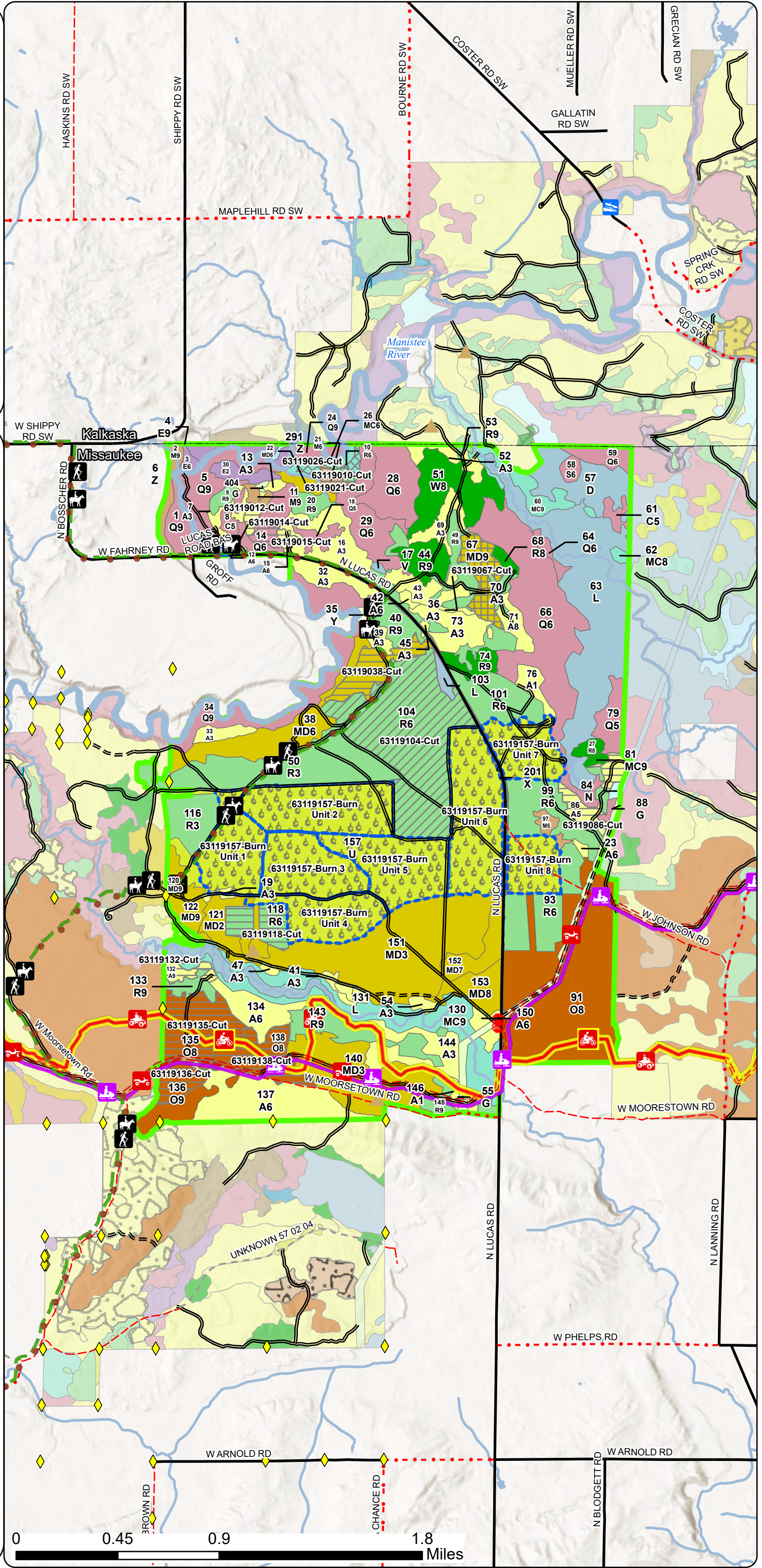
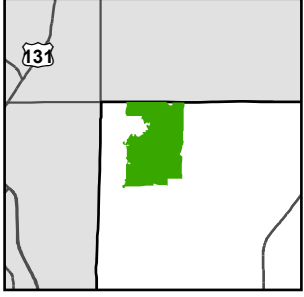
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

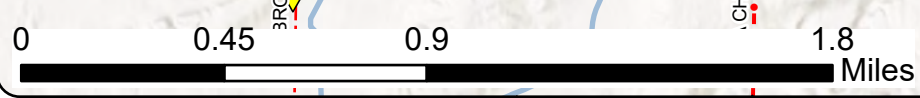
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 63119
 T24N, R08W, Sec. 04, 05, 08, 09, 16, 17
 County: Missaukee
 Unit: Cadillac
 Mgmt. Area: Kalkaska Sandy Moraines
 YOY: 2027
 Acres: 3,476.80 GIS Calculated
 Examiner: Joe Ventimiglia
 Date Exported: 1/8/2026
 Map Phase: Post Maps

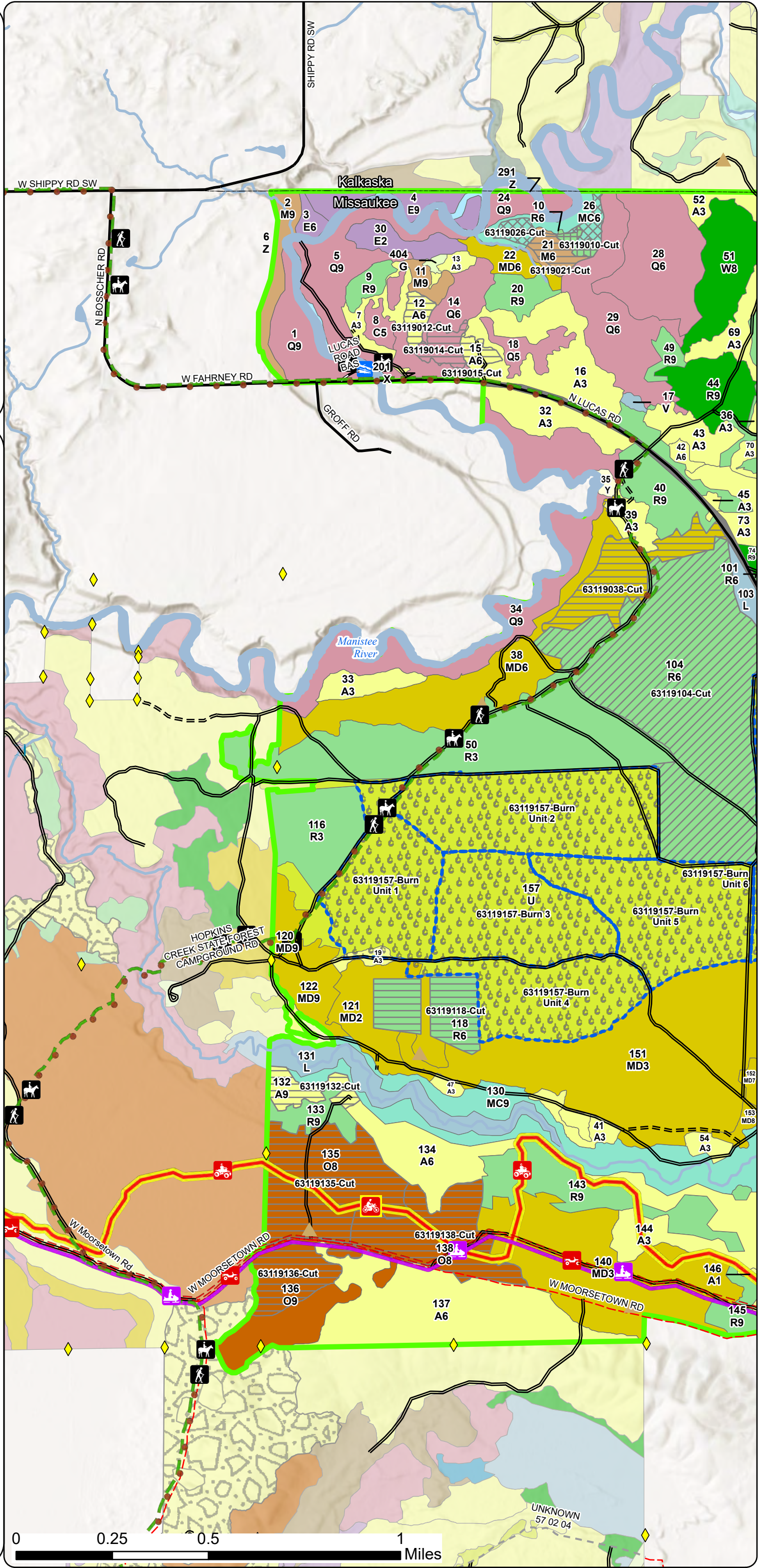
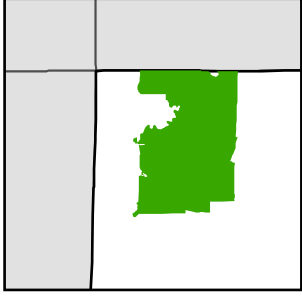


- Survey Grade Corners
- Culvert
- Boating Access Site
- Berm
- Compartment Boundary
- Treatments with Site Conditions
- Clearcut
- Selection
- Seed Tree
- Thinning
- Prescribed Burn
- Planting (tree species)
- Monitoring - Regeneration
- Monitoring
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 500 - Water
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand, Soil



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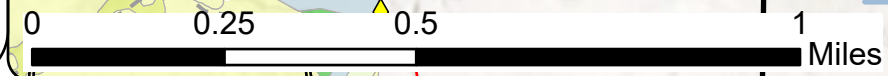
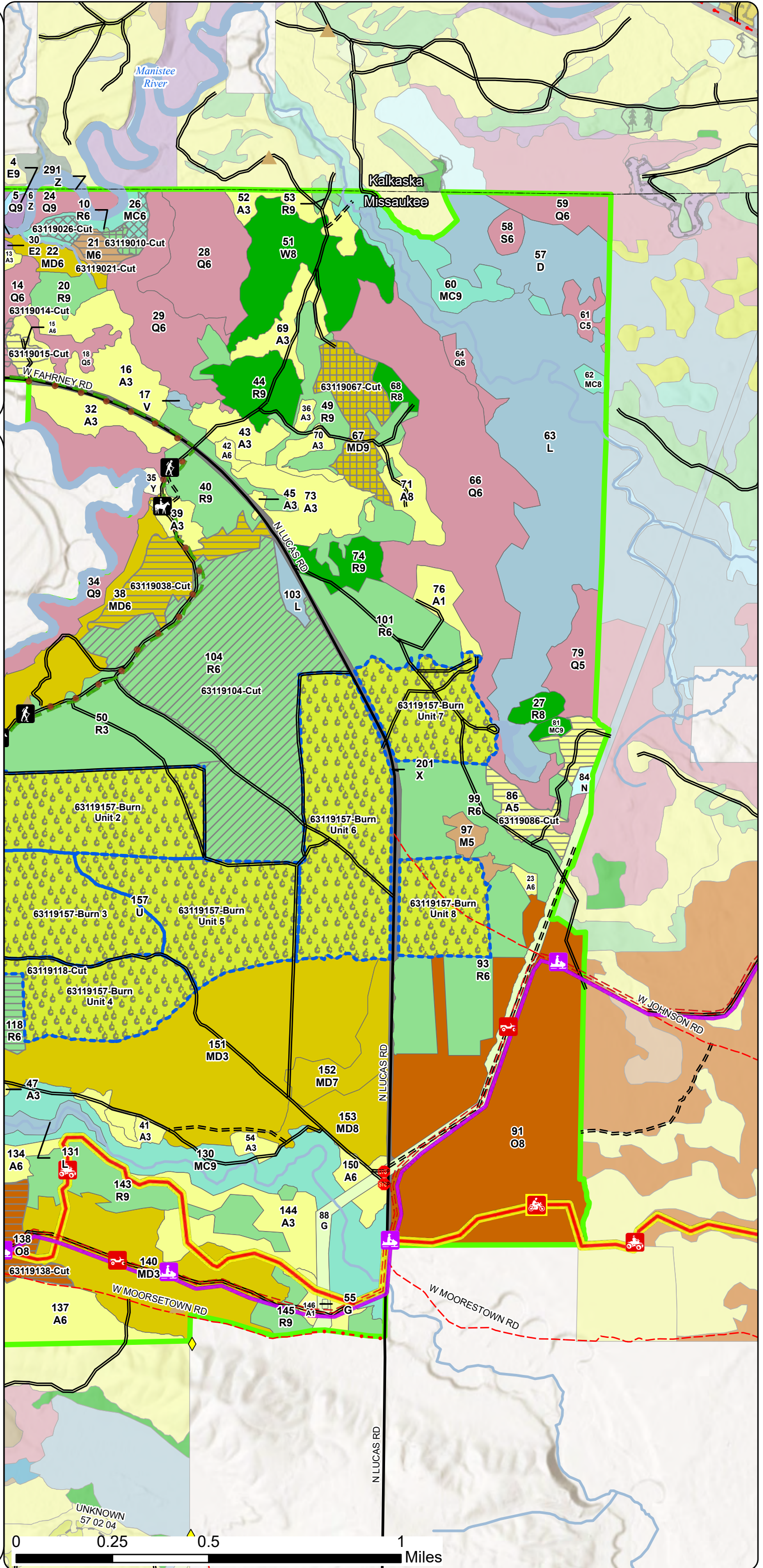
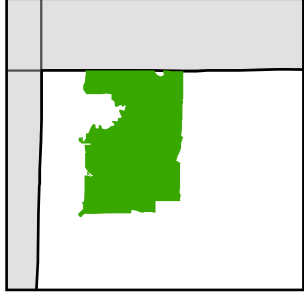


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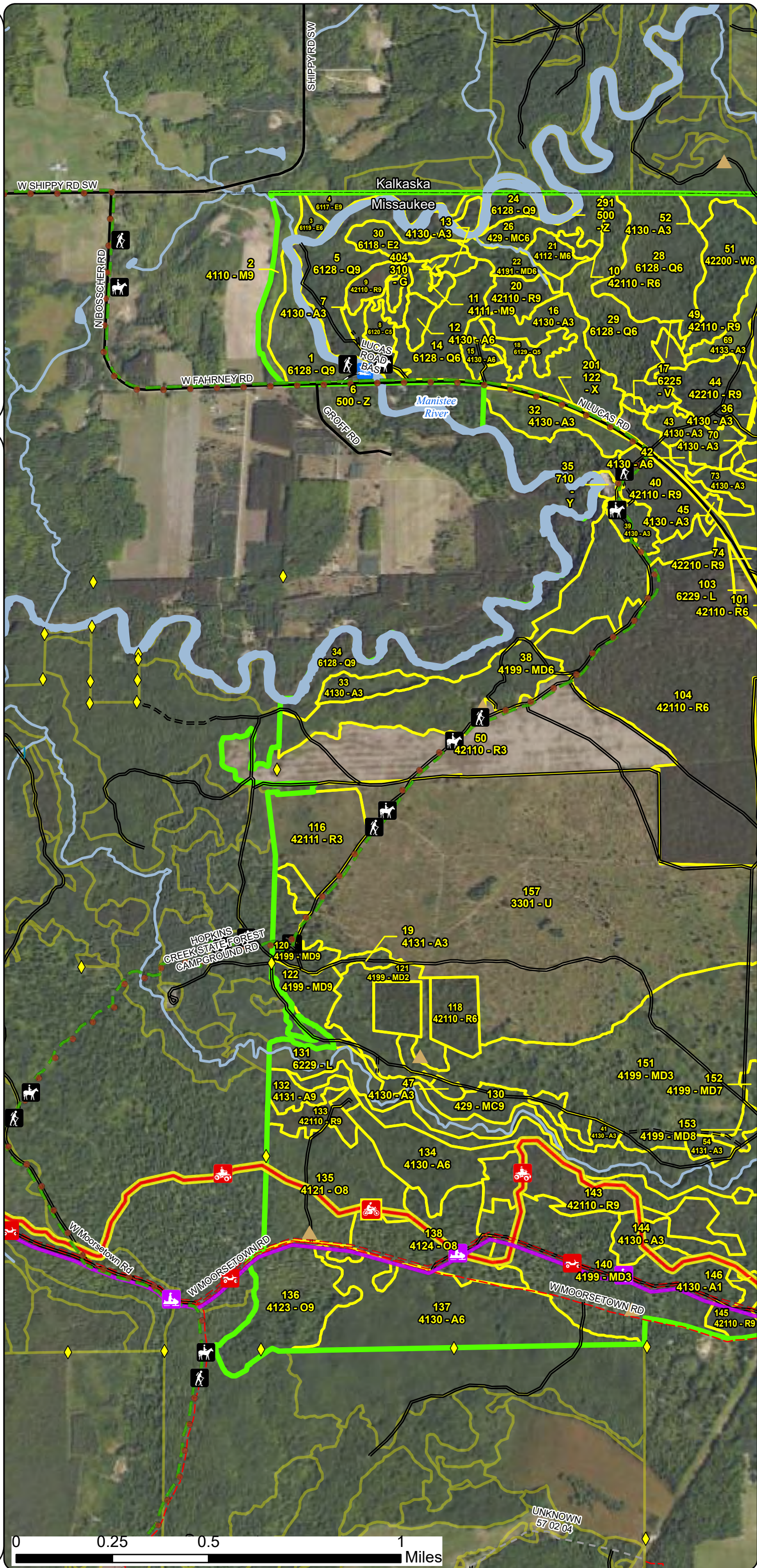
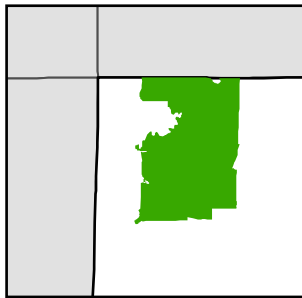
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Stand Boundary Map

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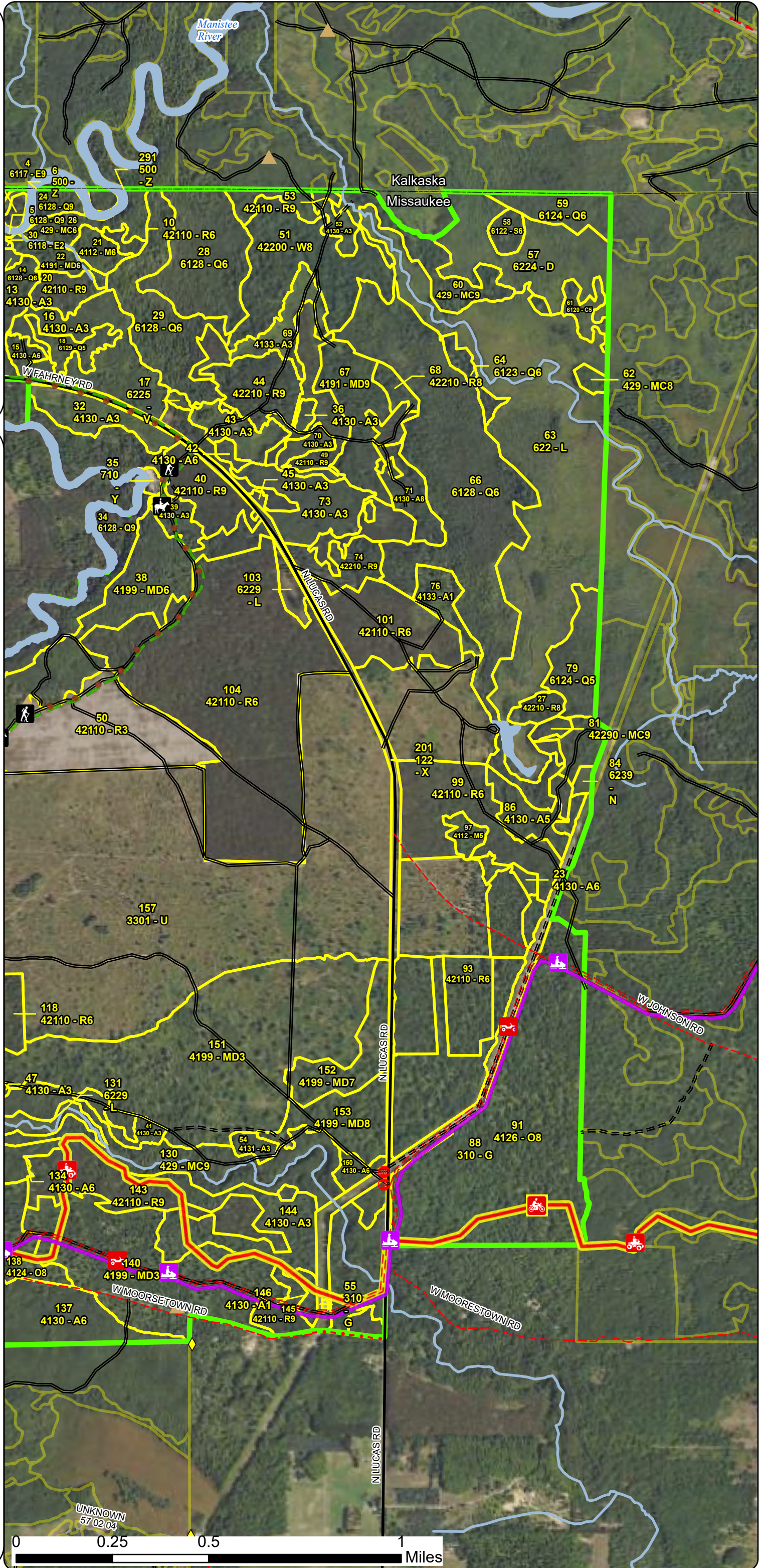
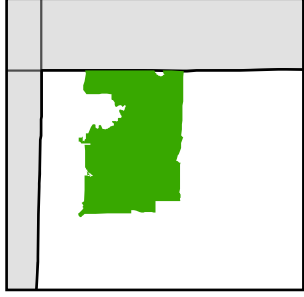


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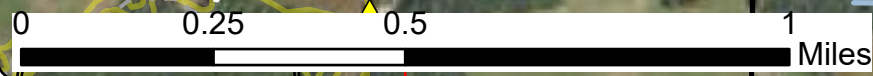
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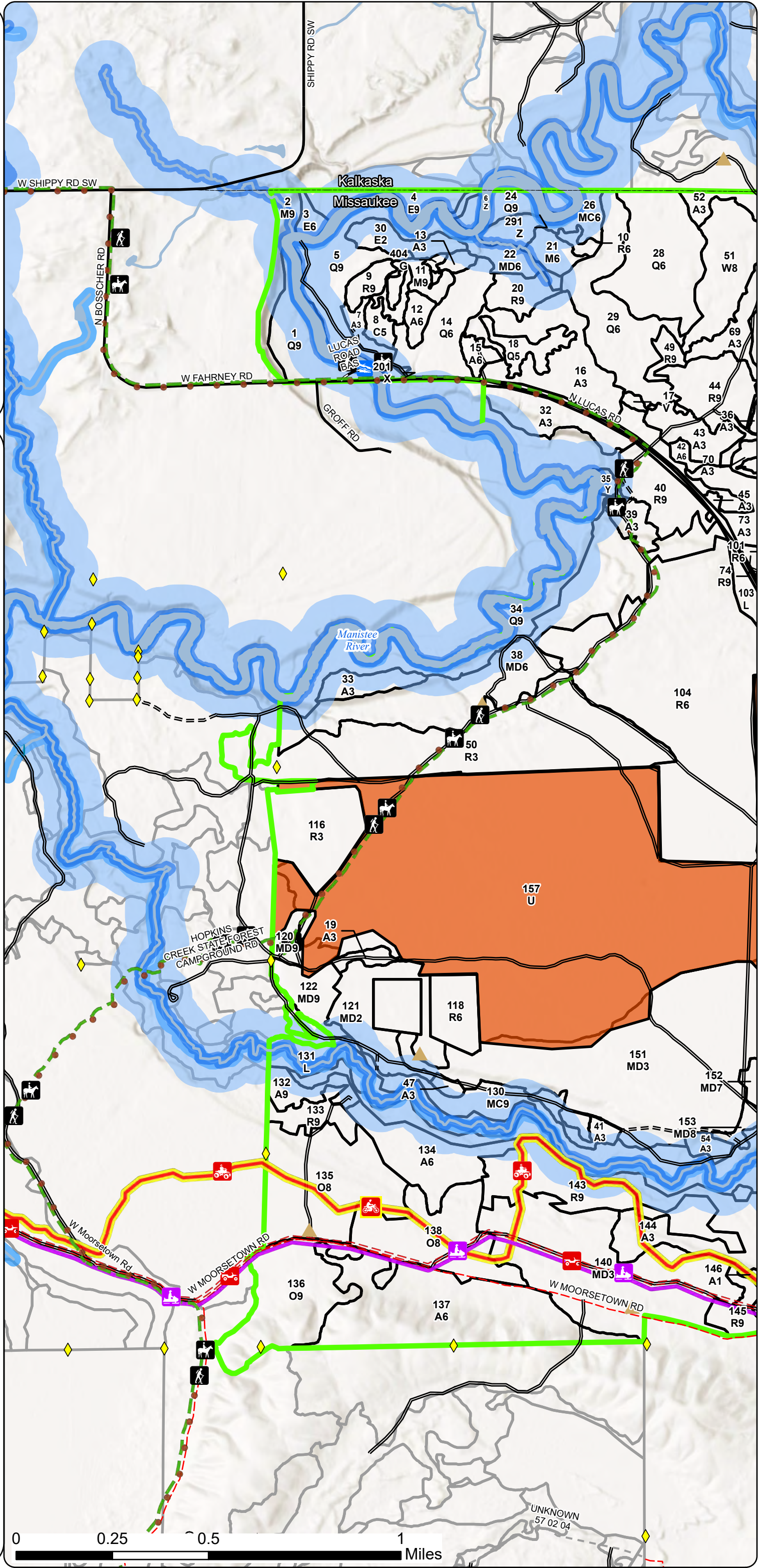
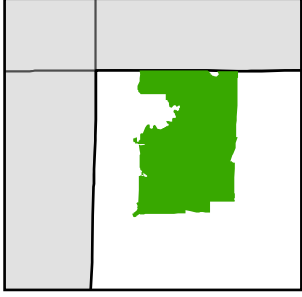


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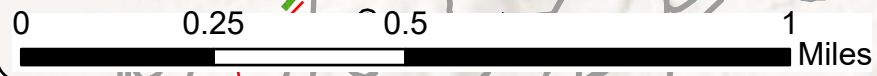


Special Conservation Areas & Site Conditions Map

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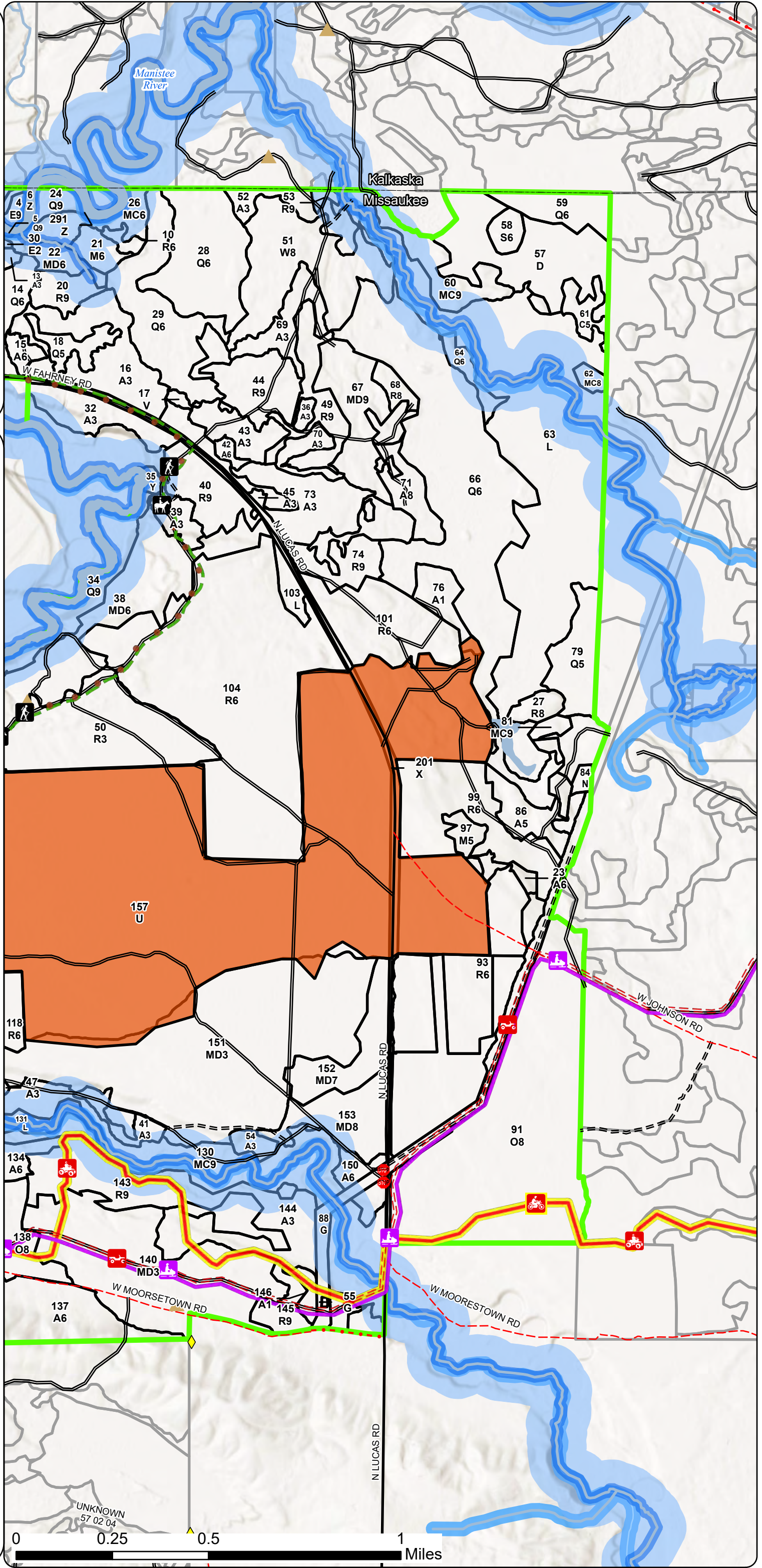
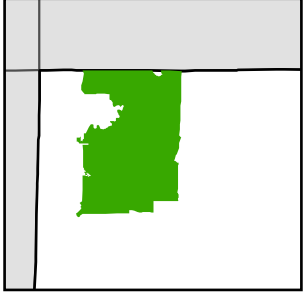












- Survey Grade Corners
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- Compartment Boundary
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- SCA
- Cold Water Streams
- High Priority Trout Stream Buffer
- Other Habitat Area

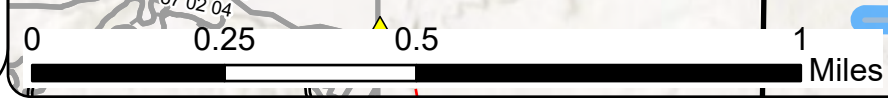


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-  High Priority Trout Stream Buffer
-  Other Habitat Area



Report 1 – Total Acres by Cover Type and Age Class

Cadillac Mgt. Unit

Compartment 119 Year of Entry 2027

Joe Ventimiglia: Examiner

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	54	121	46	125	0	24	31	0	0	0	0	0	0	0	0	0	0	400
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
Herbaceous Openland	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Low-Density Trees	552	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	552
Lowland Conifers	0	0	0	0	0	0	0	0	20	21	0	139	120	0	0	0	0	133	432
Lowland Deciduous	0	0	11	0	0	0	0	0	0	0	0	4	0	0	0	0	0	13	28
Lowland Shrub	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Marsh	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Mixed Upland Deciduous	0	0	255	0	0	0	0	135	0	0	13	0	0	0	0	0	0	76	478
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
Northern Hardwood	0	0	0	0	0	0	0	7	7	0	0	5	0	0	0	0	0	12	31
Oak	0	0	0	0	0	0	0	0	0	0	142	0	198	0	0	0	0	0	340
Red Pine	0	104	32	0	0	0	3	105	386	0	0	0	0	0	0	0	0	41	671
Sand, Soil	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Treed Bog	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
Upland Conifers	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	121	134
Urban	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Water	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	51
Total	892	158	419	46	125	0	27	291	413	24	155	148	331	0	0	0	0	452	3478

Report 2 – Treatment Summary

Cadillac Mgt. Unit
Year of Entry: 2027

Acres of Harvest

Compartment 119
Total Compartment Acres: 3,477

Commercial Harvest - 706
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	40	0	0	0	0	0	0	0	0	40
Lowland Conifers	7	0	0	0	0	0	0	0	0	7
Mixed Upland Deciduous	29	0	0	28	0	0	0	0	0	57
Northern Hardwood	6	0	0	0	0	0	0	0	0	6
Oak	119	0	0	0	0	0	0	0	0	119
Red Pine	26	0	0	3	0	176	0	0	0	205
Upland Conifers	0	7	0	0	0	0	0	0	0	7
Total	226	7	0	31	0	176	0	0	0	440

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	440	0	0	0	544	0	0	0	0	983
Next Step	0	0	0	1087	1267	360	717	0	0	5880
Total	440	0	0	1087	1811	360	717	0	0	6863

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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:

10	63119010-Cut	2.5	42110 - Planted Red Pine	6	52	171-200	Harvest	Seed Tree	429 - Mixed Upland Conifers	Cutting Record	No
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Prescription Clearcut, no retention- Final harvest all species 2 inch and larger. - Mark to leave 3 to 5 red pine per acre. - Do not cut white pine.-
Specs: Include Wood Turtle specs.- Frozen winter/ dry summer spec.- No tracked equipment.

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

Acceptable Moderate of better stocking of red pine, white pine, red maple, aspen, and black cherry.
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/01/2026

12	63119012-Cut	4.8	4130 - Aspen	6	60	81-110	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Clearcut no retention - Cut all species 2 inch and larger except: hemlock, cedar, sugar maple, and 16" DBH and larger white pine. -
Specs: Include balsam wooly quarantine spec. - Include dead and down creation: Hare, Grouse, Deer spec.

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

Acceptable Moderate or better stocking of aspen with components of red maple, white pine, cedar and hemlock.
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/01/2026

14	63119014-Cut	6.6	6128 - Lowland Coniferous, Mixed Deciduous	6	113	171-200	Harvest	Clearcut	6112 - Lowland Aspen	Planting Record	No
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Prescription Clearcut no retention - Cut all species 2 inch and larger except: hemlock, cedar, paper birch, and 16" DBH and larger white pine. -
Specs: Include balsam wooly quarantine spec - Include dry summer frozen winter spec

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

Acceptable moderate or better stocking levels of mixed hemlock, cedar, aspen, red maple, and paper birch
Regen:

Other
Comment:

Site Condition:

Proposed Start Date: 10/01/2026

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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
15 63119015-Cut	4.1	4130 - Aspen	6	63	81-110	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription Specs:</u> Clearcut no retention- Cut all species 2 inch and larger except: hemlock, cedar, 16" DBH and larger white pine, or 16" DBH and larger red pine.- Include dead and down creation: Hare, Grouse, Deer spec.- Include balsam wooly quarantine spec.										
<u>Next Step Treatments:</u> Monitoring, Natural Regen (Re-Inventory)										
<u>Acceptable Regen:</u> Moderate or better stocking of aspen with components of red maple, paper birch, hemlock, cedar, and white and red pine.										
<u>Other Comment:</u>										
<u>Site Condition:</u>										
<u>Proposed Start Date:</u> 10/01/2026										
21 63119021-Cut	5.5	4112 - Maple, Beech, Cherry Association	6	63	81-110	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Cutting Record	No
<u>Prescription Specs:</u> Clearcut, no retention - Cut all species 2 inches and greater.- Do not cut white pine or hemlock. - Include Wood Turtle specs.- Buffer the tributary along the southern edge 115 feet. - Frozen winter/ dry summer spec.- No tracked equipment.										
<u>Next Step Treatments:</u> Monitoring, Natural Regen (Re-Inventory)										
<u>Acceptable Regen:</u> Moderate or better stocking of red maple, black cherry, aspen, white pine, and red pine.										
<u>Other Comment:</u> Tributary slope is approximately 12%, buffer 115 feet.										
<u>Site Condition:</u>										
<u>Proposed Start Date:</u> 10/01/2026										
26 63119026-Cut	6.7	429 - Mixed Upland Conifers	6	66	81-110	Harvest	Selection	4319 - Mixed Upland Forest	Cutting Record	No
<u>Prescription Specs:</u> Group Selection- Cut only red pine- Mark to leave 2-5 red pine per acre- Include Wood Turtle specs.- Include frozen winter/ dry summer spec.- No tracked equipment. - Follow treatment boundary as it reflects the natural river buffer of 175 ft and tr										
<u>Next Step Treatments:</u> Monitoring, Natural Regen (Re-Inventory)										
<u>Acceptable Regen:</u> Moderate or better stocking of red maple, black cherry, red oak, aspen, white pine, and red pine.										
<u>Other Comment:</u> Tributary an south west edge of treatment is 12% slope, buffer 115 feet. Site conditions reflect Natural River buffer of 175 feet.										
<u>Site Condition:</u>										
<u>Proposed Start Date:</u> 10/01/2026										
38 63119038-Cut	28.6	4199 - Other Mixed Upland Deciduous	6	64	51-80	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription Specs:</u> Final harvest cut all trees 2 inches and greater at DBH. Leave 1-3 White or red pine per acre where present.										
<u>Next Step Treatments:</u> Monitoring, Natural Regen (Re-Inventory)										
<u>Acceptable Regen:</u> Moderate to fully stocked Aspen, maple, oak and pine.										
<u>Other Comment:</u> Add Trail spec to sale. Retention is already delineated and shall be used.										
<u>Site Condition:</u>										
<u>Proposed Start Date:</u> 10/01/2026										

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Treatment ID	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
67	63119067-Cut	28.0	4191 - Mixed Upland Deciduous with Conifer	9	63	51-80	Harvest	Seed Tree	4199 - Other Mixed Upland Deciduous	Planting Record	No
<p><u>Prescription</u> Cut all trees 4 inches and greater. Leave 3-8 large white or red pine per acre where present. Leave all cedar and paper birch. Specs <u>Specs:</u> Required Frozen ground, no tracked equipment, and no whole tree skidding.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u></p> <p><u>Acceptable</u> Moderate to fully stocked pine, aspen, , maple, oak. <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2026</p>											
86	63119086-Cut	22.1	4130 - Aspen	5	60	51-80	Harvest	Clearcut	413 - Aspen	Planting Record	No
<p><u>Prescription</u> Final harvest cut all deciduous 2 inches and greater at DBH. Leave all white and red pine. <u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u></p> <p><u>Acceptable</u> Moderate to fully stocked aspen, maple, white and red pine. <u>Regen:</u></p> <p><u>Other</u> Include grouse spec and brush piles along lowland edges. <u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2026</p>											
104	63119104-Cut	176.4	42110 - Planted Red Pine	6	70	141-170	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<p><u>Prescription</u> Manage for best tree in place thinning to an average of 120 BA. <u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> Moderate to fully stocked red pine, oaks, and maple. <u>Regen:</u></p> <p><u>Other</u> Include trail protection specs. <u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2026</p>											
118	63119118-Cut	25.7	42110 - Planted Red Pine	6	65	111-140	Harvest	Clearcut	412 - Oak Types	Planting Record	No
<p><u>Prescription</u> Final harvest leave 1-3 healthy red pine per acre where present. <u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u></p> <p><u>Acceptable</u> Moderate to fully stocked oaks, maple, and red 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> 10/01/2026</p>											

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Treatment ID	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
132	63119132-Cut	9.2	4131 - Aspen, Oak	9	56	81-110	Harvest	Clearcut	6112 - Lowland Aspen	Planting Record	No
<p><u>Prescription</u> Final harvest all trees 4 inches and greater. Leave all cedar, hemlock, and white/red pine 18 inches and greater at DBH.</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> Moderate to fully stocked aspen, maple, pine, hemlock and cedar.</p> <p><u>Other Comment:</u> Include grouse spec.</p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2026</p>											
135	63119135-Cut	55.5	4121 - Oak, Aspen	8	98	51-80	Harvest	Clearcut	412 - Oak Types	Planting Record	No
<p><u>Prescription</u> Cut all trees 2 inches and greater at DBH. Leave all white and red pine. Leave 1 to 3 large oak per acre. leave 3-5 percent retention.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Intermediate)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Moderate to fully stocked oak types with some aspen, red maple, white pine and red pine mixed in.</p> <p><u>Other Comment:</u> If stand fails to come back to predominantly oak types, plant to red pine per tms specs. Add oak wilt spec and trail protection spec.</p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2026</p>											
136	63119136-Cut	22.6	4123 - Red Oak	9	99	51-80	Harvest	Clearcut	412 - Oak Types	Planting Record	No
<p><u>Prescription</u> Cut all trees 4 inches and greater at DBH. Leave all white and red pine. Leave 1 to 2 large oak per acre.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Intermediate)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Moderate to fully stocked oak</p> <p><u>Other Comment:</u> If stand fails to come back to predominantly oak types, plant to red pine per tms specs. Include trail protection specs.</p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2026</p>											
138	63119138-Cut	41.2	4124 - Red with White Oak	8	98	1-50	Harvest	Clearcut	412 - Oak Types	Planting Record	No
<p><u>Prescription</u> Cut all trees 2 inches and greater at DBH. Leave all white and red pine. Leave 1 to 3 large oak per acre. leave 3-5 percent retention.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Intermediate)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Moderate to fully stocked oak types with some aspen, red maple, white pine and red pine mixed in.</p> <p><u>Other Comment:</u> If stand fails to come back to predominantly oak types, plant to red pine per tms specs. Add oak wilt spec and trail protection spec.</p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2026</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
157 63119157- Burn 3	68.0	3301 - Low Density Deciduous Trees	99			Burn	Prescribed Burn	320 - Upland Shrub	Previous Inventory	No
<u>Prescription</u> Burn on rotations.										
<u>Specs:</u>										
<u>Next Step</u> Monitoring, Prescribed Burn; Openings Mgmt., Herbicide; Seeding, Machine Seed; Seeding, Machine Seed; Openings Mgmt., Mowing;										
<u>Treatments:</u> Burn, Opening; Openings Mgmt., Interseeding; Openings Mgmt., Disking/Plowing; Burn, Opening; Openings Mgmt., He										
<u>Acceptable</u>										
<u>Regen:</u>										
<u>Other</u>										
<u>Comment:</u>										
<u>Site Condition:</u> Conservation Values										
<u>Proposed Start Date:</u> 10/01/2026										
157 63119157- Burn Unit 1	62.6	3301 - Low Density Deciduous Trees	99			Burn	Prescribed Burn	320 - Upland Shrub	Previous Inventory	No
<u>Prescription</u> Burn on rotations.										
<u>Specs:</u>										
<u>Next Step</u> Monitoring, Natural Regen (Intermediate); Openings Mgmt., Herbicide; Seeding, Machine Seed; Seeding, Machine Seed; Openings										
<u>Treatments:</u> Mgmt., Mowing; Burn, Opening; Openings Mgmt., Interseeding; Openings Mgmt., Disking/Plowing; Burn, Opening; Openi										
<u>Acceptable</u>										
<u>Regen:</u>										
<u>Other</u>										
<u>Comment:</u>										
<u>Site Condition:</u> Conservation Values										
<u>Proposed Start Date:</u> 10/01/2026										
157 63119157- Burn Unit 2	89.9	3301 - Low Density Deciduous Trees	99			Burn	Prescribed Burn	310 - Herbaceous Openland	Previous Inventory	No
<u>Prescription</u> Prescribed fire under conditions appropriate to achieve 90%+ top kill on cherry brush. Additional brush management as well as herbaceous										
<u>Specs:</u> and grass management in next steps treatments. The burns in 2024 worked well.										
<u>Next Step</u> Pesticide, Other - Specify; Seeding, Machine Seed; Burn, Prescribed Fire; Openings Mgmt., Interseeding; Burn, Opening; Pesticide,										
<u>Treatments:</u> Other - Specify										
<u>Acceptable</u>										
<u>Regen:</u>										
<u>Other</u>										
<u>Comment:</u>										
<u>Site Condition:</u> Conservation Values										
<u>Proposed Start Date:</u> 10/01/2025										
157 63119157- Burn Unit 4	57.1	3301 - Low Density Deciduous Trees	99			Burn	Prescribed Burn	320 - Upland Shrub	Previous Inventory	No
<u>Prescription</u> Burn on rotations.										
<u>Specs:</u>										
<u>Next Step</u> Monitoring, Natural Regen (Intermediate); Openings Mgmt., Herbicide; Seeding, Machine Seed; Seeding, Machine Seed; Openings										
<u>Treatments:</u> Mgmt., Mowing; Burn, Opening; Openings Mgmt., Interseeding; Openings Mgmt., Disking/Plowing; Burn, Opening; Openi										
<u>Acceptable</u>										
<u>Regen:</u>										
<u>Other</u>										
<u>Comment:</u>										
<u>Site Condition:</u> Conservation Values										
<u>Proposed Start Date:</u> 10/01/2026										

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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
157 63119157- Burn Unit 5	78.3	3301 - Low Density Deciduous Trees	99			Burn	Prescribed Burn	320 - Upland Shrub	Previous Inventory	No
<u>Prescription</u> Burn on rotations.										
<u>Specs:</u>										
<u>Next Step</u> Monitoring, Natural Regen (Intermediate); Openings Mgmt., Herbicide; Seeding, Machine Seed; Seeding, Machine Seed; Openings										
<u>Treatments:</u> Mgmt., Mowing; Burn, Opening; Openings Mgmt., Interseeding; Openings Mgmt., Disking/Plowing; Burn, Opening; Openi										
<u>Acceptable Regen:</u>										
<u>Other Comment:</u>										
<u>Site Condition:</u> Conservation Values										
<u>Proposed Start Date:</u> 10/01/2026										
157 63119157- Burn Unit 6	103.1	3301 - Low Density Deciduous Trees	99			Burn	Prescribed Burn	320 - Upland Shrub	Previous Inventory	No
<u>Prescription</u> Burn on rotations.										
<u>Specs:</u>										
<u>Next Step</u> Monitoring, Natural Regen (Intermediate); Openings Mgmt., Herbicide; Seeding, Machine Seed; Seeding, Machine Seed; Openings										
<u>Treatments:</u> Mgmt., Mowing; Burn, Opening; Openings Mgmt., Interseeding; Openings Mgmt., Disking/Plowing; Burn, Opening; Openi										
<u>Acceptable Regen:</u>										
<u>Other Comment:</u>										
<u>Site Condition:</u> Conservation Values										
<u>Proposed Start Date:</u> 10/01/2026										
157 63119157- Burn Unit 7	47.6	3301 - Low Density Deciduous Trees	99			Burn	Prescribed Burn	320 - Upland Shrub	Previous Inventory	No
<u>Prescription</u> Burn on rotations.										
<u>Specs:</u>										
<u>Next Step</u> Monitoring, Natural Regen (Intermediate); Openings Mgmt., Herbicide; Seeding, Machine Seed; Seeding, Machine Seed; Openings										
<u>Treatments:</u> Mgmt., Mowing; Burn, Opening; Openings Mgmt., Interseeding; Openings Mgmt., Disking/Plowing; Burn, Opening; Openi										
<u>Acceptable Regen:</u>										
<u>Other Comment:</u>										
<u>Site Condition:</u> Conservation Values										
<u>Proposed Start Date:</u> 10/01/2026										
157 63119157- Burn Unit 8	37.1	3301 - Low Density Deciduous Trees	99			Burn	Prescribed Burn	310 - Herbaceous Openland	Previous Inventory	No
<u>Prescription</u> Burn on rotations.										
<u>Specs:</u>										
<u>Next Step</u> Monitoring, Natural Regen (Intermediate); Openings Mgmt., Herbicide; Seeding, Machine Seed; Seeding, Machine Seed; Openings										
<u>Treatments:</u> Mgmt., Mowing; Burn, Opening; Openings Mgmt., Interseeding; Openings Mgmt., Disking/Plowing; Burn, Opening; Openi										
<u>Acceptable Regen:</u>										
<u>Other Comment:</u>										
<u>Site Condition:</u> Conservation Values										
<u>Proposed Start Date:</u> 10/01/2026										

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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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Total Treatment Acreage Proposed: 983.2

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia: Examiner

Compartment: 119
Year of Entry: 2027

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions											
		With Condition	Not Available		5B	5C	2F	2G	2H	3A	3D	3J	5A	5E		
372	369	0	3	Aspen												3
1	1	0	0	Bog												
13	13	0	0	Cedar												
31	31	0	0	Herbaceous Openland												
550	0	0	550	Low-Density Trees						550						
426	25	9	392	Lowland Conifers	9			247	6				98	42		
27	11	0	17	Lowland Deciduous				4					13			
210	210	0	0	Lowland Shrub												
5	0	0	5	Lowland Spruce/Fir				5								
2	2	0	0	Marsh												
437	371	38	28	Mixed Upland Deciduous		38	5					13	1			10
3	3	0	0	Natural Mixed Pines												
25	12	0	13	Northern Hardwood			10						3			
318	98	219	0	Oak	198	21										
670	670	0	0	Red Pine												
2	2	0	0	Sand, Soil												
48	48	0	0	Treed Bog												
127	0	0	127	Upland Conifers					3				124			
28	28	0	0	Urban												
18	18	0	0	Water												
51	51	0	0	White Pine												
3,365	1,963	266	1,136	Total Forested Acres	207	59	15	257	9	550	13	239	42			13
	58%	8%	34%	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)	94	2F: Too steep	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
Comments: Vegetated buffer along Hopkins Creek. Unavailable for management.							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia: Examiner

Compartment: 119
Year of Entry: 2027

2	Unavailable	2F: Too steep	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Too steep and close to river. Stand not able to be treated commercially.							
3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	43	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia: Examiner

Compartment: 119
Year of Entry: 2027

8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	15	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	24	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comments: Between proximity to creek and small creek that blocks access to southern half of stand.							
12	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia: Examiner

Compartment: 119
Year of Entry: 2027

13	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	5E: Long-Term Retention	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Available	5B: Maintain for regeneration purposes	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand was cut last entry only mature cedar and hemlock were left. Aspen and maple regeneration coming in good. Leave long lived conifer over story.							
17	Unavailable	5A: Not able to obtain desirable regeneration	42	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Leave at this time, stand has potential for lowland management in the future but major concerns over wet nature and regeneration concerns post harvest.							
19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	139	5A: Not able to obtain desirable regeneration	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	Unspecified	Unspecified
Comments: Large complex stand, in general large commercial management of this stand may not be warranted do to above site conditions.							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia: Examiner

Compartment: 119
Year of Entry: 2027

20	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Natural River guidance - native vegetation buffer for tributaries. 21-32% slope - 135 feet. (Stand 21). 33+% slope - 155 feet (stand 26).							
21	Available	5B: Maintain for regeneration purposes	198	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand has been recently treated. Scattered large oak left for regeneration purposes. Do not enter stand, as a result of damage to oak understory. Stand can be entered in 40 plus years once oak gets more mature.							
23	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	57	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
25	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
26	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	21	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
27	Unavailable	3D: Recreational/scenic values	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Hopkins Creek campground. Only management that will take place is removal of hazard trees as Parks division sees fit over time.							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia: Examiner

Compartment: 119
Year of Entry: 2027

28	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	43	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
29	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	38	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Cut next YOE, allow stand to put on a little more growth and will keep a chunk of aspen for next YOE.							
30	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention of Hopkins burn area. Trees will be left in these pockets to give some structure and refuge in this burn area.							
31	Unavailable	3A: Conservation values incompatible with harvest at this time	550	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This is the Hopkins creek SCA prescribed burn area that is being managed for wildlife.							
32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Cut next YOE, allow stand to put on a little more growth and will keep a chunk of aspen for next YOE.							
33	Unavailable	5E: Long-Term Retention	2	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Combination of long term retention for aspen cut to south and river buffer.							

Report 4 – Site Conditions

Cadillac Mgt. Unit
Joe Ventimiglia: Examiner

Compartment: 119
Year of Entry: 2027

36	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention for stand 50.							
37	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
38	Unavailable	2F: Too steep	3	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
39	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments: LTR for stand 43							
58	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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
Hopkins Creek	Habitat Area or Habitat Corridor	Other Habitat Area	SCA	575
Comments				

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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1	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	21.2	151	81-110	N/A	Lowland conifer dominated by cedar along the Manistee River. Boat access managed site in the southeast corner of stand. Many seeps running in stand.
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Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	2	Log	15	
Basswood	5	Log	12	
Quaking Aspen	10	Pole/Log	8	
Balsam Poplar	5	Pole	8	
Balsam Fir	30	Pole/Log	8	
Northern White Cedar	41	Log/Pole	11	151
White Pine	2	Log	15	
Hemlock	5	Pole/Log	8	

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	< 5 feet	< 5 feet
White Oak	Low	10 - 20 feet	10 - 20 feet
Balsam Fir	Low	< 5 feet	< 5 feet
Quaking Aspen	Low	5 - 10 feet	5 - 10 feet
Red Maple	Medium	5 - 10 feet	5 - 10 feet

2	4110 - Sugar Maple Association	Sawtimber Well	12.3	113	51-80	N/A	Side slope of hardwood, very steep terrain. Private corn field to west and lowland cedar swamp to east. Too steep to manage commercially.
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Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	69	Log/Pole	10	113
Red Maple	5	Log	12	
Basswood	20	Log	13	
Beech	2	Log	13	
White Pine	2	Log	15	
Hemlock	2	Log/Pole	10	

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

3	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	3.7	100	81-110	N/A	Floodplain of lowland hardwood and aspen.
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Canopy Species	% Cover	Size Class	DBH	Age
White Ash	55	Pole/Log	8	100
Quaking Aspen	35	Pole/Log	8	
Balsam Fir	5	Pole	5	
Hemlock	5	Pole	6	

4	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	13.0	113	51-80	N/A	Lowland land locked sliver of lowland hardwood and conifer along river.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Log/Pole	10	
White Ash	50	Log/Pole	12	113
Quaking Aspen	10	Log/Pole	10	
Balsam Fir	5	Pole	8	
Northern White Cedar	15	Log/Pole	10	
Hemlock	10	Pole/Log	8	

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

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																											
5	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	36.0	110	51-80	N/A	Lowland conifer complex with pockets of upland aspen and a few openings along the river. Road goes all the way along west border of stand. Old consumers lease cabin has been removed in 2013.																																																																											
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7	4130 - Aspen	Sapling Well	8.9	16	Immature	N/A	Stand was final harvested in 2010 with green ringed trees left as well as any cedar and hemlock. Came back well to aspen.																																																																											
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8	6120 - Lowland Cedar	Poletimber Medium	6.3	113	51-80	N/A	Stand was cut in 2010, with all cedar and hemlock left as well as some green marked trees. Cedar in hemlock with aspen in understory.																																																																											
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9	42110 - Planted Red Pine	Sawtimber Well	5.7	71	111-140	N/A	Stand third row thinned two entries ago and second thinned in 2010. Stand thinned again in summer of 2018. Good quality stand. Average BA 120-130. Moderate amount of red pine seedling in understory.																																																																											
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10	42110 - Planted Red Pine	Poletimber Well	2.6	52	171-200	N/A	Small never thinned red pine plantation overtopped by maple in spots. Red pine is dense at approximately 210-220 BA. This stand is planted however planting records do not exist.																																																																											
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11	4111 - S.Maple, Hard Mast Association	Sawtimber Well	5.1	106	81-110	N/A	Stand was marked thinning in 2010. Small sliver of hardwood. Decent quality hardwoods with a high quantity of sugar maple. Sugar maple regen is low to moderate, though its experiencing browse.																																																									
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15	4130 - Aspen	Poletimber Well	4.1	63	81-110	N/A	Small pocket of mature aspen and mixed conifer. Aspen to east was cut last YOE.																																																									
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
16	4130 - Aspen	Sapling Well	36.6	16	Immature	N/A	Stand was final harvested in 2010, with all cedar and hemlock left as well as some green marked trees. Buffer strip of mature aspen and pine left along Lucas road.	
Canopy Species		% Cover	Size Class	DBH	Age			
Bigtooth Aspen		83	Sapling	2	16			
Northern White Cedar		5	Pole	5				
White Pine		2	Log	15				
Hemlock		5	Pole	7				
Black Cherry		5	Sapling	1				
17	6225 - Bog	None	1.3			No		
18	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	8.7	110	1-50	N/A	Stand was cut in 2010, with all cedar and hemlock left as well as some green marked trees. Two aged stand with hemlock and cedar scattered in over story and aspen flush from 2010 sale in understory.	
Canopy Species		% Cover	Size Class	DBH	Age			
Northern White Cedar		30	Pole	7				
Hemlock		70	Pole/Log	8	110			
Sub-Canopy Species		Density	Avg. Height	Size				
Red Maple		Low	>20 feet	>20 feet				
Quaking Aspen		Full	>20 feet	>20 feet				
19	4131 - Aspen, Oak	Sapling Well	3.6	31	Immature	N/A	Small aspen stand with mix of oak. Some larger oak on the edges were left.	
Canopy Species		% Cover	Size Class	DBH	Age			
White Oak		20	Sapling	2				
Quaking Aspen		80	Sapling	3	31			
20	42110 - Planted Red Pine	Sawtimber Well	9.5	70	111-140	N/A	Good quality stand that can mature one more inventory cycle to add girth and volume. Stand was 3rd row thinned between 1989-92, and was marked second thinning in 2010. Third entry thinning took place in summer of 2018.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Pine		100	Log	12	70			
Sub-Canopy Species		Density	Avg. Height	Size				
Red Maple		Low	< 5 feet	< 5 feet				
Beech		Trace	< 5 feet	< 5 feet				
White Pine		Low	5 - 10 feet	5 - 10 feet				
Black Cherry		Low	5 - 10 feet	5 - 10 feet				
Balsam Fir		Low	5 - 10 feet	5 - 10 feet				
Red Pine		Low	< 5 feet	< 5 feet				
21	4112 - Maple, Beech, Cherry Association	Poletimber Well	6.9	63	81-110	N/A	Stand is composed heavily of red maple clumps and black cherry. Beech is present but falling out. A drainage runs along boundary on the southern border. Access for harvest of the stand will be from the north.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Maple		60	Pole	8	63			
Beech		2	Log	14				
Balsam Fir		5	Pole	5				
White Pine		5	Pole	5				
White Pine		3	XLog	24				
Red Pine		3	Pole	8				
Hemlock		3	Log/XLog	17				
Black Cherry		19	Pole	7	63			
Sub-Canopy Species		Density	Avg. Height	Size				
Red Maple		Low	Variable	Variable				
Balsam Fir		Medium	Variable	Variable				
Elm (Spp.)		Trace	>20 feet	>20 feet				
Ironwood		Low	10 - 20 feet	10 - 20 feet				

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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22 4191 - Mixed Upland Deciduous with Conifer Poletimber Well 8.2 63 81-110 N/A

Stand is composed of red maple, black cherry, white pine, red pine, aspen. The eastern half of the stand is dominated by red maple with cherry and beech present and the occasional red pine. Moving west the stand becomes more open, pine shows a larger presents and aspen fingers work in from adjacent stands. Overall A relatively mixed stands of conifers and deciduous. The stand is delineated by adjacent geographic features and cover types.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	35	Pole/Log	8	63	Balsam Fir	Medium	Variable	Variable
Bigtooth Aspen	20	Pole/Log	9		White Pine	Low	5 - 10 feet	5 - 10 feet
White Pine	5	Pole	5		Ironwood	Low	10 - 20 feet	10 - 20 feet
White Pine	20	XLog	24		Red Maple	Low	Variable	Variable
Red Pine	5	Pole	8					

23 4130 - Aspen Poletimber Well 1.9 51 81-110 N/A

Small stand of pole aspen.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	5	Pole/Sapling	7	
Quaking Aspen	95	Pole/Sapling	7	51

24 6128 - Lowland Coniferous, Mixed Deciduous Sawtimber Well 8.1 113 81-110 N/A

Two separate lowland stands off the bluff and within the natural rivers buffers. Cedar along the edges of the river.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	35	Log/Pole	11	
Basswood	5	Log	12	
Balsam Fir	5	Pole/Log	7	
Northern White Cedar	40	Pole/Log	8	113
White Pine	5	Log/Pole	10	
Hemlock	10	Log/Pole	12	

26 429 - Mixed Upland Conifers Poletimber Well 13.4 66 81-110 N/A

Variable mixed upland stand with red pine, white pine, red maple, oak and aspen. Red pine is planted in rows in low to moderate density. However no planting record exists for this section (PLSS) the land was purchased from consumers in 1997. The stands understory stocking level is low with minimal regeneration present. The north edge of the stand is the crest of a bluff sloping steeply to the Manistee River. The south west edge of the stand is deeply cut ravine feeding the river.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	15	Log/Pole	10	66	White Oak	Low	10 - 20 feet	10 - 20 feet
Red Oak	5	Log	12		Balsam Fir	Low	< 5 feet	< 5 feet
Paper Birch	5	Pole	8					
Quaking Aspen	10	Pole/Log	8					
Balsam Fir	5	Pole	8					
White Pine	20	Log	12					
Red Pine	35	Pole/Log	8	66				
Black Cherry	5	Pole/Log	9					

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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27 42210 - Natural Red Pine Sawtimber Medium 5.5 84 51-80 N/A Natural red pine stand on isolated upland pocket. Variable size class pine but mostly log red pine. Open to west end of stand.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Log	11	
White Oak	5	Log	15	
Balsam Fir	8	Pole/Log/Sap	7	
White Pine	5	Log	14	
Red Pine	70	Log/XLog	15	84
Black Cherry	2	Pole	6	

28 6128 - Lowland Coniferous, Mixed Deciduous Poletimber Well 43.4 76 141-170 N/A Large lowland conifer complex, with some lowland hardwood and aspen on the north and west edges.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Pole	6	
Paper Birch	10	Pole	6	
Quaking Aspen	8	Pole	6	
Balsam Fir	20	Pole	6	
Black Spruce	20	Pole	6	
Northern White Cedar	30	Pole	7	76
White Pine	2	Log	15	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Medium	Variable	Variable
Red Maple	Low	Variable	Variable

29 6128 - Lowland Coniferous, Mixed Deciduous Poletimber Well 41.5 114 51-80 N/A Cedar mixed with balsam red maple, black spruce, and tamarack to the west. Black ash fall out with cedar to the east. Small upland pockets with Aspen are present as well.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Log/Pole	12	
Quaking Aspen	10	Pole/Log	9	
Balsam Fir	20	Pole	8	
Black Spruce	10	Pole/Log	8	
Northern White Cedar	35	Pole/Log	9	114
Tamarack	10	Pole/Log	9	
White Pine	5	Log	12	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	5 - 10 feet	5 - 10 feet
Red Maple	Low	5 - 10 feet	5 - 10 feet
Black Ash	Low	< 5 feet	< 5 feet

30 6118 - Lowland Deciduous with Cedar Sapling Medium 10.6 16 1-50 N/A Stand was habitat cut by wildlife division in winter of 2010. Stand was cut and left, timber was not utilized. Cedar was left. FTP# W63-689. Cedar is patchy with occasional pockets being wide open with aspen and maple regeneration.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	40	Sapling	3	16
Quaking Aspen	25	Sapling	2	16
Northern White Cedar	20	Pole/Log	8	111
Hemlock	10	Pole/Log	8	
Black Ash	5	Pole/Sapling	5	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Low	< 5 feet	< 5 feet
Tag Alder	Low	5 - 10 feet	5 - 10 feet
Ash (spp.)	Medium	< 5 feet	< 5 feet

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
32	4130 - Aspen	Sapling Well	17.1	9	Immature	N/A	Good quality aspen on south side of Lucas road. Small sliver of red pine in northwest border. Stand is two level topography Also steep creek drainage splits stand north and south. STAND was final harvested in 2018.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		5	Sapling	1			
Red Oak		2	Sapling	1			
Bigtooth Aspen		84	Sapling	1	9		
Balsam Fir		2	Sapling	4			
White Pine		5	Pole/Sapling	5			
Red Pine		2	Sapling	1			
33	4130 - Aspen	Sapling Well	9.2	9	Immature	N/A	Stand was final harvested in 2018, short wood operation.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		15	Sapling	1			
Red Oak		8	Sapling	1			
White Oak		2	Log/Pole	15			
Bigtooth Aspen		70	Sapling	1	9		
Balsam Fir		5	Sapling	1			
Sub-Canopy Species		Density	Avg. Height	Size			
Witch Hazel		Medium	5 - 10 feet	5 - 10 feet			
34	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	68.1	113	51-80	N/A	Transitions from a white pine stand upslope into a mixed cedar, balsam, black ash etc. Q-type near river. All of it is off the slope and within the Manistee river buffer. Upslope portions of the stand are upland with all bottom slope portions being lowland near river.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		10	Log	12			
Quaking Aspen		5	Log/Pole	12			
Balsam Fir		5	Pole	6			
Northern White Cedar		40	Log/Pole	10	113		
White Pine		25	Log/Pole	10			
Hemlock		5	Pole	8			
35	710 - Sand, Soil	None	2.2			No	Mantistee overlook. Sand bank all the way up to bluff. Appears to be popular swimming spot. Road access right to top of bluff.
36	4130 - Aspen	Sapling Well	2.1	18	Immature	N/A	Stand was final harvested in 2008.
Canopy Species		% Cover	Size Class	DBH	Age		
Bigtooth Aspen		100	Sapling	2	18		
38	4199 - Other Mixed Upland Deciduous	Poletimber Well	85.4	64	51-80	N/A	Variable mostly pole aspen stand with pockets of larger diameter log aspen. Low to medium quality aspen for the most part. Large stand with mostly level terrain. Stump sprouted maple. Converting to white oak and white pine.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		35	Pole/Log	9	64		
Red Oak		2	Log	15			
White Oak		18	Pole	5			
Bigtooth Aspen		35	Pole/Log	9	64		
White Pine		10	Pole/Log	8			
Sub-Canopy Species		Density	Avg. Height	Size			
White Pine		Medium	Variable	Variable			
White Oak		Low	5 - 10 feet	5 - 10 feet			

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
39	4130 - Aspen	Sapling Well	7.4	18	Immature	N/A	Stand was final harvested in 2008, with all oak left.		
Canopy Species		% Cover	Size Class	DBH	Age				
Red Oak		5	Pole/Log	8					
Bigtooth Aspen		95	Sapling	1	18				
40	42110 - Planted Red Pine	Sawtimber Well	28.5	69	111-140	N/A	Stand was marked second thinning in 2008 and was third row thinned some years before that. Good quality and height for the most part. Scattered pockets of red maple. STAND thinned again in 2018, marked.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine		100	Log	12	69	Red Maple	Medium	5 - 10 feet	5 - 10 feet
41	4130 - Aspen	Sapling Well	6.8	16	Immature	N/A	Stand was final harvested in 2010, with all white pine under 4 inches dbh left at a time. Came back well to aspen and red maple.		
Canopy Species		% Cover	Size Class	DBH	Age				
Red Maple		20	Sapling	2	16				
Red Oak		5	Sapling	2					
Quaking Aspen		60	Sapling	2	16				
White Pine		15	Pole/Sapling	5					
42	4130 - Aspen	Poletimber Well	2.3	32	Immature	N/A	Young pole aspen stand, with a few pine mixed in.		
Canopy Species		% Cover	Size Class	DBH	Age				
Bigtooth Aspen		95	Pole/Sapling	5	32				
Red Pine		5	Pole/Log	8					
43	4130 - Aspen	Sapling Well	12.9	9	Immature	N/A	Stand was final harvested in 2018, small island retention left as well as small pine.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		5	Sapling	1		White Pine	Medium	Variable	Variable
Quaking Aspen		80	Sapling	1	9				
White Pine		15	Sapling/Pole	4					
44	42210 - Natural Red Pine	Sawtimber Well	21.1	86	111-140	N/A	Nice natural red pine stand with pockets of white pine as well. Stand was marked thinning in 2007, with all maple, aspen, jack pine, and fir spec cut. Pockets of aspen regeneration were created from this cut with limited understory under the heavy pine cover.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine		15	Log	13		Red Maple	Low	< 5 feet	< 5 feet
Red Pine		85	Log	14	86	White Pine	Low	5 - 10 feet	5 - 10 feet
						Aspen (spp.)	Medium	5 - 10 feet	5 - 10 feet
45	4130 - Aspen	Sapling Well	1.0	30	Immature	N/A	Small clone of solid aspen.		
Canopy Species		% Cover	Size Class	DBH	Age				
Bigtooth Aspen		100	Pole/Sapling	5	30				
47	4130 - Aspen	Sapling Well	3.7	23	Immature	N/A	Two separate aspen stands, with some oak and white pine mixed in. Nearly blend in as a result of all the recent cutting in this area.		
Canopy Species		% Cover	Size Class	DBH	Age				
Red Oak		10	Pole	8					
White Oak		5	Sapling	1					
Bigtooth Aspen		80	Sapling	2	23				
White Pine		5	Sapling	1					

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
49	42110 - Planted Red Pine	Sawtimber Well	30.1	70	111-140	N/A	Stand was third row thinned in 2008, all other trees besides oak mixed in the plantation were also cut at this time. Stand thinned again in 2018, marked job.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Pine		100	Log/Pole	11	70		
50	42110 - Planted Red Pine	Sapling Well	103.5	5	Immature	N/A	9/14/2020 Stand Site Prep Sprayed with Weyerhaeuser Mix 5/1/2021- Stand was planted. Fall 2021- Stand had 1 year regeneration survey. Stand is Fully stocked and FTG. Stand was third row thinned in 2010. Winter Storm in 2012 causes significant snow load damage and resulted in a small percentage of the plantation being damaged. Pine short and small in diameter for age, likely the result of the sandy limited soils. Very large stand. STAND was final harvested in summer 2018 and was chipped. 2019 site was trenched.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Pine		100	Sapling	1	5		
51	42200 - Natural White Pine	Sawtimber Medium	51.3	96	1-50	N/A	Stand was thinned in 2010, with all aspen, maple, and jack pine cut as well. Was part of sale 630040801. White pine over story with full aspen and maple flush of growth in understory from 2010 cut.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
White Pine		95	Log/Pole	11	96	Balsam Fir	
Red Pine		5	Log	10		Aspen (spp.)	
						Red Maple	
						Density	
						Avg. Height	
						Size	
						Low	
						Full	
						Low	
						< 5 feet	
						10 - 20 feet	
						5 - 10 feet	
						< 5 feet	
						10 - 20 feet	
						5 - 10 feet	
52	4130 - Aspen	Sapling Well	12.5	16	Immature	N/A	Stand was final harvested with reserves in 2010. All cedar, oak, hemlock and cherry were left along with white pine under 10 inches dbh. Sale continues north into Kalkaska unit, was all part of the same sale. Continue to manage together in future rotation.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		5	Sapling	1			
Quaking Aspen		80	Sapling	1	16		
White Pine		15	Log/Pole	10			
53	42110 - Planted Red Pine	Sawtimber Well	1.7	66	111-140	N/A	Stand was 3rd row thin and cut all trees <6" dbh in remaining two rows. T-sale should include two stands to the north in Kalkaska Unit. Portion of stand was in Kalkaska unit, manage our of the Manton office. East part of stand has a dead pocket that appears to be weakening the trees around it.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Pine		100	Log/Pole	11	66		
54	4131 - Aspen, Oak	Sapling Well	6.5	23	Immature	N/A	Young aspen with some oak mixed in. In two different locations. Almost blends in with recent cuts in the last 5 years.
Canopy Species		% Cover	Size Class	DBH	Age		
White Oak		20	Sapling/Pole	3			
Bigtooth Aspen		70	Sapling	2	23		
White Pine		10	Sapling	2			
55	310 - Herbaceous Openland	None	0.2				Above ground oil and gas in fenced area.
57	6224 - Treed Bog	None	47.7			No	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																
58	6122 - Black Spruce	Poletimber Well	5.4	96	51-80	N/A	Small 4 acre and 2 acre isolated pockets of spruce. Has F1, S1, alder understory.																																																
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59	6124 - Lowland Spruce-Fir	Poletimber Well	14.8	85	51-80	N/A	Stand is one small part of a larger swamp complex that goes into the adjacent compartment and into Kalkaska county. Too wet and isolated for commercial management.																																																
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60	429 - Mixed Upland Conifers	Sawtimber Well	23.6	106	51-80	N/A	Stand contains the upland portions of the bog and a portion bordering Ham Crk. The upland portions of the bog contain a mix of red maple, balsam, and aspen with scattered oak. Beaver activity has removed some of the aspen component, but a few areas are regenerating. The portion of the stand to the north contains a heavier white pine component. White pine component concentrated in northwest. Small creek cuts access off to southern half of stand.																																																
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61	6120 - Lowland Cedar	Poletimber Medium	7.0	110	51-80	N/A	Northern part of stand contain some upland islands of a mix of fir and red maple. Mostly sparsely grown stagnant cedar on the south edge mixed with birch. No accessible with for commercial harvest.																																																
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62	429 - Mixed Upland Conifers	Sawtimber Medium	2.8	106	51-80	N/A	FMD: contains scattered supercanopy red pine, log sized red maple, and pockets of thick balsam poles. Isolated stand.																																																
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63	622 - Lowland Shrub	None	177.3			No	Large beaver flooding with scattered pockets of dead cedar and lowland grasses. Creek runs through stand.																																																

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																				
64	6123 - Lowland Fir	Poletimber Well	5.8	82	81-110	N/A	Isolated lowland conifer stands with some red maple. Few open spots in stand and wet but still higher than stands all around.																																																				
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66	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	138.5	106	111-140	N/A	FMD: Large conifer swamp complex. Has a few more upland portions but on the whole is a very wet hummocky stand. Has variable density and has a mix of swamp aspen and balsam toward the northeast quarter that was cut between 1944-1948.																																																				
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67	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	28.0	63	51-80	N/A	Mix of aspen, red maple and white pine. Upland stand although has some lowland character in middle portion of stand. Large super canopy white pine scattered in stand as well. Old opening filling in in north portion of stand, appears to be from old landing.																																																				
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68	42210 - Natural Red Pine	Sawtimber Medium	4.8	76	51-80	N/A	Small natural red pine stand. Stand thinned in 2007, with all aspen, maple, jack pine, and fir spec cut. Currently scattered log red pine with mix of aspen, red maple, fir and white pine in understory.																																																				
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69	4133 - Aspen, Mixed Pine	Sapling Well	14.5	9	Immature	N/A	Stand was final harvested in 2018. Was low quality aspen. Small pine was worked around where possible.																																																				
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
70	4130 - Aspen	Sapling Well	6.5	32	Immature	N/A	Stand was final harvested in 1994. Came back well to aspen.		
Canopy Species		% Cover	Size Class	DBH	Age				
Quaking Aspen		95	Sapling/Pole	4	32				
White Pine		5	Log	15					
71	4130 - Aspen	Sawtimber Medium	12.8	56	51-80	N/A	Stand of lower quality aspen which becomes more of a lowland hardwood stand on east border of stand.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple		10	Log/Pole	10		Red Maple	High	5 - 10 feet	5 - 10 feet
Red Oak		5	Pole	8		Balsam Fir	Low	< 5 feet	< 5 feet
Quaking Aspen		70	Log/Pole	10	56	White Pine	Low	Variable	Variable
Balsam Fir		10	Pole	6					
White Pine		2	XLog	18					
Red Pine		3	Pole/Log	8					
73	4130 - Aspen	Sapling Well	26.0	18	Immature	N/A	Stand was final harvested in 2008, with all oak left. Came back well to aspen, with some oak mixed in.		
Canopy Species		% Cover	Size Class	DBH	Age				
Red Oak		5	Sapling	1	18				
Red Oak		2	Log	15					
Bigtooth Aspen		93	Sapling	1	18				
74	42210 - Natural Red Pine	Sawtimber Well	13.7	97	81-110	N/A	Stand of natural red pine, with some aspen and white pine filling in between the red pine. Hummocky ground with leather leaf.		
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen		20	Pole	7		White Pine	Low	Variable	Variable
Balsam Fir		6	Pole	5		Cherry (spp.)	Medium	Variable	Variable
White Pine		9	Log	12					
Red Pine		65	Log/XLog	13	97				
76	4133 - Aspen, Mixed Pine	Sapling Poor	10.5	13	1-50	N/A	Stand was final harvested in 2014, with all white pine, red pine and cedar left. Chipping operation, Heavy deer browse has set back the maple and aspen regeneration. May be a low stocked stand as a result of the deer pressure. (Likely a result of small size and proximity to swamp) Log white and red pine scattered in stand.		
Canopy Species		% Cover	Size Class	DBH	Age				
Red Maple		10		2	13				
Quaking Aspen		55	Sapling	2	13				
White Pine		20	Log	15	86				
Red Pine		15	Log	14					

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																						
79	6124 - Lowland Spruce-Fir	Poletimber Medium	20.1	79	1-50	N/A	Lowland conifer complex with open flooded pockets of just alder.																																																						
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81	42290 - Natural Mixed Pine	Sawtimber Well	2.8	87	81-110	N/A	Good quality jack pine pocket with mix of white pine, red maple and red pine.																																																						
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84	6239 - Mixed Emergent Wetland	None	2.1			No																																																							
86	4130 - Aspen	Poletimber Medium	22.1	60	51-80	N/A	Low quality rough looking aspen with some hardwood and pine mixed in. Two track goes through both stand. Low density and quality aspen.																																																						
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88	310 - Herbaceous Openland	None	29.9			No	Utility Line. Wet in pockets.																																																						
91	4126 - White, Black, N. Pin Oak	Sawtimber Medium	198.0	113	1-50	N/A	Stand was modified shelter wood in 1999, with most of the red maple and aspen cut at that time and what appears to have been most of the red oak. Mostly open grown white oak in the over story. Open grown white oak over story has variable size class oak, maple, aspen, white pine and witch hazel in understory. A few opens pockets of clump red maple with the rest being more of a oak mix. Good mix of size classes. ORV trail and snowmobile trail run through stand.																																																						
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
93	42110 - Planted Red Pine	Poletimber Well	49.3	65	1-50	N/A	Odd third row thinning in which stand was third row thinned with all trees less than 7.5 inches dbh at stump cut as well regardless of row. Open plantation with hardwood/ aspen understory. Pine will be lost at this site. Sale took place in 2009.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Red Pine		100	Pole/Log	9	65	Red Maple		
						Aspen (spp.)		
						White Oak		
						Density	Avg. Height	Size
						Full	>20 feet	>20 feet
						Medium	>20 feet	>20 feet
						Medium	>20 feet	>20 feet
97	4112 - Maple, Beech, Cherry Association	Poletimber Medium	6.8	70	51-80	N/A	Small stand of low quality clump red maple and scattered log oak.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Red Maple		80	Pole	7	70	Witch Hazel		
White Oak		20	Log	15		Red Maple		
						White Oak		
						Density	Avg. Height	Size
						Medium	5 - 10 feet	5 - 10 feet
						High	10 - 20 feet	10 - 20 feet
						Medium	Variable	Variable
99	42110 - Planted Red Pine	Poletimber Well	48.9	70	111-140	N/A	Stand was third row thinned in 2009, with all aspen and maple cut at that time too that was mixed in plantation. Very short spindly trees. Very low site index. Stand thinned again in winter 2018.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Pine		100	Pole	8	70			
101	42110 - Planted Red Pine	Poletimber Well	49.6	70	111-140	N/A	Stand was third row thinned in 2008, with all aspen, maple, white pine, and cherry cut where present. Lots of doubles in stand, fairly short pine although one of the better stand in the area. Stand thinned in 2018, very poor form at that time be curious to see if this thinning helps trees put on some growth.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Pine		100	Pole/Log	9	70			
103	6229 - Mixed Lowland Shrub	None	5.3			No	Leather leaf bog.	
104	42110 - Planted Red Pine	Poletimber Well	176.4	70	141-170	N/A	Stand was third row thinned in 2010. Winter Storm in 2012 causes significant snow load damage and resulted in a small percentage of the plantation being damaged. Pine short and small in diameter for age, likely the result of the sandy limited soils. Very large stand.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Red Pine		100	Pole/Log	9	70	Red Maple		
						White Oak		
						Density	Avg. Height	Size
						Low	5 - 10 feet	5 - 10 feet
						Trace	5 - 10 feet	5 - 10 feet
116	42111 - Planted Red Pine, Mixed Deciduous	Sapling Well	32.1	16	Immature	N/A	Stand treated by Sale #63-080-10-01 following wildfire that destroyed portion of stand. Stand was final harvested in 2010. Stand was trenched in 2010 and planted in 2011. East half of stand was where wildfire had occurred.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Pine		80	Sapling	1	16			
118	42110 - Planted Red Pine	Poletimber Well	25.7	65	111-140	N/A	Stand was third row thinned in 2010, with all red pine less then 7.5 inches dbh also cut. Any aspen, maple was also cut out of the plantation. Stand is over 1/3 live crown. Eastern portion of the stand is a lower BA average with about half live crown ratio.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
White Oak		10	Log/Pole	12		Quaking Aspen		
Red Pine		90	Pole/Log	9	65	White Oak		
						Red Maple		
						Density	Avg. Height	Size
						Low	5 - 10 feet	5 - 10 feet
						Medium	5 - 10 feet	5 - 10 feet
						Low	5 - 10 feet	5 - 10 feet

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
120	4199 - Other Mixed Upland Deciduous	Sawtimber Well	12.7	96	81-110	N/A	Stand is part of the Hopkins creek campground, used by heavily by horse campers. Mix of maple and oak with some aspen. Hazard trees have been cut over the years and will continue to be. Parks division primarily maintains the site. Open in spots but mostly well shaded campsites.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Maple		50	Log/Pole	11	96			
Red Oak		30	Log	15				
White Oak		5	Log	15				
Quaking Aspen		10	Log	11				
White Pine		5	Log/Pole	11				
121	4199 - Other Mixed Upland Deciduous	Sapling Medium	28.2	15	Immature	N/A	Stand was final harvested in 2011, with some reserve trees left (Green marked). Scattered big oak were left. Came back to mix of red maple, oak and aspen. Mostly stump sprouts.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Maple		50	Sapling	1	15			
White Oak		30	Sapling	1	15			
Quaking Aspen		18	Sapling	1	15			
White Pine		2	Sapling/Pole	4				
122	4199 - Other Mixed Upland Deciduous	Sawtimber Well	13.2	61	51-80	N/A	Mix of aspen, red maple and oak. Some pockets of over mature log aspen but mostly pole size aspen .	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Maple		27	Log/Pole	10				
Red Oak		30	Log/Pole	12				
Quaking Aspen		35	Pole/Log	9	61			
White Pine		8	Log	12				
130	429 - Mixed Upland Conifers	Sawtimber Well	94.0	96	141-170	N/A	Buffer Complex along Hopkins Creek. Lowland conifer along the creek edge with more upland species on the side slope. Not suitable for commercial management. Acts as vegetative buffer to trout stream. Are a few areas on some of the edges that could be cut but not nearly large enough to make a sale. Again acts as a buffer to Hopkins.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Maple		15	Log/Pole	12				
Beech		5	Log	12				
White Oak		5	Log/Pole	12				
Bigtooth Aspen		10	Log	15				
Balsam Fir		10	Pole	6				
Northern White Cedar		13	Log/Pole	10				
White Pine		35	Log/XLog/Pole	15	96			
Red Pine		2	Log	11				
Hemlock		5	Pole/Log	8				
Sub-Canopy Species		Density	Avg. Height	Size				
Tag Alder		Low	5 - 10 feet	5 - 10 feet				
Balsam Fir		Medium	Variable	Variable				
131	6229 - Mixed Lowland Shrub	None	27.5			No	FMD: alder along Hopkins Crk. HCVA - Natural River corridor.	
132	4131 - Aspen, Oak	Sawtimber Well	9.2	56	81-110	N/A	Small less then 10 acre chunk of mature aspen with some pine mixed in. Hummocky ground, with all the aspen and oak just cut to the west.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Maple		5	Pole/Log	9				
Red Oak		5	Log	15				
White Oak		20	Log/Pole	10				
Quaking Aspen		70	Log/Pole	10	56			

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
133	42110 - Planted Red Pine	Sawtimber Well	10.3	70	81-110	N/A	Pruned in 1980 and third row thinned in 1998. Ready to be second thinned. Good spot for landing and road already in place. Stand thinned again in 2018, marked job.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Pine		100	Log/Pole	10	70			
134	4130 - Aspen	Poletimber Well	28.0	37	81-110	N/A	Stand was final harvested in 1989. All pine was left. Aspen came back well with pine scattered. Aspen a little rough looking in spots.	
Canopy Species		% Cover	Size Class	DBH	Age			
Bigtooth Aspen		85	Pole/Sapling	5	37			
White Pine		5	Log	12				
Red Pine		10	Log	13				
135	4121 - Oak, Aspen	Sawtimber Medium	55.5	98	51-80	N/A	Log oak stand with mix of pole aspen, aspen concentrated in north end of stand. Large stand to west was just clear-cut with reserves 2014.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Red Oak		55	Log	15	98	White Pine		Low
White Oak		5	Log	15		White Oak		Medium
Quaking Aspen		32	Pole	7	54			
White Pine		5	Pole/Log	9				
Red Pine		3	Log/Pole	10				
						Density	Avg. Height	
							Size	
136	4123 - Red Oak	Sawtimber Well	43.8	99	51-80	N/A	Stand was thinned in 2010, with all aspen and maple spec cut as well. Very limited understory as a result of deer browse. Some red maple and oak regeneration on the hillside in east side of stand.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Red Oak		100	Log	16	99	Red Maple		Medium
						Red Oak		Low
137	4130 - Aspen	Poletimber Well	75.3	37	111-140	N/A	Stand was final harvested in 1989. Small pole stand, still sapling size in pockets.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Maple		5	Pole/Sapling	5				
Red Oak		5	Pole/Sapling	5				
Bigtooth Aspen		90	Pole/Sapling	6	37			
138	4124 - Red with White Oak	Sawtimber Medium	42.8	98	1-50	N/A	Harvested in 1999, Oak over story was left at 30 to 60 BA. Oak, aspen, and red maple have taken up the understory.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Red Oak		80	Log	16	98	White Oak		Medium
White Oak		20	Log	17	98	Red Maple		Medium
						White Pine		Low
						Quaking Aspen		Medium
140	4199 - Other Mixed Upland Deciduous	Sapling Well	88.7	16	Immature	N/A	Stand was final harvested in 2010, with all oak less than 6 inches in dbh left as well as scattered green ringed mature oak. Aspen, red maple and oak have regenerated from the harvest. Good mix of all three with all the advanced oak scattered throughout. Snowmobile and ORV trail in the stand and on the edge.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Maple		35	Sapling	1	16			
Red Oak		5	XLog/Log	20				
White Oak		35	Sapling/Pole	1	16			
Bigtooth Aspen		25	Sapling	1	16			

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
143	42110 - Planted Red Pine	Sawtimber Well	38.3	70	81-110	N/A	Pruned in 1980 and third row thinned in 2000. All maple and aspen was cut out of plantation at that time as well. Stand thinned again in 2019, all maple was cut at that time too.			
Canopy Species		% Cover	Size Class	DBH	Age					
Red Pine		100	Log/Pole	10	70					
144	4130 - Aspen	Sapling Well	35.4	27	Immature	N/A	Stand was final harvested came back to mostly aspen with some oak and white pine mixed in. ORV trail goes through stand.			
Canopy Species		% Cover	Size Class	DBH	Age					
White Oak		10	Pole/Sapling	5						
Quaking Aspen		85	Sapling/Pole	3	27					
White Pine		5	Pole/Sapling	5						
145	42110 - Planted Red Pine	Sawtimber Well	12.4	70	111-140	N/A	Pruned in 1980 and third row thinned in 2000. Stand is in good shape, limited understory. Snowmobile trail goes through stand. Stand is of better quality on east end. old two track or fire break on west unit.(Good spot for landing) Stand thinned again in 2018.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Pine		100	Log	10	70	Red Oak		Low	< 5 feet	< 5 feet
146	4130 - Aspen	Sapling Poor	7.3	16	Immature	N/A	Stand was final harvested in 2010, with all oak less then 6 inches dbh and scattered green ringed mature oak left as well. Regenerated well to aspen, maple and oak mix. Oak left mostly small pole, snowmobile trail goes through stand as well as ORV trail. Stand is separated by power line ROW.			
Canopy Species		% Cover	Size Class	DBH	Age					
Red Maple		10	Sapling	1	16					
Red Oak		10	Pole/Log/Sap	8						
Bigtooth Aspen		77	Sapling	1	16					
White Pine		3	Sapling	1	16					
150	4130 - Aspen	Poletimber Well	8.7	38	111-140	N/A	Stand was final harvested in 1988. Call back well to aspen, with some oak mixed in. A few large oak were left by the road. Leave for at least one more rotation.			
Canopy Species		% Cover	Size Class	DBH	Age					
Red Oak		10	Sapling/Pole	3	38					
Bigtooth Aspen		90	Pole/Sapling	5	38					
151	4199 - Other Mixed Upland Deciduous	Sapling Well	165.7	13	Immature	N/A	Stand was treated on two separate occasions between 2013 and 2014. In 2013 PCA cut and chipped all of the wood with the exception of the log oak.(PCA had no market for big oak at that time) Log oak was then cut a year later in winter of 2014 by subcontracted producer. Widely scattered green ringed oak were left as well as all oak under 4 inches dbh.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Maple		55	Sapling/Pole	1	13	Witch Hazel		Medium	5 - 10 feet	5 - 10 feet
Red Oak		10	Log/XLog	16						
Red Oak		20	Sapling	4	46					
White Oak		5	Sapling	4						
Quaking Aspen		5	Sapling	1	13					
White Pine		5	Sapling	2						
152	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	23.0	115	1-50	N/A	Burned in 1998 and in 2001. Scheduled to burn again in 2009, but never happened. Open grown red maple clumps and oak with oak and maple understory. Variable stand with evidence of old fire scars from previous prescribed burns.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Maple		50	Pole/Log	8		Black Cherry		Medium	>20 feet	>20 feet
White Oak		50	Log/XLog	17	115	Red Maple		Medium	>20 feet	>20 feet
						White Oak	Low	>20 feet	>20 feet	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																				
153	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	24.3	164	81-110	N/A	Variable stand of clump red maple and large open grown oak. White pine component as well.																																				
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157	3301 - Low Density Deciduous Trees	None	552.3			Yes	Last burned in 1996 and 2001. Stand was burned again in 2014. Stand was burned in Fall of 2024																																				
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201	122 - Road/Parking Lot	None	27.7			No	Lucas Rd.																																				
291	500 - Water	None	2.5			No	FMD: small section of Manistee River																																				
404	310 - Herbaceous Openland	None	1.0			No																																					
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