



# Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61054

Entry Year 2024

Acreage: 4,149

County Grand Traverse

Management Area: Boardman Plains

**Stand Examiner:** Pat Ruppen

## Legal Description:

T26N – R9W – Sections 25-35

## Identified Planning Goals:

Three sub-sections of the Land Type Association (LTA) VII .2 High Plains are found in this Compartment. A portion of the Compartment (lands in sections 25,26 and 35) falls within LTA 2221. This is described as coarse textured end moraine with Roselawn Loamy sands. Currently much of this land supports plantation pine which was planted on old depleted farm fields. Some of these plantations have been harvested recently and re-started while others are still under a thinning regime. State managed lands in sections 26-30 are found on LTA 5.1.1.1 which is described as flat or gently rolling with deep sandy outwash. This LTA is relatively low in fertility and productivity. Historically fire dependent conifers were found in association with oak and red maple. Jack, White and Red pine were common in mixed densities. Northern hardwoods would be found on less fire prone sites and in association with Kalkaska Sands. Fires on this sub-section were extensive, intense, and often covered several square miles. The stands on these sites were generally created after the last cycle of fires; which followed extensive harvesting in the early part of the last century. Stands of jack pine, oak aspen and birch were generated after the fires. Some stands have a red pine component due to planting efforts following the fires. The remaining (un-harvested) pine oak stands from this genesis are past desired rotation age and attention should be given to restarting some of these stands. A definite trend is evident for some of these pine dominated stands to move toward a heavier oak component. Most of the previously pine dominated stands that have been harvested in the last 10-30 years have converted to oak dominated stands. Some of these stands have been planted with red pine resulting in mixed upland stands with a red pine component. Although conversion to oak has been encouraged in the past an effort will be made in this entry to restart red pine on some of the remaining pine stands. A number of stands were partially harvested with shelter wood or seed tree harvests in previous entries. If adequate regeneration has formed in the sub canopy, re-treat these stands to remove most remaining canopy; with the intention of releasing the advanced regeneration. Some aspen clones are found on this sub-section and should be managed for age class distribution. Sub section 5.1.2.1 is deep well drained outwash mainly composed of Rubicon and Croswell loamy sands. This cover the parts of this compartment in Sections 32-34. These soils are slightly more fertile than surrounding soils. This area is laced with drainages of Parker Creek and associated headwaters. Upland areas are mainly aspen dominated stands with pines and oak. These stands should be managed for age class distribution. Some lowland areas in this part of the compartment have extensive blowdown but associated with this is heavy natural regeneration with an impressive amount of cedar. The tangled blowdown areas seem to be impenetrable for deer. An opportunity exists on a part of this compartment to manage for a high aged natural pine complex. This area between forks of Twenty-two Creek involves stands 108, 103, 118, 126, 141, 147, 149. A Special Conservation Area has been proposed for this area to manage towards old aged natural pine/oak. Stand 47 and part of Stand 40 are also areas with a significant amount of legacy trees. Stand 47 has been nominated for potential old growth as should part of stand 40.

## Soil and topography:

Rubicon –Roselawn, Croswell and Roscommon Sands with Rifle Peat and Lupton Muck along creeks. The area is level to very slightly rolling.

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

State and private lands are inter-mingled. Primarily state lands to the north and west. Private lands are rural in nature.

## Unique Natural Features:

A branch of twenty-two creek goes underground in sec 28. SCA for older aged forestland between branches of Parker Creek in Section 27. Unique older timber in stands 20 and 47. Stands 73 and 79 are a small barrens area area. This area should be maintained.

## Archeological, Historical, and Cultural Features:

The grave of Emma Northrup '1875' ("The Little girl's grave") is located within this compartment. An old homestead was located in section 25.

## Special Management Designations or Considerations:

Headwaters of Parker Creek in Sections 33 and 34. SCA for older aged forestland between branches of Parker Creek in Section 27. Unique older timber in stands 20 and 47.

### **Watershed and Fisheries Considerations:**

This compartment contains portions of Parker Creek (both the North and the South Branches) and Twenty Two Creek. All of these streams are State designated trout streams, and Twenty Two Creek falls under the jurisdiction of the Boardman River Natural Rivers Plan. Parker Creek has a history of beaver activity which impacts the local trout population, and cuts that encourage beaver activity should be avoided. All three of these streams are hosts to naturally reproducing populations of brook trout and brown trout, and are considered high quality cold-water tributaries to the Boardman River.

### **Wildlife Habitat Considerations:**

A very small percentage of this compartment falls on a ground moraine which typically has some of the better soils in this area. Existing mixes of pine/oak/aspens/hardwood forest should be maintained with small patch cuts and thinning, retaining snags and other habitat elements as much as possible. Some succession to mature white pine forest and hardwood is desirable in the long run.

Most of the compartment falls on an outwash plain which was historically prone to frequent burning and harbored mixed pine forests, barrens, and some components of oak and northern hardwoods. This landscape should continue to be managed for a variety of successional stages of pine-oak-aspens forest and grass-scrub openings, with some mid to late successional forest in places. A few stands could be allowed to gradually succeed to mixed pine forest, while others should be set back through timber harvesting. Such harvesting should incorporate residual live trees, snags, and some down logs to replicate within-stand habitat structure left after wildfires. Prescribed burning will also help maintain barrens habitat. Oak is a very important component of forests here and should be maintained or regenerated as much as possible. Species associated with pine-oak-aspens mixed forest and Openland habitat, such as badger, wild turkey, scarlet tanager, hog-nosed snake, ruffed grouse, Cooper's hawk, red-backed salamander, deer, hairy woodpecker, and gray squirrel will benefit from management here.

Pine plantations should incorporate tree species diversity and structural diversity as much as possible. Important deer yarding areas along creek bottoms should be maintained in swamp conifer cover. Management of pine stands should consider incorporating small (2-5 acre) islands that are left relatively un-thinned within mature stands to provide winter roosting cover for turkeys.

There is also a section of outwash plain that lies south of Parker Creek and is somewhat protected from running wildfires by the ground moraine to the southwest and the creek to the north. Consequently, historic forests consisted of beech-maple, mixed pine-hemlock, and cedar in low areas. Past management resulted in stands of aspens. Much of the area has a high water-table. The productive game habitat here is popular with many hunters. Some areas could be allowed to succeed naturally if access is a barrier. Beaver flooding along Parker Creek has created important aquatic habitat for herons, wood duck, tree swallows, and bats, and many other species.

### **Mineral Resource and Development Concerns and/or Restrictions**

No active sand/gravel pits occur in the area. There is good potential for sand and gravel within the compartment. Any surface mining operations would have to avoid oil & gas infrastructure. Apart from sections 25 and 26, the entire compartment is currently leased for Silurian reef hydrocarbon production. There appear to be four actively producing wells within the compartment. The remaining leases are being held by legacy agreements. There could be potential for additional reef discoveries within the compartment as well as future gas storage potential. There is no known metallic mineral potential in this part of the state.

### **Vehicle Access:**

Access south of Parker Creek drainages is difficult due to private lands and low areas. Access is generally good throughout the rest of the compartment.

### **Survey Needs:**

None known at this time.

### **Recreational Facilities and Opportunities:**

North Country Trail, Shore to Shore Horseback Trail, Grand Traverse Motorcycle Trail and the Boardman Valley Snowmobile Trail. Also miles of new un-authorized motorcycle trail flagged through compartment and lightly ridden. There seems to be a covert attempt to re-locate all the motorcycle trail in the compartment.

### **Fire Protection:**

### **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**

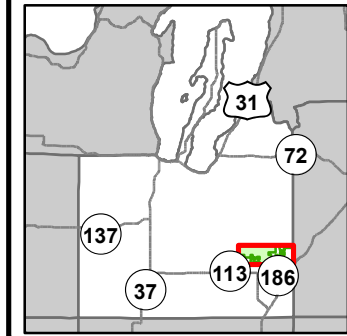
**The following information is displayed, where pertinent, on the attached compartment maps:**

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

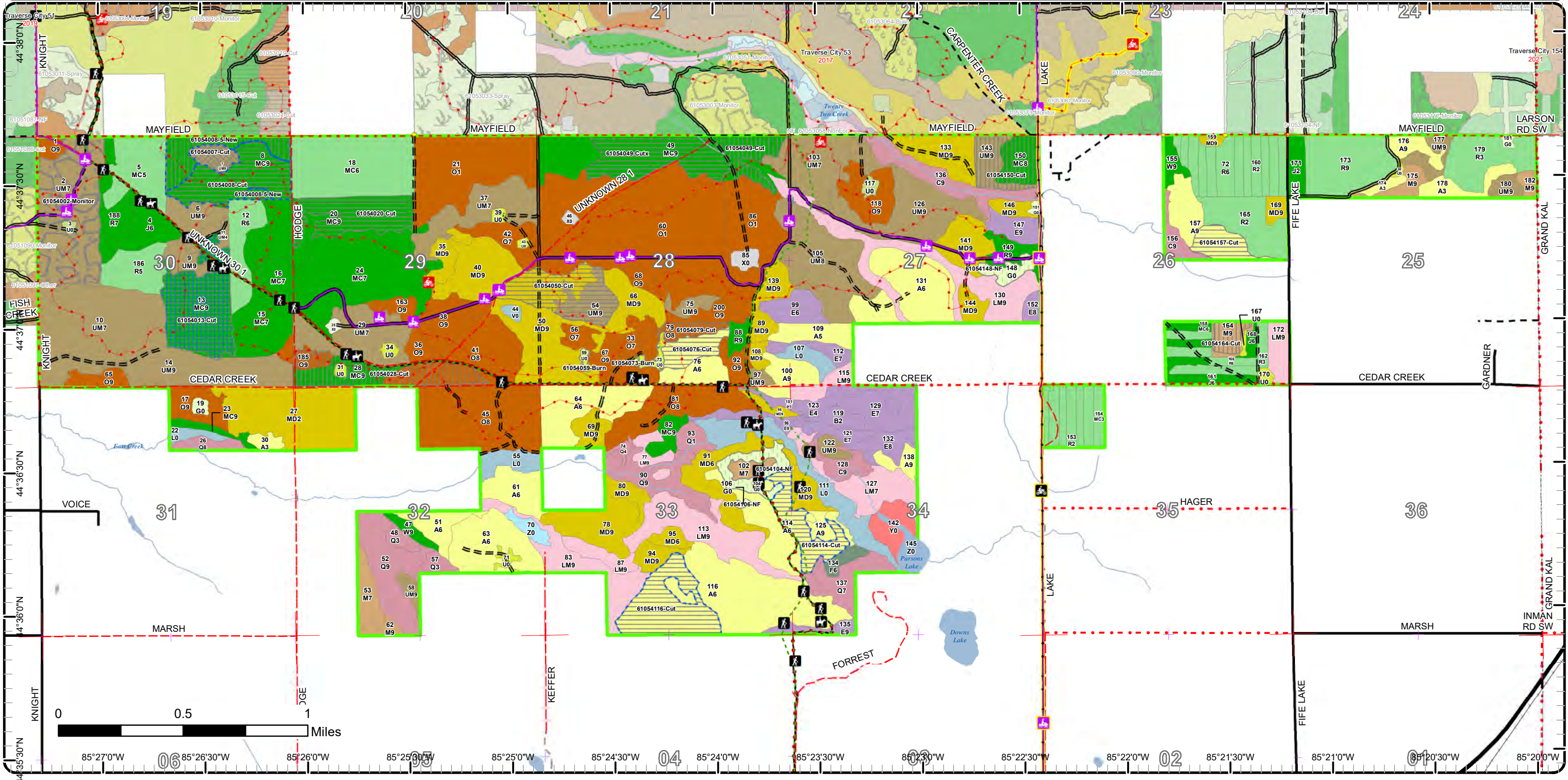


# Cover Type & Treatments Map

Compartment: 54  
 T26N, R09W, Sec. 25-35  
 County: Grand Traverse  
 Unit: Traverse City  
 Mgmt Area: Boardman Plains  
 YOE: 2024  
 Acres: 4148.9 GIS Calculated  
 Examiner: Pat Ruppen  
 Map Revised: 10/17/2022  
 Map Phase: Post Review



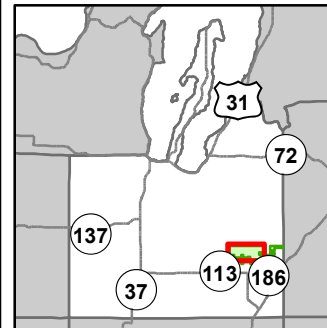
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- Compartment Boundary
- Treatments with Site Conditions
- Other Harvest - See Comments
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Prescribed Burn
- Seed Tree (w/Reserves)
- Regeneration Survey
- Shelter Wood (w/Reserves)
- Opening Maintenance
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- 412 - Oak Types
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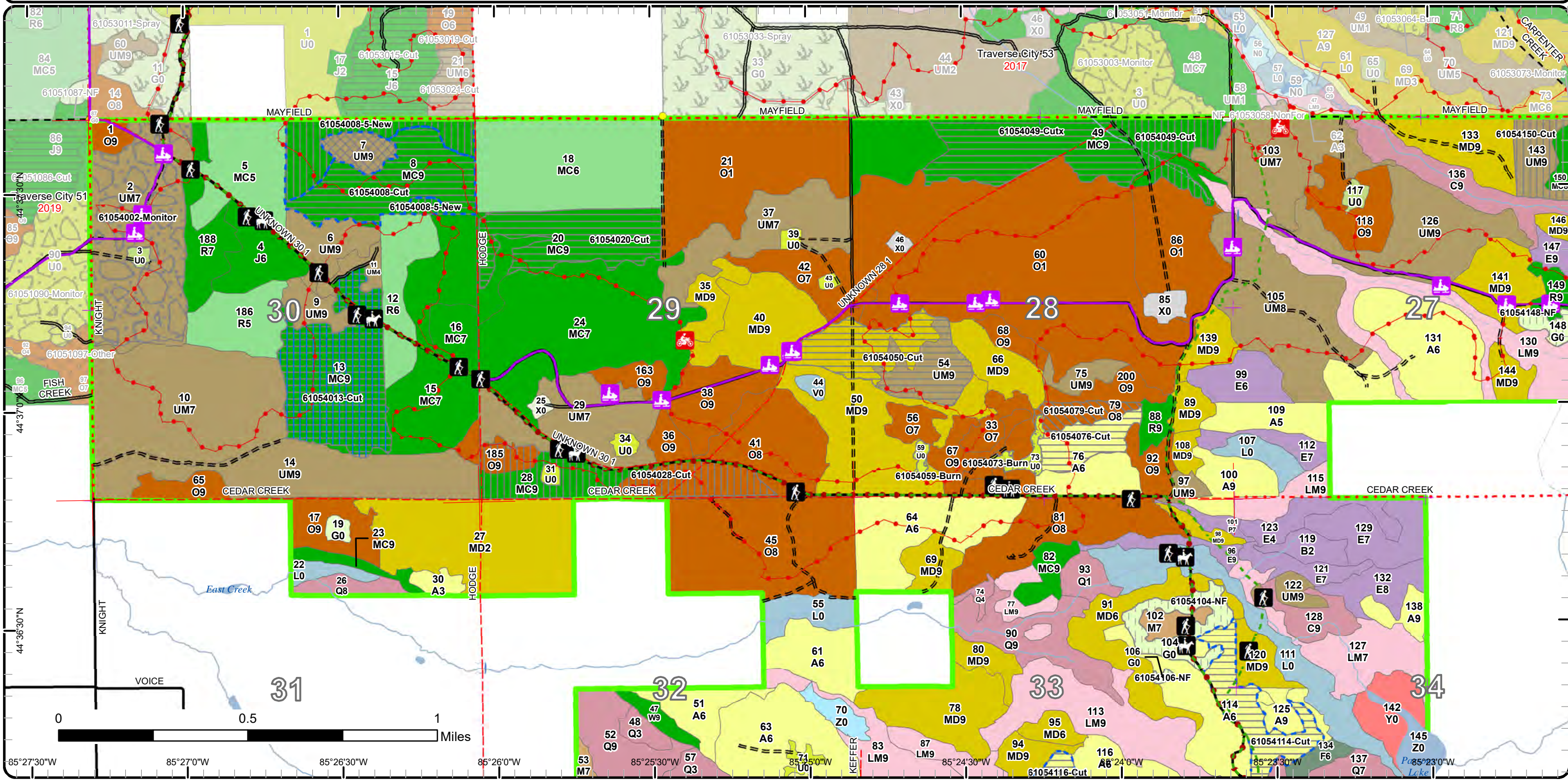


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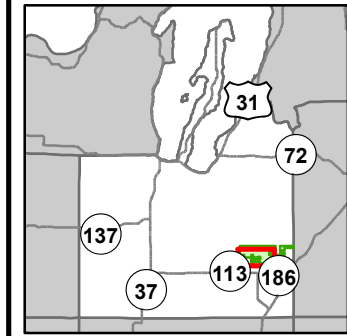
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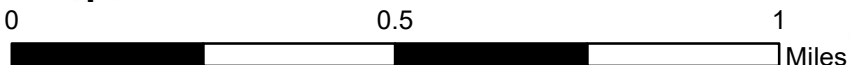
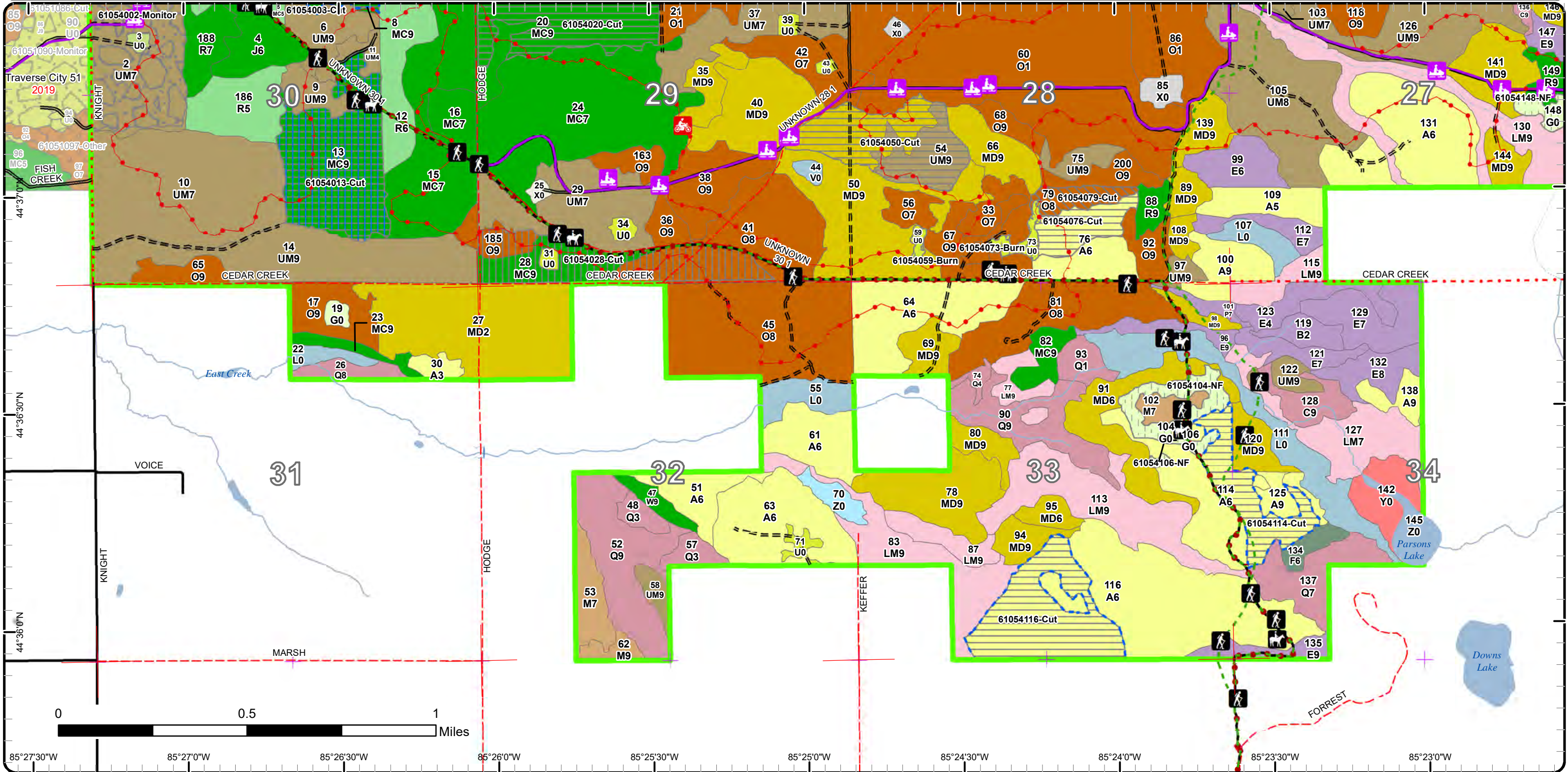


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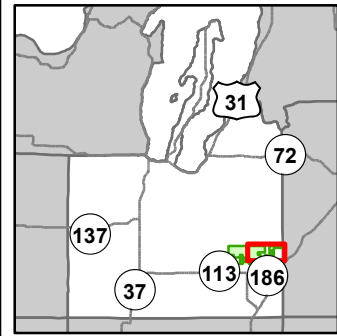


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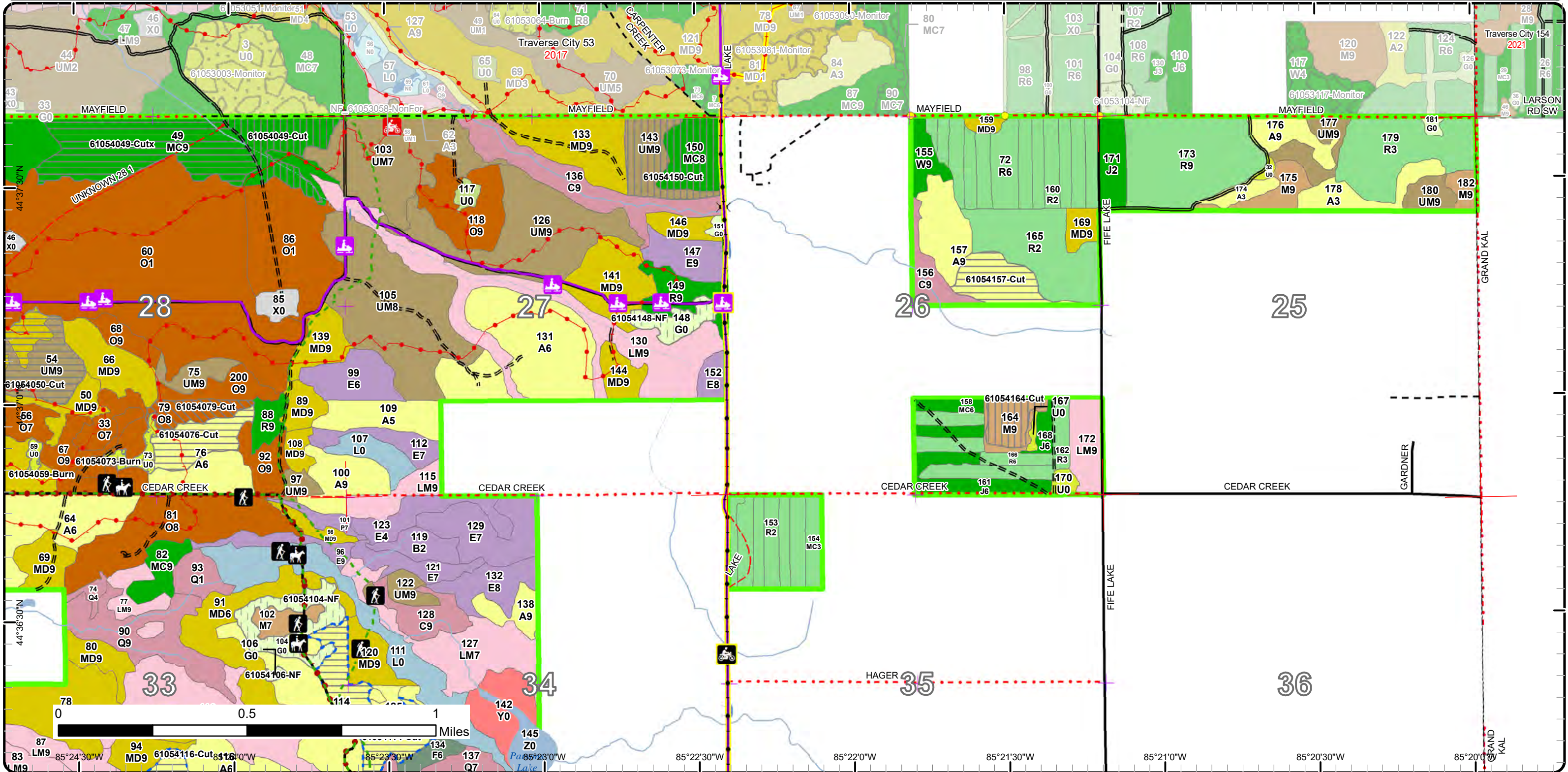


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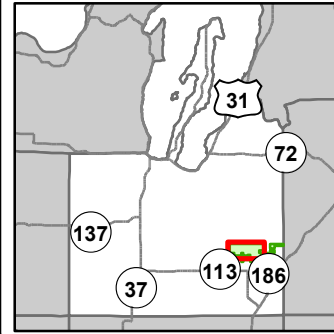
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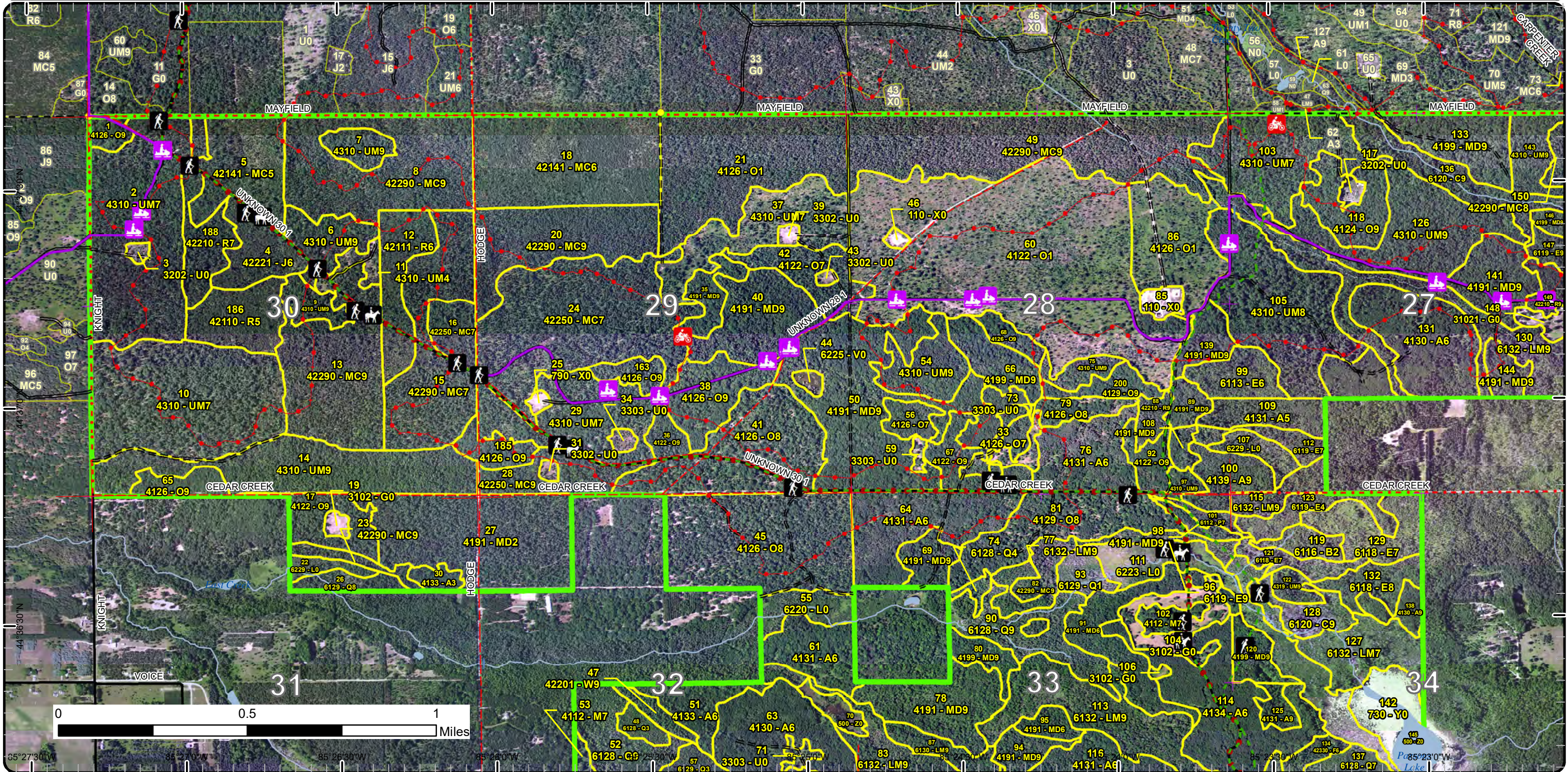


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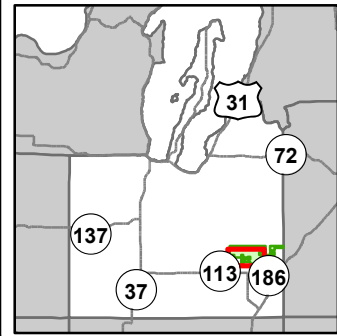
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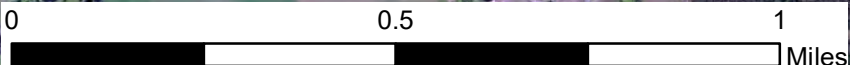
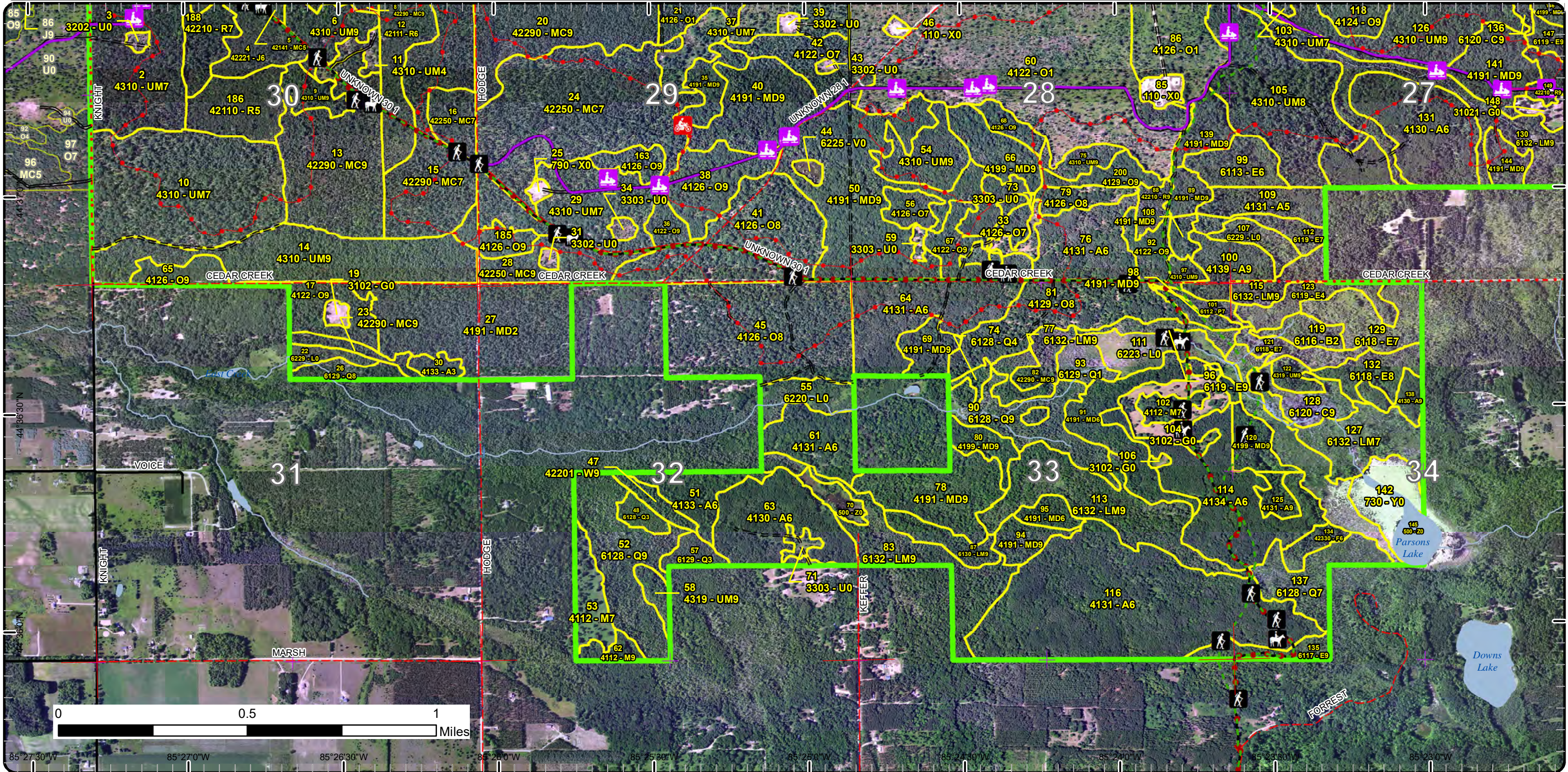


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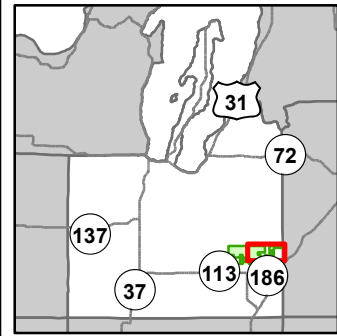


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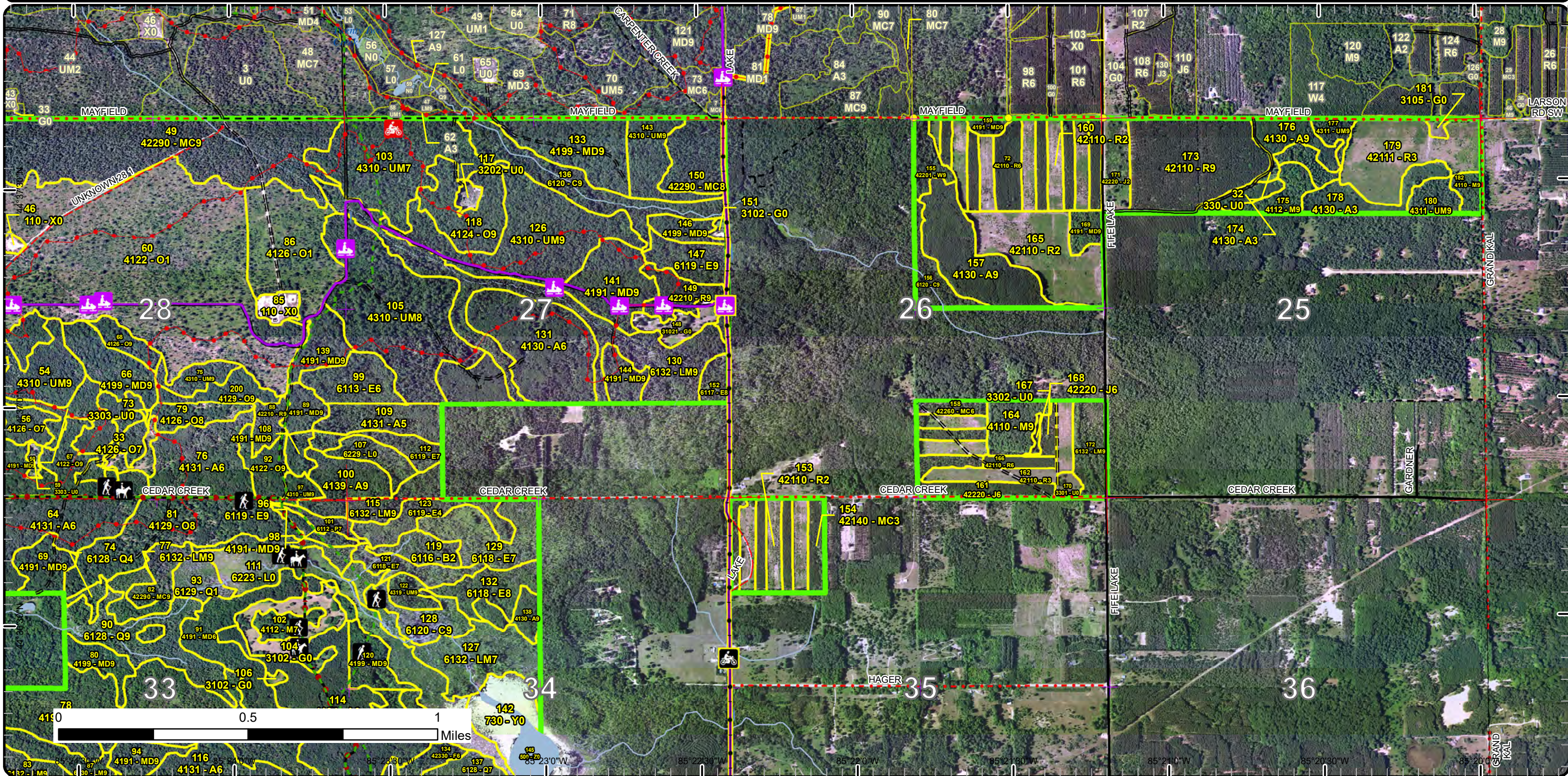
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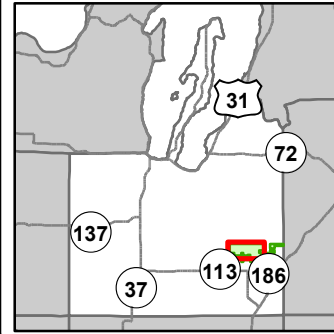
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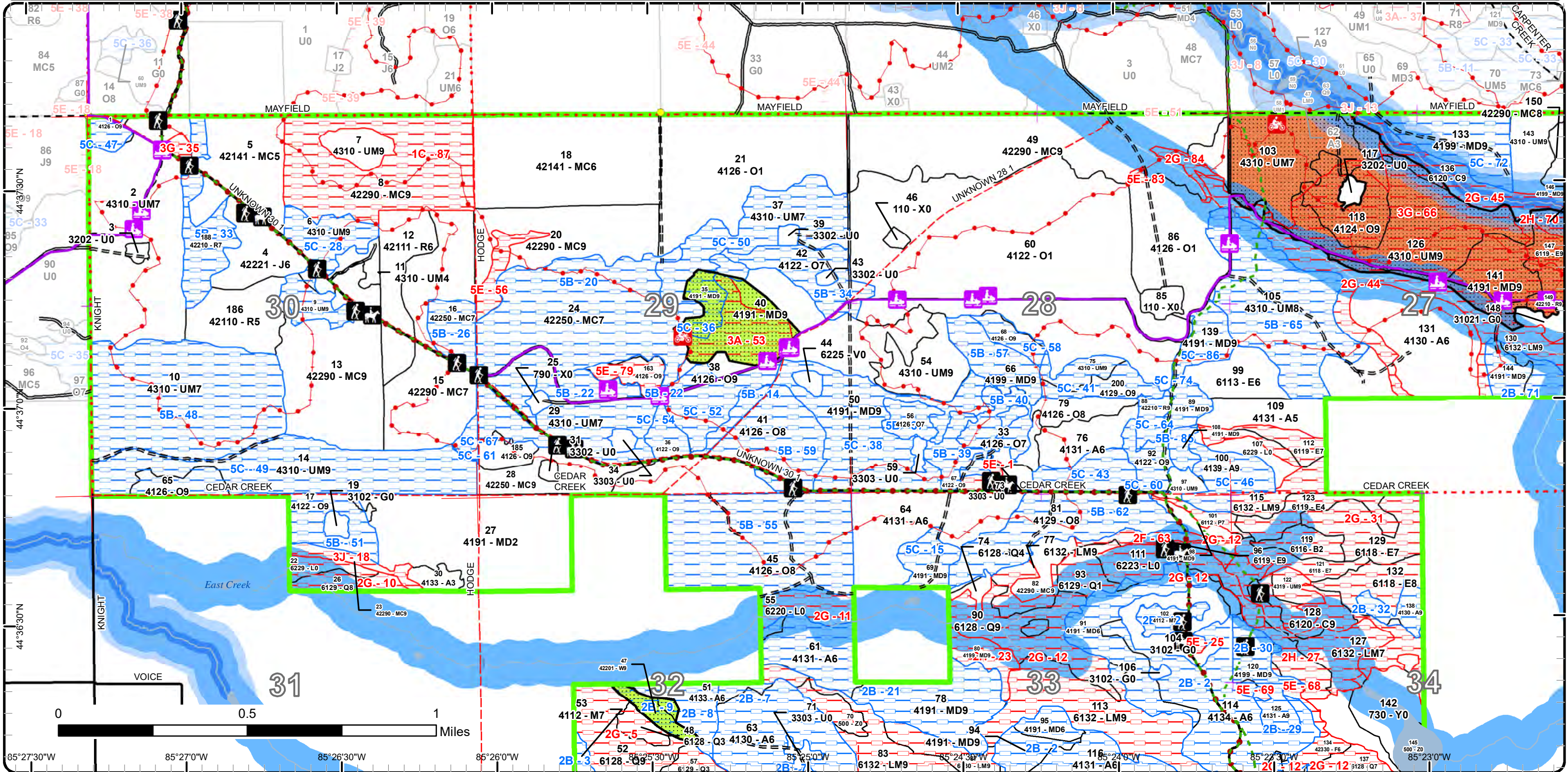


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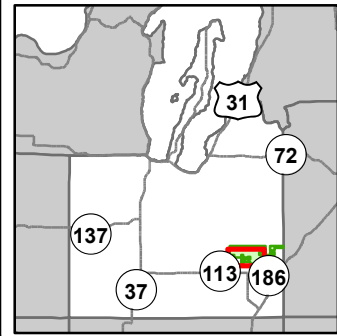
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- Private - Dirt / Gravel Road
- ▲ Hiking Trails
- ▲ Horse Trails
- ▲ Motorcycle Trails (DNR License)
- ▲ Snowmobile Trails
- - - Designated Hiking Trails
- ● ● Designated Equestrian Trails
- Designated Multi-Use Trails
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Bridges
- Culvert
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Compartment Boundary
- Available w/ Constraints
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable
- 1C: Other dept or div proc/practices
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3A: Conservation Values incompatible with harvest at this time
- 3G: Other Influence zones - See comments
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- SCA
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Other Habitat Area
- Possible Type 2 Old Growth





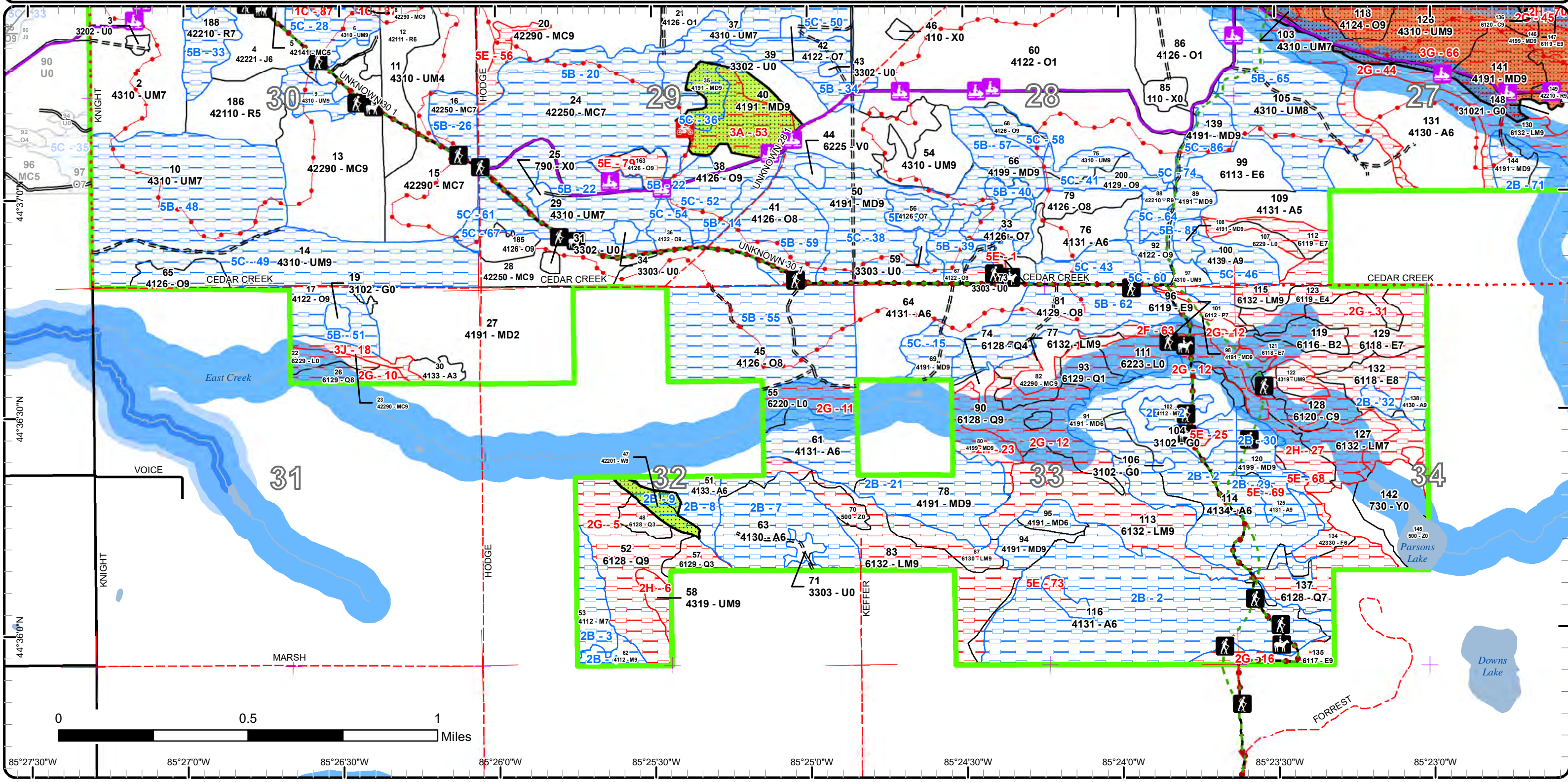
# Special Conservation Areas

Compartment: 54  
 T26N, R09W, Sec. 25-35  
 County: Grand Traverse  
 Unit: Traverse City  
 Mgmt Area: Boardman Plains  
 YOE: 2024  
 Acres: 4148.9 GIS Calculated  
 Examiner: Pat Ruppen  
 Map Revised: 10/17/2022  
 Map Phase: Post Review



- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State / County - Paved Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Hiking Trails
- Horse Trails
- Motorcycle Trails (DNR License)
- Snowmobile Trails
- Designated Hiking Trails
- Designated Equestrian Trails
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- Compartment Boundary
- Available w/ Constraints
- 5B: Maintain for regeneration purposes

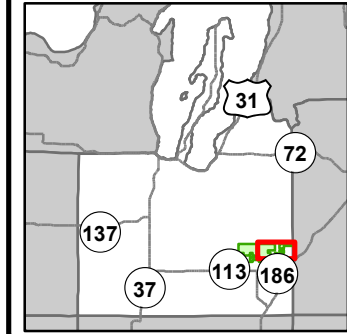
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
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- 3G: Other Influence zones - See comments
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# Special Conservation Areas

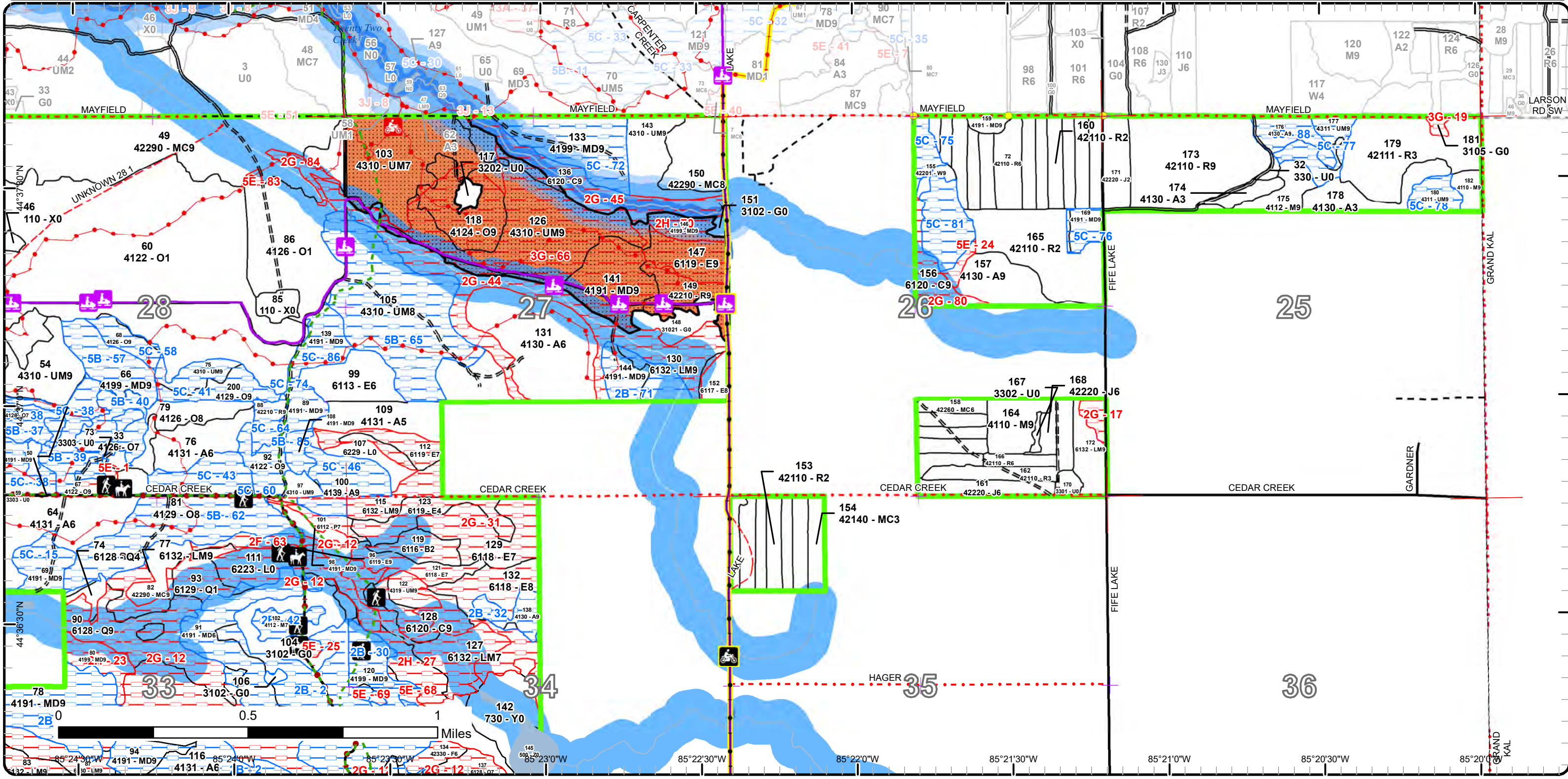
Compartment: 54  
 T26N, R09W, Sec. 25-35  
 County: Grand Traverse  
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- Miris Corners
- Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Secondary Forest Road
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- Federal / State / County - Paved Road
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Hiking Trails
- Horse Trails
- Motorcycle Trails (SOS License)
- Motorcycle Trails (DNR License)
- MCCCT Trails
- Snowmobile Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- Designated Multi-Use Trails
- ORV License
- ORV License & Trail Permit
- Designated Snowmobile Trails
- Michigan Cross Country Cycle Trail (MCCCT)

- Bridges
- Culvert
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)

- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3G: Other Influence zones - See comments
- 5E: Long-Term Retention
- Stand Boundaries
- SCA
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- High Priority Trout Stream Buffer
- Other Habitat Area





Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	19	79	0	298	116	6	0	0	8	0	0	0	0	0	0	0	525
Bare/Sparsely Vegetated	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Bog	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	31	23	0	0	0	54
Herbaceous Openland	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Jack Pine	0	0	0	25	21	0	0	0	0	0	0	0	0	0	0	0	0	0	45
Low-Density Trees	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
Lowland Conifers	0	0	9	3	12	0	0	0	0	0	0	24	0	30	0	8	43	0	128
Lowland Deciduous	0	0	0	0	0	20	0	26	14	23	18	0	0	0	24	0	0	0	125
Lowland Mixed Forest	0	0	0	0	0	0	0	0	9	11	33	59	11	50	0	0	0	51	224
Lowland Shrub	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
Mixed Upland Deciduous	0	0	0	78	0	81	0	0	44	47	19	30	33	84	0	0	0	28	444
Natural Mixed Pines	0	0	0	12	0	0	0	0	0	334	167	0	19	0	0	0	0	0	532
Northern Hardwood	0	0	0	0	0	0	7	0	19	10	0	5	12	0	0	0	0	0	52
Oak	0	0	253	79	0	0	0	0	0	22	70	226	19	57	0	0	0	0	726
Paper Birch	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Planted Mixed Pines	0	0	0	21	114	0	0	0	0	0	0	0	0	0	0	0	0	0	134
Red Pine	0	125	20	37	51	0	0	50	0	22	6	0	13	0	0	0	0	0	324
Sand, Soil	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Upland Mixed Forest	0	0	0	0	7	0	0	0	9	128	74	68	10	200	0	7	10	122	635
Upland Shrub	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Upland Spruce/Fir	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Urban	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Water	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14
<b>Total</b>	<b>172</b>	<b>125</b>	<b>301</b>	<b>343</b>	<b>205</b>	<b>399</b>	<b>129</b>	<b>82</b>	<b>95</b>	<b>597</b>	<b>399</b>	<b>412</b>	<b>117</b>	<b>466</b>	<b>47</b>	<b>15</b>	<b>53</b>	<b>201</b>	<b>4152</b>



## Report 2 – Treatment Summary

Traverse City Mgt. Unit  
Year of Entry: 2024

Acres of Harvest

Compartment 54  
Total Compartment Acres: 4,149

Commercial Harvest - 369  
Harvests with Site Condition - 149  
Next Step Harvest - 0  
Habitat Cut - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	108	0	0	0	0	0	0	0	0	108
Mixed Upland Deciduous	46	0	0	0	0	0	0	0	0	46
Natural Mixed Pines	140	0	0	65	131	0	0	0	0	336
Northern Hardwood	0	0	0	0	10	0	0	0	0	10
Oak	0	0	0	0	0	0	0	0	9	9
Upland Mixed Forest	0	10	0	0	0	0	0	0	0	10
<b>Total</b>	<b>294</b>	<b>10</b>	<b>0</b>	<b>65</b>	<b>141</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>518</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	518	0	0	0	6	0	86	0	28	638
Next Step	0	222	222	0	56	222	721	10	6	1458
<b>Total</b>	<b>518</b>	<b>222</b>	<b>222</b>	<b>0</b>	<b>63</b>	<b>222</b>	<b>806</b>	<b>10</b>	<b>34</b>	<b>2095</b>



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

**Approved Treatments:**

<b>2</b>	<b>61054002-Monitor</b>	85.7	4310 - Pine, Oak Mix	Sawtimber Poor	85	1-50	Monitoring	Natural Regen (Re-Inventory)	4122 - Oak, Pine	Even-Aged	No
<p><u>Prescription</u> evaluate regen success at next inventory cycle</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> Expect new stand to form consisting of oak, jack pine, red maple and to a lesser amount white and red pine</p> <p><u>Regen:</u></p> <p><u>Other</u> Percent to Treat = 100%</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2031</p>											
<b>7</b>	<b>61054007-Cut</b>	9.7	4310 - Pine, Oak Mix	Sawtimber Well	150	111-140	Harvest	Single Tree Selection	4319 - Mixed Upland Forest	Two-Aged	No
<p><u>Prescription</u> Remove remaining jack pine and mark remaining stems for crop tree release. Maintain stand as pocket of large oak and pine.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> pine, oak, maple</p> <p><u>Regen:</u></p> <p><u>Other</u> large old oak and pine are found in this stand. Do not disturb. A light thinning may be all that is necessary in this stand to remove poor quality stems and for crop tree release as needed. Treat with surrounding stands.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>											
<b>8</b>	<b>61054008-5-New</b>	27.4	42290 - Natural Mixed Pine	Sawtimber Well	85	81-110	Harvest	Shelterwood	4319 - Mixed Upland Forest	Two-Aged	No
<p><u>Prescription</u> Remove jack pine and poorly formed oak and red maple. Retain well formed oak , red pine and white pine up to 80 ba. White pine poles are found in western part. Thin as possible for crop tree release. Manage for mixed stand. Treatment is intended to salvage declining jack pine and to maintain oak overstory and promote mast production. Variable basal are after harvest will be expected with gaps that will regenerate to oak, jp and rm.</p> <p><u>Specs:</u> Consider motorcycle trail through stand. Retain well formed trees along trail bed. Do not leave jack pine but cut high if directly adjacent to trail bed. Un-authorized trail through stand seems to be flagged in.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> oak, pine, maple</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition</u> Other Dept./Div. Processes</p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>											





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Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
8	61054008-Cut	46.0	42290 - Natural Mixed Pine	Sawtimber Well	85	81-110	Harvest	Clearcut with Retention	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	No
<p><u>Prescription</u> Harvest to 1" dbh. Chip tops to prepare for planting. Some small drains and steep areas may need to be excluded. Could be small retention <u>Specs:</u> pockets Most of the ground lay good enough to manage for red pine plantation.</p> <p><u>Next Step</u> SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial <u>Treatments:</u> Regen(3yr)</p> <p><u>Acceptable</u> planted red pine, oak, white pine, jack pine <u>Regen:</u></p> <p><u>Other</u> Manage stand for mixed composition after planting. . Initial herbicide application will be required for initial planting but after red pine is <u>Comment:</u> established allow other species to grow with planted pine. Consider motorcycle trail through stand. Retain long lived trees that are directly adjacent to trail bed but not jack pine. Cut jack pine that contacts trail bed at least 4' high.</p> <p><u>Site Condition</u> Other Dept./Div. Processes</p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>											
13	61054013-Cut	64.6	42290 - Natural Mixed Pine	Sawtimber Well	85	111-140	Harvest	Seed Tree with Retention	4122 - Oak, Pine	Two-Aged	No
<p><u>Prescription</u> Stand has old barrens characteristics with large scatted oak and pine and 75 age grown in. Remove jack pine, cherry, aspen, red maple and <u>Specs:</u> poorly formed oak. Retain (some/all) red and white pine and large diameter oak 20+" dbh. Mark some other well formed oak to retain from younger age classes. Stand should fill in with jack pine, white pine, oak and red maple and pssible aspen if found in stand. ORV trail in stand. Consider during sale prep.</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u></p> <p><u>Acceptable</u> Stand should regenerate to mixed pine, oak, red maple, aspen. <u>Regen:</u></p> <p><u>Other</u> Stand should regenrate to mixed pine, oak, red maple, aspen. <u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2013</p>											
20	61054020-Cut	41.7	42290 - Natural Mixed Pine	Sawtimber Well	93	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Cut to 1 " dbh and chip tops to prepare site for planting red pine. It will be a challenge to get this cut and the oak under control. <u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial <u>Treatments:</u> Regen(3yr)</p> <p><u>Acceptable</u> planted red pine. <u>Regen:</u></p> <p><u>Other</u> Consider motorcycle trail through stand. Possibly un authorized trail as well. <u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</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
<b>28 61054028-Cut</b>	47.3	42250 - Pine, Oak	Sawtimber Well	85	81-110	Harvest	Shelterwood with Retention	4319 - Mixed Upland Forest	Two-Aged	No
<p><u>Prescription</u> Retain some well formed oak and pine (10-40 ba) and harvest remaining stems to regenerate stand. Focus retention on younger oak and pine with some scattered log sized trees. Keep red and white pine 8"dbh or less. There is a good distribution of younger red pine mixed through stand. Attempt to protect well formed oak poles as found and scattered oak log trees along with a little well formed log sized white and red pine. There are some nice red oak poles in stand. There are also a few large older red white pine that should be retained.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory); Burn, Understory</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> oak, maple, pine, aspen.</p> <p><u>Regen:</u></p> <p><u>Other</u> Goal is to release advanced regen in under story. Treat with stand to east. Consider retention trees along motorcycle trail. Consider burning harvest area after harvest to stimulate sprouting. Some areas are pretty open but much of the treatment area has higher basal area in canopy than desired.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										
<b>49 61054049-Cut</b>	20.8	42290 - Natural Mixed Pine	Sawtimber Well	85	81-110	Harvest	Shelterwood	4319 - Mixed Upland Forest	Two-Aged	No
<p><u>Prescription</u> remove all jack pine , aspen and most red maple along with larger pine and poor formed oak Retain 10-40 ba of well formed oak, red pine or white pine and harvest remaining stems. Expect new age to form in understory.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> oak, pine, maple, aspen</p> <p><u>Regen:</u></p> <p><u>Other</u> Consider motorcycle trail in stand. Retain trees adjacent to stand but cut jp adjacent to trail. Cut them 4' high if touching trail bed. New un-authorized trail also found.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										
<b>49 61054049-Cutx</b>	52.3	42290 - Natural Mixed Pine	Sawtimber Well	85	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Harvest to 1' DBH and chip tops to prepare site for planting. Retain oak, maple, white pine along mayfield road-approximately 30 ft wide buffer.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> planted red pine</p> <p><u>Regen:</u></p> <p><u>Other</u> Consider motorcycle trail in stand. New un-authorized trail also found. Long term retention area in SE corner of treatment where trail passes through.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</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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<b>50</b>	<b>61054050-Cut</b>	46.0	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	120	111-140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	No
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Prescription Specs: Harvest to 1" dbh and chip tops to prepare site for planting red pine after harvest. Keep long lived trees as retention along snowmobile trail and motorcycle trail.

Next Step Treatments: SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Regen: planted red pine.

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023

<b>59</b>	<b>61054059-Burn</b>	1.8	3303 - Mixed Low Density Trees	Nonstocked		Unspecified	Burn	Opening	31022 - Warm Season Grass		No
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Prescription Specs: Burn on a rotational basis with neighboring stands with same MO. The goal of prescribed burning is to restore and/or maintain a grassland/barrens ecosystem. The timing and frequency of the burns will be based on current needs of restoration such as reducing woody encroachment or promoting grasses versus forbs. Remove exotics as needed by herbiciding or other methods. Maintain as needed with mowing, seeding of native grasses and forbs, planting native mast bearing shrubs or trees, burning, or removal of woody encroachment.

Next Step Treatments: NonForestMgt, Herbaceous/Crop/Grass Planting

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023

<b>73</b>	<b>61054073-Burn</b>	4.5	3303 - Mixed Low Density Trees	Nonstocked		Unspecified	Burn	Opening	31022 - Warm Season Grass		No
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Prescription Specs: Burn on a rotational basis. The goal of prescribed burning is to restore and/or maintain a grassland/barrens ecosystem. The timing and frequency of the burns will be based on current needs of restoration such as reducing woody encroachment or promoting grasses versus forbs. Remove exotics as needed by herbiciding or other methods. Maintain as needed with mowing, seeding of native grasses and forbs, planting native mast bearing shrubs or trees, burning, or removal of woody encroachment.

Next Step Treatments: NonForestMgt, Herbaceous/Crop/Grass Planting

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2023



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat
											Cut

<b>76</b>	<b>61054076-Cut</b>	15.5	4131 - Aspen, Oak	Poletimber Well	57	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Two-Aged	No
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Prescription Retain some well formed oak, pine and maple and harvest remaining stems. Resulting stand may have patchy regeneration but will fit in with adjacent remnant barrens in stand 73 and 79. Retain large older oak and pine.  
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen oak, maple, pine.

Regen:

Other Consider motorcycle trail through stand.

Comment:

Site Condition

Proposed Start Date: 10/1 /2023

<b>79</b>	<b>61054079-Cut</b>	9.1	4126 - White, Black, N. Pin Oak	Sawtimber Medium	102	51-80	Harvest	Other - Specify	414 - Other Upland Deciduous	Uneven-Aged	No
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Prescription Manage stand for barrens type by retaining large well formed oak and pine and some well formed younger stems. Reduce basal area generally to 10-40. Treat with part of stand to south.  
Specs:

Next Step Burn, Opening

Treatments:

Acceptable oak, maple, pine, forbs, grasses, shrubs,

Regen:

Other This stand has appearance of an old barrens opening with younger age classes growing in.

Comment:

Site Condition

Proposed Start Date: 10/1 /2023

<b>104</b>	<b>61054104-NF</b>	18.2	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	31021 - Cool Season Grass		No
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Prescription This opening is a traditional wildlife planting adjacent to the East Creek. Consider alternative seed mixes as soil conditions allow. Resulting forage should be suitable for early spring and late fall grazing. Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment.  
Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Fruiting shrubs were planted in this stand via a Wildlife Habitat Grant that was awarded to the Conservation Resource Alliance.

Comment:

Site Condition

Proposed Start Date: 10/1 /2023



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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
<b>106 61054106-NF</b>	1.0	3102 - Grass	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	3105 - Mixed Upland Herbaceous		No
<p><u>Prescription</u> This opening is a traditional wildlife planting. Plant to annual rye for several years and then convert to a pasture mix (i.e. clover/alfalfa) if soil will support it. Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment.</p> <p><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 /2023</p>										
<b>114 61054114-Cut</b>	26.6	4134 - Aspen, Spruce/Fir	Poetimber Well	42	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Harvest to 2" to regenerate stand. Retain a few well formed oak and pine if found. Create drumming logs @ 1/acre.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> aspen, maple, oak, pine, birch, balsam.</p> <p><u>Regen:</u></p> <p><u>Other</u> access may not be possible. Consider North Country Trail. May not be located as mapped. May run along same path as Horse trail</p> <p><u>Comment:</u> adjacent to treatment area. Retain long live trees along trail if it is within sale area.</p> <p><u>Site Condition</u> Unknown Access</p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										
<b>116 61054116-Cut</b>	48.9	4131 - Aspen, Oak	Poetimber Well	44	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
<p><u>Prescription</u> Harvest to 2" dbh to regenerate stand. Retain widely scattered well formed oak and pine if found.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> aspen, maple, pine fir, birch, oak.</p> <p><u>Regen:</u></p> <p><u>Other</u> Access unknown. Avoid wet areas.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u> Unknown Access</p> <p><u>Proposed Start Date:</u> 10/1 /2023</p>										
<b>148 61054148-NF</b>	8.7	31021 - Cool Season Grass	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	31021 - Cool Season Grass		No
<p><u>Prescription</u> This opening is a traditional wildlife planting. Plant to annual rye for several years and then convert to a pasture mix (i.e. clover/alfalfa) if soil will support it. Periodic maintenance such as mowing, fertilization, reseeding, and/or removal of woody encroachment.</p> <p><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> Fruiting shrubs were planted in this stand via a Wildlife Habitat Grant that was awarded to the Conservation Resource Alliance.</p> <p><u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2023</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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<b>150 61054150-Cut</b>	35.6	42290 - Natural Mixed Pine	Sawtimber Medium	116	111-140	Harvest	Shelterwood	4319 - Mixed Upland Forest	Two-Aged	No
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Prescription Remove most larger oak and pine. Reduce Basal area to 10-40 of trees larger than pole class. Try to protect advanced regeneration.  
Specs: Short wood harvest with no feller bunching allowed.

Next Step SitePrep, Trenching; Pesticide, Skidder - Site Prep; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial  
Treatments: Regen(3yr)

Acceptable pine, oak, aspen, maple  
Regen:

Other  
Comment:

Site Condition

Proposed Start Date: 10/1 /2023

<b>157 61054157-Cut</b>	16.6	4130 - Aspen	Sawtimber Well	56	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Retain some well formed pine and deciduous as found (10 ba or less) and harvest remaining stems to regenerate stand. Create some  
Specs: drumming logs. Piles of slash may be good for hares. Check with WLD.

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

Acceptable aspen, oak, maple, pine, fir, spruce, hemlock.  
Regen:

Other Half of stand cut this entry with the other half to be harvested in future entry. Retention patch in middle of stand to offer budding cover and  
Comment: connectivity. May need to build access in to center along plantation edge. Road on south edge accesses area but has origin on private land. Seems to have been used for management access in the past. Need to get permission for access.

Site Condition

Proposed Start Date: 10/1 /2023

<b>164 61054164-Cut</b>	9.5	4110 - Sugar Maple Association	Sawtimber Well	115	81-110	Harvest	Shelterwood	411 - Northern Hardwood	Uneven-Aged	No
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Prescription Reduce basal area to ~ 40 sf/ac. Create canopy gaps to promote understory formation. Target larger diameter maple and cherry for  
Specs: removal.

Next Step Other, Other  
Treatments:

Acceptable Northern hardwood mix  
Regen:

Other Approved by Chapter 7 variance 6/11/21  
Comment:

Site Condition

Proposed Start Date: 5 /27/2021

**Total Treatment** 637.5  
**Acres Proposed:**

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### Availability for Management

Total Acres	Acres Available	Acres Avail		Acres Not Available	Dominant Site Conditions	Dominant Site Conditions											ed
		With Condition				2B	5B	5C	1C	2F	2G	2H	3A	3G	3J	5E	
524	175	<b>336</b>		14	Aspen	<b>278</b>	<b>0</b>	<b>58</b>			3					11	0
2	2	<b>0</b>		0	Bare/Sparsely Vegetated												
2	2	<b>0</b>		0	Bog												
54	4	<b>0</b>		50	Cedar			<b>0</b>			42	5		3			
25	23	<b>0</b>		2	Herbaceous Openland	<b>0</b>					0	0		2			
46	46	<b>0</b>		0	Jack Pine												
22	22	<b>0</b>		0	Low-Density Trees	<b>0</b>	<b>0</b>	<b>0</b>									
4	0	<b>0</b>		4	Lowland Aspen/Balsam Poplar						4						
128	3	<b>5</b>		120	Lowland Conifers	<b>5</b>				0	120	0					
125	22	<b>0</b>		103	Lowland Deciduous		<b>0</b>			8	95	0					
224	12	<b>9</b>		202	Lowland Mixed Forest	<b>9</b>	<b>0</b>			0	181	22		0			
70	16	<b>2</b>		52	Lowland Shrub	<b>2</b>	<b>0</b>			1	41	10				0	
442	128	<b>252</b>		62	Mixed Upland Deciduous	<b>98</b>	<b>22</b>	<b>132</b>		0	1	16	22	24			
531	325	<b>112</b>		95	Natural Mixed Pines		<b>112</b>	<b>0</b>	74		5				6	9	
53	27	<b>26</b>		0	Northern Hardwood	<b>26</b>		<b>0</b>			0						
717	383	<b>304</b>		30	Oak		<b>240</b>	<b>64</b>		0	0			20		11	
9	0	<b>0</b>		9	Paper Birch						9						
135	135	<b>0</b>		0	Planted Mixed Pines												
322	281	<b>29</b>		13	Red Pine		<b>22</b>	<b>7</b>			0			13			
20	20	<b>0</b>		0	Sand, Soil						0	0					
566	195	<b>301</b>		71	Upland Mixed Forest		<b>207</b>	<b>93</b>			0	12		59		0	
4	4	<b>0</b>		0	Upland Shrub									0			
6	0	<b>2</b>		5	Upland Spruce/Fir	<b>2</b>					5						
7	7	<b>0</b>		0	Urban												
11	5	<b>0</b>		7	Water	<b>0</b>					7						
14	2	<b>12</b>		0	White Pine	<b>6</b>		<b>6</b>			0						
4,064	1,837	<b>1,389</b>		838	Total Forested Acres	<b>426</b>	<b>603</b>	<b>360</b>	74	10	511	65	22	119	6	31	0
	45%	<b>34%</b>		21%	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	Dominant Site Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable		5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified

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<b>Comments:</b>							
2	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	234	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access seems to have been granted in past from adjacent landowners to treat parts of this area.							
3	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	14	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stand was accessed in past but current access not known							
4	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	55	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Rich lowland conifer swamp							
6	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	5	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Upland ridge extending into lowland complex from private lands.							

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7	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	45	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Best way in would be through private lands to south. May be possible to get back in from the north with portable bridging but not know for certain.							
8	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
9	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access blocked by wet areas and							
10	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	14	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
11	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

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12	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	198	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
14	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Shelterwood harvest in last entry period. Stand needs more time for understory to develop.							
15	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2022: Allow aspen and other younger age class to put on volume. Consider harvest next entry.							
16	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	10	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
17	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
18	<b>Unavailable</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	7	2F: Too steep	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Slope leading down to parker creek drainage.							

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19	<b>Unavailable</b>	<b>3G: Other Influence zones - See comments</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Old farm foundations.							
20	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	99	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: recent harvest. Seed tree/shelter wood							
21	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	59	2D: Portable Bridge Needed (Dept. bridge will be adequate)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access may be blocked by creek drainage to north and lowland types/private lands to south. Access needs to be determined.							
22	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	48	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: recent harvest Shelter wood/ seed tree.							
23	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	9	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access may be blocked by creek to north and lowland/private lands to south. Access must be determined							
24	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Long term retention strip for Harvest of stand 157 which will be done over two entry periods.							

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25	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access seems to have been granted in past from adjacent landowners to treat parts of this area.							
26	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: Older canopy with under planted red pine. Excessive damage to planted pine would be expected if canopy removed.							
27	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	44	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Creek on north (with horse trail bridge) Lowland and private grounds on south and east							
28	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	27	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: Planned harvest to north and south. Keep this area for diversity at this time.							
29	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	7	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Creek and horse trail bridge to north and private lands/lowlands to south.							
30	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	11	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access blocked from north by creek /lowland and horse trail bridge. Access was denied by adjacent landowner in last entry period.							



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31	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	115	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
32	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Would be desirable if access could be attained.							
33	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	22	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Low density canopy with developing understory.							
34	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	22	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: Low density overstory with developing second age. Excessive damage would be expected to younger age if canopy removed at this time.							
35	<b>Unavailable</b>	<b>3G: Other Influence zones - See comments</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
36	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: stand is surrounded by recent harvests or planned harvest. Keep for age diversity at this time.							

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37	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: stand was harvested 2016 -seed tree/ shelter wood. Let understory grow through							
38	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	57	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2022: Nearby recent harvests							
39	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2022: stand harvested 2016. let understory develop							
40	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	15	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: Stand harvested 2016 with aspen regenerating under residual canopy. No harvest intended at this time,							
41	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	18	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: large area to north recently harvest and intention to harvest to south this entry. Keep this area for age diversity at this time.							
42	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	7	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Blocked by creek drainage to north with Horse-trail Bridge and private land access to the south which is undetermined.							

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43	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: Harvesting North half of stand this entry. This part retained for age diversity							
44	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	52	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
45	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	37	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
46	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2022: Red maple is a major component of stand and needs more time to grow in volume and merchantability.							
47	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Surrounding stand will be final harvested. Retain this small oak stand for diversity							

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48	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	93	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Excessive damage to advanced regeneration would occur. Stand was partially harvested in 1996 and understory has developed.							
49	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	77	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Adjacent stands on two sited proposed for treatment this entry. Area to south harvested last entry.							
50	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	41	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Retain remaining canopy as new stand develops for age diversity and stand structure. Not enough canopy left to be merchantable or to hinder regeneration.							
51	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	19	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2022: allow understory to grow through in gaps from last harvest. Excessive damage would occur if harvested at this time.							
52	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	22	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Adjacent stands have recently been harvest and are not well developed yet in regeneration.							
53	<b>Unavailable</b>	<b>3A: Conservation Values incompatible with harvest at this time</b>	22	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Area with large older pine and oak.							

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54	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Large adjacent area to have fional harvest-removal of most shelterwood retention, Keep this stand for diversity at this time.							
55	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	82	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: Canopy gaps from last harvest are still filling. Retain existing canopy this entry to allow full understory development. 2012: Treatment from last entry was completed 1/ 2007. Understory needs to develop further before removing overstory. Adjacent unit to have most overstory removed							
56	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
57	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Younger age class of underplanted red pine would be heavily damaged by treatment at this time. Look at next entry.							
58	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Large adjacent area to be treated this entry							
59	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	34	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Heavy advanced regeneration under low stocked scattered overstory. Harvest would damage understory excessively.							

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Compartment: 54

Year of Entry: 2024

60	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
61	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: small oak stand with nearby recent harvests. Maintain for diversity and older age structure at this time.							
62	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	43	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Stand was cut with a shelterwood harvest in 2007. Understory has not developed fully at this time. Retain overstory until next entry.							
63	<b>Unavailable</b>	<b>2F: Too steep</b>	10	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Riparian slope along parker creek							
64	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Large area nearby to the north to be final harvested. Retain thiws stand until next entry							
65	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	68	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Robust regeneration in canopy gaps. Half of the canopy was removed. Removal or additional canopy would result in excessive damage to new stand							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 54

Year of Entry: 2024

66	<b>Unavailable</b>	<b>3G: Other Influence zones - See comments</b>	115	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Recommend this stand be grown to old aged oak and pine. Let this stand develop naturally.							
67	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	0	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> 2020: small oak stand with nearby recent harvests. Maintain for diversity and older age structure at this time.							
68	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access seems to have been granted in past from adjacent landowners to treat parts of this area.							
69	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Creek and horse trail bridge to north and private lands/lowlands to south.							
70	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access to stand is blocked by two creeks. Volun is not sufficient to promote bridge improvements							
71	<b>Available</b>	<b>2B: Unknown if access through adjacent landowner(s) is possible</b>	16	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This stand should be regenerated if access can be obtained but not this entry. Large area of early succession to the west. Retain this stand until next entry.							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 54

Year of Entry: 2024

72	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	28	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Other side of county road was recently harvested. Let that stand develop before							
73	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Access seems to have been granted in past from adjacent landowners to treat parts of this area.							
74	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Treating areas to north and south this entry.							
75	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Small stand between private land and large new plantation. Retain for diversity							
76	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> New plantation on 3 sides of this small stand. Keep for age diversity.							
77	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This stand has a unique -older white pine canopy with youger stand developing in gaps. Keep for diversity.							



## Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 54

Year of Entry: 2024

78	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
79	Unavailable	5E: Long-Term Retention	9	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
80	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
81	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Harvesting part of stand to south this entry. Save this area for age class diversification.							
82	Unspecified	Unspecified	0				
<b>Comments:</b>							
83	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Traverse City Mgt. Unit

Pat Ruppen : Examiner

Compartment: 54

Year of Entry: 2024

84	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
85	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Allow understory to develop							
86	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
87	<b>Unavailable</b>	<b>1C: Other dept or div proc/practices</b>	74	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> See locked comments							
88	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Recent harvest in adjacent stand to north. Hold until next 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
<b>Comments</b>	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	<b>SCA Proposa</b>	34
<b>61054047</b> <b>Comments</b>	Type 1 or Type 2 Old Growth	Possible Type 2 Old Growth Area	<b>SCA</b>	7
<b>61054126</b> <b>Comments</b>	Habitat Area	Other Habitat Area	<b>SCA</b>	187



**Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

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

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

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Type 1 and Type 2 Old Growth	Old-Growth forest (also termed primary forest, ancient forest, virgin forest, or primeval forest) is an area of forest that has few or no signs of human disturbance and that exhibits unique ecological features related to age, composition and associated structure. Old growth forests are of natural origin. They may be dominated by late successional forest species (i.e. sugar maple and American beech), or may be a very old example of a stand dominated by long-lived early- or mid-seral species (i.e. oak, or red pine).
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																				
1	4126 - White, Black, N. Pin Oak	Sawtimber Well	5.8	122	51-80	N/A	2022: Small mixed stand adjacent to large recent harvest. Keep for diversity. 2011FMD; Oak log/poles with a little pine and red maple. Most is white oak. Basal area is not too high.																																																				
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2	4310 - Pine, Oak Mix	Sawtimber Poor	90.1	85	1-50	N/A	2022: TS# 61-011-18. Harvested 2021. Cut all merchantable but not green marked retention of oak and pine and oak and white pine 6"dbh or less. Stand had substantial oak saplings in understory. Cut only jp in strip along west side due to green up concerns with adjacent stand. Expect new group of oak and maple sprouts to form from this harvest and some jp to re-start. 2011FMD; Mixed oak.rp/jp. Most oak is age 75 - small logs-poles. Red pine in stand is much better than jack pine in growth and form. This stand has a good bit of oak understory in places so it may be hard to re-plant red pine. May be able to weave some red pine in where advanced regeneration is not too much.																																																				
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3	3202 - Autumn Olive/Honeysuckle	Nonstocked	1.7		Unspecified	No	Old well pad planted to autumn olive-filling in with jack pine. Last well drilled from this pad was plugged in 1989. Used for landing 2021																																																				
4	42221 - Natural Jack Pine, Mixed Deciduous	Poletimber Well	20.5	30	1-50	N/A	2022: Residual pine and oak with natural jp and white oak saplings/poles. TS# 024-87. Cut all merchantable but do not cut trees marked with green or blue and do not cut any red or white pine. TCR 1/91 PI Stands 4 and 5 were both in this sale. 2011FMD; Scattered oak and pine overstory with moderate-thick oak and jack pine regen with a little planted red pine age 20. Younger age is too advance to remove overstory. Let this age grow through.																																																				
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5	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Medium	37.1	30	51-80	N/A	2022: Planted red pine with natural jack pine and white oak growing through oak and pine scattered residual. Red pine stocking is variable with some areas not planted. Open area in east that was trenched but had little survival. Cherry and jp in low density. Good height growth on red pine in last 15 years after slow start. Areas that were not planted stocked with jp. 2002: TS# 024-87. Cut all merchantable but do not cut trees marked with green or blue and do not cut any red or white pine. TCR 1/91PI Stands 4 and 5 were both in this sale. Planted 1992 3/0 red pine. 2011FMD: Scattered older Red pine age 73 and oak age 112 with planted red pine age 20. Some of the younger red pine is starting to grow but some is not. There were a lot of problems with the planting is this year. Need to let this stand develop and second age grow through.																																																				
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>6</b>	4310 - Pine, Oak Mix	Sawtimber Well	17.5	122	81-110	N/A	2022: Mix of white oak and patchy jp. Jp could go but may hold till next entry. Some patchy oak regeneration. Could mark some retention of better formed oak and pine and cut to regenerate. Oak is lower quality. 2012: older oak with jack pine aged 55-60. This stand will likely fill in with oak when the jack pine is removed. Could hold for now an let jack pine grow in and oak understory develop.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	2	Pole	7		White Oak	Medium	5 - 10 feet	Sapling
Red Pine	5	Log/Pole	12	85	Red Oak	Low	5 - 10 feet	Sapling
Jack Pine	30	Pole	8	67	White Pine	Low	10 - 20 feet	Sapling
White Pine	10	Pole	8					
Red Oak	5	Log/Pole/XLog	14	125				
White Oak	45	Log/XLog	14	122				
Red Maple	3	Pole/Log	9					

<b>7</b>	4310 - Pine, Oak Mix	Sawtimber Well	9.7	150	111-140	N/A	2022: Large old scattered oak and pine with nice red pine mixed with wp and jp. This could be thinned if nearby but would be good to manage this as a pocket of large older trees. 2011FMD; Large old WO WP RP with planted rp 75 and jp rm oak/wp/ poles and logs grown in gaps. Looks like red pine was planted through old oak/pine grove. Neat stand with old growth look. Could try to grow big pine with the oak. Not much jack pine to loose in this stand. Just let stand develop.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	40	XLog/Log	22	150	White Oak	Medium	5 - 10 feet	Sapling
White Pine	25	Log/Pole	14	85	White Pine	Low	>20 feet	Sapling
Red Pine	25	Log/Pole	14	85	Red Oak	Low	5 - 10 feet	Sapling
Jack Pine	5	Log/Pole	10	85	Black Cherry	Low	5 - 10 feet	Sapling
Red Maple	5	Pole/Log	9		Red Pine	Low	10 - 20 feet	Sapling

<b>8</b>	42290 - Natural Mixed Pine	Sawtimber Well	73.8	85	81-110	N/A	2022: Mix of jack pine and red pine with mixed white oak sizes. . Jack pine is declining and red pine is getting large. Red pine had good diameter growth but has open grown look. Would probable do well here if properly stocked. Some patches of white oak saplings but generally light regen in stand. Could be some frost influence in the long lower area but the red pine is present there. More oak sapling on flats. Oak may not fill in in the lower areas. Consider harvesting this and planting red pine. May be a good place to managed for a mixed stand with a red pine component. Could retain some well formed oak and pine and weave red pine through stand. May need to spray to control oak sprouting initially. Don't know if this will regenerate well naturally. Stand across Mayfield road to the north is going to be harvested. May need retention along Mayfield Road. Don't think this jack pine could hold. 2012:stands 12,8,7 were all one J6 stand in o/i. 2011FMD: Some big older pine and oak scattered around. Most oak is likely in the 75 age small logs/poles. Ground is gently rolling. Not a lot of advanced regeneration but stocking is not too high in a lot of it. When this site is harvested it probably should be planted because it doesn't seem to be regenerating naturally. Could harvest this entry or wait until next entry. Not the best looking site. Most trees are a bit stunted looking. Old burnt pine stumps.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black Cherry	2	Pole	8		White Oak	Low	5 - 10 feet	Sapling
Jack Pine	45	Log/Pole	10	85	White Pine	Low	Variable	Sapling
White Pine	8	Pole	8		Red Oak	Low	5 - 10 feet	Sapling
Red Pine	25	Log	14	85	Black Cherry	Low	5 - 10 feet	Sapling
White Oak	20	Log	12	85				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>9</b>	4310 - Pine, Oak Mix	Sawtimber Well	9.3	85	81-110	N/A	2022: Old barrens look with older oak and pine scattered in stand with rm aspen, jp growing in second age. Generally low quality. Could cut back to barrens look with big oak and pine retained. 2011FMD: big old red and white oak with oak poles/red maple pole from stump sprouts/aspen logs rp/wp/jp.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Oak	10	Log/Pole/XLog	14	122	White Pine	Low		5 - 10 feet	Sapling
White Oak	20	Log	14	122	Black Cherry	Low		5 - 10 feet	Sapling
Bigtooth Aspen	10	Log	15	85	White Oak	Medium		5 - 10 feet	Sapling
White Pine	25	Log/Pole	10	85	Red Oak	Low		5 - 10 feet	Sapling
Red Pine	10	Log/Pole	14	85	Red Maple	Low		5 - 10 feet	Sapling
Jack Pine	10	Log	12	85					
Red Maple	15	Log/Pole	10						

<b>10</b>	4310 - Pine, Oak Mix	Sawtimber Poor	92.8	125	1-50	N/A	2022: Variable stocking. Mix of oak, rp,wp. Looks like the white pine poles were left at last harvest along with the oak and red pine. A general second age has formed in the 24 years since harvest. Some pockets of oak regen 5-19' but a lot is still seedling status. Pockets of white and jack pine regen. Heavier on the east side of stand. Complicated stand with the varied residual stocking and regen. Could possible reduce the canopy density of could just let this stand grow in. 2002FMD: O7W4O2M1 Jack pine has been removed from stand TS# 029-95 Cut all jp wp mix hwd. Do not cut rp or oak. Most cut jp some wp and mix hwd. TCR 4/96 2011FMD; Consider removing more of the overstory to bring along new stand before it would cause excessive damage. Areas of this stand have acceptable stocking in understorey -most is jack pine/white pine -but a lot of this is stand does not have good regen at this time -there are oak seedlings throughout. Could remove most red pine and oak and let this stand fill in or trench and plant red pine.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Maple	5	Pole	8		Red Maple	Low		5 - 10 feet	Sapling
Red Oak	10	XLog/Log	18	125	White Pine	Medium		5 - 10 feet	Sapling
White Oak	40	Log/Pole/XLog	14	125	Red Pine	Low		5 - 10 feet	Pole
White Pine	15	Pole	8		Red Oak	Low		< 5 feet	Sapling
Red Pine	30	Log/Pole	12	85	White Oak	Medium		5 - 10 feet	Sapling
					Jack Pine	Medium		5 - 10 feet	Sapling

<b>11</b>	4310 - Pine, Oak Mix	Poletimber Poor	6.6	30	1-50	N/A	2022: Low stocked old open area.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	10	Log/Pole	12		White Oak	Low	< 5 feet	Sapling
Jack Pine	50	Pole	6	30	Black Cherry	Low	5 - 10 feet	Sapling
Black Cherry	10	Log/Pole	10		Jack Pine	Low	5 - 10 feet	Sapling
White Pine	5	Pole	5	30	Red Maple	Low	5 - 10 feet	Log
Red Oak	10	Log/Pole	12	93				
Red Maple	15	Log	12					

<b>12</b>	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	26.2	30	51-80	N/A	2022: Decent height growth of planted red pine the last 12 years but still a lot of issues with this. Areas of suppressed and defective trees. Mixed density. Some small area of aspen clones and cherry brush. Some white oak saplings working through. Stand needs time to grow in. 2002FMD: R3 TS # 025-87. TCR 8/91 PI stands 11,13,14 all in sale. Cut all but red and white pine and marked retention. Planted 1992 3/0 red pine. 2011FMD: 75 yr old rp in scattered overstorey with 20 yr old rp planted under. This planted pine had a lot of trouble getting started as did other sites planted that year. Some is stating to grow now but there are still problems with health and vigor. Jack pine is out growing red pine.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Black Cherry	10	Sapling	3		Black Cherry	Low		< 5 feet	Sapling
Quaking Aspen	2	Sapling/Pole	4		White Oak	Low		< 5 feet	Seeding
Red Oak	5	Sapling	3						
Red Maple	5	Sapling/Pole	4						
White Oak	8	Sapling	3	30					
Jack Pine	10	Pole/Sapling	6	30					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>13</b>	42290 - Natural Mixed Pine	Sawtimber Well	64.5	85	111-140	N/A	2022: Snow drift Mix 61-035-18. Prepped but not sold. May want to mark some more red pine and white pine and poor quality if found if this needs to be re-cruised. Stands seem to regenerate well with less overstory. 2001:PI stands 12,8,7, were all one J6 stand in o/i. 2011FMD: most of stand is 75 yr old jack pine and red pine with scattered large canopy oak. areas with well stocked younger age jp/wp age 40-45. Most is along west side. Some areas with light -moderate oak regeneration. some pockets of saplings 10-20'. Could cut back to large scattered oak and older pine and trench and plant rp. MAY WANT TO WORK AROUND POCKETS THICK WITH 40-45 YR JP/WP. Red pine grew well in this stand. Ground lays good. Not too heavy with advanced regeneration at this time but there are some areas heavier with oak.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Pine	14	Pole	7		White Oak	Low		5 - 10 feet	Sapling
Red Pine	18	Log	13	85	White Pine	Low		5 - 10 feet	Sapling
Red Oak	2	Log	14	122	Red Oak	Low		5 - 10 feet	Sapling
Red Maple	10	Log/Pole	10		Red Maple	Low		5 - 10 feet	Sapling
Black Cherry	2	Pole	8		Black Cherry	Low		5 - 10 feet	Sapling
White Oak	12	Log	12	122					
Jack Pine	40	Pole/Log	9	85					
Bigtooth Aspen	2	Pole	7						
<b>14</b>	4310 - Pine, Oak Mix	Sawtimber Well	66.8	92	81-110	N/A	2022: Mixed sizes logs/small log/poles. Younger aged oak, pine and red maple generated from last harvest-age 47. Jack pine is falling out of stand. Low quality stems except for the rp/wp. Some smaller acreage aspen clones. The oak and red maple in the younger age class is low quality but there are some well formed white oak saplings and poles. Some large older wolfy oak scattered. The red and white pine had good growth and is getting large. Some younger ages of white pine and oak but not enough to keep good stocking if the older age class is removed. May want to final harvest part or all of this stand and plant red pine. May want to remove the larger pine and the poor quality and let the oak understory develop. There is a general oak seedling layer at this time but not advanced. West part of stand could be thinned with stand 65. The most successful action may be to simply harvest and re-plant. Stand 13 to north has been prepped and not sold. 2002fmd: Scattered pine and hardwood over the oak regeneration O3M2J4M4. FMD2011: stand is low-moderately in the older age class with oak/wp/rp/jp. age 80-100. The 38 yr age class is trying to grow through with wp, oak, red maple, aspen. The second age is pretty scraggly with the amount of canopy that it is trying to grow through. There is in addition, a fair amount of oak seedlings and white pine saplings in places. Consider getting some of the overstory out to release second age or let it all grow in together. Have concern about the white pine in the stand getting too large if it is left. Average 14" dbh current. Also have concern about damage to the 38 year class. Counted both ages in canopy.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Oak	10	Log/Pole	14	100	White Pine	Medium		< 5 feet	Sapling
White Oak	20	Log/Pole	14	100	White Oak	Medium		< 5 feet	Sapling
Bigtooth Aspen	3	Pole	8	48	Red Maple	Low		5 - 10 feet	Sapling
Jack Pine	4	Log/Pole	10	92	Red Oak	Low		< 5 feet	Sapling
White Pine	25	Log	15	92					
Red Pine	23	Log	13	93					
Red Maple	15	Pole	8	48					
<b>15</b>	42290 - Natural Mixed Pine	Sawtimber Poor	59.6	85	51-80	N/A		2022: Oak in canopy gaps is slowly advancing. 10-20' and some 20+. Some younger jp called in canopy. Too much overstory may have been left for regeneration harvest or this could have been removed after 10 years. Let stand develop. Not many options at this time without damaging younger age class. Factor limit for regeneration. 2002FMD: R7 Stand was cut in 1991 with scattered pine and oak left. Area is regenerating to oak red maple rp jp. TS # 025-87. TCR 8/91 PI stands 11,13,14 all in sale. Cut all but red and white pine and marked retention. 2011FMD: Thick mixed regeneration through most of stand. Will have to leave overstory and let stand develop. South end of stand is mostly rp in overstory and less understory has developed. A little bit of planted rp age 20 on west side of stand.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
White Pine	30	Log	16	85	Red Pine	Low	5 - 10 feet		Sapling
Red Pine	40	Log	15	85	Jack Pine	Medium	10 - 20 feet		Sapling
Jack Pine	10	Pole	6	30	Black Cherry	Low	10 - 20 feet		Sapling
White Oak	10	Log	14	122	Red Oak	Low	>20 feet		Sapling
Red Oak	10	Log	14	122	White Pine	Low	10 - 20 feet		Sapling
					Bigtooth Aspen	Medium	>20 feet		Sapling
					Red Maple	Low	>20 feet		Sapling
					White Oak	Medium	>20 feet		Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
<b>16</b>	42250 - Pine, Oak	Sawtimber Poor	12.4	85	1-50	N/A	2022: Planted red pine density is variable. Some pockets of white oak saplings and some jp pockets. Red pine is 4-5" dbh. Decent height growth last 12 years. Canopy also has variable stocking. Should move younger age to canopy next entry. 2002FMD R3 TS # 025-87. TCR 8/91 PI stands 11,13,14 all in sale. Cut all but red and white pine and marked retention. Planted 1992 3/0 red pine. 2011FMD; Use residual pine and oak for canopy calls and stand age 75. Residual pine and oak with planted red pine age 20 and mix filling in. Planted red pine is starting to grow but had a bad start. Issues with these plantings from that year. Will have to let this stand grow in.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Red Oak		15	Log	14	122	White Pine		
White Oak		25	Log	13		Black Cherry		
White Pine		10	Log	15	85	Red Oak		
Red Pine		50	Log	15	85	Red Pine		
						Red Maple		
						Jack Pine		
						Bigtooth Aspen		
						White Oak		
						<b>Density</b>		
						<b>Avg. Height</b>		
						<b>Size</b>		
<b>17</b>	4122 - Oak, Pine	Sawtimber Well	18.8	112	51-80	N/A	2022: Mixed sizes of oak with pine overstory in lower stocking. Good bit of white pine growing through along with oak and red maple seedlings and saplings. Let stand develop. 2011: Was part of TS# 044-95.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Red Pine		10	Log/Pole	10	92	White Pine		
White Pine		30	Log	12	92	White Oak		
Red Oak		20	Log/Pole	14		Jack Pine		
White Oak		40	Log	13	112	Red Oak		
						Red Maple		
						<b>Density</b>		
						<b>Avg. Height</b>		
						<b>Size</b>		
<b>18</b>	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Well	77.3	30	1-50	N/A	2022: Planted red pine with natural jack pine. Red pine continues to struggle along., This plantation seemed to have many problems since the start. The trees that are not suppressed and stagnant have had decent growth over the last decade. Let stand develop. 2002FMD: R3 Scattered oak and red pine saw. TS# 026-87 TCR 9/91 Cut all merchantable but no red pine and no blue marked. Sold JP OAK and MX HWD. Planted 1992 3/0 Red pine. 2011FMD: Planted red pine that was part of a number of plantations done in that year that had many issues is the early years. Trees may have been J rooted or problems with stock. Jack pine and black cherry are major components of this stand at this time. Red pine has been growing the last 7-8 years. The edges are worse but it looks a little better as you get back in to the interior of stand. Just et this stand develop. May eventually convert to oak. A fair amount seems to be getting started in sub-canopy of pine.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Red Oak		5	Sapling	4		Black Cherry		
White Oak		5	Sapling	4		Red Maple		
Red Pine		35	Pole	5	30	Red Oak		
Jack Pine		35	Pole	6	30	White Oak		
Black Cherry		20	Sapling/Pole	4	30	<b>Density</b>		
						<b>Avg. Height</b>		
						<b>Size</b>		
<b>19</b>	3102 - Grass	Nonstocked	2.5		Unspecified	No		Old well pad, plugged 1999. Looks like it may have some soil. Decent vegetation.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>20</b>	42290 - Natural Mixed Pine	Sawtimber Well	51.0	93	81-110	N/A	2022: The jack pine in this stand is falling out and should be harvested. Consider removing jack pine and larger red pine. This should increase the formation of oak understory that could be release in ten or twenty years by the removal of most of the remaining overstory. A better option may be to cut this and re-plant red pine. The red pine has grown well here and is getting oversized. There is a lot of surrounding acres that is going to oak mixes. This stand does not have a heavy oak understory at this time but it is considerable. There is a good bit of nice formed WO saplings and small poles mixed through . Could go through and green mark those and cut the rest to 1" Keep some other pine and larger oak scattered around. This stand would go to upland mix and mostly white oak. Depends on if we want to fight for some new red pine stands in this area. Most all has been lost to upland mixes.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Oak		14	Pole	7		White Oak		Low	5 - 10 feet	Sapling	
Red Pine		50	Log/Pole	13	93	Red Oak		Low	5 - 10 feet	Sapling	
Jack Pine		30	Log	11	93	Black Cherry		Low	5 - 10 feet	Seeding	
Black Cherry		2	Pole/Sapling	8							
Red Oak		2	Pole/Sapling	8							
Red Maple		2	Pole/Sapling	8							

<b>21</b>	4126 - White, Black, N. Pin Oak	Sapling Poor	79.1	20	1-50	N/A	2022: Scattered oak logs and a few red pine poles with oak saplings/poles/seedlings. A small amount of jp seedlings. 2018: TS# 010-14. Cut to 4" but no green marked. Removed jp/oak over-story to release advanced oak understory. Good stocking of oak saplings and poles after harvest. Expect the rest to fill in with oak,rm, jp,wp. Stand was part of two O/I stands J6/J5 Red pine site index better represents site. South half of stand was cut in 2005. 2011FMD; Most is planted red pine and natural ? jack pine with scattered white oak logs and poles. RP>JP ration in canopy changes around stand. Some wp regen pockets in understory. Pockets of oak regen inunderstory where jack pine is declining but there is not too much at this time. May be able to harvest most stems and trench and plant this-however-consider greenup requirements for stand to the south which is not generally 5' tall. But if this stand is carried on till next entry there is a risk of jack pine declining and oak coming in to the point that options are limited. We have a lot of pine ground converting to oak in this area so it may be good to try to get this stand back in pine. Red pine grew much better than jack pine.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		10	Pole	8	85	White Oak		Medium	< 5 feet	Seeding	
White Oak		75	Sapling	2	20	White Pine		Low	< 5 feet	Sapling	
White Oak		5	Log	12	122	Jack Pine		Low	< 5 feet	Sapling	
Black Cherry		5	Sapling	2		Red Oak		Low	< 5 feet	Seeding	
Red Oak		5	Sapling	2		Red Pine		Low	< 5 feet	Sapling	
						Red Maple		Low	5 - 10 feet	Sapling	
						Black Cherry		Low	5 - 10 feet	Sapling	

<b>22</b>	6229 - Mixed lowland shrub	Nonstocked	5.6		Unspecified	No	2022: Low density trees with tag alder
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<b>23</b>	42290 - Natural Mixed Pine	Sawtimber Well	6.5	92	111-140	N/A	2022: Nice pine mix on slope. Good bit of wp saplings growing through in places. 2011: Slope and transition zone against the creek bottom. Red and white pine along slope and red maple poles along bottom. More white pine canopy and understory on west side.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Oak		10	Log	16	100	White Pine		Medium	Variable	Sapling	
White Pine		30	Log	14	92	Balsam Fir		Low	5 - 10 feet	Sapling	
White Oak		10	Log	15	100						
Northern White Cedar		5	Log/Pole	12							
Red Pine		40	Log	13	92						
Red Maple		5	Pole/Log	8							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**24** 42250 - Pine, Oak Sawtimber Poor 99.6 93 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	5	Log	14		Jack Pine	Low	5 - 10 feet	Sapling
Red Pine	55	Log	13	93	Red Oak	Low	5 - 10 feet	Sapling
White Pine	5	Log	12		Red Pine	Low	5 - 10 feet	Sapling
White Oak	35	Log/Pole	12	93	White Oak	High	5 - 10 feet	Sapling
					White Pine	Low	5 - 10 feet	Sapling
					Red Maple	Low	5 - 10 feet	Sapling

2022: TS# 61-010-18. Harvest 2020. Cut to 4" but no white pine or green marked trees. Shelter-wood/seed tree harvest. Mix of advanced oak regeneration 5-10' from 2009 harvest and new sprouts from 2020 harvest. Some open areas. Should result in well stocked regeneration, Could switch stand to sapling pole stand next entry.

**25** 790 - Other Bare/Sparsely Vegetated Nonstocked 1.7 Unspecified Active oil well pad: STATE UNION S2-29

**26** 6129 - Mixed Coniferous Lowland Forest Sawtimber Medium 8.2 146 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Hemlock	10	Log/Pole	12		Balsam Fir	Low	< 5 feet	Sapling
Tamarack	20	Log/Pole	12		White Pine	Low	< 5 feet	Sapling
Red Maple	15	Pole/Sapling	6					
Balsam Fir	10	Log/Pole	12					
Northern White Cedar	35	Log/Pole	12	146				
Black Spruce	10	Log/Pole	12					

2022: Heavy blowdown in areas. Some parts well stocked. New stand growing into blowdown areas with cedar, fir, birch seedlings and saplings. Large elevated hunting blind with footbridge may be on state land on south line. 2011: Stands 20 and 24 were one stand in o/i. C6 age 136 2011FMD: Lowland mix along east creek. Pretty heavy human use from private side with quad trails /bridge /blinds. Bridge and blinds are likely on private side.

**27** 4191 - Mixed Upland Deciduous with Conifer Sapling Medium 77.5 23 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	5	Sapling	2	23	Red Maple	Low	5 - 10 feet	Sapling
Red Pine	15	Pole	7	30	Red Oak	Low	5 - 10 feet	Sapling
Red Maple	15	Sapling	1	23	White Oak	Medium	5 - 10 feet	Sapling
White Pine	25	Pole	7	30				
White Oak	30	Sapling	1	23				
Red Oak	10	Sapling	1	23				

2022: Several ages in stand with pine and oak retention from last sale, oak sprouts from 2016 harvest and oak sprouts from 1998 harvest. Stand is filling in well with thick oak regen in areas. Pine and oak retention from last treatment is variable with some patches of well stocked pine poles. May want to remove some more overstory at some point or just let stand develop as is. Horse trails through stand from private on south. 2016: TS# 011-14. harvested 10/2016. Over story removal. Cut all merchantable except no wp/rp 8" or less and no green marked.. Heavy oak understory with rm/wp/jp/aspen. A fair amount of wp/rp under 8" were left along with some larger pine and oak that was green marked. Called old understory as new canopy. 2011: Part of this stand was R5 from o/i age 83. Most was O8 age 102 TS# 044-95. Three units with different specs but generally cut all jp wp aspen rm and larger wo pin oak. Left all rp and ro and wo under 14/16 dbh. West side was orange marked. TCR 7/98.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																												
<b>28</b>	42250 - Pine, Oak	Sawtimber Well	21.2	85	81-110	N/A	2022: This stand should be harvested as the jp is declining and the red pine is getting oversized. Some oak log sized pockets. Heavy poor quality oak brush under 5-10' and some rm pockets 10-20'. Some well formed white oak poles scattered around and some well formed oak log trees. Most of the oak is low quality. Would be best to mow this with scattered retention to regenerate the stand and cause sprouting or to burn after harvest to re-start. Stocking is variable. Large area to the north has been recently harvested. 2002FMD: Delayed treatment for diversity. Remnants of old planting. Stand to west is o6 and age is younger. 2011FMD: Oak with planted pine. Some big old white pine. Good bit of oak and pine seedlings and saplings as well as areas with heavy red maple saps 10-20'. More jp on east side of stand. This stand should be harvested soon to release understory and get jp before it all falls out. Cut most over story and leave retention of well formed oak and pine for mast and seed production.																																																												
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<b>29</b>	4310 - Pine, Oak Mix	Sawtimber Poor	47.5	127	1-50	N/A	2022: Good oak sprouting but getting browsed. Mix of sprouts from 2020 harvest and saplings from 1996 harvest. Patches with thicker wp saplings and poles. Thickets of oak saplings that were un-disturbed from last harvest. Pine overstory should shelter oak regeneration as it develops May be able to retain pine until oak is ready to thin initially. TS# 61-010-18. Harvest 2020. Cut to 4" but no white pine, red pine 8" or less or or green marked trees. Shelter-wood/seed tree harvest. 2002FMD O8 Retention of stand for regeneration. Shelter-wood? TS# 031-95. TCR 8/96 Cut all jp wp mx hwd rp over 12" dbh and wo/po over 16" dbh. Do not cut ro or rp less tha 12" dbh. Snowmobile trail 2011FMD: Cut 15 yrs age. Understory is developing and growing through in places but there is too much remaining overstory in most areas of stand. Should consider removing most overstory and allowing new stand to develop.																																																												
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<b>30</b>	4133 - Aspen, Mixed Pine	Sapling Well	4.9	25	51-80	N/A	2022: Aspen growing through pine and oak residual with wp and oak saplings. Aspen growth is variable with 2-5" dbh at this time. Let stand develop. 2011: CR 11/96. Three units with different specs but generally cut all jp wp aspen rmand larger wo pin oak. Left all rp and ro and wo under 14/16 dbh. West side was orange marked. TCR 7/98. 2011FMD; Aspen clone cut in last sale. Broke this stand out due to aspen density. Scattered older pine and oak in canopy. Count aspen regen as first age.																																																												
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<b>31</b>	3302 - Low Density Conifer Trees	Nonstocked	1.6		Unspecified	No	Old well pad, plugged 11/21/73. Jack pine around edges																																																												
<b>32</b>	330 - Low-Density Trees	Nonstocked	1.3	0	Unspecified	No	2022: LOW DENSITY TREES. Illegal roads taking off through forested stands from this point.																																																												



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<b>33</b>	4126 - White, Black, N. Pin Oak	Sawtimber Poor	19.4	100	1-50	N/A	. 2022: very good aspen, rm, oak and wp regen in areas. Residual older oak and pine from last harvest scattered through stand. Good growth and stocking. Some oak seedlings advancing with aspen and rm sprouts. TS# 024-14. Cut to 4" but no rp/wp<8" or green marked. Harvested 12/2016 2002FMD: A6 O7 and grass in north end of stand 2011FMD; MADE NEW STAND IN NORTH. PI St 168. Some aspen clones are good quality while others seem to lack vigor. Stand is patchy. Patches of jack pine in stand and jack pine seeding in in places. Consider cutting to regenerate. Could work in with stands 160, 168 and NF 56 to make some nice habitat.																																																														
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<b>34</b>	3303 - Mixed Low Density Trees	Nonstocked	2.3		Unspecified	No	Old well pad, plugged 1999. Bushy JP fill in . Used for landing 2020.																																																														
<b>35</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	11.5	85	81-110	N/A	2022: Stocking is variable with oak and pine logs. Good bit of oak scrub under. Red pine is smaller diameter that surrounding stands. Not a risk of getting over-sized soon. Could hold this stand and let understory develop further. Could remove most overstory at this time keep some well formed oak and smaller red pine. 2011: PRETTY SIMILAR TO PI ST 157 TO EAST. MORE WO IN CANOPY AND MOST ASPEN IS NOT CUT WP POLES FILLING IN CANOPY GAPS. RED MAPLE STUMP SPROUTS AT AGE 50? LET STAND DEVELOPE AND WHITE PINE GROW IN.																																																														
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<b>36</b>	4122 - Oak, Pine	Sawtimber Well	6.8	120	81-110	N/A	2022: Similar to stand 38 to east . Could treat together. Remove most oak and pine to release advanced understory. Could cut most oak and RP 6" and over.  Would be ideal for hot prescribed burn after harvest to restart oak scrub.																																																														
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<b>37</b>	4310 - Pine, Oak Mix	Sawtimber Poor	41.4	122	1-50	N/A	2022: Good regeneration of white oak, jp, wp growing under residual oak and pine. Let stand develop. Not enough canopy to be concern. TS# 069-06 Cut all jp aspen wp rm bc. TCR 5/09.																																																														
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**38** 4126 - White, Black, N. Pin Oak Sawtimber Well 25.9 120 81-110 N/A

2022: Lower stocked mix of oak and red pine. A good bit of smaller red pine poles that could be retained for shelter with most of the oak and larger pine removed. Advanced oak understory should develop. Good oak understory in most areas. A hot prescribed fire after harvest would be ideal for this stand to regenerate quality oak sprouts.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	5	Log	11	85	White Pine	Medium	>20 feet	Sapling
Red Oak	20	Log	14	120	Red Maple	Low	5 - 10 feet	Sapling
Jack Pine	5	Pole/Log	8	85	Red Oak	Low	5 - 10 feet	Sapling
White Oak	45	Log	13	120	Red Pine	Low	>20 feet	Sapling
Red Maple	10	Pole/Log	9		White Oak	Medium	5 - 10 feet	Sapling
White Pine	5	Log/Pole	10	85				
Red Pine	10	Pole/Log	8	85				

**39** 3302 - Low Density Conifer Trees Nonstocked 1.9 Unspecified Active gas well State Union 3A-29.

**40** 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 36.4 74 81-110 N/A

2022: The red pine in this stand is getting oversized. There is some quality red oak in this stand scattered around and some large older oak and white pine in places. Really good growth on the red pine with 14-16" diameters and 73 years. Heavy red maple poles and sapling growing through in the pine heavy areas. Some jp left in stand. Some oak understory on west side. Difficult stand to prescribe with the amount of red maple understory. Not enough quality to merit thinning and most of the pine should come out anyway. The red maple would be hard to control if harvested but this seems to be an excellent red pine site. May want to harvest part of this stand and treat with stands 50,54.  
2011FMD: OLDER PINE AND OAK WITH 75 YR CLASS OF PINE, OAK, ASPEN/RM AND A DEVELOPING POLE/SAPLING STAND GROWING IN FROM LAST HARVEST. SOME BETTER LOOKING RED OAK-LOOKS LIKE BETTER SOIL. A GROVE OF LARGE OLD WP IN CENTER AND AREAS HEAVIER TO RED PINE. AREAS OF STAND WITH HEAVY RM SAPS AND SOME AREAS HAVE A GOOD BIT OF RED PINE POLES. PRETTY MIXED UP STAND. COULD GET SOME PINE AND POOR QUALITY OUT BUT THE WHAT? MAY BE BEST TO LET IT GROW IN UNTIL IT MAKES MORE SENSE.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	10	Log	12	85	White Oak	Low	< 5 feet	Seeding
Jack Pine	3	Log	12	85	Red Maple	Medium	10 - 20 feet	Sapling
Black Cherry	2	Log	10		White Pine	Medium	Variable	Sapling
Red Maple	15	Pole	6	48	Red Oak	Low	< 5 feet	Seeding
Red Oak	20	Log	16	120				
Bigtooth Aspen	10	Log	14	85				
White Oak	15	Log	16	120				
Red Pine	25	Log	14	74				

**41** 4126 - White, Black, N. Pin Oak Sawtimber Medium 60.4 93 1-50 N/A

2022: Pretty heavy oak understory formed in most areas. (10-15') Most is WO. Some areas with poor understory development. . Could remove most overstory. Cut to 6" dbh? TS# 077 04. TCR 8/05 Cut all rm wp bc jp aspen. Do not cut oak or rp 2011FMD: LEFT mix of oak logs/poles and red pine logs after last treatment. Heavy oak regen but little red pine regen. Let stand develop.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	60	Log	16	93	Red Maple	Low	5 - 10 feet	Sapling
Red Pine	10	Log	12		White Pine	Low	5 - 10 feet	Sapling
Red Oak	30	Log	16	93	Jack Pine	Low	5 - 10 feet	Sapling
					Red Oak	Low	5 - 10 feet	Sapling
					Black Cherry	Low	5 - 10 feet	Sapling
					White Oak	High	5 - 10 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
42	4122 - Oak, Pine	Sawtimber Poor	22.0	85	1-50	N/A	2022: Good pockets of Oak regen 10-15'. Most is WO. More overstory than desired but needs to remain due to advanced oak regeneration. TS# 077 04. TCR 8/05 Cut all rm wp bc jp aspen. Do not cut oak or rp. Good oak regen in places 5-10'. Jack pine is filling in a little behind. There must have been a good bit of advanced oak and white pine regen when this was cut as a lot or it is 5-10' tall. A little red pine growing in and some aspen clones regenerating. Too much overstory left in places but just let this stand develop. Mix of oak logs/poles/saps/seedlings and white pine poles and saps.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Oak		20	Log	16		White Pine		Low	5 - 10 feet	Sapling	
White Oak		50	Log	16	85	Jack Pine		Low	5 - 10 feet	Sapling	
White Pine		10	Pole/Sapling	6		Bigtooth Aspen		Low	>20 feet	Sapling	
Red Pine		20	Log	13	85	Red Oak		Low	10 - 20 feet	Sapling	
						White Oak		Medium	10 - 20 feet	Sapling	
						Red Pine		Low	5 - 10 feet	Sapling	
43	3302 - Low Density Conifer Trees	Nonstocked	1.2		Unspecified	No		2022: OLD WELL PAD WITH JACK PINE GROWING IN. Well plugged 1973.			
44	6225 - Bog	Nonstocked	2.4		Unspecified	No		2022: Small low pocket. Lowland shrub with lowland trees on edges.			
45	4126 - White, Black, N. Pin Oak	Sawtimber Medium	81.5	100	51-80	N/A	2022: Good bit of oak regen (5-10') in patches. Most is white oak. Some areas of stand are lacking in new age formation. Could reduce stocking and canopy closure to encourage second age to advance and form in voids. Retain better formed oak and pine @ 20-40 ba. May also consider waiting till next entry to allow gaps to fill in with regen. Tall pipe near where private corner should be and at south end as well on east line. Tall cedar pole on center of south line where corner may be. 2002FMD:07 Retention of stand for regeneration purposes-shelter wood? TS# 080-04. Cut orange marked-most is oak, A little rm wp. TCR 5/07 2011FMD: Stand is filling in pretty well. Good aspen where aspen was, pockets of thick oak seedlings and saplings and a good bit of white pine growing in. Let this stand develop. Flock of turkeys in area.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		10	Pole/Log	9		White Oak		Medium	5 - 10 feet	Sapling	
Red Oak		10	Log/Pole	14	100	Quaking Aspen		Medium	5 - 10 feet	Sapling	
White Oak		55	Log	13	100	Red Oak		Low	Variable	Sapling	
White Pine		20	Pole/Log	9		White Pine		Medium	Variable	Sapling	
Red Pine		5	Log	12		Red Maple		Low	5 - 10 feet	Sapling	
46	110 - Low Intensity Urban	Nonstocked	1.6		Unspecified			Producing gas well STATE UNION "AH" 2-28.			
47	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	6.0	128	111-140	N/A		2022: Nice older stand dominated by white pine. Looks healthy. In conservation viewer as potential old growth stand (SCA)			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
White Pine		60	XLog/Log	18	128	Balsam Fir			Low	5 - 10 feet	Sapling
Hemlock		10	Log	14	128	White Pine			Medium	Variable	Sapling
Red Maple		10	Pole	7							
Red Oak		2	Log/Pole	14	128						
Bigtooth Aspen		15	Pole	7	49						
White Oak		3	Log/Pole	14							





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																																	
<b>48</b>	6128 - Lowland Coniferous, Mixed Deciduous	Sapling Well	5.5	30	51-80	N/A	2022: Birch and balsam growing into larger saplings and poles. Dense stocking. Some older cedar and balsam remaining in stand. 2012FMD: C5F5C7E4 Most of old canopy is blown down. Stand is thick saplings and poles with a lot of cedar.																																																																																	
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<b>49</b>	42290 - Natural Mixed Pine	Sawtimber Well	102.2	85	81-110	N/A	2022 Red pine is getting large and jack pine is declining and falling out. Consider harvesting and re-planting red pine. Ground is flat. Red pine has good diameter growth but large tops. Open grown look. Some pockets of white oak saplings and small poles. Most of the stand does not have well developed understory but a light -moderate level of oak and cherry throughout. East side of stand is adjacent to recent planted stand. May want to either just remove jack pine and poor formed and let that go to oak or leave a buffer strip along the north edge and harvest the rest due to green up concerns. West part of stand could be harvested and planted. Leave buffer along north edge for visual management. 2002:Stand was part of two O/I stands J6/J5 Red pine site index better represents site. South half of stand was cut in 2005. 2011FMD; Most is planted red pine and natural ? jack pine with scattered white oak logs and poles. RP>JP ration in canopy changes around stand. Some wp regen pockets in understory. Pockets of oak regen in understory where jack pine is declining but there is not too much at this time. May be able to harvest most stems and trench and plant this-however-consider green up requirements for stand to the south which is not generally 5' tall. But if this stand is carried on till next entry there is a risk of jack pine declining and oak coming in to the point that options are limited. We have a lot of pine ground converting to oak in this area so it may be good to try to get this stand back in pine. Red pine grew much better than jack pine.																																																																																	
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<b>50</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	83.6	120	111-140	N/A	2022: Quality red pine growing with oak logs. Some small area aspen clones in Northeast and Southern edge. White oak understory that is not very advanced at this time. Red maple saplings and poles growing through in areas. North part of stand has larger diameters and more red pine and better quality oak. Not enough quality in general for any crown release thinning and most is mature. North part could be harvested and planted to red pine with stand 54. Red pine did well on this site. Good height growth and form. Small lowland pocket on east side. . 2011: Older oak and pine (110) with aspen , rm, oak, wp, poles growing in gaps-age 38? Also 75 yr old class of planted red pine with some white and jack pine. More red pine in north end and SW corner. Some red pine regen in younger age class and there is some scattered old aspen that was not cut last sale. Some areas have heavier white pine saps and poles. Can't see many opportunities to improve this stand at this time. Could pull some oak logs out to open canopy but the damage to the younger age class would likely be excessive. May be best to wait for second age to grow in more. Consider treatment next entry.																																																																																	
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<b>51</b>	4133 - Aspen, Mixed Pine	Poletimber Well	16.6	49	81-110	N/A	2022: Older scattered large oak, pine and cherry. Areas with good aspen stocking and other parts of stand with heavy rm,bf,wp poles and saplings. Large WP scattered throughout stand. Let stand develop. Tall pine near corner location and at north end of private. 2012FMD: A5 Stands 50 and 41 were connected in o/i 2011FMD; Scattered large white pine and oak with white pine, aspen, balsam, oak red maple in 39 yr class. This stand was cut with other adjacent stands but left a lot of residual pine and oak. Should let this stand grow in for now and consider in future entries. Good upland thermal cover for critters. Old road off private in nw corner-cross low area to north. .	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Balsam Fir		5	Pole/Sapling	6		Balsam Fir		
White Pine		25	Log/Pole/XLog	16	140	Low		
Red Maple		10	Pole/Sapling	6		Medium		
White Oak		10	Log/Pole	14	140	Variable		
Bigtooth Aspen		30	Pole/Log	7	49	Sapling		
Quaking Aspen		15	Pole/Log	7	49			
Red Oak		5	Log/Pole	14				
<b>52</b>	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	42.8	155	51-80	N/A	2022: Edge call on stand from previous field data. Water table higher at this time. 2002FMD: C5F5C7E4 2011FMD: Old canopy has been reduced with a lot of blowdown. Good sapling sized regen with a good bit of cedar fir and birch. Parts of stand are more cedar/red maple/balsam/hemlock/birch but some pockets in stand go heavier to spruce/fir/tamarack/cedar/aspen/red maple	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Yellow Birch		2	Log/Pole	10		Red Maple		
Black Ash		3	Pole	6		Low		
Quaking Aspen		10	Log/Pole	14		Medium		
Red Maple		15	Log/Pole	14		Low		
Hemlock		5	Log/Pole	12		Medium		
Balsam Fir		15	Log/Pole	10		Medium		
Tamarack		5	Log/Pole	12		Medium		
Black Spruce		10	Log/Pole	10		Sapling		
Northern White Cedar		25	Log/Pole	12	155	Sapling		
<b>53</b>	4112 - Maple, Beech, Cherry Association	Sawtimber Poor	14.4	72	1-50	N/A		2022: Un-able to access stand due to high water and private property. 2018 imagery gives the impression of a food plot or such treatment in the south end. Looks like orv trails in north end from private. 2002FMD: M7 Open grown maples. 2011FMD: Open grown red maple and cherry with heavy bracken fern. Barely a forested stand. Would be good to stick some pine in ground if we could access this stand.
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>			
Red Maple		90	Log	14	72			
Balsam Fir		3	Pole	7				
Black Cherry		4	Log	14				
White Pine		3	Log	12				





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**54** 4310 - Pine, Oak Mix Sawtimber Well 20.4 85 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	3	Log	14	85
Red Pine	55	Log	13	85
Red Oak	10	Log	16	120
White Oak	10	Log	16	120
Red Maple	10	Pole	7	48
Bigtooth Aspen	12	Log	13	48

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	Variable	Sapling
White Oak	Medium	< 5 feet	Sapling
Red Maple	Low	>20 feet	Sapling
Red Oak	Low	< 5 feet	Sapling

2022: Mix of red pine and oak. This pine is mature and should be harvested and re-planted. Some aspen patches may regenerate and red maple sprouts could be an issue for re-planting. Older aspen is declining. Good pine ground. Not a lot of advanced oak understory at this time. Motorcycle trail looping around and possibly new trail being built. Access from north. Harvest with north part of stand 50. Retention strip along stand to north and along motorcycle trail? 2011fmd: NICE PLANTED RED PINE WITH OAK LOGS AND ASPEN, RM POLES/LOGS. LOOKS LIKE MOST ASPEN WAS CUT OUT IN THE PAST -POLE SIZED NOW AGE 38? SCATTERED LARGE OLD OAK. FAIR AMOUNT OF RP SAPS 20-30 FT AND GOOD BIT OF OAK SEELINGS THAT WOULD LIKELY TAKE OFF IF CANOPY OPENED UP. MAY WANT TO GET MOST OF THE CANOPY OFF BUT WOULD ALSO HAVE TO CUT THE SMALLER ASPEN AND RED MAPLE TO PROPERLY RESTART STAND AND RELEASE OAK. MAY BE BEST TO LET YOUNGER AGE GROW IN UNTIL NEST ENTRY. PINE HAS SLOWED IN GROWTH BUT SHOULD BE ALRIGHT TO HOLD. IF THIS STAND IS TREATED PARTS OF PI STANDS 53 AND 39 THAT ARE ADJACENT ALSO HAVE A GOOD BIT OF RED PINE AND MAY BE INVOLVED.

**55** 6220 - Alder/willow Nonstocked 13.3 No

2022: Tag alder and cattails with low density trees. Transition along edges. 2012 Stand swapped from Forested to Non-Forested.

**56** 4126 - White, Black, N. Pin Oak Sawtimber Poor 7.9 102 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	5	Log	13	
Red Oak	25	Log	12	102
White Pine	5	Pole/Log	9	
White Oak	55	Log	12	102
Red Maple	10	Pole/Log	8	

Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	Low	5 - 10 feet	Sapling
White Oak	Low	5 - 10 feet	Sapling
Red Maple	Medium	5 - 10 feet	Sapling
Quaking Aspen	High	5 - 10 feet	Sapling
White Pine	Low	Variable	Sapling
Black Cherry	Low	5 - 10 feet	Sapling
Bigtooth Aspen	Low	5 - 10 feet	Sapling

2022: Good aspen and rm regen growing through residual oak and pine. TS# 024-14. Harvested 12/2016. Cut to 4" but no rp/wp 8" or less and retain green marked.

**57** 6129 - Mixed Coniferous Lowland Forest Sapling Well 6.5 30 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Paper Birch	10	Sapling/Pole	4	30
Northern White Cedar	35	Sapling/Pole	4	30
Tamarack	10	Sapling/Pole	3	
Black Spruce	15	Sapling/Pole	4	
Balsam Fir	30	Sapling/Pole	3	30

2022: Edge call based on previous inventory. Difficult to access due to high water and the amount of blowdown from 2012. Mix of saplings and poles with log sized trees that remained in canopy after previous blowdown event in 1990's



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>58</b>	4319 - Mixed Upland Forest	Sawtimber Well	5.4	70	111-140	N/A	2022: edge call based on old imagery due to high water table and access issues . 2002FMD: M5 Hardwood Ridge in swamp. 2011FMD red maple oak and white pine with balsam and spruce.
Canopy Species	% Cover	Size Class	DBH	Age			
Black Spruce	5	Log/Pole	10	70			
Balsam Fir	10	Log/Pole	10				
White Pine	30	Log	11	70			
Red Maple	35	Log	13	70			
Red Oak	5	Log	15				
White Oak	15	Log	13	100			
Sub-Canopy Species	Density	Avg. Height	Size				
White Pine	Low	10 - 20 feet	Sapling				
Balsam Fir	Medium	>20 feet	Sapling				

<b>59</b>	3303 - Mixed Low Density Trees	Nonstocked	1.8		Unspecified	No	Low density oak and pine. May be good area to manage opening.
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<b>60</b>	4122 - Oak, Pine	Sapling Poor	212.0	14	1-50	N/A	2022: Moved canopy call to sapling stand. Some residual pine and oak. Good regeneration in most areas of white oak and jack pine. Some areas are less stocked. A couple age classes in the stand resulting from the 2015 harvest and the prior harvest 2009. TS# 002-14. harvest 2015. Cut to 4"dbh excluding green marked retention and all rp 6" or less 2011FMD; RED PINE AND OAK OVERSTORY LEFT AFTER LAST HARVEST. MOST OAK IS IN THE 75 YEAR CLASS BUT THERE IS SOME OLDER LARGER TREES SCATTERED ABOUT. OAK AND PINE UNDERSTORY DEVELOPING BUT VARIABLE STOCKING. SOME AREAS ARE PRETTY WELL STOCKED WHILE OTHERS COULD BE PLANTED AFTER HARVESTING REMAINING OVERSTORY. CONSIDER REMOVING MOST REMAINING OVERSTORY AND TRENCHING AND PLANTING RED PINE INTO STAND AFTER HARVEST. WEAVE RED PINE IN TO AREAS WITHOUT ADEQUATE STOCKING.
Canopy Species	% Cover	Size Class	DBH	Age			
White Pine	5	Sapling	2				
White Oak	5	Log	12	85			
Red Pine	5	Log	12	85			
Jack Pine	20	Sapling	2	14			
White Oak	50	Sapling	1	14			
Black Cherry	5	Sapling	1	7			
Red Oak	10	Sapling	1	14			
Sub-Canopy Species	Density	Avg. Height	Size				
White Oak	Low	< 5 feet	Seeding				
Bigtooth Aspen	Low	< 5 feet	Sapling				
Red Pine	Low	< 5 feet	Sapling				
Jack Pine	Low	< 5 feet	Seeding				
Red Oak	Low	< 5 feet	Seeding				
Red Maple	Low	< 5 feet	Sapling				

<b>61</b>	4131 - Aspen, Oak	Poletimber Well	23.1	58	51-80	N/A	2022: Low density oak logs with scattered large wp. RM, Oak and Aspen poles in younger age class. Aspen is declining. Could harvest aspen and poor formed others to regenerate stand if access could be achieved. 2012FMD: Scattered oaks M4A4 2011FMD; Scattered older oak pine and paper birch left from last entry. Aspen, white pine red maple and oak in younger age class that has grown through. old pine stumps throughout stand. a few scattered beech. Stocking is variable as is diameter of younger age class. Could harvest for habitat management if access could be found through private lands.
Canopy Species	% Cover	Size Class	DBH	Age			
Paper Birch	2	Log	14				
Bigtooth Aspen	20	Pole/Log	9	58			
Quaking Aspen	26	Pole/Log	9	58			
Black Cherry	2	Pole/Log	8				
White Oak	25	Log	16	100			
Red Oak	5	XLog/Log	18				
Red Maple	10	Pole	7				
White Pine	10	Log/Pole	12				
Sub-Canopy Species	Density	Avg. Height	Size				
Oak (spp.)	Low	5 - 10 feet	Sapling				
White Pine	Low	Variable	Sapling				

<b>62</b>	4112 - Maple, Beech, Cherry Association	Sawtimber Well	5.4	72	51-80	N/A	2022: Did not do field visit due to high water and inability to access through private. Update based on old data. 2011FMD: State land posted. Low quality rd maple.
Canopy Species	% Cover	Size Class	DBH	Age			
Red Maple	90	Log	13	72			
Balsam Fir	3	Pole	7				
White Pine	3	Log	11				
Black Cherry	4	Log	13				
Sub-Canopy Species	Density	Avg. Height	Size				
White Pine	Low	10 - 20 feet	Sapling				
Balsam Fir	Low	10 - 20 feet	Sapling				





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>63</b>	4130 - Aspen	Poletimber Well	42.9	49	81-110	N/A	2022: This stand is ready to harvest and should regenerate well. Leave most oak and pine with some cherry and red maple. Tall pipe at corner of private land. Access through private land is not known.		
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>			
Red Oak		2	Log	16		Balsam Fir			
Paper Birch		1	Log	12		Low			
White Oak		5	Log	16	100	Medium			
Quaking Aspen		5	Pole	9	49	5 - 10 feet			
Bigtooth Aspen		65	Log/Pole	10	49	Sapling			
White Pine		8	Log/Pole	10					
Black Cherry		2	Pole/Sapling	8					
Red Maple		10	Pole	8	49				
Balsam Fir		2	Pole	8					
<b>64</b>	4131 - Aspen, Oak	Poletimber Well	45.3	44	81-110	N/A		2022: Center of stand is quaking aspen that is starting to decline. Small pockets of WP poles and saps and some oak poles. Larger scattered oak and pine. Likely trespass on south line. Found pipe next the the deer blind in the SE and a part of an old cedar post in the SE. Should get corners verified and flag line. Could green mark some retention Well formed oak and pine and cut to harvest. May want to cut only merchantable pine to retain some of the advanced regeneration. East part seems to be more mixed in areas. Well formed oak sapling and poles noted that should be retained if harvested. 2002FMD: A5 Scattered oak cherry and red pine. Was hooked with stand 52 in o/1 2011FMD; Scattered oak and pine with good aspen stand. Aspen is variable in vitality. Some better looking clones. Save this stand until stands on both sides grow in more.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>			
Quaking Aspen		50	Pole	9	44	White Oak			
Black Cherry		2	Log/Pole	10		Low			
Red Oak		10	Log/Pole	16		5 - 10 feet			
White Oak		15	Log/Pole	14	102	Sapling			
Bigtooth Aspen		10	Pole	9	44	Low			
Red Pine		5	Log/Pole	14		5 - 10 feet			
White Pine		8	Log/Pole	14		Sapling			
<b>65</b>	4126 - White, Black, N. Pin Oak	Sawtimber Well	10.0	92	111-140	N/A	2022: New stand created. This area was split of of Stand 14 as this part has a heavy oak component. This stand could be marked for thinning if the surrounding stand is treated however there are not a lot of crop trees. May want to do it just to keep a healthy oak patch here.		
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>			
White Oak		60	Log/Pole	11	92	White Oak			
Bigtooth Aspen		5	Pole/Sapling	4	48	Low			
Red Pine		5	Log/Pole	10	93	5 - 10 feet			
Red Maple		15	Pole	8	48	Sapling			
White Pine		5	Log/Pole	10	92	Low			
Red Oak		10	Log/Pole	14	100	Variable			
<b>66</b>	4199 - Other Mixed Upland Deciduous	Sawtimber Well	17.6	102	51-80	N/A		2022: The planted red pine understory is still growing in. 4-5" dbh. Some has moved into canopy level but some areas are still well into the sub-canopy. The south edge of stand is hard to determine. More mixed with mature aspen and pine with the planted understory. 2011: Stand was underplanted with red pine that looks to be about 40 years old from whirls and is stunted 2-4" dbh and 10-30'tall. Looks like it was just underplanted in oak/pine/aspen stand. The aspen in the south part of stand looks like it was part of another sale and looks to be same age @ 40 but most of the aspen in the stand is older 65-80. White pine is also growing in understory. Cant's see any way to release this small frail looking pine without a lot of damage. Just let it continue to try to grow through.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>			
White Oak		35	Log	12	102	Red Maple			
Bigtooth Aspen		20	Log/Pole	10		Low			
Red Pine		15	Log/Pole	12	92	Medium			
Red Oak		20	Log/Pole	13	102	>20 feet			
Red Maple		10	Pole/Log	8		Sapling			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>67</b>	4122 - Oak, Pine	Sawtimber Well	14.8	102	51-80	N/A	2022: Mixed sizes of oak, wp and rm. Oak seedlings starting to advance in gaps. A little aspen regen along with rm and wp. Stand looks good for now. Long term retention area in SE lobe from surrounding timber sale . TS# 024-14. Harvested 12/2016. Cut orange marked and all jp/aspen. Marked to maintain oak/pine island and corridor with adjacent aspen harvested. 2012:Scattered old red pine white pine oak wit 80 yr class grown in. A good bit of white pine filling in understory. Pretty complicated stand but could consider releasing better crowns in the 80 yr class and some of the white pine saplings that are growing in. Could manage as an island and harvest the aspen in surrounding stand. West arm of stand is heavier to Jack pine.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Maple	10	Pole/Log	9		Red Maple	Low		10 - 20 feet	Pole
White Oak	40	Log	14	102	White Pine	Low		>20 feet	Sapling
White Pine	25	Log/Pole	10	90	Quaking Aspen	Low		5 - 10 feet	Sapling
Red Oak	20	Log	14		White Oak	Medium		< 5 feet	Seeding
Red Pine	5	Log	14	95	Red Oak	Low		< 5 feet	Seeding
<b>68</b>	4126 - White, Black, N. Pin Oak	Sawtimber Well	6.8	102	51-80	N/A	2022: Low quality moderately stocked oak mix. Oak brush understory. Mix of oak logs and poles. Good for age class diversification in this area. Let stand develop.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	7	Log	12		White Pine	Low		10 - 20 feet	Sapling
Red Pine	5	Log	12		Red Oak	Low		5 - 10 feet	Sapling
Jack Pine	2	Pole	8		White Oak	Medium		5 - 10 feet	Sapling
Red Maple	12	Pole	7						
Red Oak	12	Log	14	102					
White Oak	62	Log	12	102					
<b>69</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	11.1	85	81-110	N/A	2022: Large WP and oak with aspen, rm, bc, wp poles growing through. This stand should hold till next entry but may want to cut back to seed tree next entry and regenerate aspen. Get some of the larger oak and pine out. Most is lower quality and wolfy. 2002FMD: W8 was how most was described. Residual pine over aspen. Other stand involved was A5 with Scattered oak cherry and red pine. Was hooked with stand 51 in o/1 2011FMD; Older oak and pine with (aspen clones aged 34 from last inv) White pine is filling in understory. Leave stand until adjacent stands with recent harvests develop.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Maple	10	Pole/Sapling	8		White Pine	Low		Variable	Sapling
Red Oak	25	Log/XLog	16	102					
Bigtooth Aspen	20	Pole	8	44					
White Pine	25	Log/XLog	16	85					
Red Pine	5	Log	14	85					
<b>70</b>	500 - Water	Nonstocked	6.6			No	2022: Expanded water in old beaver dam. Did not see recent activity. 2012:dead cedar killed by high water small pond flowing water grassy		
<b>71</b>	3303 - Mixed Low Density Trees	Nonstocked	3.5			No			
<b>72</b>	42110 - Planted Red Pine	Poletimber Well	32.7	26	111-140	N/A	2022: Good growth on red pine 1-2 stick average. Can likely row thin next entry. JP is as concern in some areas. Planted 1996 3/0 red pine. 2012FMD: Mixed red pine and jack pine in old jp strips that were harvested and re-planted to red pine.		
Canopy Species	% Cover	Size Class	DBH	Age					
White Pine	2	Pole/Sapling	5						
Red Pine	70	Pole	6	26					
Black Cherry	10	Sapling	4						
Jack Pine	18	Pole	6	26					
<b>73</b>	3303 - Mixed Low Density Trees	Nonstocked	4.5		Unspecified	No	2024: Low density trees.		





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																
<b>74</b>	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Poor	2.8	23	51-80	N/A	2022: Let stand develop. Mix of white pine and fir poles. Some larger oak and pine mixed through. 2002FMD: E4E7C4 parker creek influence. Harvest will omit creek area leave cedar and hemlock. New stand is E2Q4 TS# 042-95. TCR 10/96. Cut all merchantable but no cedar hemlock oak. 2011FMD: Stand is a drier lowland type along upland stand. Stand is slowly filling with wp bf bs tamarac aspen. Left some big rm cedar oak. Not well stocked at this time.																																																																
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<b>75</b>	4310 - Pine, Oak Mix	Sawtimber Well	7.7	85	81-110	N/A	2022: Lower quality oak with red pine. Stocking is on the low end. Good bit of oak seedlings. Similar to stand 89 but with more red pine and and larger red pine diameters. Consider cutting most of the oak and larger pine and allowing advanced oak regen to grow in. May want to treat with stand 89. 2011FMD; Similar to stand 165 in origin but more red pine and less oak. Better diameter and growth on red pine.																																																																
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<b>76</b>	4131 - Aspen, Oak	Poletimber Well	30.7	57	81-110	N/A	2022: Aspen is of good merchantable size and could be harvested. Opportunity for some good oak and pine retention or some retention pockets. aspen is denser in pockets with some areas with more oak, rm ,pine. Some large oak scattered around. Jack pine is falling out but some left. A few large red pine and some seedlings. Patchy oak seedlings and saplings. Recent harvest adjacent on west side. May be able to hold to next entry. 2002FMD: A6 O7 and grass in north end of stand 2011FMD; MADE NEW STAND IN NORTH. PI St 168. Some aspen clones are good quality while others seem to lack vigor. Stand is patchy. Patches of jack oine in stand and jack pine seeding in in places. Consider cutting to regenerate. Could work in with stands 160, 168 and NF 56 to make some nice habitat.																																																																
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<b>77</b>	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	9.0	76	81-110	N/A	2022: Mixed transitional stand. 2012: Mixed stand with cedar/spruce/balsam fir/red maple/y. birch/paper birch/aspens. Slight changes in elevation cause changes between conifers and deciduous.																																																																							
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<b>78</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	34.4	44	51-80	N/A	2022: Lower density oak, aspen and pine with balsam growing in. Would be good to harvest if possible. Cut aspen and most red maple. Keep well formed oak and pine. Did not find private corner but line has been posted so it is likely there. Stand would require access of private:																																																																							
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<b>79</b>	4126 - White, Black, N. Pin Oak	Sawtimber Medium	9.1	102	51-80	N/A	2022: Stand does have barrens looks and could be enhanced by harvest with retention of well formed wind firm oak and pine. Little volume but could be attached to an adjacent treatment. Western part has little understory formation but a good bit of oak seedlings and saps in eastern part. 5/22/12 SG-Stand has some Barrens characteristics. May have potential in future to manage with nearby stands for Barrens. 2011FMD Oak with scattered aspen and pine. Could get aspen and poor quality trees out if working in adjacent stand.																																																																							
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<b>80</b>	4199 - Other Mixed Upland Deciduous	Sawtimber Well	9.0	44	51-80	N/A	2022: Flat of pole sized oak, aspen, rm and wp. Some larger oak, maple and pine mixed through. Stand could be treated with the oak areas thinned and the aspen harvested to regenerate but access does not seem possible.																																																																							
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
<b>81</b>	4129 - Mixed Oak	Sawtimber Medium	43.8	102	51-80	N/A	2022: Some large oak scattered in stand with smaller pole/small log poles. Aspen scattered in stand and in clonal pockets. Pockets of thick oak regen-most is WO. Some barren areas. Some WP filling gaps. Could green mark some bigger oak and the well formed oak poles. Cut aspen and most RED MAPLE. Aspen and red maple would regenerate along with advanced oak regeneration forming new mixed stand. Could wait but seems like it would work well now. 2002FMD: O7O4M4 TS# 079-04 Cut orange marked. TCR 5/07 2011FMD: Cut marked oak last entry and left aspen clones that are pole/sapling size. A lot of oak seedlings on the ground but not going anywhere yet. Aspen is poor looking in quality and vigor. Not much white pine growing in at his time of much of anything but oak seedlings. Let stand develop.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Red Oak		31	Log/Pole	14	102	White Oak		
White Oak		30	Log/Pole	14	102	Red Oak		
Bigtooth Aspen		15	Pole/Log	9	42	White Pine		
Red Pine		2	Pole/Log	9				
Jack Pine		2	Pole	9				
Quaking Aspen		10	Pole	8	42			
White Pine		5	Log/Pole	10				
Red Maple		5	Pole/Sapling	6				
<b>82</b>	42290 - Natural Mixed Pine	Sawtimber Well	9.4	95	51-80	N/A	2022: Mixed upland and lowland with wet old sphagnum pockets. Good bit of larch saplings in lower areas. Slightly higher areas with pine, spruce, maple, oak. Looks like it will self sustain as jp falls out. 2012: Higher ground and slight ridge with b, spruce red pine white pine jack pine. Could look at getting jp out and regenerating?	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Red Oak		5	Log	14		White Pine		
White Oak		5	Log	14		Tamarack		
Black Spruce		24	Log/Pole	12	95	Balsam Fir		
Red Pine		20	Log	14	95	Black Spruce		
White Pine		20	Log/Pole	14				
Red Maple		6	Pole/Sapling	8				
Jack Pine		20	Log	12	95			
<b>83</b>	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	37.3	118	111-140	N/A	Blow down and mortality especially along creek drain. Mix of seeps and slightly higher ground. Big WP scattered. 2012FMD: C6 Headwaters of parker creek. PI stand 54 was part of this stand. Rich mixed conifer/deciduous swamp. Most is older but areas with heavy blowdown and pockets of young doghair fir/birch/ash.	
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		
Northern White Cedar		25	Log	14	118	Balsam Fir		
Basswood		5	Log/Pole	14		Northern White Cedar		
Yellow Birch		2	Log/Pole	14		Hemlock		
Quaking Aspen		10	Log	14		White Pine		
Paper Birch		3	Log/Pole	12				
White Pine		10	Log	16				
Balsam Fir		10	Log/Pole	12				
Red Maple		20	Log	15				
Hemlock		10	Log	13				
White Ash		5	Log	16				
<b>85</b>	110 - Low Intensity Urban	Nonstocked	5.1		Unspecified		Active gas/oil processing site. STATE UNION "J" 1-28	





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>86</b>	4126 - White, Black, N. Pin Oak	Sapling Poor	41.4	16	1-50	N/A	2022: Heavily stocked with white oak saplings growing through oak and pine retention from last harvest. TS# 002-14. harvest 2015. Cut to 4"dbh excluding green marked retention and all rp 6" or less 2011FMD;OAK LOGS/POLES/SAPS/SEEDLINGS. SHOULD GET MOST REMAINING OVERSTORY OFF TO RELEASE NEW STAND WHICH HAS DEVELOPED IN UNDERSTORY. COULD LEAVE RP.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Oak	10	Sapling	1	16	Red Oak	Low		< 5 feet	Sapling
White Oak	5	Log	12	85	Red Pine	Low		< 5 feet	Seeding
Red Pine	5	Log/Pole	12	85	White Pine	Low		Variable	Sapling
Jack Pine	5	Sapling	2		Jack Pine	Low		< 5 feet	Sapling
White Pine	5	Log/Pole	10		White Oak	Medium		< 5 feet	Sapling
White Oak	50	Sapling	1	16					
Black Cherry	10	Sapling	1	16					
Red Oak	5	Log	14	85					
Red Maple	5	Sapling	2	16					

<b>87</b>	6130 - Fir, Aspen, Maple	Sawtimber Well	11.2	85	51-80	N/A	2022: Slightly higher ground with mixed species.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Paper Birch	2	Log/Pole	10		Red Maple	Low	5 - 10 feet	Sapling
White Oak	4	Log	12		Balsam Fir	Medium	10 - 20 feet	Sapling
Quaking Aspen	20	Log	12	85	Black Spruce	Low	10 - 20 feet	Sapling
Balsam Fir	20	Pole/Log	8					
Northern White Cedar	15	Log	14	113				
Tamarack	1	Log/Pole	12					
Yellow Birch	1	Log	12					
Hemlock	5	Log	15	85				
Black Spruce	1	Log/Pole	10	85				
Red Maple	30	Log	14	85				
White Pine	1	Log	16					

<b>88</b>	42210 - Natural Red Pine	Sawtimber Well	6.3	92	111-140	N/A	2022: Aspen falling out of stand. Red pine good quality as it has grown with less oak competition. Could harvest and plant red pine. Ground lays good for plantation management .2011FMD: Red pine planted around old oak and white pine. Jack pine and aspen falling out of stand. Red pine looks pretty good. Could retain some well formed oak poles and large white pine and replant red pine. A fair amount of oak/wp/rm advanced regen could be a problem, Oak and and red maple seedlings are browsed badly. Could open up canopy and let oak develop. Could treat with the eastern part of stand 165 which is similar but with less red pine.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	60	Log	12	92	White Ash	Low		5 - 10 feet	Sapling
White Pine	5	Log	14		Red Oak	Low		< 5 feet	Sapling
Jack Pine	1	Log	11	92	White Oak	Medium		< 5 feet	Sapling
Black Cherry	2	Log/Pole	10		White Pine	Low		5 - 10 feet	Sapling
White Oak	12	Log	16		Red Maple	Medium		< 5 feet	Sapling
Red Maple	5	Pole	8						
Quaking Aspen	7	Log	14	92					
Red Oak	8	Log	16						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**89** 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 7.2 85 111-140 N/A

2022: stand could be marked for crop tree release or could be harvested and planted to red pine. Red pine more suppressed in south part of stand. 2011FMD; OAK LOGS AND POLES WITH INTERPLANTED RED PINE. A good bit of the red pine is suppressed but it grew pretty well where it had room =less oak/more red pine. Consider thinning stand to bring along better oak and pine or perhaps cutting most and weaving red pine back in. Areas have advanced oak and white pine regen. Suppressed pine may not release at his point and oak is mediocre in quality.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	5	Pole/Log	9	
Red Oak	19	Log	12	100
White Oak	33	Log	13	100
Red Pine	37	Log/Pole	10	85
Quaking Aspen	4	Log	12	85

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

**90** 6128 - Lowland Coniferous, Mixed Deciduous Sawtimber Well 29.8 120 51-80 N/A

2022: Some blow down patches and on edges but stand is better than many in area. Flooded area in west end. Drainage through stand.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	20	Pole/Sap/Log	8	95
Black Spruce	25	Log/Pole	12	95
Northern White Cedar	30	Log/Pole	12	120
Tamarack	5	Log	14	95
Red Maple	10	Log/Pole	12	
Quaking Aspen	10	Log	14	95

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	High	10 - 20 feet	Sapling
Red Maple	Low	10 - 20 feet	Sapling
Black Spruce	Medium	10 - 20 feet	Sapling

**91** 4191 - Mixed Upland Deciduous with Conifer Poletimber Well 31.1 42 81-110 N/A

2022: Split this stand off off stand 114. Transitional area with mixed species and heavier oak component.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	20	Pole/Log	9	
White Pine	2	Log/Pole	12	97
White Oak	20	Log	12	97
Northern Pin Oak	8	Log	16	
Quaking Aspen	30	Pole	8	42
Black Cherry	8	Pole/Log	8	
Paper Birch	2	Log/Pole	12	
Red Maple	10	Pole/Log	8	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Medium	5 - 10 feet	Sapling
Black Cherry	Low	< 5 feet	Sapling
White Pine	Low	5 - 10 feet	Sapling
Red Maple	Low	5 - 10 feet	Sapling

**92** 4122 - Oak, Pine Sawtimber Well 10.1 120 111-140 N/A

2022: Red pine of good quality and size where it had room to grow. A good bit of it is smaller and stunted where it was overtopped. Some well formed oak but most is poor formed or wolfy. Good bit or WO seedlings under but patchy. 2022: Could harvest with scattered oak retention and plant red pine or could cut back to 10-40 ba of oak and pine and let understory oak develop. Good bit of that already in area. Potential to grow good red pine here. Could treat with some adjacent stands. 2011 FMD: Red pine likely planted. Age 65? Could not get age. Big red oak is decent quality. Some WO aspen RM. Should let red pine grow in more. Stocking is not bad.

Canopy Species	% Cover	Size Class	DBH	Age
Red Oak	30	Log	16	120
White Oak	30	Log	16	120
Bigtooth Aspen	3	Log	12	95
Red Pine	30	Log/Pole	10	75
White Pine	2	Log	12	
Red Maple	5	Pole	8	

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



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>93</b>	6129 - Mixed Coniferous Lowland Forest	Sapling Poor	8.5	11	Immature	N/A	2021: Stand drier and starting to re-seed with tamarack, balsam, white pine and a little cedar. 2012: Beaver flooded area. Trees dead-cattail and tag alder.
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Canopy Species	% Cover	Size Class	DBH	Age
White Pine	20	Sapling	1	11
Balsam Fir	30	Sapling	1	11
Tamarack	40	Sapling	1	11
Northern White Cedar	10	Sapling	1	11

<b>94</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	9.4	97	81-110	N/A	2022: Upland mix of pine, fir, oak, rm, aspen. 2012: Older aspen than surrounding stand. May have left for older budding cover. Should keep this for diversity of age classes.
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Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	15	Pole	8	
Paper Birch	5	Log/Pole	10	
White Oak	25	Log/Pole	12	97
White Pine	25	Log	15	97
Quaking Aspen	10	Log/Pole	11	75
Bigtooth Aspen	10	Log	12	75
Red Maple	10	Log/Pole	14	

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	Variable	Pole
Balsam Fir	Medium	Variable	Sapling

<b>95</b>	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	6.6	44	81-110	N/A	2022: Moderately stocked mix with transition on edges and lower areas. Aspen looks alright at this point. 2002FMD: E5 2011FMD: Scattered older oak white pine red maple balsam. Looks like this was cut with the surrounding aspen so first age is 34 but the soil is wetter and the stand has more fir growing in. Some areas are kinda wet.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	20	Pole	9	
Yellow Birch	2	Log/Pole	12	
White Oak	15	Log/Pole	14	85
Balsam Fir	20	Pole	8	44
Red Oak	15	Log/Pole	14	85
Quaking Aspen	20	Pole	8	44
Northern White Cedar	5	Log/Pole	10	85

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

<b>96</b>	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	8.0	92	51-80	N/A	2022: Mixed lowland deciduous mix. Red maple and aspen. Pretty wet. 2002FMD: E6 Parker creek influence. Beaver flooding in area. 2011FMD: Transition strip between uplands and lowland brush. Lowland hardwoods.
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Canopy Species	% Cover	Size Class	DBH	Age
White Pine	5	Log/Pole	10	
Red Oak	5	Pole	8	
Bigtooth Aspen	25	Log	11	92
White Oak	10	Pole/Log	8	120
Red Maple	45	Pole/Log	8	92
Black Spruce	5	Log	10	92
Paper Birch	5	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	5 - 10 feet	Sapling
Balsam Fir	Low	10 - 20 feet	Sapling





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>97</b>	4310 - Pine, Oak Mix	Sawtimber Well	4.1	75	141-170	N/A	2022: Good tall red pine with some big oak, wp and rm scattered around. RM saps and small poles in gaps with some oak poles also. Could harvest and plant red pine or could reduce ba to 80-120 and let understory advance. Good bit of oak seedling-most is wo. 2002FMD: R9 Retention of stand for regeneration purposes. Shelter wood. 2011FMD Planted rp around oak and wp. Some aspen +rm age 65. Basal Area is not too high but planted pine is clumpy. could be good for stand to mark for a crown release but not real interesting.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Maple	10	Pole/Log	8		White Oak	Medium		< 5 feet	Sapling
Bigtooth Aspen	2	Log	12		White Pine	Medium		5 - 10 feet	Sapling
Red Oak	10	Log	16		Red Maple	Medium		>20 feet	Sapling
White Oak	20	Log	17	116					
White Pine	18	Log	14						
Red Pine	40	Log	13	75					
<b>98</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	4.6	113	51-80	N/A	2022: Mix of older oak and pine with small log/pole sized oak, rm, aspen, wp. 2011fmd: OLDER OAK AND SOME SCATTERED PINE WITH YOUNGER AGED WHITE PINE ASPEN RM OAK GROWN IN.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Oak	20	XLog/Log	18	113	White Pine	Medium		>20 feet	Sapling
White Oak	38	XLog/Log	18	113	Beech	Low		< 5 feet	Seeding
Bigtooth Aspen	10	Log	12		White Oak	Low		< 5 feet	Seeding
Balsam Fir	2	Pole	6		Red Oak	Low		< 5 feet	Seeding
White Pine	15	Log	16	95					
Red Pine	5	Log/Pole	14	95					
Red Maple	10	Pole/Sapling	8						
<b>99</b>	6113 - Lowland Maple	Poletimber Well	16.7	65	81-110	N/A	Red maple pole stand with older rm and large white pine scattered around. Wet pockets but also drier areas. Let stand grow in. 2002FMD: E6 Could be M type but scattered low W7. 2011FMD; Barely lowland. Kinda wet but may be operable in dry or frozen conditions. Some scattered old red maple and white pine but most of stand is red maple poles.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Beech	1	Pole	9		White Pine	Low		Variable	Sapling
Red Oak	1	Log/Pole	10						
Paper Birch	5	Log/Pole	10						
Northern White Cedar	1	Log/Pole	10						
White Pine	7	Log/XLog	16	99					
Red Maple	84	Pole/Log	8	65					
Black Cherry	1	Pole	8						
<b>100</b>	4139 - Aspen, Mixed Deciduous	Sawtimber Well	16.8	52	81-110	N/A	2022: older oak and pine scattered around. Aspen is declining but red maple could use more time to become more merchantable. Some areas have heavy aspen stocking but other areas heavier to red maple mix. 2002FMD: A5M4 2011FMD: Some wet areas. Scattered old WP RP OAK with aspen rm grown in. Decent rm. Most single stem. Could consider regenerating this around deer yard area.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	2	Pole	8		Red Maple	Medium		>20 feet	Sapling
Red Maple	35	Pole/Log	8	52	Balsam Fir	Low		10 - 20 feet	Sapling
Black Cherry	3	Pole/Log	8		White Pine	Low		< 5 feet	Sapling
Red Oak	3	Log	14						
White Pine	7	Log	12						
White Oak	3	Log/Pole	12	147					
Red Pine	3	Log	16						
Paper Birch	3	Pole	8						
Bigtooth Aspen	41	Log/Pole	10	52					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																									
<b>101</b>	6112 - Lowland Aspen	Sawtimber Poor	4.3	95	1-50	N/A	2022: Most has died out due to high water. Drier now but more ponding in east end. Honeysuckle and dogwood in shrub layer. 2011fmd: LOW WET ASPEN ALONG DRAINAGE. MUST BE SEASONALLY WET OR IT WOULD LIKELY BE DEAD. Looks too wet to harvest but maybe in frozen times or low water /dry years.																																																									
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<b>102</b>	4112 - Maple, Beech, Cherry Association	Sawtimber Poor	6.5	53	51-80	N/A	2022: some apples and oak planted in baskets. Some survival. 5/21/12 SG-Could plant patches of fruiting shrubs and/or spruce for food and cover.																																																									
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<b>103</b>	4310 - Pine, Oak Mix	Sawtimber Poor	49.8	85	1-50	N/A	TS# 008-14 Harvested 9/2016. Kept most pine and oak. Cut aspen , red maple and jp. Good aspen with rm regeneration after harvest. Patch oak sprouts growing in gaps. Mixed density and diameters of residual canopy. Some areas with thicker pine poles and saplings. Goal was to regenerate the aspen and to keep growing this into older aged pine. Stand will likely keep filling in as oak grows into gaps and wp fills in. 2002fmd:O5 adjacent stand to east typed as O6. May not be much different. 2011FMD: Mix of oak/pine/aspen logs age 75 with some older oak/pine scattered around and interesting amount of oak and white pine poles age 30?. Aspen is lightly stocked and scattered small clones but would likesly expand if harvested. Good bit of white pine regen - saps/small poles-in places. This stand could be harvested with aspen/rm/jp cut by specification and the reaminder marked to release good stems-promote aspen clones. This stand could also wait until next entry but aspen is getting old. Could be worked with stand to west (PI 67).																																																									
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<b>104</b>	3102 - Grass	Nonstocked	18.2		Unspecified	No	2022: Managed WLD opening.																																																									



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<b>105</b>	4310 - Pine, Oak Mix	Sawtimber Medium	68.0	102	51-80	N/A	2022: Mix of logs, Xlog, poles ,saplings. Canopy stocking is variable. Understory may move to canopy next entry. Thick understory regeneration in most places. Let stand develop. Would cause too much damage to understory to remove overstory. Looks like all pine was left in last treatment. Pockets of pine poles. 2002FMD: A3 2011FMD: around 50 % canopy cover left from last sale consisting of red oak white pine and red pine. Robust regeneration in canopy gaps of aspen/oaks/white pine/jack pine/red maple. Little red pine regen. Removing any more canopy at this time would cause excessive damage to the sub-canopy. Let stand develop.																																																													
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<b>106</b>	3102 - Grass	Nonstocked	1.0		Unspecified	No	2022: Herbaceous opening. May be managed by WLD																																																													
<b>107</b>	6229 - Mixed lowland shrub	Nonstocked	9.0		Unspecified	No	2022; low density trees with tag alder and cattails along drain.																																																													
<b>108</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	4.5	111	81-110	N/A	2022: LARGE OLDER OAK AND PINE WITH RM POLES AND SAPLINGS. OLDER ASPEN AND RED MAPLE ALONG DRAIN. LOWER AREA THROUGH EAST PART OF STAND.																																																													
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<b>109</b>	4131 - Aspen, Oak	Poletimber Medium	16.5	28	51-80	N/A	2022: Some older oak logs with oak saplings/poles. Some well stocked aspen clones but more red maple/oak/wp in mixed density. Let stand develop.																																																													
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<b>111</b>	6223 - Inundated Shrub Swamp	Nonstocked	41.9		Unspecified	No	Cattails and tag. Low density forested clumps of lowland species.																																																													





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**112** 6119 - Mixed Lowland Deciduous Forest Sawtimber Poor 9.4 65 1-50 N/A 2022: LOW STOCKED MIS WITH TAG ALDER ALONG SIDE OF DRAINAGE.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	5	Log/Pole	12		Balsam Fir	Medium	5 - 10 feet	Sapling
Quaking Aspen	35	Log/Pole	11	65	Tag Alder	Medium	5 - 10 feet	Tall Shrub
Paper Birch	15	Pole	9					
Black Ash	10	Pole	7	65				
Northern Pin Oak	3	Log	12					
American Elm	2	Log/Pole	10					
White Oak	10	Log	12					
Red Maple	20	Log/Pole	11	65				

**113** 6132 - Mixed Lowland Forest with Cedar Sawtimber Well 49.5 121 111-140 N/A 2022: Drainage through stand and along south edge. Good bit of water. Blowdown areas. Did not note any cedar regen but a good bit of balsam and white pine. Basal area is variable. Some areas well stocked and drier.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	15	Log/Pole	12		Hemlock	Low	5 - 10 feet	Sapling
Hemlock	10	Log/Pole	12	90	White Pine	Low	5 - 10 feet	Sapling
Yellow Birch	2	Log/Pole	12		Balsam Fir	Medium	5 - 10 feet	Sapling
Quaking Aspen	10	Log	11		Red Maple	Low	5 - 10 feet	Pole
Basswood	2	Log/Pole	14					
Black Spruce	5	Log/Pole	10					
Paper Birch	5	Log/Pole	10					
Tamarack	2	Log	12					
Bigtooth Aspen	10	Log/Pole	14	90				
White Pine	2	Log/Pole	14					
Northern White Cedar	30	Log	13	121				
Balsam Fir	7	Log/Pole	10					

**114** 4134 - Aspen, Spruce/Fir Poletimber Well 59.3 42 81-110 N/A 2022: Some areas heavier to aspen and other areas have rm and balsam poles growing through. Could harvest to regenerate all or part if access possible. Could hold till next entry. 2002FMD:Stand origin 1976-1982-horse trail influence-O7R7W7 Stand nearing A6 2011FMD: This is a large area of 32 yr old aspen. May want to look at re-starting part of it for age class distribution. Aspen is mixed diameter from small poles to small logs depending on competition. Some wet areas.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	20	Pole	7		Black Cherry	Low	5 - 10 feet	Sapling
Quaking Aspen	59	Pole	8	42	Red Maple	Low	5 - 10 feet	Sapling
White Pine	2	Log	12	97	Balsam Fir	Medium	5 - 10 feet	Sapling
Black Cherry	3	Pole	8		White Pine	Low	5 - 10 feet	Sapling
Red Maple	10	Pole	9					
White Oak	2	Log	14	97				
Northern Pin Oak	2	Log	14					
Paper Birch	2	Log/Pole	12					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**115** 6132 - Mixed Lowland Forest with Cedar Sawtimber Well 11.0 116 81-110 N/A

2022: Drier than surrounding stands but drainage through stand and tag alder pockets. Light blowdown. 2002FMD: C6 2011FMD; Mixed size cedar with QA RM WB BF Tag Alder

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	10	Log/Pole	10	100	Balsam Fir	Medium	10 - 20 feet	Sapling
Paper Birch	20	Log/Pole	10		Tag Alder	Medium	5 - 10 feet	Tall Shrub
Tamarack	2	Log/Pole	12		White Pine	Low	5 - 10 feet	Sapling
Quaking Aspen	10	Log	15	100				
Bigtooth Aspen	2	Log/Pole	10	100				
Balsam Fir	15	Pole	8					
Northern White Cedar	41	Log/Pole	10	116				

**116** 4131 - Aspen, Oak Poletimber Well 133.6 44 81-110 N/A

2022: stand has transition areas with lower pockets and edges and drainage through. Strip of older aspen left in middle of stand along the road. Scattered larger oak pine and maple. All or part of stand could be harvested. Potential to create retention pockets and scattered retention. Access would have to be from private?

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	15	Pole	9	44	Black Cherry	Low	< 5 feet	Seeding
White Oak	15	Log/Pole	14	97	Balsam Fir	Low	Variable	Sapling
Paper Birch	2	Log/Pole	10		White Pine	Low	Variable	Sapling
Red Oak	10	Log	16		Red Maple	Low	5 - 10 feet	Sapling
Basswood	2	Log	12		Hemlock	Low	5 - 10 feet	Sapling
Quaking Aspen	25	Pole	8	44				
Red Maple	20	Pole	8					
White Pine	3	Log	14					
Balsam Fir	5	Pole	8	44				
Black Cherry	3	Pole	8					

**117** 3202 - Autumn Olive/Honeysuckle Nonstocked 2.6 Unspecified No

Old well pad, plugged 8/18/85.

**118** 4124 - Red with White Oak Sawtimber Well 23.8 102 81-110 N/A

2022: Low quality oak logs with wp growing through. Some rp poles. Could take most oak off and try to protect pine understory. Would likely fill in with oak sprouts and white pine. Could also let stand develop and allow pine to grow through without disturbance. FMD 2002: O507A4 DELAYED FOR SIZE/AGE DIVERSITY. PART OF THIS O/I STAND IS NOW PART OF STAND 73 2011FMD; PRETTY CONSTANT WHITE PINE UNDERSTORY 10-20' TALL IN AREAS. OTHER AREAS HAVE PRETTY OPEN UNDERSWTORY. COULD CUT AND REPLANT PINE AT SOME POINT BUT NOT NECESSARY AT THIS POINT. MIXED OAK NOT VERY INTERESTING OR MUCH QUALITY. SOME RED PINE POLES AND LOGS SCATTERED ABOUT. COULD CUT TO RELEASE ADVANCED PINE UNDERSTORY AND SPROUT SOME OAK BUT ALRIGHT FOR NOW. RETAIN FOR AGE DIVERSITY.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	10	Pole/Sapling	6		White Pine	Medium	10 - 20 feet	Sapling
White Oak	35	Log	13	102	Red Pine	Low	10 - 20 feet	Sapling
Red Oak	45	Log	15	102	White Oak	Low	5 - 10 feet	Sapling
Bigtooth Aspen	5	Log	12	85	Red Maple	Low	10 - 20 feet	Sapling
Red Pine	5	Log/Pole	12	85	Red Oak	Low	5 - 10 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**119** 6116 - Lowland Birch Sapling Medium 8.6 28 1-50 N/A 2022: Stand filling in with new saplings and poles.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
American Elm	5	Sapling/Pole	3		Tag Alder	Medium	10 - 20 feet	Tall Shrub
Red Maple	10	Sapling	3		Northern White Cedar	Low	5 - 10 feet	Sapling
Paper Birch	65	Sapling	4	28				
Quaking Aspen	10	Sapling	4					
Northern White Cedar	10	Log/Pole	12	99				

**120** 4199 - Other Mixed Upland Deciduous Sawtimber Well 11.1 82 111-140 N/A 2022: Old aspen with oak and red maple. Rm poles growing through as aspen falls out. Red maple looks good. 2002FMD: A6 Adjacent landowner denies access. 2011fmd: Over aged aspen mixed with oak. Small brushy vernal pond in south end of stand. A little basswood and white ash on edge of stand.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Beech	1	Log	13		Red Maple	Low	5 - 10 feet	Sapling
White Oak	35	Log	15	82	Balsam Fir	Medium	5 - 10 feet	Sapling
Quaking Aspen	31	Log	15	82				
Basswood	1	Log	12					
White Pine	2	Log/Pole	10					
Red Maple	20	Log/Pole	10					
Northern Pin Oak	10	Log	14					

**121** 6118 - Lowland Deciduous with Cedar Sawtimber Poor 10.1 99 1-50 N/A 2022: Impossible to traverse in west end due to heavy blowdown. A little cedar and aspen standing. Some aspen and birch saplings. Trail cut in through slash in SW end. Some areas of stand do not have such heavy damage but still some bad areas. 2002FMD: Beaver flooding damage. Standing dead cedar and maple. 2011FMD: Blowdown but not as much as surrounding stands. Old aspen red maple cedar and a little ash.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	40	Log	15	99	Red Maple	Low	10 - 20 feet	Sapling
Northern White Cedar	35	Log	12	135	Tag Alder	Low	5 - 10 feet	Tall Shrub
Paper Birch	15	Pole	8	45	Balsam Fir	Low	5 - 10 feet	Sapling
Red Maple	10	Log	12		Northern White Cedar	Low	5 - 10 feet	Sapling
					Paper Birch	Medium	5 - 10 feet	Sapling

**122** 4319 - Mixed Upland Forest Sawtimber Well 6.7 99 141-170 N/A 2022: Large old aspen with balsam and red maple growing through. 2011FMD: Half Way Dry. A little higher ground. Fir with older aspen birch and cedar. Fir filling in pockets.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	20	Pole	8	65	Balsam Fir	Medium	5 - 10 feet	Sapling
Quaking Aspen	35	Log	16	99	Red Maple	Medium	5 - 10 feet	Sapling
Northern White Cedar	30	Log	12	130				
Red Maple	5	Log	12					
Paper Birch	10	Log	12	99				





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**123** 6119 - Mixed Lowland Deciduous Forest Poletimber Poor 13.8 40 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	5	Log/Pole	12	99	Tag Alder	Medium	10 - 20 feet	Tall Shrub
American Elm	15	Pole/Sapling	6		Balsam Fir	Low	5 - 10 feet	Sapling
Paper Birch	15	Pole	6	40				
Balsam Fir	10	Pole/Log	8					
Quaking Aspen	30	Pole	8	40				
Red Maple	25	Pole	6	40				

2022: Wet areas with cattails and tag alder. Pole and sapling sized aspen, birch maple, balsam growing in. Some areas with higher water and heavy wind throw. 2002: FMD: C4E4L Heavy to pine NW Corner Heavy wind throw High water.2011FMD: Lowland hardwood with a lot of blowdown. Some older cedar and aspen left but most is blown down in past and replaced by pole/sap stand.

**125** 4131 - Aspen, Oak Sawtimber Well 5.9 65 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	25	Log	12	95	Balsam Fir	Low	5 - 10 feet	Sapling
Red Oak	15	Log	12		Red Maple	Low	5 - 10 feet	Sapling
White Pine	2	Log	14	97				
Quaking Aspen	40	Log	12	65				
Red Maple	10	Log	12	65				
Beech	8	Log	14					

2022: Aspen is mature and could be harvested. Makes good diversity with younger age surrounding. 2012: Stand nearing A6 2011FMD: Looks like a hump that was cut around when stand 84 was cut. Aspen is older estimated around 55 yr. Brushy pond in stand. May want to keep for budding cover and diversity. Could be cut if accessible.

**126** 4310 - Pine, Oak Mix Sawtimber Well 55.0 116 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	15	Log	16		Red Pine	Low	5 - 10 feet	Sapling
White Oak	25	Log	14		Red Maple	Low	10 - 20 feet	Sapling
Bigtooth Aspen	5	Log	12		White Pine	High	5 - 10 feet	Sapling
White Pine	25	Log/Pole	16	116				
Red Pine	30	Log	14	116				

2022: Mixed sizes with Low quality oak mix with rp and wp. Pine looks fine on site but red pine looks stunted after good growth. Thickets of wp under with substantial snow damage Could take off most oak to allow pine to occupy site. Could thin pine pockets or cut back to shelter-wood or seed tree. Harvest wood be messy with all the snow damaged understory Could treat with stand 118 to east which is similar but with less pine overstory. 2012 FMD: East side was O/I stand 24 R9. Age 106. Retention of stand for regeneration purposes (shelter wood) Red pine grew well until age 60-70 then grew stagnant. Red pine poles and saps grew in to understory and a good bit of white pine (5-10" tall) This stand could potentially be managed toward big old pine and oak. Could shelter wood harvest sometime to return to pine stand. Mix of RP/WP/Oak/BTAspen.

**127** 6132 - Mixed Lowland Forest with Cedar Sawtimber Poor 33.2 98 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black Ash	10	Pole/Sapling	8		Black Cherry	Low	< 5 feet	Sapling
Red Maple	20	Log/Pole	12		Tag Alder	Low	10 - 20 feet	Tall Shrub
Northern White Cedar	30	Log/Pole	10	98				
Balsam Fir	15	Pole/Log	8	46				
Paper Birch	25	Log/Pole	11	98				

2022: Most is standing dead with cattails. Areas with birch and balsam fir saplings and poles.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																															
<b>128</b>	6120 - Lowland Cedar	Sawtimber Well	12.3	135	1-50	N/A	2022: Large amount of dead standing. A little cedar, birch and fir left alive. Most is cattails and Frag. Some pockets have better stocking.																																																															
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<b>129</b>	6118 - Lowland Deciduous with Cedar	Sawtimber Poor	24.1	130	1-50	N/A	2022: Low stocked birch and fir with cattails. Moderately wet. Some older aspen left.																																																															
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<b>130</b>	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	58.9	106	111-140	N/A	2022: Some storm damage in areas but generally in decent condition Nice lowland mix along drain. 2002FMD: C6 Good mix of lowland/edge species along drainage. Variable. Heavy cedar in spots.																																																															
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<b>131</b>	4130 - Aspen	Poletimber Well	57.2	24	51-80	N/A	2022: Good growth and stocking in most areas. Merged this multi-part stand into one. Same origin and composition.																																																															
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**132** 6118 - Lowland Deciduous with Cedar Sawtimber Medium 14.4 75 81-110 N/A

2022: Fairly dry at this time. Some blowdown but better than most in area. Areas with red maple poles and sapling growing through. Aspen declining.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Paper Birch	15	Log/Pole	11		Balsam Fir	Medium	5 - 10 feet	Sapling
Quaking Aspen	31	Log	14	75	Red Maple	Low	5 - 10 feet	Sapling
Northern White Cedar	29	Log	12	130				
Black Cherry	5	Pole/Sapling	8					
Red Maple	20	Log	12					

**133** 4199 - Other Mixed Upland Deciduous Sawtimber Well 27.9 93 51-80 N/A

2022: Low quality oak logs with aspen and wp poles and saplings growing through. Aspen is scattered in stand. Some wp poles getting to canopy. A little red pine. RM sprouts 6-8" dbh. Could green mark some better oak and take most oak, aspen and larger pine. Would be messy with the wp under. Much of it is already snow damaged. New motorcycle trail in stand.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	35	Log	12	93	White Pine	Medium	10 - 20 feet	Sapling
Red Oak	20	Log	12		Red Maple	Low	10 - 20 feet	Sapling
White Pine	10	Log	12	93	Red Pine	Low	5 - 10 feet	Sapling
Quaking Aspen	5	Log	11					
Red Pine	5	Log	12	93				
Bigtooth Aspen	15	Log	12	80				
Red Maple	10	Pole	8					

**134** 42330 - Upland Fir Poletimber Well 6.3 52 111-140 N/A

2022: Wet transition area. Aspen not harvested with adjacent stand. 2012: FMD: P4C4E7E4 2011FMD: Partially dry site but wet areas.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Hemlock	5	Log	12		Red Maple	Low	5 - 10 feet	Sapling
Red Maple	5	Log	14		Balsam Fir	Low	5 - 10 feet	Sapling
Quaking Aspen	15	Log/Pole	11	71				
Balsam Fir	63	Pole	8	52				
Northern White Cedar	10	Log	12	115				
Beech	2	Log/Pole	11					

**135** 6117 - Lowland Deciduous, Mixed Coniferous Sawtimber Well 9.9 85 141-170 N/A

2022: Drain with mixed ages and diameters. Red Maple poles filling gaps. East end is wetter with mortality and tag alder and cattails. Blow down areas in stand but heavier in east end.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Basswood	2	Log	16		Balsam Fir	Low	5 - 10 feet	Log
Red Oak	10	Log	14		White Pine	Low	5 - 10 feet	Sapling
Bigtooth Aspen	20	Log	14	85	Red Maple	Low	10 - 20 feet	Sapling
Red Maple	20	Log	12	85	Paper Birch	Low	5 - 10 feet	Sapling
White Oak	3	Log	12					
White Pine	5	Log	12					
Northern White Cedar	15	Log/Pole	11	120				
Paper Birch	5	Log	12					
Hemlock	20	Log/Pole	12	85				





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**136** 6120 - Lowland Cedar Sawtimber Well 30.8 126 201+ N/A 2022: Stand is in decent shape. some storm damaged areas. Some areas heavy to cedar while others have heavier red maple.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Hemlock	7	Log/Pole	10		Tag Alder	Low	< 5 feet	Tall Shrub
Paper Birch	5	Log/Pole	10		Balsam Fir	Medium	5 - 10 feet	Sapling
Balsam Fir	6	Pole/Sapling	8					
Black Spruce	5	Pole/Sapling	8					
Northern White Cedar	60	Log/Pole	12	126				
Tamarack	2	Log/Pole	10					
White Pine	5	XLog/Log	18	126				
Red Maple	5	Pole/Sapling	8					
Black Ash	5	Pole/Sapling	8					

**137** 6128 - Lowland Coniferous, Mixed Deciduous Sawtimber Poor 24.2 107 1-50 N/A Heavy blowdown in stand but a good bit of regeneration forming including cedar. Some flooded areas with die back and wood ducks.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	10	Log/Pole	14	107	Hemlock	Low	5 - 10 feet	Sapling
Balsam Fir	15	Pole	8	45	Tag Alder	Low	5 - 10 feet	Tall Shrub
Northern White Cedar	40	Log	12	107	Balsam Fir	Low	Variable	Sapling
Paper Birch	10	Log/Pole	10	45	Northern White Cedar	Low	5 - 10 feet	Sapling
Red Maple	20	Log	12	107	White Pine	Low	5 - 10 feet	Sapling
Hemlock	5	Log/Pole	10					

**138** 4130 - Aspen Sawtimber Well 7.8 99 111-140 N/A 2022: Aspen falling out. Would likely regenerate well if harvested. Access through private?

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Paper Birch	10	Log/Pole	12		Balsam Fir	Low	5 - 10 feet	Sapling
Bigtooth Aspen	78	Log	14	99	Red Maple	Low	5 - 10 feet	Sapling
Northern White Cedar	2	Log	13					
Red Maple	10	Log	13	99				

**139** 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 11.7 100 81-110 N/A 2022: Larger wolfy oak with red pine. Red pine looks good. Consider cutting and re-planting. Thinning would not be a good consideration due to the size and quality of the oak. This stand and stands 89 a and 200 were connected prior to this inventory. 2011FMD; OAK LOGS AND POLES WITH INTERPLANTED RED PINE. A good bit of the red pine is suppressed but it grew pretty well where it had room =less oak/more red pine. Consider thinning stand to bring along better oak and pine or perhaps cutting most and weaving red pine back in. Areas have advanced oak and white pine regen. Suppressed pine may not release at his point and oak is mediocre in quality.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	3	Log	12	85	White Pine	Low	Variable	Sapling
Red Oak	22	XLog/Log	18	100	White Oak	Medium	< 5 feet	Seeding
White Pine	2	Log	14		Red Oak	Low	< 5 feet	Seeding
Red Pine	30	Log	13	85				
White Oak	35	XLog/Log	18	100				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																							
<b>141</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	23.5	116	81-110	N/A	2022: Lower quality oak with pine and aspen. Advanced pine understory growing through. Some near or at canopy level. May be best to let the aspen fall out and allow pine understory to grow in without disturbance. 2011FMD: Split off from PI Stand # 99. More oak and aspen and less rp/wp in this stand. However, there is a lot of white pine understory. Aspen should get out. Would release understory pine in places. May be able to get aspen and poor quality oak out and let those regenerate through oak canopy.																																																							
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<b>142</b>	730 - Mud Flats	Nonstocked	20.0		Unspecified	No	2022: Pretty wet cattail and such.																																																							
<b>143</b>	4310 - Pine, Oak Mix	Sawtimber Well	16.8	112	81-110	N/A	2022: Pine with low quality oak mix. Red and white pine likely planted with natural oak. Some areas with pockets of vigorous wp poles and saplings with some red pine. Most of the understory is whippy snow damaged wp. A small amount of mature aspen but not enough to direct stand management. This could be harvested and replanted. Would likely cause a lot of damage to understory if canopy was opened up to release under. 2011FMD: Big pine look to stand. Aspen has mixed age clones. Some was cut around 40? yr, age. Some older 70-80 yr clones. Let stand develop until aspen matures. Stand to east was recently treated.																																																							
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<b>144</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	8.3	75	51-80	N/A	2022: Stocking is generally low. Some lower pockets with balsam, hemlock and cedar. Aspen is declining. Likely not enough volume to warrant treatment and access would be difficult. May convert to red maple and white pine as aspen falls out. Look at options to access and set up small treatment. 2002FMD: p6 Delayed treatment for age diversity 2011FMD: Mixed red maple/aspen/white pine with a little oak/fir/birch. Starting to decline. Some of the aspen looks to be from an older age class. This stand should be regenerated soon if access is possible but wait for now for adjacent stand to develop. There is a large area of early succession aspen to the west.																																																							
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<b>145</b>	500 - Water	Nonstocked	4.6		Unspecified	No	2022: Good bit of water at this time. Didn't get to lakeshore																																																							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>146</b>	4199 - Other Mixed Upland Deciduous	Sawtimber Well	6.7	90	51-80	N/A	2022: Could harvest to regenerate if access can be attained. Bridge on snowmobile trail on east side would need improved? Could green mark some oak and pine retention and cut aspen and rm. Beaver trying to make a go of it. 2011FMD: Big red pine, white pine and big tooth aspen with red maple and pine poles. point of land between creeks. If accessible, consider getting aspen out and regenerating it through some of the big pine and oak.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		10	Log/Pole	14	116	White Pine		Low	5 - 10 feet	Sapling	
Red Pine		5	Log/Pole	14	116						
Bigtooth Aspen		35	Log	16	90						
Paper Birch		5	Log/Pole	10	90						
Red Oak		10	Log/Pole	14	116						
White Oak		10	Log/Pole	14	116						
Red Maple		25	Log	12							
<b>147</b>	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	13.1	88	51-80	N/A	Low stand with seeps and drains . Spongy ground, leave be. New motorcycle train in NE. PB and aspen declining in stand. 2002 fmd: P5 Delayed treatment for age/size class diversity. Was two islands of P type with cedar strip splitting them. 2011FMD. Split O/I stand in to two stands. This stands is wetter ground with a good bit of seepage out of the ground. Not really low land but pretty seepy wet higher ground and wet lower ground. A little cedar along edge of creek. This stand is likely hard to access due to creek and seeps.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Paper Birch		15	Log/Pole	10	88	Red Maple		Low	5 - 10 feet	Sapling	
Northern White Cedar		10	Log	12		White Pine		Low	5 - 10 feet	Sapling	
Quaking Aspen		20	Log	14	88						
Red Maple		25	Log	12	88						
Basswood		20	Log	14	88						
White Oak		5	Log/Pole	10							
Red Oak		5	Pole/Log	9	88						
<b>148</b>	31021 - Cool Season Grass	Nonstocked	8.7		Unspecified	Managed Opening	Managed opening with clumps of WP Planted fruit trees . Crabapple?				
<b>149</b>	42210 - Natural Red Pine	Sawtimber Well	12.9	116	111-140	N/A	2021: Nice red pine. Good height and diameter growth. Stocking is not too high but pine is getting large. Could cut and plant but small stand. Aspen might be trouble. Could do alight thinning but small volume. Could hold. Pole potential. Mixed with wp and decent quality oak. Wp saplings filling gaps with rm and aspen from last treatment. Motorcycle and snowmobile trail. 2002FMD: Delayed treatment for age/size diversity. R9 TS#037-95. TCR 11/96. Cut all orange marked, aspen. rm. Sold aspen rp wp oak mix hwd jp. 2011FMD: Cut back to better pine and oak stems in last treatment with residual Basal area 100-130. White pine in understory has not developed much more than what is found in surrounding stands that have full canopy. Part of stand along rye field is planted white pine age 50-70 estimate. Let this stand grow for now. Basal area is not too high.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Oak		10	Log/Pole	14	116	White Pine		Medium	5 - 10 feet	Sapling	
Red Maple		5	Pole/Sapling	8		Red Maple		Low	>20 feet	Sapling	
Red Pine		60	Log/Pole	14	116	Bigtooth Aspen		Low	>20 feet	Sapling	
White Oak		5	Log/Pole	14	116						
White Pine		20	Log/Pole	14	116						
<b>150</b>	42290 - Natural Mixed Pine	Sawtimber Medium	18.7	116	111-140	N/A		2022: Nice pine with lower quality oak. . This could be harvested and planted with difficulty due to the amount of advanced oak and wp regen or opened up to let understory oak and white pine advance. This could hold until next entry but may be more difficult to keep in red pine as understory advances. Fair amount of wp saplings and wo seedlings filling gaps. New motorcycle trail built. Could be treated with stand to west.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Red Maple		2	Pole/Sapling	6		White Pine			Medium	10 - 20 feet	Seeding
Red Oak		5	Pole/Log	9		White Oak			Low	5 - 10 feet	Sapling
White Pine		28	Log	14	116	Red Oak			Low	5 - 10 feet	Sapling
White Oak		10	Pole/Log	9		Red Maple			Low	5 - 10 feet	Sapling
Red Pine		52	Log	14	116						
Quaking Aspen		3	Log/Pole	10							





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
151	3102 - Grass	Nonstocked	1.3		Unspecified	No	2022: Grass with clumps of wp log trees and wp seedlings.

152	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	5.5	43	51-80	N/A	2022: Lowland mix on slightly higher ground. Low stocking and quality. A few old apple trees.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Balsam Poplar	10	Pole	6	43	White Pine	Low	< 5 feet	Sapling
Paper Birch	10	Log/Pole	10					
Black Cherry	10	Pole	6					
Tamarack	20	Log	14	86				
Quaking Aspen	20	Log/Pole	11	43				
Red Maple	30	Pole	6	43				

153	42110 - Planted Red Pine	Sapling Medium	19.5	10	51-80	N/A	2022: Good growth on planted red pine. Row spacing and stocking in rows is variable. 2011: Site harvested 2010 and trenched 2011 to be replanted in spring 2012 if trees available. Regen survey 2017. 650-700 TPA rp. Heavy cherry competition and lesser competition from jp. Called fully stocked. Stand aerial herbicide to control cherry. This stand has been updated from a field evaluation for a project on free to grow red
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	70	Sapling	3	10	Black Raspberry	Low	< 5 feet	Tall Shrub
Black Cherry	18	Sapling	2	10				
Jack Pine	10	Sapling	3	10				
White Pine	2	Sapling	2					

154	42140 - Planted Mixed Pine	Sapling Well	20.5	27	81-110	N/A	2022: Strips have variable red pine stocking. Some areas have heavier stocking of of jp with bc, oak, rm. Jp is suppressing rp in some areas. May be able to row thin next entry period.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	5	Sapling	3	
Red Oak	2	Sapling	3	
Jack Pine	36	Pole/Sapling	6	27
Black Cherry	5	Sapling/Pole	4	
White Oak	2	Sapling	3	
Red Pine	50	Pole/Sapling	5	27

155	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	8.1	126	111-140	N/A	2022: Mix of XL L, and pole wp with RM logs and poles. Let stand grow in. Not very interesting. Good for diversity.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	10	Pole	8		White Pine	Low	Variable	Sapling
Red Oak	5	Pole	9		Beech	Low	5 - 10 feet	Sapling
White Oak	5	Pole	9	50	Balsam Fir	Low	Variable	Sapling
Quaking Aspen	8	Pole/Sapling	8	50	Red Maple	Low	10 - 20 feet	Sapling
Black Cherry	2	Pole/Sapling	8					
White Pine	70	Log/XLog/Pole	16	126				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>156</b>	6120 - Lowland Cedar	Sawtimber Well	10.7	134	141-170	N/A	2022: Nice lowland mix. Stand looks fine. Light blowdown in area surveyed. 2004FMD: C6 20121FMD: Northern strip of this stand is transition between upland and lowland species. The rest is cedar lowland mix. Scattered old red maple and white pine. Some 50 yr old class RM BF WP Aspen. A lot of damage on balsam fir from the heavy snow (March 2012).				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Hemlock		10	Log/Pole	12		White Pine		Low	5 - 10 feet	Sapling	
White Pine		5	Log/XLog	16	134	Balsam Fir		Low	5 - 10 feet	Sapling	
Red Maple		10	Log	14	100						
Northern White Cedar		50	Log	12	134						
Bigtooth Aspen		10	Log	12	100						
Paper Birch		5	Pole	8							
Balsam Fir		10	Pole/Log	9							
<b>157</b>	4130 - Aspen	Sawtimber Well	34.4	56	111-140	N/A	2022: Recommend cutting half of this stand this entry and the rest next entry period. Retention patch of older aspen could be left in middle. Would need to figure out access tp center. May need to build road. Aspen is ready to start regeneration. 2004FMD: A6 2012 FMD: Well stocked aspen with scattered white pine and balsam. Pine and spruce was damaged a fair amount by the Heavy snow in March 2012. This stand is just moving into some small logs. Let go another cycle.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		10	Pole	7	56	Red Maple		Low	10 - 20 feet	Pole	
Balsam Fir		5	Pole/Sapling	5		Balsam Fir		Low	Variable	Sapling	
Bigtooth Aspen		83	Log/Pole	10	56	White Pine		Low	10 - 20 feet	Sapling	
White Pine		2	Pole	6							
<b>158</b>	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	12.4	25	81-110	N/A	2022: Mixed stand after jp strips cut out. Looks like the birch was left and is slowly falling out. Let stand grow in. 2002 FMD: J3 scattered white birch poles 2012FMD: Red maple /white birch retention in canopy. Birch will likely fall out. Called 15 yr class as 1st age. Mixed stand growing in with jack and red pine seeded in with mixed deciduous. Snow damage on jack pine from wet snow (March 2012).				
Canopy Species		% Cover	Size Class	DBH	Age						
Paper Birch		10	Log	12	93						
Balsam Fir		3	Sapling	3							
White Pine		10	Sapling	3	25						
Red Pine		5	Sapling	3	25						
Jack Pine		45	Pole	6	25						
Red Maple		10	Pole/Sapling	9	93						
Beech		15	Sapling	3							
White Oak		2	Sapling	3							
<b>159</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	2.8	95	51-80	N/A	2022: Older wp, bc,rm overstory with poles growing through. Black locust expansion into stand. 2012FMD; Small pocket on edge of compartment and surrounded by pine plantation. Low stocked overstory of WP, BC, WO, RM and locust, cherry and white growing in under (20-30' tall) Some locust in canopy level.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Black Locust		20	Pole	8	40	Black Cherry		Medium	>20 feet	Sapling	
Black Cherry		25	Log	12	95	Black Locust		Medium	>20 feet	Sapling	
Red Maple		20	Log	14	95						
White Pine		20	Log/Pole	14	95						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																								
<b>160</b>	42110 - Planted Red Pine	Sapling Medium	29.9	8	Immature	N/A	2022: Good growth of planted pine., Some scattered mortality should be investigated for forest health concerns. Stocking is variable as is row spacing. Smaller trees from later re=plant seem to be growing through. FMD 2008: nominated for out of YOE harvest and re-plant in 2008. RPP. Trenched 1n 2011. Initial plant 2012. Re-plant 2014 Sprayed one eastern most strips and two western most strip. Will replant 2018 to bring up to full stocking. This stand has been updated from a field evaluation for a project on free to grow red pine.																																								
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<b>161</b>	42220 - Natural Jack Pine	Poletimber Well	9.6	25	111-140	N/A	2022: Well stocked jp with a little white oak and patches of cherry poles. 2004 FMD: Scattered maple- saw. J3 2012FMD; Pretty thick jack pine on cut jack pine strip. Some red pine and pockets with maple, oak and cherry. Damage to jack pine from heavy snow (March 2012).																																								
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<b>162</b>	42110 - Planted Red Pine	Sapling Well	22.5	8	Immature	N/A	2022: Good growth in diameter and height. 16' /year height growth. FMD 2008: Nominated for out of YOE harvest and re-plant. RPP. Trenched in 2011. Planted 2012. Re-plant 2014. Northern strip has heavy cherry. This stand has been updated from a field evaluation for a project on free to grow red pine.																																								
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<b>163</b>	4126 - White, Black, N. Pin Oak	Sawtimber Well	8.0	127	51-80	N/A	2022: This stand is long term retention area for TS# 61-010-18. Harvest 2020. Cut to 4" but no white pine, red pine 8" or less or or green marked trees . Shelter-wood/seed tree harvest.																																								
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<b>164</b>	4110 - Sugar Maple Association	Sawtimber Well	12.3	115	81-110	N/A	2022: TS# 61-055-21 Estate Sale. Marked sale. Removed most larger maple and cherry to create seed tree/shelter-wood canopy. Stand is mature and in need or re-generation. 2004 FMD: M8 TS# 005-95 TCR 2/97. Cut orange marked. Sold s. maple, b. cherry. 2012FMD: Current stocking is fine. Look at next entry. Would not be enough volume to generate commercial sale. Some good quality stems but not a large number of quality crop trees. Little maple regeneration. Old tree/fence line on north along private property.																																								
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<b>165</b>	42110 - Planted Red Pine	Sapling Medium	35.6	8	Immature	N/A	2022: Scattered small mortality pockets should be investigated for forest health risk. Good growth in general on stand. Some lower areas with lower survival and stocking. May have been frost influence. 2008FMD: nominated in 2008 for out of YOE harvest and re-planting RPP. Trenched in 2011. Planted 2012. Re-plant 2014. Scattered apple trees. This stand has been updated from a field evaluation for a project on free to grow red pine.																																																		
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<b>166</b>	42110 - Planted Red Pine	Poletimber Well	4.0	25	111-140	N/A	2022: Good growth. Consider row thin next entry. 2011: Planted red pine in old jack pine strip. Jack pine seeded in as well. Growing well but high stocking may impede red pine in future.																																																		
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<b>167</b>	3302 - Low Density Conifer Trees	Nonstocked	1.1		Unspecified	No	2022: Some rp and jp and hardwoods encroaching on this small opening.																																																		
<b>168</b>	42220 - Natural Jack Pine	Poletimber Well	3.5	25	51-80	N/A	2022: Patchy jp regen around residual oak, maple and cherry from last treatment.																																																		
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<b>169</b>	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	5.7	85	51-80	N/A	Small lower quality hardwood mix. Keep for diversity. Aspen is old and declining but not a lot of volume. 2004 FMD M6. Small fuelwood harvest (thinning) in 1996-98. 2012FMD: Small mixed stand with new plantations on 3 sides. Keep for diversity. Part of canopy is older aspen and white pine but a good bit of canopy is red maple/white pine poles. Some decent form in red maple. A little beech in stand.																																																		
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<b>170</b>	3301 - Low Density Deciduous Trees	Nonstocked	2.6		Unspecified	No	2022: apple trees and some jp and wp seeding in																																																		
<b>171</b>	42220 - Natural Jack Pine	Sapling Medium	11.9	20	51-80	N/A	2022: Well stocked pockets of jack pine with white and a little red pine. Some open pockets with seedlings. Let stand grow in to merchantable size then harvest all and plant red pine. 2012: Was W7 age 57 in 2004 INV. TS 033-97. Cleaned up the WP. Stand swapped from Non-Forested to Forested. Filled in with jack pine after white pine was harvested. Scattered white pine in overstory. New jack pine saplings called main overstory.																																																		
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<b>172</b>	6132 - Mixed Lowland Forest with Cedar	Sawtimber Well	13.8	93	81-110	N/A	2022: Some areas are very wet such as the NE corner and drain through middle. Other parts along west edge and south are more upland mix with aspen, oak and jp. 2004FMD: E5E8H4C4 2012FMD: barely lowland some wet spots. Some bands of aspen on slightly higher ground but most is slightly lowland with appropriate species mix. Some large scattered white pine and young jack pine seeded in on west edge along plantation. Aspen is falling out of stand.																																																																		
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<b>173</b>	42110 - Planted Red Pine	Sawtimber Well	49.7	64	111-140	N/A	2020: Avg BA 160. Let stand grow in. Roads built through stand for side by side? Trees blazed and painted to mark in places. 2015: TS# 003-14. Marked thinning. 2004 FMD; R6 TS# 038-94 Third row thinning. TCR 1/95 2012FMD: Not much damage from heavy snowfall in this stand. Stocking in on the high side. Needs thinned in rows. Could spec every third tree or mark.																																																																		
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<b>174</b>	4130 - Aspen	Sapling Well	5.1	17	51-80	N/A	2022: Decent growth. Aspen and red maple growing through scattered retention of oak, maple, pine, beech. 2002FMD A5 TS# 047-04. TCR 3/05. Sliver Aspen. included PI stands 137, 141. Cut all to @" except no beech bc oak rp. Cut mostly aspen with some wp and rm. 2012 FMD: Aspen clear cut with a little retention of pine and oak.																																																																		
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<b>175</b>	4112 - Maple, Beech, Cherry Association	Sawtimber Well	9.7	85	51-80	N/A	2022: Low quality stand with red maple, beech logs. Little desirable understory formed since last harvest in 1999. Beech brush under with a little rm, wp. Stocking is not high. Some older aspen in places. Illegal roads -Ranch Rudolf direction sign. Beech bark disease. 2002FMD: M6 TS# 033-97. TCR 6/99. Cut all marked trees. Sold white pine, aspen, s. maple, basswood, red maple beech. 2012FMD: Same canopy gaps created from last treatment but not much desirable regeneration growing yet. Most is beech, cherry, white pine. Some well formed red maple left in canopy and a little sugar maple. Will need to let stand develop.																																																																		
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<b>176</b>	4130 - Aspen	Sawtimber Well	10.6	57	111-140	N/A	2022: Aspen is declining and should be considered for re-start. Some of the white pine throughout the stand is getting large for commercial use. May be possible to hold. Stand to north recently harvested. Could leave some well formed pine and oak if found and harvest to regenerate. Aspen is patchy. Illegal roads. 2002 FMD A6 47 age																																																																		
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<b>177</b>	4311 - Pine, Aspen Mix	Sawtimber Well	10.1	115	81-110	N/A	2022: Mixed sizes of white pine and red maple. There was ash but all dead. Some red oak poles. May be good to get some of the bigger wp and rm out and the aspen which is getting large and falling out. Could mark it for crop tree release on the pole size. Would create stand with mixed age classes which would be difficult to manage in future. Could be treated with stand 176 if that is harvested. Some wp seedling through stand. May be able to get wp to fill in over time. Illegal roads through stand. 2002 Fmd W8 Retention of stand for regen purposes TS# 033-97. TCR 6/99. Cut all marked trees. Sold white pine, aspen, s. maple, basswood, red maple beech. 2012FMD; The canopy in this stand is dominated by 105 age white pine with younger aspen, pine, maple, cherry (age 47 ) grown in. Has old pine look.																																																										
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<b>178</b>	4130 - Aspen	Sapling Well	13.5	17	Immature	N/A	2022: Good growth on aspen. Some scattered oak and pine retention from last harvest. Let stand develop. 2002:A5 TS# 047-04. TCR 3/05. Sliver Aspen. included PI stands 137, 141. Cut all to 4" except no beech bc oak rp. Cut mostly aspen with some wp and rm. 20121FMD: aspen clear-cut with retention of oak, cherry and pine. Good aspen regen in most areas.																																																										
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<b>179</b>	42111 - Planted Red Pine, Mixed Deciduous	Sapling Well	36.1	8	Immature	N/A	2022: Mixed density in planted pine. Some wider rows and some mortality in pockets and scattered. Should evaluate forest health concerns. Deciduous competition on east side. Most is cherry and red pine seems to be outgrowing it but the stocking of the rp is lower. Trenched in 2011. TS # 033-97. 2008. Nominated or out of entry cutting and replanting. RPP> Initial plant 2012. Re-plant 2014. Sprayed 2014 to control brush on east side but not effective. No follow up to re-spray so east side is full of cherry brush. Regen survey 2017: 650 -700 TPA rp. Much cherry competition and lighter jp seedlings. Raspberries. This stand has been updated from a field evaluation for a project on free to grow red pine.																																																										
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<b>180</b>	4311 - Pine, Aspen Mix	Sawtimber Well	7.0	143	81-110	N/A	2022: White pine is getting large and aspen id declining. Could cut aspen and most red maple and larger pine. There are pockets of thick maple regen with aspen and wp. (10-20') Maybe cutting in shelter-wood harvest will generate some maple and aspen under. The hardwood stand to the east has ironwood and beach under and very little maple while this stand has generated a lot of maple saplings in pockets after last treatment. 2004 FMD: W9 Retention of stand for shelterwood purposes. Area is regenerating to WP seedlings. TS# 033-97. TCR 6/99. Cut all marked trees. Sold white pine, aspen, s. maple, basswood, red maple beech. 2012fmd: ix of old white pine and aspen (age 60?) Enough aspen to get good regen but leave for now. Pocket of aspen in center of stand was cut last entry and has heavy regen growing through pine. (age 12). This is heavy aspen regen show in sub canopy call. Not heavy outside of this pocket. Large adjacent area of young aspen so keep this now for age class diversity.																																																										
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**181** 3105 - Mixed Upland Herbaceous Nonstocked 1.5 Unspecified No 2022: Some dumping. OLD HOME SITE-FOUNDATIONS

**182** 4110 - Sugar Maple Association Sawtimber Well 4.6 102 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Hemlock	2	Log	12		Beech	Low	5 - 10 feet	Sapling
Basswood	10	XLog/Log	18		White Pine	Low	5 - 10 feet	Sapling
Beech	10	Log	16	102	Black Cherry	Low	5 - 10 feet	Sapling
White Pine	5	XLog/Log	18		Ironwood	Medium	5 - 10 feet	Sapling
Sugar Maple	70	Log	16	102	White Ash	Low	< 5 feet	Sapling
Black Cherry	3	Log/Pole	10	102				

2022: SM is getting large and likely losing value but almost all of the under story regen is ironwood. Hold stand until better regeneration options exist. 2004FMD: M9 TS# 033-97. TCR 6/99. Cut all marked trees. Sold white pine, aspen, s. maple, basswood, red maple beech. 2012FMD: Stocking is fione at this time. Let this stand grow in for now. Not much maple regeneration forming at this time. Moat is Beech, IW, WP ...a little BC, Ash.

**185** 4126 - White, Black, N. Pin Oak Sawtimber Well 10.0 106 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	10	Log/Pole	14	106	Red Maple	Medium	10 - 20 feet	Sapling
Red Pine	10	Log	14	85	White Pine	Medium	10 - 20 feet	Sapling
Jack Pine	5	Log/Pole	12	85	Black Cherry	Low	10 - 20 feet	Sapling
Red Maple	15	Log/Pole	10		Red Oak	Low	5 - 10 feet	Sapling
Red Oak	20	Log/Pole	15	106	White Oak	Medium	5 - 10 feet	Sapling
White Oak	40	Log/Pole	14	106	Red Pine	Low	10 - 20 feet	Sapling

2022: Split off NW corner of stand 28 which has more pine component to create this stand. May make good retention area for surrounding treatments.

**186** 42110 - Planted Red Pine Poletimber Medium 25.1 30 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black Cherry	5	Sapling/Pole	4	30	Oak (spp.)	Medium	< 5 feet	Seeding
White Oak	5	Sapling/Pole	4	30				
White Pine	5	Sapling	2					
Jack Pine	20	Pole	6	30				
Red Pine	65	Pole	5	30				

Planted red pine with natural jp and oak. Light residual canopy of oak and pine. Called canopy on 29 yr age. Decent growth on red pine in the last decade. Stocking is variable but good in most areas.

**188** 42210 - Natural Red Pine Sawtimber Poor 21.9 83 1-50 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	70	Log	14	83	White Oak	Medium	>20 feet	Sapling
White Oak	25	Log	16	125	Red Maple	Low	>20 feet	Sapling
White Pine	5	Log	14	83	White Pine	Low	>20 feet	Sapling
					Jack Pine	Low	10 - 20 feet	Pole
					Black Cherry	Low	>20 feet	Sapling
					Red Pine	Low	10 - 20 feet	Sapling

2022: Large red pine and white oak with oak, jp and wp salplings 20'+ growing through. Keep 29 age in sub-canopy. May want to flip next entry. 2011: Was R7 stand age 83. 20 may be first age. TS# 024-87. Cut all merchantable but do not cut trees marked with green or blue and do not cut any red or white pine. TCR 1/91 PI Stands 4 and 5 were both in this sale. 2011FMD: Scattered oak and pine overstory with moderate-thick oak and jack pine regen with a little planted red pine age 20. Younger age is too advance to remove overstory. Let this age grow through.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**200**      4129 - Mixed Oak      Sawtimber Well      9.8      100      51-80      N/A

Canopy Species	% Cover	Size Class	DBH	Age
Jack Pine	2	Pole	9	85
Red Oak	28	Log	12	100
White Oak	38	Log	11	100
Red Pine	20	Pole/Log	8	85
Red Maple	10	Pole	8	
Quaking Aspen	2	Log	12	85

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	Variable	Sapling
Red Oak	Low	< 5 feet	Seeding
White Oak	Medium	< 5 feet	Seeding

2022: Lower quality and stocking of oak and red pine mix. The majority of the pine is lower diameter and stunted. Most of the oak is poor quality. Consider removing most oak and any larger pine to release advanced oak understory. Retain lower diameter red pine for shelter and some scattered better formed oak for mast and seed production. Could treat with stand 75 which is similar in ways. 2011FMD; OAK LOGS AND POLES WITH INTERPLANTED RED PINE. A good bit of the red pine is suppressed but it grew pretty well where it had room =less oak/more red pine. Consider thinning stand to bring along better oak and pine or perhaps cutting most and weaving red pine back in. Areas have advanced oak and white pine regen. Suppressed pine may not release at his point and oak is mediocre in quality.