



Compartment Review Presentation

Traverse City Forest Management Unit

Compartment 61043

Entry Year 2026

Acreage: 3,233

County Grand Traverse

Management Area: Kalkaska Sandy Moraines

Stand Examiner: Pat Ruppen

Legal Description:

T27N R9W Sections 19,20,29,30,32

Identified Planning Goals:

Management for this compartment is guided by the Boardman Plains Management Area Guidance. Oak and aspen are types in this compartment. The predominate understory species are red maple and white pine with oak and red pine to a lesser extent. The predominate shrub species are blueberry, juneberry, wintergreen and witch hazel.

A number of aspen stands exist in this compartment that were regenerated in the late 1960's –early 1970's. An attempt will be made to re-start a portion of these stands in this entry through harvest prescriptions. Access to these stands is difficult due to roads of deteriorating condition. These treatments may be un-attainable due to access issues.

Conditions that existed around the turn of the last century that created the extensive oak stands (large clearcuts that minimized frost pockets, intense fires that minimized competition and a smaller deer population) cannot be replicated. Therefore, the oak resource in this compartment is skewed towards the older age classes due to a minimal amount of regeneration for the last 70 years. The oak in the 90+ age classes is approaching the end of the normal lifespan on outwash plains and is becoming increasingly susceptible to insects and diseases such as oak wilt and oak decline. Older oak also does not sprout as vigorously from stump sprouts. Due to the advanced age of the oak and the challenges to regenerating oak, management should concentrate on maintaining an oak component in mixed stands. The current understory of white pine and red maple (below oak) will be released through partial oak harvests. Two treatments of this type are prescribed in this compartment. Considerations should also be given to planting pine in oak stands, which can help to shelter young oak from late spring freezes. Oak retention for mast and seed production will be considered in all treatments where oak is a component of the stand.

Soil and topography:

LTA 1111 Coarse textured end moraine. Steep and hilly. Soils are deep and excessively drained. Rubicon Sand, with small inclusions of Kalkaska sand and Kalkaska loamy sand. LTA 5211 Glacial outwash plain that is pitted with ice block depressions. Deep excessively drained acidic sands: Grayling, Rubicon with Rifle peat in kettle depressions.

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

This compartment is within a large block of state ownership. There is solid state ownership to the east and broken ownership to the west, south and north. This compartment has several private in holdings. This compartment is in close proximity to one of the most rapidly developing areas in Michigan. Pressure for various recreational land uses is heavy.

Unique Natural Features:

Pothole lakes including Dollar Lake, Bullhead Lake and Perch Lake and Strombolis Lakes.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

Fisheries Division recommends that reasonable harvest buffer zones (outlined in the Forestry BMP handbook) be established around all lakes and ponds within this compartment. This compartment contains a number of small pothole lakes including Perch Lake, Bullhead Lake, Dollar Lake, Strombolis Lake, and Island Lake. Reasonable buffers (as outlined in Water Quality Management Practices on Forest Land) should be adhered to around all the lakes and ponds in this compartment. Existing buffers appear to be appropriate for the proposed treatments.

Wildlife Habitat Considerations:

Compartment 43 straddles the boundary between two glacial land types, moraine ridges to the north and an outwash plain which covers the southern 4/5. The bulk of this compartment is state owned, with several exceptions, the largest being centered on Island Lake.

Wildfire was a common natural disturbance of sandy outwash plains. Consequently, many of the communities found here are comprised of fire dependant species. Present habitat types on the outwash plain are oak or aspen communities with some scattered conifer components. Small wetlands or ponds are found in ice block depressions scattered about this area. Other depressions which function as frost pockets and cold air drainages support open or semi-open communities. Prescribed fire is an important tool in maintaining the health of these habitats. Opportunities to re-establish the currently rare barrens communities should be pursued when identified. A variety of wildlife species, including ruffed grouse, fox squirrel, red bat, and eastern garter snake, call this fire derived mosaic home. A number of abandoned oil well pads exist in this compartment and need to be revegetated. These sites are comprised of sterile sandy soils with little chance of supporting native herbaceous plant life. Most of these sites will be planted to an appropriate conifer species or kept open for future use as timber landings.

The moraine ridges in the north part of the compartment are comprised of steep sandy hills supporting a mixture of oak, aspen, and northern hardwood. Wildfire would occasionally make its way into these ridges from the adjacent outwash plains. Therefore, the southwest borders of this moraine complex are a good area to manage for earlier successional communities. Wildlife species benefiting from these communities include deer, black bear, downy woodpecker, and eastern box turtles. The openings found among the ridges in compartment 43 are either of ice block depression origin or are products of drilling for fossil fuels.

Mineral Resource and Development Concerns and/or Restrictions

There is no known metallic mineral potential in this part of the state. The closest known active sand/gravel pit is approximately two miles north. There may be some potential for sand & gravel within the compartment and demand for aggregate exists in the area, but potential for commercial development may be inhibited by the prevalence of oil & gas infrastructure. The compartment is outside the main productive zone of the Antrim Shale gas play but is within the northern Silurian reef hydrocarbon play. Much of the compartment has been developed in association with the latter, and several successful, as well as many unsuccessful, wells are within the compartment. Much of the State-owned mineral rights in the compartment are currently leased and held by production. It is possible that additional future reef reservoir discoveries beneath the compartment could occur, but potential is considered low. More likely are efforts of secondary recovery from old reservoirs. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

Vehicle Access:

Strombolis Road, Perch Lake Road, Muncie Lake Road, and Sand Lakes Road are county maintained and provide good access. A network of woods trails and two tract roads dissect the compartment and need to be evaluated. The south 2/3 of the compartment is fairly level and access is fair-good. The north 1/3 of compartment is on moraine ridges and the road network is inadequate for heavy truck access. Investment in some road segments would be necessary to access this portion of the compartment. Roads that were poor quality have been degraded even further by recreational vehicle traffic. There are serious access issues due to the road destruction.

Survey Needs:

Recreational Facilities and Opportunities:

Sections of the Boardman Valley Snowmobile Trail, Vasa Pathway, Vasa Single Track Mountain Bike Trail, TC-Kalkaska Hiking Trail, and North Country Trail are found in this compartment. Appropriate trail protection specifications should be included in the timber sale contract where harvesting may impact these recreational facilities. There is also a large network of un-authorized bicycle trails in this compartment. Hunting, fishing, and dispersed camping are also common recreational activities within this compartment. (T.M.N. 4/14/14)

Fire Protection:

This area is protected by the DNR Traverse City Field Office, and VFD protection is Battalion # 3 Williamsburg Fire Dept. On occasion, there has been fire occurrence in this area, and it has been difficult at times to get units into fires. While it is mostly hardwood fuel type, fires here have grown because of the remoteness, and at times fires not being spotted right away. Urban Interface is not an issue here.

Additional Compartment Information:

The following reports from the Inventory are attached:

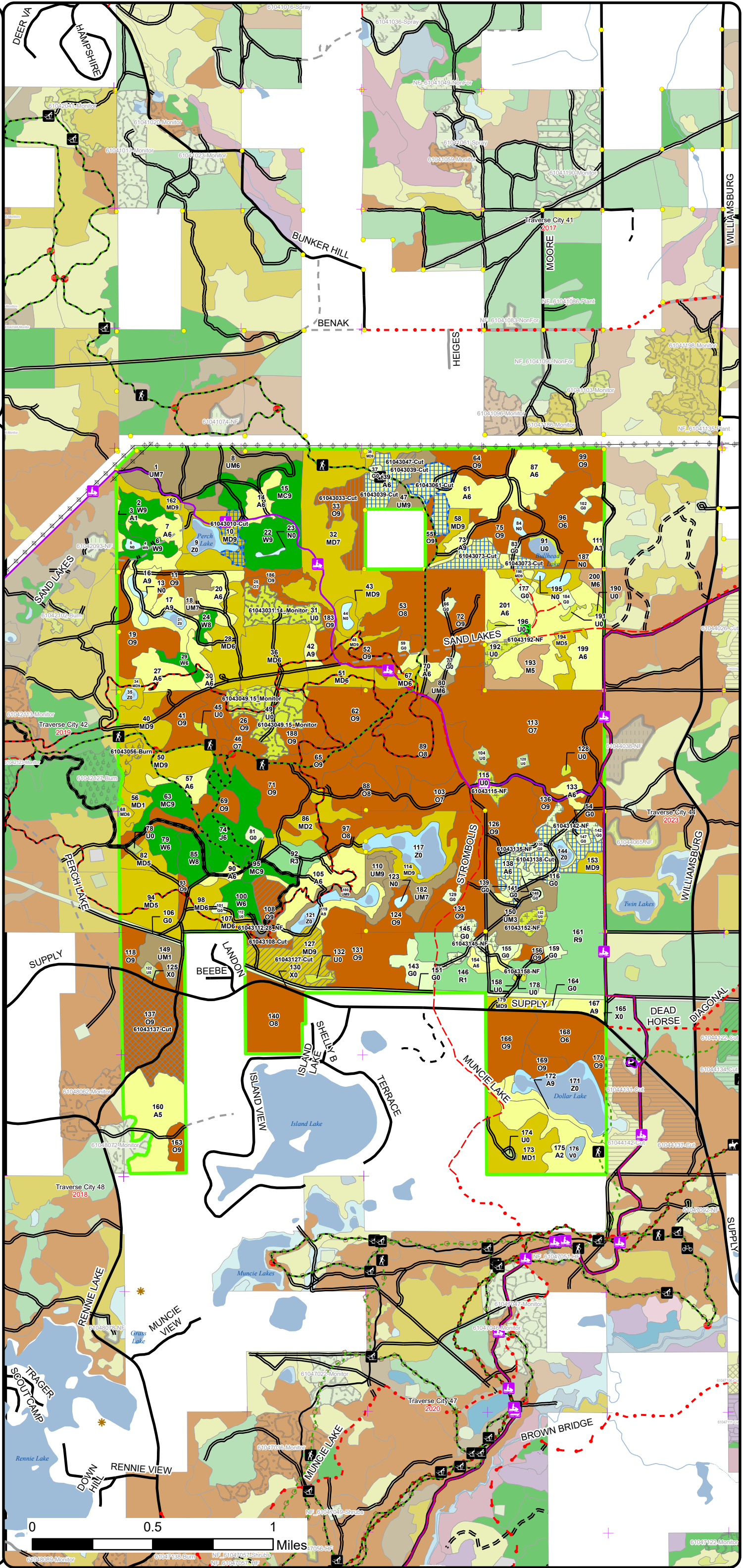
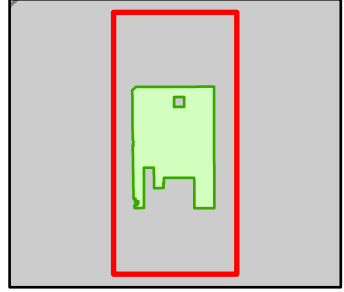
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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: 61043
 T25N R6W Sections 3, 4, and 5
 County: Grand Traverse
 Unit: Traverse City
 Mgmt Area: Kalkaska Sandy Moraines
 YOE: 2026
 Acres: 3233.1 GIS Calculated
 Examiner: Pat Ruppen
 Map Revised: 07/08/2024
 Map Phase: Web-Post

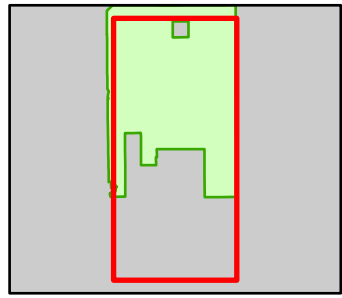


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- Designated Hiking Trails
- Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- Designated Snowshoe Trails
- Designated Multi-Use Trails
- ORV License & Trail Permit
- Designated ORV Route
- Designated Snowmobile Trails
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- Powerline
- Counties
- Compartment Boundary
- Treatments with Site Conditions
- Other Treatment - See Comments
- Selection (Group, Single Tree)
- Prescribed Burn
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Regeneration Survey
- Shelter Wood (w/Reserves)
- Opening Maintenance
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland

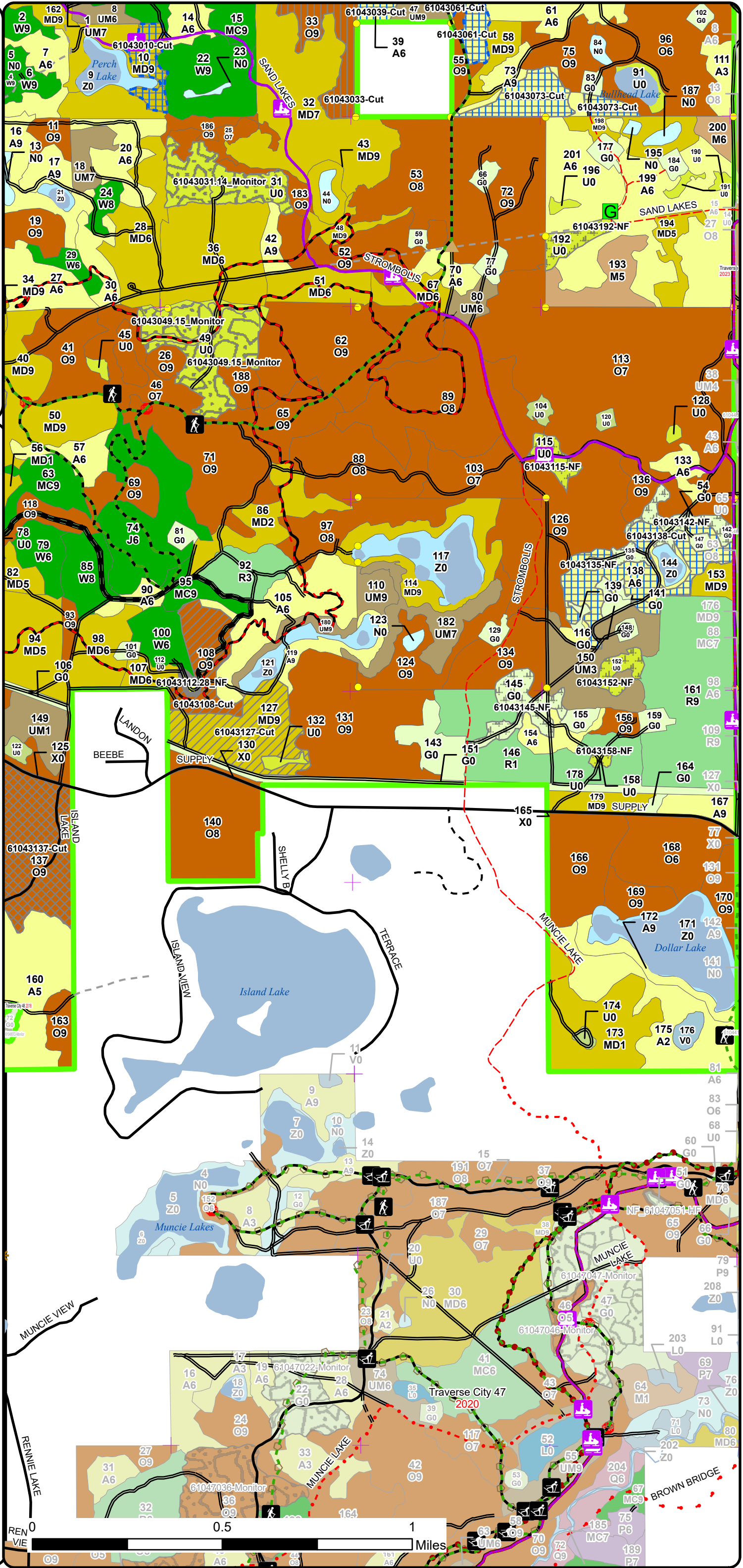


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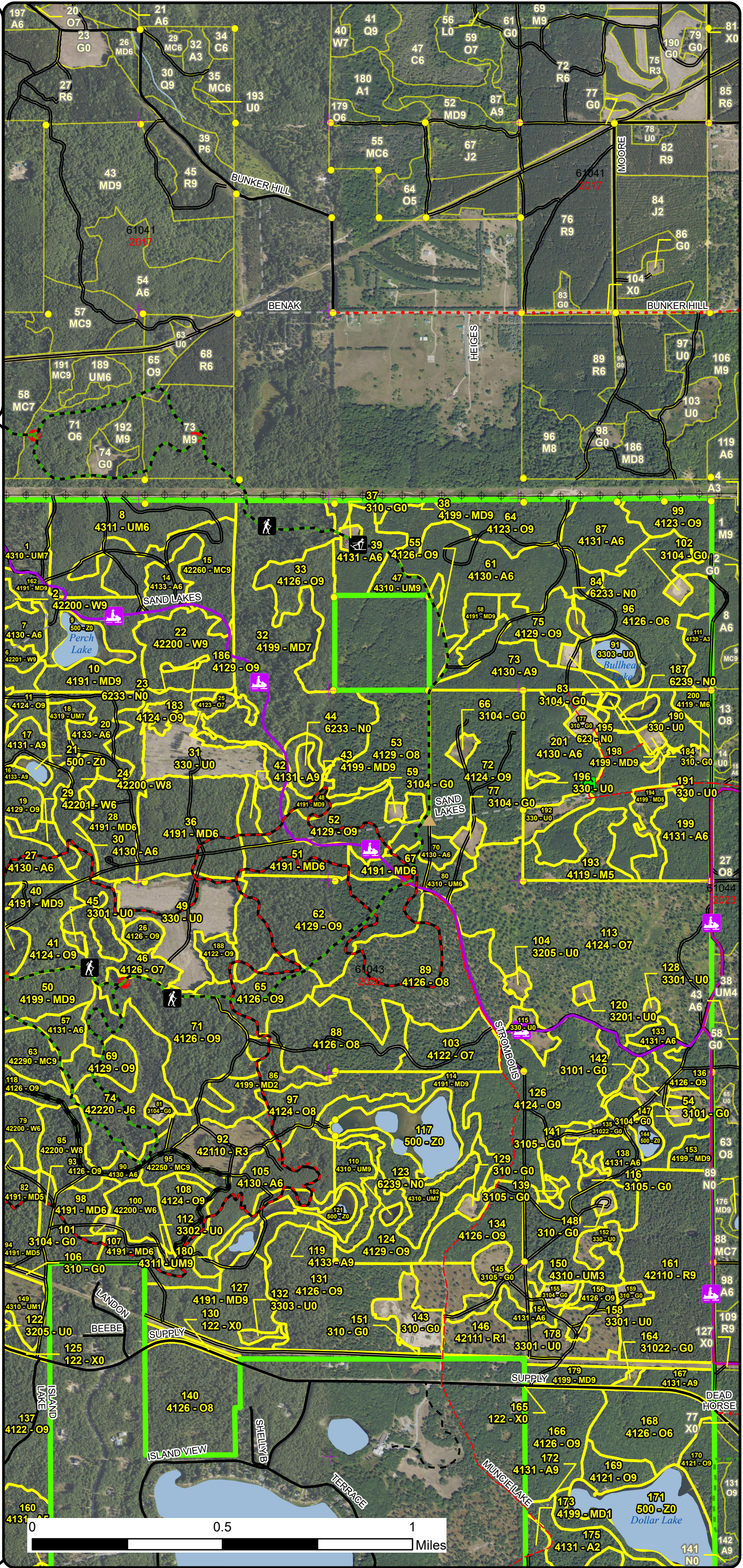
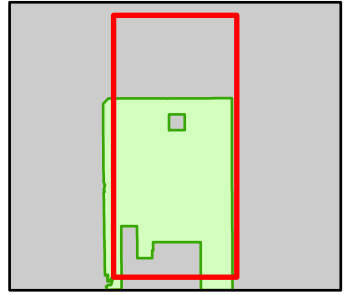


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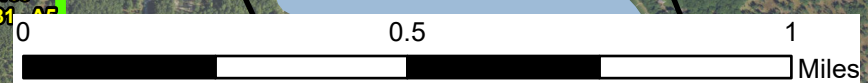


Stand Boundary Map

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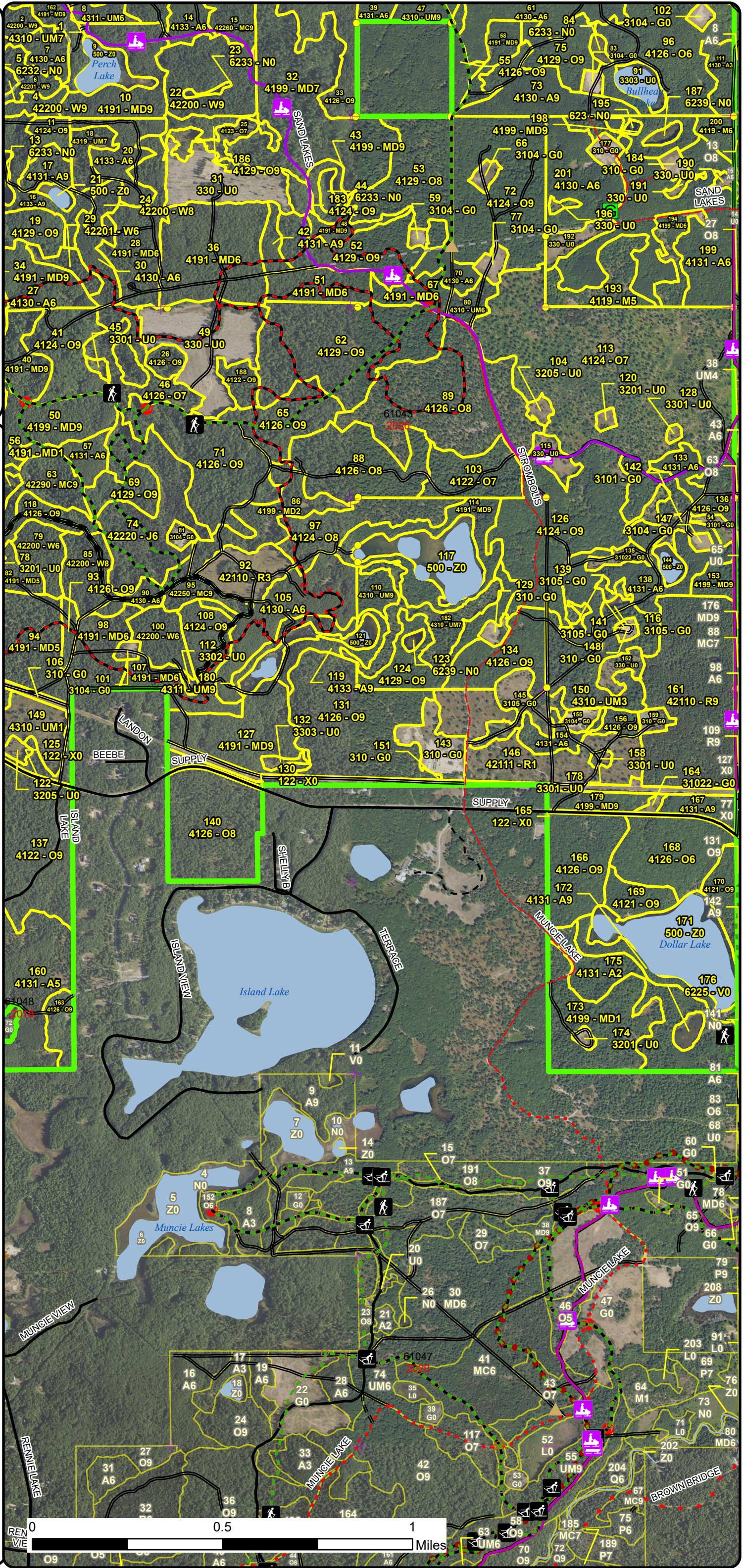
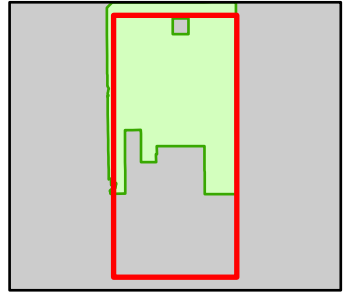


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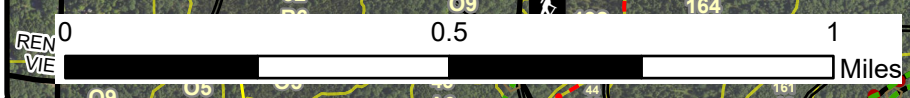


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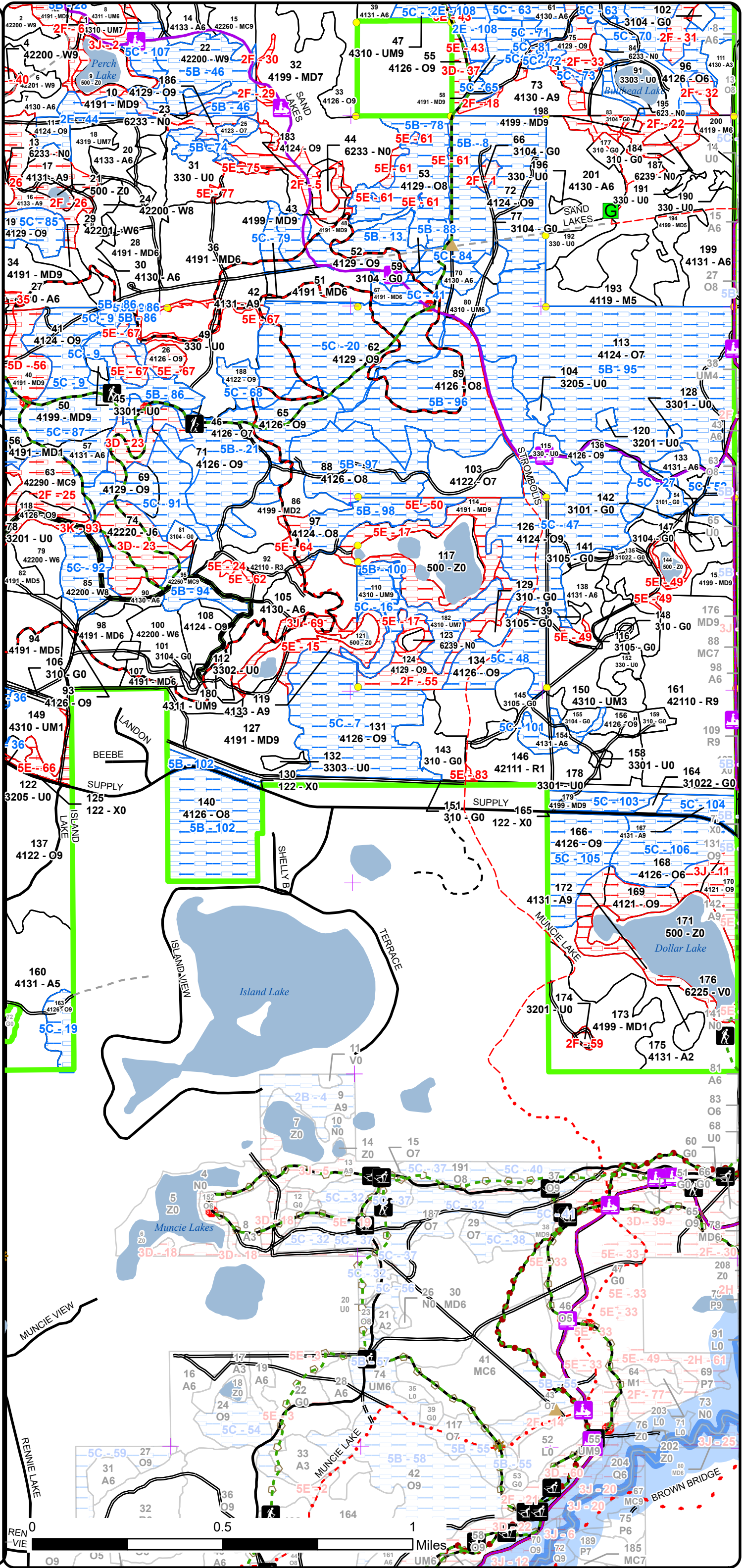
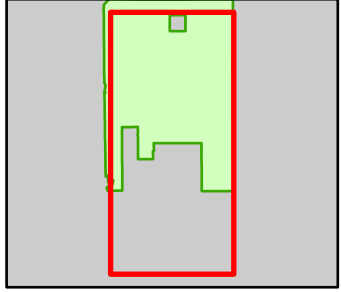


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Special Conservation Areas & Site Conditions Map

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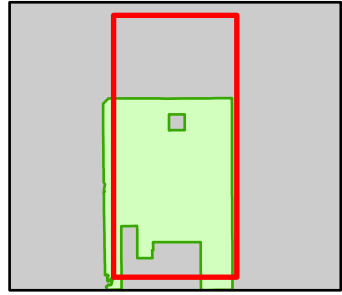


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- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 2E: Road needed
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site
- 2F: Too steep
- 3D: Recreational / Scenic values
- 3J: Water quality / BMPs (stream, river, or lake)
- 3K: Rare or unique landforms
- 5D: Unproductive Forest Land
- 5E: Long-Term Retention
- Available w/ Constraints
- Unavailable
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams

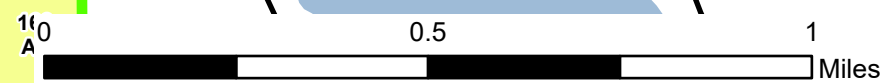
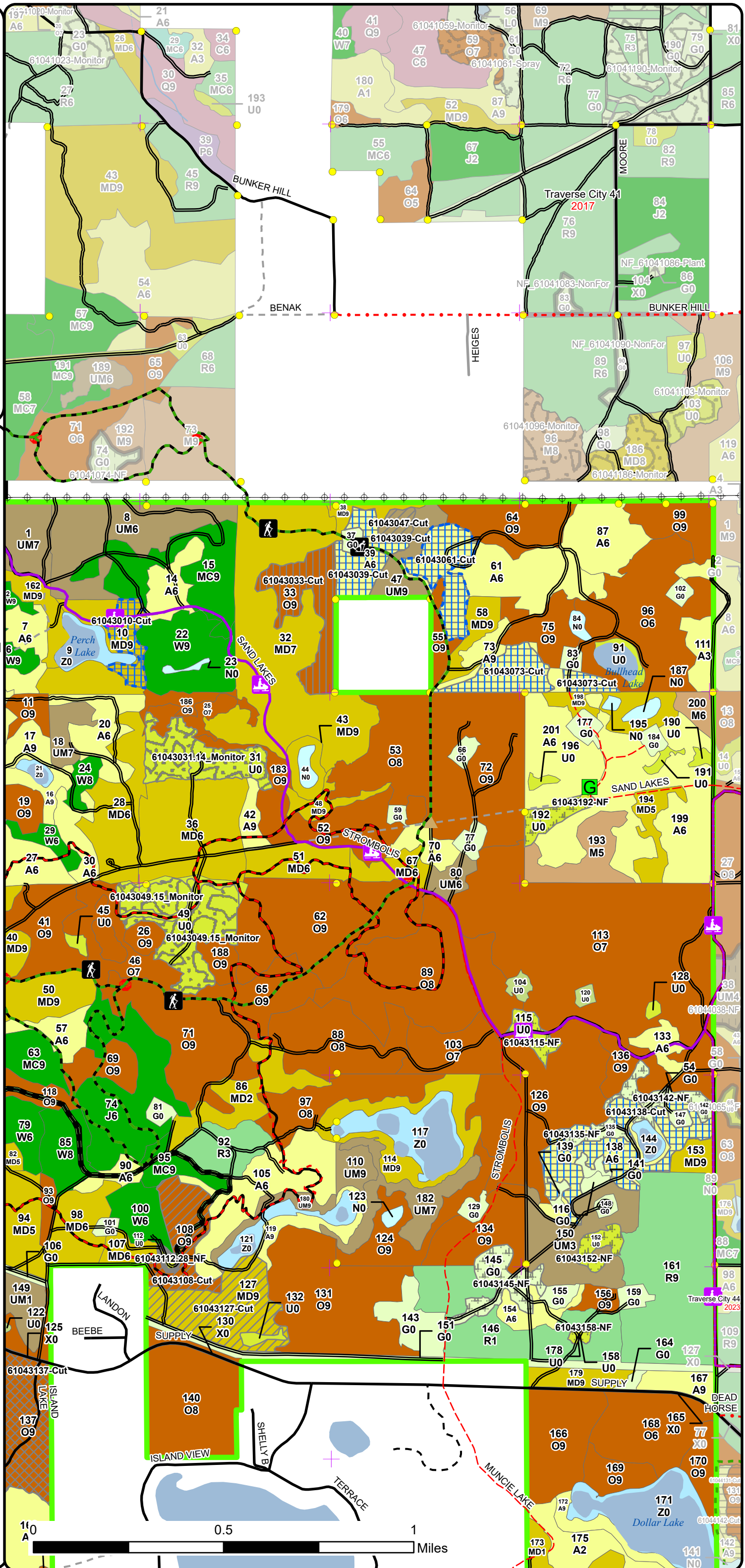


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Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	42	72	83	121	176	0	16	7	32	0	0	0	0	0	0	0	548
Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Herbaceous Openland	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101
Jack Pine	0	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	0	0	44
Low-Density Trees	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96
Marsh	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Mixed Upland Deciduous	0	0	52	50	73	10	106	4	0	27	25	190	29	0	0	0	0	0	566
Natural Mixed Pines	0	0	0	0	0	0	0	0	9	50	0	0	0	0	0	0	0	0	59
Northern Hardwood	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	23
Oak	0	0	0	0	0	0	0	0	0	4	169	447	565	65	8	0	0	0	1256
Red Pine	0	59	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	131
Upland Mixed Forest	0	15	31	0	42	0	6	8	7	0	27	29	16	0	0	0	0	0	181
Upland Shrub	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Water	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91
White Pine	0	0	0	0	0	0	0	0	22	12	46	16	0	0	0	0	0	11	106
Total	320	74	125	122	198	154	288	12	170	100	299	682	610	65	8	0	0	11	3234



Report 2 – Treatment Summary

Traverse City Mgt. Unit
Year of Entry: 2026

Acres of Harvest

Compartment 43
Total Compartment Acres: 3,233

Commercial Harvest - 211
Harvests with Site Condition - 28
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	0	0	0	83	0	0	0	0	0	83
Mixed Upland Deciduous	0	0	0	10	0	33	0	0	0	43
Oak	0	65	0	0	24	21	0	0	0	109
Upland Mixed Forest	0	0	0	0	0	4	0	0	0	4
Total	0	65	0	93	24	58	0	0	0	239

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	239	0	0	0	6	0	53	0	46	344
Next Step	0	0	0	0	0	0	181	0	6	187
Total	239	0	0	0	6	0	235	0	52	531



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

10	61043010-Cut	9.9	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	89	111-140	Harvest	Seed Tree with Retention	4319 - Mixed Upland Forest	Two-Aged	No
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Prescription Mark to retain no more than 20 BA focusing on marking oak, white pine, and red pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, oak, maple, pine.

Regen:

Other Include snowmobile protection spec and appropriate BMP buffers.

Comment:

Site Condition Age-Class or Site Quality

Proposed Start Date: 10/1 /2025

33	61043033-Cut	24.2	4126 - White, Black, N. Pin Oak	Sawtimber Well	107	81-110	Harvest	Shelterwood	4191 - Mixed Upland Deciduous with Conifer	Two-Aged	No
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Prescription Mark to leave no more than 50 BA of oak and pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, oak, pine, maple hemlock, birch.

Regen:

Other No winter harvesting. Protect planted trees in stand 37 if used for a landing. Protect advanced white pine regeneration in the understory

Comment: during harvest. Include oak wilt spec in timber sale.

Site Condition

Proposed Start Date: 10/1 /2025

39	61043039-Cut	15.2	4131 - Aspen, Oak	Poletimber Well	54	111-140	Harvest	Seed Tree with Retention	4319 - Mixed Upland Forest	Two-Aged	No
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Prescription Harvest all trees down to 1 inch DBH except mark to leave no more than 20 BA of oak and pine.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, oak, pine, maple, hemlock, birch.

Regen:

Other Consult with Trails Specialist on retention around the VASA trail. Add trail protection specs. Protect planted trees in stand 37 if used for a

Comment: landing.

Site Condition

Proposed Start Date: 10/1 /2025



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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47 61043047-Cut	3.5	4310 - Pine, Oak Mix	Sawtimber Well	114	111-140	Harvest	Crown Thinning	4319 - Mixed Upland Forest	Two-Aged	No
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Prescription Mark stand down to 50-80 BA. Remove all aspen.

Specs:

Next Step

Treatments:

Acceptable oak, pine, aspen, maple, hemlock, birch.

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2025

56 61043056-Burn	5.8	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	15	1-50	Burn	Opening	3205 - Mixed Upland Shrub		No
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Prescription 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 NonForestMgt, Herbaceous/Crop/Grass Planting

Treatments:

Acceptable

Regen:

Other Burn in conjunction with stand 61042127.

Comment:

Site Condition

Proposed Start Date: 10/1 /2025

61 61043061-Cut	18.2	4130 - Aspen	Poletimber Well	54	111-140	Harvest	Seed Tree with Retention	4131 - Aspen, Oak	Two-Aged	No
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Prescription Mark to retain oak and some pine not to exceed 20 BA. Cut remaining stems down to 1 inch. One chain wide retention pocket along VASA trail is in the site condition layer.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, oak, pine, maple, hemlock, birch.

Regen:

Other Small opening in the southern tip just inside of stand 58 can be used for access. Include some areas along this road for decking.

Comment:

Site Condition Road Needed

Proposed Start Date: 10/1 /2025



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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73 61043073-Cut	17.9	4130 - Aspen	Sawtimber Well	54	141-170	Harvest	Seed Tree with Retention	413 - Aspen	Two-Aged	No
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Prescription Retain oak and pine not to exceed 20 BA. Cut remainder of the trees down to 2 inch. Treatment boundary may extend into stand 201.
Specs:

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

Acceptable aspen, pine, maple, oak
Regen:

Other Decking may occur on stand 83
Comment:

Site Condition

Proposed Start Date: 10/1 /2025

108 61043108-Cut	20.7	4124 - Red with White Oak	Sawtimber Well	117	111-140	Harvest	Crown Thinning	4319 - Mixed Upland Forest	Two-Aged	No
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Prescription Crop tree release down to 60-80 BA. Harvest all aspen and target more red maple for removal.
Specs:

Next Step
Treatments:

Acceptable Oak, maple, pine, aspen, hemlock, birch.
Regen:

Other Protect bike trail that runs through this stand.
Comment:

Site Condition

Proposed Start Date: 10/1 /2025

115 61043115-NF	5.9	330 - Low-Density Trees	Nonstocked		Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
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Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could seed in native grasses and forbs.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2025

127 61043127-Cut	33.4	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	109	111-140	Harvest	Crown Thinning	4319 - Mixed Upland Forest	Two-Aged	No
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Prescription Thin for crop tree release. Basal area may be 40-80 range depending on quality. Target for removal: oak and poor formed trees and some of the larger pine, retaining most of the red & white pine throughout stand. Cut remaining aspen, jack pine, and red maple.
Specs:

Next Step
Treatments:

Acceptable Oak, aspen, maple, pine, hemlock, birch.
Regen:

Other Access road off of Supply road and across powerline easement. Treat with stand 108 to north.
Comment:

Site Condition

Proposed Start Date: 10/1 /2025



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
135 61043135-NF	3.6	31022 - Warm Season Grass	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
<p><u>Prescription</u> Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could seed in native grasses and forbs.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
137 61043137-Cut	64.5	4122 - Oak, Pine	Sawtimber Well	124	111-140	Harvest	Group Selection	4319 - Mixed Upland Forest	Two-Aged	No
<p><u>Prescription</u> Retain well-formed oak (green mark) as found, targeting ~10BA of oak retention with some larger, wolfy oak included. Retain most White pine throughout stand. Attempt to protect existing advanced pine regeneration but encourage mowing the pockets of oak saplings to re-sprout. Residual stand will have a medium stocked pine overstory with scattered oak.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> pine, oak, maple, aspen.</p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
138 61043138-Cut	31.3	4131 - Aspen, Oak	Poletimber Well	56	111-140	Harvest	Seed Tree with Retention	413 - Aspen	Two-Aged	No
<p><u>Prescription</u> Harvest all trees down to 2 inch DBH. Mark to leave no more than 20 BA of oak and pine. Treatment area may be significantly less than prescribed due to BMP's and slopes.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Aspen, red maple, oak, pine, hemlock, birch.</p> <p><u>Other Comment:</u> May have areas of higher oak retention in pockets where there is better quality oak. SW lobe is steep hillside and could be retention area. Access needs to be determined.</p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										
142 61043142-NF	8.5	3101 - Poverty Grass, Cladonia	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
<p><u>Prescription</u> Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could seed in native grasses and forbs.</p> <p><u>Specs:</u></p> <p><u>Next Step</u></p> <p><u>Treatments:</u></p> <p><u>Acceptable Regen:</u></p> <p><u>Other Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2025</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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145	61043145-NF	13.6	3105 - Mixed Upland Herbaceous	Nonstocked	Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
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Prescription Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could seed in native grasses and forbs.

Next Step Treatments:

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

152	61043152-NF	5.4	330 - Low-Density Trees	Nonstocked	Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
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Prescription Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could seed in native grasses and forbs.

Next Step Treatments:

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025

158	61043158-NF	1.4	3301 - Low Density Deciduous Trees	Nonstocked	Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		No
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Prescription Specs: Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could seed in native grasses and forbs.

Next Step Treatments:

Acceptable Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2025



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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192	61043192-NF	6.6	330 - Low-Density Trees	Nonstocked		Unspecified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub	No
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Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover. Plant site appropriate native shrubs and/or mast producing trees for wildlife food and cover. May need to fertilize plantings and protect with wire cages or tubex. Could seed in native grasses and forbs.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Site Condition

Proposed Start Date: 10/1 /2025

Approved Treatments:

31	61043031.14_Monitor	22.0	330 - Low-Density Trees	Nonstocked	0	Unspecified	Monitoring	Artificial Regen(3yr)	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	No
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Prescription Monitor seedling survival and FTG status.

Specs:

Next Step
Treatments:

Acceptable planted red pine
Regen:

Other Percent to Treat = 100%
Comment:

Site Condition

Proposed Start Date: 10/1 /2025

49	61043049.15_Monitor	31.3	330 - Low-Density Trees	Nonstocked	0	Unspecified	Monitoring	Artificial Regen(3yr)	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	No
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Prescription monitor seedling survival and FTG status

Specs:

Next Step
Treatments:

Acceptable planted red pine
Regen:

Other Percent to Treat = 100%
Comment:

Site Condition

Proposed Start Date: 10/1 /2025



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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112 61043112.28_ NF	1.2	3302 - Low Density Conifer Trees	Nonstocked		Unspec ified	NonForestMgt	Brush Cutting	320 - Upland Shrub		No
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Prescription Selectively hand fell woody encroachment to maintain upland brush/grassland community. Leave scattered mast producing trees and shrubs and/or conifers for wildlife food and cover.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2015

Total Treatment 344.1
Acreage Proposed:

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Pat Ruppen : Examiner

Compartment: 43

Year of Entry: 2026

Availability for Management

Total	Acres	Acres Avail	Acres
Acres	Available	With Condition	Not Available

Dominant Site Conditions

	Total Acres	Acres Available	Acres With Condition	Acres Not Available	Dominant Site Condition	Dominant Site Conditions									
						2E	5B	5C	2F	3D	3J	3K	5D	5E	ed
548	385	104	60		Aspen	18	0	86	36	0	10		0	14	
4	4	0	0		Bog										
101	98	0	3		Herbaceous Openland		0	0	3						
44	0	13	30		Jack Pine		0	13		30					
96	89	0	7		Low-Density Trees			0						7	
15	14	0	1		Marsh				1						
564	387	80	97		Mixed Upland Deciduous	7	0	73	51	0	8		14	24	0
59	34	9	16		Natural Mixed Pines		9		16		0				
23	23	0	0		Northern Hardwood				0						
1257	158	964	136		Oak	5	519	440	57	9	28	10	0	33	0
131	129	0	2		Red Pine									2	
181	105	63	13		Upland Mixed Forest		49	14	5	0	8			0	
8	7	0	1		Upland Shrub				1						
5	5	0	0		Urban			0							
91	86	0	5		Water				4		0			0	
106	57	42	7		White Pine		26	16	7	0					
3,233	1,580	1,274	378		Total Forested Acres	29	603	642	181	39	55	10	14	80	0
	49%	39%	12%		Relative Percent										

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2F: Too steep	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Perch lake							

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5	Unavailable	2F: Too steep	14	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Slopes around pothole lake.							
6	Unavailable	2F: Too steep	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	57	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Timber treatment completed 2010. Combination of crop tree release and understory release.							
8	Available	5B: Maintain for regeneration purposes	58	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 2014: stand was thinned in prior entry period. Second age developing of white pine and red maple. Remaining oak in canopy looks to be fine. Let second age grow in through into oak canopy. Stocking is variable of canopy layer with some areas fully stocked with oak. Portions of the stand have ba of residual reduced to 40-60. .							
9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Harvested as part of TS# 068-06. Completed 8/09. Cut marked trees and all aspen. Red maple was marked to retain good single stem trees.							
11	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	38	2F: Too steep	Unspecified	Unspecified	Unspecified
Comments: Riparian zone around Dollar Lake							

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13	Available	5B: Maintain for regeneration purposes	27	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments: Recently harvested TS# 018-06. Old re-ad sale that covered mulitple ifmap stands. Cut orange marked and all rm and dead oak.							
15	Unavailable	5E: Long-Term Retention	8	3J: Water quality / BMPs (stream, river, or lake)	2F: Too steep	Unspecified	Unspecified
Comments:							
16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7		Unspecified	Unspecified	Unspecified
Comments: Natural pine mix on steep west facing slope. Some bigger pine mixed in. Stand is overstocked but it would be difficult to thin without damaging residual due to slopes. Consider leaving this small patch of natural pine.							
17	Unavailable	5E: Long-Term Retention	28	2F: Too steep	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)	Unspecified
Comments: Steep slopes around Strombolis Lake							
18	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This mature oak pine mix does not show any sigh of mortality at this time, Keep this stand for age diversity.							

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20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	64	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 2008 harvest. combination of crop tree release and understory release. Stand is converting back to white pine from low quality oak.							
21	Available	5B: Maintain for regeneration purposes	60	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Second age is thick in most places. Could not enter this stand until this develops without damaging second age. Second age is small diameter for likely age-44 (sapling/small pole) but stocking is good.							
22	Unavailable	2F: Too steep	12	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
23	Unavailable	3D: Recreational / Scenic values	33	2F: Too steep	Unspecified	Unspecified	Unspecified
Comments: west side of stand has a lot of influence from VASA trail. With slopes and trail, it would be difficult to harvest. Stand may be left to succeed naturally to ak and pine.							
24	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
25	Unavailable	2F: Too steep	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments: stand is too step to operate on for such low volume. Stand should be factor limited and allowed to naturally convert as jack pine falls out.							

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26	Unavailable	2F: Too steep	40	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
27	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Part of TS#071-06. Completed 7/10. Cut orange marked and all aspen/rm.							
28	Available	5B: Maintain for regeneration purposes	29	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand harvested in 2019 with oak and pine retention. Allow new age to develop.							
29	Unavailable	2F: Too steep	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
30	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
31	Unavailable	2F: Too steep	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
32	Unavailable	2F: Too steep	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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33	Unavailable	2F: Too steep	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
34	Unavailable	2F: Too steep	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
35	Unavailable	2F: Too steep	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
36	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 2024: Collection of old large crowned oaks and pines. Keep for diversity. May want to remove some of the poor quality from the younger age class that has grown in but keep the large old trees.							
37	Unavailable	3D: Recreational / Scenic values	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Small stand between private ownership and VASA pathway. Although this stand is somewhat overstocked recommend letting this stand naturally develop. Trail and private property make this improbable.							
38	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: The younger age class needs to develop in this stand. The part of the stand south of the VASA Trail is heavier to pine but still has younger age class mixed in.							

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40	Unavailable	2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
41	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Was unspecified but assumed that this would be a 5C. Two aged stand with older oak and wp 16" avg dbh. thick wp,rm, aspen and some oak in younger age. Looks like wp has been filling in slowly. various ages. A little rp was planted in spots. sapling sized. Fully stocked with both age classes. Counted							
43	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
44	Available	2E: Road needed	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Cost to access stand would not be justified due to the small acres available. Excessive roadwork needed.							
46	Available	5B: Maintain for regeneration purposes	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Allow second age to develop before trying to remove additional overstory. Excessive damage would occur to second age in current condition.							
47	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	63	Unspecified	Unspecified	Unspecified	Unspecified
Comments: treating adjacent stands at this time and other adjacent areas have recently been treated.							

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Year of Entry: 2026

48	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments: treating adjacent stands at this time and other adjacent areas have recently been treated.							
49	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
50	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
51	Unavailable	5E: Long-Term Retention	1	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							
52	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: recently treated							
53	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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Compartment: 43

Year of Entry: 2026

54	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	2E: Road needed	Unspecified	Unspecified	Unspecified
Comments:							
55	Unavailable	2F: Too steep	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: DNR has option to purchase this private parcel but sale is not finalized at this time.							
56	Unavailable	5D: Unproductive Forest Land	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: treated in last entry period							
57	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	21	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Prescribed similar local stands this Y.O.E. Keep this stand for future age class diversity.							
59	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
60	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14	2E: Road needed	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

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Pat Ruppen : Examiner

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61	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
62	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
63	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Part of stand recommended for treatment this entry period.							
64	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
65	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Harvesting adjacent stand this entry. Maintain for diversity.							
66	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
67	Unavailable	5E: Long-Term Retention	17	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							

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68	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
69	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
70	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	38	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Most of this stand is impacted by steep ground and poor road access. May be able to access parts of this stand when adjacent areas are treated. No action at this time.							
71	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Due to steep ground, much of this stand is unavailable. Workable pieces could be examined when adjacent stands are treated.							
72	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Due to steep ground, much of this stand is unavailable. Workable pieces could be examined when adjacent stands are treated.							

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73	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Due to steep ground, much of this stand is unavailable. Workable pieces could be examined when adjacent stands are treated.							
74	Available	5B: Maintain for regeneration purposes	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand harvested in 2018 with retention. Allow new age class to develop.							
75	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
76	Unspecified	Unspecified	0				
Comments:							
77	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
78	Available	5B: Maintain for regeneration purposes	31	Unspecified	Unspecified	Unspecified	Unspecified
Comments: stand harvested in 2018 with retention. Maintain canopy until new age develops.							
79	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Best to hold stand until next entry and the harvest with stand to west and possible south. Not enough volume to harvest this stand alone.							

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80	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	0	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Due to steep ground, much of this stand is unavailable. Workable pieces could be examined when adjacent stands are treated.</p>							
81	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	0	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Due to steep ground, much of this stand is unavailable. Workable pieces could be examined when adjacent stands are treated.</p>							
82	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	0	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Due to steep ground, much of this stand is unavailable. Workable pieces could be examined when adjacent stands are treated.</p>							
83	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments:</p>							
84	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Mixes with oak, rm and pine in places and the aspen is smaller diameters. Let this stand grow in for now.</p>							
85	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	24	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: slopes and access issues. May be able to go with another treatment. Consider treating when stand to south is harvested.</p>							

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86	Available	5B: Maintain for regeneration purposes	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Harvested 2018 with retention. Allow new age to develop.							
87	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	42	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Low quality oak from sprouts with aspen and red maple. Little quality to justify thinning. Allow stand to develop before regeneration harvest; possibly next entry.							
88	Available	5B: Maintain for regeneration purposes	2	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
Comments: Recently harvested TS# 018-06. Old re-ad sale that covered multiple ifmap stands. Cut orange marked and all rm and dead oak.							
91	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Larger older age of oak and pine with mixed younger age with aspen clones, wp, rm, and pockets of oak saplings and poles. Vasa Trail. Let stand grow in as younger age develops. .							
92	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Mixed age stand on challenging terrain. Let stand develop and grow in before attempting harvest.							
93	Unavailable	3K: Rare or unique landforms	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: unique amount of large old oak as they were part of a barrens area that has grown							

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94	Available	5B: Maintain for regeneration purposes	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Mixed age stand with regeneration growing through from last harvest. Let stand develop.							
95	Available	5B: Maintain for regeneration purposes	148	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Heavy oak saplings after harvest and prescribed burn. Let stand develop.							
96	Available	5B: Maintain for regeneration purposes	68	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Shelterwood harvest 2019. Let stand develop.							
97	Available	5B: Maintain for regeneration purposes	36	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand has very well stocked understory. Let stand grow in. Trying to remove overstory will damage advanced regeneration.							
98	Available	5B: Maintain for regeneration purposes	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand thinned in 2018. Crown thinning with regeneration gaps. Let stand develop.							
100	Available	5B: Maintain for regeneration purposes	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand harvested in 2018. Clear-cut with retention. Let stand develop.							

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101	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand surrounded by open ground or young plantations. No need to harvest at this time.							
102	Available	5B: Maintain for regeneration purposes	46	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand crown thinned in 2018. Let new age develop.							
103	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Low volume would be available to harvest. Wait until adjacent stand is harvested then stand could be thinned.							
104	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Low volume would be available to harvest. Wait until adjacent stand is harvested then stand could be thinned.							
105	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Large nearby sale prescribed for harvest. This could be treated but best to wait for the adjacent stand to be harvested and planted.							
106	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	27	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Large nearby sale prescribed for harvest. This could be treated but best to wait for the adjacent stand to be harvested and planted.							

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107	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: May not be enough volume to be commercially viable. May want to try to sell as small sale which may be picked up by someone working in area.							
108	Available	2E: Road needed	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Access is poor in area due to poor quality of existing roads due to orv and side by side use. Road improvements will need to be addressed.							
109	Unspecified	Unspecified	0				
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments

Mgt. Unit

Compartment:

Year of Entry



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
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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1	4310 - Pine, Oak Mix	Sawtimber Poor	28.9	104	1-50	N/A	2023: Some regeneration forming in stand. Small pockets of aspen sprouts along with red maple sprouts. A small amount of oak sprouts and white pine seeding in. Expect more white pine to develop in new age. 2020: TS# 0787-17. Harvest 2019. Cut all but red and white pine and green marked retention. Tried to retain @ 40 baf but heavier where pine overstory was heavier. Edge call after harvest. Verify at next inventory. 2014: Poor quality oak log and poles with aspen/pine mix and red maple. White pine understorey thick in places.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Northern Pin Oak	2	Log	14			Red Oak	Low	< 5 feet	Sapling	
Red Oak	27	Log	16	104		Hazelnut (Beaked)	Low	< 5 feet	Tall Shrub	
Red Pine	15	Log	14			White Pine	Low	Variable	Sapling	
White Pine	38	Log	15	104		Bigtooth Aspen	Low	5 - 10 feet	Sapling	
White Oak	15	Log/Pole	13	108		White Oak	Low	< 5 feet	Sapling	
Red Maple	3	Pole/Log	9			Red Maple	Low	5 - 10 feet	Sapling	

2	42200 - Natural White Pine	Sawtimber Well	11.5	90	81-110	N/A	2023; Nice pine and oak mix along drain. May want to get some of the larger pine and oak put. 2014:White and red pine (most is white) overstorey.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Pine	20	Log	14			Red Maple	Low	Variable	Sapling	
Red Oak	5	Log/Pole	12			Red Oak	Low	Variable	Sapling	
Bigtooth Aspen	2	Log	16			White Pine	Medium	Variable	Sapling	
White Pine	60	Log	14	90		White Oak	Low	Variable	Sapling	
Northern Pin Oak	3	Log	14							
White Oak	5	Log	12							
Red Maple	5	Log/Pole	10							

3	4130 - Aspen	Sapling Poor	2.5	14	51-80	N/A	2023: Good regeneration after last harvest.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
White Oak	2	Sapling	2			White Pine	Low	5 - 10 feet	Sapling	
Bigtooth Aspen	79	Sapling	2	14						
Jack Pine	2	Sapling	2	13						
White Pine	5	Sapling	2	14						
Red Maple	10	Sapling	2	14						
Red Oak	2	Sapling	2	14						

4	42200 - Natural White Pine	Sawtimber Well	5.6	89	141-170	N/A	Slope around potlone depression			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Pine	5	Log	13	89		White Pine	Low	>20 feet	Sapling	
Bigtooth Aspen	10	Log	13	89		Red Maple	Low	>20 feet	Pole	
White Pine	69	Log	14	89						
Black Cherry	1	Pole	8							
White Oak	3	Pole/Log	9							
Red Maple	10	Pole/Log	9							
Red Oak	2	Log	14							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																			
5	6232 - Wet Prairie	Nonstocked	1.4		Unspecified	No	Has small upland portion on north edge. Frogs. Some standing water. Unlisted is an unknown shrub.																																																			
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6	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	10.0	79	1-50	N/A	2023; MIXED SIZES OF WHITE PINE. SOME OLDER ASPEN BUT MOST IS LIKELY IN THE YOUNGER AGE. Looks like they left some oak, pine, rd maple when stand was harvested. Let stand grow in. 2004: Two age stand. Both ages counted in canopy.																																																			
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7	4130 - Aspen	Poletimber Well	15.9	34	111-140	N/A	Good growth, height and stocking for aspen. Likely left all pine and oak at last harvest.																																																			
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8	4311 - Pine, Aspen Mix	Poletimber Well	42.2	36	111-140	N/A	2023: Stand is on side hill and will be difficult to work. Let aspen peak in volume before harvesting. Aspen can gain more volume. Some larger older aspen and red maple but most is in the younger age class. May have left smaller un-merchantable aspen last harvest. The pine is getting large. Looks like most aspen, oak, red maple cut last time and pine left. Pine is large with good stocking of younger age class through stand.																																																			
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Rushes	Low		Non-Wood																																																							
Sedges	Low		Non-Wood																																																							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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10 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 26.7 89 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Pole	9	
Red Oak	20	Log/Pole	13	
White Oak	20	Log/Pole	13	
Bigtooth Aspen	30	Log	14	89
White Pine	15	Log/Pole	14	
Red Pine	5	Log	13	114

Sub-Canopy Species	Density	Avg. Height	Size
White Oak	Low	10 - 20 feet	Sapling
White Pine	Low	Variable	Sapling
Red Pine	Low	10 - 20 feet	Sapling
Red Maple	Low	>20 feet	Sapling

2023: Only the East side of stand could be accessed due to slopes and riparian concerns. Approximately 10 acres is available to harvest. May not be enough volume for commercial harvest. Look at thinning adjacent stand 22 to join with this stand. An old skid road comes south through the stand to the east. May be useful for getting some of this out south of the lake. Aspen is old and falling out. Consider getting most aspen out and poor formed of other species. Stand will likely form new age in understory of aspen, red maple, white pine and oak. South of lake is heavier to oak, maple mix but does have aspen mixed through. May be difficult to access due to terrain but some areas could be harvested. Use proper riparian protection measures. Un-authorized bike trails in area. Snowmobile trail through stand is access.

11 4124 - Red with White Oak Sawtimber Well 6.0 114 111-140 N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Oak	25	Log	14	
Bigtooth Aspen	10	Log	14	
Northern Pin Oak	10	Log	14	
White Pine	3	Log	12	
Red Pine	2	Log	13	
Red Maple	10	Pole	8	
Red Oak	40	Log	16	114

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

. 2023: Older oak with pine, rm, aspen. Mixed sizes. No interesting. 2014: Mixed oak logs and poles with some aspen and pine. Average quality and stocking.

13 6233 - Wet Meadow Nonstocked 3.7 Unspecified No

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low		Seeding
Mixed Grasses	High		Non-Wood
Sedges	Low		Non-Wood
Rushes	Trace		Non-Wood

2014: small pond at south end w/grass and rushes along perimeter. Saw cedar waxwings, frogs. Mudrunning - need to restrict vehicular access (will be difficult)

14 4133 - Aspen, Mixed Pine Poletimber Well 11.5 25 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	15	Log	15	
White Oak	5	Log/Pole	12	
Red Pine	5	Log	16	99
Bigtooth Aspen	75	Pole	6	25

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Medium	10 - 20 feet	Sapling
Black Cherry	Low	10 - 20 feet	Sapling
Red Oak	Low	10 - 20 feet	Sapling
Red Maple	Medium	10 - 20 feet	Sapling

2023: Let aspen grow in. Pine is getting large. 2014: white and red pine overstory with aspen regeneration. Aspen counted as canopy -- 2 aged



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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15	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	34.0	89	81-110	N/A	2023: Mixed white pine sizes with pockets of poles and saplings. Areas with aspen poles and saps. Mixed aspen sizes. Let stand grow in. Pine is getting large but aspen needs to grow in.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
White Oak		5	Pole	8		Red Maple		Medium	>20 feet	Sapling
Bigtooth Aspen		20	Pole	8	25	Witch Hazel		Low	5 - 10 feet	Tall Shrub
White Pine		40	Log	14	89	White Pine		Low	Variable	Sapling
Red Oak		5	Pole	8		White Oak		Low	10 - 20 feet	Sapling
Red Pine		30	Log	16	95					

16	4133 - Aspen, Mixed Pine	Sawtimber Well	22.0	94	111-140	N/A	2023: Steep slopes around ice depressions.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Bigtooth Aspen		50	Log	14	94	Red Maple		Low	>20 feet	Pole
Red Oak		10	Log	14		White Pine		Medium	10 - 20 feet	Sapling
White Oak		10	Log	12		Witch Hazel		Low	5 - 10 feet	Tall Shrub
White Pine		25	Log	15						
Red Pine		5	Log	12						

17	4131 - Aspen, Oak	Sawtimber Well	7.3	89	81-110	N/A	2023: Steep bowl above pothole lake. Not practical to manage.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Oak		15	Log	15	89	Red Maple		Low	10 - 20 feet	Sapling
White Oak		15	Log	14		White Pine		Low	10 - 20 feet	Sapling
Northern Pin Oak		5	Log	14						
White Pine		8	Log/Pole	13						
Bigtooth Aspen		50	Log	12	89					
Red Pine		2	Log	12						
Red Maple		5	Pole/Log	9						

18	4319 - Mixed Upland Forest	Sawtimber Poor	8.3	66	1-50	N/A	2023:Moved stand to forested from un-forested . 2014: fairly recent fire. Thick carpet of poverty or penn sedge. old stumps.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
White Pine		40	Log	14	66	White Pine		Low	Variable	Sapling
Bigtooth Aspen		20	Log	12	66	Red Maple		Low	5 - 10 feet	Sapling
Red Maple		25	Pole	8						
White Oak		10	Pole/Log	8						
Red Pine		5	Log	12	66					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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19	4129 - Mixed Oak	Sawtimber Well	30.3	109	81-110	N/A	2023: Stand has been harvested in past as rm is younger age class. Older aspen clones in spots and some individual trees scattered through stand. Areas with heavy stocking of wp poles and saps. Could harvested older aspen and mark for removal poor formed trees in the rest of the stand. Not very interesting due to the slopes and access issues. May be able to go with another treatment. Consider treating when stand to south is harvested.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		5	Log/Pole	14		Red Maple		Low	>20 feet	Sapling	
Red Maple		10	Pole	8		Red Oak		Low	10 - 20 feet	Sapling	
Red Oak		35	Log/Pole	15	109	Witch Hazel		Low	5 - 10 feet	Tall Shrub	
Bigtooth Aspen		10	Log	14		White Pine		Medium	10 - 20 feet	Sapling	
Northern Pin Oak		5	Log	14		White Oak		Low	10 - 20 feet	Sapling	
White Oak		30	Log/Pole	13	109						
Red Pine		5	Log/Pole	12							

20	4133 - Aspen, Mixed Pine	Poletimber Well	16.7	39	51-80	N/A	Large oak and white pine remnants scattered around with younger age grown in. Some areas heavy to wp poles while others are heavier to aspen and red maple. Let stand grow in.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Oak		3	Pole	6		White Pine		Low	5 - 10 feet	Sapling	
White Pine		20	Pole	6	69	White Oak		Low	< 5 feet	Sapling	
Red Oak		10	Pole	6	39	Red Oak		Low	5 - 10 feet	Sapling	
Bigtooth Aspen		40	Pole	8	39						
Red Maple		27	Pole	6	39						

21	500 - Water	Nonstocked	2.5		Unspecified	No	The 2 track leading to this NFS has a steep sandy section that probably is prone to erosion. Frogs. Mudrunning - restrict vehicular access.
Sub-Canopy Species		Density	Avg. Height	Size			
Sedges		Medium		Non-Wood			
Rushes		Low		Non-Wood			
Mixed Grasses		Medium		Non-Wood			

22	42200 - Natural White Pine	Sawtimber Well	28.5	99	111-140	N/A	2023: Hilly terrain with mix of ridges and pothole depressions. Mix of white pine sizes but some is getting large. Could be thinned or left to grow in and gain size. Best to let the aspen and red maple second age grow in. Once it is merchantable aspen could be harvested and white pine overstory could be reduced to expand aspen. May take 20 years. WP may get too large by then but damage to second age would be excessive at this time if harvested.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Yellow Birch		1	Pole	8		Bigtooth Aspen		Low	>20 feet	Sapling	
Bigtooth Aspen		3	Pole	8	35	White Pine		Low	Variable	Sapling	
White Oak		6	Pole	8		Red Oak		Low	10 - 20 feet	Sapling	
White Pine		70	Log/Pole	14	99	White Oak		Low	10 - 20 feet	Sapling	
Red Maple		10	Pole	8	35	Red Maple		Low	>20 feet	Sapling	
Red Pine		10	Log/Pole	13	99						

23	6233 - Wet Meadow	Nonstocked	1.0		Unspecified	No	2024: Pretty wet. More of a pond. 2014:Saw two bear cubs close by.
Sub-Canopy Species		Density	Avg. Height	Size			
Mixed Grasses		Low		Non-Wood			
Bracken Fern		Low		Non-Wood			
Sphagnum Moss		Medium		Non-Wood			
Sedges		Medium		Non-Wood			
Rushes		Medium		Non-Wood			
Leatherleaf		Low		Tall Shrub			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																			
24	42200 - Natural White Pine	Sawtimber Medium	5.1	94	1-50	N/A	2024: Understory is formed after last harvest. Move to canopy level next entry 2004: Was harvested in a past entry, leaving pine overstory ..residual red and white -- most white called canopy -- 2nd age is regeneration formed after that treatment																																																			
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25	4123 - Red Oak	Sawtimber Poor	7.3	99	1-50	N/A	2023: Poor regeneration after harvest. Probably deer impact. RM sprouts and light wp seedlings. A few patches of aspen but should have been much. TS#051-16. Harvested fall season 2018. Cut to 2" dbh except leave green marked retention. Expect aspen, maple, oak regen.																																																			
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26	4126 - White, Black, N. Pin Oak	Sawtimber Well	9.2	109	111-140	N/A	2023: Steeper areas in depressions that were left as retention areas when TS# 043-16. was harvested. Separated into stand with Long term retention site condition.																																																			
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27	4130 - Aspen	Poletimber Well	19.5	44	81-110	N/A	2024: Stand could be harvested to re-start or could hold until next entry. Looks best to hold. Good height growth on aspen but could put on good volume with increase diameter growth. Looks like aspen will hold well on this site. Consider pushing bac to stand to south and west when this is harvested. Old landing on road south of stand. Steep slope in NW corner could be retention area. Also strip through center may have been retention island last time that is heavier to oak and pine. Scattered retention of oak and pine through stand as well. 2014: 30 yr old stand formed after final harvest -- a few residual pine, oak left																																																			
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28	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	28.2	25	51-80	N/A	2023: Mixed upland after last harvest. Let stand develop. RM OAK and Aspen from sprouts. Some older trees mixed in left from last harvest. 2014: 2 aged -- white pine left from last treatment. Good stocking of oak in openings but getting browsed badly.																																																			
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29 42201 - Natural White Pine, Mixed Deciduous Poletimber Well 5.6 86 111-140 N/A

2023: Mixed sized of WP with poles and saplings growing through. 2014: looks like this area may be good to keep and let pine develop. Only a 6 acre stand. Look and determine if this is .mostly WP regen
Both ages counted as canopy
Almost multi aged WP

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	5	Pole	8	114	White Oak	Low	10 - 20 feet	Sapling
Red Oak	5	Pole	8		White Pine	Medium	10 - 20 feet	Sapling
Red Maple	15	Pole	6	49	Red Oak	Low	10 - 20 feet	Sapling
Bigtooth Aspen	5	Log/Pole	12	49	Red Maple	Low	10 - 20 feet	Sapling
Red Pine	5	Pole/Log	8					

30 4130 - Aspen Poletimber Well 9.8 39 111-140 N/A

2024: Well stocked pole stand. Could harvest or let grow in another cycle. 2014: 30 year old stand after final harvest with scattered white pine reserved in canopy. A good bit of red maple stump sprouts Good oak regen in openings but getting browsed badly. Some is getting through in thicker areas

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	2	Pole	6	39	Red Maple	Medium	5 - 10 feet	Sapling
White Oak	3	Pole	6	39	Jack Pine	Low	5 - 10 feet	Sapling
White Pine	5	Log	14	79	White Pine	Medium	Variable	Sapling
Bigtooth Aspen	70	Pole	7	39				
Red Maple	20	Pole	6	39				

31 330 - Low-Density Trees Nonstocked 22.8 0 Unspecified 4211 - Planted Red Pine

2023: Good survival and growth for seedlings. Little competition. Some yellowing of needle tips. Drought stress. 2022 Fall - - 10/25/2022 Stand's First Year Regen Survey was completed; Stand has an estimated 850 trees per acre and is 98% free to grow at this time.
2022 Spring - Stand was Planted to Red Pine 5/6/2022
2021: Site prep spray skidder. Treatment did not seen very effective and skipped areas were noted. 2020: Stand trenched. 2019: TS# 051-16 Harvest Fall season 2018: Cut to 2" dbh except scattered green marked retention. This stand will be trenched and planted tp rp. Site to be treated with herbicide before planting. 2014: old stagnant off site oak.... old pine stumps... small log size drier oak site. Some larger oak logs but most is small log/pole.

32 4199 - Other Mixed Upland Deciduous Sawtimber Poor 97.0 104 1-50 N/A

2023: Decent regeneration after harvest. Residual oak, rm and pine with aspen, rm and oak saplings.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	8	Log	14		Bigtooth Aspen	Full	Variable	Sapling
Red Oak	42	Log	14	104	White Pine	Low	Variable	Sapling
White Pine	8	Log/Pole	12					
Red Maple	40	Log/Pole	10					
Red Pine	2	Log	14					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																														
33	4126 - White, Black, N. Pin Oak	Sawtimber Well	24.2	107	81-110	N/A	2023; Aspen is old and declining. Could be harvested with poor quality oak to start new age class in stand. Not much quality in oak to keep a stocked stand of decent quality but not enough aspen to fully regenerate stand. Stocking is variable. May want to keep an oaky stand with all the surrounding aspen. Private corners are in. * Some well formed oak. Most is white oak but a little decent Red oak. Most oak is low quality. Most aspen is on the flat along east side. Could green mark better quality oak (10-40 ba.) and harvest the rest to regenerate stand. Keep most pine. Cut all aspen and most rm. Try to protect advanced wp understory as found. 2014: drier low-quality oak. Looks like pine would be better suited to this site.																																																														
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34	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	6.6	109	111-140	N/A	2023: Mixed species on steep slope around ice depression lake. Factor limited.																																																														
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35	500 - Water	Nonstocked	1.7		Unspecified	No	Nice pond. Some log white pine, eastern hemlock pole and sawlogs, and oak sawlogs on adjacent slope.																																																														
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36	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	45.6	56	81-110	N/A	2024: Low quality mixed stand with mixed diameters. RP planted in stand at some point. Let stand develop. 2014: A light super-canopy of old white pine and oak 50-40 yr old age class and old -100+ part marked																																																														
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37	310 - Herbaceous Openland	Nonstocked	2.0		Unspecified	No																																																															



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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38	4199 - Other Mixed Upland Deciduous	Sawtimber Well	5.0	119	81-110	N/A	2023: Strip along powerline. Keep for diversity 2013: Large scattered red oak and red maple with aspen and pine mixed in
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	15	Log/Pole	12		Red Maple	Low	10 - 20 feet	Sapling
Beech	5	Log	10		Ironwood	Low	10 - 20 feet	Sapling
Bigtooth Aspen	10	Log/Pole	10		Red Oak	Low	10 - 20 feet	Sapling
Sugar Maple	15	Log	15		Hazelnut (Beaked)	Low	5 - 10 feet	Tall Shrub
Basswood	5	Log	14		White Pine	Low	10 - 20 feet	Sapling
Red Oak	50	Log/Pole	16	119				

39	4131 - Aspen, Oak	Poletimber Well	15.5	54	111-140	N/A	2023: Scattered older oak and pine in stand with younger age grown in. Could be harvested or left to put on more volume. Retain better quality oak with some pine in stand if harvested to re-start. Red Oak is good quality. A little sugar maple. * Interested in harvesting to start new age class in area. Need to access with vasa trail to old well pad which has been done for stand to the west. Opened up berm on supply road. Rock on trail must be protected and restored if trail is used for access. Would make sure the bond is high enough to bring in gravel and spread if needed. Protect the planted pines in the well pad. Retain well-formed oak and some scattered pine as found. Some nice red oak in small log/pole sizes. Leave around 1 chain buffer on vasa trail. Look at NW corner of stand 47 to go with as it is blocked by terrain from the east. Harvest with stand 33.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	2	Log	15		Witch Hazel	Low	5 - 10 feet	Tall Shrub
Red Maple	10	Pole	8		White Pine	Low	Variable	Sapling
Red Oak	15	Pole	8		Red Maple	Low	>20 feet	Sapling
White Oak	5	Pole	5					
White Pine	3	Log	16					
Bigtooth Aspen	65	Pole	9	54				

40	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	18.4	104	51-80	N/A	2023: Mixed oak sizes but most is log size. Little aspen regeneration after last harvest. Stand is moving toward white pine with a mixture of poles and saplings growing through. Mixed pine sizes but most is pole/sapling. Stand lays in depressions and ridges. Difficult access. Let stand develop at this time.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	10	Log/Pole	12		White Oak	Low	10 - 20 feet	Sapling
Red Oak	30	Log	15	104	White Pine	Medium	Variable	Sapling
Jack Pine	2	Log	12		Bigtooth Aspen	Low	10 - 20 feet	Sapling
Northern Pin Oak	5	Log	12		Red Oak	Low	10 - 20 feet	Sapling
White Pine	22	Pole	8		Red Maple	Low	10 - 20 feet	Sapling
Red Pine	8	Log	12					

41	4124 - Red with White Oak	Sawtimber Well	23.2	104	51-80	N/A	2023: RM and aspen sprouts and RM seedlings forming new age after harvest. Oak seedlings in gaps but getting browsed heavily. Let stand develop.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	5	Log	14		Red Oak	Low	>20 feet	Sapling
White Pine	5	Log/Pole	12		Red Maple	Medium	5 - 10 feet	Sapling
Red Oak	40	Log	16	104	Bigtooth Aspen	Medium	10 - 20 feet	Sapling
White Oak	35	Log	14		White Pine	Low	10 - 20 feet	Sapling
Red Maple	15	Log/Pole	12		White Oak	Low	>20 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																
42	4131 - Aspen, Oak	Sawtimber Well	5.4	54	111-140	N/A	2023: Mixed species and sizes. Low quality stand. Aspen patches in stand with oak, pine, rm mix. Similar to the stand to west but a bit more aspen. Stand could be harvested to regenerate aspen, but other areas may come up short on regeneration. Not much quality to work with. Best to hold stand until next entry and the harvest with stand to west and possible south. Not enough volume to harvest this stand alone. 2014: Mix of aspen poles/small logs and older aged wp,rp,oak. Good growth and height on aspen. Let stand grow in longer.																																																
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43	4199 - Other Mixed Upland Deciduous	Sawtimber Well	5.9	112	111-140	N/A	2023: Steep slope around ice depression lake.																																																
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44	6233 - Wet Meadow	Nonstocked	2.6		Unspecified	No	2023: Ice block depression pond. Small amount of water although this area had been full of water 4 years back. Large white pine, big-toothed aspen, oak in forested stand along perimeter. South 1/3 still has standing water (shallow). Frogs. Trace of goldenrod and iris.																																																
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45	3301 - Low Density Deciduous Trees	Nonstocked	1.3		Unspecified	No	2023: Small pond in bottom at times. 2014: Eastern wood peewee, red-headed woodpecker. Frost pocket. Traces of little bluestem, poverty grass, rush, moss. Nice big tooth aspen to north. Another small frost pocket to north, could be OFS, similar vegetation.																																																
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
46	4126 - White, Black, N. Pin Oak	Sawtimber Poor	19.6	109	1-50	N/A	2023: A few pockets of decent aspen regen but other areas have been heavily browsed and aspen is sparse. Light RM and oak saplings 2019: TS# 043-16. 2019: Harvest Dec 2018. Cut all aspen and orange marked. Expect natural regeneration on this stand while adjacent stand 49 will be site prepped and planted. Depressions were excluded from sale and are now a separate stand with long term retention. 2014: Aspen in stand is mature. Aspen is heavier in areas and not evenly distributed. Topography is bowls and hills.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		5	Log/Pole	10		Bigtooth Aspen		Low	10 - 20 feet	Sapling	
Red Oak		30	Log/Pole	14		Witch Hazel		Low	5 - 10 feet	Tall Shrub	
White Oak		45	Log/Pole	14	109	Red Maple		Low	5 - 10 feet	Sapling	
White Pine		10	Log/Pole	12	82	White Pine		Low	Variable	Sapling	
Red Pine		10	Log/Pole	12	82	Red Pine		Low	5 - 10 feet	Sapling	
47	4310 - Pine, Oak Mix	Sawtimber Well	15.5	114	111-140	N/A	2023: Some aspen clones scattered in stand could be harvested if adjacent stands are treated. Nice older pine, oak mix in north end. Would be good to keep this oak, pine mix for diversity in this area. 2014FMD: Old red and white pine and scattered oak Younger aspen red oak, red maple, white pine. *Look at nw part of stand to harvest with stand 39. May be best time to access. Blocked by steep ground from east. Or could cut part sw of vasa and leave the North part of stand 39 to go with the rest of this stand.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		20	Log	14	114	Red Pine		Low	10 - 20 feet	Sapling	
Red Oak		15	Log	15		White Pine		Low	Variable	Sapling	
Red Pine		25	Log	14	114	Red Maple		Low	10 - 20 feet	Sapling	
Bigtooth Aspen		20	Pole/Log	9	53						
Red Maple		10	Pole	8	53						
White Oak		10	Log	14							
48	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	6.6	54	81-110	N/A	2014: Older oak and pine with pole sized aspen and red maple growing through.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		5	Log	12		Red Maple		Low	>20 feet	Sapling	
White Oak		15	Log	15	119	Red Oak		Low	>20 feet	Sapling	
White Pine		15	Log/Pole	14		White Pine		Low	10 - 20 feet	Sapling	
Northern Pin Oak		5	Log	14		Witch Hazel		Low	5 - 10 feet	Tall Shrub	
Red Maple		15	Pole	7	54	White Oak		Low	>20 feet	Pole	
Bigtooth Aspen		30	Pole	8	54						
Red Oak		15	Log	16							
49	330 - Low-Density Trees	Nonstocked	37.5	0	Unspecified	4211 - Planted Red Pine	2023Fall: - 10/25/2022 Stand's First Year Regen Survey was completed; Stand has an estimated 813 trees per acre and is 94% free to grow at this time. 2022 Spring: Stand was Planted to Red Pine 5/6/2022 2021: Stand skidder sprayed site prep 2021. Treatment seemed less than completely successful with poor kill and skips. 2020: Stand trenched June 2020. 2018. TS# 051-16. Harvested FALL SEASON 2018 LEAVING SCATTERED RETENTION. plant red pine after necessary site prep. Adjacent stand 46 was part of this treatment but should regenerate naturally.				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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50	4199 - Other Mixed Upland Deciduous	Sawtimber Well	32.4	52	111-140	N/A	2023: Low quality oak and rm from stump sprouts. Let stand develop. Not much quality to justify thinning at this time. Aspen clones scattered around stand. Aspen grew well. 2014: Widely Scattered older Oak and Pine. Stand final harvested 40 yrs ago with some residual overstory.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	20	Pole	8	52	Oak (spp.)	Low	5 - 10 feet	Sapling
Red Oak	25	Log/Pole	10	52	White Pine	Low	5 - 10 feet	Sapling
White Pine	5	Log/Pole	10	52	Red Maple	Low	5 - 10 feet	Sapling
Bigtooth Aspen	15	Log/Pole	10	52	Hazelnut (Beaked)	Low	5 - 10 feet	Tall Shrub
Red Pine	5	Log/Pole	11	52				
White Oak	30	Log/Pole	10	52				

51	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	15.0	58	81-110	N/A	2023: Mixed species low quality stand. RM and oak from sprouts with aspen. Some red pine likely planted. Older wp scattered around. Let stand develop. 2014: 50-60 yr old stand formed after final harvest
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	20	Log	15	79	White Pine	Low	5 - 10 feet	Sapling
Red Pine	10	Log/Pole	10	74	Red Pine	Low	5 - 10 feet	Sapling
Red Oak	20	Log/Pole	12	79	Red Maple	Low	10 - 20 feet	Sapling
Red Maple	20	Pole	8	58	White Oak	Low	10 - 20 feet	Sapling
Bigtooth Aspen	20	Pole	8	58				
White Oak	10	Log	12					

52	4129 - Mixed Oak	Sawtimber Well	29.7	119	51-80	N/A	2023: Good bit of wp saplings growing in with rm saplings. Left the younger aspen clones in last sale so they are getting merchantable size. Stand looks good. Let stand grow in.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	5	Log	10		Red Maple	Medium	5 - 10 feet	Sapling
White Pine	10	Log	12		Red Pine	Low	10 - 20 feet	Sapling
Red Oak	25	Log	14		White Pine	Medium	Variable	Sapling
White Oak	35	Log	14	119				
Bigtooth Aspen	23	Pole	8					
Northern Pin Oak	2	Log	14					

53	4129 - Mixed Oak	Sawtimber Medium	34.4	112	51-80	N/A	2023: Poor regeneration after harvest at this point. Aspen clones tried to sprout but heavily browsed. Little new wp seeding in to gaps at this time. 2018: TS# 065-16. Orange marked partial harvest + all aspen. Harvested Jan 2018. Removed larger and/or lower quality oak and most aspen with some red maple and some damaged pine.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	5	Log	14		Bigtooth Aspen	Low	5 - 10 feet	Sapling
Northern Pin Oak	2	Log	14		Red Maple	Low	5 - 10 feet	Sapling
White Pine	15	Log	12		White Pine	Medium	10 - 20 feet	Sapling
Red Oak	25	Log	14	112	Witch Hazel	Low	10 - 20 feet	Tall Shrub
White Oak	33	Log	12	112				
Red Maple	10	Log	10					
Bigtooth Aspen	10	Log	12	89				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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54 3101 - Poverty Grass, Cladonia Nonstocked 0.0 Unspecified No
 2023: Low density trees. ORV intrusion. May want to look at limiting access. 2014WLD Occasional clone of mature aspen (some mortality). This is another cold air drainage valley. Could do some saw work.

Sub-Canopy Species	Density	Avg. Height	Size
Sweet Fern	Low		Tall Shrub
Black Cherry	Low		Pole
Little Bluestem	Medium		Non-Wood
Aspen (spp.)	Low		Pole
Poverty Grass	Full		Non-Wood
Oak (spp.)	Low		Pole

55 4126 - White, Black, N. Pin Oak Sawtimber Well 6.8 109 111-140 N/A
 2023: A few small aspen clones. Most is mixed sizes of oak and pine. Not interested in activity adjacent to Vasa Trail. 2014; Small stand between private ownership and VASA pathway.

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	5	Log	16	
Bigtooth Aspen	15	Pole	8	
White Pine	5	Log/Pole	10	
Red Oak	20	Log/Pole	14	
Northern Pin Oak	5	Log	13	
Red Maple	15	Log/Pole	11	
White Oak	35	Log/Pole	14	109

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	5 - 10 feet	Sapling
Red Maple	Medium	>20 feet	Sapling

56 4191 - Mixed Upland Deciduous with Conifer Sapling Poor 13.1 15 1-50 N/A
 2023: North part has little understory development. A little oak, jp, wp rm under scattered retention. South part of stand has a good bit of regeneration of oak and pine and scattered retention from last treatment.

Canopy Species	% Cover	Size Class	DBH	Age
Northern Pin Oak	20	Sapling	2	15
White Pine	10	Sapling	2	15
Black Cherry	10	Sapling	2	15
White Oak	35	Sapling	2	15
Red Maple	10	Sapling	2	15
Bigtooth Aspen	5	Sapling	2	15

57 4131 - Aspen, Oak Poletimber Well 10.1 50 81-110 N/A
 2023: Stocking is variable with aspen clones mixed with oak, rm. Some older oak and pine scattered in stand. Stand could be cut to regenerate with scattered oak and pine retention from well-formed trees. Vasa trail along edge and crossing through. 2014; Aspen dominated stand 40 yr. age

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	5	Log/Pole	11	
White Oak	5	Log/Pole	10	
Red Oak	15	Log/Pole	10	
Bigtooth Aspen	60	Pole/Log	9	50
White Pine	5	Pole	9	50
Red Maple	10	Pole	8	50

Sub-Canopy Species	Density	Avg. Height	Size
Jack Pine	Low	5 - 10 feet	Sapling
Hazelnut (Beaked)	Low	< 5 feet	Tall Shrub
White Oak	Low	5 - 10 feet	Sapling
White Pine	Low	5 - 10 feet	Sapling
Red Maple	Medium	5 - 10 feet	Sapling
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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58 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 8.6 119 111-140 N/A

2023: Mixed sized of oak and pine. Most is large. RM and Aspen cut out 69-71 with some oak. 2014: Younger aged aspen and maple with older pine and oak canopy. May be worthwhile to thin this stand lightly if nearby to remove poor formed and declining trees. Retain old pine and well-formed oak. Remove aspen and oak. Interesting pocket of older pine and oak.

Canopy Species	% Cover	Size Class	DBH	Age
White Oak	30	Log/Pole	14	119
Bigtooth Aspen	15	Pole	8	54
White Pine	10	Log	14	
Red Pine	10	Log	16	119
Red Maple	15	Pole	8	54

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

59 3104 - Degraded Nonstocked 1.5 Unspecified

2022: Well plugged 3/2003. Unknown if reclamation is needed or attempted.

Sub-Canopy Species	Density	Avg. Height	Size
St. Johns Wort	Low		Non-Wood
Spotted Knapweed	Trace		Non-Wood
Mixed Grasses	Low		Non-Wood
Sweet Fern	Low		Tall Shrub

61 4130 - Aspen Poletimber Well 47.5 54 111-140 N/A

2023: Some red pine scattered around in stand. Survey corners found for private land. Stand could we be harvested to regenerate with retention of some well-formed oak and pine. Slopes would be a challenge for harvesting and some area may need to be excluded as retention areas. * Vasa Trail along SW edge. Should consider when cutting. Best to leave about a chain of buffer. Central part of stand 60 should go with this. There are a couple steep areas in that stand that could be retention pockets. Also some slopes in this stand could be held as retention. Most good pole/small log sized red oak should be kept in this stand for another rotation. May produce some nice oak logs in future. May need to find access points through other adjacent stands as needed. Consider slopes, access and trails when laying out treatment boundary. Truck access is a challenge with blown out sandy roads. 2013: Aspen stand generated after harvest in late 60's... early 70's

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	1	Log/XLog	16	
Red Oak	10	Pole	8	
Bigtooth Aspen	70	Pole	8	54
Red Maple	15	Pole	8	
Red Pine	1	Log/Pole	10	
Sugar Maple	3	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	Low	Variable	Sapling
Red Maple	Low	10 - 20 feet	Sapling
Witch Hazel	Medium	5 - 10 feet	Tall Shrub
Black Cherry	Low	>20 feet	Sapling

62 4129 - Mixed Oak Sawtimber Well 64.4 114 81-110 N/A

2023: Mixed stand with wp coming in under. Stand looks fine. Let stand grow in.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	12	Pole	8	
Red Oak	30	Log/Pole	12	114
White Oak	30	Log/Pole	12	114
White Pine	5	Log/Pole	11	
Bigtooth Aspen	15	Pole	8	57
Northern Pin Oak	5	Log/Pole	14	
Red Pine	3	Log/Pole	11	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Medium	>20 feet	Sapling
Red Oak	Low	10 - 20 feet	Sapling
White Oak	Low	10 - 20 feet	Sapling
Witch Hazel	Medium	5 - 10 feet	Tall Shrub
White Pine	Medium	Variable	Sapling
Bigtooth Aspen	Low	10 - 20 feet	Sapling



Stand **Level 4 Cover Type** **Size Density** **Acres** **Stand Age** **BA Range** **Managed Site** **General Comments**

63 42290 - Natural Mixed Pine Sawtimber Well 15.7 84 81-110 N/A

2023: Older oak and pine scattered in overstory. Mixed sizes of pine and oak in younger age. Steep bowl and drain. Let the jp fall out and stand develop. Factor limited for slopes. Much of the jp fp found in last inventory has fallen out. 2014: two aged stand with old red and white pine and some oak in super-canopy and jack and red pine regen in canopy. Counted both in canopy calls. Jack pine mixed age but most is 65-70 years old.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	25	Log/Pole	12	84	White Pine	Low	5 - 10 feet	Sapling
Red Pine	25	Log/Pole	12	84	White Oak	Low	5 - 10 feet	Sapling
Red Maple	5	Log/Pole	10		Jack Pine	Low	5 - 10 feet	Sapling
Red Oak	15	Log	16	119	Red Maple	Low	5 - 10 feet	Sapling
White Oak	5	Log	16	119				
Jack Pine	25	Log/Pole	10	84				

64 4123 - Red Oak Sawtimber Well 22.8 114 111-140 N/A

2023: Ash has fallen out of stand. Stand could be thinned if treating adjacent stand or this stand could be kept for diversity and mast production. Stand is heavy to red oak but a nice hardwood mix that is uncommon in this area. 2022: Terminated previous unsold treatment. 2014: Quality red oak and mixed northern hardwoods. Ash component but not major.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	5	Log/Pole	12		Sugar Maple	Low	>20 feet	Sapling
Bigtooth Aspen	5	Log/Pole	10		Beech	Low	>20 feet	Sapling
Beech	1	Log	12		White Pine	Low	Variable	Sapling
Sugar Maple	14	Log	12		Ironwood	Low	>20 feet	Sapling
White Oak	5	Log	12					
Red Oak	60	Log/XLog	17	114				
Basswood	10	Log	14					

65 4126 - White, Black, N. Pin Oak Sawtimber Well 22.4 114 81-110 N/A

2023: Mixed sizes of oak and pine overstory with wp and rm with some oak growing through. The oak canopy is larger wofly low quality trees. Let understory develop. Stand is slowly going to wp.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	4	Log	15	82	White Oak	Low	5 - 10 feet	Sapling
Jack Pine	1	Log	12		White Pine	Medium	Variable	Sapling
Red Pine	4	Log	13	82	Red Oak	Low	5 - 10 feet	Sapling
White Oak	30	Log	16	114	Red Maple	Low	5 - 10 feet	Sapling
Red Maple	10	Log/Pole	11					
Red Oak	25	Log/Pole	16					
Northern Pin Oak	10	Log	16					
White Pine	16	Log/Pole	14					

66 3104 - Degraded Nonstocked 2.5 Unspecified Well plugged 3/2003. Unknown if reclamation is needed or attempted.

Sub-Canopy Species	Density	Avg. Height	Size
Sweet Fern	Low		Tall Shrub
Little Bluestem	Trace		Non-Wood
Mixed Grasses	Medium		Non-Wood
Spotted Knapweed	Low		Non-Wood



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																	
67	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	9.2	119	111-140	N/A	2023: Mixed stand. Stand could be thinned or managed for mixed age and species. May want to wait for aspen to gain size and volume. VST Bike trail through stand. This stand and stand 70 will likely get treatments at same time.																																																																	
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68	4199 - Other Mixed Upland Deciduous	Poletimber Well	3.7	69	111-140	N/A	2023: Aspen is ready to harvest, and stand would likely form larger aspen clones. Some bigger oak and pine scattered. Band of larger pine along north edge could be left if harvested. Could mark some scattered oak and pine retention and harvest stand when stand 76 to south is harvested again. Not enough volume to sell on it's own. 2014; Small stand along boundary																																																																	
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69	4129 - Mixed Oak	Sawtimber Well	11.3	114	51-80	N/A	2023: Larger older age of oak and pine with mixed younger age with aspen clones, wp, rm, and pockets of oak saplings and poles. Vasa Trail. Let stand grow in. 2014: 2 aged 100+ and 50. 100+ is large crowned oaks some old pine TS 1070-72. Cut all jp, rm, aspen, and oak under 16"dbh. Second age may be 40.																																																																	
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70	4130 - Aspen	Poletimber Well	7.8	54	81-110	N/A	2023: Stand could be harvested or left until next entry. Vasa Ski trail and vasa single track involved. Aspen along and east of vasa trail is larger. Mixes with oak, rm and pine in places and the aspen is smaller diameters. Planted red pine along southeast edge. Let this stand grow in for now.																																																																	
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
71	4126 - White, Black, N. Pin Oak	Sawtimber Well	43.5	114	81-110	N/A	2023: Mixed stand growing in under large old oak and some pine. Mixed ages. Let stand grow in. Much of the old oak is too large for harvest. 2014: LARGE CROWNED OAKS and Pine WITH ASPEN CLONES MIXED THROUGHOUT. POCKETS OF THICK RED MAPLE AND WHITE PINE REGEN. OLD BURNT PINE STUMPS THROUGHOUT. UNSOLD T. SALE MARKED IN NW CORNER OF STAND. VERY MIXED SPECIES Timber permit 24-70A. Cut all jp, merchantable aspen, rm, oak but no oak over 16" stump. This may be part of that sale but maybe not. Aspen age may be 44. 2014: Second age is thick in most places. Could not enter this stand until this develops without damaging second age. Second age is small diameter for likely age-44 (sapling/small pole) but stocking is good.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Pine	5	Log	12		Bigtooth Aspen	Low		>20 feet	Sapling
Red Maple	15	Log/Pole	10		Red Oak	Low		>20 feet	Sapling
Red Oak	20	Log	16	114	White Oak	Medium		>20 feet	Sapling
Bigtooth Aspen	5	Log	12	82	White Pine	High		>20 feet	Sapling
White Oak	30	Log	14	114	Red Maple	Medium		>20 feet	Sapling
Red Pine	5	Log	13						
Northern Pin Oak	20	Log	14						
72	4124 - Red with White Oak	Sawtimber Well	57.9	108	81-110	N/A		Nice oak flat with light wp under and moderate rm saplings 20' + . stand looks fine.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
Northern Pin Oak	2	Log	14		Red Maple	Medium	>20 feet		Sapling
White Pine	5	Log	14		Red Pine	Low	10 - 20 feet		Sapling
Red Maple	5	Pole	8		White Pine	Low	10 - 20 feet		Sapling
Red Oak	42	Log/Pole	14	108					
White Oak	42	Log	14						
Bigtooth Aspen	2	Pole	8	26					
Red Pine	2	Log	14						
73	4130 - Aspen	Sawtimber Well	25.9	54	141-170	N/A	2023: Aspen is ready to harvest for regeneration purposes. Retain well-formed oak and pine. Small vernal ponds in bottoms should be protected. Many terrain issues with this harvest but it was done before. May need to leave retention pockets on steeper slopes. East side going down to well pas is too steep to harvest. Need to develop access strategy for this area. Stand may be accessed from south and skidded to Stand 83. old well pad. There is a wood tick trail going almost back to the south line. Or could work from northwest side. off adjacent road which is a difficult choice.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Maple	10	Log/Pole	10		Red Maple	Low		>20 feet	Sapling
Red Oak	5	Pole/Log	9		Red Oak	Low		10 - 20 feet	Sapling
Bigtooth Aspen	85	Log/Pole	11	54	White Oak	Low		10 - 20 feet	Sapling
74	42220 - Natural Jack Pine	Poletimber Well	43.8	79	51-80	N/A	2023: Part of stand North of well pad could be harvested to regenerate. Leave well-formed oak , RP,WP. JP is ready to harvest and declining. West side of stand is lower stocked with declining JP and not a lot of understory development. The entire potential seems low for a commercial harvest due to the total volume and low volume/acre. Would have to enter stand through NE edge of well pad and deck wood on margins of well pad. Treatment acre should be reduced by areas with little volume. 2014: Harvested 1970 2014: older and younger jack pine. 2 aged counted both in canopy. 2014: west side of stand has a lot of influence from VASA trail. With slopes and trail, it would be difficult to harvest. Stand may be left to succeed naturally to oak and white/red pine. East side of stand north of well pad could be harvested but most of this side is younger age class and should wait.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Oak	5	Log/Pole	12		Red Maple	Low		10 - 20 feet	Sapling
White Pine	9	Log/Pole	10		Red Oak	Low		10 - 20 feet	Sapling
Red Oak	5	Log/Pole	12		White Pine	Low		>20 feet	Sapling
Jack Pine	65	Pole/Log	8	79	Black Cherry	Low		10 - 20 feet	Sapling
Red Pine	5	Log	12		Bigtooth Aspen	Low		10 - 20 feet	Sapling
Black Cherry	3	Pole	8						
Red Maple	3	Pole	9						
Bigtooth Aspen	5	Log/Pole	11	54					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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75	4129 - Mixed Oak	Sawtimber Well	15.2	105	141-170	N/A	2023: Low quality oak logs with older aspen. Steep areas. Not many crop trees. Not interesting.
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Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	15	Log	14	
Red Oak	32	Log	14	105
White Oak	35	Log/Pole	13	105
Red Pine	3	Log	15	
Red Maple	15	Log/Pole	10	

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

77	3104 - Degraded	Nonstocked	3.5		Unspecified		Well plugged 3/2003. Unknown if reclamation is needed or attempted.
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Sub-Canopy Species	Density	Avg. Height	Size
Mixed Grasses	Low		Non-Wood
Spotted Knapweed	Low		Non-Wood
Little Bluestem	Trace		Non-Wood

78	3201 - Sweet Fern	Nonstocked	1.1		Unspecified	No	Old well pad? Has good vegetation cover. Some log oaks on perimeter. Unlisted species is mullein.
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Sub-Canopy Species	Density	Avg. Height	Size
Sweet Fern	Medium		Tall Shrub
Bracken Fern	Trace		Non-Wood
Unlisted - See Comments	Trace		
Spotted Knapweed	Low		Non-Wood
Oak (spp.)	Trace		Sapling
St. Johns Wort	Trace		Non-Wood
Jack Pine	Low		Sapling
Poverty Grass	Medium		Non-Wood

79	42200 - Natural White Pine	Poletimber Well	11.4	69	141-170	N/A	2023: 155 avg ba. Mixed sizes and ages of WP. Stocking is a bit high. Could let stand grow as is or could mark for crop tree release and harvest some of the larger trees and poor quality. Some older legacy trees scattered around should be retained. Opening canopy would likely cause heavier oak sub canopy formation. Would have to cut strip through and thin off of the strips but this would not be the best way to accomplish the goal of getting the larger pine out before it becomes oversized. To just orange mark and thin this to 120 ba would likely not allow access for equipment without doing heavy damage to residual. May be best to just let stand grow in until more volume is achieved then it could be harvested and planted or cut to seed tree stocking. 2014: older and younger jack pine. 2 aged counted both in canopy. 2014: west side of stand has a lot of influence from VASA trail. With slopes and trail, it would be difficult to harvest. Stand may be left to succeed naturally to oak and white/red pine. East side of stand north of well pad could be harvested but most of this side is younger age class and should wait.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Pole	5	34
Red Oak	3	Pole	8	34
White Pine	75	Pole/Log	6	69
Red Pine	10	Log	14	
White Oak	2	Pole	8	34

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Medium	>20 feet	Sapling
Red Oak	Low	10 - 20 feet	Sapling
White Oak	Low	10 - 20 feet	Sapling
White Pine	Low	10 - 20 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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80	4310 - Pine, Oak Mix	Poletimber Well	6.1	54	81-110	N/A	2023: Mix of older oak with planted red pine pockets. Some very large old oak scattered in stand.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	5	Pole	8		Black Cherry	Low	10 - 20 feet	Sapling
Red Oak	20	Log	14	109	Red Maple	Medium	>20 feet	Sapling
White Oak	10	Log	14	109	White Pine	Medium	>20 feet	Pole
Bigtooth Aspen	10	Pole	8					
White Pine	10	Log	10	69				
Northern Pin Oak	10	Log	12					
Red Pine	35	Pole	8	54				

81	3104 - Degraded	Nonstocked	2.4		Unspecified	No	
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Sub-Canopy Species	Density	Avg. Height	Size
St. Johns Wort	Trace		Non-Wood
Spotted Knapweed	Low		Non-Wood
Unlisted - See Comments	Trace		
Sweet Fern	Medium		Tall Shrub
Jack Pine	Low		Sapling

82	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	9.6	34	51-80	N/A	2023: East side has nearly full canopy stocking of wp and some rp. West side has lower canopy stocking of oak and rm from stump sprouts with oak saplings growing in gaps. Lower quality stand. Let stand develop.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	5	Log	13	99	Red Oak	Low	5 - 10 feet	Sapling
Bigtooth Aspen	5	Pole	6		Hazelnut (Beaked)	Low	5 - 10 feet	Tall Shrub
Red Maple	15	Pole/Sapling	6		White Oak	Low	5 - 10 feet	Sapling
White Oak	25	Pole/Sapling	6	34	Red Maple	Low	10 - 20 feet	Sapling
Red Oak	25	Pole/Sapling	6	34				
White Pine	20	Log/Pole	10					
Jack Pine	5	Pole	6	34				

83	3104 - Degraded	Nonstocked	2.1		Unspecified	No	2024: oil and gas facility.
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Sub-Canopy Species	Density	Avg. Height	Size
Bracken Fern	Low		Non-Wood
Spotted Knapweed	Low		Non-Wood
Mixed Grasses	Low		Non-Wood

84	6233 - Wet Meadow	Nonstocked	1.9		Unspecified	No	2024: pretty wet-pondlike. 2014: Mudrunners. needs vehicle barriers and signs.
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Sub-Canopy Species	Density	Avg. Height	Size
Mixed Grasses	High		Non-Wood
Sedges	High		Non-Wood
Rushes	Trace		Non-Wood
Cattail spp.	Trace		Non-Wood



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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85	42200 - Natural White Pine	Sawtimber Medium	15.8	104	51-80	N/A	2023: Stand has depressions and ridge. Areas with well stocked wp poles and saps. Areas with lower canopy density of wp have thickets of white oak saplings. Mixed ages of white pine. Some old legacy trees scattered around. Let stand develop. May want to thin in future and manage as multi-aged pine/oak mix. 2014: TS001=87. TCR 1989. Cut all merchantable except red and white pine. Cut oak, aspen, jp, rm.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	5	Pole	8	34	White Pine	Medium	10 - 20 feet	Sapling
White Oak	5	Pole	8	34	Red Oak	Medium	10 - 20 feet	Sapling
Bigtooth Aspen	5	Log	12	94	Red Maple	Low	5 - 10 feet	Sapling
Red Pine	15	Log	14	104	White Oak	Medium	10 - 20 feet	Sapling
Red Maple	10	Pole	6	34	Red Pine	Low	5 - 10 feet	Sapling
White Pine	60	Log/Pole	11	104				

86	4199 - Other Mixed Upland Deciduous	Sapling Medium	22.1	26	1-50	N/A	2023: stand is growing in. Oak thickets developing over time. Thick oak regeneration in places. Some aspen clones. Some low stocked areas in depressions. Let stand develop. 2014: Calling regen -- canopy TS# 055-96. TCR 6/97. Cut to 2" but do not cut any red pine, green marked or cherry in frost pockets
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	20	Sapling	3	26	White Oak	Low	5 - 10 feet	Sapling
Red Oak	20	Sapling	3	26	Red Maple	Low	5 - 10 feet	Pole
White Pine	5	Sapling	4	26	Red Oak	Low	5 - 10 feet	Sapling
Black Cherry	5	Sapling	4	26	White Pine	Low	5 - 10 feet	Sapling
Red Pine	5	Sapling	4	26	Black Cherry	Low	5 - 10 feet	Sapling
Bigtooth Aspen	15	Sapling	4	26				
White Oak	30	Sapling	3	26				

87	4131 - Aspen, Oak	Poletimber Well	20.5	54	141-170	N/A	2023: Aspen stocking is heavier in central part of stand. Edges are mix of aspen, oak, pine, maple. Aspen could be cut or left to gain volume. Some decent quality red oak could be left for retention. Mixed parts of stand could be marked to remove poor quality and release crowns of quality trees. Mixed oak sizes. Some left from last harvest, and some grown in with younger age class. Most pine is large. Keep the well-formed red oak mixed through the aspen clones if harvested. Most is small log size. There is a pocket of pine in one drain. It could be a retention pocket. Keep well-formed rm in the areas of mixed hardwoods but cut most in the aspen clones. Could work with Stand 99 and north part of 96. Cut aspen to regenerate clones and thin the rest of the mixed areas.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	15	Sapling	4		Witch Hazel	Low	< 5 feet	Tall Shrub
Red Oak	15	Log/Pole	12		White Pine	Low	Variable	Sapling
White Oak	5	Log/Pole	12		Red Maple	Low	5 - 10 feet	Sapling
Bigtooth Aspen	50	Pole	8	54	Red Oak	Low	>20 feet	Sapling
White Pine	5	XLog	18					
Red Pine	10	XLog	18	99				

88	4126 - White, Black, N. Pin Oak	Sawtimber Medium	36.1	114	1-50	N/A	2023: Good growth on much of the planted red pine. Heavy oak regen in patches. Most is WO. Stand has very well stocked understory. Let stand grow in. Trying to remove overstory will damage advanced regeneration. 2017: Regen survey showed 500+ TPA red pine. Competition from oak, rm, cherry. Let stand develop.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	2	Log	14		Black Cherry	Low	5 - 10 feet	Sapling
Red Pine	8	Pole	9		Red Maple	Low	10 - 20 feet	Sapling
White Oak	40	Log/Pole	13	114	Bigtooth Aspen	Low	10 - 20 feet	Sapling
White Pine	15	Log/Pole	10		White Pine	Low	Variable	Sapling
Red Oak	35	Log/Pole	12	114	Red Pine	Medium	5 - 10 feet	Seeding
					White Oak	Medium	5 - 10 feet	Sapling
					Red Oak	Low	5 - 10 feet	Sapling
					Witch Hazel	Low	5 - 10 feet	Tall Shrub



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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89	4126 - White, Black, N. Pin Oak	Sawtimber Medium	68.4	114	51-80	N/A	. 2023: Most oak and aspen sprouts browsed heavily. RM stump sprouts evenly distributed. Little new wp seedling at this time but some residual saps and seedlings after harvest. 2019: TS# 078-17. Reduced Basal area to 40-60 to encourage development of new stand in understory. White pine may occupy understory as stand develops along with oak, maple and aspen sprouts.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	33	Log	12	114	Red Oak	Low	10 - 20 feet	Sapling
White Oak	55	Log	12	114	White Oak	Low	10 - 20 feet	Sapling
Northern Pin Oak	5	Log/Pole	14		Red Maple	Low	5 - 10 feet	Sapling
Red Pine	2	Log	14		White Pine	Low	Variable	Sapling
Red Maple	2	Pole/Log	9		Hazelnut (Beaked)	Low	5 - 10 feet	Tall Shrub
White Pine	3	Log/Pole	12					

90	4130 - Aspen	Poletimber Well	5.3	34	51-80	N/A	2023: Aspen clones with areas heavier to pine oak, maple mix. South side of road has more pine overstory and smaller diameter aspen growing through. Good growth on aspen generally. Some log sized rm and oak that must have been considered un-merchantable at last harvest.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	13	Pole/Sapling	6	34	Red Maple	Low	10 - 20 feet	Sapling
Red Oak	10	Sapling/Pole	2	34	White Oak	Low	10 - 20 feet	Sapling
White Oak	7	Sapling/Pole	4	34	Black Cherry	Low	5 - 10 feet	Sapling
White Pine	8	Sapling	3	34	Red Oak	Low	10 - 20 feet	Sapling
Red Pine	2	Sapling/Pole	4	34	White Pine	Low	10 - 20 feet	Sapling
Bigtooth Aspen	60	Pole/Sapling	6	34	Jack Pine	Low	5 - 10 feet	Sapling

91	3303 - Mixed Low Density Trees	Nonstocked	7.0		Unspecified	No	Bullhead lake and surrounding ecotone. 10-40' buffer of exposed lake bed.
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Sub-Canopy Species	Density	Avg. Height	Size
Cattail spp.	Trace		Non-Wood
Mixed Grasses	Low		Non-Wood
Rushes	Trace		Non-Wood
Waterlilies	Low		Non-Wood

92	42110 - Planted Red Pine	Sapling Well	15.8	4	Immature	N/A	2023 - Year 3 regeneration survey was completed 9/30/2023. There is currently 762 Trees per Acre and stand is currently 95% Free to Grow at this time. Good growth on seedlings. Sedge is closing in on trenches. 2022: release spray treatment dropped due to stand size and complicating factors. 11/9/2021 - Year 1 regeneration survey completed. Stand has approximately 889 trees per acre. Stand is not free to grow at this time herbicide treatment is currently recommended. Check stand for year 3 regeneration survey is also recommended. 2021: site planted with containerized red pine. 2018: TS# 039-16. Harvested Summer 2018. Skidder Site Prep Herbicide spray Summer 2019. Trenched 2019 in November. Schedule to plant 2021. 2014. Oak generated from turn of the century harvest- larger multi-stem trees from stump sprouts. Some rp, wp,rm,aspen mixed in. Some red pine regeneration' Many old burnt stumps. A little heavier stocking in northeast part with more poles/small logs.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	100	Sapling	1	4



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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93 4126 - White, Black, N. Pin Oak Sawtimber Well 4.0 109 81-110 N/A 2023: Leave island between two harvests. No action needed.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	50	Log/Pole	14	109	Black Cherry	Low	10 - 20 feet	Sapling
Red Maple	10	Pole/Log	9		Red Oak	Low	10 - 20 feet	Sapling
Northern Pin Oak	10	Log/Pole	14		White Oak	Low	10 - 20 feet	Sapling
Red Oak	20	Log/Pole	14	109	Red Maple	Low	10 - 20 feet	Sapling
Red Pine	3	Pole	9					
White Pine	5	Log/Pole	10					
Jack Pine	2	Pole	8					

94 4191 - Mixed Upland Deciduous with Conifer Poletimber Medium 38.7 34 51-80 N/A 2023: Low stocked areas. Low quality stand from sprouts. Nice old White Oak scattered in stand. Grown in Barrens look. Still filling in pockets with oak saplings. Let stand develop.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	5	Pole	5	34	Red Oak	Low	5 - 10 feet	Sapling
White Pine	25	Pole	7	34	White Oak	Low	5 - 10 feet	Sapling
Red Oak	10	Pole/Sapling	5	34	White Pine	Low	5 - 10 feet	Sapling
Northern Pin Oak	5	Pole/Sapling	5		Witch Hazel	Low	5 - 10 feet	Tall Shrub
White Oak	30	Pole/Sapling	5	34				
Jack Pine	5	Pole	6					
Bigtooth Aspen	5	Pole	6					
Red Maple	15	Pole/Sapling	6	34				

95 42250 - Pine, Oak Sawtimber Well 9.4 79 81-110 N/A 2023: East side had some aspen and rm cut out in last treatment. RM, Oak Aspen poles growing through. The west side is older oak, pine aspen and mix. Drain with large, scattered oak and mixed pine. A little red maple and aspen. West side is heavier to mature aspen,oak,pine. A couple stray pieces added to stand from adjacent treatments that are more upland mix. 2014: The west side is mixed pine. The pine in this drain could be left to mature. Jack pine will fall out.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	5	Log/Pole	10		Red Oak	Low	5 - 10 feet	Sapling
Red Oak	15	Log	17		Bigtooth Aspen	Low	>20 feet	Sapling
Bigtooth Aspen	5	Log	12		Red Maple	Low	>20 feet	Sapling
White Pine	40	Log/Pole	14	79	White Pine	Low	Variable	Sapling
Jack Pine	5	Pole/Log/Sap	9	79	White Oak	Low	5 - 10 feet	Sapling
Red Pine	15	Log/Pole	14					
White Oak	15	Log	16	114				

96 4126 - White, Black, N. Pin Oak Poletimber Well 54.7 104 51-80 N/A 2024; Generally lower stocking and quality. Big wp and rp scattered in stand. Most of the stand has terrain challenges. A little flatter on the north end which may be able to be thinned if nearby. Could get the part of the stand north of the well pad below the steep drop. Mark stand and remove aspen and poor formed trees. Could work with stand 99 and 87. Mark RM. Some is decent.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	5	Log	12		Red Maple	Low	>20 feet	Pole
White Pine	5	Pole/Log	12		Red Oak	Low	>20 feet	Sapling
Bigtooth Aspen	10	Log	13	90	White Oak	Low	>20 feet	Pole
Northern Pin Oak	10	Log/Pole	12		White Pine	Low	Variable	Sapling
White Oak	35	Log	14	104				
Red Oak	25	Log	14	104				
Red Maple	10	Log/Pole	11					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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97	4124 - Red with White Oak	Sawtimber Medium	24.4	99	51-80	N/A	2023: Pockets of wp sapling that were present before last harvest. Some new wp seedlings in gaps. Some oak sprouts but most browsed. 2018: TS# 039-16. Harvested Summer 2018. Marked to remove poor quality stagnant stems and to open canopy to promote wp understory. New acquisition 2014.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	12	Log/Pole	12		Hazelnut (Beaked)	Low	5 - 10 feet	Tall Shrub
Red Maple	5	Log/Pole	10		White Pine	Medium	10 - 20 feet	Sapling
White Oak	40	Log/Pole	10	99	Red Oak	Low	5 - 10 feet	Sapling
Red Oak	40	Log/Pole	14	99	Red Pine	Low	< 5 feet	Seeding
Red Pine	3	Log	13		Red Maple	Medium	5 - 10 feet	Sapling
					White Oak	Low	5 - 10 feet	Sapling

98	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	17.8	34	51-80	N/A	2023: Stand in filling in with white oak, pin oak, and some white pine. Oak is getting browsed, but some is advancing. Bowl in north end with heavier white pine canopy. Let stand develop. Will end up with pine oak mix with red maple. Currently pole/sapling stand with scattered larger retention from last treatment.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	10	Pole/Log	8	104	White Pine	Low	5 - 10 feet	Sapling
Bigtooth Aspen	5	Pole	6		Jack Pine	Low	5 - 10 feet	Sapling
Red Maple	20	Pole	8	34	Black Cherry	Low	5 - 10 feet	Sapling
White Oak	25	Pole	6	34	Red Oak	Low	5 - 10 feet	Sapling
Jack Pine	10	Pole	8	34	White Oak	Low	5 - 10 feet	Sapling
Northern Pin Oak	10	Pole	6	34				

99	4123 - Red Oak	Sawtimber Well	15.4	114	111-140	N/A	2024: Steep areas in East end. Stand could be thinned down to 80-90 ba. Areas heavy to red oak logs. Could mark for crop tree release. Heavy beech scale in some beech. Should take beech and aspen when harvested. Keep out of the hemlock grove in east side. Some other areas may be too steep to access. Could work with stand 87 and north part of stand 96. Access is an issue due to road issues.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Hemlock	1	Pole	8		Sugar Maple	Low	>20 feet	Sapling
Sugar Maple	14	Log/Pole	11		Beech	Low	>20 feet	Sapling
Red Maple	13	Log/Pole	11		Hemlock	Low	10 - 20 feet	Sapling
Beech	1	Log	12		Ironwood	Low	10 - 20 feet	Sapling
Basswood	5	Log	13					
Red Oak	60	Log	16	114				
Black Cherry	1	Log	10					
Bigtooth Aspen	5	Log/Pole	10					

100	42200 - Natural White Pine	Poletimber Well	12.4	79	81-110	N/A	2024: Mixed sizes of white pine. Good stocking of oak saplings and some poles growing through pine canopy. Most is White Oak. Stand could be thinned in future but would like lead to oak understory advancing and stand moving toward oak/pine mix. Should treat before larger pine gets too large for commercial use. Look at next entry. 2004: NEARLY MULTI AGED WHITE PINE 2 AGED NOW. VERY GOOD WP REGEN. 2014: TS 01-87. TCR 1989. Cut all merchantable but leave all white and red pine. Cut mainly oak, rm, jp, aspen.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	2	Pole	8	34	Jack Pine	Low	10 - 20 feet	Sapling
Bigtooth Aspen	10	Pole	6		White Oak	Medium	10 - 20 feet	Sapling
Jack Pine	2	Pole/Sapling	6	34	Red Oak	Low	10 - 20 feet	Sapling
White Oak	3	Pole	8	34	White Pine	Low	Variable	Sapling
Red Pine	3	Log/Pole	12	79	Red Maple	Low	10 - 20 feet	Sapling
Red Maple	5	Pole	8	34	Red Pine	Low	10 - 20 feet	Sapling
White Pine	75	Pole/Log	9	79				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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101	3104 - Degraded	Nonstocked	1.8		Unspecified	No	old degraded well pad. pine creeping in.
		Sub-Canopy Species		Density	Avg. Height	Size	
		Sweet Fern		Medium		Tall Shrub	
		St. Johns Wort		Trace		Non-Wood	
		Spotted Knapweed		Low		Non-Wood	
		Mixed Grasses		Medium		Non-Wood	
		Bracken Fern		Low		Non-Wood	
		Jack Pine		Low		Pole	
		Oak (spp.)		Low		Seeding	

102	3104 - Degraded	Nonstocked	2.0		Unspecified	No	2024: active site. still has oil equipment.
		Sub-Canopy Species		Density	Avg. Height	Size	
		Black Cherry		Trace		Sapling	
		Bracken Fern		Low		Non-Wood	
		Spotted Knapweed		High		Non-Wood	
		Little Bluestem		Trace		Non-Wood	
		Bigtooth Aspen		Trace		Seeding	
		Sweet Fern		Low		Tall Shrub	

103	4122 - Oak, Pine	Sawtimber Poor	20.1	114	1-50	N/A	2023: Two aged stand with variable stocking of oak and pine overstory and younger age grown in after harvest. Younger age heavy to rm sprouts.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	
White Oak		34	Log	14	114	Red Oak	
White Pine		33	Log	12		White Oak	
Red Oak		33	Log	14		White Pine	
						Red Maple	
						Bigtooth Aspen	

104	3205 - Mixed Upland Shrub	Nonstocked	2.3		Unspecified	No	Nice frost pocket. Leave as is. Dead trees along perimeter. Also has trace of oak, junberry and SJW.
		Sub-Canopy Species		Density	Avg. Height	Size	
		Poverty Grass		Medium		Non-Wood	
		Blueberry/Bilberry/Cranberry		Low		Tall Shrub	
		Sweet Fern		Low		Tall Shrub	
		Little Bluestem		Low		Non-Wood	
		Cladonia (Reindeer moss)		Low		Non-Wood	
		Bracken Fern		Low		Non-Wood	
		Black Cherry		Low		Pole	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																					
105	4130 - Aspen	Poletimber Well	34.6	35	81-110	N/A	2023: Good aspen stocking in areas but also pockets of oak, WP, RM, BC. Good growth on aspen. Some low stocked areas. Lots of bike trails. Let stand grow in.																																																					
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106	310 - Herbaceous Openland	Nonstocked	3.4		Unspecified	No	utility easement																																																					
107	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	6.6	34	51-80	N/A	2023: Stand is filling in with oak and rm saplings and poles. Lower quality stand. Let stand develop. Overstory stocking is variable with heavier pine component in places. 2014: New stand formed after last harvest (age 24) counted as canopy. TS 01-87. TCR 1989. Cut all merchantable but leave all white and red pine. Cut mainly oak, rm, jp, aspen. OLDER WHITE AND RED PINE AND OAK SCATTERED AROUND																																																					
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108	4124 - Red with White Oak	Sawtimber Well	20.7	117	111-140	N/A	2023: 114 AVG BA. Variable stocking. Oak logs and poles. Could harvest poor quality trees, some of the larger oak, and remaining aspen. Most rem maple would likely go. Basal area would likely end up in 60-80 range. Some white pine understory present and may fill in more or may just create a new age from red maple sprouts. Bike trails through stand. 2014: Oak Ridge. Stocking is not too high in stand. Looks like it may have been thinned at some point. Alright at this time.																																																					
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110	4310 - Pine, Oak Mix	Sawtimber Well	6.8	99	111-140	N/A	2024: No action necessary. Part of new acquisition. 2013. Natural pine mix on steep west facing slope. Some bigger pine mixed in. Stand is overstocked but it would be difficult to thin without damaging residual due to slopes. Consider leaving this small patch of natural pine.																																																					
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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111 4130 - Aspen Sapling Well 10.6 26 81-110 N/A 2023: Looks like all the pine was left last harvest. Mixed sizes. Most is pole and small log size. Decent stocking. Let stand grow in.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Oak	5	Sapling	4	26	White Pine	Low	< 5 feet	Sapling
Bigtooth Aspen	70	Sapling	4	26				
White Pine	10	Pole	8	51				
Red Maple	3	Sapling	4	26				
Red Oak	10	Sapling	4	26				
Black Cherry	2	Sapling	4					

112 3302 - Low Density Conifer Trees Nonstocked 1.2 Unspecified No Frost pocket. Rabbit scat (hare).

Sub-Canopy Species	Density	Avg. Height	Size
Jack Pine	Low		Pole
White Pine	Low		Pole
Black Cherry	Low		Pole
Blueberry/Bilberry/Cranberry	Low		Tall Shrub
Sweet Fern	Low		Tall Shrub
Cladonia (Reindeer moss)	Low		Non-Wood
Poverty Grass	Low		Non-Wood
Oak (spp.)	Low		Pole
Little Bluestem	Trace		Non-Wood

113 4124 - Red with White Oak Sawtimber Poor 148.0 109 1-50 N/A 2023: Barrens management effort abandoned after 1 burn due to WLD priorities. Burn stimulated oak sprouts resulting in oak thickets in areas. Some pockets of aspen regeneration. Some areas have mainly RM sprouts. Some areas remain open in understory. Remaining oak and pine canopy 1-50 ba. Let stand develop.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	40	Log/Pole	14	109	Red Oak	Low	5 - 10 feet	Sapling
White Oak	50	Log/Pole	14	109	White Oak	Medium	5 - 10 feet	Sapling
Red Pine	5	Log	12		Quaking Aspen	Low	5 - 10 feet	Sapling
White Pine	5	Pole	10		White Pine	Low	5 - 10 feet	Sapling
					Red Maple	Medium	5 - 10 feet	Sapling
					Witch Hazel	Low	5 - 10 feet	Tall Shrub
					Bigtooth Aspen	Low	10 - 20 feet	Sapling

114 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 24.6 99 111-140 N/A Slope around depression lake. Mixed natural pine with oak, aspen and rm.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	20	Log	14		White Pine	Low	10 - 20 feet	Sapling
White Pine	20	Log/Pole	15	99				
White Oak	25	Log	13	99				
Bigtooth Aspen	15	Log	12					
Red Maple	5	Pole/Log	9					
Red Pine	15	Log	13					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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115	330 - Low-Density Trees	Nonstocked	5.9		Unspecified	No	
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116	3105 - Mixed Upland Herbaceous	Nonstocked	1.7		Unspecified	No	2024: Low density trees around small pond. 2014: Old stumps, aspen creeping in. One white pine.
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Sub-Canopy Species	Density	Avg. Height	Size
Bracken Fern	Medium		Non-Wood
Blueberry/Bilberry/Cranberry	Trace		Tall Shrub
Oak (spp.)	Trace		Log
Cladonia (Reindeer moss)	Trace		Non-Wood
Willow spp.	Trace		
Poverty Grass	Medium		Non-Wood
Sweet Fern	Low		Tall Shrub
Aspen (spp.)	Low		Pole
Black Cherry	Low		Pole

117	500 - Water	Nonstocked	23.7		Unspecified	No	strombolis lake
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118	4126 - White, Black, N. Pin Oak	Sawtimber Well	29.0	119	81-110	N/A	2024; Collection of large old oaks with broad crowns and younger age classed grown in to stand. Pole sized and small log sized oak, pine and red maple grown in through the old large-crowned trees. WP and oak seedling/sapling layer and age class under. Timber sale was attempted on this stand but not sold. It was to remove some of the old large-crowned trees and poor formed trees. Fine that it didn't sell as this is a unique amount of large old oak as they were part of a barrens area that has grown in. The east side of stand was later cut and planted with red pine.
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Canopy Species	% Cover	Size Class	DBH	Age
White Oak	40	XLog/Log/Pole	18	119
Red Oak	30	XLog/Log/Pole	18	119
White Pine	15	Log/Pole/XLog	16	
Red Maple	5	Pole	8	
Red Pine	5	Log/Pole	15	
Bigtooth Aspen	5	Log	14	89

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

119	4133 - Aspen, Mixed Pine	Sawtimber Well	8.6	75	111-140	N/A	2023: Mixes stand in west end and heavier aspen to east. Slope around Lake. 2014: : Mature bigtooth aspen clone. on steep riparian area.
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Canopy Species	% Cover	Size Class	DBH	Age
White Pine	10	Log/Pole	12	
Jack Pine	10	Pole/Log	9	
Red Oak	5	Log/Pole	13	
White Oak	5	Log	14	
Red Maple	5	Pole	8	
Bigtooth Aspen	65	Log	12	75

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

120	3201 - Sweet Fern	Nonstocked	1.5		Unspecified	No	leave as is. could be used as a timber landing.
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Sub-Canopy Species	Density	Avg. Height	Size
Sweet Fern	Full		Tall Shrub
Bracken Fern	Low		Non-Wood
Mixed Grasses	Low		Non-Wood



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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121	500 - Water	Nonstocked	10.5		Unspecified	No	ponds,.
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122	3205 - Mixed Upland Shrub	Nonstocked	2.1		Unspecified	No	old well pad
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Sub-Canopy Species	Density	Avg. Height	Size
Mixed Grasses	Low		Non-Wood
Bracken Fern	Medium		Non-Wood
Sweet Fern	Low		Tall Shrub
Oak (spp.)	Low		Sapling
Jack Pine	Low		Sapling
Autumn Olive	Medium		Tall Shrub

123	6239 - Mixed Emergent Wetland	Nonstocked	1.4		Unspecified	No	2024: Low wet area.
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124	4129 - Mixed Oak	Sawtimber Well	21.3	99	111-140	N/A	2024: Mixed sizes of lower quality oak with RM and pine. Some WP saplings and seedlings in gaps. Not interesting. New acquisition 2014. Ground has a moderate slope. Most of it would be workable. Mixed oak with aspen, rm and pine. Aspen is clonal but also scattered individually in parts of stand. Some of the red maple in the coves has decent form and this species is well represented in these areas. The aspen is mature and declining a bit.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	20	Pole/Log	9	
White Oak	30	Log/Pole	14	99
White Pine	8	Log/Pole	14	99
Red Oak	35	Log/Pole	14	99
Bigtooth Aspen	5	Log	12	
Red Pine	2	Log	14	99

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

125	122 - Road/Parking Lot	Nonstocked	1.4		Unspecified	No	Supply Road
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126	4124 - Red with White Oak	Sawtimber Well	63.7	94	81-110	N/A	2023: Generally lower quality log sized oak stand. Ground is rolling. Stocking and diameters are variable. Part of the stand west of strombolis road burned in 2022. Consider cutting some of the better laying ground and planting to red pine. There is little regeneration occurring in understory and the oak stand is generally lower quality. 2014. Part of this stand is new acquisition. Mixed oak stand. Heavier to Red Oak and more log sized than surrounding stands.
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Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	5	Log/Pole	12	79
Northern Pin Oak	5	Log/Pole	14	
White Oak	30	Log/Pole	14	89
Red Oak	50	Log/Pole	14	94
Red Maple	10	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Hazelnut (Beaked)	Low	5 - 10 feet	Tall Shrub
Oak (spp.)	Low	10 - 20 feet	Sapling
Red Maple	Low	10 - 20 feet	Sapling
White Pine	Low	10 - 20 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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127 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 33.4 109 111-140 N/A

.2024: 126 avg BA. Mixed stand. Larger pine and oak component with mix of poles and small logs. Some aged aspen dropping out. Could thin and get bigger pine and oak with poor formed trees. Some well-formed oak-most is WO but some decent RO. Cut remaining aspen, jp, and most RM. Green mark some well-formed RM for retention. Final Basal area may be 40-80 range depending on quality. Adjacent stand has not developed much understory but there is an unusual amount of natural red pine. Keep some scattered RP for seed. Access road from supply road across powerline. White pine is trying to form in understory in areas but spindly and broken. Decent quality small logs and poles. Keep most pine in stand and mark through red maple with the oak. 2014: Oak/pine maple/aspen. Good pine component with older pine scattered around. Oak is average with a good bit of big wolfy crowns. Aspen is old and declining. WP regen is thick in places.

Canopy Species	% Cover	Size Class	DBH	Age
White Oak	20	Log/Pole	12	
Bigtooth Aspen	10	Log	14	89
Red Pine	10	Log	14	
White Pine	15	Log	12	
Jack Pine	2	Pole	8	
Red Oak	25	Log	13	109
Red Maple	10	Pole	8	59
Northern Pin Oak	8	Log	14	

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

128 3301 - Low Density Deciduous Trees Nonstocked 1.0 Unspecified No

Sub-Canopy Species	Density	Avg. Height	Size
Cladonia (Reindeer moss)	Low		Non-Wood
Oak (spp.)	Low		Pole
Bracken Fern	Medium		Non-Wood
Poverty Grass	Medium		Non-Wood
Black Cherry	Low		Pole
Blueberry/Bilberry/Cranberry	Low		Tall Shrub

129 310 - Herbaceous Openland Nonstocked 2.5 Unspecified No 2024: Abandoned wells site.

130 122 - Road/Parking Lot Nonstocked 1.3 Unspecified No Supply Road

131 4126 - White, Black, N. Pin Oak Sawtimber Well 57.6 110 51-80 N/A

2025: Not a lot of new under -story forming after last harvest. Some RP seedlings along with vigorous RM sprouts and a little aspen. Light WP regeneration. Let stand develop. TS# 082-06. Completed 12/15/10. Combination of crop tree release and understory release for white pine. Cut all rm, aspen and orange marked.

Canopy Species	% Cover	Size Class	DBH	Age
White Oak	47	Log	12	110
White Pine	5	Pole/Log	8	
Red Pine	3	Log/Pole	10	
Red Oak	35	Log/Pole	12	110
Northern Pin Oak	10	Pole/Log	10	

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	Variable	Sapling
Bigtooth Aspen	Low	10 - 20 feet	Sapling
Red Pine	Low	< 5 feet	Sapling
Red Maple	Medium	10 - 20 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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132 3303 - Mixed Low Density Trees Nonstocked 1.7 Unspecified No 2023: Two small openings in depression with jp between and filling in.

Sub-Canopy Species	Density	Avg. Height	Size
Bracken Fern	Low		Non-Wood
Jack Pine	Medium		Pole
Little Bluestem	Medium		Non-Wood
Poverty Grass	Low		Non-Wood
Red Pine	Low		Log
Sweet Fern	Low		Tall Shrub
Red Maple	Trace		Sapling
Black Cherry	Medium		Pole

133 4131 - Aspen, Oak Poletimber Well 6.8 44 81-110 N/A 2024: Mixed size of oak retention scattered through aspen poles. Heavier residual oak in places. Let stand grow in. 2014; Young aspen regen

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	2	Pole	6	
Red Oak	5	Pole	8	
White Oak	20	Log/Pole	10	
White Pine	3	Pole	8	
Bigtooth Aspen	70	Pole	7	44

Sub-Canopy Species	Density	Avg. Height	Size
Black Cherry	Low	10 - 20 feet	Sapling
White Oak	Low	10 - 20 feet	Sapling

134 4126 - White, Black, N. Pin Oak Sawtimber Well 22.6 108 111-140 N/A 2024: Oak flat. Could be lightly thinned. Would be an easy sale to set up by removing poor quality and larger oak. May be able to develop some understory by removing some mid canopy trees. May not be enough volume to be an attractive commercial harvest. Little understory formation. Stand has been thinned in the past while in private ownership. Generally moderate quality trees. Some well-formed white oak stems. Red oak is larger but lower quality. As ground lays well, this may be a good place to clear and plant red pine in future. May want to let adjacent young stand grow in. Could plant stand 129 with this when the time comes. 2014: New acquisition. Lower quality oak stand.

Canopy Species	% Cover	Size Class	DBH	Age
Red Oak	25	Log/XLog	15	108
Northern Pin Oak	10	Log/Pole	12	
White Oak	60	Log/Pole	12	108
Red Maple	5	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
White Pine	Low	Variable	Sapling

135 31022 - Warm Season Grass Nonstocked 3.8 Unspecified No 2014: WLD Lots of grass species. Low to Medium priority burn. Possibly not enough continuous fuels. This is a cold air drainage with minor aspen encroachment and evidence of an old burn. Has low spots that are probably seasonally flooded and there is evidence of mudrunners.

Sub-Canopy Species	Density	Avg. Height	Size
Little Bluestem	Medium		Non-Wood
Spotted Knapweed	Low		Non-Wood
Black Cherry	Low		Pole
Oak (spp.)	Low		Pole
St. Johns Wort	Low		Non-Wood
Poverty Grass	Medium		Non-Wood
Mixed Grasses	Medium		Non-Wood



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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136	4126 - White, Black, N. Pin Oak	Sawtimber Well	20.4	104	51-80	N/A	2024: Mixed lower quality oak logs. and poles. Not much regeneration after harvest. Heavy browsing on oak and rm. Some aspen regen pockets and some rm advancing. Pockets of WO seedling and saps. Let stand develop.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Oak	27	Log/Pole	13	104	Red Oak	Low		5 - 10 feet	Sapling
White Oak	57	Log/Pole	12	104	White Oak	Low		5 - 10 feet	Sapling
White Pine	5	Log/Pole	10		Witch Hazel	Low		5 - 10 feet	Tall Shrub
Bigtooth Aspen	1	Pole	6		Bigtooth Aspen	Medium		>20 feet	Sapling
Northern Pin Oak	10	Log/Pole	12		Red Maple	Low		5 - 10 feet	Sapling

137	4122 - Oak, Pine	Sawtimber Well	64.5	124	111-140	N/A	2024: Some decline in the oak overstory noted...most in the old pin oak. Oak is low quality and generally large and old with younger ages grown in. There are some well-formed trees in the pole-XL size. The stand has a White Pine component and some RP. Pine looks well suited to site, but oak is generally poor quality. Parts of east line surveyed. Stand to south was harvested and got patchy oak regen and some aspen but not a lot of wp filling in. Not confident that pine would fill this stand naturally. Could green mark the better formed oak in pole-XL sizes and cut the rest down to 2" dbh. A lot of the advanced regeneration seems of poor form and would be better off re-sprouted. Could keep most of the pine but remove a lot of the older large wp. Keep most RP as there is not much. The stand would likely go to a oak/pine mix. Large wolfy oak may be a challenge to harvest. Some may be legacy trees so may need to retain. They take up a good amount of crown space. Oak understory stocking is variable and heavily browsed and deformed. Some patches are advancing. Not a lot of wp under. Stand is challenging. New sub-division being built on east side of stand. 2014: Big wolfy oak with some larger white and red pine scattered around. Pine, oak and maple understory heavy in most of stand. Oak understory is mostly poorly formed. Remaining jack pine and aspen in stand is declining in vigor and dropping out. Heavier aspen stocking on south and east of two track road.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	5	Pole	8		White Pine	Medium		10 - 20 feet	Sapling
Red Oak	15	XLog/Log	18		Red Pine	Low		10 - 20 feet	Sapling
White Oak	30	XLog/Log	18	124	White Oak	Medium		10 - 20 feet	Sapling
Bigtooth Aspen	5	Log	14		Red Maple	Medium		10 - 20 feet	Sapling
Northern Pin Oak	15	XLog/Log	18		Red Oak	Medium		10 - 20 feet	Sapling
White Pine	20	Log/Pole	12						
Red Pine	10	Log	16	94					

138	4131 - Aspen, Oak	Poletimber Well	35.1	56	111-140	N/A	2024: Aspen is mature and ready to regenerate. Consider final harvest with scattered oak and pine retention from well-formed trees. May have areas of higher oak retention in pockets where there is better quality oak. Work around steep areas and ponds leaving adequate riparian retention. SW lobe is steep hillside and could be retention area. Access needs to be determined. May need to find suitable landing location and skid all the wood to one accessible place.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Maple	2	Pole	5		Red Oak	Low		10 - 20 feet	Sapling
White Oak	10	Log/Pole	10		White Oak	Low		10 - 20 feet	Sapling
Bigtooth Aspen	72	Pole/Log	8	56	Black Cherry	Low		10 - 20 feet	Sapling
White Pine	2	Pole	7		Red Maple	Low		10 - 20 feet	Sapling
Red Pine	2	Pole	8		White Pine	Low		Variable	Sapling
Black Cherry	2	Pole	8						
Red Oak	10	Log/Pole	10						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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139 3105 - Mixed Upland Herbaceous Nonstocked 1.3 Unspecified No 2024: There is a mixed emergent wetland located at the south portion of the this stand. This wetland consists of mixed grasses, bracken fern, willow, iris, silverleaf, tussock sedge, and aspen.

Sub-Canopy Species	Density	Avg. Height	Size
Serviceberry (Juneberry)	Medium		
Blueberry/Bilberry/Cranberry	Trace		Tall Shrub
Bracken Fern	Low		Non-Wood
Jack Pine	Trace		Log
St. Johns Wort	Trace		Non-Wood
Little Bluestem	Trace		Non-Wood
Black Cherry	Low		Pole
Sweet Fern	Low		Tall Shrub
Poverty Grass	Medium		Non-Wood
Cladonia (Reindeer moss)	Trace		Non-Wood
Aspen (spp.)	Trace		Sapling
Oak (spp.)	Trace		Log

140 4126 - White, Black, N. Pin Oak Sawtimber Medium 46.0 119 51-80 N/A 2023: Good aspen regen in areas after harvest along with red maple sprouts. Aspen sprouts have been getting browsed heavily but some is advancing. Light wp regen after harvest. Let stand develop. 2018: Stand harvested 2018.: TS 61 02016. Cut orange marked and aspen. Plowed oak wilt pocket in SE part of stand along private line had all red oak removed. Removed poor formed trees and larger wolfy oak. Some aspen clones harvested. Attempted to retain existing wp understory. 2014: Oak with scattered red and white pine. Some large wp scattered around. Mixed oak sizes some bigger wolfy crowns but most is log/pole size. Scattered aspen clones. A little bit of natural red pine regeneraton in understory. WP understory is considerable in stand but has a good bit of snow damage from previous winters. Possible oak wilt or root rot pocket central near south line.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	10	Pole	8	
White Pine	10	Log/Pole	12	75
Red Oak	30	Log	12	119
Red Pine	10	Log/Pole	14	75
White Oak	40	Log	12	119

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

141 3105 - Mixed Upland Herbaceous Nonstocked 1.8 Unspecified No 2024: Low density trees around small pond. 2014: Old stumps, aspen creeping in. One white pine.

Sub-Canopy Species	Density	Avg. Height	Size
Blueberry/Bilberry/Cranberry	Trace		Tall Shrub
Bracken Fern	Medium		Non-Wood
Sweet Fern	Low		Tall Shrub
Cladonia (Reindeer moss)	Trace		Non-Wood
Willow spp.	Trace		
Poverty Grass	Medium		Non-Wood
Black Cherry	Low		Pole
Aspen (spp.)	Low		Pole
Oak (spp.)	Trace		Log



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments					
142	3101 - Poverty Grass, Cladonia	Nonstocked	8.5		Unspecified	No	2023: Low density trees. ORV intrusion. May want to look at limiting access. 2014WLD Occasional clone of mature aspen (some mortality). This is another cold air drainage valley. Could do some saw work.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Poverty Grass	Full		Non-Wood	
								Oak (spp.)	Low		Pole	
								Black Cherry	Low		Pole	
								Sweet Fern	Low		Tall Shrub	
								Little Bluestem	Medium		Non-Wood	
Aspen (spp.)	Low		Pole									
143	310 - Herbaceous Openland	Nonstocked	12.7		Unspecified	No	Active oil and gas facility.					
144	500 - Water	Nonstocked	3.8		Unspecified	No	2024: Pond 2014: small pond with varying perimeter of upland/lowland ecotone. Lots of frogs. Several unidentified wildflowers along perimeter.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Waterlillies	Low		Non-Wood	
								Sedges	Low		Non-Wood	
								Mixed Grasses	Low		Non-Wood	
Rushes	Low		Non-Wood									
145	3105 - Mixed Upland Herbaceous	Nonstocked	13.6		Unspecified	No	2024: Low density trees in frost pocket. . BC, Oak. Some areas near forested 2004:Frost pocket. Nice mix of natural cover, browse, and hard and soft mast.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Sweet Fern	Low		Tall Shrub	
								Serviceberry (Juneberry)	Trace			
								Spotted Knapweed	Trace		Non-Wood	
								Bracken Fern	Medium		Non-Wood	
								Blueberry/Bilberry/Cranberry	Trace		Tall Shrub	
								Oak (spp.)	Low		Pole	
								Mixed Grasses	Medium		Non-Wood	
								Black Cherry	Low		Pole	
								St. Johns Wort	Trace		Non-Wood	
Red Maple	Trace		Pole									
146	42111 - Planted Red Pine, Mixed Deciduous	Sapling Poor	43.4	6	Immature	N/A	2024: Scattered oak and pine retention with planted rp and sprouts from oak, maple and aspen. Shift to forested stand. Good growth on surviving red pine. 2018: Regen inventory 10/18. 24% mortality 67% FTG. Recommend by C. Allen Let mixed stand grow in. Check 3 yr. Planted red pine spring 2018. Trenched 2017. TS# 036-16. Cut all but green marked retention. Trench and plant red pine after harvest. Trenched 2017. Should plant spring 2018. May need herbicide to control red maple. 2004:Some pockets of pole sized oak and then patches of larger log size 2014: Some old wolfy oak but the rest is mixed diameters with variable stocking. Most is poor quality. Some better oak and stocking on NE part of stand. Consider retaining a few oak and pine and chipping stand/trenching and planting red pine.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Red Oak	5	Sapling	1	6
								Red Pine	65	Sapling	1	6
								White Pine	5	Sapling	1	
								Black Cherry	10	Sapling	1	
								Red Maple	5	Sapling	1	6
Bigtooth Aspen	5	Sapling	1	6								



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																
147	3104 - Degraded	Nonstocked	1.6		Unspecified	No	2024: Well pad seems to be abandoned. revegetate																																																
				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Spotted Knapweed</td> <td>High</td> <td></td> <td>Non-Wood</td> </tr> <tr> <td>Black Cherry</td> <td>Trace</td> <td></td> <td>Sapling</td> </tr> <tr> <td>Bracken Fern</td> <td>Low</td> <td></td> <td>Non-Wood</td> </tr> <tr> <td>Little Bluestem</td> <td>Trace</td> <td></td> <td>Non-Wood</td> </tr> <tr> <td>Bigtooth Aspen</td> <td>Trace</td> <td></td> <td>Seeding</td> </tr> <tr> <td>Sweet Fern</td> <td>Low</td> <td></td> <td>Tall Shrub</td> </tr> </tbody> </table>		Sub-Canopy Species	Density	Avg. Height	Size	Spotted Knapweed	High		Non-Wood	Black Cherry	Trace		Sapling	Bracken Fern	Low		Non-Wood	Little Bluestem	Trace		Non-Wood	Bigtooth Aspen	Trace		Seeding	Sweet Fern	Low		Tall Shrub																						
Sub-Canopy Species	Density	Avg. Height	Size																																																				
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Little Bluestem	Trace		Non-Wood																																																				
Bigtooth Aspen	Trace		Seeding																																																				
Sweet Fern	Low		Tall Shrub																																																				
148	310 - Herbaceous Openland	Nonstocked	1.8		Unspecified	No	2024: Active oil and gas facility																																																
149	4310 - Pine, Oak Mix	Sapling Poor	14.8	6	Immature	N/A	2023: Good growth on planted red pine. More oak competition in south end of stand. Should grow in to nice mixed stand with good red pine component. 2021 Herbicide treatment for red pine release Sep 2021? This was planned but not completed? Does not look like it 2018. Planted red pine 2018 2017. Harvested. TS# 085-16. TCR 8/17. Final harvest with scattered oak and pine retained. Next step- trench and plant red pine. Trenched Fall 2017. Planted spring 2018. Oct. 2018 regen check showed 21% mortality on planted RP, 46% free to grow. Belt of quaking aspen regen along the north edge. Abundant w. oak acorn crop may result in additional oak regen next year, further competing with pine. Can't be aerial sprayed due to mature retained trees, so a ground herbicide application is recommended to set back the oak regen and release the planted RP. Wait till 2018 acorn crop germinates before spraying for maximum control. Retained oaks on site should produce more acorns in the future to diversify the regeneration after the RP have had a chance to grow.																																																
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150	4310 - Pine, Oak Mix	Sapling Well	31.3	15	1-50	N/A	2024: Log sized oak and pine overstory with planted red pine and natural deciduous mix growing in. Called both in canopy. . Good growth and survival on planted pine.																																																
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151	310 - Herbaceous Openland	Nonstocked	17.4		Unspecified	No	utility easement																																																



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
152	330 - Low-Density Trees	Nonstocked	5.4		Unspecified	No	2024: Low density trees. BC, Oak, WP

153	4199 - Other Mixed Upland Deciduous	Sawtimber Well	5.9	53	81-110	N/A	2024: Large old oak scattered with second age of aspen, oak, rm and wp grown in. Some steep areas. Not very interesting. Let stand grow in.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	5	Log	14		White Pine	Medium	10 - 20 feet	Sapling
White Oak	25	Log/Pole/XLog	16	104	White Oak	Low	10 - 20 feet	Sapling
Red Oak	20	XLog/Log	18	104	Red Oak	Low	5 - 10 feet	Sapling
Red Maple	15	Pole	8		Red Maple	Low	10 - 20 feet	Sapling
Bigtooth Aspen	35	Pole/Log	9	53	Witch Hazel	Low	10 - 20 feet	Tall Shrub

154	4131 - Aspen, Oak	Poletimber Well	7.9	54	51-80	N/A	2024: Mixed up species and ages around depressions. Some steep areas. Some younger aspen where cut in past and areas with older aspen with pin oak, pine and cherry. No reason to treat this stand.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Black Cherry	10	Pole	9		White Pine	Low	>20 feet	Sapling
Red Maple	3	Pole	9		Black Cherry	Low	10 - 20 feet	Sapling
Bigtooth Aspen	50	Pole	7	54				
White Pine	5	Pole	8					
Red Pine	5	Log/Pole	11	57				
Jack Pine	2	Log/Pole	10					
White Oak	10	Log/Pole	12					
Northern Pin Oak	15	Log	14					

155	3104 - Degraded	Nonstocked	3.0		Unspecified	No	2024: Hill climbs out of pit. Needs attention RDR#61043282018008. Need to look at ways to block access and address. 2014: Opening is a small valley, cold air drainage. The sides and some of the center are bare sand with ORV use. Keep as opening but reveg(?), probably very difficult. Probably leave as is but block ORV use.
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Sub-Canopy Species	Density	Avg. Height	Size
St. Johns Wort	Low		Non-Wood
Mixed Grasses	Medium		Non-Wood
Black Cherry	Trace		Pole
Sweet Fern	Low		Tall Shrub
Blackberry/Raspberry	Trace		Tall Shrub
Bracken Fern	Low		Non-Wood
Spotted Knapweed	Low		Non-Wood

156	4126 - White, Black, N. Pin Oak	Sawtimber Well	4.3	84	51-80	N/A	2023: Stand looks alright. Maintain for small oak island. 2018: TS# 036-16. Stand thinned when stand to south was harvested to try to keep a small oak island in this area. Pole size oak stand. Low quality. Little sub canopy formation after last harvest.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	10	Log/Pole	11		White Oak	Low	< 5 feet	Sapling
Red Maple	11	Pole	8		White Pine	Low	10 - 20 feet	Sapling
Red Oak	10	Log/Pole	12	84	Red Pine	Low	10 - 20 feet	Sapling
White Oak	65	Log/Pole	10	84	Red Oak	Low	< 5 feet	Sapling
Bigtooth Aspen	2	Pole/Log	8		Red Maple	Low	< 5 feet	Sapling
Quaking Aspen	2	Pole/Log	8					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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158 3301 - Low Density Deciduous Trees Nonstocked 1.4 Unspecified No 2014: Scattered LBS, one log WP, aspen is dying in a depression, possibly a frost pocket. Road from 161 to this stand was once bermed (reclose?). Nice mix.

Sub-Canopy Species	Density	Avg. Height	Size
Mixed Grasses	Medium		Non-Wood
Cladonia (Reindeer moss)	Trace		Non-Wood
St. Johns Wort	Low		Non-Wood
Bracken Fern	Medium		Non-Wood
Oak (spp.)	Low		Sapling
Sweet Fern	Trace		Tall Shrub
Aspen (spp.)	Low		Pole
Red Pine	Trace		Log
Black Cherry	Low		Log
Spotted Knapweed	Trace		Non-Wood

159 310 - Herbaceous Openland Nonstocked 3.0 Unspecified No 2024: Poor quality opening on mild slope. Autumn olive. Jp growing in on east side. Stand should be planted if stand 161 is re-started.

160 4131 - Aspen, Oak Poletimber Medium 50.2 25 51-80 N/A 2024: Pockets of well stocked aspen with good growth. Other areas heavier to White Oak, Pin Oak, Red Oak. JP. WP. Som older scattered RP/WP in stand. Pockets of JP. Some poor stocked areas. Let stand develop.

Canopy Species	% Cover	Size Class	DBH	Age
Black Cherry	2	Sapling	4	25
Bigtooth Aspen	52	Pole/Sapling	5	25
Red Pine	1	Log/Pole	12	
White Oak	15	Sapling/Pole	4	25
Jack Pine	5	Pole	5	
Northern Pin Oak	15	Pole/Sapling	5	
White Pine	2	Log/Pole	12	
Red Oak	3	Sapling	4	25
Red Maple	5	Sapling	4	

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

161 42110 - Planted Red Pine Sawtimber Well 71.7 73 111-140 N/A 2024: Stocking is variable. 127 avg ba. North part of stand (north of drain) is generally lower stocking and has more advance understory of oak and rm Vernal pond in east side of drain. Could cut and plant part south of drain and reduce the RP stocking in the North part (20-40 ba) to release advanced understory of oak, rp. Could include stand 159 if planted. Could reduce the stocking in the whole stand and move towards oak and rm. Could hold until adjacent young plantations grow in. Aspen clones (20'+) and advanced oak, rm, bc regen in stand 10-20'. Harvest would cause a lot of damage to understory. Advance understory will cause difficulty in trying to replant this stand. May be best to let this stand develop until aspen is merchantable and then to cc and let it sprout with a natural mix of oak, aspen, bc, rm. May need to wait 20 years. Stand is not over stocked or oversized at this time. Drain across stand could be retention area if harvested.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	2	Pole	6	25
Red Oak	2	Pole	8	
Bigtooth Aspen	2	Pole	8	25
Red Pine	92	Log/Pole	12	73
White Oak	2	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	Low	10 - 20 feet	Sapling
Black Cherry	Low	10 - 20 feet	Sapling
White Oak	Low	10 - 20 feet	Sapling
White Pine	Low	10 - 20 feet	Sapling
Jack Pine	Low	10 - 20 feet	Sapling
Witch Hazel	Low	10 - 20 feet	Tall Shrub
Bigtooth Aspen	Low	10 - 20 feet	Sapling
Red Maple	Low	10 - 20 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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162 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 13.9 104 111-140 N/A 2023: Steeper slope that was excluded from timber sale to north. Large older pine and oak. Factor limited for steep ground.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	30	Log/XLog	15	104	White Pine	Medium	Variable	Sapling
Bigtooth Aspen	5	Log/XLog	14		Red Maple	Low	>20 feet	Sapling
White Oak	30	Log	14	108	Hazelnut (Beaked)	Low	10 - 20 feet	Tall Shrub
Red Maple	5	Log/Pole	12		Red Oak	Low	10 - 20 feet	Sapling
Red Pine	10	Log	14	104	White Oak	Low	10 - 20 feet	Sapling
Red Oak	20	Log	15	104				

163 4126 - White, Black, N. Pin Oak Sawtimber Well 8.4 131 111-140 N/A 2024: Mixed sized of oak with white pine poles and saplings growing through. Some large old oak. Nice stand with wp advancing. Let stand grow in. Keep for diversity.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	5	Log	13		White Oak	Low	Variable	Sapling
Northern Pin Oak	10	Log/XLog/Pole	18		White Pine	Medium	Variable	Sapling
Red Pine	2	Log/Pole	12		Red Oak	Low	Variable	Sapling
Red Oak	30	Log/XLog/Pole	18		Red Pine	Low	>20 feet	Sapling
White Pine	3	Log/Pole	12					
White Oak	50	Log/Pole	16	131				

164 31022 - Warm Season Grass Nonstocked 1.3 Unspecified No Frost pocket.

Sub-Canopy Species	Density	Avg. Height	Size
Black Cherry	Low		Log
Sweet Fern	Trace		Tall Shrub
Little Bluestem	Medium		Non-Wood
Cladonia (Reindeer moss)	Trace		Non-Wood
White Oak	Trace		Pole
Poverty Grass	Medium		Non-Wood
Bracken Fern	Trace		Non-Wood

165 122 - Road/Parking Lot Nonstocked 2.5 Unspecified No



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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166	4126 - White, Black, N. Pin Oak	Sawtimber Well	30.6	119	81-110	N/A	2024: Poor quality oak with wp growing in. Could just let the oak fall out over time and let stand convert to wp or could take most of the oak off with the aspen and red maple. Stand may not regenerate well. Adjacent stands have filled in with pin oak/white oak. Looks best to CC and plant red pine. Leave some scattered oak and white pine. Good bit of large woody debris. May need to flat plant. A little aspen may sprout but not a lot of rm in stand. RP in stand looks good and some of the oak is a little better as this site index may be a little higher. Could harvest with parts of stand to east. Leave the strip along supply road north of the woods (stand 168) road for a visual retention area but take the aspen out of this strip to keep it from falling on supply road. Leave slope around lake for riparian buffer. If chipping is not possible could require slash to be extremely reduces and still flat plant without spraying or drone spray if possible. Don't really expect much competition other than some small aspen clones. This treatment may be best for next entry as a stand to east along supply road is scheduled for harvest and planting. Evaluate success of this other treatment.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern Pin Oak		20	Log/XLog	14		Red Pine		Low	10 - 20 feet	Sapling	
White Pine		15	Log/Pole	13		White Oak		Low	>20 feet	Pole	
Red Maple		5	Pole/Log	9		Witch Hazel		Low	10 - 20 feet	Tall Shrub	
White Oak		25	Log/XLog/Pole	15	119	Red Maple		Medium	>20 feet	Pole	
Quaking Aspen		5	Log/Pole	11		White Pine		Medium	Variable	Sapling	
Red Oak		20	Log/Pole/XLog	14	119	Red Oak		Low	>20 feet	Pole	
Bigtooth Aspen		10	Log	13	84						

167	4131 - Aspen, Oak	Sawtimber Well	7.8	71	111-140	N/A	2024: AVG ba= 150. Could cut aspen and most rm and poor formed oak to regenerate stand. Oak is generally low quality. Could harvest with stand to west. May not be enough volume for even a small sale. Marked for thinning 2014 but held it back due to cc to northwest. Could wait until RP to north is harvested.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Bigtooth Aspen		50	Log/Pole	12	71	Northern Pin Oak		Low	< 5 feet	Sapling	
Red Pine		2	Log	12		White Pine		Low	10 - 20 feet	Sapling	
Red Maple		10	Pole	9		Red Maple		Low	10 - 20 feet	Sapling	
Northern Pin Oak		12	Log/Pole	12		White Oak		Low	< 5 feet	Sapling	
White Oak		14	Log/Pole	11							
Red Oak		12	Log/Pole	12	92						

168	4126 - White, Black, N. Pin Oak	Poletimber Well	31.4	92	81-110	N/A	.2024: Medium quality oak. Stocking is not bad at this time. Stand is good for now. A little aspen mixed in in east side. A little wp growing in under.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		5	Pole/Sapling	8		White Pine		Low	Variable	Sapling	
White Oak		35	Log/Pole	12	92	Red Maple		Low	Variable	Tall Shrub	
Red Oak		5	Log/Pole	14	92	Witch Hazel		Low	5 - 10 feet	Tall Shrub	
White Pine		15	Log/Pole	10							
Bigtooth Aspen		8	Log	12							
Northern Pin Oak		30	Log/Pole	12							

169	4121 - Oak, Aspen	Sawtimber Well	9.7	91	81-110	N/A	2024: Aspen is old and declining. Could harvest out of stand if nearby. Most of the aspen is in the riparian zone. Leave for now. Could cut stand back to well formed oak and pine and harvest to start a new age class in stand. Consider proper treatment of riparian area along lake. 2014: Aspen on steep slope and a Little strip of Jp along lake. Few large WP. camp site walk-in trail leading out to muncie lake rd.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Oak		10	Log/Pole	11		White Pine		High	Variable	Sapling	
Bigtooth Aspen		40	Log	13	91						
Northern Pin Oak		20	Log/Pole	11							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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170	4121 - Oak, Aspen	Sawtimber Well	9.9	103	51-80	N/A	2024: Mix of oak logs and poles. Moderate-poor quality. Aspen is declining. Might be enough aspen to fill ion stand if harvested. Maybe not. Could cut back to better quality oak and pine and attempt to regenerate aspen. Not too interesting. Poor oak and not enough aspen for concern. Stand to east to be harvested soon. Keep for diversity.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Oak	40	Log/Pole	11	103
Bigtooth Aspen	35	Log	13	91
Red Maple	5	Pole	8	
White Oak	20	Log/Pole	11	

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

171	500 - Water	Nonstocked	38.9		Unspecified	No	Dollar Lake
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172	4131 - Aspen, Oak	Sawtimber Well	10.1	99	111-140	N/A	2024: Mixed stand around lake. Riparian zone2014. New stand after harvest. Riparian Zone around lake. Dollar Lake.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Oak	10	Log/Pole	12	
Bigtooth Aspen	50	Log	13	99
White Pine	10	Log	11	
Northern Pin Oak	15	Log	14	
White Oak	10	Log	12	
Red Maple	5	Pole/Sapling	8	

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

173	4199 - Other Mixed Upland Deciduous	Sapling Poor	38.7	15	1-50	N/A	Moved sapling layer into canopy. Well stocked second age in most areas. Log sized oak, and pine also called in canopy. Let stand develop.
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Canopy Species	% Cover	Size Class	DBH	Age
White Oak	15	Sapling	2	15
Red Maple	10	Sapling	2	15
White Oak	10	Log	11	109
Black Cherry	3	Sapling	2	
Bigtooth Aspen	5	Sapling	2	15
Red Pine	2	Log	11	
White Pine	5	Log	10	
Red Oak	5	Sapling	2	15
Northern Pin Oak	13	Log	12	
Northern Pin Oak	20	Sapling	2	15
Red Oak	10	Log	13	
White Pine	2	Sapling	2	

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Medium	< 5 feet	Sapling



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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174	3201 - Sweet Fern	Nonstocked	1.4		Unspecified	No	2024: old well pad. 2014: South 1/2 has fairly thick Sweet fern. North 1/2 dominated by barren, SJW, and SKW. Revegetate, party spot some garbage. Or could keep and use as a timber landing.				
								Sub-Canopy Species	Density	Avg. Height	Size
								Sheep Sorrel	Trace		Non-Wood
								Mixed Grasses	Trace		Non-Wood
								Sumac	Low		Tall Shrub
								Spotted Knapweed	Trace		Non-Wood
								Sweet Fern	Medium		Tall Shrub
								Red Oak	Trace		Seeding
								St. Johns Wort	Low		Non-Wood
Bracken Fern	Trace		Non-Wood								

175	4131 - Aspen, Oak	Sapling Medium	38.9	15	1-50	N/A	2024: Good aspen regen and growth in most areas. Areas heavier to oak, rm and pine. Retention density is variable.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								White Pine	5	Sapling	1	22	Northern Pin Oak	Low	< 5 feet	Sapling
								White Pine	5	Log	11		Red Maple	Medium	< 5 feet	Sapling
								Red Oak	5	Log	13	97	White Pine	Low	< 5 feet	Sapling
								White Oak	8	Sapling	1	15	Black Cherry	Low	< 5 feet	Sapling
								Red Oak	2	Sapling	1	15	White Oak	Low	< 5 feet	Sapling
								Northern Pin Oak	7	Sapling	2					
								White Oak	5	Log	11	97				
								Bigtooth Aspen	50	Sapling	2	15				
								Red Maple	10	Sapling	2					
								Red Pine	3	Log/Pole	10					

176	6225 - Bog	Nonstocked	3.6		Unspecified	No	Spongy damp soil. No standing water.				
								Sub-Canopy Species	Density	Avg. Height	Size
								Willow spp.	Low		
								Mixed Grasses	Low		Non-Wood
								Sedges	Trace		Non-Wood
								Red Pine	Medium		Sapling
								Bracken Fern	Trace		Non-Wood
								Jack Pine	Trace		Sapling
								Black Spruce	Low		Sapling
Leatherleaf	High		Tall Shrub								

177	310 - Herbaceous Openland	Nonstocked	3.6		Unspecified		old well pad. Site was trenched with fire plow to reduce access. Could plant trees. A pocket of pine or spruce would create a good cover patch. Well plugged 2007 . Unknown if reclamation attempted.
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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178	3301 - Low Density Deciduous Trees	Nonstocked	0.0		Unspecified	No	2014: Scattered LBS, one log WP, aspen is dying in a depression, possibly a frost pocket. Road from 161 to this stand was once bermed (reclose?). Nice mix.																																											
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179	4199 - Other Mixed Upland Deciduous	Sawtimber Well	8.6	101	81-110	N/A	2024: Variable stocking. Avg ba= 100. Oak is overstocked in places. Low quality red oak/pin oak. Was marked to thin when stand to north was cut and planted but decided to hold this for visual barrier. Still could use a light thinning and harvest aspen. Would go with the stand to the east.																																														
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180	4311 - Pine, Aspen Mix	Sawtimber Well	6.8	73	81-110	N/A	2023: Riparian strip left from last harvest. Mixed stand. 2018:																																																		
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182	4310 - Pine, Oak Mix	Sawtimber Poor	20.3	99	1-50	N/A	2024: Poor regeneration success at this time due to heavy browsing. Some pockets of successful aspen regen in east part of stand. RM sprouts throughout but browsed heavily. Part of new acquisition 2013. Over mature aspen mixed with oak-pine. Harvested TS# 037-16. Harvested 8/2018. Cut all aspen, rm except green marked + orange marked oak, pine. Harvested areas where aspen was heavier, and terrain allowed access. Should regenerate to aspen/rm/wp/oak.																																																		
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183	4124 - Red with White Oak	Sawtimber Well	5.4	99	81-110	N/A	2023: Oak log stand along steeper slope with wp under. South east part is workable but fine to leave for now. 2019: This stand was created from steeper parts of stand 31 that were left unharvested in last treatment.																																															
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184	310 - Herbaceous Openland	Nonstocked	2.4		Unspecified	No	well pad																																															
186	4129 - Mixed Oak	Sawtimber Well	6.5	99	81-110	N/A	2023: Strip along slope between prior harvest units. Mixed oak, pine, aspen, rm. 2018: Harvested part of stand that could be accessed. This stand formed from steeper area that was not harvested.																																															
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187	6239 - Mixed Emergent Wetland	Nonstocked	2.3		Unspecified	No	Small ice block depression. Water Light brush																																															
188	4122 - Oak, Pine	Sawtimber Well	6.3	113	81-110	N/A	20232018. Mixed sizes of oak and WP. Pockets of WP poles and saplings.																																															
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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193 4119 - Mixed Northern Hardwoods Poletimber Medium 17.2 41 51-80 N/A 2023: Open areas. Lower density stump sprouts. Would be good to cut and plant red pine at some point. Some older wp and a pocket of older aspen in middle. Pocket of planted? spruce in NW. Some bigger WP scattered.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	5	Log	14	84	Hazelnut (Spp.)	Low	5 - 10 feet	Tall Shrub
Black Cherry	5	Pole	6		Black Cherry	Low	5 - 10 feet	Sapling
Red Maple	60	Pole	6	41	Red Maple	Low	5 - 10 feet	Sapling
White Oak	10	Pole	6	41	White Pine	Low	5 - 10 feet	Sapling
Red Oak	10	Pole	6	41				
Bigtooth Aspen	10	Pole	8	41				

194 4199 - Other Mixed Upland Deciduous Poletimber Medium 9.6 41 1-50 N/A 2023: RM and Oak from sprouts. Quaking Aspen pocket on north end.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	5	Pole	6		Black Cherry	Low	5 - 10 feet	Sapling
Red Oak	25	Pole/Sapling	6	41	White Pine	Low	5 - 10 feet	Sapling
White Oak	22	Pole	6	41				
Black Cherry	5	Pole	6	41				
Red Maple	25	Pole	6	41				
Bigtooth Aspen	11	Pole	8	41				
Red Pine	2	Log	12	84				
White Pine	5	Log	12	84				

195 623 - Emergent Wetland Nonstocked 0.9 Unspecified No Small ice block depression. Water Light brush

196 330 - Low-Density Trees Nonstocked 1.3 Unspecified No

198 4199 - Other Mixed Upland Deciduous Sawtimber Well 12.2 103 111-140 N/A 2023; Steep hill and areas around small wet depressions. More pine and aspen around depressions. Hardwood mix on hillsides. West pocket had the aspen cut out when adjacent stands were cut so younger age. Factor Limited for slopes and water.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	10	Log	14		White Pine	Low	5 - 10 feet	Sapling
White Pine	10	Log	15		Red Maple	Low	10 - 20 feet	Sapling
Red Oak	35	Log/XLog	15	103				
White Oak	15	Log	14	103				
Red Maple	20	Log	12					
Sugar Maple	1	Log	13					
Basswood	1	Log	11					
Red Pine	8	Log	14					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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199	4131 - Aspen, Oak	Poletimber Well	67.6	41	51-80	N/A	2023: Let stand grow in. Some areas of heavier to oak and red maple and others to aspen. Small pocket of planted spruce. Some older wp/rp scattered around. Some decent red oak could be retained when this stand is harvested to regenerate.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	1	Pole	6	41	White Pine	Low	5 - 10 feet	Sapling
White Oak	15	Pole	6	41	Black Cherry	Low	5 - 10 feet	Sapling
Black Cherry	1	Pole	6		Hazelnut (Spp.)	Low	5 - 10 feet	Tall Shrub
Red Maple	20	Pole	6	41				
Bigtooth Aspen	45	Pole	7	41				
White Pine	1	Log	14					
Red Oak	15	Pole	8	41				
Northern Pin Oak	2	Pole	6					

200	4119 - Mixed Northern Hardwoods	Poletimber Well	5.5	41	81-110	N/A	2023: Red Maple and oak from stump sprouts. Some residual wp left in last harvest
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	60	Pole	5	41	White Pine	Low	5 - 10 feet	Sapling
White Pine	5	Log/Pole	12		Red Maple	Low	10 - 20 feet	Sapling
White Oak	15	Pole	6	41	White Oak	Low	10 - 20 feet	Sapling
Red Oak	20	Pole	8	41				

201	4130 - Aspen	Poletimber Well	27.0	41	81-110	N/A	2023: Variable stocking. RM and oak from sprouts along with aspen. Most RO is lower quality. Some well-formed white oak. Good aspen stocking with good growth and form. May consider harvest next entry.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	72	Pole	8	41	White Pine	Low	5 - 10 feet	Sapling
Red Maple	15	Pole	7	41				
White Pine	5	Log	12	84				
Quaking Aspen	3	Pole	7					
Red Oak	5	Pole	6	41				