



Compartment Review Presentation

Atlanta Forest Management Unit

Compartment 54157

Entry Year 2018

Acreage: 1,619

County Presque Isle

Management Area: Cheboygan Basin Moraines

Revision Date: 2016-06-10

Stand Examiner: Dale Parris

Legal Description:

T36N R02E Sections 19, 20, and 21

Identified Planning Goals:

Multi-Resource management within Compartment 157 is guided by the Cheboygan Basin Moraines Management Area (CBMMA) Plan. All timber harvests have been prescribed following the direction indicated in the CBMMA Plan and Timber Analysis. In all cases the unique characteristics of the individual stand was taken into consideration when writing the prescription. The timber analysis completed on the CBMMA indicated that the harvesting of aspen, red pine, oak, and lowland aspen/balsam poplar cover types should be of focus for the purpose of balancing the age classes of these cover types across the Management Area (MA). Wildlife, recreation, aesthetics, adjacent stands and the larger landscape were considered in all management decisions.

Soil and topography:

Compartment 157 is composed mainly of flat to rolling uplands with the presence of some steeper slopes and lowlands at its the east.

Compartment 157 is composed of approximately 20 types of soil. The two soils that occur the most are Rubicon sand and Cheboygan loamy sand. The Rubicon sand is excessively drained soil and the Cheboygan loamy sand is well drained. The lowlands that exist at the east end of the compartment are typically composed of Roscommon muck.

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

Most of the land surrounding Compartment 157 is either additional state land or privately owned forest. The land to the north is state owned. The land along the eastern edge of the compartment is state to the south and private to the north. The land to the south is a mixture of private and state ownership. The land to the west is private to the south with additional state land to the north.

There is little development in the area directly adjacent to Compartment 157 except for small vacation properties on larger acreage parcels. To the west summer homes, cottages, and year round residences line the shores of Black Lake.

Unique Natural Features:

The Michigan State University Extension (MSUE), Michigan Natural Features Inventory (MNFI) database indicated that the bald eagle (*Haliaeetus leucocephalus*) uses the area in and around Compartment 157. The bald eagle is a special concerns species within Michigan. Areas around bald eagle nests should be protected from habitat damaging activities whenever possible. The Michigan DNR follows the US Fish and Wildlife Service "National Bald Eagle Guidelines" in regards to all operations that occur in habitat used by the bald eagle.

The MSUE, MNFI also indicated that Hill's thistle (*Cirsium hillii*), a state special concerns plant species, is found in and adjacent to Compartment 157. Hill's thistle can be protected by locating populations and protecting the habitat where it is found. Hill's thistle can be promoted through the use of prescribed fire in appropriate habitats, where the accumulation of forest litter causes its decline.

At the far west end of Compartment 157 there is a ravine with a creek percolating out of it. The ravine runs from the northeast to the southwest and then heads west toward Black Lake. There is an approximately 60-acre wetland area in the northeast corner of the compartment that contains three pine dominated islands.

Archeological, Historical, and Cultural Features:

The State Historic Preservation Office (SHPO) did have a hit within Compartment 157. For further information, contact the SHPO.

Along the northern edge of the compartment there is 8 quarter-quarters that were planted to red pine in 1929 and 1931.

In the south-central portion of the compartment, 14 acres were planted to red pine in 1997.

Special Management Designations or Considerations:

With a portion of the Black Mountain Recreation Area trail system located within Compartment 157, special consideration and public input should be taken when prescribing treatments adjacent to or overlapping these trails. As is always the case, possible erosion issues and soil disturbance should be taken into consideration when prescribing all treatments.

Watershed and Fisheries Considerations:

The Fisheries Division of the DNR does not have any major concerns to speak of as timber harvesting relates to the limited bodies of water in Compartment 157.

Wildlife Habitat Considerations:

This compartment is an excellent opportunity to manage for wildlife. It is part of a multiple compartment, large scale block of public land providing contiguous wildlife pathways that are necessary for many of our large game animals such as black bear. Habitat components of heavy aspen and oak provide food and cover for multiple species at a variety of age classes. We are working to maintain oak and other mast producing trees as well as keep a good age rotation of aspen in this compartment as well as adjacent compartments. Species which benefit from our management include white-tailed deer, black bear, ruffed grouse, woodcock, and many other game and non-game species.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine sand and gravel and coarse-textured till. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Devonian Detroit River Group. The Detroit River could be used for stone. Two state sand/gravel pits are located within one mile of the compartment and there is additional potential within the compartment. This area has had no drilling for oil and gas. There has been some recent leasing to the west associated with the Collingwood Shale lease play, but nearly all of those leases have expired and potential for oil and gas development in the area is considered low.

Vehicle Access:

The west end of Compartment 157 can be accessed via Black Mountain Road. Dorvia Beach Road runs along the northern edge of the compartment. Dorvia Beach Road can be accessed from Black Mountain Road to the west. The east end of Compartment 157 can be accessed using County Road 489. Ash Hwy runs from County Road 489 to the west allowing access to the eastern half of the compartment.

Survey Needs:

There are no surveys needed at this time.

Recreational Facilities and Opportunities:

One of the Black Mountain Recreation Area trailheads is located off the west side of County Road 489 within Compartment 157. There is an ADA (Americans with Disability Act) compliant trail that is accessible from this trailhead that takes users along a scenic forest route. Also accessible from this trailhead is a multi-use ski trail. This ski trail is also used for horseback riding, bicycling, and hiking in the warmer months. Bummer's Roost ATV trail runs the length of the compartment. A snowmobile trail runs through the compartment as well.

Fire Protection:

In the case of wildland fire, Compartment 157 is within the response area of the Onaway DNR Fire Taskforce. The Onaway DNR Fire Task Force is within 8 miles of the compartment and typically would be able to be on scene within 15 to 30 minutes after being dispatched.

There are not any fire hazards within compartment 157 that need to be addressed at this time. The entire compartment contains forest roads and recreation trails that could be used by fire personal to drive reasonably close to any wildland fire.

Additional Compartment Information:

Compartment 157 has a high amount of acreage dominated by natural pine and approximately 334 acres of planted red pine. About half the 320 acres that were planted to red pine in 1929 and 1931 were planted around existing oak regen and therefore have a dominate oak component. Some northern hardwood stands are located at the east end of the compartment. Oak mast trees can be found throughout the compartment. Overall, the timber within the compartment is healthy. Pine tends to regenerate well naturally within compartment 157 and is a significant component of most stands.

The following reports from the Inventory are attached:

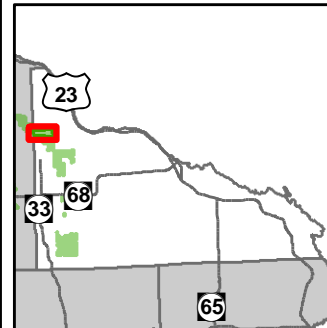
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

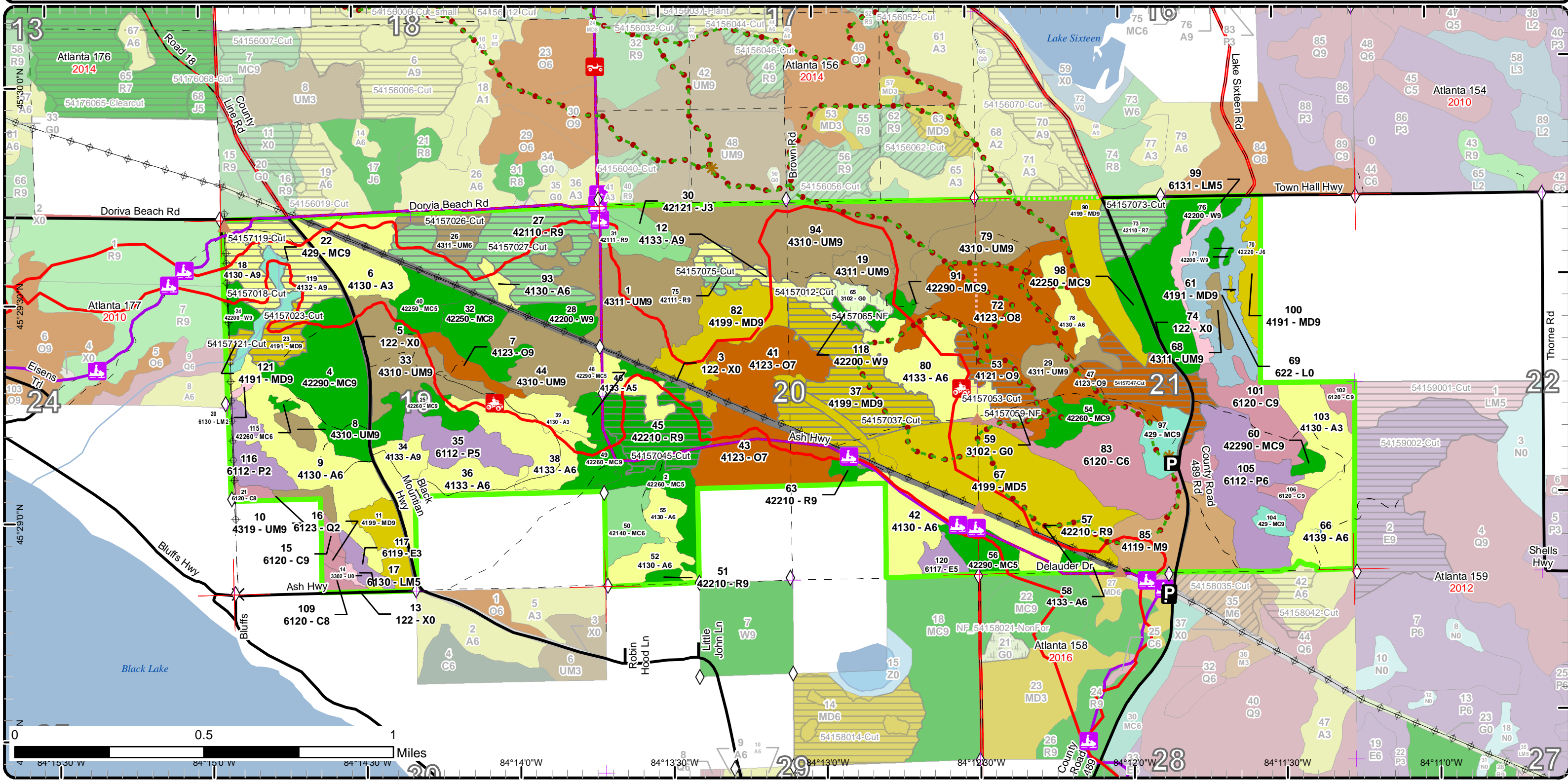
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 157
 T36N, R02E, Sec: 19-21
 County: Presque Isle
 Unit: Atlanta
 Mgmt Area: Cheboygan Basin
 Moraines
 YOE: 2018
 Acres: 1,619 GIS Calculated
 Examiner: Dale Parris
 Map Revised: 10/6/2016
 Map Phase: Post Review



- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- X Gate
- ▲ Berms
- Culverts
- P Parking Lot
- * Trailhead
- ORV Trails
- ORV Routes
- Snowmobile Trails
- Designated Hiking Trails
- - - Designated Bicycle Trails
- Designated Equestrian Trails
- Designated Ski Trails
- Designated ATV Trails
- - - Designated ORV Route
- Designated Snowmobile Trails
- Paved Roads
- County Gravel Roads
- Gravel Roads
- - - Poor Dirt Roads
- County Poor Dirt Roads
- - - Closed Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Clearcut (w/Reserves)
- Opening Maintenance
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 622 - Lowland Shrub
- Lakes
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot

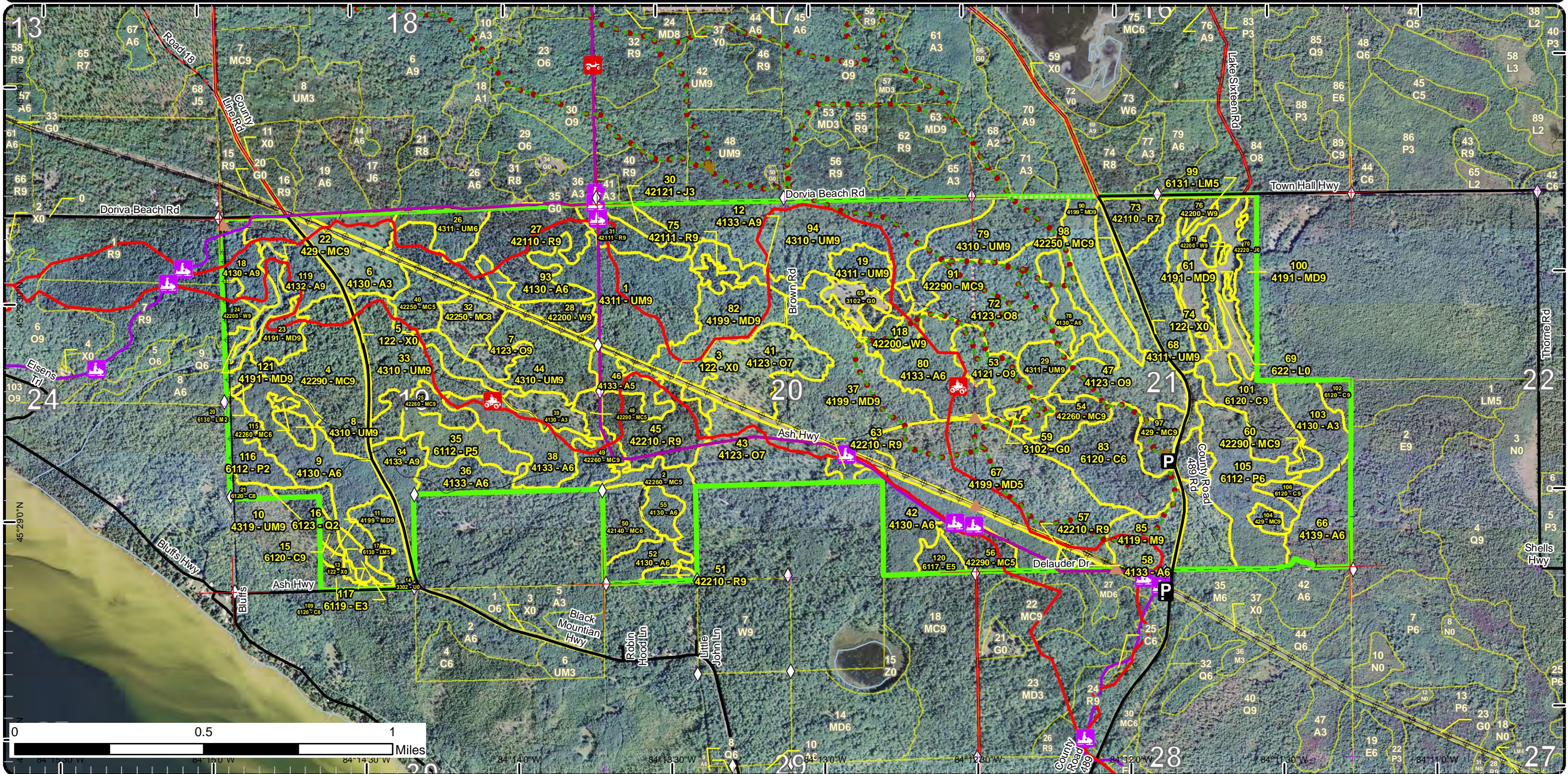


Stand Boundary Map

Compartment: 157
 T36N, R02E, Sec: 19-21
 County: Presque Isle
 Unit: Atlanta
 Mgmt Area: Cheboygan Basin
 Moraines
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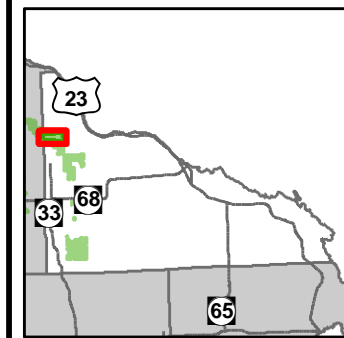


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|--|---|--|
| <ul style="list-style-type: none"> — Miris Corners ⊕ Remonumented Section Corners ◇ Field Grade GPS Corners ✕ Gate ▲ Berms ⌒ Culverts P Parking Lot ★ Trailhead ORV Trails ORV Routes Snowmobile Trails — Designated Hiking Trails | <ul style="list-style-type: none"> - - - Designated Bicycle Trails ••• Designated Equestrian Trails — Designated Ski Trails — Designated ATV Trails - - - Designated ORV Route — Designated Snowmobile Trails — Paved Roads — County Gravel Roads — Gravel Roads — Poor Dirt Roads — County Poor Dirt Roads - - - Closed Roads — Rivers — Pipeline — Powerline | <ul style="list-style-type: none"> — Compartment Boundary — Stand Boundaries 330 - Low Density Trees 622 - Lowland Shrub 411 - Northern Hardwood 412 - Oak Types 413 - Aspen Types 419 - Mixed Upland Deciduous 421 - Planted Pines 422 - Natural Pines 429 - Mixed Upland Conifers 430 - Upland Mixed Forest 611 - Lowland Deciduous Forest 612 - Lowland Coniferous Forest 613 - Lowland Mixed Forest 122 - Roads/Parking Lot 310 - Herbaceous Openland |
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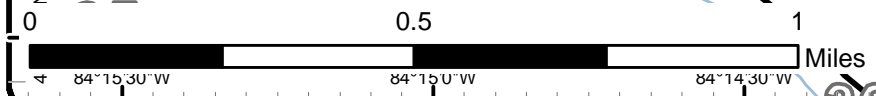
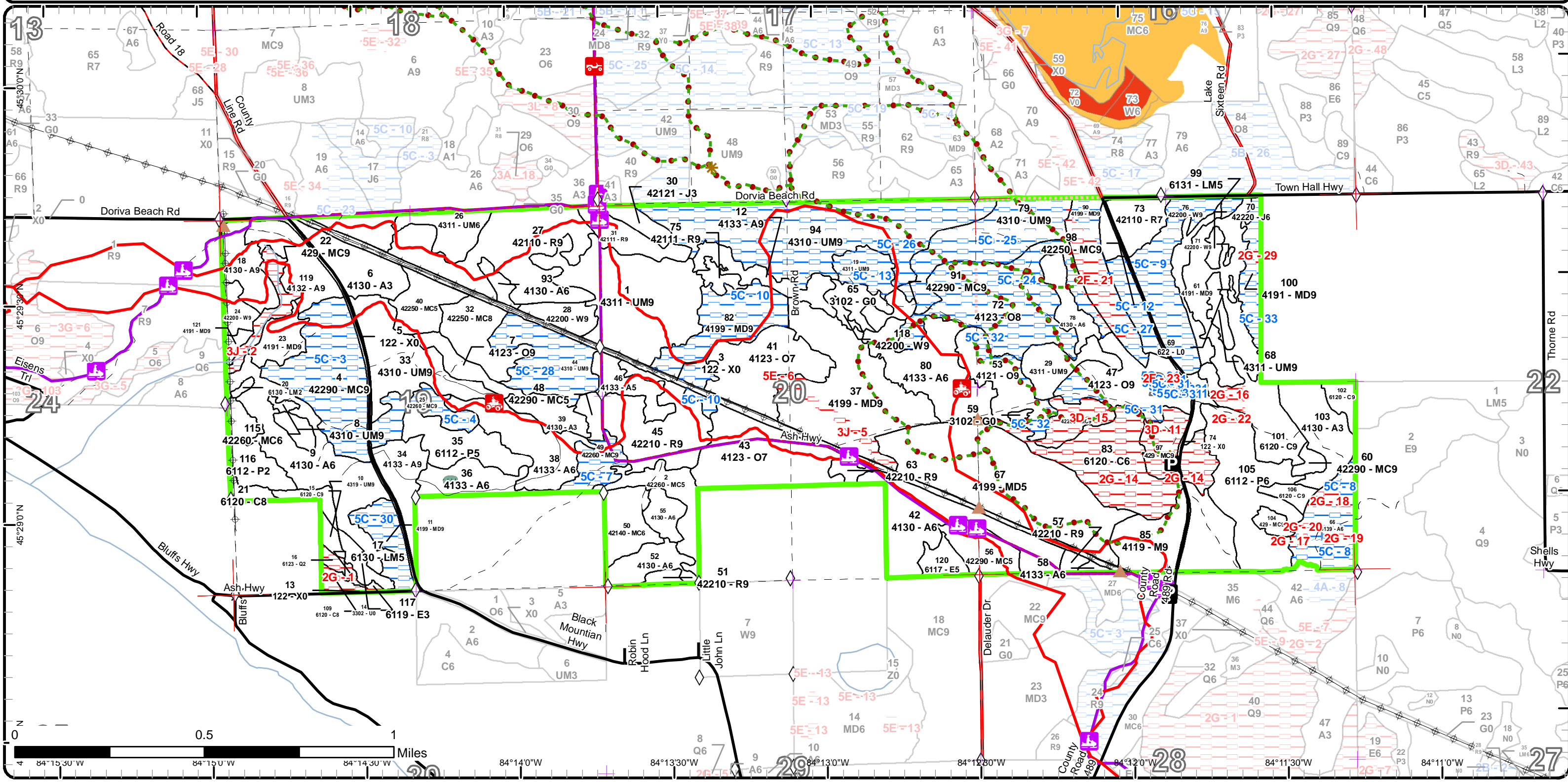


Special Conservation Areas & Site Conditions Map

Compartment: 157
 T36N, R02E, Sec: 19-21
 County: Presque Isle
 Unit: Atlanta
 Mgmt Area: Cheboygan Basin
 Moraines
 YOE: 2018
 Acres: 1,619 GIS Calculated
 Examiner: Dale Parris
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- Miris Corners
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- Paved Roads
- County Gravel Roads
- Gravel Roads
- - - Poor Dirt Roads
- County Poor Dirt Roads
- - - Closed Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- SCA
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 3D: Recreational / Scenic values
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Non-Dedicated Natural Areas and National Natural Landmarks
- Vernal Pool



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	34	0	60	155	26	17	14	0	0	12	0	0	0	0	0	0	0	318
Cedar	0	0	0	0	0	0	0	0	0	0	9	0	74	0	0	0	0	0	83
Herbaceous Openland	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Jack Pine	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Low-Density Trees	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lowland Aspen/Balsam Poplar	0	0	0	14	57	0	0	0	0	0	0	0	0	0	0	0	0	0	71
Lowland Conifers	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Deciduous	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Lowland Mixed Forest	0	0	0	2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	10
Lowland Shrub	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Mixed Upland Deciduous	0	0	0	0	0	0	0	58	12	63	11	0	0	0	0	0	0	73	217
Natural Mixed Pines	0	0	0	1	0	0	3	5	87	0	18	0	14	13	13	0	0	0	153
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	34
Oak	0	0	0	0	0	0	0	0	8	173	0	0	0	0	0	0	0	0	181
Planted Mixed Pines	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Red Pine	0	0	0	0	0	0	0	60	51	0	2	0	0	0	0	0	0	0	113
Upland Conifers	0	0	0	0	3	0	0	0	0	10	9	0	0	0	0	0	0	0	21
Upland Mixed Forest	0	0	0	13	58	0	39	0	72	82	0	0	4	0	0	0	0	0	267
Urban	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
White Pine	0	0	0	0	1	8	2	0	6	29	0	0	0	0	0	0	0	0	44
Total	74	34	16	93	227	96	28	60	205	149	396	22	88	17	13	0	0	107	1618



Report 2 – Treatment Summary

Atlanta Mgt. Unit

Year of Entry: 2018

Acres of Harvest

Compartment 157

Total Compartment Acres: 1,619

Commercial Harvest - 247
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	43	0	0	0	0	0	0	0	0	43
Mixed Upland Deciduous	61	0	0	0	0	0	0	0	0	61
Oak	38	0	0	0	0	0	0	0	0	38
Red Pine	93	0	0	0	0	0	0	0	0	93
Upland Mixed Forest	12	0	0	0	0	0	0	0	0	12
Total	247	0	0	0	0	0	0	0	0	247

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	247	0	0	0	0	0	0	7	0	255
Next Step	0	203	102	0	0	102	349	0	0	755
Total	247	203	102	0	0	102	349	0	7	1010



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
12	54157012-Cut	12.3	4133 - Aspen, Mixed Pine	Sawtimber Well	91	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clear-cut with reserves. Retain 3-5% of the stand in stand representative pocket retention. Protect all sub merchantable pine regen to promote future stand diversity.

Next Step Monitoring, Natural Regen (Re-Inventory)

Acceptable Regen: Acceptable regeneration is a mix of aspen, white pine, red maple, and oak.

Other Comment: Include specs to protect the ATV and snowmobile trails and their users in the area adjacent to this treatment.

Proposed Start Date: 10/01/2017

18	54157018-Cut	13.6	4130 - Aspen	Sawtimber Well	65	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with retention. Retain 3-10% of the stand in one or more pockets. Retain all un-merchantable red and white pine regeneration to promote future stand diversity. Retain 1-3 large crown oak per acre where present.

Next Step Monitoring, Natural Regen (Re-Inventory)

Acceptable Regen: Acceptable regeneration is a mix of aspen, red maple, oak, and white pine.

Other Comment: Include specs to protect the ATV and snowmobile trails and their users.

Proposed Start Date: 10/01/2017

23	54157023-Cut	9.1	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	80	81-110	Harvest	Clearcut	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut. Protect all white pine and red pine legacy trees. Protect all sub-merchantable oak and pine regeneration to promote future stand diversity.

Next Step Monitoring, Natural Regen (Re-Inventory)

Acceptable Regen: Acceptable regeneration is a mix of aspen, red maple, white pine, oak, and paper birch.

Other Comment: Include specs to protect the ATV trail and its users. There is a ravine in the southern portion of this stand; parts of which will likely need to be marked out of the treatment.

Proposed Start Date: 10/01/2017

26	54157026-Cut	11.7	4311 - Pine, Aspen Mix	Poletimber Well	85	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with retention. Plant to red pine. Retain 3-10% of the stand in pocket(s). Focus the retention in pockets along the ATV trail for trail protection.

Next Step SitePrep, Roller Chopping; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Regen: Acceptable regeneration is a well stocked stand of red pine.

Other Comment: Include specs to protect the ATV and snowmobile trails and their users.

Proposed Start Date: 10/01/2017

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
27 54157027-Cut	47.6	42110 - Planted Red Pine	Sawtimber Well	85	111-140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clear-cut with retention. Plant to red pine. Retain 3-10% of the stand in pocket(s). Focus the retention in pockets along the ATV trail for trail protection.

Next Step SitePrep, Roller Chopping; Pesticide, Aerial; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Acceptable regeneration is a well stocked stand of aspen.

Regen:

Other Include specs to protect the ATV and snowmobile trails and their users.

Comment:

Proposed Start Date: 10/01/2017

37 54157037-Cut	50.1	4199 - Other Mixed Upland Deciduous	Sawtimber Well	77	111-140	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with retention. Retain 3-10% of the stand in multiple pockets that are stand representative but focused around oak for future mast production and hemlock for protection of diversity. One retention pocket is to be placed around the bench on the ski trail where users rest. Protect the trace white pine regen for future stand diversity. Do not cut hemlock. Retain one large crowned beech mast tree per acre where present.

Next Step Monitoring, Natural Regen (Re-Inventary)

Treatments:

Acceptable Acceptable regeneration is a mix of aspen, oak, red maple, paper birch and white pine.

Regen:

Other Include specs to protect the ATV and snowmobile trails and their users in the area adjacent to this treatment. Include specs to protect the multi-use ski trail and its users. The west central portion of the stand (5%) has already been marked out of the treatment to protect a hemlock pocket. Protect 50 feet to both sides of the run-off that runs east-west through the southern portion of the stand. The timber around this run-off is not stand representative and should not be included in retention. The aspen are ready for harvest and a significant amount of beech is dying of BBD.

Proposed Start Date: 10/01/2017

45 54157045-Cut	28.3	42210 - Natural Red Pine	Sawtimber Well	77	111-140	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with retention. Plant to red pine. Retain 3-10% of the stand in pocket(s). Retain the 6% of the stand already excluded from the treatment in the northern arm of the stand. Focus the retention in pockets along the ATV trail for trail protection.

Next Step SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)

Treatments:

Acceptable Acceptable regeneration is a well stocked stand of red pine.

Regen:

Other Include specs to protect the ATV and snowmobile trails and their users in the area in and adjacent to this treatment.

Comment:

Proposed Start Date: 10/01/2017

47 54157047-Cut	24.0	4123 - Red Oak	Sawtimber Well	95	111-140	Harvest	Clearcut with Retention	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with retention. Retain 3-10% of the stand in one pocket (in the south central portion of the stand that has already been marked out of the treatment). Retain 1-3 large crowned oak per acre where present. Protect all sub-merchantable oak regeneration. Protect all cedar and hemlock.

Next Step Monitoring, Natural Regen (Re-Inventary)

Treatments:

Acceptable Acceptable regeneration is a mix of aspen, oak, red maple, and white pine.

Regen:

Other Include trail spec to protect the multi-use ski trail and its users. The treatment has been reduced within this stand to limit the visual effects and the snow drifting along the ski trail.

Comment:

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
53	54157053-Cut	14.1	4121 - Oak, Aspen	Sawtimber Well	95	81-110	Harvest	Clearcut with Retention	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u>			Clear-cut with retention. Retain 3-10% of the stand in one pocket (south of the ski trail at the south end of the stand that has already been excluded								
<u>Specs:</u>			from the treatment). Retain 1-3 large crowned oak per acre, where present. Protect all sub-merchantable oak and pine regeneration.								
<u>Next Step</u>			Monitoring, Natural Regen (Re-Inventory)								
<u>Treatments:</u>											
<u>Acceptable</u>			Acceptable regeneration is a mix of aspen, oak, red maple, and white pine.								
<u>Regen:</u>											
<u>Other</u>			Include spec to protect the multi-use ski trail and its users. The treatment has been reduced within this stand to limit the visual effects and the snow								
<u>Comment:</u>			drifting along the ski trail.								
<u>Proposed Start Date:</u>			10/01/2017								
59	54157059-NF	0.8	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u>			Opening will be maintained on a rotational basis to produce wildlife forage through burning, mowing, planting, or other agriculture practices.								
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u>			follow all trail specs								
<u>Comment:</u>											
<u>Proposed Start Date:</u>			10/01/2017								
65	54157065-NF	6.6	3102 - Grass	Nonstocked			NonForestMgt	Herbaceous/Crop/ Grass Planting	310 - Herbaceous Openland		Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u>			Opening will be maintained on a rotational basis to produce wildlife forage through burning, mowing, planting, or other agriculture practices.								
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u>			10/01/2017								
73	54157073-Cut	13.9	42110 - Planted Red Pine	Sawtimber Poor	77	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u>			Clear-cut with retention. Retain 3-5% of the stand. Plant to red pine. Place the retention along the southeast boundary of the stand where oak								
<u>Specs:</u>			regeneration is most dense.								
<u>Next Step</u>			SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)								
<u>Treatments:</u>											
<u>Acceptable</u>			Acceptable regeneration is a well stocked stand of red pine.								
<u>Regen:</u>											
<u>Other</u>											
<u>Comment:</u>											
<u>Proposed Start Date:</u>			10/01/2017								



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
75	54157075-Cut	3.6	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	87	141-170	Harvest	Clearcut	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**Prescription Clear-cut.Specs:Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable Regen: Acceptable regeneration is a low to medium stocked stand of aspen, red maple, white pine, and oak.Other Comment:

Include specs to protect the ATV and snowmobile trails and their users in the area adjacent to this treatment.

Proposed Start Date:

10/01/2017

119	54157119-Cut	16.9	4132 - Aspen, Jack Pine	Sawtimber Well	50	81-110	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**Prescription Clear-cut with retention. Retain 3 to 5 percent of the stand in one or more pockets containing red oak with stand representative components. RetainSpecs: all red pine and white pine over 18 inches DBH. Look for opportunities to introduce diversity where appropriate.Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable Regen: Acceptable regeneration is a mix of aspen, oak, white pine, jack pine, and red maple.Other Comment:

Include specs to protect the ATV and snowmobile trails and their users.

Proposed Start Date:

10/01/2017

121	54157121-Cut	2.2	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	80	111-140	Harvest	Clearcut	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**Prescription Clear-cut. Protect all white pine and red pine legacy trees. Protect all sub-merchantable oak and pine regeneration to promote future stand diversity.Specs:Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable Regen: Acceptable regeneration is a mix of aspen, white pine, red maple, oak, and paper birch.Other Comment:

Include specs to protect the ATV and snowmobile trails and their users in the area adjacent to this treatment.

Proposed Start Date:

10/01/2017

Total Treatment Acreage Proposed:	254.8
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Report 4 – Site Conditions

Atlanta Mgt. Unit
Dale Parris : Examiner

Compartment: 157
Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions						
		With Condition	Not Available		5C	2F	2G	3D	3J	5E	
318	295	17	5	Aspen	17		5				
83	32	0	51	Cedar			51				
7	7	0	0	Herbaceous Openland							
8	8	0	0	Jack Pine							
0	0	0	0	Low-Density Trees			0				
72	71	0	1	Lowland Aspen/Balsam Poplar			1				
2	0	0	2	Lowland Conifers			2				
11	11	0	0	Lowland Deciduous							
10	9	0	1	Lowland Mixed Forest			1				
29	29	0	0	Lowland Shrub							
217	135	60	22	Mixed Upland Deciduous	60	14	1		5	3	
153	70	73	10	Natural Mixed Pines	73			10			
34	34	0	0	Northern Hardwood							
180	112	66	2	Oak	66	2					
14	14	0	0	Planted Mixed Pines							
113	113	0	0	Red Pine							
22	3	0	19	Upland Conifers				10	9		
268	120	147	0	Upland Mixed Forest	147	0					
36	36	0	0	Urban							
44	15	28	0	White Pine	28						
1,619	1,114	392	113	Total Forested Acres	392	16	60	20	14	3	
	69%	24%	7%	Relative Percent							

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

Site No.	Dominant Site Cond	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

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2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	9	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments: This stand contains a system of run-off ravines with steep slopes along the edges. The main ravine that flows through the center has a stream that comes up out of the ground towards the northern third of the stand and likely runs the rest of the way to Black Lake to the west. This stand was mapped on the ground with the purpose of defining the ravines and run-off for their future protection. Changing the stand boundaries would negate this precision in mapping. An ATV Trail runs through this stand with relic pine. The relic pine make this stand beneficial in an asthenic sense for trail users.							
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	42	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This stand was last harvested in 2004. The 2004 prescription called for harvesting all species except for red pine, white pine, black cherry, and oak. Oak and pine regen was protected as well. The result of the harvest is a dense pine canopy with a significant oak component. A 12 year old thick understory of red maple, bigtooth aspen, and white pine resulted from the harvest. The understory will remain suppressed due to the dense canopy and harvesting to release the understory will only due damage to this understory. The 2004 harvest had a "Big Tree Management" purpose. It is suggested that this stand go un-harvested until the 12" DBH cohort of white pine reaches about 15" in DBH. All future harvests should protect the ample legacy white pine and red pine.							
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments: There is a run-off/seasonal creek here with sensitive soils that are too wet to harvest and should be protected.							
6	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	29	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	30	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	3D: Recreational / Scenic values	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	44	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	3D: Recreational / Scenic values	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	2F: Too steep	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
23	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
24	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	53	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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25	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	34	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
26	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	78	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
27	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
28	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
29	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
30	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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Compartment: 157
Year of Entry: 2018

31	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This portion of the stand was not proposed for harvest to protect recreational interests.							
32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This portion of the stand was not proposed for harvest to protect recreational interests.							
33	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments	Spring-Seeps, Riparian Areas	Vernal Pool	Proposed SCA	1



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4311 - Pine, Aspen Mix	Sawtimber Well	53.1	40	51-80	This stand has pockets throughout that were clear-cut and pockets that were partial harvested. As a result, there is a large variety of diameter trees amongst red maple, aspen, and white pine. The majority of the timber looks to have been cut about 40 years ago so that is the age used. A strong argument could be made that this stand is uneven aged, but it is recorded as even aged. One 7" DBH bigtooth cored at 37 and another at 40 years old. Pockets that are pine dominated are painted and intermingled across the stand and to map them out would be difficult at best. White pine and red pine legacy trees are present. The overstory composition is highly variable throughout.
2	42260 - Natural Pine, Mixed Deciduous	Poletimber Medium	14.4	74	81-110	This stand was harvested in 1980 except for red and white pine which were thinned. The aspen are growing in the pockets that were opened up in 1980. Much of the aspen is stunted due to lack of sunlight. There is a 2.5 acre inclusion pocket of mixed upland forest at the south end of the stand with a large pole-sapling red pine component.
4	42290 - Natural Mixed Pine	Sawtimber Well	42.0	75	111-140	There are legacy white pine scattered throughout the stand with a few legacy red pine present as well. The white pine range from 10-20" in DBH, with a scattering of 26"+ DBH white pine present. The white pine likely range from 50 to greater than 100 years in age. This stand is called even aged because it will most likely be managed as an even-age stand. This stand was last harvested in 2004. The 2004 prescription called for harvesting all species except for red pine, white pine, black cherry, and oak. Oak and pine regen was protected as well. The result of the harvest is a dense pine canopy with a significant oak component. A 12 year old thick understory of red maple, bigtooth aspen, and white pine resulted from the harvest. The understory will remain suppressed due to the dense canopy and harvesting to release the understory will only do damage to this understory. The 2004 harvest had a "Big Tree Management" purpose.
6	4130 - Aspen	Sapling Well	24.9	7	1-50	This stand was harvested under Sale No. 54-016-08-01, Sale Name: Reroute Aspen, and all trees over 2" in DBH except white pine and oak over 18" in DBH were harvested. The sale was closed out in July of 2009. The large remnant oak not harvested during the 2009 sale average about 20 inches in DBH and age at 97 years old.
7	4123 - Red Oak	Sawtimber Well	8.0	87	81-110	This stand was thinned in 2012 with stand 40 to the north. With an exception of a few acres to the north, this stand lies on a southwest aspect that is approximately 20-40 percent slope; all of which is operationally harvestable.
8	4310 - Pine, Oak Mix	Sawtimber Well	4.1	129	81-110	The red pine and white pine are focused around the outside edges of the stand. There are legacy red pine and white pine scattered throughout the stand.
9	4130 - Aspen	Poletimber Well	40.6	26	1-50	This stand was clear-cut and the sale was closed out in 1990. This stand is dense and off to a healthy start.
10	4319 - Mixed Upland Forest	Sawtimber Well	4.0	97	51-80	The adjacent stand age was used to estimate the age of this stand.
11	4199 - Other Mixed Upland Deciduous	Sawtimber Well	12.3	96	81-110	The oak are largest at the north end of the stand where they average approx. 20"DBH.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	4133 - Aspen, Mixed Pine	Sawtimber Well	12.3	91	111-140	This stand is past due for harvest. There is an inclusion of about 3 acres of small log to pole sized aspen at the east end of the stand.
15	6120 - Lowland Cedar	Sawtimber Well	2.7	90	141-170	The understory is open. There is a moderate amount of windthrow most of which is black spruce.
16	6123 - Lowland Fir	Sapling Medium	1.8	12	1-50	This stand experienced a straight line windthrow incident about 12 years ago that removed about 90% of the canopy. There is a less than one acre inclusion pocket to the southwest that has seen less windthrow and has higher canopy closure. The understory species are for this portion of the stand. There is a medium amount of tag alder and willow in the canopy where the windthrow went through.
17	6130 - Fir, Aspen, Maple	Poletimber Medium	1.0	26	Immature	This stand was harvested with the timber to the east in 1990. I would not suggest harvesting it again. This stand is too wet to harvest and will have minimal timber value into the future.
18	4130 - Aspen	Sawtimber Well	13.6	65	111-140	This stand is ready for harvest.
19	4311 - Pine, Aspen Mix	Sawtimber Well	9.4	62	1-50	In 1979 all species were harvested from this stand except white pine and red pine which were marked to cut. The aspen which are regenerating between the pine are stunted. The oak, most of which derived from stump sprouts, are doing much better than the aspen. There is no record of red pine planting 62 years ago. White pine and red oak are heavier in the overstory to the east and red pine are heavier to the west.
20	6130 - Fir, Aspen, Maple	Sapling Medium	0.9	26	1-50	This stand is in depression with a steep drop on the southeastern edge. This would be a good diversity pocket to protect.
21	6120 - Lowland Cedar	Sawtimber Medium	3.1	97	1-50	This stand is too wet to harvest.
22	429 - Mixed Upland Conifers	Sawtimber Well	8.5	105	111-140	This stand contains a system of run-off ravines with steep slopes along the edges. The main ravine that flows through the center has a stream that comes up out of the ground towards the northern third of the stand and likely runs the rest of the way to Black Lake to the west. The red pine is focused in the northern half of the stand and this stand becomes more deciduous as you move south. The basal area lessens as you move south in the stand. The BA reaches greater than 200 to the north and less than 80 to the south. This stand was mapped on the ground with the purpose of defining the ravines and run-off for their future protection. Changing the stand boundaries would negate this precision in mapping.
23	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	9.1	80	81-110	
24	42200 - Natural White Pine	Sawtimber Well	5.7	83	111-140	There is a 1 acre pocket of to-X-log sized red pine at the north end of the stand. There are scattered legacy white pine throughout the stand. The red maple regen is highly browsed.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	12.5	135	111-140	This stand was harvested in 1980 as part of a larger 91 acre harvest that included timber to the south and west of this stand. All was harvested except for red pine and white pine that were marked to cut. This stand has legacy white pine scattered throughout with red pine that may also fit the legacy tree definition.
26	4311 - Pine, Aspen Mix	Poletimber Well	11.7	85	51-80	The planting records show that this entire quarter-quarter (40 acres) was planted to red pine and jack pine in 1931. Coring a 16" DBH red pine gave an age of 74+6=80 which is close enough to go with the planting record age of 85.
27	42110 - Planted Red Pine	Sawtimber Well	47.6	85	111-140	The post-harvest residual red pine BA off the proposal is 110. A harvest closed in 2014 cut red pine (167 cords), Aspen (50 cords), and Jack Pine (7 cords) 8/31/12-4/4/14. Coring a 16: red pine gave an age of 72+6=78. The planting records show that this entire quarter-quarter (40 acres) was planted to red pine and jack pine in 1931. The planting age is therefore 85 years.
28	42200 - Natural White Pine	Sawtimber Well	7.7	57	81-110	This stand was previously cut in 2011. All aspen, birch, and red maple were cut. Red pine, white pine, and jack pine were marked to cut.
29	4311 - Pine, Aspen Mix	Sawtimber Well	12.5	30	81-110	This stand was thinned 30 years ago leaving red pine and white pine and making a two aged stand. The BA in many place gets below 80.
30	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	5.4	22	1-50	There is a nice mix of other species with the plan to jack pine. The jack pine look healthy
31	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	11.0	73	111-140	This stand is diverse relative to its Surroundings. The red pine are healthy. The red pine have 20 to 33% live crown.
32	42250 - Pine, Oak	Sawtimber Medium	17.6	76	51-80	The harvest on this stand was finished in 2012. This stand may have been planted to red pine but no planting records were found.
33	4310 - Pine, Oak Mix	Sawtimber Well	30.1	64	111-140	The percent composition of this stands canopy species varies throughout. The red pine are heaviest in the north quarter of the stand. The aspen are present throughout, but heaviest in the center of the stand where the stand starts to narrow down as you head into the east finger.
34	4133 - Aspen, Mixed Pine	Sawtimber Well	13.7	36	111-140	In a sale closed out in 1980, all species were harvested from this stand except for white pine which were marked to cut. The south 3.5 acres has about 5% white pine.
35	6112 - Lowland Aspen	Poletimber Medium	18.0	36	1-50	This stand is lower ground than the aspen stand to the north, and it lacks the log sized white pine component.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
36	4133 - Aspen, Mixed Pine	Poletimber Well	13.7	36	51-80	Pine and aspen vary in the overstory composition throughout. There is a bigtooth dominate half acre in the north-central portion of the stand. There is a narrow run-off running east to west through the southern portion of the stand and a small vernal pond lies in the path of this run-off in the central region of this stand. There are scattered log sized red pine, white pine, and oak throughout.
37	4199 - Other Mixed Upland Deciduous	Sawtimber Well	58.1	77	111-140	This stand grows medium to high quality oak. Trace yellow birch are present along the west to east run-off in the southern portion of the stand.
38	4133 - Aspen, Mixed Pine	Poletimber Well	24.1	36	51-80	The white pine component that was not harvested in the 1980 cut is fairly evenly spread out throughout the stand.
39	4130 - Aspen	Sapling Well	9.1	4	1-50	The red maple are mainly 2 to 5" DBH trees that were not harvested in 2012. In the eastern half of the stand aspen saplings have been heavily browsed by deer.
40	42250 - Pine, Oak	Poletimber Medium	12.5	72	81-110	This stand's post-harvest residual red pine BA off of the proposal is 80. This harvest closed out in 2012an it it cut all aspen, birch, maple, and orange marked trees (Sale Duration: 9/22/11-5/26/12). An 18" red pine cored at 66+6=72. An 18" red oak cored at 93+3=96 years.
41	4123 - Red Oak	Sawtimber Poor	29.1	97	1-50	This stand was harvested in 2011, except for the low BA of oak, hemlock, and beech left standing.
42	4130 - Aspen	Poletimber Well	33.6	30	1-50	This stand was clear-cut in 1990. Coring showed that I stand was a few years older than the TCR date suggests. There is an inclusion pocket along the west boundary of the stand that is cedar/lowland conifer.
43	4123 - Red Oak	Sawtimber Poor	36.4	94	1-50	The oak is poor quality.
44	4310 - Pine, Oak Mix	Sawtimber Well	25.8	80	141-170	This red pine was likely planted with the red pine to the north that was planted in 1931. Similar counts on the age were found in the stands planted in 1931. Aspen throughout indicates that a thinning was done on this stand in or around 1973. The card catalog cut records indicate the same. The northeast 2 acres of the stand is a white pine dominated inclusion pocket.
45	42210 - Natural Red Pine	Sawtimber Well	30.0	77	111-140	There was no record of this stand being planted but more than likely it was. A little more than half of the stand on the west side was thinned in 1980, and thus there is a somewhat stunted aspen, red maple, and white pine component where pockets were opened up in the overstory. The average DBH on the west side is 15. The west side the live crown ratio tends to be from 20 to 25%, and up to 30% where the 1980 harvest opened up the canopy more. The eastern portion of the stand has an average red pine DBH of 18" with a BA that varies highly (90-200). Not many red pine on the east side of the stand are less than 13" in DBH. There is a 2 acre inclusion pocket of log sized oak, aspen, and red maple at the east end of this stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	4133 - Aspen, Mixed Pine	Poletimber Medium	10.4	37	81-110	The aspen age of 37 corresponds with the harvest record that states this stand was harvested, except for a low amount of red pine and white pine, in 1980.
47	4123 - Red Oak	Sawtimber Well	31.4	95	111-140	
48	42290 - Natural Mixed Pine	Poletimber Medium	4.2	119	141-170	The red pine at the north edge of the stand have about a 13 in. DBH average and are likely somewhat younger. The stand age for the red pine was estimated from the stand to the south.
49	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	10.2	119	111-140	About 4 acres in the southern half of this stand does not look like it has seen a harvest in approx. 100 years. The rest of the stand looks like it was thinned with the surrounding stands in 1980. There are legacy white pine scattered throughout and possibly legacy red pine as well.
50	42140 - Planted Mixed Pine	Poletimber Well	13.6	19	1-50	The timber sale records state that this stand was harvested in 1990. There was no record found of this planting, but trenches can be seen. The red pine look to have been planted, and the jack pine look to be volunteers.
51	42210 - Natural Red Pine	Sawtimber Well	2.3	77	111-140	This stand was skipped over for harvest when the stands immediately to the north were harvested in 1980.
52	4130 - Aspen	Poletimber Well	10.8	36	51-80	This stand was harvested with adjacent stands in 1980, except for some scattered red and white pine.
53	4121 - Oak, Aspen	Sawtimber Well	20.8	95	81-110	
54	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	9.6	97	81-110	This stand has scattered legacy white pine.
55	4130 - Aspen	Poletimber Well	6.7	36	81-110	This stand was harvested in 1980 except for a scattering of red pine and white pine
56	42290 - Natural Mixed Pine	Poletimber Medium	12.6	126	81-110	This stand was harvested in 2011 leaving red oak, red pine, and white pine. The center of the stand has a moderately open canopy with mostly red oak and white pine. The red pine is focused around the edges of the stand. The red maple is highly browsed. There are legacy white pine scattered throughout the stand. With the large pine and the stands relative openness this stand is very aesthetically pleasing for trail users.
57	42210 - Natural Red Pine	Sawtimber Well	2.0	102	141-170	
58	4133 - Aspen, Mixed Pine	Poletimber Well	1.2	30	1-50	This small sliver of land was likely harvested with stand 42 to the west.
60	42290 - Natural Mixed Pine	Sawtimber Well	2.9	50	141-170	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
61	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	0.6	87	81-110	
63	42210 - Natural Red Pine	Sawtimber Well	2.9	73	141-170	The south 0.3 acre is a lowland conifer inclusion pocket.
66	4139 - Aspen, Mixed Deciduous	Poletimber Well	22.3	48	51-80	The lowland spots in this stand where harvest will not be able to take place can be seen in the 1998 D0QQ imagery. Make these locations hard factor-too we sight conditions. The largest wet area is at the north end and has a significant area of dead black ash.
67	4199 - Other Mixed Upland Deciduous	Poletimber Medium	72.8	97	81-110	This stand has potential for growing some quality hardwoods if thinned properly over a number of harvest cycles. There is a closed two-track running north-south through stand (mud bog run). A thinning was completed on this stand in 2013. The BA is close to 80 for an average. The beech have BBD. The white ash that were not cut during the last harvest are dead due to EAB.
68	4311 - Pine, Aspen Mix	Sawtimber Well	4.6	44	81-110	
70	42220 - Natural Jack Pine	Poletimber Well	2.3	37	51-80	This stand looks have been harvested 37 years ago. The ground under the grass an at willow Walking to the start from the west looked to be some what solid.
71	42200 - Natural White Pine	Sawtimber Well	0.5	44	111-140	
72	4123 - Red Oak	Sawtimber Medium	54.6	93	81-110	There is a good scattering of white pine and red pine regeneration throughout. The oak are of poor quality.
73	42110 - Planted Red Pine	Sawtimber Poor	13.9	77	51-80	This stand was harvested under Timber Sale No. 54-057-09-01, Sale Name: Mountain Top Mix. The timber sale was closed out on 1/24/2011. The records show that this quarter-quarter where this stand sits was planted to red pine, white pine, and jack pine in 1929. Coring a 13" DBH red pine gave a younger age of 77 years. The portion of the stand west of Co. Rd. 489 was thinned in 2004.
75	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	3.6	87	141-170	
76	42200 - Natural White Pine	Sawtimber Well	28.5	99	81-110	This stand was thinned out in 2004 when mainly bigtooth aspen, white pine, red pine, jack pine, and hardwoods were harvested.
78	4130 - Aspen	Poletimber Well	9.3	35	51-80	The aspen grew fast the first 13 years but since then diameter growth has been slow on crowded stems. The oak that are pole size are all from stump sprouts.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
79	4310 - Pine, Oak Mix	Sawtimber Well	33.8	87	81-110	This stand was harvested under Timber Sale No. 54-057-09-01, Sale Name: Mountain Top Mix, and 80 residual BA of red oak and red pine was left standing. The timber sale was closed out on 1/24/2011. A 13" DBH red pine cored at 78+6=84, confirming the 1929 planting date and age of 87 years. The red oak is medium quality at best, but mostly poorer quality. The red pine are in good health and have a live crown ratio mostly between 25 and 33%. There is as much if not more BA of red pine as there is oak, but a single oak takes up more of the canopy.
80	4133 - Aspen, Mixed Pine	Poletimber Well	31.7	37	51-80	All species were harvested in 1979 except for red pine and white pine which were marked to cut. Clumps of red pine and white pine are present throughout the stand.
82	4199 - Other Mixed Upland Deciduous	Sawtimber Well	30.3	97	111-140	This soil grows medium to high quality red oak.
83	6120 - Lowland Cedar	Poletimber Well	44.3	115	141-170	This stand is too wet to harvest.
85	4119 - Mixed Northern Hardwoods	Sawtimber Well	33.6	93	81-110	This stand was last thinned in 2004. There is a 3 acre inclusion pocket containing white pine and balsam fir in the center of the stand. The east edge of the stand has a high amount of balsam fir in the understory.
90	4199 - Other Mixed Upland Deciduous	Sawtimber Well	20.7	95	81-110	Most of this stand is too steep to harvest.
91	42290 - Natural Mixed Pine	Sawtimber Well	4.7	65	51-80	This is a purely pine stand. The BB A is highly variable within species.
93	4130 - Aspen	Poletimber Well	3.3	40	81-110	
94	4310 - Pine, Oak Mix	Sawtimber Well	78.4	95	81-110	Coring a 14.7" DBH red pine corresponds to the 1929 planting of 4 adjacent quarter-quarters to red pine and jack pine (age 87). A 14.5" DBH red oak cored at 95 years. The basal area ranges from 50 to 110 square feet. An 8.5" DBH red pine that was partly suppressed under some slightly older oak (90 years 12" DBH) cored at 77 years and is likely part of the stock that was planted in 1929. So although the red oak and red pine vary greatly in diameter, their age does not.
97	429 - Mixed Upland Conifers	Sawtimber Well	10.3	95	111-140	The trail head for the Black Mountain Trail System is in this stand. There are legacy white pine scattered throughout the stand.
98	42250 - Pine, Oak	Sawtimber Well	8.8	92	81-110	This stand was thinned in 2004.
99	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Medium	7.8	44	1-50	This stand is ever changing in its canopy composition. This is a transition zone from upland on the west to lowland on the east. There are log sized inclusion pockets at various points within the stand.
100	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	11.0	105	81-110	There is a seasonal run-off bordered by cedar in the south half of the stand that runs west to east.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
101	6120 - Lowland Cedar	Sawtimber Well	21.2	113	141-170	This stand has many inclusion pockets of various covertypes interwoven with the cedar.
102	6120 - Lowland Cedar	Sawtimber Well	4.8	116	171-200	This stand is borderline too wet to harvest.
103	4130 - Aspen	Sapling Well	19.5	26	1-50	The harvest on this stand was closed out in 1990. There is a 3 acre inclusion pocket of aspen, oak, red maple, and paper birch in the southeast corner of the stand. Coring verified the age of 26.
104	429 - Mixed Upland Conifers	Sawtimber Well	3.3	46	51-80	This stand was harvested with the exception of white pine in 1983.
105	6112 - Lowland Aspen	Poletimber Well	39.4	33	51-80	This stand was harvested in 1983. The hemlock are in the southern half of the stand. Most of the upland area is in the southwest corner of the stand.
106	6120 - Lowland Cedar	Sawtimber Well	3.9	118	111-140	This stand is too wet to harvest.
109	6120 - Lowland Cedar	Sawtimber Medium	3.0	90	1-50	This stand experienced some of to windthrow at it's north end that the stand to the north experienced, but not to the same extent. The south edge of this stand has a large canopy component of black ash that EAB killed. The south edge of the stand is higher in tag alder.
115	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	1.2	26	51-80	This stand desperately wants to be a pine dominated pocket while aspen is trying to share it out. This is a diversity pocket in Sea of aspen.
116	6112 - Lowland Aspen	Sapling Medium	14.1	26	1-50	This stand was harvested along with Stand 9 to the east in 1990. There is a 1 acre inclusion pocket in the southwest corner of the stand of mainly 10" DBH balsam poplar with a few scattered log sized cedar.
117	6119 - Mixed Lowland Deciduous Forest	Sapling Well	4.8	26	1-50	This stand was harvested in 1990 with the timber/ the east. This stand is divided out because it lowland.
118	42200 - Natural White Pine	Sawtimber Well	1.6	65	81-110	The age estimate on the white pine is base to on the age of the sister stand 91 across the field to the east.
119	4132 - Aspen, Jack Pine	Sawtimber Well	16.9	50	81-110	This stand has red pine, white pine, and red oak overstory components that were not taken during the last harvest. The rest of the stand is even aged. This stand is a mix of areas that are the mixed upland coverytype and areas that are the aspen coverytype.
120	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	5.8	26	1-50	This stand was harvested with adjacent stands in 1990.
121	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	2.2	80	111-140	Legacy red pine and white pine are present and scattered throughout the stand.



Stand	Cover Type	Acres	Managed Site	General Comments:
3	122 - Road/Parking Lot	22.1	No	This is a power line with a two-track running the length of it.
5	122 - Road/Parking Lot	7.3	No	OPIC - FMD: SNO-MO & ORV TRAIL-OLD OPENING IS FILLING IN.
13	122 - Road/Parking Lot	0.7	No	OPIC - FMD: SNO-MO & ORV TRAIL-OLD OPENING IS FILLING IN.
14	3302 - Low Density Conifer Trees	0.5	No	This stand would be forested-if it were not for all the black ash being dead due to EAB. This stand is close to a lowland shrub call.
59	3102 - Grass	0.8	No	
65	3102 - Grass	6.6	No	Scattered jack pine and a few white pine of varying sizes are in the field.
69	622 - Lowland Shrub	28.5	No	
74	122 - Road/Parking Lot	6.0	No	OPIC - FMD: SNO-MO & ORV TRAIL-OLD OPENING IS FILLING IN.