



Compartment Review Presentation

Atlanta Forest Management Unit

Compartment 54033

Entry Year 2017

Acreage: 1,282

County Montmorency

Management Area: Rattlesnake Hills

Revision Date: 2015-06-18

Stand Examiner: Dale Parris

Legal Description:

T31N R01E Sections 19, 30, and 31

Identified Planning Goals:

Multi-Resource management within Compartment 33 is guided by the Rattlesnake Hills Management Area (RHMA) Plan. All timber harvests have been prescribed following the direction indicated by the RHMA 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 RHMA indicated that the harvesting of aspen, and red pine be of focus for the purpose of balancing the age classes of these cover types across the Management Area (MA). The analysis also showed that thinning and single tree selection cuts in hardwoods is needed. Wildlife, recreation, aesthetics, adjacent stands, and the larger landscape were considered in all management decisions.

Soil and topography:

The northern portion of Compartment 33 is approximately 588 acres. The southern 300 acres of this northern portion is part of Green Swamp. The topography is flat and the soils are Tawas-Lupton Mucks (very poorly drained). The 120 acres in the central region of the northern half of Compartment 33 has hills that reach greater than 35 percent slope. These soils are composed of Mancelona-Rubicon sands (somewhat excessively drained) and Rubicon sand (excessively drained). The final 160 acres of the northern portion, north of and just south of County Road 622, is approximately 50 percent Millersburg-loamy sand (well drained) with lesser components of Lindquist sand (somewhat excessively drained), losco sand (somewhat poorly drained), Kellogg sand (moderately well drained), Deford muck (very poorly drained), and Tawas-Lupton Muck (very poorly drained). These 160 acres are mostly flat with slightly rolling hills.

The southern portion of Compartment 33 is approximately 700 acres. About 70 percent of this acreage is Mancelona-Rubicon sand (somewhat excessively drained) and the rest of the soils are composed of Rubicon sand (excessively drained) and Menominee-Bamfield sandy substratum- Blue Lake complex (well drained). This southern portion is hilly throughout with slopes frequently north of 35 percent.

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

The ownership to the east of Compartment 33 is mostly state, with partial state ownership to the south, west, and north. Large residential parcels border and divide the north and south portions of the compartment. The west edge of Compartment 33 is bordered by farmland and private forestland to the north. Private forestland also partially borders Compartment 33 at the south end of the west boundary, and along the east and west ends of the southern boundary.

Unique Natural Features:

The Green Swamp is an Ecological Reference Area. This high-quality, naturally functioning ecosystem requires special protection from all types of degradation.

Archeological, Historical, and Cultural Features:

The HAL (Department of History, Arts, and Libraries) and MNFI (Michigan Natural Features Inventory) Concerns Database did not have any concerns listed for the area that Compartment 33 is in.

About 270 acres of the Green Swamp is present in the center of this compartment. The Michigan Natural Features Inventory (MNFI) at the Michigan State University Extension website documents this as being a rich conifer swamp, having diverse flora on the forest floor as well as a thick layer of sphagnum mosses. Ram's head lady's slipper (*Cypripedium arietinum*), a state special concern species and limestone oak fern (*Gymnocarpium robertianum*), state threatened, have been documented in the swamp. The eastern massasauga rattlesnake (*Sistrurus c. catenatus*), a federal candidate species and state special concern species, is known to occur throughout the Green Swamp.

In Sections 30 and 31 of T31N R01E, Blanding's Turtle (*Emydoidea blandingii*), a state special concern species, has been documented.

The Green Swamp area north of Huff Road is an Ecological Reference Area and a vernal pool north of County Road 622 is a Special Conservation Area.

Special Management Designations or Considerations:

There are many slopes over 35 percent throughout the southern portion of Compartment 33 and a few in the northern portion. Special consideration should be given to harvesting on these slopes. In certain instances within Compartment 33 where a southern aspect is present the soil lacks vegetation and is sun baked in the summer. Possible erosion issues and difficulty in regenerating these slopes should be taken into consideration before a harvest occurs.

Where quality oak and northern hardwoods are present thinning should occur periodically to avoid over stressing the trees and for focusing growth on residual stems. Damage to residual tree root systems and subsequent crown dieback should be avoided through mandatory winter snow pack harvest where the terrain makes it feasible.

Where a clear-cut harvest makes the most sense for reaching future forest objectives, the amount of acres should be large enough so that regeneration can overcome the browsing of the elk herd and whitetail deer.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

The primary focus of wildlife habitat management will be to address the habitat requirements identified for the listed featured species which are found in this compartment. These species include elk, black bear, eastern Massasauga rattlesnake, ruffed grouse, wild turkey, and white-tailed deer. Based on the selected featured species, some of the most significant wildlife management issues in the management area are the maintenance of young forest; extensive mature forest; large open grassland complexes; the retention of large, over-mature trees and snags; and the maintenance and expansion of hard mast and mesic conifer components.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of an end moraine of medium-textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift are the Mississippian Coldwater and Sunbury Shales and the Devonian Berea Sandstone and Bedford Shale. The Bedford is quarried for cement products elsewhere in the state. A gravel pit is located in Section 31 and potential is considered good on the upland areas. This area has been drilled and is producing gas from the Antrim Shale and also has producing Niagaran reef wells.

Vehicle Access:

The southern portion of compartment 33 is accessible from Meridian Line Road that runs along its west edge. The present forest trail system east of Meridian Line Road makes all but the very northern part of this southern portion readily accessible.

The northern portion of Compartment 33 is accessible from County Road 622 that runs east-west through it. The northern portion north of C.R. 622 is accessible by a forest road that runs north until it reaches the elk viewing area. A guard rail is present that keeps vehicles from driving through this elk viewing area. North beyond this guard rail is only legally accessible on foot.

The Northern portion of Compartment 33 that is south of County Road 622 is accessible on foot from the oil well pad on the south side of C.R. 622. The central portion of this northern portion of Compartment 33 that is below County Road 622 is accessible via a Forest Road that runs west from the power line that goes through Compartment 34 to the east. The most southern 300 acres of this northern portion is available on foot from this central trail and from Meridian Line Road to the southwest.

Survey Needs:

There are no surveys needed at this time.

Recreational Facilities and Opportunities:

Compartment 33 has a very nice Elk Viewing Area that is accessible via a forest road that runs north from County Road 622. Mushrooming is available throughout when in season. Elk, whitetail deer, grouse, and wild turkey (etc.) hunting opportunities are available throughout. A gravel pit on the east side of Meridian Line Road can be used for target practice. Target shooters are encouraged to clean up after themselves. ORV's are not allowed anywhere in Compartment 33 except on County Road 622 with the proper permit. ORV damage is a major problem in the southern portion of Compartment 33. Those causing this ORV damage are ticketed when caught.

Fire Protection:

This compartment is located in the protection area of the Atlanta DNR and the Vienna Township Fire Department located in Vienna. The Vienna Fire Department would most likely be first on scene of any fire in Compartment 33 due to their close proximity. The Atlanta DNR has a mutual aid agreement with the Vienna Township Fire Department and also supplies them with a GSA 6x6 fire unit. There has been a history of numerous hardwood fires due to mushrooming. This occurs during the spring fire season because it coincides with the black and white moral mushroom season.

The Gaylord field office also places equipment on standby in Johannesburg during times of high fire danger.

Additional Compartment Information:

The southern portion of Compartment 33 is mostly dominated by stands with a dominate component of red oak. Red oak stands of low, medium and high quality are present. Sugar maple is a lesser component of many of these stands. The quality of the oak timber within these stands correlates with the quality of the red oak.

The southern portion of Compartment 33 is very hilly with many slopes over 35 percent. White pine regeneration is predominately present on the eastern slope aspects throughout the compartment. Witch hazel likes to grow on the southern aspect slopes. One stand that was thinned that is dominated by oak with a lesser component of sugar maple has regenerated a high amount of sugar maple. Stripped maple can be found throughout this southern portion.

The northern portion of Compartment 33 contains approximately 300 acres of the Green Swamp. This portion of the Green Swamp is very flat and dominated by lowland conifer, mostly northern white cedar and black spruce. The northern portion also contains a couple hardwood stands of varying quality. The most northern reaches contain mostly aspen dominated stands.

The following reports from the Inventory are attached:

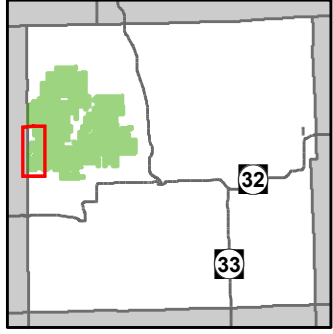
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

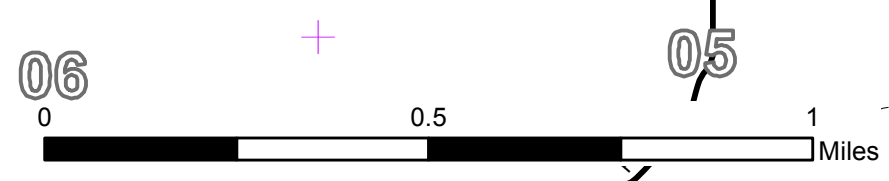
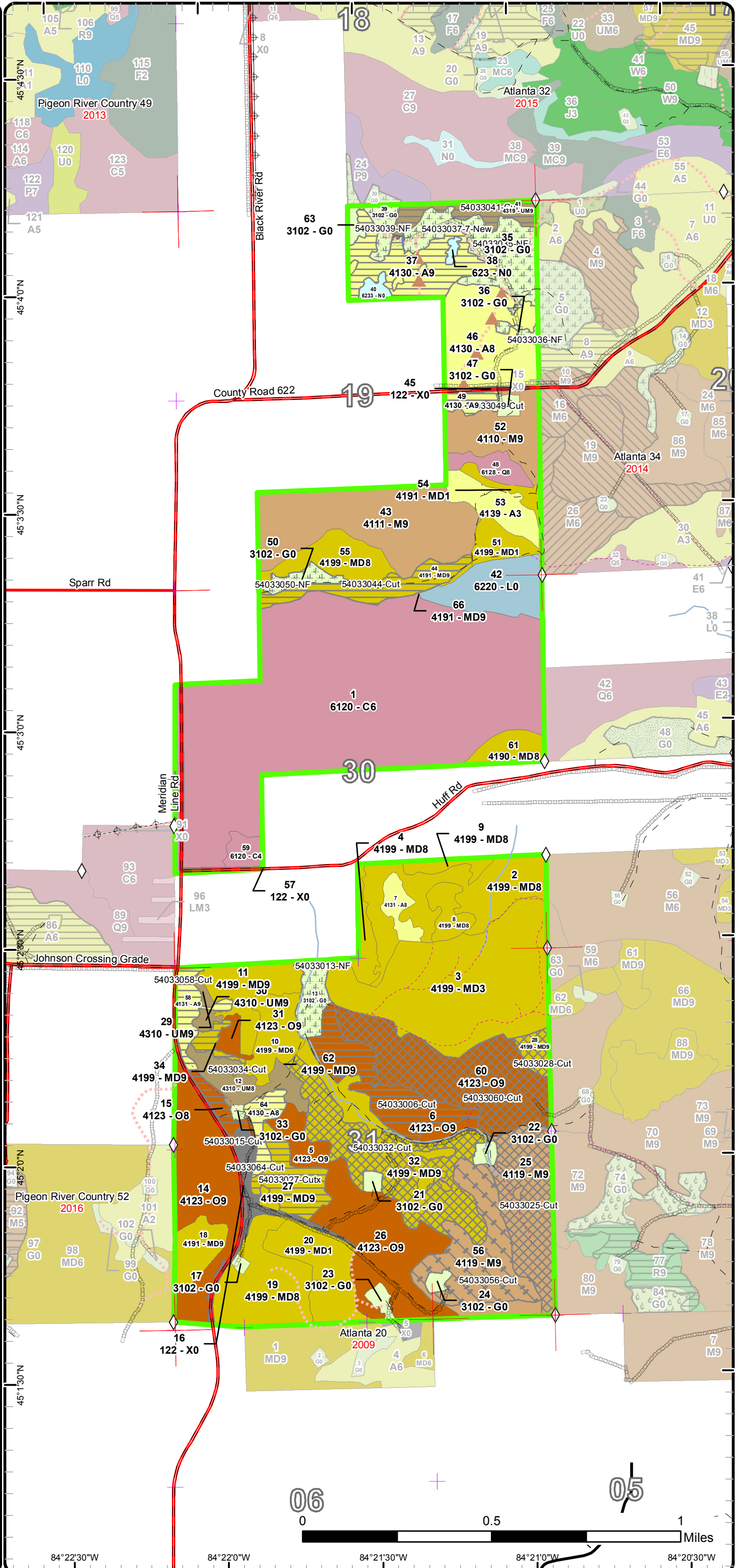
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 33
 T31N, R01E, Sec: 19, 30, 31
 County: Montmorency
 Unit: Atlanta
 Mgmt Area: Rattlesnake Hills
 YOE: 2017
 Acres: 1282 GIS Calculated
 Examiner: Dale Parris
 Map Revised: 9/21/2015
 Map Phase: Post Review



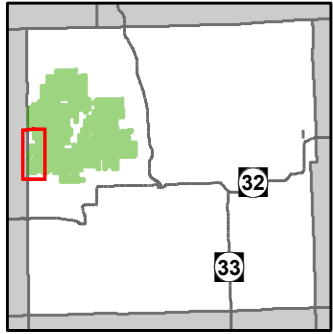
- ⊕ Remonumented Section Corner
- ◇ Field Grade GPS Corners
- Miris Corners
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- ▲ Berms
- Culverts
- Rivers
- Pipeline
- Powerline
- Treatments**
- ▨ Selection (Group, Single Tree)
- ▨ Clearcut (w/Reserves)
- ▨ Other Treatment - See Comments
- ▨ Salvage
- Forest Coverture**
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 430 - Upland Mixed Fores
- 612 - Lowland Coniferous Forest
- Non-Forest Coverture**
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- 623 - Emergent Wetland



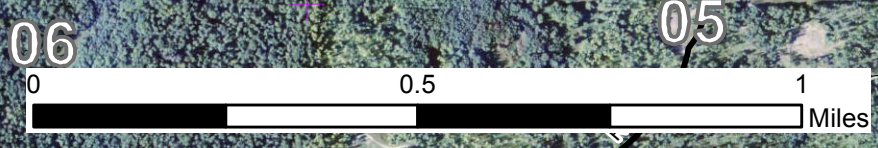
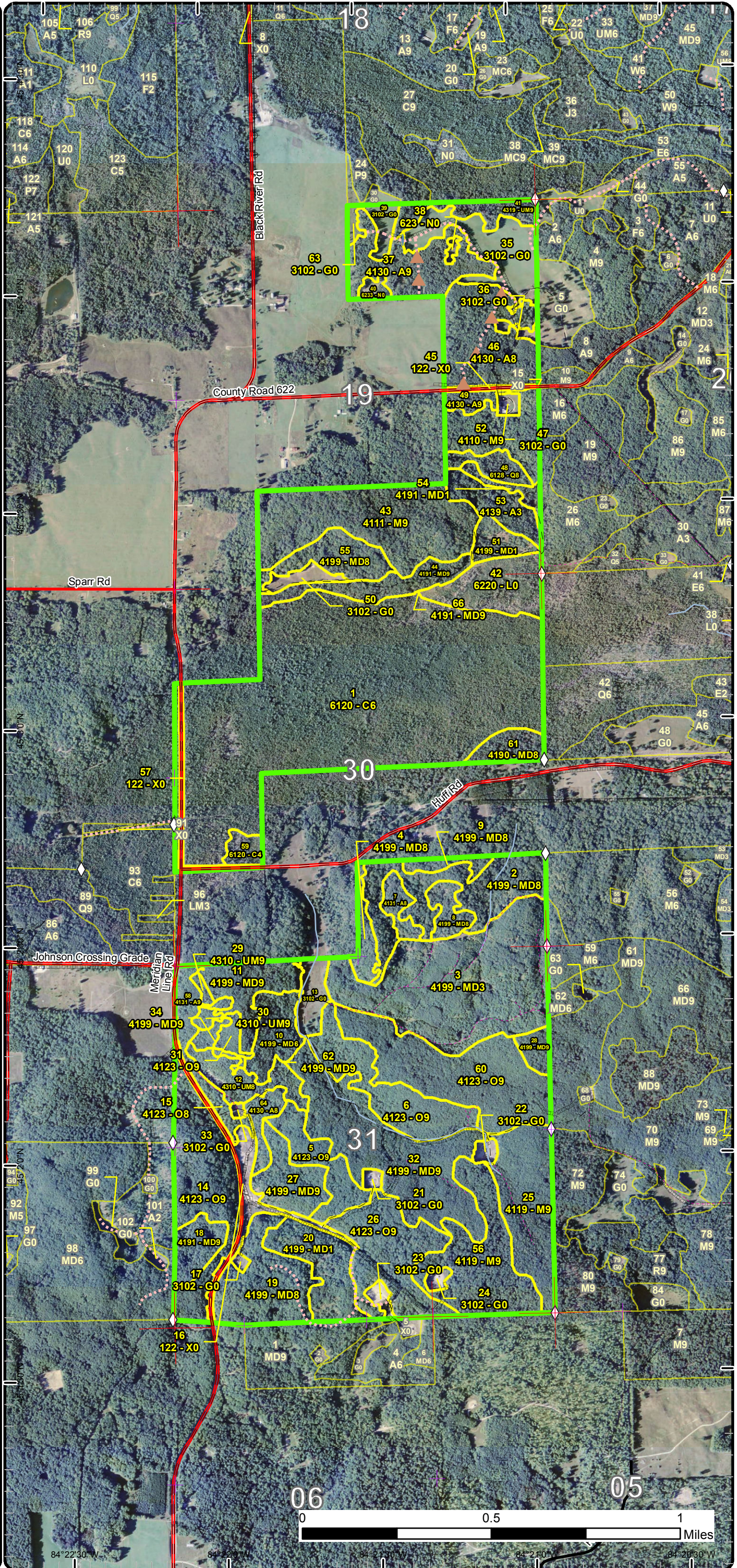
84°22'30"W 84°22'0"W 84°21'30"W 84°21'0"W 84°20'30"W

Stand Boundary Map

Compartment: 33
 T31N, R01E, Sec: 19, 30, 31
 County: Montmorency
 Unit: Atlanta
 Mgmt Area: Rattlesnake Hills
 YOE: 2017
 Acres: 1282 GIS Calculated
 Examiner: Dale Parris
 Map Revised: 9/21/2015
 Map Phase: Post Review



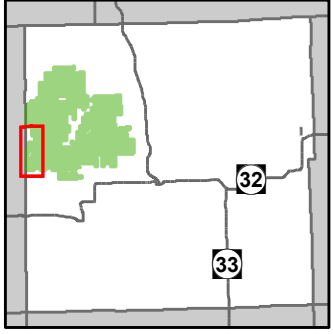
- ✚ Remonumented Section Corner
- ◇ Field Grade GPS Corners
- Miris Corners
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- ▲ Berms
- Culverts
- Rivers
- Pipeline
- Powerline
- Stand Boundaries
- Forest Covertype
 - 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 430 - Upland Mixed Fores
 - 612 - Lowland Coniferous Forest
- Non-Forest Covertype
 - 122 - Roads/Parking Lot
 - 310 - Herbaceous Openland
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland



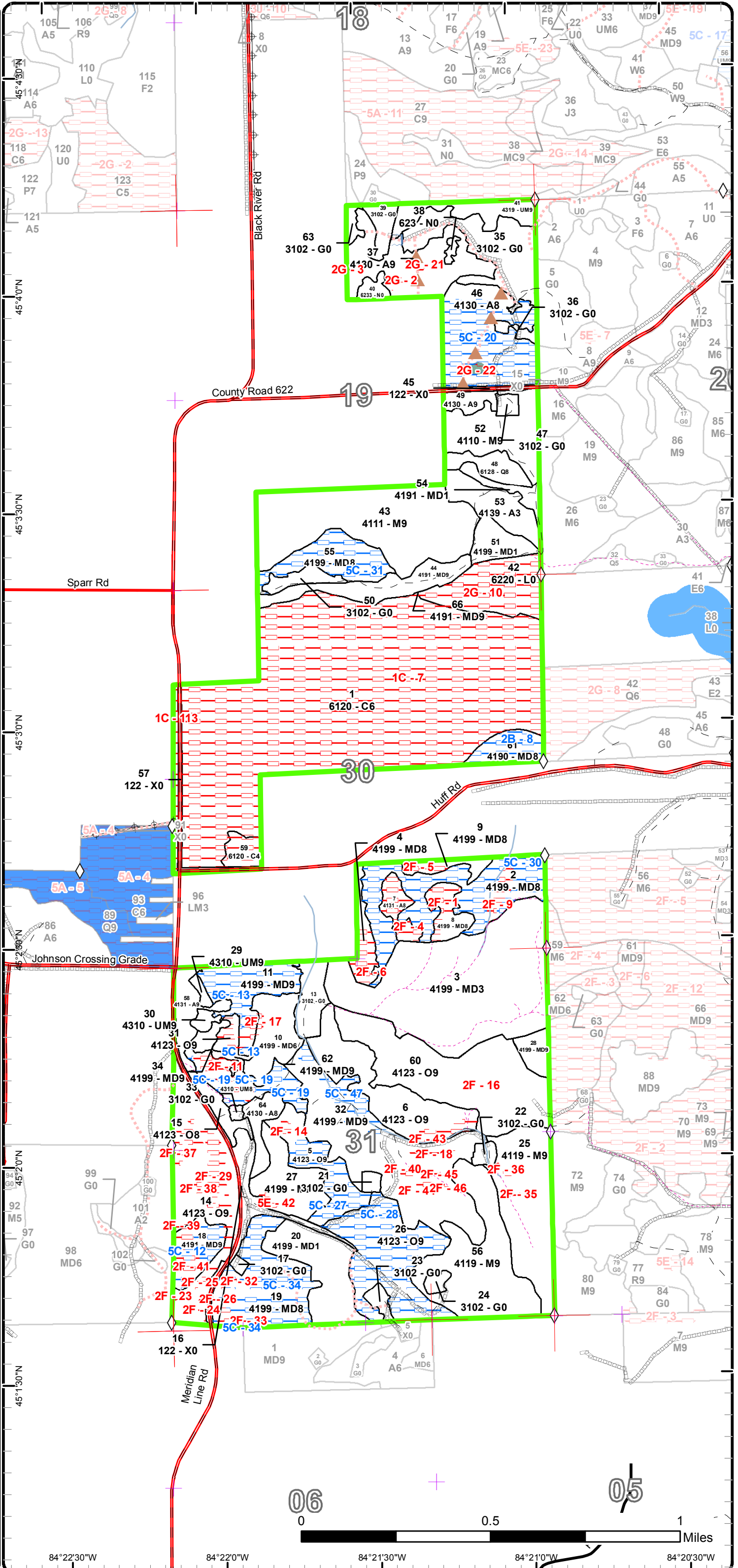
84°22'30" W 84°22'30" W 84°22'30" W 84°22'30" W 84°22'30" W

Special Conservation Areas & Site Conditions Map

Compartment: 33
 T31N, R01E, Sec: 19, 30, 31
 County: Montmorency
 Unit: Atlanta
 Mgmt Area: Rattlesnake Hills
 YOE: 2017
 Acres: 1282 GIS Calculated
 Examiner: Dale Parris
 Map Revised: 9/21/2015
 Map Phase: Post Review



- ⊕ Remonumented Section Corner
- ◇ Field Grade GPS Corners
- Miris Corners
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- ▲ Berms
- Culverts
- Rivers
- Pipeline
- Powerline
- Stand Boundaries
- Site Condition
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints
- 2B: Unknown if access through adjacent landowner(s) is possible
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 1C: Other dept or div proc/practices
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 5E: Long-Term Retention
- Special Conservation Areas
- Cold Water Streams
- High Priority Trout Stream Buffer
- Vernal Pool
- Riparian Area



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	0	14	0	0	67	4	6	16	0	0	0	0	0	0	0	0	107
Cedar	0	0	0	0	0	0	0	0	0	0	262	0	5	0	0	0	0	0	267
Herbaceous Openland	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Lowland Conifers	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8
Lowland Shrub	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Mixed Upland Deciduous	0	0	0	129	15	0	0	0	7	22	174	33	0	0	0	0	0	19	399
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	164
Oak	0	0	0	0	0	0	0	4	43	56	92	0	0	0	0	0	0	0	195
Upland Mixed Forest	0	0	0	0	0	0	11	0	3	15	0	0	0	0	0	0	0	0	29
Urban	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Total	110	0	0	143	15	0	78	16	59	109	528	33	5	0	0	0	0	183	1279



Report 2 – Treatment Summary

Atlanta Mgt. Unit
Year of Entry: 2017

Acres of Harvest

Compartment 33
Total Compartment Acres: 1,282

Commercial Harvest - 313
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	49	0	0	0	0	0	0	0	0	49
Mixed Upland Deciduous	36	56	0	0	0	0	0	0	0	92
Northern Hardwood	0	36	0	0	0	0	0	36	0	73
Oak	33	55	0	0	0	0	0	0	0	89
Upland Mixed Forest	11	0	0	0	0	0	0	0	0	11
Total	129	148	0	0	0	0	0	36	0	313

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	313	0	0	0	0	0	0	47	0	361
Next Step	0	0	0	0	0	0	277	0	0	277
Total	313	0	0	0	0	0	277	0	47	638



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
6	54033006-Cut	28.1	4123 - Red Oak	Sawtimber Well	93	111-140	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clear-cut. Retain 3-10% of the stand in pockets. Place 1 chain buffers around hemlock patches where no operations can occur. More than 10 percent retention will likely be necessary do the presence of hemlock patches. Retain all red and white pine. Protect the white and red pine regeneration with a shortwood operation.

Next Step
Treatments:

Acceptable Regen: Acceptable regeneration is a mixed upland forest with components of red oak and white pine.

Other Comment: The red oak do not have large enough crowns to consider leaving them scattered. Along the southern boundary the soils were considered sensitive and steep enough for removal from the sale. This condition to the south will also buffer the higher quality timber in the stand to the south. Old next step comments:

Proposed Start Date: 10/1 /2016

13	54033013-NF	9.0	3102 - Grass	Nonstocked		Unspecified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Plant to food and cover crops for wildlife or maintain grasses using mechanical methods or fire as funding allows.

Specs:

Next Step
Treatments:

Acceptable Regen:

Other Comment: Old next step comments:

Proposed Start Date: 5 /1 /2015

15	54033015-Cut	5.4	4123 - Red Oak	Sawtimber Medium	94	51-80	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut. Leave all white pine and red pine. Protect the white pine regeneration with a shortwood operation. Leave 3% retention around the 2 extra large white pine to the east of the stand by the old gravel pit.

Next Step
Treatments:

Acceptable Regen: Acceptable regeneration is any combination of species containing white pine, red oak, red maple, and aspen.

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

25	54033025-Cut	36.3	4119 - Mixed Northern Hardwoods	Sawtimber Well	96	141-170	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Thin to 80 BA. Remove all ash and beech with the exception of leaving one large beech per acre for wildlife where present. Create 1-100' gap per 5 acres focused around red oak (red oak around the edges). These gaps should be 100' crown edge to crown edge, not bole to bole.

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

Acceptable Regen: Acceptable regeneration is a low stocking of sugar maple within the single tree selection area and a low stocking of red oak in the 100 ft. openings.

Other Comment: Do an out of YOE harvest to salvage the ash and beech ASAP. The steepest slopes have been closely mapped and are saved in the site conditions. All of these too steep site conditions should be marked out of the thinnings for protecting the integrity of the stand/soils. Avoid over exposing hemlock to sunlight by keeping the basal area higher. Old next step comments:

Proposed Start Date: 10/1 /2015



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
27	54033027-Cutx	16.2	4199 - Other Mixed Upland Deciduous	Sawtimber Well	87	81-110	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clear-cut. Leave 3-10% stand representative pocket retention in the too steep/regeneration concern site condition in the south west portion of the stand.

Next Step
Treatments:

Acceptable Regen: Acceptable regeneration is a medium stocking of red oak, red maple, aspen, and paper birch.

Other Comment: Old next step comments:

Proposed Start Date: 10/1 /2016

28	54033028-Cut	5.3	4199 - Other Mixed Upland Deciduous	Sawtimber Well	93	111-140	Harvest	Single Tree Selection	4199 - Other Mixed Upland Deciduous	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Thin to 80 BA focusing on the removal of paper birch and red maple. Remove as little sugar maple as possible while meeting the 80 BA requirement. Remove one 18" plus DBH red oak per acre as a canopy gap for encouraging sugar maple regeneration.

Next Step
Treatments:

Acceptable Regen: Acceptable regeneration is a low stocking of sugar maple within the single tree selection area and in the gaps created by the removal of one 18 inch plus diameter red oak per acre.

Other Comment: This stand has minimal (if any) ash and beech but it makes sense to harvest it out of YOE with stands 56 and 25 to the east where ash and beech need to be harvested ASAP. This stand has potential for growing quality sugar maple. There is a good amount of sugar maple pole timber throughout, that this treatment is meant to release. Other oak thinned in the area has a high amount of sugar maple regen under it despite a low amount of large crowned sugar maple seed trees. Old next step comments:

Proposed Start Date: 10/1 /2015

32	54033032-Cut	50.9	4199 - Other Mixed Upland Deciduous	Sawtimber Well	97	111-140	Harvest	Single Tree Selection	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Thin to 80 BA. Remove all ash and beech with the exception of leaving one large beech per acre for wildlife where present. Leave all white pine, which are very few, for diversity. Create 1-100' gap per 5 acres focused around red oak (red oak around the edges). These gaps should be 100' crown edge to crown edge, not bole to bole.

Next Step
Treatments:

Acceptable Regen: Acceptable regeneration is a low stocking of sugar maple within the single tree selection area and a low stocking of stand representative mid-tolerant species such as red oak and basswood in the 100 ft. openings.

Other Comment: This stand has minimal ash and beech but it makes sense to harvest it out of YOE with stands 56 and 25 to the east where ash and beech need to be harvested ASAP. The steepest slopes have been closely mapped and are saved in the site conditions. All of these too steep site conditions should be marked out of the thinnings for protecting the integrity of the stand/soils. Avoid over exposing hemlock by keeping the basal area higher. The portion of the stand not to be thinned to the north was thinned in 2002 and has thick sugar maple sapling regen. In areas with a lower BA (90-110) and lots of pole to large sapling sugar maple, avoid thinning unless the sugar maple need release. Old next step comments:

Proposed Start Date: 8 /1 /2015



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
34	54033034-Cut	3.7	4199 - Other Mixed Upland Deciduous	Sawtimber Well	93	111- 140	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Final Harvest. Leave all red and white pine (unless marked with orange paint to allow for equipment maneuverability). Protect all red and white pine regen for future stand diversity. Retention greater than 10 percent may be necessary due to the slope (30-35%) leading to the southern leg of the stand.

Next Step
Treatments:

Acceptable Acceptable regeneration is a stand dominated by oak and aspen with a lesser pine component.
Regen:

Other The mapping of the surrounding stands was difficult due to frequent changes in covertime and inclusion pockets. Much consideration and walking was done when creating the stand boundaries. Follow the stand boundaries exactly when painting in the stand boundaries. Consider equipment maneuverability when following these lines (the GPS can be off 20-30 feet). The south leg of this stand requires traversing a semi steep slope at its northern most point. Therefore consider leaving more than 10 percent retention in this leg. Old next step comments:

Proposed Start Date: 10/1 /2016

35	54033035-NF	26.6	3102 - Grass	Nonstocked	Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland			Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Plant to food and cover crops for wildlife or maintain grasses using mechanical methods or fire as funding allows.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 5 /1 /2015

36	54033036-NF	2.0	3102 - Grass	Nonstocked	Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland			Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Plant to food and cover crops for wildlife or maintain grasses using mechanical methods or fire as funding allows.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 5 /1 /2015

37	54033037-7- New	27.7	4130 - Aspen	Sawtimber Well	57	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with 3-10% retention. Place retention in wet areas and in areas that are stand representative with diverse components. Spec a winter harvest/frozen ground conditions to protect the soils from rutting that would adversely affect the drainage in the area. A winter harvest would also avoid conflicts with elk viewing and adjacent wildlife planting.

Next Step
Treatments:

Acceptable Any combination of species dominated by aspen.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016



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
39	54033039-NF	5.0	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Plant to food and cover crops for wildlife or maintain grasses using mechanical methods or fire as funding allows.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

41	54033041-Cut	11.4	4319 - Mixed Upland Forest	Sawtimber Well	58	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with reserves. Retention will be over 10% due to the northern white cedar inclusion in the center of the stand. Do not cut any northern

Specs: white cedar. Focus retention around the northern white cedar while including species representative of the overall stand as a whole. Spec a winter harvest/frozen ground conditions to protect the soils from rutting that would adversely affect the drainage in the area. A winter harvest would also avoid conflicts with elk viewing and adjacent wildlife planting. Create an irregular/non-linear stand boundary along the north edge.

Next Step

Treatments:

Acceptable Acceptable regeneration is a stand dominated by aspen.

Regen:

Other The overall age of the aspen is low but they are large and ready to go. Harvest the aspen before we start losing them. Consider harvesting

Comment: Stand 24 of Compartment 32 to the north to help the aspen regeneration overcome the elk browsing. Old next step comments:

Proposed Start Date: 10/1 /2016

44	54033044-Cut	15.9	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	91	51-80	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. Leave 10 percent retention of stand representative species along the north edge of the creek to protect the integrity of

Specs: the creek. Greater than 10 percent retention could be needed to protect the creek.

Next Step

Treatments:

Acceptable Acceptable regeneration is an aspen dominated stand with additional deciduous and coniferous components.

Regen:

Other A creek parallels the southern edge of the western 1/3 of this stand. The integrity of this creek should be accounted for when treating this stand.

Comment: Discuss the treatment boundary near the stream with Tim Cwalinski when setting up the sale. Old next step comments:

Proposed Start Date: 10/1 /2016

49	54033049-Cut	4.3	4130 - Aspen	Sawtimber Well	60	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with 3% pocket retention. Place the retention along the south edge of the stand.

Specs:

Next Step

Treatments:

Acceptable Any combination of species dominated by aspen is acceptable.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



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
50	54033050-NF	4.8	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Plant to food and cover crops for wildlife or maintain grasses using mechanical methods or fire as funding allows.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

56	54033056-Cut	36.2	4119 - Mixed Northern Hardwoods	Sawtimber Well	96	81-110	Harvest	Salvage	411 - Northern Hardwood	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription This is an ash/beech salvage harvest. Harvest all ash and beech with the exception of leaving one large beech wildlife tree per acre where present.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Do an out of YOE harvest to salvage the ash and beech ASAP. There is no need to mark this stand. There is plenty of room for equipment to harvest the ash and beech due to this stand being thinned in 2002. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2015

58	54033058-Cut	9.3	4131 - Aspen, Oak	Sawtimber Well	80	81-110	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. Place 3-5% retention in pockets around mast oak in multiple pockets near but not on Meridian Line Road. Consider visual breaks when leaving retention. Protect white pine regeneration. Do not leave aspen that are likely to blow down onto Meridian Line Road.

Specs:

Next Step

Treatments:

Acceptable Acceptable regeneration is an aspen dominated stand.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

60	54033060-Cut	55.4	4123 - Red Oak	Sawtimber Well	93	111- 140	Harvest	Single Tree Selection	412 - Oak Types	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Thin to 80 BA. Designate all merchantable beech, ash, and ironwood for harvest ,but retain 1 large beech per acre where present for wildlife.

Specs: Put in 4, half acre clear-cut pockets within the thinning for the purpose of regenerating oak. Place these clear-cut pockets in areas where poorer quality oak dominate.

Next Step

Treatments:

Acceptable Acceptable regeneration in the half acre clear-cut pockets is a deciduous mix with an oak component. Acceptable regeneration within the single tree selection area is a low stocking of sugar maple.

Regen:

Other Do not mark timber where BA is already low and sugar maple regen in the understory can be protected. Run over ironwood regeneration instead of sugar maple regeneration where possible when harvesting. Steep slope areas should be marked out of the sale. Use the site condition shape file for marking out the one documented area of steep slope. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2015



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
64	54033064-Cut	7.2	4130 - Aspen	Sawtimber Medium	81	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clear-Cut with reserves. Leave all red pine in the Overstory (these red pine are only in a small pocket at the northern edge of the stand). Put 3-
Specs: 10% retention around aspen where a clump of healthy large crowned oak is present. Include the 0.3 acre of inclusion pole sized bigtooth at the north end of the stand in the retention. Retain 2-3 white pine per acre along the southwestern edge of the stand as a visual break.

Next Step
Treatments:

Acceptable Acceptable regeneration is a medium to well stocked aspen dominated stand.
Regen:

Other This stand sits on a western aspect slope but the slope is not too steep to harvest. Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

Total Treatment
Acres Proposed: 360.8

Report 5 – Site Conditions

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Compartment: 33
Year of Entry: 2017

Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available
108	67	33	8
268	0	0	267
62	62	0	0
8	8	0	0
23	0	0	23
4	4	0	0
400	243	126	31
164	163	0	1
196	123	52	20
29	15	9	6
21	21	0	0
1,282	706	220	356
	55%	17%	28%

Dominant Site Conditions

	Dominant Site Conditions					
	2B	5C	1C	2F	2G	5E
Aspen		33		6	1	
Cedar			267			
Herbaceous Openland						
Lowland Conifers						
Lowland Shrub					23	
Marsh						
Mixed Upland Deciduous	9	117		29		1
Northern Hardwood				1		
Oak		52		20		
Upland Mixed Forest		9		6		
Urban			0			
Total Forested Acres	9	211	267	63	24	1
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	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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4	Unavailable	2F: Too steep	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	2F: Too steep	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	2F: Too steep	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	1C: Other dept or div proc/practices	263	2G: Too wet (sensitive soils, does not include access issues)	3H: Deer Wintering Areas	Unspecified	Unspecified
Comments:							
8	Available	2B: Unknown if access through adjacent landowner(s) is possible	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	2F: Too steep	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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11	Unavailable	2F: Too steep	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	2F: Too steep	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	2F: Too steep	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	33	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Vernal Pool - Protect if harvested with a 100 ft. buffer.							
22	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Vernal Pool - Buffer with 100 ft. buffer if harvested. Added to SCA's							
23	Unavailable	2F: Too steep	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.							
24	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.							

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25	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.							
26	Unavailable	2F: Too steep	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.							
27	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
28	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	38	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
29	Unavailable	2F: Too steep	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.							
30	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	36	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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31	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
32	Unavailable	2F: Too steep	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.							
33	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.							
34	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	29	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
35	Unavailable	2F: Too steep	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
36	Unavailable	2F: Too steep	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
37	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.							

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Compartment: 33
Year of Entry: 2017

38	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.</p>							
39	Unavailable	2F: Too steep	2	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<p>Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.</p>							
40	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments:</p>							
41	Unavailable	2F: Too steep	2	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: This site condition was mapped out by walking/GPSing its boundary. Therefore, do not edit the shape of this site condition without much consideration.</p>							
42	Unavailable	5E: Long-Term Retention	1	5A: Not able to obtain desirable regeneration	2F: Too steep	Unspecified	Unspecified
<p>Comments: To the far west of this site condition there is a steep area with erosion damage caused by ATV's. The rest of the site condition is a southern aspect with exposed dry dirt soil lacking forest floor vegetation. Harvesting this dry southern aspect would likely result in failed regeneration/erosion due to the dryness of this soil and heat caused sun exposure.</p>							
43	Unavailable	2F: Too steep	3	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments:</p>							
44	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments:</p>							

Report 5 – Site Conditions

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Compartment: 33
Year of Entry: 2017

45	Unavailable	2F: Too steep	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
46	Unavailable	2F: Too steep	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
47	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
113	Unavailable	1C: Other dept or div proc/practices	4	2G: Too wet (sensitive soils, does not include access issues)	3H: Deer Wintering Areas	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 6 – 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				



Report 7 – 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
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	6120 - Lowland Cedar	Poletimber Well	262.5	96	171-200	This stand is consistently dominated by about 80 percent northern white cedar throughout.
2	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	39.2	93	81-110	This stand has medium quality red oak and sugar maple. The sugar maple is of the highest quality to the far east of the stand. There is a good and consistent stocking of sapling sugar maple throughout. The far east and west portions of the stand look to have been excessively thinned at some point (The BA is around 50-80 in these areas.). This stand is transitioning from even aged to uneven aged through management. Sugar maple is most dense at the far east end of the stand.
3	4199 - Other Mixed Upland Deciduous	Sapling Well	92.1	26	Immature	The timber sale notes say that unmerchantable trees were not to be cut, but judging from the consistent size of the trees there was not much retained.
4	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	7.2	71	51-80	This stand has poor quality oak.
5	4123 - Red Oak	Sawtimber Well	17.8	86	81-110	The oak are of poorer quality overall. The oak that border the mixed deciduous stand 32 to the northeast are of medium quality. The average of 5 basal area measurements taken during inventory was 110.
6	4123 - Red Oak	Sawtimber Well	31.6	93	111-140	The red oak is mostly of medium to low quality.
7	4131 - Aspen, Oak	Sawtimber Medium	6.3	74	51-80	There are steep hills throughout this stand. This is low quality oak.
8	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	7.6	93	Unspecified	This stand has steep slopes throughout.
9	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	4.6	86	51-80	This stand is the northern aspect of a steep hill.
10	4199 - Other Mixed Upland Deciduous	Poletimber Well	15.2	35	1-50	Most of the stand is pole timber around 6" in DBH. The are scattered larger diameter trees around small log size that were left from the previous harvest.
11	4199 - Other Mixed Upland Deciduous	Sawtimber Well	19.2	93	111-140	From 10-20% of the canopy is dead/dying white ash (EAB). The red oak and sugar maple are of medium quality. The soils ability to grow high quality sugar maple is questionable. Per the quantitative data report on this stand the average BA is 118 sq. ft.
12	4310 - Pine, Oak Mix	Sawtimber Medium	14.5	88	111-140	There is a 25 ft. straight down drop where the western edge of this stand borders/joins an old gravel pit. The west half of this stand is steep and harvesting should be avoided. This stand adds diversity to the immediate area and should be considered for long term retention.
14	4123 - Red Oak	Sawtimber Well	43.3	72	81-110	This stand contains some very steep terrain. Per the quantitative data report on this stand the average BA is 109 sq. ft.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	4123 - Red Oak	Sawtimber Medium	5.4	94	51-80	
18	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	11.2	93	81-110	Many slopes greater than 100%. Oak are scattered but predominately along ridge tops. The white pine are more in the low areas and on the side slopes, but both white pine and red pine are present throughout the stand.
19	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	32.7	106	81-110	The red oak is of medium to low quality. The sugar maple is full of limbs all the way up. The White ash that would have made up about 3% of the overstory is dead or dying due to EAB. Very little sugar maple regen present, except for some scattered pole sized trees. The ridge tops were thinned at some point and have a lower basal area than the side hills. This is a poorer quality red oak/hardwoods stand. There is a clump of pole sized white pine on the middle west edge of the stand. The amount of sugar maple present increases as you go east in the stand.
20	4199 - Other Mixed Upland Deciduous	Sapling Poor	23.7	25	Immature	Pocket composition of the overstory within this stand varies throughout. The red maple are present in stump sprout clumps and most have some type of vertical open fungal wound on their trunks.
25	4119 - Mixed Northern Hardwoods	Sawtimber Well	37.2	96	141-170	The dead and dying white ash make up 20% of the overstory canopy. All ash is dead or close to it. One-third to half of the ash still has some foliage. The basal area varies from 120-200.
26	4123 - Red Oak	Sawtimber Well	38.3	85	81-110	Low quality red oak and sugar maple are present overall. Some medium quality red oak and sugar maple are present to the south.
27	4199 - Other Mixed Upland Deciduous	Sawtimber Well	17.5	87	81-110	Witch hazel and serviceberry are present on the south aspect slopes.
28	4199 - Other Mixed Upland Deciduous	Sawtimber Well	5.3	93	111-140	This stand has a high amount of high quality sugar maple pole stems present in the overstory. This stand has good soil for growing sugar maple. This stand should be managed to increase the amount of high quality sugar maple it produces. The paper birch present are dying off. Per the quantitative data report on this stand the average BA is 113 sq. ft.
29	4310 - Pine, Oak Mix	Sawtimber Well	1.5	70	171-200	This is a natural red pine stand, which is a rare covertime in this immediate area. The average percent live crown is 33%. This stand has a high Basal Area. Due to the small size of the stand and amount of sunlight individual red pine are receiving, the red pine do not look stressed.
30	4310 - Pine, Oak Mix	Sawtimber Well	1.9	71	141-170	This stand is really a continuation of stand 29 to the north. The red pine look healthy and still have adequate live crown to maintain health and growth.
31	4123 - Red Oak	Sawtimber Well	3.6	68	81-110	This stand is mostly poor quality red oak. A majority of the stand is on a steep slope on the west side of the stand. There is a half acre inclusion pocket of red pine and aspen at the south end of the stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	4199 - Other Mixed Upland Deciduous	Sawtimber Well	64.3	97	111-140	This stand has some of the highest quality red oak and sugar maple in compartment 33 (mostly in the northern 2/3). Per the quantitative data analysis the west 2/3 of this stand has an average basal area of 128 sq. ft. At the north end of the stand along the east edge and east of the forest road there is somewhat of an inclusion pocket (3 acres) with log/Xlog white pine. At the north end of the stand along the west edge and mostly on an eastern aspect slope there is a 4 acre inclusion pocket with paper birch and red maple components with some lesser quality red oak.
34	4199 - Other Mixed Upland Deciduous	Sawtimber Well	3.7	93	111-140	This stand does not meet mapping standards, but because of the overstory composition differences between this stand and stands 58 and 31 to the west and east, respectively, it was separated out.
37	4130 - Aspen	Sawtimber Well	28.9	57	81-110	All sugar maple, beech, and ironwood are in the southeast arm of the stand. Harvest this stand in the 2027 YOE.
41	4319 - Mixed Upland Forest	Sawtimber Well	11.4	58	81-110	
43	4111 - S.Maple, Hard Mast Association	Sawtimber Well	62.4	91	81-110	White ash would be 15-20% of the canopy at 6" DBH (Pole/Log), but it is dead or dying (EAB). The quality of the hardwoods is low to the west with more pole timber and changes to medium-high quality as you go east with more log sized timber. Per the quantitative data report on this stand the average BA is 86 sq. ft.
44	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	16.6	91	51-80	A creek parallels the southern edge of the western 1/3 of this stand. The integrity of this creek should be accounted for when treating this stand.
46	4130 - Aspen	Sawtimber Medium	38.3	56	81-110	Small pockets are present without aspen where ironwood saplings dominate under sparse hardwood overstory.
48	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Medium	7.5	63	111-140	The 17" DBH white pine cored had very large growth rings and was growing in moist soil covered with sphagnum moss.
49	4130 - Aspen	Sawtimber Well	4.3	60	Unspecified	The aspen have grown extra fast at this site. Depending on the habitat type it might be a good idea to encourage hardwoods here.
51	4199 - Other Mixed Upland Deciduous	Sapling Poor	8.4	28	Immature	About 30-35% of the stand is open area with sedge and fern. This stand is entirely on a slope with a southern aspect. The slope is moderate to steep.
52	4110 - Sugar Maple Association	Sawtimber Well	22.4	88	81-110	We are not getting the sugar maple regen that we had hoped for after the last thinning. This stand has high quality sugar maple, especially towards the east. Unfortunately, it is lacking a significant amount of sugar maple saplings. Per the quantitative data report on this stand the average BA is 98 sq. ft.
53	4139 - Aspen, Mixed Deciduous	Sapling Well	14.0	28	1-50	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
54	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	4.8	28	1-50	A significant amount of trees were not cut last harvest so there is some age and diameter variance throughout the stand.
55	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	17.1	91	81-110	This is a very low quality oak/hardwood stand, but it is a good site for putting on volume as determined by growth ring thickness.
56	4119 - Mixed Northern Hardwoods	Sawtimber Well	42.0	96	81-110	This stand was thinned in 2002. Approximately 1/3 to 1/2 of the ash have partial foilage in the canopy. All white ash are dying from EAB. Beech bark disease was not yet seen in this stand.
58	4131 - Aspen, Oak	Sawtimber Well	9.3	80	81-110	There is an inclusion pocket heavy to pole-log red oak at the north end. The red pine is mostly on the hillside to the east.
59	6120 - Lowland Cedar	Poletimber Poor	5.1	110	1-50	There is a 2 plus acre pocket in the center where windthrow has removed the overstory. There is lots of blown down cedar present.+
60	4123 - Red Oak	Sawtimber Well	55.7	93	111-140	Quality pole sized sugar maple is present in varying amounts throughout.
61	4190 - Mixed Upland Deciduous with Cedar	Sawtimber Medium	9.1	92	81-110	There is a good amount of aspen, cedar, and balsam fir windthrow throughout.
62	4199 - Other Mixed Upland Deciduous	Sawtimber Well	0.0	97	111-140	This is very high quality timber. The red oak and sugar maple are of high quality. Per the quantitative data analysis the west 2/3 of this stand has an average basal area of 128 sq. ft. At the north end of the stand along the east edge and east of the forest road there is somewhat of an inclusion pocket (3 acres) with log/Xlog white pine. At the north end of the stand along the west edge and mostly on a east aspect slope there is a 4 acre inclusion pocket with a paper birch component.
64	4130 - Aspen	Sawtimber Medium	7.2	81	51-80	There is a one acre inclusion of bigtooth aspen pole timber at the north end to the stand that has a 6" average DBH.
66	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	0.0	91	51-80	A creek parallels the southern edge of the western 1/3 of this stand. The integrity of this creek should be accounted for when treating this stand.



Stand	Cover Type	Acres	Managed Site	General Comments:
13	3102 - Grass	9.0	No	
16	122 - Road/Parking Lot	14.6	No	
17	3102 - Grass	1.0	No	This is an oil well pad. It was surveyed with snow on the ground, but is most likely dominated by grass.
21	3102 - Grass	1.7	No	This is an oil well pad. It was surveyed with snow on the ground, but is most likely dominated by grass.
22	3102 - Grass	2.2	No	This is an oil well pad. It was surveyed with snow on the ground, but is most likely dominated by grass.
23	3102 - Grass	2.6	No	This is an oil well pad. It was surveyed with snow on the ground, but is most likely dominated by grass.
24	3102 - Grass	2.0	No	This is an oil well pad. It was surveyed with snow on the ground, but is most likely dominated by grass.
33	3102 - Grass	0.9	No	This is an oil well pad. It was surveyed with snow on the ground, but is most likely dominated by grass.
35	3102 - Grass	26.6	Yes	This is a grass opening that the wildlife division keeps mowed for wildlife habitat.
36	3102 - Grass	2.0	Yes	This is a mowed grass opening managed for wildlife habitat.
38	623 - Emergent Wetland	1.1	No	This is a grassy bog like area. Forty percent of the area is covered by a blueberry like plant.
39	3102 - Grass	5.0	Yes	This is a grass opening that the wildlife division keeps mowed for wildlife habitat.
40	6233 - Wet Meadow	2.7	No	This is an area with tall grass that is seasonably wet with pockets of alder and willow.
42	6220 - Alder/willow	23.1	No	This stand is borderline forested. There is a large amount of northern white cedar die off in the form of snags present. There is also a high amount of cedar windthrow from the last 20-30 years. The cedar have been replaced with alder and scattered balsam fir and white spruce. A cedar of 9.5" DBH cored at 97 years. There is a 3-4' wide creek that parallels the southern edge of the stand. Pockets dominated by cedar also containing white spruce, red maple, paper birch, balsam fir and tamarack are present throughout.
45	122 - Road/Parking Lot	1.9	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
47	3102 - Grass	2.1	No	This site has an oil well pad.
50	3102 - Grass	4.8	Yes	
57	122 - Road/Parking Lot	4.7	No	
63	3102 - Grass	2.0	No	