



Compartment Review Presentation

Atlanta Forest Management Unit

Compartment 54059

Entry Year 2017

Acreage: 2,083

County Montmorency

Management Area: Rattlesnake Hills

Revision Date: 2015-06-18

Stand Examiner: Dale Parris

Legal Description:

T32N R01E Sections 21, 28, 29, 32, and 33.

Identified Planning Goals:

Multi-Resource management within Compartment 59 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 majority of the topography of compartment 59 is flat with occasional rolling hills of up to 18 percent slope. The steepest slopes are found in the southwest portion of the stand where slopes reach north of 40 percent in a few areas. The soil in the northern three-quarters of the Compartment 59 is over 90 percent Grayling sand (excessively drained) with small and isolated areas of Tawas-Lupton mucks (very poorly drained), Deford muck (very poorly drained), and Croswell sand (moderately well drained). The southern quarter of Compartment 59 is approximately 50 percent Graycalm sand (somewhat excessively drained) with lesser components of Lindquist sand (somewhat excessively drained), Millersburg loamy sand (well drained), Chinwhisker sand (moderately well drained), Klacking sand (well drained), Kellogg sand (moderately well drained), and Millersburg-Klacking-Graycalm complex (well drained).

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

The land bordering the eastern and southern edges of Compartment 59 is mostly state owned with the exception of a half mile section at the east end of the south edge. The western and northern edges of the compartment are privately owned. There is a forty acre private ownership island within the southwest corner of the compartment. Aerial imagery only shows one building located near the boundary of Compartment 59. This structure is off of the northern edge of the compartment and on the west edge of Black River Road. Within Compartment 59 there is one building that is an oil facility structure.

Unique Natural Features:

Foch Lake lies within the Compartment Boundaries to the east. A stream surrounded by lowland conifer flows from Town Line Lakes to the south eight-tenths of a mile into the south end of Foch Lake to the north. The northern portion of the stand saw a large amount of jack and red pine planting in the 1950's and early 1960's. In the area surrounding Foch Lake, red pine can be found that are in the vicinity of 150 years old.

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 59 is in.

The Michigan Natural Features Inventory (MNFI) at the Michigan State University Extension website describes Section 21 of T32N R01E as having pine barrens and the documented presence of dusted skipper (*Atrytonopsis hianna*), a special concern species.

There were no Special Conservation Areas within Compartment 59.

Special Management Designations or Considerations:

The forest area immediately surrounding Foch Lake should be harvested only where forest health and the safety of those recreating in the area is of concern. Past harvests in the southern portion of the compartment have converted many acres to aspen and lessened stand diversity. As a result, future management in the southern quarter of Compartment 59 should avoid further aspen dominance were undesirable.

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 coarse-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift is the Devonian Antrim Shale. The Antrim is quarried for cement products. The nearest gravel pit is located one mile to the west and potential is good. Antrim gas wells have been drilled in every section except for Section 28, and all State mineral rights in the compartment are currently under lease. A producing Niagaran reef well is located in Section 29 and there is additional reef potential in the compartment.

Vehicle Access:

Forest roads provide good vehicle access to all areas of Compartment 59. Compartment 59 can be accessed from the outside using Black River Road from the north and southwest. It can also be accessed from the south via Camp 30 Road.

Survey Needs:

No surveys are needed at this time.

Recreational Facilities and Opportunities:

Dispersed camping opportunities are available along the north and east sides of Foch Lake. A Camp Registration Card needs to be filled out and posted at the camp site. Elk, whitetail deer, turkey, grouse and other species are available to hunt in season with a valid license. Wildlife viewing and mushrooming opportunities are also available. In addition, fishing opportunities are available in Foch Lake.

Fire Protection:

This compartment is located in the protection area of the Atlanta DNR and the Hillman Fire Department. The Hillman Fire department would most likely be last on scene of any fire in the area due to their distance from the area. The Atlanta DNR has mutual aid agreements with the Vienna Township and Hillman Fire Departments and also supplies them with a GSA 6x6 fire unit. The Atlanta DNR and Vienna Township Fire Department would most likely be the initial attack forces. Historically, the fires in this large jack pine area have been from fishermen on the Black River and/or lightning. This usually occurs during the spring fire season as it relates to the spring trout fishing opener. The Gaylord field office also places equipment on standby in Johannesburg during times of high fire danger.

Additional Compartment Information:

The northern one-third and a large part of the southeastern portion of Compartment 59 is mainly planted red pine and jack pine. Some of this was planted with alternating sections of red pine and jack pine. The oldest of this red pine and jack pine was planted in the 1950's and early 1960's. The jack pine planted during this time period is in poor shape with many standing snags and much windthrow. Subsequent Jack pine and red pine plantings are taking place as these aging planted pine stands are harvested. Naturally grown red pine and jack pine are also present. Jack pine that have been naturally regenerated seem to remain in a healthier state as they reach 45 plus years of age. Red pine in the range of 150 years old can be found in the vicinity of Foch Lake. White oak and red oak are present in stands throughout the compartment. The oldest red and white oak are just under 100 years old.

A perennial stream that is 4 to 5 ft. wide on average flows from Town Line Lakes to the south to Foch Lake to the north. This stream is surrounded by approximately 50 acres of lowland conifer, mostly northern white cedar and some black spruce. This lowland conifer acts as the only suitable whitetail deer yarding cover in the compartment. A 1-1/2 acre lake sits north of Foch Lake by a half mile and is seasonably connected to Foch Lake by an intermittent stream. The south-western and south-central region of Compartment 59 is dominated by aspen that took over after various harvests. An old air strip is present in the center of the compartment.

The following reports from the Inventory are attached:

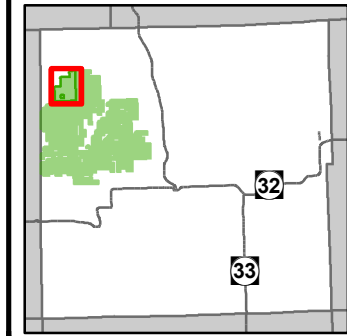
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

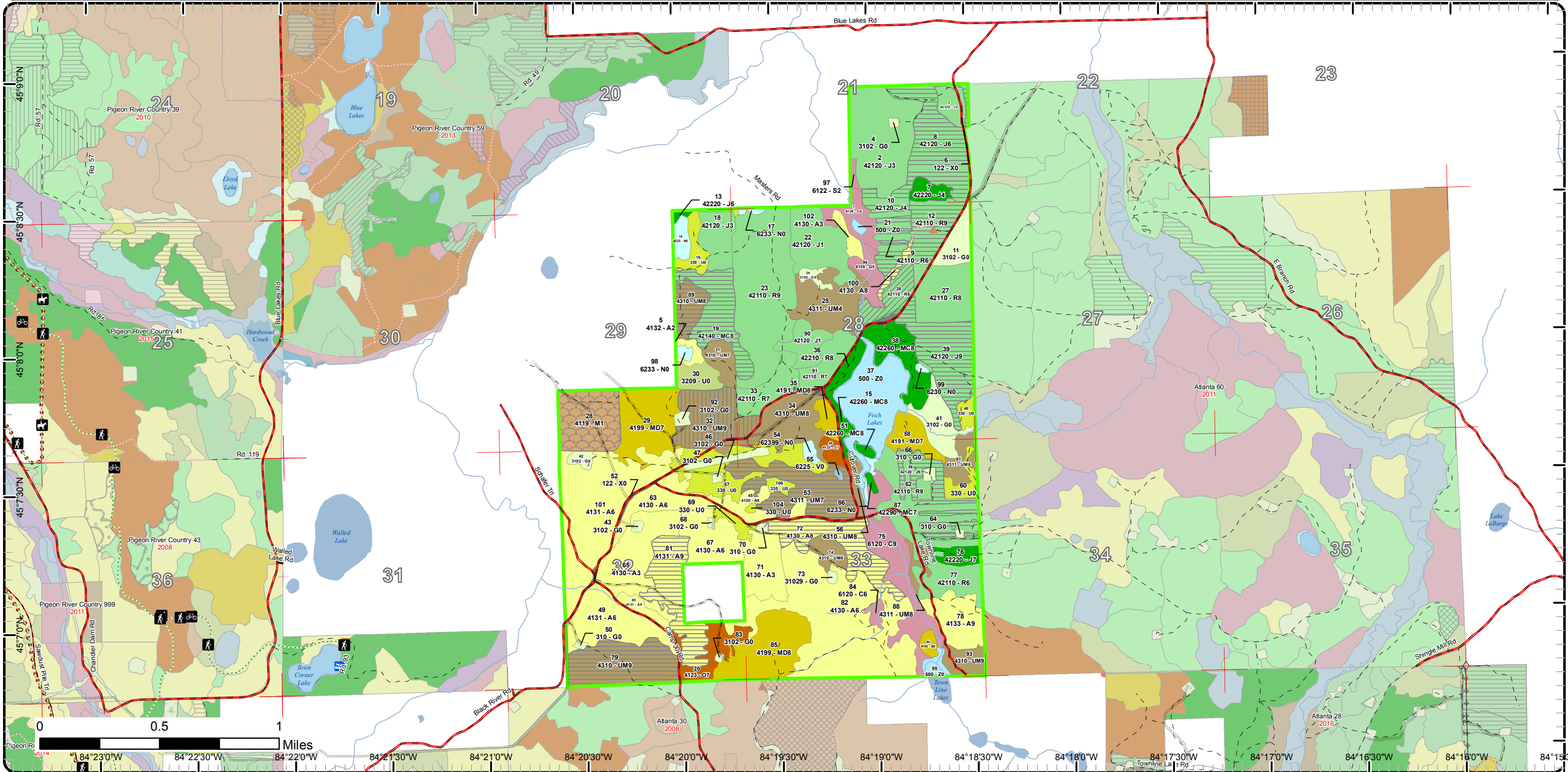
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments

Compartment: 59
 T32N, R01E,
 Sec: 21, 28, 29, 32, 33
 County: Montmorency
 Unit: Atlanta
 Mgmt Area: Rattlesnake Hills
 YOE: 2017
 Acres: 2083 GIS Calculated
 Examiner: Dale Parris
 Map Revised: 5/1/2015
 Map Phase: Pre-Review

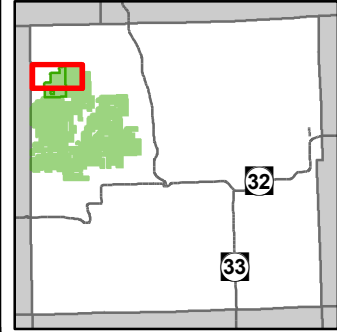


- ✦ Remonumented Section Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- - Poor Dirt Roads
- - County Poor Dirt Roads
- - Trail (Non-Recreation)
- ⋯ Closed Roads
- ▲ Berms
- 🚤 Boating Access Site
- ⚠ Campground
- 🚲 Bike Trails
- 🚶 Hiking Trails
- 🐎 Horse Trails
- 🏂 Ski Trails
- ⋯ Hiking Pathways
- ⋯ Bicycle/Dirt Bike Trails
- ⋯ Ski Trails
- Equestrian Trails
- Rivers
- Lakes
- Pipeline
- ⚡ Powerline
- Treatments
- ☀ Site Prep
- ☐ Clearcut (w/Reserves)
- ▨ Thinning (Crown, Low, Systematic)
- ▤ Shelter Wood (w/Reserves)
- Forest Covertype
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forests
- 612 - Lowland Coniferous Forest
- Non-Forest Covertype
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland

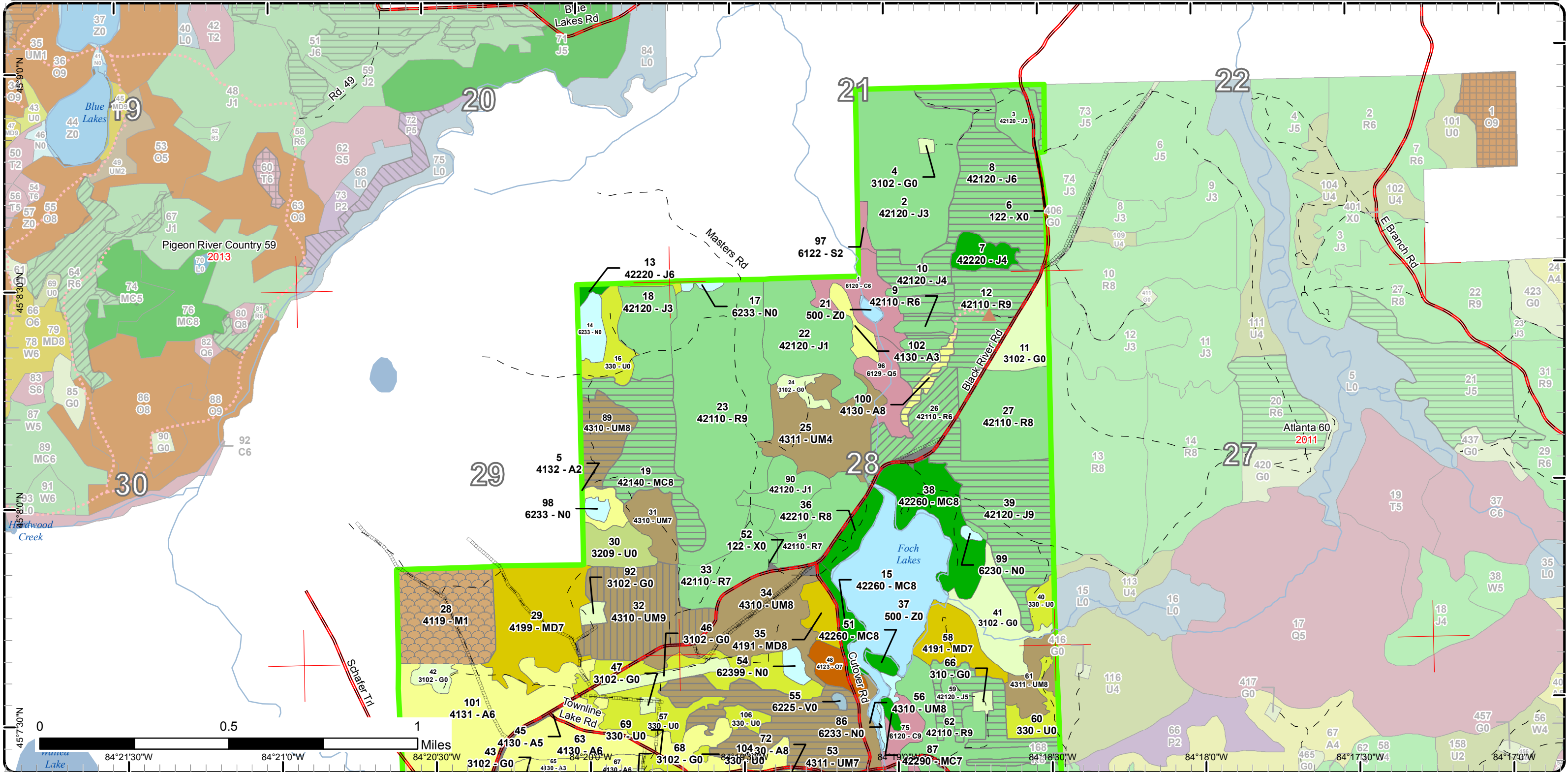


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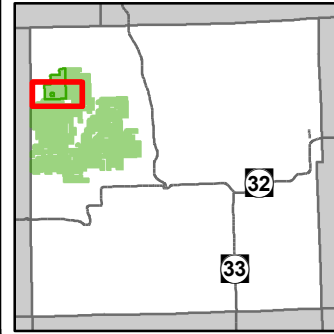


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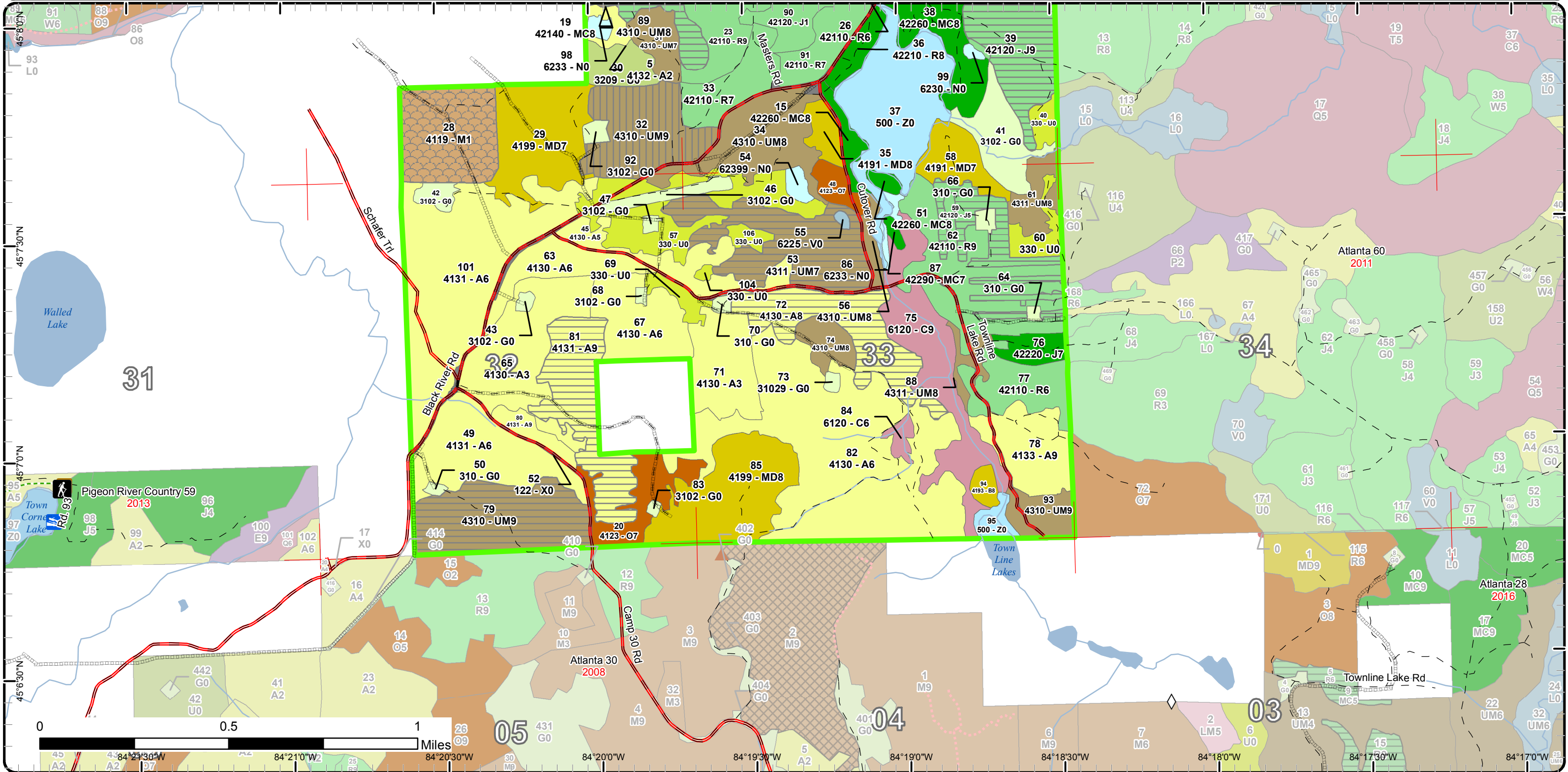


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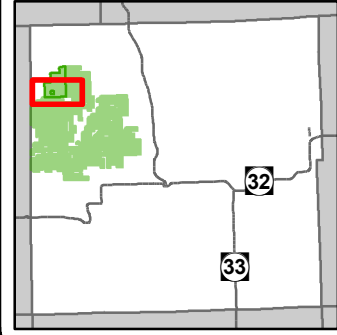
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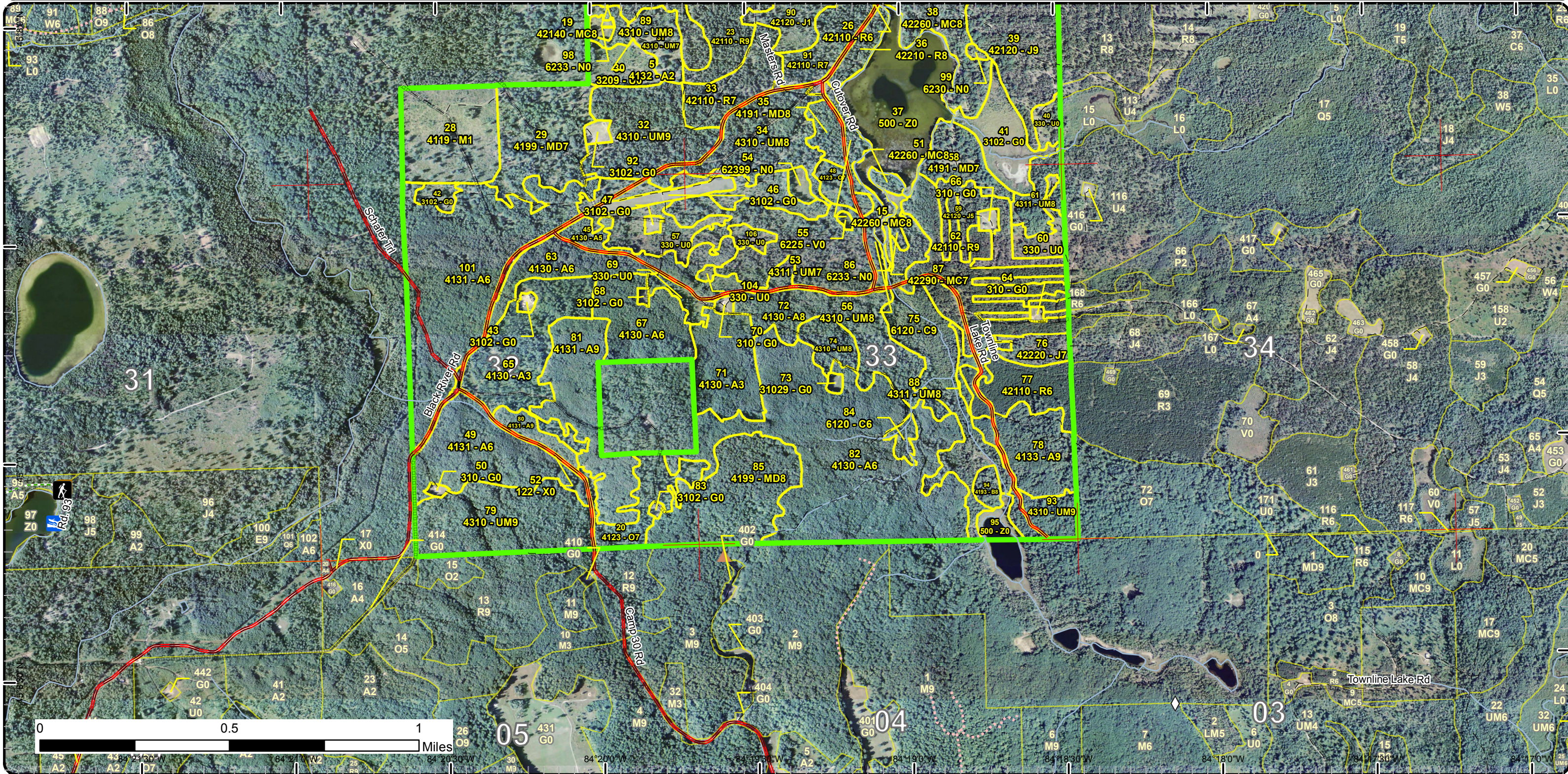


Stand Boundary Map



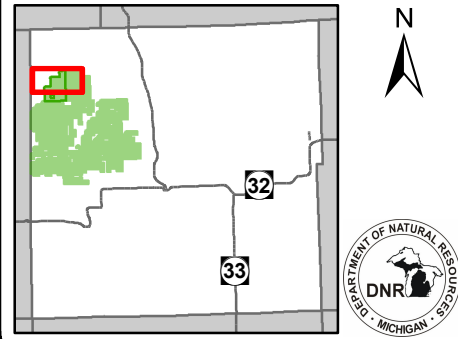
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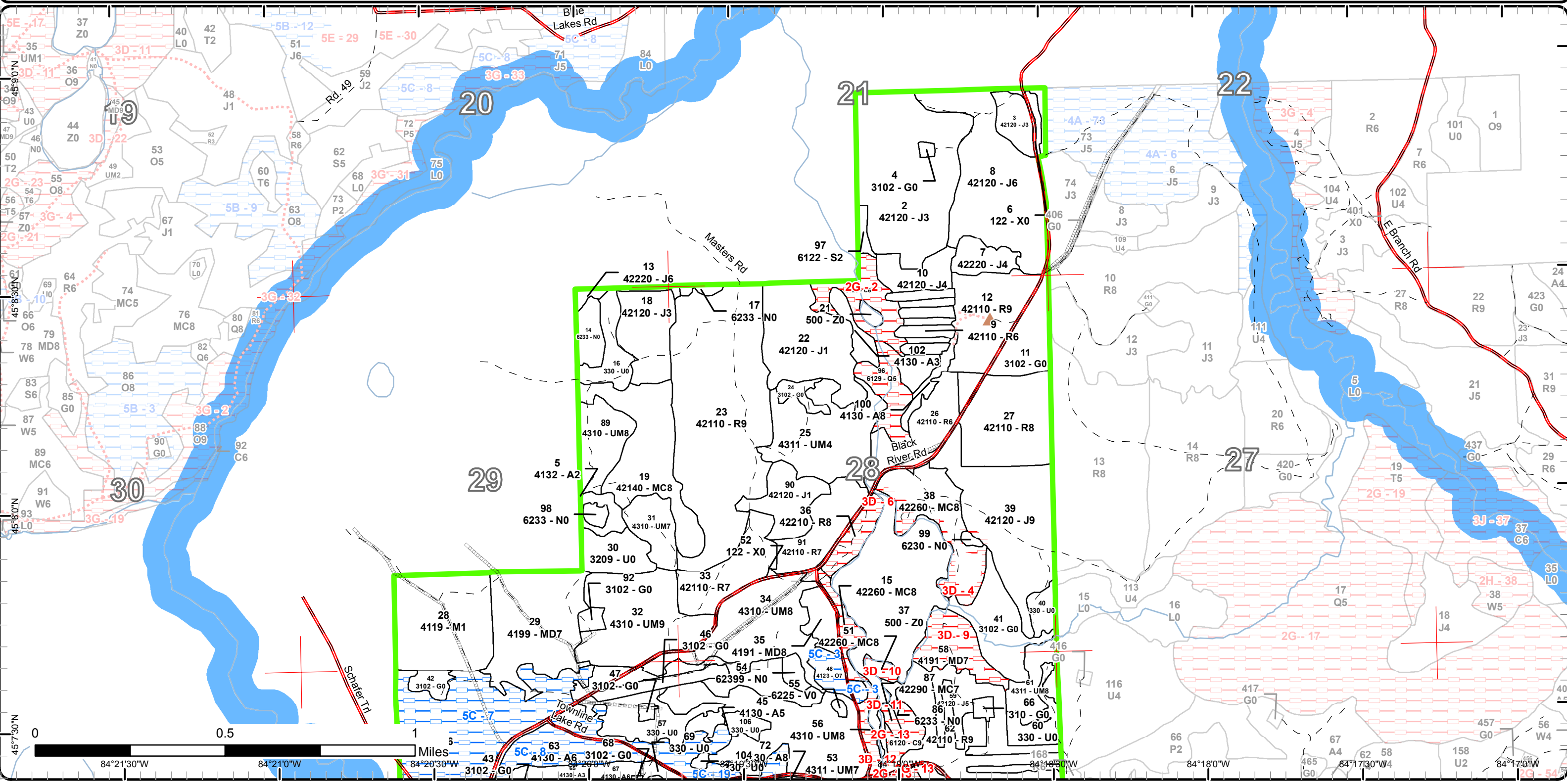


Special Conservation Areas & Site Conditions Map

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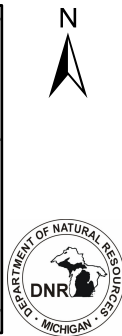
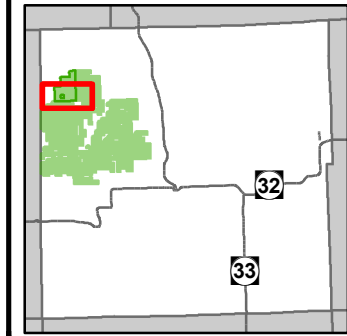


- Miris Corners
 - = County Gravel Roads
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 - ⋯ Closed Roads
 - ▲ Berms
 - Rivers
 - Pipeline
 - Stand Boundaries
 - Site Condition
 - Available w/ Constraints
 - Unavailable
-
- Available Factors W/ Constraints
 - 5C: Delay treatment for age/size class diversity or exceptional site quality
 - Unavailable Factors
 - 2G: Too wet (sensitive soils, does not include access issues)
 - 3D: Recreational / Scenic values
 - Special Conservation Areas
 - Cold Water Streams
 - High Priority Trout Stream Buffer



Special Conservation Areas & Site Conditions Map

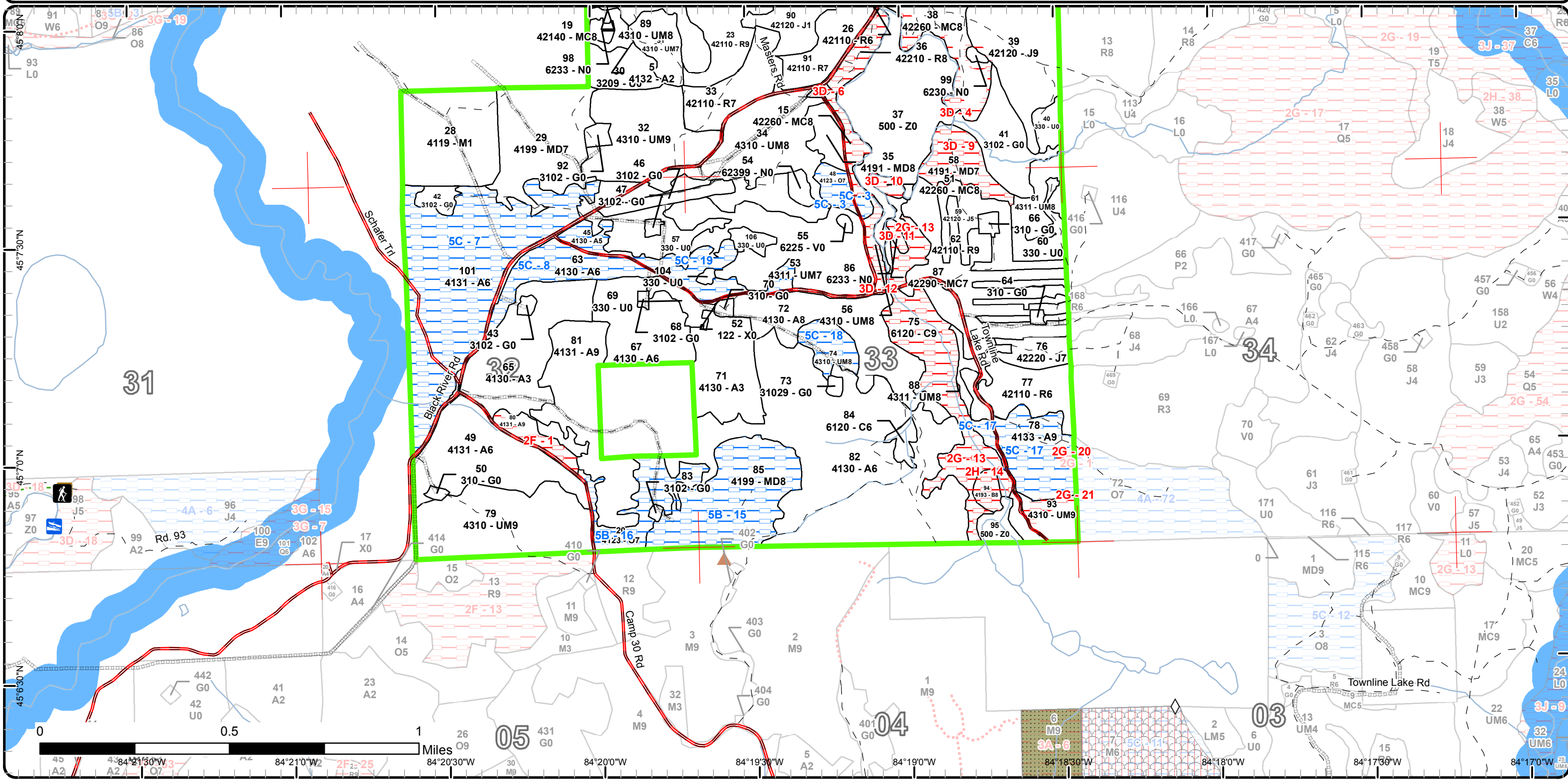
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- Ski Trails
- Rivers
- Pipeline
- Stand Boundaries
- Reviewable SCAs (dq)
- Recommendation
- SCA
- SCA Removal

- Site Condition
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 2F: Too steep

- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3D: Recreational / Scenic values
- Special Conservation Areas
- Cold Water Streams
- High Priority Trout Stream Buffer



Report 1 – Total Acres by Cover Type and Age Class

Atlanta Mgt. Unit
Dale Parris : Examiner

Compartment 59 Year of Entry 2017



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	6	46	34	174	42	165	41	0	7	42	0	0	0	0	0	0	0	557
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	0	0	67	0	0	0	0	0	0	67
Herbaceous Openland	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
Jack Pine	0	37	16	105	0	0	11	152	0	0	0	0	0	0	0	0	0	0	321
Low-Density Trees	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
Lowland Conifers	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	13
Lowland Spruce/Fir	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Marsh	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Mixed Upland Deciduous	0	0	0	0	0	0	43	0	8	49	16	0	0	0	0	0	0	0	116
Natural Mixed Pines	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	6	4	38
Northern Hardwood	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
Oak	0	0	0	0	0	0	0	0	0	7	20	0	0	0	0	0	0	0	27
Paper Birch	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Planted Mixed Pines	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	38
Red Pine	0	0	0	24	0	0	19	99	164	8	0	0	0	0	0	0	0	0	314
Upland Mixed Forest	0	0	0	0	0	97	50	40	16	0	50	10	0	0	0	0	0	23	286
Upland Shrub	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Urban	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Water	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Total	262	84	62	165	174	139	316	332	226	77	115	97	4	0	0	0	6	27	2086



Report 2 – Treatment Summary

Atlanta Mgt. Unit

Year of Entry: 2017

Acres of Harvest

Compartment 59

Total Compartment Acres: 2,083

Commercial Harvest - 0
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 105

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	87	0	0	0	0	0	0	0	0	87
Jack Pine	152	0	0	0	0	0	0	0	0	152
Planted Mixed Pines	31	0	0	6	0	0	0	0	0	38
Red Pine	27	0	0	0	19	0	0	0	0	45
Upland Mixed Forest	116	0	0	0	0	0	0	0	0	116
Total	414	0	0	6	19	0	0	0	0	439

Proposed and Next Step Treatments by Harvest Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	439	23	0	0	0	0	0	82	0	544
Next Step	0	125	102	0	16	125	528	0	0	896
Total	439	148	102	0	16	125	528	0	82	1439



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
8	54059008-Cut	56.0	42120 - Planted Jack Pine	Poletimber Well	63	1-50	Harvest	Clearcut	4222 - Natural Jack Pine	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Clear-cut. Require full tree skidding scarification of the soil to expose a mineral seedbed for the natural regeneration of jack pine. Do not leave any retention due to the poor health of the jack pine and the beetle hazard they can be. Encourage the producer to skid over the entire stand surface. If regeneration fails, burning and maintaining as a wildlife opening will be the follow-up.

Next Step
Treatments:

Acceptable Acceptable regeneration is a low to medium stocked stand of jack pine with lesser components of other deciduous and coniferous species.
Regen:

Other Stand 7 to the south proves that natural regeneration of jack pine is possible. Scarification and scattered residual jack pine slash should give even better regeneration. Past plantings have proven that red pine hold longer in these soils, and are healthier in the long run. That being stated, naturally grown jack pine with considerably more growing space have been healthier over the long run in the compartment than tightly planted jack pine. Old next step comments:

Proposed Start Date: 10/1 /2016

10	54059010-Cut	20.2	42120 - Planted Jack Pine	Poletimber Poor	63	1-50	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut without retention. Do not leave any retention due to the poor health of the jack pine and the beetle/forest health hazard they can cause. Require full tree skid during snow off conditions for soil scarification.

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

Acceptable Acceptable regeneration is a low to medium stocking of aspen and jack pine with other deciduous and coniferous components.
Regen:

Other Re-clear the three strips inside the red pine strips and plant to red pine when the adjacent red pine stands are restarted in the distant future. Old next step comments:

Proposed Start Date: 10/1 /2016

12	54059012-Cut	26.9	42110 - Planted Red Pine	Sawtimber Well	77	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with 3-5% retention. Plant red pine. Include 2 inch chip spec.
Specs:

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

Acceptable Acceptable regeneration is a well stocked red pine stand with lesser amounts of jack pine and quaking aspen.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

16	54059016-NF	12.3	330 - Low-Density Trees	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	320 - Upland Shrub		Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription Maintain opening 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



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
19	54059019-24- New	6.3	42140 - Planted Mixed Pine	Sawtimber Medium	70	51-80	Harvest	Shelterwood	4319 - Mixed Upland Forest	Two-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Non-typical oak shelterwood. Leave all oak and enough red pine to get 40-50 residual BA. Retain some health jack pine where there is not
Specs: enough oak and red pine to meet the 40-50 BA.

Next Step
Treatments:

Acceptable Acceptable regeneration is a low to medium stocking of oak, red maple, jack pine, red pine.
Regen:

Other This is an oak shelterwood with a small component of oak residual BA and a much greater component of pine residual BA. Stand 32 to the
Comment: south with a similar overstory regenerated and recruited white oak well. Old next step comments:

Proposed Start Date: 10/1 /2016

19	54059019-Cut	31.3	42140 - Planted Mixed Pine	Sawtimber Medium	70	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut. Leave 3-10% stand representative retention in multiple pockets focused around red oak. Plant to red pine.
Specs:

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

Acceptable Acceptable regeneration is a well stocked stand of red pine with lesser components of jack pine, oak, red maple, aspen, and black cherry.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

24	54059024-NF	3.9	3102 - Grass	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	310 - Herbaceous Openland		Proposal
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Habitat Cut: Yes**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

26	54059026-Cut	18.6	42110 - Planted Red Pine	Poletimber Well	54	141- 170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Do a 3rd row thinning of this stand.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
28	54059028-Prep	23.2	4119 - Mixed Northern Hardwoods	Sapling Poor	7	Immature	SitePrep	Roller Chopping	4211 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: Yes**Site Condition:**

Prescription Spray herbicide, roller chop, trench, and to plant red pine. Follow up with a release herbicide application if needed.

Specs:

Next Step Treatments: Pesticide, Skidder/Mechanical; Planting, Initial Plant; Pesticide, Other - Specify; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Regen: Acceptable regeneration is a well stocked stand of red pine with sparse components of red maple, oak, and white pine.

Other

Comment: The 18 acres immediately to the south was originally supposed to be planted to red pine. The planting did not take place after trenching. The decision was made later to go back and only plant the northern portion to red pine where there is less mature residual oak. The south 18 acres will make a good wildlife stand. Old next step comments:

Proposed Start Date: 10/1 /2016

39	54059039-Cut	50.0	42120 - Planted Jack Pine	Sawtimber Well	64	81-110	Harvest	Clearcut	4222 - Natural Jack Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with 7-10% pocket retention. Place retention along the entire length of the southwestern edge of the stand where it borders the marsh as a visual break for recreationists. Retain the southern finger of the stand for the same reason. Place a retention pocket around the pocket of 18 inch plus red pine in the southeast corner of the stand north of the opening. In addition, place retention pockets around healthy large crowned oak along the west edge of the stand while keeping the retention under 10%. Require full tree skidding scarification of the soil to expose a mineral seedbed for the natural regeneration of jack pine. Encourage the producer to skid over the entire stand surface. If regeneration fails, burning and maintaining as a wildlife opening will be the follow-up.

Next Step

Treatments:

Acceptable Regen: Acceptable regeneration is a low to medium stocked stand of jack pine with lesser components of other deciduous and coniferous species.

Other

Comment: Retention along the edge of the marsh to the southwest and retention of the southern finger of the stand should total about 2.5 acres, leaving another possible 2.5 acres for your 10%. Old next step comments:

Proposed Start Date: 10/1 /2016

42	54059042-NF	4.1	3102 - Grass	Nonstocked	Unspecified	NonForestMgt	Other - Specify		310 - Herbaceous Openland		Proposal
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Habitat Cut: Yes**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

46	54059046-NF	7.0	3102 - Grass	Nonstocked	Unspecified	NonForestMgt	Other - Specify		310 - Herbaceous Openland		Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription 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



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	54059053-19- New	16.4	4311 - Pine, Aspen Mix	Sawtimber Poor	51	1-50	Harvest	Clearcut	3102 - Grass		Proposal

Habitat Cut: No**Site Condition:**

Prescription Clear-cut without retention. Follow up with a prescribed burn.

Specs:

Next Step

Treatments:

Acceptable Acceptable regeneration is grass.

Regen:

Other The plan is to burn this along with the adjacent stand 57 for maintaining a wildlife opening into the future. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

53	54059053-Cut	33.3	4311 - Pine, Aspen Mix	Sawtimber Poor	51	1-50	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut with retention. Leave 3-10% pocket retention along Cut Over Rd to the east where the white pine regeneration is most prevalent.

Specs: Include stand representative species in this retention. Also retain the area sloping down to the bog in the northeast corner of the stand. Retain all red pine and white pine. Retain all red and white oak as well. Protect all oak, white pine, and red pine regeneration. Require full tree skidding under snow-off conditions for scarification.

Next Step

Treatments:

Acceptable Acceptable regeneration is a stand with low to medium stocking of aspen and jack pine with components of red maple, oak, white pine, and red pine.

Regen:

Other The jack pine have grown exceptionally well on this site over the last 51 years. The goal is to regenerate a diverse stand with dominate components of jack pine and aspen that has better stocking. It is feasible to protect a majority of the mature pine and oak as well as pine and oak regen while doing a full tree skid. In addition, there will still be enough open area to regenerate the aspen and jack pine. Old next step comments:

Proposed Start Date: 10/1 /2016

57	54059057-NF	36.6	330 - Low-Density Trees	Nonstocked			Unspec ified	NonForestMgt	Other - Specify	320 - Upland Shrub	Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription maintain open character 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

59	54059059-Cut	25.9	42120 - Planted Jack Pine	Poletimber Medium	60	51-80	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut. Leave 3-5 percent of the healthier northern portion of the stand in retention pocket(s). Require a snow off cut with full tree skidding for

Specs: scarification.

Next Step

Treatments:

Acceptable Acceptable regeneration is a low to medium stocked stand in a combination of deciduous and coniferous species with jack pine and aspen components.

Regen:

Other Ideally these jack pine would see a final harvest at the same time as the adjacent red pine but the red pine are not ready for a final harvest.

Comment: When the adjacent red pine, strip planted with this stand, sees a final harvest we will replant this stand along with the adjacent red pine stand to red pine. Old next step comments:

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
60	54059060-NF	8.6	330 - Low-Density Trees	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	330 - Low- Density Trees		Proposal
Habitat Cut: Yes			Site Condition:								
<u>Prescription</u> maintain open character using mechanical methods or fire as funding allows.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
69	54059069-NF	5.5	330 - Low-Density Trees	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	330 - Low- Density Trees		Proposal
Habitat Cut: Yes			Site Condition:								
<u>Prescription</u> maintain open character using mechanical methods or fire as funding allows.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u>											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
72	54059072-Cut	40.7	4130 - Aspen	Sawtimber Medium	60	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Clear-cut with 3-5 percent retention in pockets around relic red pine. Retain 3-5 large crowned red pine, white pine, and/or oak per acre where											
<u>Specs:</u> present. Protect the oak regeneration (there is little).											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Acceptable regeneration is a medium to well stocked stand of oak, white pine, red pine, red maple, with a dominate aspen component.											
<u>Regen:</u>											
<u>Other</u> Old next step comments:											
<u>Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2016											
79	54059079-Cut	50.1	4310 - Pine, Oak Mix	Sawtimber Well	98	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Clear-cut with retention. Place 3-10% pocket retention around the oldest/relic red pine and around pockets with the steepest slopes. Retention											
<u>Specs:</u> pockets should be representative of the stand. Require a shortwood operation to protect hills, white/red pine and oak advanced regeneration less than 4 inches in DBH. Retain 3-5 large crowned relatively open grown red pine, white pine, and/or oak per acre where they will not interfere with a shortwood operation.											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable</u> Acceptable regeneration is a medium stocked stand of white pine, red pine, aspen, red maple, and oak.											
<u>Regen:</u>											
<u>Other</u> In stand 20 across Camp 30 Rd white pine advanced regen was retained in the same manner. This white pine responded well to being released											
<u>Comment:</u> as evidenced by the growth rings and the overall visual health of the trees. This is somewhat of a repeat of the treatment that happened on the ground in this stand 78 years ago except at that time red pine was the most prevalent advanced regeneration protected (not white pine). Old next step comments:											
<u>Proposed Start Date:</u> 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
81	54059081-Cut	42.4	4131 - Aspen, Oak	Sawtimber Well	95	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Clear-cut leaving 3-10 percent retention in pockets on the steepest slopes and around pockets of health oak. Retention pockets must include
Specs: aspen. Retention can also be left in areas with white pine advanced regeneration.

Next Step
Treatments:

Acceptable Acceptable regeneration is a fully stocked stand of aspen with lesser components of red oak, red maple, and white pine.
Regen:

Other Make sure retention does not interfere with logger access for harvesting. Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

89	54059089-Cut	16.4	4310 - Pine, Oak Mix	Sawtimber Medium	71	51-80	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut leaving 3-10% retention in pockets around 2-3 red and/or white oak with a preference for white oak. Protect the red pine regeneration
Specs: with a shortwood operation.

Next Step
Treatments:

Acceptable Acceptable regeneration is a medium to well stocked stand of red pine, jack pine, red maple, aspen, oak, and black cherry.
Regen:

Other The objective of this treatment is to get back a diverse stand similar to what already exists. The regenerated stand will likely have a significant
Comment: red maple component due to its dominate presence in the understory. Removing the large red pine is the main reason for this harvest. The red pine in the understory are of varying size (3-15') and are currently receiving significant sunlight so that they can handle the increased sunlight that results from the harvest. Old next step comments:

Proposed Start Date: 10/1 /2016

100	54059100-Cut	4.3	4130 - Aspen	Sawtimber Medium	37	1-50	Harvest	Clearcut	413 - Aspen	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut without leaving retention. Do not leave retention due to the narrowness of this stand/to allow as much sunlight to regeneration as
Specs: possible. Retain all oak greater than 4.5" in DBH.

Next Step
Treatments:

Acceptable Acceptable regeneration is a low to medium stocked stand of aspen with lesser components of red maple, oak, white pine, red pine, and/or jack
Regen: pine.

Other It makes sense to harvest this stand with stand 10 to the north for added sale volume. Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

106	54059106-NF	3.7	330 - Low-Density Trees	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	320 - Upland Shrub		Proposal
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Habitat Cut: Yes**Site Condition:**

Prescription maintain open character 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

**Total Treatment
Acreage Proposed: 543.6**

Dominant Site Conditions

	2G	2H	3D	5B	5C
Aspen	1				163
Bog					
Cedar	63				
Herbaceous Openland					
Jack Pine			1		
Low-Density Trees					
Lowland Conifers	13				
Lowland Spruce/Fir					
Marsh					
Mixed Upland Deciduous			16	49	
Natural Mixed Pines			20		
Northern Hardwood					
Oak				20	7
Paper Birch		4			
Planted Mixed Pines					
Red Pine			8		
Upland Mixed Forest	3		5		10
Upland Shrub					
Urban					
Water					
Total Forested Acres	80	4	49	69	181
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 Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2F: Too steep	5	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Atlanta Mgt. Unit
Dale Parris : Examiner

Compartment: 59
Year of Entry: 2017

2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	28	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	3D: Recreational / Scenic values	11	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3D: Recreational / Scenic values	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	96	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Atlanta Mgt. Unit
Dale Parris : Examiner

Compartment: 59
Year of Entry: 2017

9	Unavailable	3D: Recreational / Scenic values	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This stand is low density timber. Most of the stand has evidence of camping even if it is not immediately on the lake. It is for this reason that the 3D site condition was put on the entire stand.							
10	Unavailable	3D: Recreational / Scenic values	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	3D: Recreational / Scenic values	2	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
Comments:							
12	Unavailable	3D: Recreational / Scenic values	5	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	47	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Atlanta Mgt. Unit
Dale Parris : Examiner

Compartment: 59
Year of Entry: 2017

15	Available	5B: Maintain for regeneration purposes	49	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Available	5B: Maintain for regeneration purposes	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Atlanta Mgt. Unit
Dale Parris : Examiner

Compartment: 59
Year of Entry: 2017

21	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	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
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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
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	Poletimber Well	15.4	109	Unspecified	This stand has a small pond in it with solid ground that is walkable up to the pond. A small stream flows out of the pond to the north.
2	42120 - Planted Jack Pine	Sapling Well	66.9	23	Immature	The jack pine was planted in 1992. There is a line of tag alder in the stand to the west with 1.1 acres jack pine planted to the other side of it.
3	42120 - Planted Jack Pine	Sapling Well	9.8	23	Immature	This jack pine was planted in 1992.
5	4132 - Aspen, Jack Pine	Sapling Medium	4.8	24	Immature	The quaking aspen have many cankers and do not look healthy. They probably will not amount to much before they begin to die off.
7	42220 - Natural Jack Pine	Poletimber Poor	8.3	27	1-50	The jack pine trees are about 20 ft. tall. A large red pine left over from the previous harvest was only about 30 ft. tall. This stand was clear-cut in 1988 and was not replanted with the other 2 stands.
8	42120 - Planted Jack Pine	Poletimber Well	56.0	63	1-50	The basal area is on average 0-50, but in areas it is 50-80. These do not seem to be planted in rows but records show that these jack pine were planted in 1952. This stand is a forest health/fire hazard.
9	42110 - Planted Red Pine	Poletimber Well	10.7	60	111-140	This stand was 3rd row thinned in 2010. The majority of the red pine are in the 6-9 inch range. This stand was planted in 1955. The basal area in this stand ranges from 90-230 but a majority of the measurements were in the 110-140 range.
10	42120 - Planted Jack Pine	Poletimber Poor	20.2	63	1-50	This stand was planted in 1952. There are lots of windthrown trees throughout this stand. The jack pine are in poor health. About 20 percent of the jack pine have blown over or are dead standing snags.
12	42110 - Planted Red Pine	Sawtimber Well	26.9	77	81-110	This stand was planted in 1938 and thinned in 1978. These red pine do not look to be row planted. There is 25-33% live crown on most trees. Judging from the recent growth, about 3/4" or less diameter will be added to the DBH in the next ten years. For their age these trees have a large DBH. These trees are relatively open grown for planted red pine. These trees have an average of about 6 sticks per tree with the last one or two sticks being really limbed. Judging from red pine in the area the low tree height looks to be more of a soils factor than planting spacing. On average a tree gives you 2 to 3 sawlogs before becoming really limbed.
13	42220 - Natural Jack Pine	Poletimber Well	1.7	55	81-110	This stand was likely cut in 1960 when a harvest was completed in this 40 acres. A few large red pine were left standing.
15	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	5.9	161	Unspecified	The age of the trees is likely quite variable between tree species and tree sizes in this stand.
18	42120 - Planted Jack Pine	Sapling Well	20.0	23	Immature	This stand was planted to jack pine in 1992.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	42140 - Planted Mixed Pine	Sawtimber Medium	37.5	70	51-80	Planting records indicate that this stand was planted in 1939, but coring shows that they were planted in approximately 1945.
20	4123 - Red Oak	Sawtimber Poor	19.9	102	1-50	In 2002 this stand was cut leaving mature red oak and white pine advanced regeneration. Therefore this stand is really 3 aged. The red oak are 102 years old, the white pine is 50 years old, and the newest regen since the last harvest is 13 years old. If you count back the white pine growth rings to 2002 you can see the increased growth within the rings since being released. These white pine are in good health. The 50 year old white pine are mainly in the southern 1/3 of the stand. The young red maple regen is highly browsed.
22	42120 - Planted Jack Pine	Sapling Poor	36.8	6	Immature	The age was averaged by counting the whorls of branches on the jack pine. There is about 4 acres of aspen saplings that were not planted that are an inclusion to this stand. There are 4 small pockets of log sized red pine retention (12" DBH) in this stand.
23	42110 - Planted Red Pine	Sawtimber Well	99.9	70	81-110	Live crown averages between 25 and 33 percent. All merchantable trees besides red pine and oak were harvested in 1989. Cut records show that this was planted in 1938, but coring shows that the red pine were planted in 1945. More than half of the stand looks like it was row planted and the other portion does not. The red pine are putting on about 1 inch of DBH growth every 10 years at this point. There is a 3 acre inclusion pocket across the road towards the SE end of the stand. This pocket has higher percentages of jack pine.
25	4311 - Pine, Aspen Mix	Poletimber Poor	36.3	46	1-50	The basal area is 0-50 overall and 50-80 in the more dense pockets. There is a lot of open sedge grass area in this stand. There is a pocket of lowland tamarack and black spruce in the central and eastern fingers at the north end of the stand.
26	42110 - Planted Red Pine	Poletimber Well	18.6	54	141-170	This stand had a failed planting to red pine and jack pine in 1951. The stand was re-planted to only red pine in 1961. According to the 1961 plant date the stand should have an age of 54. Coring gave an age of 49. The planting age of 54 was used. This stand has never been 3rd row thinned. There are two 1-2 acre aspen inclusion pockets in the south half of the stand. The red pine have 25-33% live crown and they have put on 1.5 inches in DBH in the last 10 years.
27	42110 - Planted Red Pine	Sawtimber Medium	36.9	77	81-110	Planting records indicate that this stand was planted in 1938. Coring agrees with the planting records. All trees except red pine were harvested in 1989. The stand BA varies evenly throughout from 40 to 140 BA. Approximately 1 inch of diameter growth was put on these red pine in the last ten years. The red pine DBH mostly varies between 9 and 15 inches. Live crown on the red pine averages between 25 and 33 percent. Some of the stand looks to have been planted in rows and some of it does not.
28	4119 - Mixed Northern Hardwoods	Sapling Poor	41.2	7	Immature	This stand was clear-cut in 2008 and was supposed to be planted to red pine. The trenching was done but the planting never occurred. There is about 5% coverage of white oak residual log trees that were left over from the last harvest. There are 3 one-quarter acre retention pockets of log sized red pine retention. There also a few scattered pole sized jack pine and pole/log sized red pine that were not harvested.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	42.9	53	1-50	
31	4310 - Pine, Oak Mix	Sawtimber Poor	12.1	48	1-50	
32	4310 - Pine, Oak Mix	Sawtimber Well	40.0	69	81-110	The planting records says that this stand was planted in 1939, but coring shows that the red pine were planted around 1946. There is a high level of browse on the white oak regeneration that is keeping the majority of white oak under 5 ft. There are some impressive thick pockets where the white oak regeneration has reached 5 ft. plus.
33	42110 - Planted Red Pine	Sawtimber Poor	21.1	68	51-80	In 2001 all species were harvested except red pine, some oak, and one or two large white pine. Planting records partially indicate that this stand was planted in 1938, but coring shows that they were planted in approximately 1947.
34	4310 - Pine, Oak Mix	Sawtimber Medium	36.9	42	51-80	There are red pine and jack pine present from the plantings that took place around 1945, but a majority of the stand is natural. There are 3 acres of aspen inclusion in the west-central portion of the stand.
35	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	7.6	71	51-80	The aspen cored at 63 years old. This stand is in the scenic area of Foch Lake.
36	42210 - Natural Red Pine	Sawtimber Medium	7.9	88	Unspecified	This is scenic Foch Lake shoreline used for recreation.
38	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	28.1	51	1-50	This stand needs at least 10+ years before a harvest is considered. Any future treatments should leave more than 10 percent retention along the water including the entire peninsula at the north end of the stand. Also, if harvested the large white pine at the south end of the marsh area in the center of the stand should be marked out as a buffer and retention.
39	42120 - Planted Jack Pine	Sawtimber Well	50.0	64	81-110	The basal area in the jack pine is 30-80, and the basal area in the red pine is 140-220. The jack pine are in bad shape with many trees dead or windthrown. The red pine vary in DBH by pocket. The red oak are experiencing a lot of crown dieback. The red pine DBH is highly variable, averaging between 11 and 15 inches, depending on the pocket. This stand was planted in 1951. The red pine have 25 percent live crown on average.
45	4130 - Aspen	Poletimber Medium	21.6	52	51-80	There really nice and healthy white oak saplings in the 6-12 ft. range scattered in the understory. The aspen is in good health, especially the bigtooth.
48	4123 - Red Oak	Sawtimber Poor	7.2	99	1-50	This an open stand that is beneficial to wildlife.
49	4131 - Aspen, Oak	Poletimber Well	42.2	47	1-50	The aspen varies somewhat in size throughout this stand. Overall it is small aspen pole timber that should not be harvested this YOY.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
51	42260 - Natural Pine, Mixed Deciduous	Sawtimber Medium	2.5	58	81-110	There are many large red pine, white pine, and red oak present. A large 19" white pine cored at an age of 94.
53	4311 - Pine, Aspen Mix	Sawtimber Poor	49.7	51	1-50	The 18" plus red pine are likely about 150 years old based on data collected from adjacent stands. The jack pine are growing really well in this stand so it should be restarted with a goal of giving it a better stocking. This stand was harvested in 1964, giving it an age of 51. Coring trees verifies this age.
56	4310 - Pine, Oak Mix	Sawtimber Medium	4.6	42	81-110	
58	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Poor	16.2	94	1-50	There is lots of camping that takes place in this stand. People camp with horses in this stand. This stand has low timber volume and is more valuable for its scenic and recreational qualities. This stand borders Foch Lake making it an ideal location for campers.
59	42120 - Planted Jack Pine	Poletimber Medium	25.9	60	51-80	These planted jack pine are in real poor shape. Dead standing jack pine snags are present throughout. Large pockets of standing snags and windthrow are present in the southern fingers of the stand. The northern portion of the stand was likely naturally grown and these jack pine are doing well, although there is some scattered single tree mortality present.
61	4311 - Pine, Aspen Mix	Sawtimber Medium	11.8	48	1-50	This stand is the combination of a number of covertype inclusions. Along the northern edge there is a 1 acre patch of jack pine saplings. The northern portion of the stand is dominated by log and pole jack pine. The larger southern finger has a 1 acre patch of quaking and bigtooth aspen along its east side. There is a lowland pocket surrounded by pole to log white pine in the west narrow portion that connects the north to the south.
62	42110 - Planted Red Pine	Sawtimber Well	48.8	60	81-110	There was on average 25 percent crown in the narrow fingers and 33 percent in the palm and large finger to the north. A 11" DBH red pine in a finger cored at 59, so these fingers were most likely planted in 1955. The palm of the stand has an average diameter of 14" and was likely planted somewhat earlier. The BA varied from 50 to 210 and was very inconsistent throughout.
63	4130 - Aspen	Poletimber Well	20.0	51	81-110	The bigtooth aspen are mostly 6-10" in DBH. The red and white oak are highly variable in DBH.
65	4130 - Aspen	Sapling Well	46.0	15	1-50	There is 10-20 BA of residual oak remaining from the last harvest. The finger that was cut at the south end of the stand is covered with 70% witch hazel and 30% red maple. Aspen did not regenerate in this finger because of the lack of sunlight.
67	4130 - Aspen	Poletimber Well	30.0	36	1-50	There is a small pocket of log sized red pine to the southwest of the oil well. Red oak grown from stump sprouts and seed kept up with the aspen regeneration in low amounts throughout the stand. This stand has hills throughout that look to be too steep to harvest, but these hills have been harvested in the past so site conditions were not put on them.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
71	4130 - Aspen	Sapling Well	29.0	27	1-50	This stand was clear-cut in 1989. Coring gave one year older. There are some steep hills to the west that would normally look to steep to harvest but they were clear-cut last entry. This is almost a pole stand. These are moderately healthy aspen.
72	4130 - Aspen	Sawtimber Medium	40.7	60	51-80	This stand is dominated by aspen throughout, but the composition of other tree species varies throughout the stand.
74	4310 - Pine, Oak Mix	Sawtimber Medium	10.2	104	111-140	The south-central 2 acres of this stand looks like a red pine/white pine seed tree gone very well. According to the growth rings, approximately 75 years ago the large red pine were released.
75	6120 - Lowland Cedar	Sawtimber Well	47.4	105	141-170	There is a creek flowing through the center of this stand to the north from Town Line Lakes into Foch Lake. The creek is 4-5 ft. wide on average.
76	42220 - Natural Jack Pine	Sawtimber Poor	8.7	54	1-50	This stand is very open and has a lot of dead jack pine snags.
77	42110 - Planted Red Pine	Poletimber Well	23.7	29	81-110	The red pine vary from 4 to 9" DBH. The red pine look healthy for the area soils.
78	4133 - Aspen, Mixed Pine	Sawtimber Well	27.5	55	Unspecified	There is a 2.1 acre pocket of X-log sized white pine and red pine at the north end of the stand towards the east. There is a 1 acre pocket of X-log sized white pine, and red oak at the north end of the stand towards the west. There is a 1.6 acre inclusion pocket of sapling/pole quaking aspen along the east side of the stand.
79	4310 - Pine, Oak Mix	Sawtimber Well	50.1	98	81-110	This stand has two ages, older red pine and stunted red maple and aspen that grew in their partial shade. This stand was likely cut 78 years ago with advanced pine regeneration left standing that now makes the older age class.
80	4131 - Aspen, Oak	Sawtimber Well	7.0	84	81-110	There is a 1/2 acre inclusion pocket of northern white cedar, white pine and red pine on the west edge of the stand at the north end. Except for the east edge of the stand at the north end, this stand is too steep to harvest.
81	4131 - Aspen, Oak	Sawtimber Well	42.4	95	81-110	This is a mature aspen stand that is ready for harvest. At the southwest corner of the private property there is a likely gate trespass (the gate is a ways onto state land).
82	4130 - Aspen	Poletimber Well	139.8	39	51-80	There are mature red pine/white pine pockets scattered throughout. This stand needs another 10+ years before harvesting. The aspen are in average health. Scattered fast growing red oak are keeping up with the aspen. There is some inclusion areas at the southwest end of the stand that is more red oak/sugar maple dominated.
84	6120 - Lowland Cedar	Poletimber Well	3.8	106	141-170	This is a lowland cedar island in an aspen stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
85	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	49.1	84	81-110	The sugar maple are 2" to 14" DBH. The red oak are 11-16" DBH. The red oak and sugar maple are medium to high quality. This stand is not yet uneven aged. After a few more thinnings it should work its way to uneven aged. This stand will need one or two more thinnings to develop large crowned sugar maple and red oak seed trees. The east edge of the stand is dominated by poor to mid quality red oak.
87	42290 - Natural Mixed Pine	Sawtimber Poor	1.7	47	Unspecified	
88	4311 - Pine, Aspen Mix	Sawtimber Medium	5.5	56	51-80	This stand is the inclusion of two smaller stands. the central and east finger of the stand is aspen dominated.
89	4310 - Pine, Oak Mix	Sawtimber Medium	16.4	71	51-80	The oak regeneration is highly browsed, keeping it under 5 ft. Planting records indicate that this stand was planted in 1938, but coring shows that they were planted in approximately 1944. On average the red pine have 33% live crown, and they have 3 logs before they are full of limbs. They have been relatively open grown for planted red pine so they are shorter with large DBH's for their age. A 15" DBH red pine put on 2" of diameter growth over the last ten years.
90	42120 - Planted Jack Pine	Sapling Poor	16.2	11	Immature	
91	42110 - Planted Red Pine	Sawtimber Poor	18.0	67	51-80	This stand is actually 3 aged. There is an age class of red pine that is 6-8" in DBH and 34 years old, there is an age class of red pine that is 14" in DBH and 67 years old, and there is an age class of red pine that is 18-22" in DBH and 142 years old. The 34 and 142 year old red pine are likely natural and the 67 year old red pine are likely planted. In 2001 all species except red pine were harvested. The aspen regeneration is mainly in the southern half of the stand.
93	4310 - Pine, Oak Mix	Sawtimber Well	12.6	102	81-110	This stand has varying aged trees throughout. It has some red pine around 8" in DBH in pockets that are 54 years old and were likely regen from a harvest in 1961. This stand likely saw a couple thinnings of some type that all left the oak and pine and even some of the aspen. A 13" DBH bigtooth aspen cored at 111 years old.
94	4193 - Birch, Aspen	Sawtimber Medium	4.1	117	81-110	This stand is isolated by surrounding lowlands.
96	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	12.5	86	1-50	A 6 in. DBH black spruce was cored. The age of this black spruce is just a close estimate due to close rings being difficult to count.
97	6122 - Black Spruce	Sapling Medium	2.4	27	Immature	
100	4130 - Aspen	Sawtimber Medium	4.3	37	1-50	The red pine regeneration is to the south and the white pine to the north. The canopy is 25-50% coverage in the north and 50-75% coverage in the south.

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Atlanta Mgt. Unit

Report 8 – Forested Stands

Compartment: 59
Year of Entry: 2017



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
101	4131 - Aspen, Oak	Poletimber Well	95.7	55	1-50	There is a 1/2 acre patch of red pine in the northeast portion with 2-red pine that are about 22 inches in DBH. Judging from nearby stands these 2-red pine are about 150 years old and are worth retaining at the next harvest. Few white oak are present in the southern quarter of this stand.
102	4130 - Aspen	Sapling Well	5.6	8	Immature	This is a pocket of the clear-cut to the west that was not trenched and planted to red pine.



Stand	Cover Type	Acres	Managed Site	General Comments:
4	3102 - Grass	1.0	No	No oil well present
6	122 - Road/Parking Lot	1.4	No	
11	3102 - Grass	14.8		This stand was clear-cut in 2007. Cutting down a sapling revealed that it was 7-8 years of age.
14	6233 - Wet Meadow	7.3	No	There is a 0.5 acre lowland coniferous pocket in the center of the stand that is dominated by sapling tamarack.
16	330 - Low-Density Trees	12.3	No	Short 12' shrub like jack pine cover about 15 percent of the stand.
17	6233 - Wet Meadow	1.7	No	
21	500 - Water	1.6	No	This is a pond with a stream flowing out of it to the north. The stream flows northward and it is 5 ft. wide and 6 in. deep.
24	3102 - Grass	3.9	No	This is a grass opening with scattered jack pine seedlings.
30	3209 - Upland Shrub (OI)	12.3	No	Black cherry is covering more than 25 percent of the stand, but it is definitely functioning as upland shrub. The black cherry is covering 70% (3-10'), and jack pine 4% (10-15'). Trace amounts of red oak, red pine, white pine, and bigtooth all about 10-15 are feet present.
37	500 - Water	58.5	No	Foch Lake is currently being drained to fix the water damn level mechanism.
40	330 - Low-Density Trees	5.1	No	Where there are trees they are mostly pole sized jack pine with a few scattered red oak and aspen.
41	62399 - Marsh (OI)	21.5	No	The stand has a continuous layer of grass with a continuous layer of moss growing underneath the grass. There are trace amounts of sapling white pine, tamarack, and black spruce present. A narrow creek flows out of Foch Lake through this stand.
42	3102 - Grass	4.1	No	The pin/black cherry are being treated as shrub. Red and white oak are scattered making about 10% canopy.
43	3102 - Grass	1.4	No	There is a oil refinery building present along with some lesser buildings.
46	3102 - Grass	7.0	No	This looks like and is most likely an old airplane runway.
47	3102 - Grass	1.2	No	There is an oil well present.



Stand	Cover Type	Acres	Managed Site	General Comments:
50	310 - Herbaceous Openland	1.0	No	This is an oil well pad.
52	122 - Road/Parking Lot	25.6	No	
54	62399 - Marsh (OI)	3.1	No	
55	6225 - Bog	0.9	No	This is mostly covered by typical bog scrub shrub with grass or sedge growing underneath throughout.
57	330 - Low-Density Trees	36.6	No	This is a borderline upland shrub or grass stand. Most black cherry is being treated as a shrub. Scattered black cheery, jack pine, white oak, and quaking aspen are present. About 10% trees 4" in DBH or better are present. About 30% upland shrub is present. About 100% grass coverage is present.
60	330 - Low-Density Trees	8.6	No	Large and scattered white oak, red oak, and jack pine are present. Patches of sapling jack pine are also dispersed throughout.
64	310 - Herbaceous Openland	0.9	No	This is an oil well pad.
66	310 - Herbaceous Openland	1.9	No	There is no oil well present.
68	3102 - Grass	0.8	No	This is an oil well pad.
69	330 - Low-Density Trees	5.5	No	Scattered white pine, quaking aspen, red maple, red pine bigtooth aspen, and witch hazel present.
70	310 - Herbaceous Openland	1.4	No	This is an oil well pad.
73	31029 - Grass (OI)	1.3	No	This is an oil well pad.
83	3102 - Grass	0.8	No	This is an oil well pad.
86	6233 - Wet Meadow	2.4	No	
92	3102 - Grass	2.4	No	There is no oil well here.
95	500 - Water	5.5	No	
98	6233 - Wet Meadow	2.1	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
99	6230 - Cattail	1.0	No	One-third of the stand is an island in the center holding trees.
104	330 - Low-Density Trees	1.0	No	
106	330 - Low-Density Trees	3.7	No	There are scattered jack pine, black cherry, and white oak present.