



Compartment Review Presentation

Atlanta Forest Management Unit

Compartment 54170

Entry Year 2018

Acreage: 1,532

County Cheboygan

Management Area: Hammond Bay Lake Plain

Revision Date: 2016-06-03

Stand Examiner: John St. Pierre

Legal Description:

T37N, R01E, Sections: 4,9,10,15 & 16

Identified Planning Goals:

Within the Hammond Bay Lake Plain management area, 10-year harvest projections indicate that red pine, upland/lowland aspen, lowland mixed and lowland deciduous cover types will be the primary focus for treatments (mainly final, some partial harvests). Management will strive to balance cover type age classes, produce sustainable forest products, enhance non-game and game wildlife habitat, protect areas of unique character and provide for forest-based recreational uses.

Soil and topography:

Land Type Associations (LTAs) within this compartment are dominated by "peat" and "muck" soils (nearly 90% when combined). Tawas peat (~55%) is by far the most prevalent soil type. Other miscellaneous peat and muck soils account for the balance. This is fitting given the dominance of lowland conditions throughout the compartment. The few upland areas present feature Finch cobble, Rubicon, Au Gres, Battlefield, Bruce and Crowell sands. Topography is generally flat with areas of slight undulation.

Classifiable Kotar habitat types account for ~65-acres of the 1520 total acres within this compartment. These 65-acres are almost equally split between PARVVb, PARVCo and PARVHa habitat types. These Kotar habitat types lend themselves to succession toward White/Red Pine, Red Maple, Red Oak, Sugar Maple, and American Beech forests.

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

Compartment 170 is exclusively bordered by private-land interfaces along its north, east and western extremities. A privately owned eighty-acre parcel and Atlanta compartments 172 & 173 are found along the southern boundary. Of note, "Michigan Cranberry Co", a cranberry producing bog/farm, is located along the western boundary of C170 in Sections 9&16.

Unique Natural Features:

Known plant and animal occurrences have been documented by Michigan Natural Features Inventory (MNFI) in and around compartment 170. The southwest portion of the compartment (Sec.16) contains an MNFI "plant community" hit for a scrub bog complex and documented bayonet rush. A 2011 MNFI survey highlighted the unique features of the scrub bog (most of which occurs in C172). The bayonet rush observation dates back to a survey conducted in 1982.

Some of the unique animal occurrences found within this compartment are located in the "locked OFS" layer. There is strong potential for a multitude of unique animal species (terrestrial, aerial, and aquatically based) to inhabit the generally undisturbed contiguity of this compartment. The same is true for both individual plant species and plant communities.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

General forest health concerns and issues are present but not prevalent within compartment 170. Beech Bark Disease (BBD), Emerald Ash Borer (EAB), and White Trunk Rot are present yet the cover types they affect are limited (beech & ash), and/or haven't yet begun to affect their host (trunk rot-aspen). Spruce Bud Worm (SBW) was not observed within the limited component of healthy balsam fir present. Eastern Hemlock is present in clumps and as scattered individuals throughout the compartment. Hemlock Woolly-Adelgid (HWA) was not observed during inventory.

Non-native/invasive flora was not observed during the inventory process. It should be noted that inventory for this compartment was primarily conducted during the mid-winter months with one-plus foot of snow on the ground. These conditions weren't conducive to identifying all potential forest health issues and invasive flora that may/may not be present.

Watershed and Fisheries Considerations:

Lake Sixteen is a shallow body of open water found in section 16 (its name sake). Both compartment 170 and privately held property share shoreline frontage with this lake. Reaching the open water portion of Lake Sixteen is possible but difficult (from State Land) because of the inundated lowland tree/shrub bog complex that surrounds it.

Vernal pool & pool complexes were observed and delineated during the inventory process. Vernal pools that exist within proposed treatment areas will be protected using buffer guidance provided by the "Best Management Practices" (BMPs) manual. Seasonal and permanent water courses, depressions, lowland complexes and other related landforms are present, if not prolific, throughout this compartment. Appropriate protection specifications will be implemented if these areas are proposed for treatment. Individual attributes of the occurrences noted above can be viewed in the "comments" portion for each stand.

Wildlife Habitat Considerations:

As previously mentioned, compartment 170 provides a relatively contiguous block of forested (and non-forested) acreage that hasn't been fragmented by recent/past management practices. Inaccessibility of vehicular traffic into interior locations has assisted as well. The contiguity and advancing successional structure is prompting inhabitation of animal species whom require such conditions (bear, bobcat, raptors, hare, pileated woodpecker, etc.). It is this examiners opinion that these conditions be maintained because of their increasing rarity across the landscape.

However, the promotion of typical game species is being taken into account as well. Regeneration harvests are proposed in the northern block of this compartment (sec.4&9). These treatments will provide young successional forests and should benefit deer, grouse, woodcock, turkey and other wildlife species. Snowshoe hare structure (rabbitat) and grouse drumming log creation will be implemented during harvest activities.

Mineral Resource and Development Concerns and/or Restrictions

No known mineral resources, development concerns, or restrictions.

Vehicle Access:

Aside from Rail Road Grade Rd along the northern boundary and Lake Sixteen Rd in the southwestern portion, access into interior portions of this compartment is very limited. Lowland dominance within the compartment has negated usable road establishment over the years. Some illegal ORV usage was observed in Sections 4&9 (stemming from private land to west). Yet even ORV's have little freedom to roam because of the difficult travel conditions.

Survey Needs:

Survey work would be appropriate for portions of Sections 9 & 16. No treatments are proposed in these areas, yet it would be very helpful to identify exact boundaries of State and Private ownership here. The remaining extremities have been surveyed quite thoroughly (corners are abundant).

Recreational Facilities and Opportunities:

There are no designated recreational trails or facilities within compartment 170. Foot or snowshoe travel is the only mode of transportation after departing Rail Road Grade and/or Lake Sixteen Rd's (neither is plowed during winter). Several locations used for hunting purposes were observed during inventory. Meandering is an option for the public but would entail generally difficult travel conditions (when on foot).

Fire Protection:

Although the probability of occurrence is low within this compartment, wildland fire protection is provided locally by Alverno VFD, Onaway DNR, Atlanta DNR and Indian River DNR. If necessary, additional support could be provided by surrounding VFD's and DNR field offices. Vehicle access would be limited to Rail Road Grade and/or Lake Sixteen Rd's. The primary watering location would be Lake Sixteen.

Additional Compartment Information:

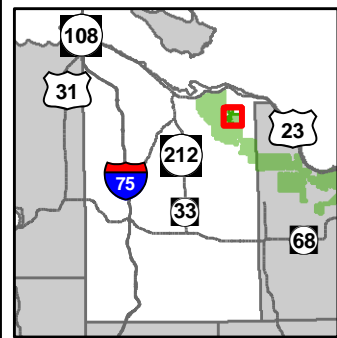
The following reports from the Inventory are attached:

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

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

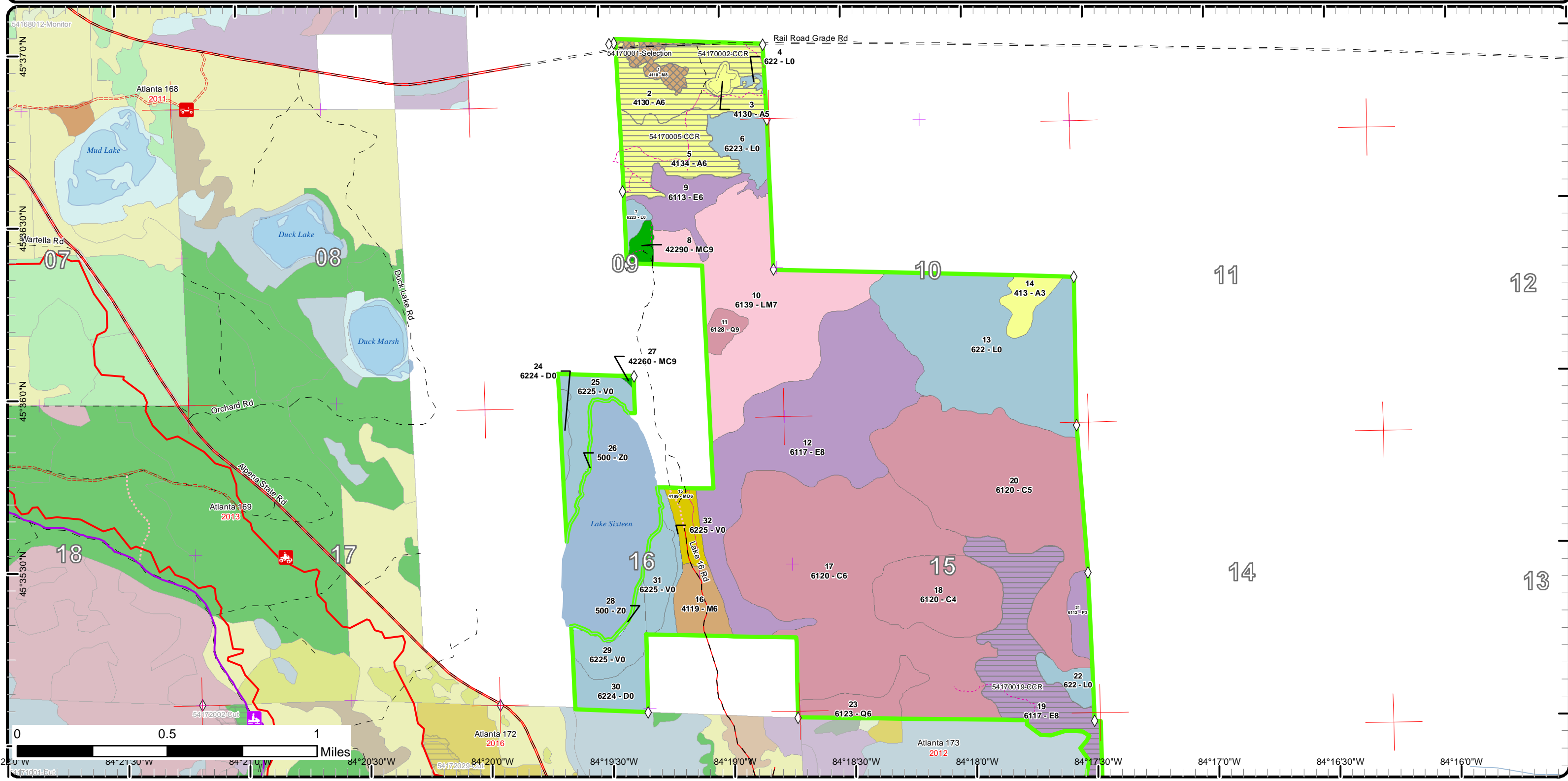
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map



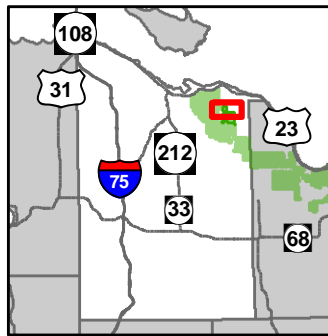
Compartment: 170
 T37N, R01E, Sec: 4, 9, 10, 15, 16
 County: Cheboygan
 Unit: Atlanta
 Mgmt Area: Hammond Bay Lake Plain
 YOE: 2018
 Acres: 1,532 GIS Calculated
 Examiner: John St. Pierre
 Map Revised: 10/6/2016
 Map Phase: Post Review

- Miris Corners
 - + Remonumented Section Corners
 - ◇ Field Grade GPS Corners
 - Designated ATV Trails
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - - - Trail (Non-Recreation)
 - - - Closed Roads
 - Rivers
 - Compartment Boundary
 - Selection (Group, Single Tree)
 - Clearcut (w/Reserves)
- 411 - Northern Hardwood
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 422 - Natural Pines
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
 - 500 - Water
 - 622 - Lowland Shrub
 - Lakes

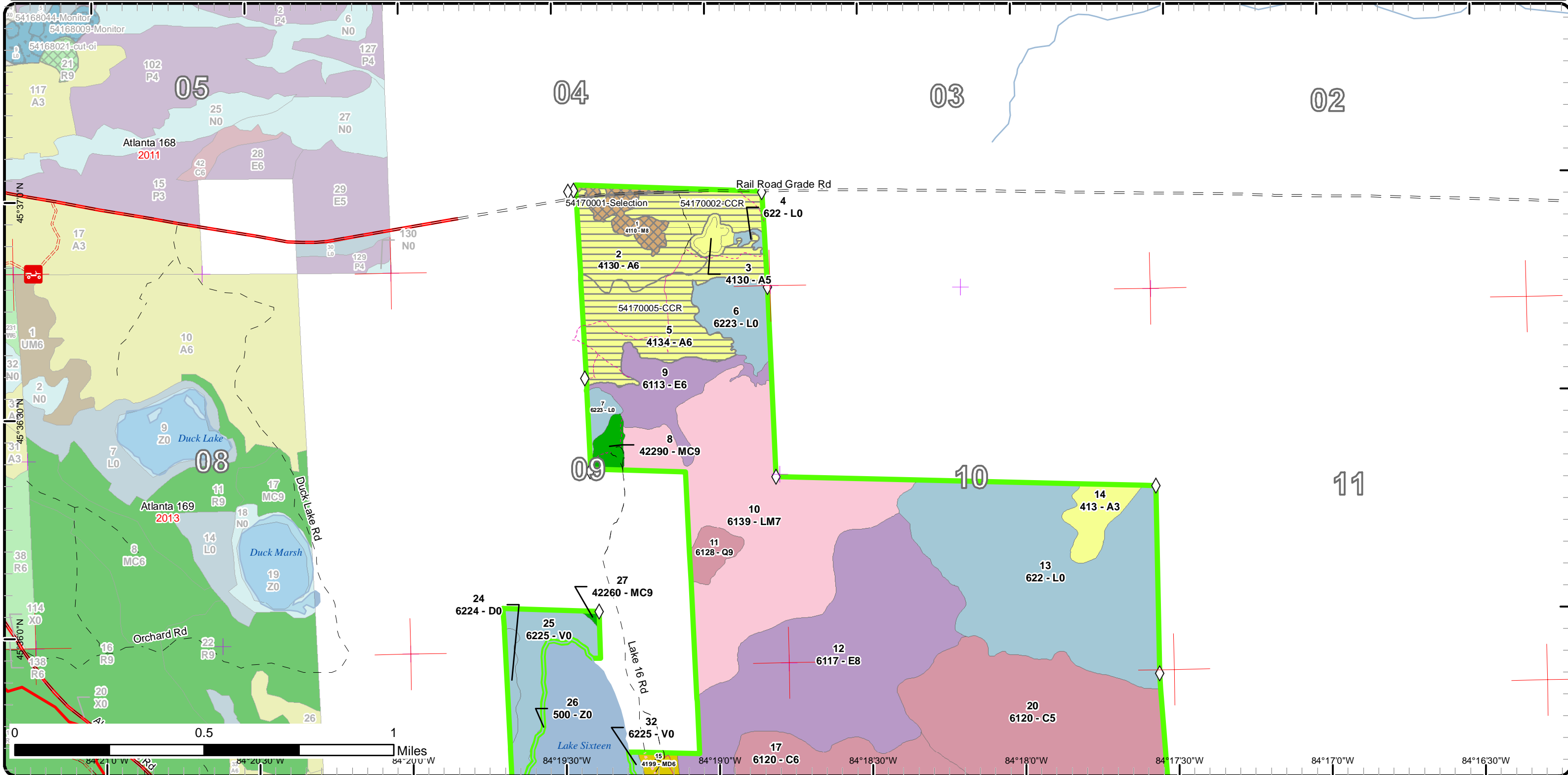


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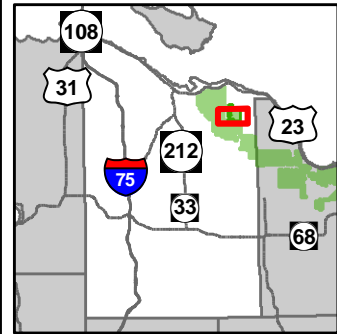
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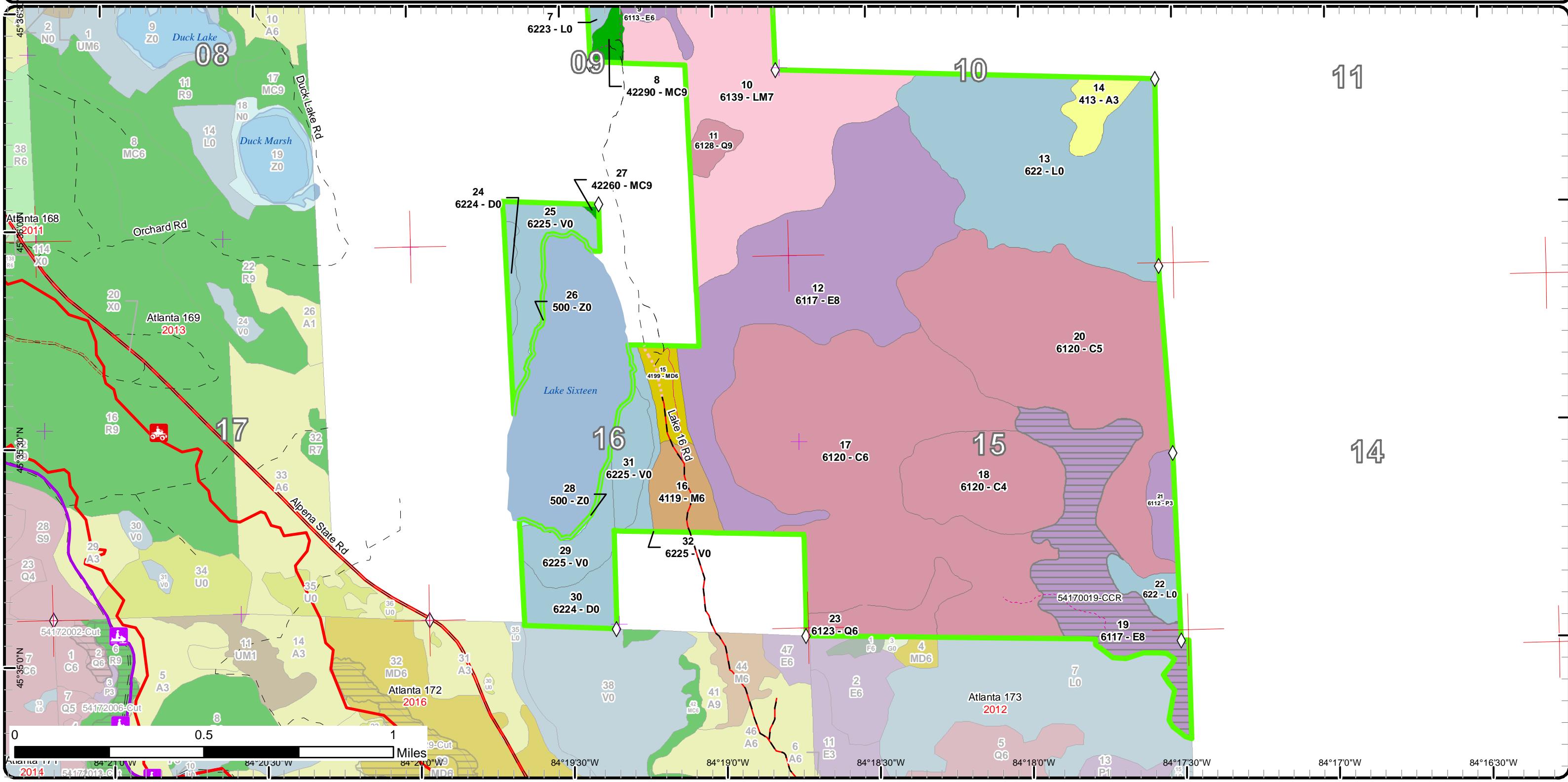


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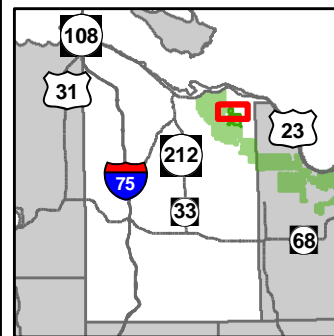
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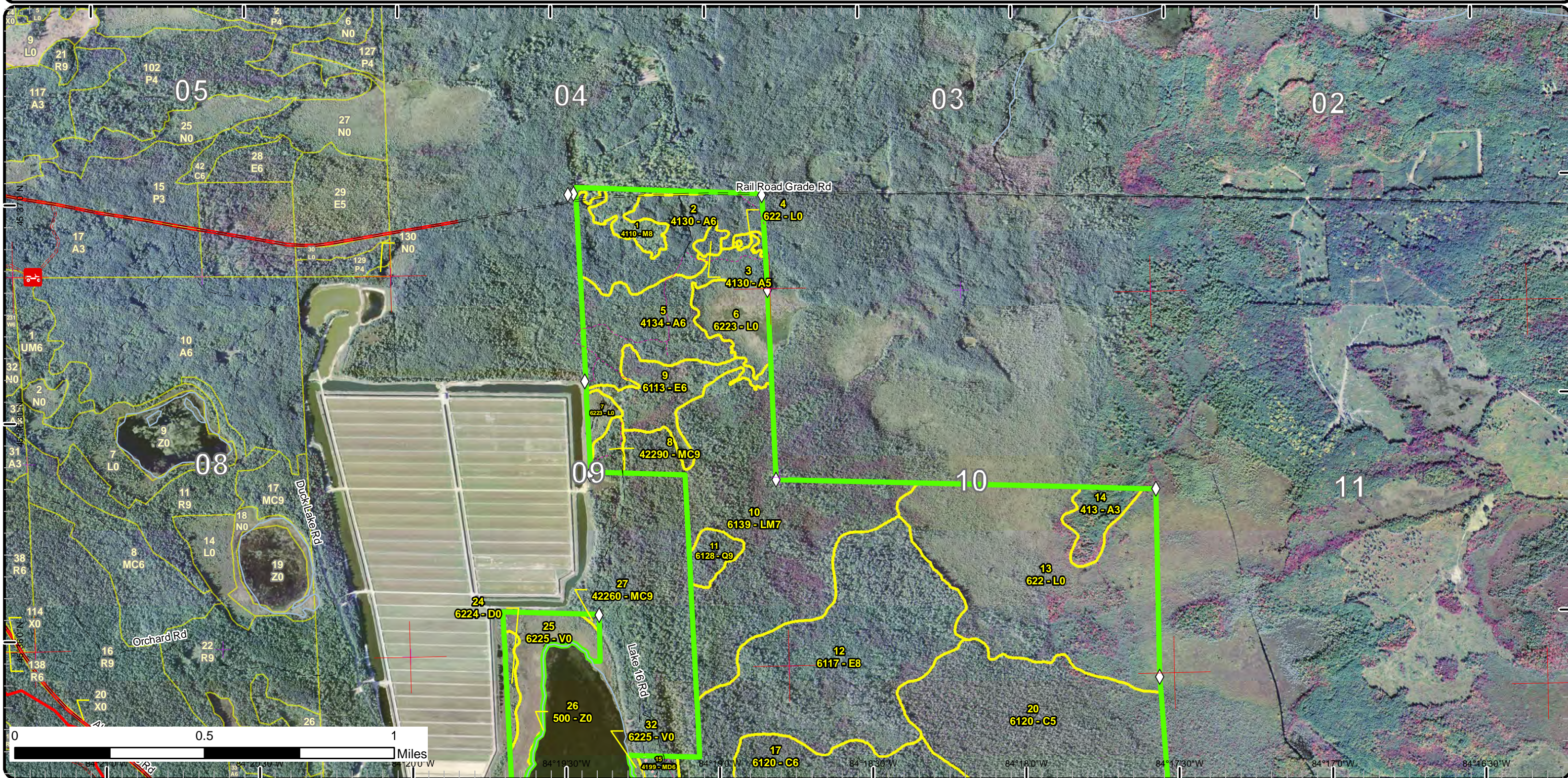


Stand Boundary Map

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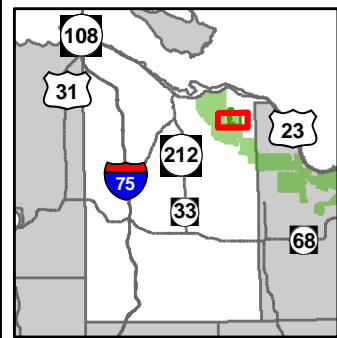


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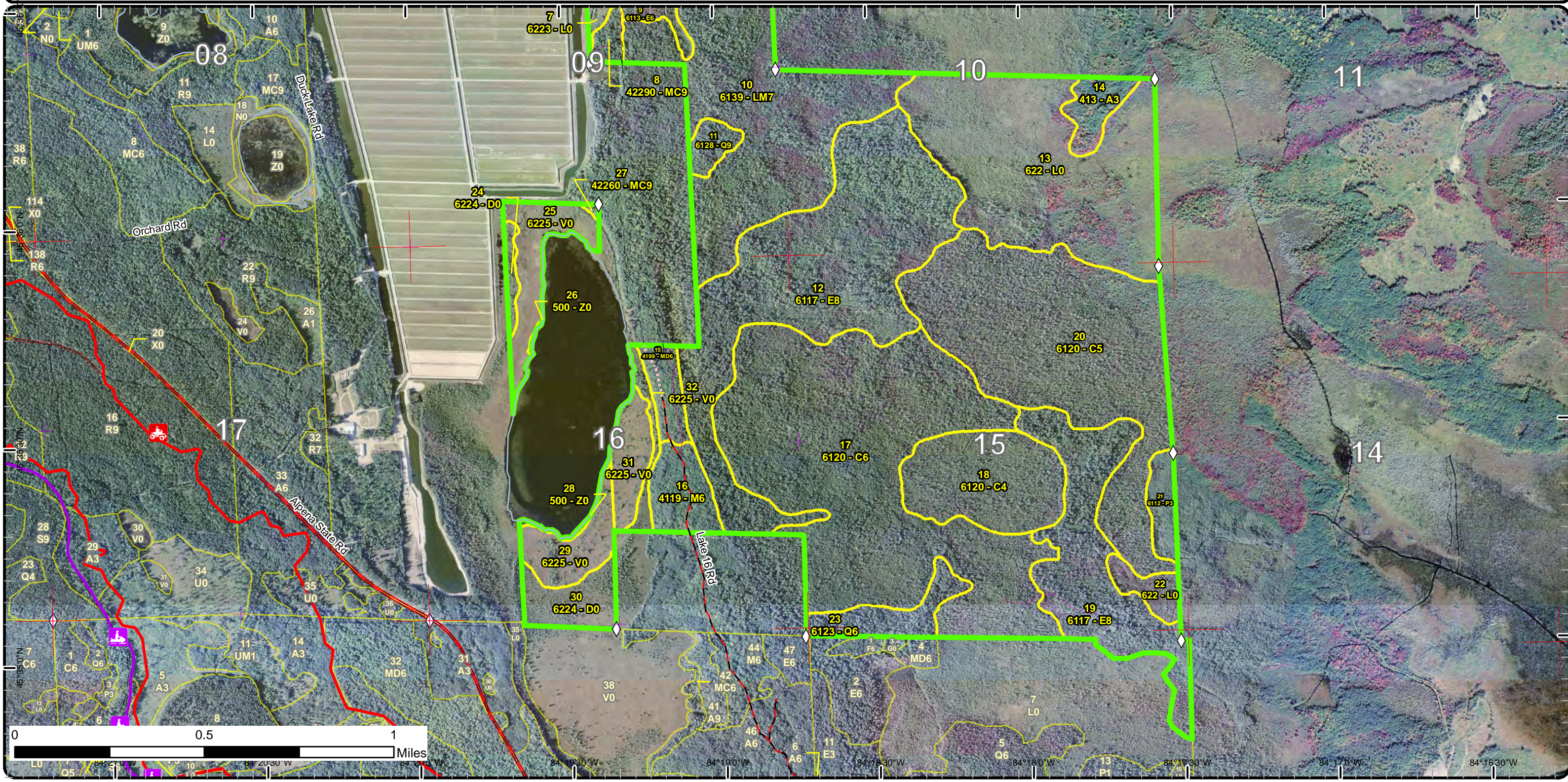


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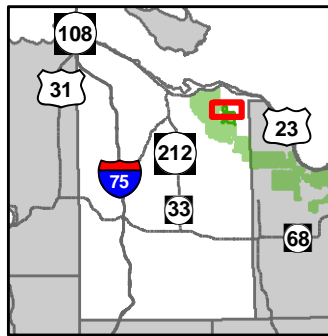


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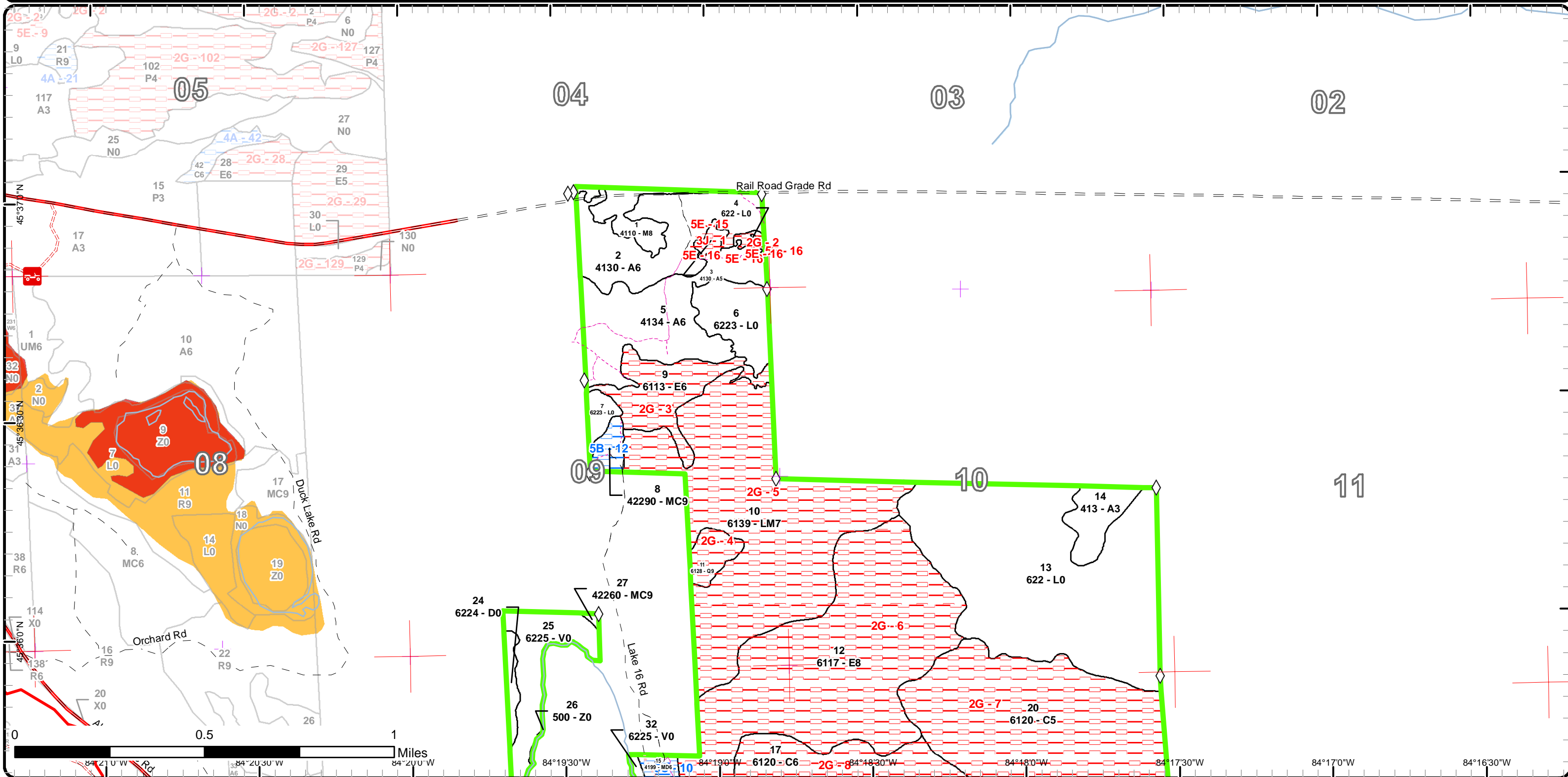


Special Conservation Areas & Site Conditions Map

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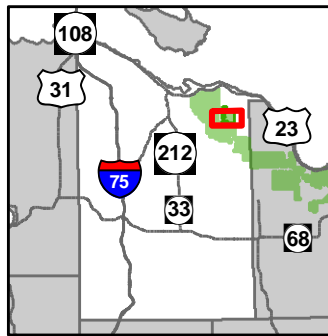


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- Available w/ Constraints
- - - Unavailable
- - - 5B: Maintain for regeneration purposes
- - - 5C: Delay treatment for age/size class diversity or exceptional site quality
- - - 2G: Too wet (sensitive soils, does not include access issues)
- - - 3J: Water quality / BMPs (stream, river, or lake)
- - - 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Cold Water Streams
- Non-Dedicated Natural Areas and National Natural Landmarks

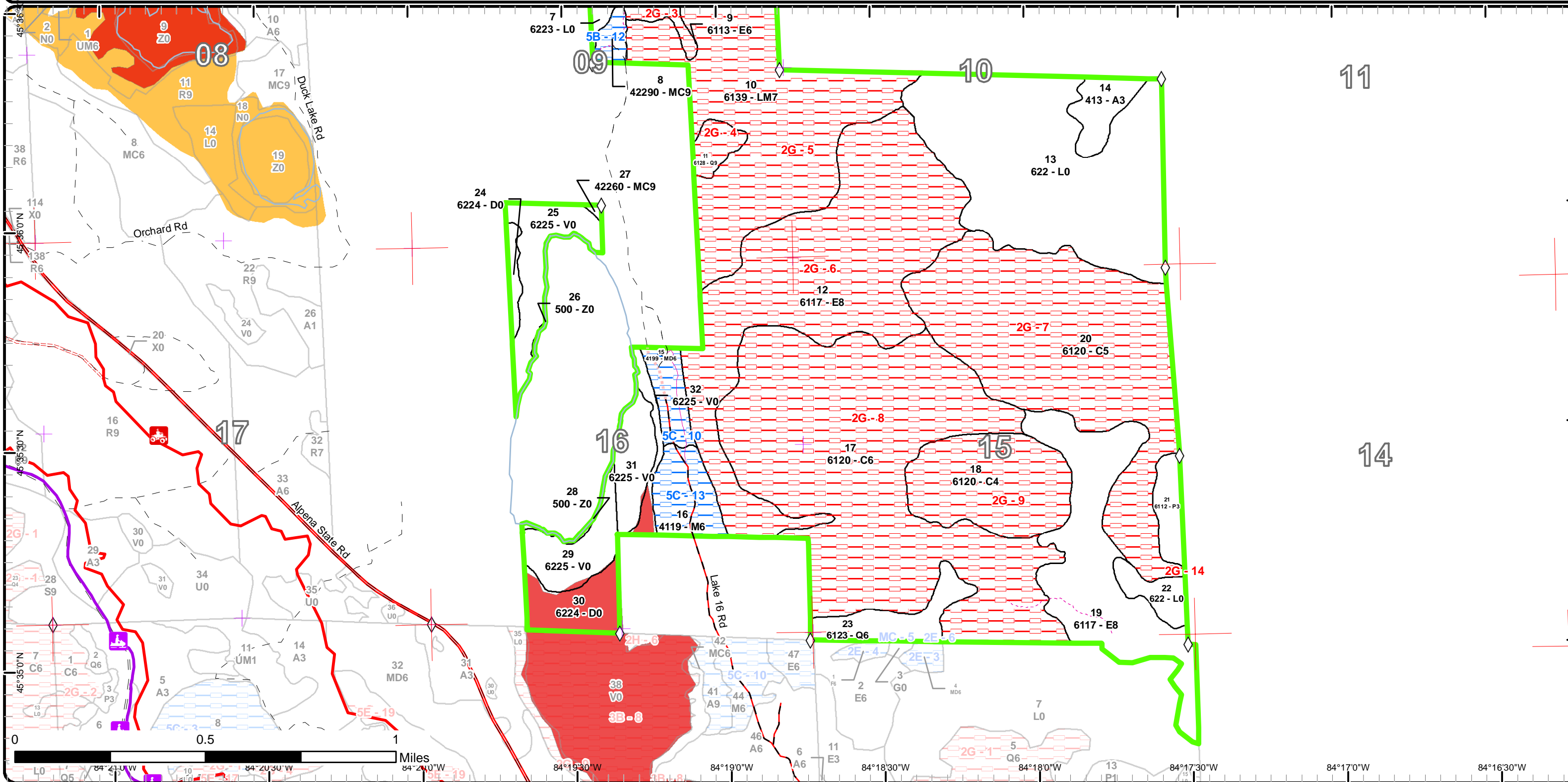


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Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	0	15	50	60	0	0	0	0	0	0	0	0	0	0	0	0	125
Bog	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
Cedar	0	0	0	0	0	0	0	0	0	0	253	0	277	0	0	0	0	0	529
Lowland Aspen/Balsam Poplar	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Lowland Conifers	0	0	0	0	0	0	0	22	0	0	9	0	0	0	0	0	0	0	31
Lowland Deciduous	0	0	0	0	0	30	0	0	88	192	0	0	0	0	0	0	0	0	310
Lowland Mixed Forest	0	0	0	0	0	0	0	0	160	0	0	0	0	0	0	0	0	0	160
Lowland Shrub	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	14
Natural Mixed Pines	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
Northern Hardwood	0	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	0	0	36
Treed Bog	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	311	0	0	27	50	90	0	0	29	298	192	262	0	277	0	0	0	0	1535



Report 2 – Treatment Summary

Atlanta Mgt. Unit

Year of Entry: 2018

Acres of Harvest

Compartment 170
Total Compartment Acres: 1,532

Commercial Harvest - 204
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	Oversory Removal	Salvage	Other	Total Acres
Aspen	103	0	0	0	0	0	0	0	0	103
Lowland Deciduous	88	0	0	0	0	0	0	0	0	88
Northern Hardwood	0	13	0	0	0	0	0	0	0	13
Total	191	13	0	0	0	0	0	0	0	204

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	204	0	0	0	0	0	0	0	0	204
Next Step	0	0	0	0	0	0	204	0	0	204
Total	204	0	0	0	0	0	204	0	0	407



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
1	54170001- Selection	12.6	4110 - Sugar Maple Association	Sawtimber Medium	82	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Two-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Single Tree Selection. Thin to 70 BA.

- Specs:
- Marking will include a mix of High & Low thin methods (SM poles abundant)
 - Marking larger DBH classes should help release pole timber (mainly SM)
 - Include 100ft+ canopy gaps when able
 - No need for ash/beech salvage. Ash/beech that go unmarked will create snag material and valuable CWD/DDW .

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Regen survey during next inventory cycle. Acceptable regen includes a mixture of sugar maple and basswood. Heavy beech, ash, and/or ironwood regen is not acceptable.

Other - East & West PVT line corners located

Comment: - Package Sale with Stands 2 & 5

Proposed Start Date: 10/01/2017

2	54170002- CCR	47.2	4130 - Aspen	Poletimber Well	39	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut w/Retention. Use 2" spec.

- Specs:
- Follow retention guidelines leaving 3-10%
 - Place a 50ft buffer around vernal pool (Std3). Treatment layer reflects buffer and counts toward retention goal.
 - Exclude/protect additional v.pools if found during prep
 - Leave 1 linear (not round) brush pile every 1-2 acres (rabbitat) and include grouse spec
 - Require producer to berm any/all skid/haul trails

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Regen survey during next inventory cycle. Acceptable regen includes a mixture of aspen, red maple, fir and paper birch.

Regen:

Other - West, North, and East PVT Line corners located. West & East PVT boundaries have fence posts, and/or fence + wire, are brushed, and appeared true. Verify during prep.

Comment:

- Minor low/wet/soft areas observed during inventory
- Package Sale with Stands 1 & 5

Proposed Start Date: 10/01/2017

5	54170005- CCR	56.1	4134 - Aspen, Spruce/Fir	Poletimber Well	46	81-110	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut w/Retention. Use 2" spec.

- Specs:
- Follow retention guidelines leaving 3-10%
 - Consider excluding southwest corner as retention. Features the few larger pine and species representative of parent stand.
 - If above spec isn't performed, leave the few pine present for structural/species diversity
 - Place a 50ft buffer around vernal pool (Std3). Treatment layer reflects buffer and counts toward retention goal.
 - Exclude/protect additional v.pools if found during prep
 - Leave 1 linear (not round) brush pile every 1-2 acres (rabbitat) and include grouse spec
 - Require producer to berm any/all skid/haul trails. This includes PVT illegally accessing State on west boundary.
 - Harvest during dry summer or frozen winter months (southern areas lowest/wettest)

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Regen survey during next inventory cycle. Acceptable regen includes a mixture of aspen, fir, red maple and paper birch.

Regen:

Other - West and East PVT Line corners located. West & East PVT boundaries have fence posts, and/or fence + wire, are brushed, and appeared true.

Comment:

- Verify during prep.
- Package Sale with Stands 1 & 2

Proposed Start Date: 10/01/2017



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
19	54170019-CCR	87.6	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	85	111-140	Harvest	Clearcut with Retention	6117 - Lowland Deciduous, Mixed Coniferous	Even-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Clearcut w/Retention. Use 2" spec.

- Specs:
- Follow retention guidelines leaving 3-10%
 - Establish multiple retention islands. Focus some retention around clumps of pine/hemlock.
 - Leave the very few Pine & Hemlock
 - Leave 1 linear (not round) brush pile every 1-2 acres (rabbitat) and include grouse spec
 - Harvest during VERY DRY Summer or FROZEN Winter months

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Regen: Regen survey during next inventory cycle. Acceptable regen includes a mixture of red maple, aspen, paper birch, fir and spruce.

- Other Comment:
- Access to Stand 19 has been identified and granted through "Grand Rack Hunt Club" property. Work closely with the "Grand Rack H.C." biologist prior to/during harvest.
 - Flag/Protect the located "Porter Survey" corner in the treat area that's also near the proposed haul route.
 - Stand 10, formerly part of ATLC173, has been lumped into this treatment as well (~13ac).

Proposed Start Date: 10/01/2017

Total Treatment Acreage Proposed: 203.5

Report 4 – Site Conditions

Atlanta Mgt. Unit
John St. Pierre : Examiner

Compartment: 170
Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions								
		With Condition	Not Available		2E	5B	5C	MC	2G	3B	3J	5E	
124	118	0	5	Aspen								3	3
79	79	0	0	Bog									
529	0	0	529	Cedar					529				
12	12	0	0	Lowland Aspen/Balsam Poplar									
30	19	3	9	Lowland Conifers	1			1	9				
309	88	0	222	Lowland Deciduous					222				
160	0	0	160	Lowland Mixed Forest					160				
204	202	0	2	Lowland Shrub					2				
14	0	14	0	Mixed Upland Deciduous			14						
7	1	6	0	Natural Mixed Pines		6							
36	13	23	0	Northern Hardwood			23						
26	26	0	0	Treed Bog						0			
2	2	0	0	Water									
1,532	560	46	927	Total Forested Acres	1	6	37	1	922	0	3	3	
	37%	3%	60%	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	3J: Water quality / BMPs (stream, river, or lake)	3	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Appears to be a small vernal pool complex or at least an intermittently saturated depression. Follow BMP guidelines and place a 100ft and/or one (mature) tree length buffer around this vernal pool/depression during any harvesting activities.</p>							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
<p>Comments: Low, soft ground populated primarily with non-merchantable "low ground" type species.</p>							

Report 4 – Site Conditions

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3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	30	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Quite low and is serving as a water/intermittent stream course generally flowing east/northeast.							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	161	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	192	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	190	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	277	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	63	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Exceptionally diverse species composition. Primarily a pole dominated stand (log sizes are present) that is beginning to transition to smaller log size overall. Bear sign is present throughout.							
12	Available	5B: Maintain for regeneration purposes	6	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Comments: Small stand size and succession is maintaining the strong pine component.							
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Exceptional bear habitat with sign present and prolific on most beech present within this stand. Primarily a pole dominated stand (log sizes are prevalent) that is beginning to transition to smaller log size overall. Hold until next entry cycle and/or consider treating with surrounding ATLC172/173 sales when they're created. It would make more sense to treat all future sales east of the large bog complex (using Lake 16 rd.) at the same time.							
14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

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15	Unavailable	5E: Long-Term Retention	2	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Fifty-foot vernal pool protection buffer around Stand 3. This will count towards 3-10% area retention for the harvest occurring in Stand 2.							
16	Unavailable	5E: Long-Term Retention	1	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Fifty-foot vernal pool protection buffer around Stand 3. This will count towards 3-10% area retention for the harvest occurring in Stand 5.							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
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	4110 - Sugar Maple Association	Sawtimber Medium	12.9	82	111-140	Overall quality of overstory species was average/~above average (examples along Railroad Grade rd. don't represent interior of stand). This isn't very common given C170's location in Cheboy Co. Most SM is larger pole sized with log examples throughout as well. Again, of decent/better quality than most NHD in this region. Basswood is of decent/good quality and is the true log sized specie present. Some beech and white ash were present. Light/medium scale on beech and ash was still alive but flecking was observed. Appears the slightly above average quality of this stand was apparent to those (Abitibi) who clearcut everything else in the area in the past. This stand provides a bit of structural, species, and age class diversity for this area of Cheboygan Co (something other than ~40yr old aspen).
2	4130 - Aspen	Poletimber Well	49.7	39	111-140	Aspen dominated stand. Most locations were very much pole dominated, while others featured more log sized aspen. Balsam fir prominence increases along the stands southern boundary (lower ground). Large majority was upland yet a few locations were soft/appeared seasonally wet. Snowshoe hare observed (nearly stepped on multiply times) while conducting inventory. CO (Theunick) requested berming access to the old logging trail being used illegally by ORV/Trucks if a treatment occurs.
3	4130 - Aspen	Poletimber Medium	2.8	41	81-110	Has the appearance of a small vernal pool complex or at least a seasonally wet depression. Was dry when visited on 12/7/15 yet very obvious that it holds water during wetter seasons. '98 DOQ I.R. imagery clearly shows the "low" characteristics. Canopy closure is on higher end of 50-75% and has a higher prominence of QA (than Std.2). Understory is less dense as well, likely because of standing water during wet season(s). Re-Visited on 5/6/16 and was holding water. Delineated using GPS and added as reference line. Buffer using avg. tree length of parent stand (~50ft).
5	4134 - Aspen, Spruce/Fir	Poletimber Well	56.6	46	81-110	Had a difficult time deciding whether Low w/Up of Up w/Low. At time of exam ~2/3's of stand appeared upland. Overall species composition suggests lowland type tendencies (BF, QA, BlkAsh, etc). Most areas are mainly up and low begins as you move into southern portions. Low and soft areas throughout though. QA/BF tend to dominate overstory w/strong presence of RM as well. Southwest corner near PVT has a few open grown/nearing S.Canopy WP and even fewer similar examples of RP. Trace amount of pole R.O. there as well. Sign of beaver activity in southern/wet areas. Observed/nearly stepped on snowshoe hare several times during inventory. Brushed fence+wire along west PVT/State bound and brushed line with posts on east PVT/State bound (Grand Rack Club). Corners located and brushed fence lines appeared true.
8	42290 - Natural Mixed Pine	Sawtimber Well	6.2	78	111-140	Natural upland mixed stand with a strong RP component. Looks to be of fire origin as charred stumps and scarred living trees were observed. Understory isn't heavy yet mainly dominated by conifer (WP, BF, and some Blk Spruce) with components of deciduous (RM, Beech, RO). Aspen and PB components are nearing the end of their cycle. Deciduous removal harvest didn't/hasn't disrupted the succession of this stand, which is increasingly rare.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
9	6113 - Lowland Maple	Poletimber Well	30.3	40	51-80	Primarily a forested lowland water course. Pole size deciduous prevails w/areas heavier to log sizes and other areas heavier to sap sizes. RM and Balsam Pop account for most log sizes, when they occur. Observed several small but flowing streams running E/NE into Stand 6. This stand may not be saturated year round yet the ground appears to remain soft regardless of water levels. North finger isn't quite as wet and pole (with some log) sized QA increases there as well.
10	6139 - Mixed Lowland Forest	Sawtimber Poor	160.3	86	81-110	Northern 1/2: Widely variable and wet/soft. A true lowland mix of species (decid/conifer), size classes, and canopy closures present. The primary composition observed were islands of log sized species in between islands of sap/pole sized species. I'd say log sizes primarily dominate yet not enough to call canopy closure 75-100%. I think the higher end of 25-50% is more realistic. Pockets of mostly pure log sized cedar were observed. Access is limited and not easy to travel through on foot. Didn't get to see as much of southern 1/2 as I would've liked.
11	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	8.8	107	171-200	A unique stand to stumble upon! West 1/2 is nearly pure hemlock (1st 3-BA swings on stand data sheet) while east 1/2 is primarily ~pure cedar. Many hemlock and cedar were large log/xlog and WP present was 20+ inches. Distinct hemlock sap/and seedling regen pockets in the "hemlock half" of stand. Most were nearing or above the browse line (some <5ft too). Hemlock side of stand appeared just a bit higher than the cedar half. An old 2-track (not usable) more or less splits the two dominant specie types. Cedar half had much more blow down and featured large log/xlog sizes of many species listed above. Cored a 12.8" cedar that aged 127yrs.
12	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	191.6	92	111-140	Variable canopy closures, sizes classes, and specie dominance. Western 1/3 (looks like a boot) is primarily log sized, wet with blow down/tip-ups, and featured stronger conifer components (cedar, hemlock, spruce, fir). These conifer occur as scattered individuals and/or pure clumps. The center 1/3 is very low/wet and as such the primarily deciduous species present are of pole/sap size. The eastern 1/3 was borderline upland a moved back into log sized deciduous (QA, BTA, RM). Pockets/islands of log sized species common throughout stand as well as vast areas of poles mixed with saps and lowland brush types. Strongly considered splitting apart portions of this stand. Yet decided against this because of the wide lowland complex variability found throughout this compartment. Quite difficult to walk through.
14	413 - Aspen	Sapling Well	14.6	23	1-50	Wasn't able to make it on foot to this stand (Cody okayed a remote call). Made it as far as Std. 13 and going any further east was impractical. The name of this FY'93 sale was "North East Corner S". It was purchased by Schleben (not sure if he cut it too). Sale was closed out 11/12/93. From imagery it appears that canopy closure is on the low end of 75-100%. Sale map shows a chunk of "to wet" that was excluded along the northern boundary. Imagery also shows one prominent clump of overstory conifer that still remains, as well as scattered individuals. Specie products from '93 sale were; 8.9cnds BTA, 4.8cnds Mx Softwood, and 8.1cnds Mx Hardwood. I'm guessing current species composition closely resembles what's found within Std.21.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	4199 - Other Mixed Upland Deciduous	Poletimber Well	14.0	87	81-110	<p>Very pole dominant in most areas, yet log sizes are not under-represented. My initial gut call was MD8 with a STRONG pole presence. After thinking about it and then re-visiting, I felt that poles win out over log sizes. This stand is very much nearing a transition from med/larger size pole to smaller log size (with scat large log/xlog throughout). Has a 2-aged appearance, yet all 3-cores taken (from small poles to large log) were almost all the same age. West boundary (~1st chain in from bog) is a small band strong to WP, RP, hemlock, and RO. RO, BTA, hemlock, and some RM/PB are the primary log sized species. SM, and then some RM/PB are the pole prevalent species. Poles appeared heavier in some northern areas. Paper birch prevalence was good to see and was quite solid and doing well given its age. Decent amount of hemlock, RO, and SM saps observed. Quality is marginal for some species (RM, SM, beech) and average/decent for the balance.</p> <p>2006 comment: A lot of bear sign on beech trees, very poor access- good candidate for old growth. Good Red Shouldered Hawk habitat- survey !</p>
16	4119 - Mixed Northern Hardwoods	Poletimber Well	22.8	87	111-140	<p>Similar composition to Std.15 yet with some obvious differences. Far fewer paper birch, more overstory beech, heavy beech saps in understory, more log sized timber, smaller conifer component and BF saps are not found throughout (mainly east/west boundary). True log sized species are BTA (mainly concentrated on west boundary, some scat throughout), RO, and a good majority of beech. Observed medium/heavy scale and some snap (snap appeared size related). Bear utilization of beech is quite impressive. Same dilemma as Std.15. Do I call it pole dominated (75-100% closure) or a lighter stocked log stand? The higher percentage species (RM/SM) are generally larger pole/small log sized, with scat examples of true log sizes (mainly RM). A band of WP, RP, RO and some Hem on western boundary (~1st chain in from bog). Eastern boundary picks up some cedar and hemlock. SM and RM quality was a little bit better than Std.15 (still marginal). Remaining species quality was decent/average.</p> <p>2006 Comment: A lot of bear sign on beech trees, very poor access- good candidate for old growth. Good Red Shouldered Hawk habitat- survey !</p>
17	6120 - Lowland Cedar	Poletimber Well	276.6	125	201+	<p>Observed a good portion of the northern 1/2 on 1/5/16, SW 1/4 on 1/7/16, and SE 1/4 on 1/13/16. By and large a dense cedar stand featuring common associates listed above. Had a difficult time deciding whether to label as a pole or log sized stand. Cedar is very log in spots (~northern areas) and then very much pole dominated in other locations (~western & a good chunk of southern portions). Decided that poles tend to be more common. Cored an 8.1" cedar in a very pole dominant area and a 10.5" cedar in a log area. Ages were within 2-years (8"=125yrs and 10"=127yrs). Cedar crowns in some pole locations weren't quite "full". This causes some imagery to depict more of an open/lowland brushy type appearance. Blow down and water courses observed throughout. Some (yet overall trace/low) cedar/hemlock regen observed. BF/RM saps heavier in blow down locals. OFS point in ~center of stand generalizes location where hemlock presence was strongest (hemlock 90-200+ BA in spots!). Some areas of the stands boundary may not be exact, and might feature more log QA/RM, BF saps, or lower canopy closures.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	6120 - Lowland Cedar	Poletimber Poor	62.5	101	81-110	<p>Very similar if not identical to Std.20 to the north (canopy closure appeared lower in this stand). Primarily viewed the stand from its edge while scoping out the SW 1/4 of Std.17. There's an abrupt transition from Std.17's high density and nearly pure cedar C6/C9 cover type into this stands low stocked 4/5 cover type. The transition resembles a harvest boundary/edge. Could also be the result of an abrupt change in the water table? I'm leaning towards the harvest theory. Like Std.20, 98 DOQ's show old haul routes/linear trails, which are still somewhat visible on the ground. Again, only saw the edge of this stand as it brought up uncomfortable memories of the time spent in Std.20. True stand boundaries might be different than my delineation as might be true species composition. Imagery hasn't proven to cleanly/and clearly define a majority of this compartment and complete ground truthing of each stand has proven difficult because of less than ideal foot travel conditions.</p>
19	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	87.6	85	111-140	<p>Observed a good portion of southern half of this stand (saw a brief segment of northern portion on 1/4/16). Southern area primarily dominated by log QA, log/pole RM and a strong component of pole/sap/some log BF. Fir diameters were larger than what I've come across in other stands within C170. BF seemed to avg. 5-8" with scattered logs. Pockets of nearly pure sap RM/BF/host of other low species common, as are sap species below log dominated areas. Felt more comfortable saying log canopy closure is on the higher side of 50-75%. Tip-ups observed and some locations showed upland tendencies (1.5ft of snow present at the time).</p>
20	6120 - Lowland Cedar	Poletimber Medium	190.1	101	111-140	<p>Do not spend an afternoon here. Made it in to see the western ~1/3 on 1/4/16. ~Saw the southern "fat calf/boot shape" portion on 1/12/16. Very low and difficult to get to and walk through once there. Pole/sap sized cedar prevailed in the locations I observed. Pole/sap/some log cedar is present at mainly a low and scattered, sometimes clumpy, stocking level. Canopy closure can vary between high end of 25-50%, and low end of 50-75%. Even cedar finds this site a bit to wet and difficult. Common associates include Blk. Ash (w/EAB), Fir, and Red Maple. Stumbled into one clump of cedar at a "normal" stocking level for the species (150+ BA). 98 DOQ's show other dense pockets in eastern portions of the stand (most likely cedar). 98's also show old haul routes/trails that are still "kind of" visible on the ground. I strongly believe this stand and Std.18 to the south were harvested quite some time ago. The cedar that remains may of been non-merch at that point and the stronger deciduous composition is a result of that</p>
21	6112 - Lowland Aspen	Sapling Well	12.2	24	1-50	<p>Obviously harvested at some point in the not so distant past, but found no record? Would've occurred ~24 years ago and 98's give a glimpse of stand shortly after harvest. Didn't meander through the entire stand (took 1/2 day+ to get there from the west). Primarily observed sap/nearing pole/some pole QA w/red maple and BF. Scattered pole and log species that escaped harvest were present (saw one xlog WP).</p>
23	6123 - Lowland Fir	Poletimber Well	21.6	75	111-140	<p>Canopy closure is 75-100% as a whole, yet there is a distinct log class of species (mainly QA and some RM/BF) and pole sized species (primarily BF, cedar clumps, RM, and PB). Fir is dominant, yet there are clumps dominated by cedar (northern boundary), and areas featuring more deciduous (QA, RM). Observed some very low/blow down locations w/thick saps (BF, RM, Tag). Visited this stand on three different occasions (not always by choice).</p>

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Atlanta Mgt. Unit

Report 7 – Forested Stands

Compartment: 170
Year of Entry: 2018



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	0.7	75	111-140	Very small forested area adjacent to bog complex. Mixed conifer (mainly WP/RP) with a strong component of RO. Paper birch and red maple common as well. Charred stumps and beaver gnawed stumps observed (beaver activity appeared somewhat recent). Decent amount of RO saps/seedlings observed in the understory.



Stand	Cover Type	Acres	Managed Site	General Comments:
4	622 - Lowland Shrub	1.7	No	Mainly/mostly a non-forested lowland shrub stand with the above tree species populating the edge and some interior locations. Ground was walkable on 12/7/15 yet low stocking and presence of lowland shrubs suggested seasonal flooding.
6	6223 - Inundated Shrub Swamp	22.0	No	Larger lowland shrub/open water complex. Assume water levels vary by season. No interior tree/saplings observed. Cattails quite prolific throughout. Streams observed in Stand 9 where flowing into this complex.
7	6223 - Inundated Shrub Swamp	5.3	No	A water/low shrub combo.
13	622 - Lowland Shrub	163.4	No	Didn't move far into this stand but did observe from the edge. Looked to be a lowland/marsh/water course mix. Lowland shrubs and sap sized tree species present. Observed scattered pole/log species from edge. Clumps appear on imagery.
22	622 - Lowland Shrub	11.2	No	Observed from the stands western boundary. Might be the result of a past harvest (based upon 98 DOQ's). Regardless, is now a mix of low shrub/decid/conifer tree species. P/L Fir and L/P Q.Aspen observed from edge.
24	6224 - Treed Bog	4.9	No	Estimate that sap/pole conifer is dominant with a limited amount of deciduous (based upon bog complex observed in C172 to the south).
25	6225 - Bog	29.0	No	Some scattered sap/pole conifer and a limited amount of deciduous observed. Leather leaf a holly common.
26	500 - Water	0.4	No	
28	500 - Water	1.2	No	
29	6225 - Bog	23.1	No	Estimate scattered sap/pole conifer with a limited amount of deciduous (based upon bog complex observed in C172 to the south). Leather leaf and holly probably common as well.
30	6224 - Treed Bog	21.5	No	Estimate that sap/pole conifer is dominant with a limited amount of deciduous (based upon bog complex observed in C172 to the south).
31	6225 - Bog	18.5	No	Scattered sap/pole conifer present with a limited amount of deciduous. Leather leaf, holly, and lowland type shrubs observed as well.
32	6225 - Bog	8.2	No	Areas populated by conifer. Other locations feature more leatherleaf and lowing shrub types.