



# Compartment Review Presentation

Atlanta Forest Management Unit

Compartment 54164

Entry Year 2017

Acreage: 1,507

County Cheboygan

Management Area: Hammond Bay Lake Plain

**Revision Date:** 2015-06-18

**Stand Examiner:** John St. Pierre

**Legal Description:**

T37N, R1W, Sec.11,12,&13

**Identified Planning Goals:**

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

**Soil and topography:**

Landtype Associations (LTAs) include East Lake (40%), Rubicon (32%), Croswell (15%), Au Gres (10%), Finch (1%), and Wallace sands (1%). Lower lying areas feature Lupton muck (1%). Topography is generally flat with areas of slight undulation. The compartment is located in Ecoregion VII.6.3 and part of a flat lake plain with excessively drained sandy soils.

Kotar's cover typing system classifies the compartment as a pine management unit. Cover types include; PARVb in the northern 2/3's and some southern areas, PARVHa in central locations, PARVCo in the south, and a small area of PARVb/AFO in section 12. Unclassified lowland types are represented by stand 21 (N.W. Cedar) and stand 25 in the extreme southeast portion of section 13.

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

Compartment 164 has both state and private-land interfaces on its extremities. Privately owned property bordering C164 exists along the entire western and southern boundary. The eastern and northern boundaries are bordered by State owned lands.

**Unique Natural Features:**

No known MNFI hits or other related occurrences.

Natural pine stands still populate portions of this compartment. These were very likely the result of past stand level replacement fires. Pine reproduction is possible (and was observed) within this compartment. Aggressive scarification, in the absence of large fires, and limiting deciduous competition appears to be a means of establishing and recruiting some natural pine. Legacy size pine species (26" DBH or greater) were also observed throughout portions of section 13.

**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 this compartment. Beech Bark Disease (BBD), Emerald Ash Borer (EAB), and White Trunk Rot are present yet the cover types they affect are quite limited (beech & ash) within the compartment or haven't yet reached an age when most signs/symptoms appear (aspen). Almost no non-native/invasive flora was observed during the inventory process. Spotted Knapweed can be found along regularly traveled two-tracks and poor dirt roads but native flora remains dominant throughout compartment 164. It should be noted that inventory for this compartment was primarily conducted during the winter months with 1-2 feet of snow on the ground. These conditions weren't conducive to identifying all potential forest health issues and invasive flora present.

**Watershed and Fisheries Considerations:**

No special considerations exist for this compartment.

**Wildlife Habitat Considerations:**

The primary focus of wildlife habitat management will be to address the habitat requirements identified for the listed featured species found in this compartment. These species include ruffed grouse, black bear, 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, 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 lacustrine (lake) sand and gravel and minor dune sand. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Devonian Detroit River Group, used for dolomite/stone. Gravel pits are located in Section 14 and there appears to be potential in the compartment. This area has had little drilling for oil and gas and potential appears to be limited.

### **Vehicle Access:**

Seasonal county roads provide decent/good access into the compartment during snow off conditions. Several poor-dirt and two-track forest roads exist offering further access during snow off conditions. Winter access is limited to snowmobile, snowshoe, legs, and ski's. Zebra Trail doubles as a snowmobile route (Black Lake Trail #99) and is kept groomed during the appropriate winter months. Black Mountain ORV trail winds through this compartment as well.

### **Survey Needs:**

Surveys may be required for timber sale prep.

### **Recreational Facilities and Opportunities:**

Snowmobile Trail #99 and Black Lake ORV Trail(s) both wind through portions of compartment 164. These trail systems are widely used by recreationists. Snowmobiles, ORVs, dirt biking, hunting, and general meandering are extremely popular during the appropriate seasons.

### **Fire Protection:**

This area is covered by the Onaway Field Office.

Large components of planted red pine and some natural pine cover types are found within compartment 164. The natural stands of pine are undoubtedly of fire origin. Burn scar stumps are prolific throughout the compartment as well. This suggests that fire is a natural regime that has and will most likely occur again within the localized area. Fire access into the compartment is generally suitable during snow-off conditions. However, no watering points and/or bodies of water are present within the compartment.

### **Additional Compartment Information:**

None.

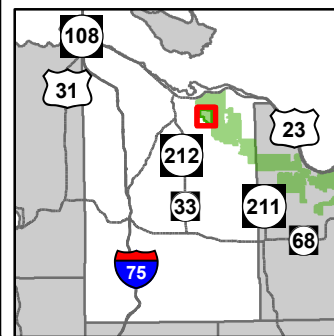
### **The following reports from the Inventory are attached:**

- 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**

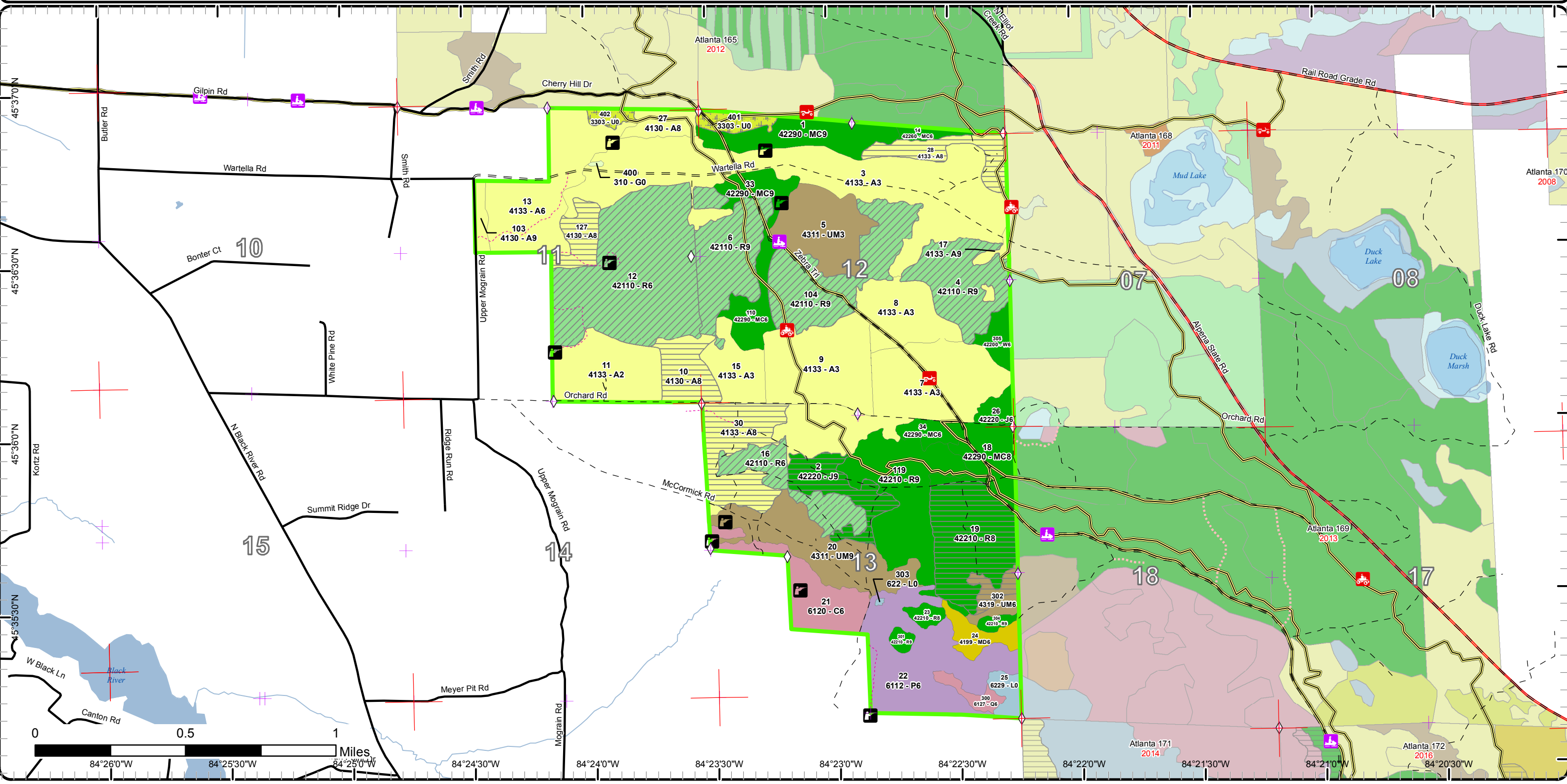
# Cover Type & Treatments



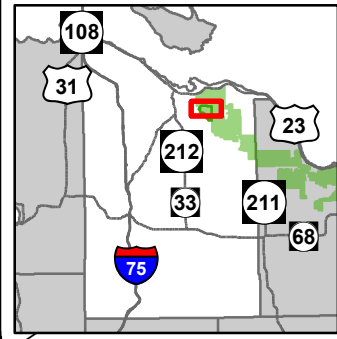
Compartment: 164  
 T37N, R01W, Sec: 11 - 13  
 County: Cheboygan  
 Unit: Atlanta  
 Mgmt Area:  
 Hammond Bay Lake Plain  
 YOE: 2017  
 Acres: 1507 GIS Calculated  
 Examiner: John St. Pierre  
 Map Revised: 6/15/2015  
 Map Phase: Pre-Review



- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Paved Roads
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- - - Trail (Non-Recreation)
- - - - Closed Roads
- 🚙 ORV Trails
- 🚙 ORV Routes
- 🚙 Snowmobile Trails
- Rivers
- Lakes
- Treatments
- Clearcut (w/Reserves)
- Other Treatment - See Comments
- Thinning (Crown, Low, Systematic)
- Forest Covertype
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forests
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- Non-Forest Covertype
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 622 - Lowland Shrub

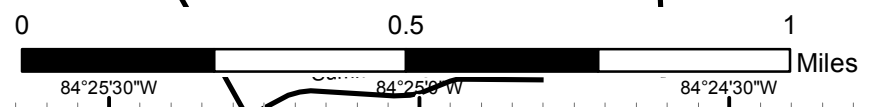
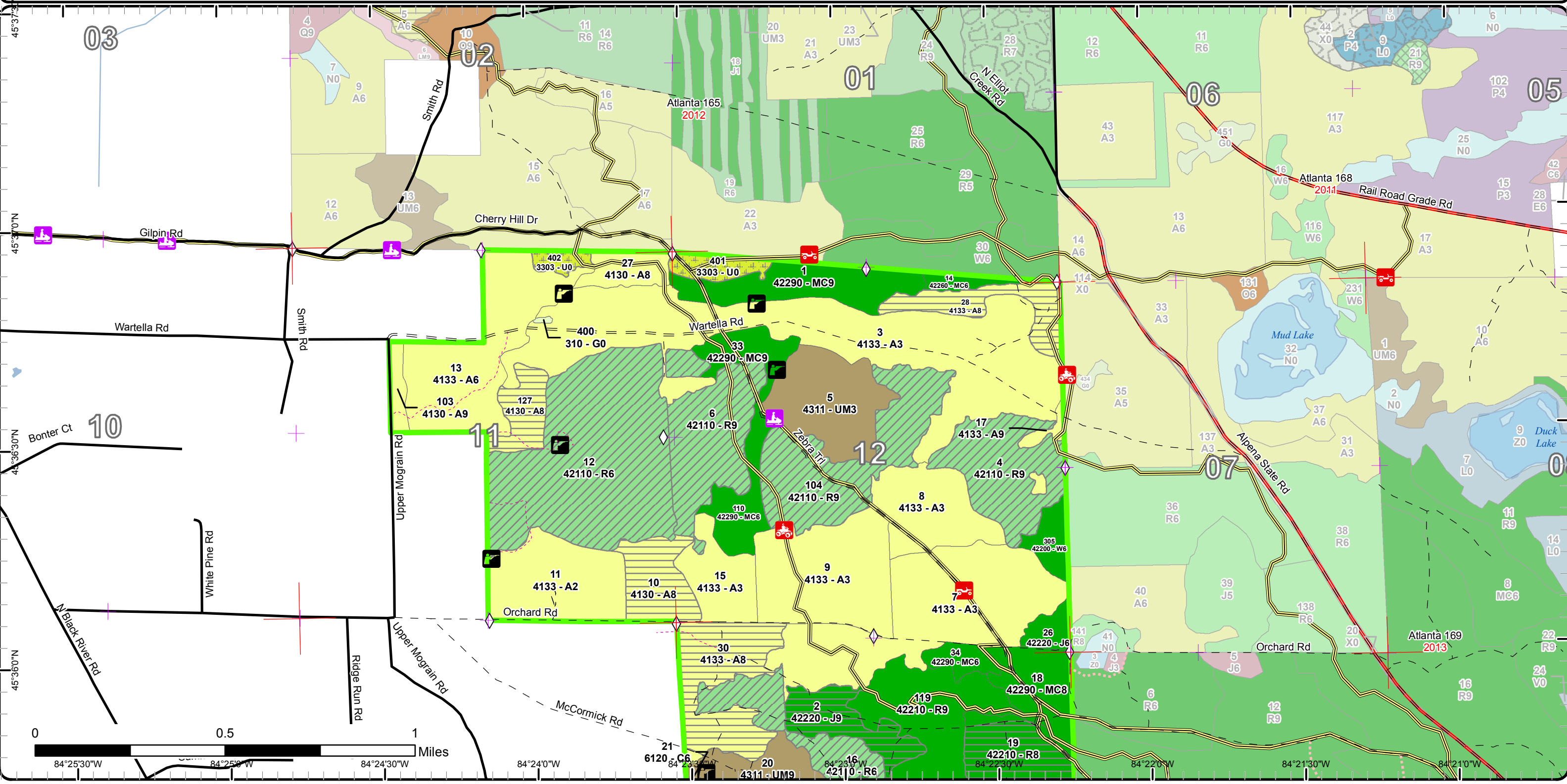


# Cover Type & Treatments



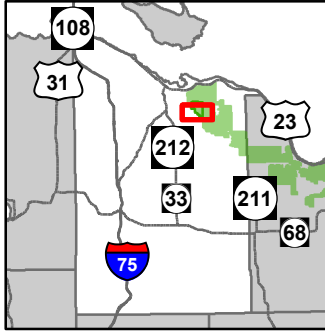
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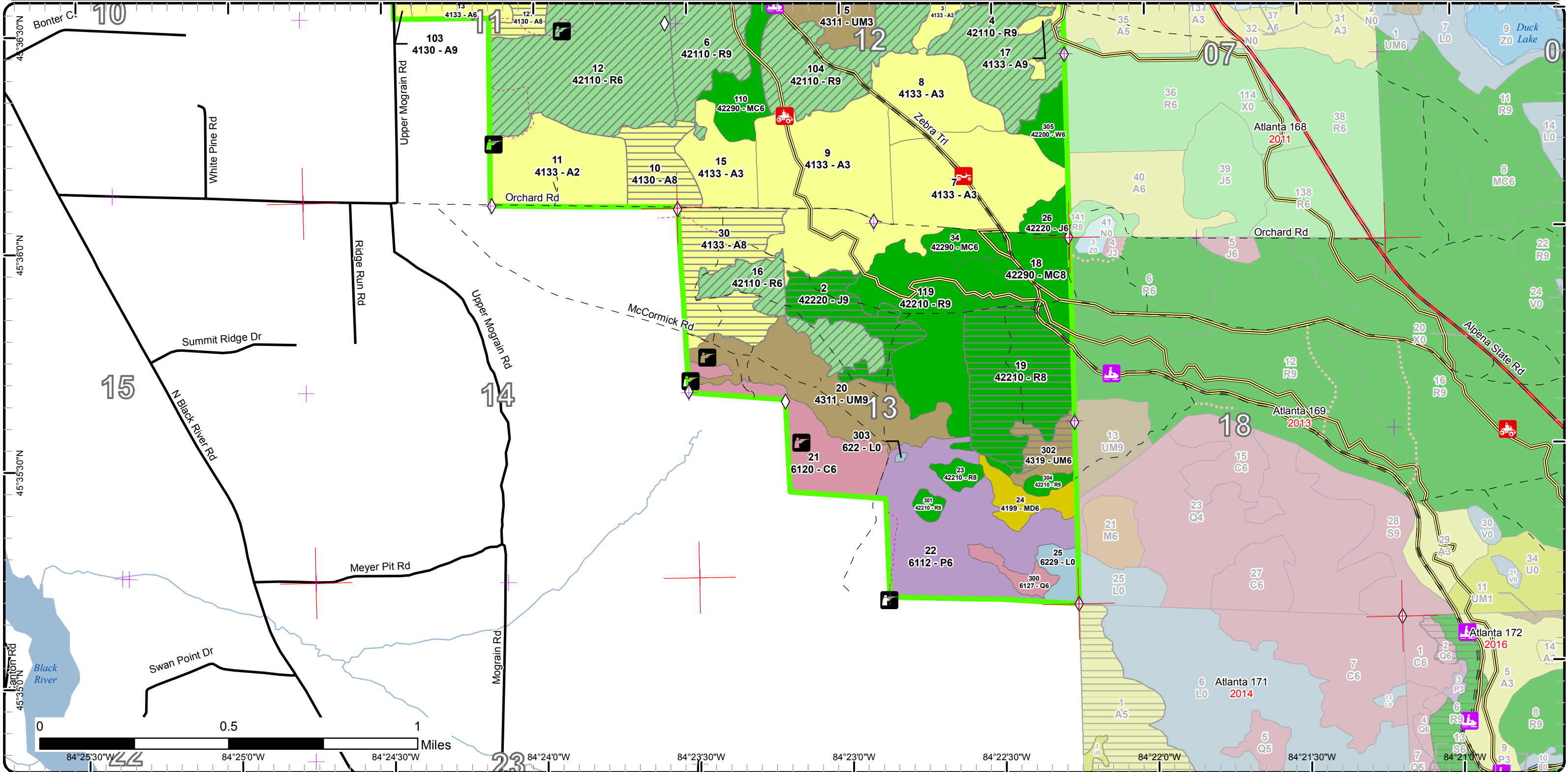


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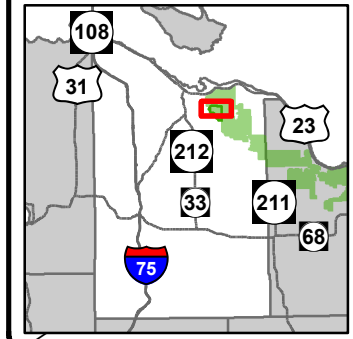


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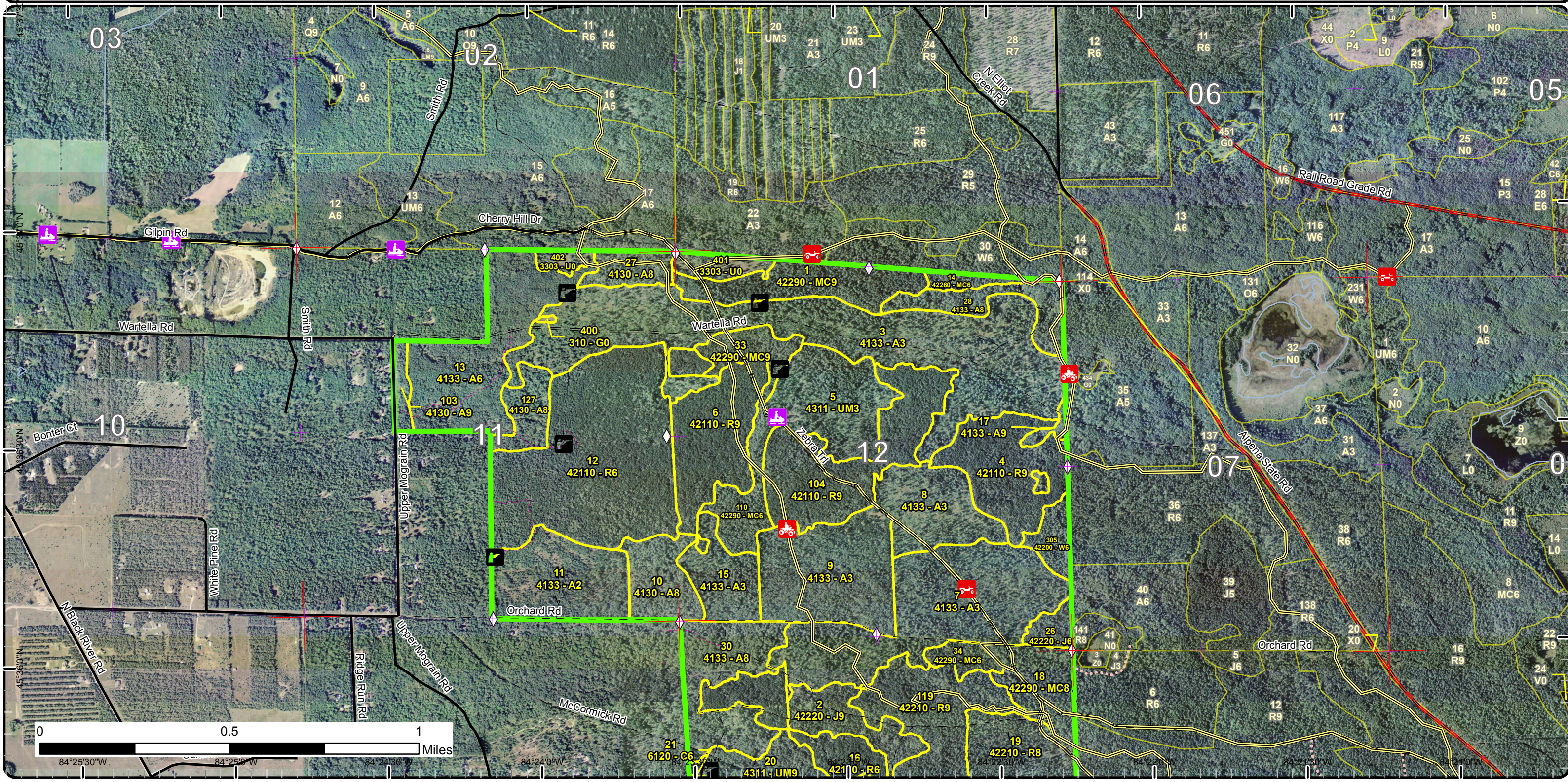


# Stand Boundary Map

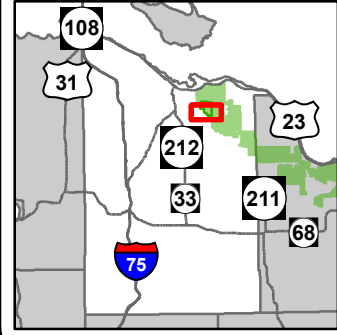
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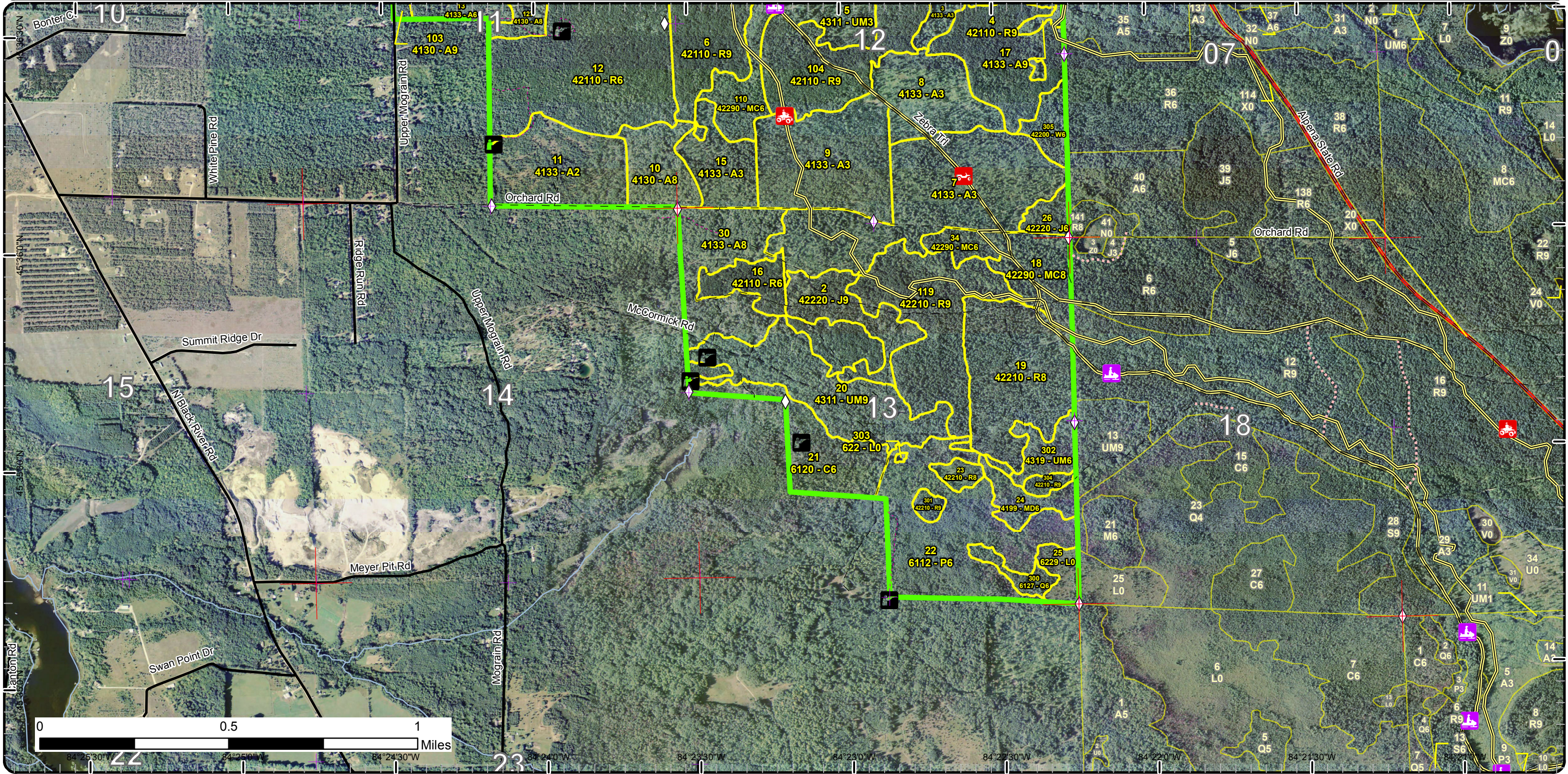


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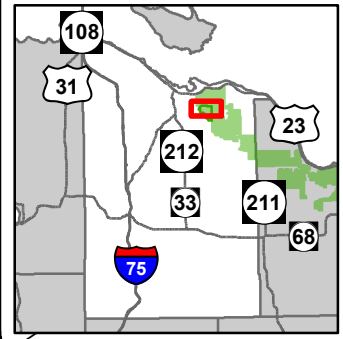
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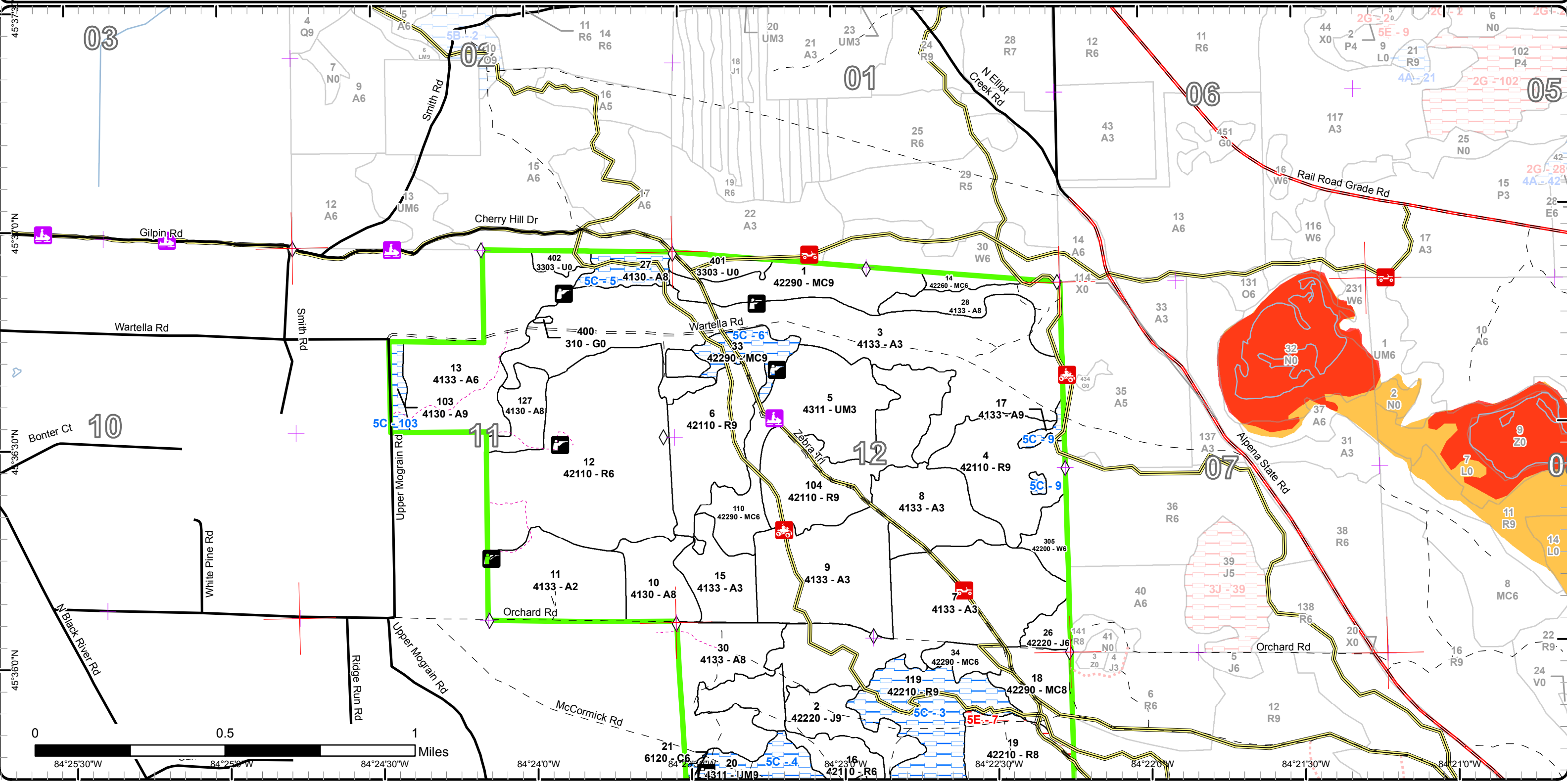


# Special Conservation Areas & Site Conditions Map

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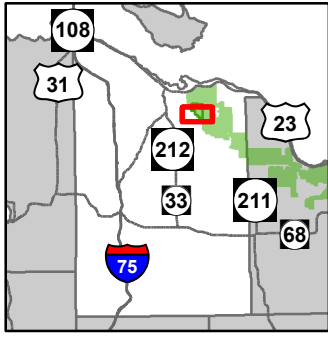
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- ▭ Stand Boundaries
- Site Condition
- Available w/ Constraints
- Unavailable
- Available Factors W/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 5E: Long-Term Retention Special Conservation Areas
- Ecological Reference Areas
- Cold Water Streams
- Non-Dedicated Natural Areas and National Natural Landmarks



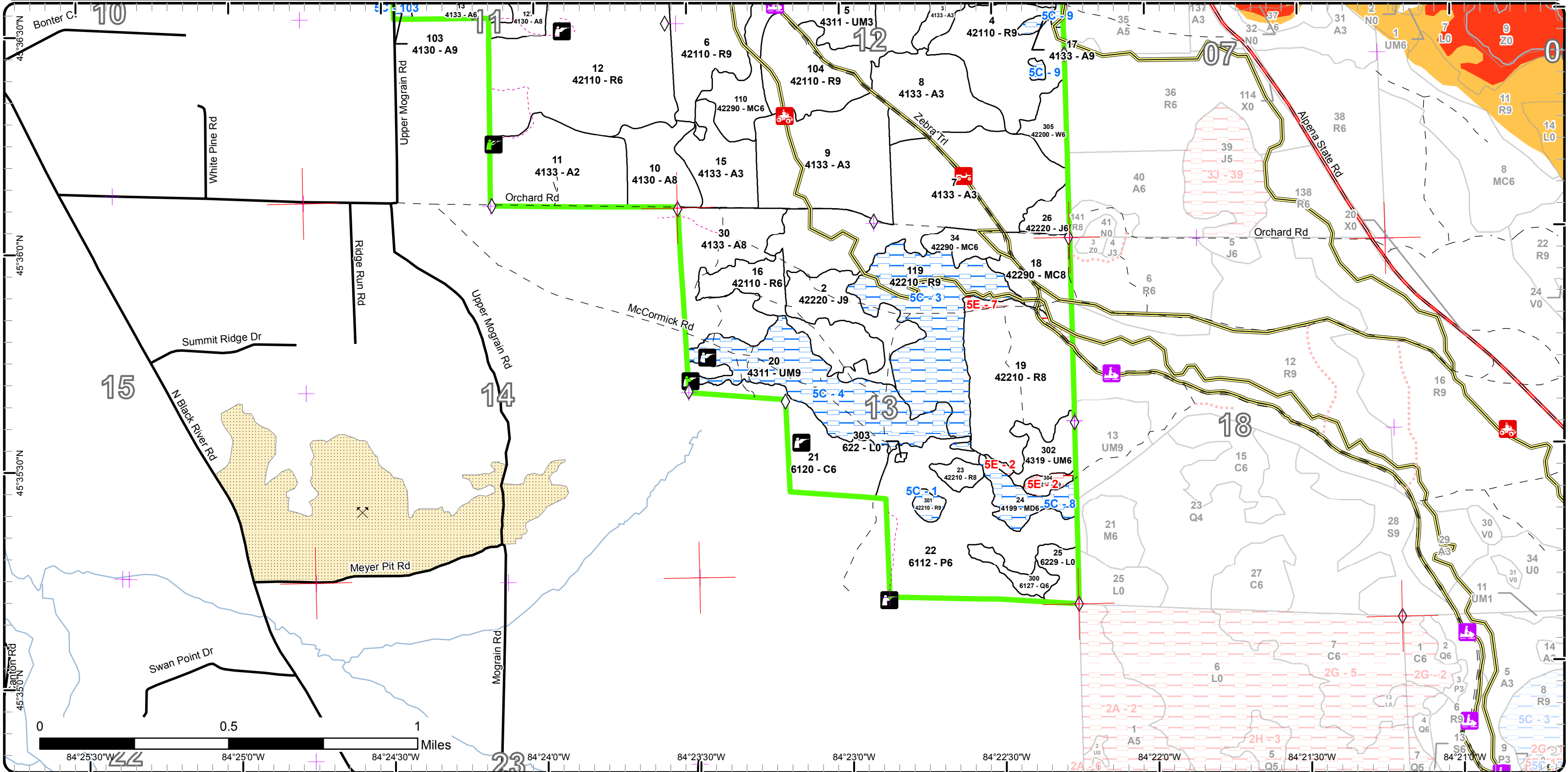


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- + Remonumented Section Corners
  Snowmobile Trails
  - ◇ Field Grade GPS Corners
  Rivers
  - + Miris Corners
  Stand Boundaries
  - Paved Roads
  Recommendation
  - County Gravel Roads
  SCA
  - = Gravel Roads
  Site Condition
  - - Poor Dirt Roads
  Available w/ Constraints
  - - - Trail (Non-Recreation)
  Unavailable
  - - - - Closed Roads
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  - 🚘 ORV Trails
  Non-Dedicated Natural Areas and National Natural Landmarks
  - 🚘 ORV Routes
  Sand or Gravel Pit
- Available Factors W/ Constraints**  
 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors**  
 5E: Long-Term Retention Special Conservation Areas



# Report 1 – Total Acres by Cover Type and Age Class

Atlanta Mgt. Unit

Compartment 164 Year of Entry 2017

John St. Pierre : Examiner



## 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	37	281	109	0	67	0	89	39	0	0	0	0	0	0	0	0	0	622
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	37	0	0	0	0	0	37
Herbaceous Openland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jack Pine	0	0	0	0	0	7	0	0	27	0	0	0	0	0	0	0	0	0	34
Low-Density Trees	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Lowland Aspen/Balsam Poplar	0	0	0	0	0	80	0	0	0	0	0	0	0	0	0	0	0	0	80
Lowland Conifers	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
Lowland Shrub	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	13
Natural Mixed Pines	0	0	0	0	14	26	0	55	15	0	0	0	0	0	0	0	0	0	110
Red Pine	0	0	0	0	0	126	0	188	69	74	0	0	0	0	0	0	0	0	457
Upland Mixed Forest	0	44	0	0	0	0	0	0	70	0	0	0	0	0	0	0	0	0	114
White Pine	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	10
<b>Total</b>	<b>24</b>	<b>81</b>	<b>281</b>	<b>109</b>	<b>14</b>	<b>306</b>	<b>0</b>	<b>349</b>	<b>233</b>	<b>74</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1508</b>



## Report 2 – Treatment Summary

Atlanta Mgt. Unit  
Year of Entry: 2017

Acres of Harvest

Compartment 164  
Total Compartment Acres: 1,507

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

### Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
	199	0	0	0	0	314	0	0	0	513
<b>Total</b>	<b>199</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>314</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>513</b>



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
2	54164002- Clearcut w/R	26.9	42220 - Natural Jack Pine	Sawtimber Well	78	111- 140	Harvest	Clearcut with Retention	4311 - Pine, Aspen Mix	Even-Aged	Draft Proposal

**Habitat Cut: No****Site Condition:**

Prescription Clearcut with Retention. Use 2-inch cutting spec.

Specs:

- Follow retention guidelines leaving 3-10%
- Leave the few oak present
- \*Whole tree skid when ground isn't frozen to promote scarification and cone dispersal (See Other Comments)

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

Treatments:

Acceptable Regen: Natural regen survey 3-years after harvest and during 2025 inventory cycle. Acceptable regen includes 50% natural pine, with deciduous accounting for the balance. Replant to red pine if 50% natural pine regen is not achieved.

Other - Exclude Black Lake ORV Trail from NE treatment boundary. Protect this ORV Trail in specs.

Comment:

- \*Require producer to rehab state forest roads within this stand following whole tree skidding ops (if necessary)
- Include drumming log spec in proposal Old next step comments:

Proposed Start Date: 10/1 /2016

4	54164004-3rd Row Thin	45.8	42110 - Planted Red Pine	Sawtimber Well	62	141- 170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Proposal
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**Habitat Cut: No****Site Condition:**

Prescription 3rd Row Thin of planted red pine.

Specs:

- Try to retain the trace amount of super-canopy, natural RP for structural diversity
- Cut all jack pine (when able)
- Do not cut other species unless they impede equipment mobility
- Exclude Stand 17 (both polygons) from this treatment

Next Step

Treatments:

Acceptable

Regen:

Other - Protect Black Lake ORV Trail in specs

Comment: - The sale administrator may need to work closely with producer to facilitate/identify the proper rows to harvest. Some manual marking may be necessary upon producers request. Old next step comments:

Proposed Start Date: 10/1 /2016

6	54164006-3rd RowThin	51.8	42110 - Planted Red Pine	Sawtimber Well	62	171- 200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Proposal
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**Habitat Cut: No****Site Condition:**

Prescription 3rd Row Thin of planted red pine.

Specs:

- Try to retain the trace amount of super-canopy, natural RP for structural diversity
- Cut all jack pine (when able)
- Do not cut other species unless they impede equipment mobility

Next Step

Treatments:

Acceptable

Regen:

Other - Protect Black Lake ORV Trail and Zebra Snowmobile Trail in specs

Comment: - The sale administrator may need to work closely with producer to facilitate/identify the proper rows to harvest. Some manual marking may be necessary upon producers request. 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
10	54164010-Clearcut w/R	23.9	4130 - Aspen	Sawtimber Medium	69	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Proposal

**Habitat Cut: No****Site Condition:**

Prescription Clearcut with Retention. Use 2-inch spec.

- Specs:
- Follow retention guidelines leaving 3-5%
  - Leave any combination of 2-3 oak and/or red/white pine every 1-2 acres. Leave in clumps or as open grown/wind firm single stems.
  - \*Whole tree skid when ground isn't frozen. Do not whole tree skid across Orchard Rd (See Other Comments).

Next Step

Treatments:

Acceptable Regen: Regen survey during 2025 inventory cycle. Acceptable regen includes any combination of the parent stand.

Other

- \*Combine Stands 10 & 30 into one sale

Comment: - Orchard Rd should serve as the PVT/State boundary. This will need to be verified.

- Include drumming log spec in proposal Old next step comments:

Proposed Start Date: 10/1 /2016

12	54164012-3rd Row Thin	126.1	42110 - Planted Red Pine	Poletimber Well	48	141-170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Proposal
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**Habitat Cut: No****Site Condition:**

Prescription 3rd Row Thin of planted red pine.

- Specs:
- Try to retain the trace amount of super-canopy, natural RP for structural diversity
  - Cut all jack pine (when able). Heavier JP removals will occur along the stands perimeter.
  - Do not cut other species unless they impede equipment mobility

Next Step

Treatments:

Acceptable Regen:

Other

- The sale administrator may need to work closely with producer to facilitate/identify the proper rows to harvest. Some manual marking may be necessary upon producers request.

Comment: - Six private pipes/corners located along Std.12's western boundary. One exists north of Std.12's western boundary, and another south of the western boundary. Sale prep forester might not need to run PVT line all the way to/from DNR corner in Orchard Rd (See OFS points). Old next step comments:

Proposed Start Date: 10/1 /2016

16	54164016-3rd Row Thin	29.2	42110 - Planted Red Pine	Poletimber Well	62	171-200	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Proposal
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**Habitat Cut: No****Site Condition:**

Prescription 3rd Row Thin of planted red pine.

- Specs:
- Try to retain the trace amount of super-canopy, natural RP for structural diversity
  - Cut all jack pine (when able)
  - Do not cut other species unless they impede equipment mobility

Next Step

Treatments:

Acceptable Regen:

Other

- The sale administrator may need to work closely with producer to facilitate/identify the proper rows to harvest. Some manual marking may be necessary upon producers request.

Comment: 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
19	54164019- CC/Replant	60.5	42210 - Natural Red Pine	Sawtimber Medium	74	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Proposal

**Habitat Cut: No****Site Condition:**

Prescription Clearcut with Retention. Replant to Red Pine. Use 2-inch cutting spec.

Specs:

- Require 6-inch stump height and chipping of tops
- Use state forest road and Zebra Trail as northern boundary. This will create minimum retention (5E-7). Stand(s) 304 will also serve as long term retention (5E-2).
- No additional retention necessary

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

Acceptable Regen: Regen survey 1 and 3-years after initial replant. Acceptable regen is a well stocked planted red pine stand.

Other Comment:

- Combine Stands 19 & 302 into one sale and one replanting operation
- Roller Chopping and Herbicide operations will be necessary prior to trench & replant
- Protect Black Mountain-Silver Creek snowmobile trail (aka:Zebra Trail) in specs

Old next step comments:

Proposed Start Date: 10/1 /2016

28	54164028- Clearcut w/R	21.5	4133 - Aspen, Mixed Pine	Sawtimber Medium	65	81-110	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Even-Aged	Draft Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with Retention. \*Use 2-inch cutting spec.

Specs:

- Following retention guideline leaving 3-10%
- Capture some advanced red pine sap/poles within retention
- Leave any combination of 2-3 oak and/or red/white pine every 1-2 acres. Leave in clumps or as open grown/wind firm single stems.
- \*Protect red pine 4.5" DBH or less in specs

Next Step Treatments:

Acceptable Regen: Regen survey during 2025 inventory cycle. Acceptable regen includes any combination of the parent stand.

Other Comment:

- Protect Black Lake ORV Trail in specs
- Include drumming log spec in proposal Old next step comments:

Proposed Start Date: 10/1 /2016

30	54164030- Clearcut w/R	42.7	4133 - Aspen, Mixed Pine	Sawtimber Medium	67	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with Retention. Use 2-inch cutting spec.

Specs:

- Follow retention guidelines leaving 3-5%
- Leave any combination of 2-3 oak and/or red/white pine every 1-2 acres. Leave in clumps or as open grown/wind firm single stems.
- \*Whole tree skid when ground isn't frozen to promote scarification and cone dispersal. Do not whole tree skid across Orchard & McCormick Rd (See Other Comments).

Next Step Treatments:

Acceptable Regen: Regen survey during 2025 inventory cycle. Acceptable regen includes any combination of the parent stand.

Other Comment:

- \*Combine Stands 10 & 30 into one sale
- \*Require producer to rehab state forest roads within this stand following whole tree skidding ops (if necessary)
- Unable to dig up corners (ground frozen) but they should be present
- Merchantability decreases in south 1/2 of stand
- Include drumming log spec in proposal 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
104	54164104-3rd Row Thin	61.1	42110 - Planted Red Pine	Sawtimber Well	62	141- 170	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Draft Proposal

**Habitat Cut: No****Site Condition:**

Prescription 3rd Row Thin of planted red pine.

Specs:

- Try to retain the trace amount of super-canopy, natural RP for structural diversity
- Cut all jack pine (when able). Two locations will have heavier JP removals (see OFS points).
- Do not cut other species unless they impede equipment mobility

Next Step

Treatments:

Acceptable

Regen:

Other - Protect Black Lake ORV Trail and Zebra Snowmobile Trail in specs

Comment: - The sale administrator may need to work closely with producer to facilitate/identify the proper rows to harvest. Some manual marking may be necessary upon producers request. Old next step comments:

Proposed Start Date: 10/1 /2016

127	54164127- Clearcut w/R	15.5	4130 - Aspen	Sawtimber Medium	72	51-80	Harvest	Clearcut with Retention	4133 - Aspen, Mixed Pine	Two-Aged	Draft Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with Retention. Use 2-inch cutting spec.

Specs:

- Follow retention guideline leaving 3-10%
- Capture some advanced red pine sap/poles within retention
- Leave any combination of 2-3 oak and/or red/white pine every 1-2 acres. Leave in clumps or as open grown/wind firm single stems.
- Whole tree skid when ground isn't frozen to promote scarification and cone dispersal

Next Step

Treatments:

Acceptable Natural regen survey during 2025 inventory cycle. Acceptable regen includes any combination of the parent stand.

Regen:

Other - Include drumming log spec in proposal Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

302	54164302- CC/Replant	7.6	4319 - Mixed Upland Forest	Poletimber Well	72	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Proposal
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**Habitat Cut: No****Site Condition:**

Prescription Clearcut with Retention. Replant to Red Pine. Use 2-inch cutting spec.

Specs:

- Require 6-inch stump height and chipping of tops
- Minimum retention will be captured within the untreated portion(s) of this stand
- Some low/wet areas observed during winter inventory. Exclude obvious low/wet areas when running red line.

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

Treatments:

Acceptable Regen survey 1 and 3-years after initial planting. Acceptable regen is a well stocked planted red pine stand.

Regen:

Other - Combine Stands 19 & 302 into one sale and one replanting operation

Comment: - Protect Black Mountain-Silver Creek snowmobile trail (aka:Zebra Trail) in specs  
- Roller Chopping and Herbicide operations are likely prior to trench & replant 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
401	54164401-NF	9.6	3303 - Mixed Low Density Trees	Nonstocked		Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		Proposal

**Habitat Cut: Yes****Site Condition:**

Prescription Plant fruit and mast bearing shrubs and tree species to increase values for wildlife. Protect trails.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 5 /1 /2015

402	54164402-NF	5.1	3303 - Mixed Low Density Trees	Nonstocked	0	Unspec ified	NonForestMgt	Fruit Tree/Shrub Planting	3204 - Mast Producing Shrub		Proposal
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**Habitat Cut: Yes****Site Condition:**

Prescription Plant fruit and mast bearing shrubs and trees to increase values for wildlife. Protect trails.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 5 /1 /2015

**Total Treatment  
Acreage Proposed: 527.2**



Report 5 – Site Conditions

Atlanta Mgt. Unit  
John St. Pierre : Examiner

Compartment: 164  
Year of Entry: 2017

Dominant Site Conditions

5E

Aspen	
Cedar	
Herbaceous Openland	
Jack Pine	
Low-Density Trees	
Lowland Aspen/Balsam Poplar	
Lowland Conifers	
Lowland Shrub	
Mixed Upland Deciduous	
Natural Mixed Pines	
Red Pine	8
Upland Mixed Forest	
White Pine	
Total Forested Acres	8
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	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	3	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Small clump of large natural red pine found within lowland complex. Will not regenerate back to RP if/when harvested in the future.							
2	Unavailable	<b>5E: Long-Term Retention</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 5 – Site Conditions

Atlanta Mgt. Unit  
John St. Pierre : Examiner

Compartment: 164  
Year of Entry: 2017

3	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	66	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Allow Stands 2, 19, and 23 to green up before considering management within this stand (119).							
4	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	58	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> If retained as a 5C S.C., this stand will be the only log size aspen stand remaining within this compartment. Quite unique for an aspen stand. A very open/savanna type setting with minor components of pine and oak in over and understory. Different than any other aspen stand I've seen anyway. Aspen will hold for another 10-years. Black Lake ORV Trail runs through stand.							
6	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	15	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> All species (jack pine to a lesser extent) will hold in for at least another 10-years. Most jack pine will hold but is beginning to fall out in areas.							
7	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Long-Term retention for Stand 19. Consider further retention of smaller size during sale prep.							
8	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Removed Rx in order to closer match aspen restart acres for Hammond Bay Lake Plain M.A. during 2017 YOE. This stand will hold for 10-years.							

## Report 5 – Site Conditions

Atlanta Mgt. Unit  
John St. Pierre : Examiner

Compartment: 164  
Year of Entry: 2017

9	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	4	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Consider applying a final harvest when RP Stand 4 is being final harvested/replanted to RP. Oak and pine species are currently populating gaps vacated by aspen.</p>							
103	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b></p>							

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

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### 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

<b>Conservation Area</b>	<b>Type</b>	<b>Description</b>
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	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42290 - Natural Mixed Pine	Sawtimber Well	34.8	63	81-110	Red pine (natural) dominated stand with strong components of WP throughout. Overstory BTA primarily found along the southern boundary where canopy closure is reduced. BTA also found in pockets/clumps within stand. Naturally open areas are being aggressively reclaimed by RP, WP, JP, and RO. These young pockets are common throughout and why I listed the stand as being 2-aged. Removal harvest from late 90's (I think) sneak into southern boundary. Heavier BTA clones/RM sprouts in these locations. Overstory and understory RP is doing well for itself.
2	42220 - Natural Jack Pine	Sawtimber Well	27.0	78	111-140	Large pole/small log jack pine dominated stand. Red pine present throughout along with pockets of BTA. Not much in the way of an understory (good set-up for replant). Canopy closure is on the lower end 75-100%.
3	4133 - Aspen, Mixed Pine	Sapling Well	159.5	15	1-50	Found no cutting record for what would be the largest removal harvest to occur in this compartment. Ownership cards don't have a record of harvest either. Looks like the familiar aspen/red maple removal while leaving all pine/oak. Aspen saps aged 14-15 years old. This would place a harvest occurring in 1999-2000 timeframe. Variable BTA sap dominance based upon pine/oak overstory component/dominance. Aspen is still prolifically sprouting, more or less regardless of what's above it. Imagery clearly shows where heavier pine and oak pockets remain. Naturally occurring areas of lower stocking levels present throughout this large stand (not the result of aspen being shaded out). The mature aspen stands (55+ years old) remaining in this compartment all feature low BTA stocking levels. This appears to be a symptom of aspen being offsite.
4	42110 - Planted Red Pine	Sawtimber Well	45.8	62	141-170	Variable BA ranges throughout and areas that are pole/log and other areas log/pole. No harvest records found and no cut stumps observed. Planted fall of '55 (2yr old RP), 7.5ft x 7.5ft spacing. Current spacing is more 8x8ft to 9x9ft spacing. Average DBH was ~9.2" DBH, which is considered the 10" DBH class. This stand is in transition from pole to log size with a majority of the RP being small log size (and many being larger pole size). RP looks healthy with decent live crown ratios. North central portion of the stand is composed of (what looks to be) natural RP, along with heavy JP and some WP. An OFS point was taken in this location. Six stick merch average, with areas of 5 to 7-stick merch. Clean understory with a good RO sap presence.
5	4311 - Pine, Aspen Mix	Sapling Well	44.5	8	1-50	"Kind of a mess" was my first impression. A lot of residual pine following '07-08 removal of BTA/RM by Tulgetzka. BTA clones and RM sprouts are doing fine for most part. Believe removing more pine would've helped regenerate pine species (based upon results in Stds.9&11). Primarily WP/JP remain with RP mixed in along the way. Scattered RO leave trees present as well. If pushed, could be a candidate for overstory removal leaving 1-3 pine/oak per acre. Had a hard time viewing the whole stand on snowmobile because of all the BTA clones and RM sprouts. OPIC - FMD: aspen removed 2008.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6	42110 - Planted Red Pine	Sawtimber Well	51.8	62	171-200	<p>Planted in fall of '55 (2yr old RP), at 7.5 x 7.5ft spacing. Current spacing is 8x8ft to 9x9ft. No harvest record(s) found and no cut stumps observed. This plantation RP stand is in transition from large pole to small log. Small log seemed to be more prevalent yet large pole RP is very common. The first 100-200ft in from the western boundary is quite dense/suppressed with competing RP and is primarily pole sized. Remainder of stand is small log size (more or less). A substantial portion of the perimeter has natural JP, WP, Aspen, and RM mixed in with the planted RP. RP looks healthy with decent live crown ratios. Nearly clean understory (decent RO sap layer) and very little in the way of other species (beside RP) occurring in overstory. About a 5-stick merch average for RP with areas of 4 and 6-stick.</p> <p>OPIC - FMD: THIN IN 10 YEARS. POCKETS OF HEAVIER JACK PINE.</p>
7	4133 - Aspen, Mixed Pine	Sapling Well	97.7	18	1-50	<p>Removal harvest in '97 based upon ownership cards. Couldn't locate sale docs. Aspen/red maple removed and pine/oak left. Aspen clone regen is more or less strong throughout. Pine varies from scattered to dominant in areas. Red and white pine leave tree BA's are at least a 10BA average (each specie) if not higher. I.R. imagery clearly shows where pine dominates.</p> <p>OPIC - FMD: TCR'd 2000, sale 51-028-97-01. Left oak and</p>
8	4133 - Aspen, Mixed Pine	Sapling Well	36.7	8	1-50	<p>Cut by Tulgetska in '07-08 time frame (along with Std.5). Aspen/red maple removed and pine/oak left. This stand was originally two stands (8 &amp; 28). Fairly good/dense BTA clone regen throughout. Some low density areas because of pine presence (~75% canopy closure). Leave tree overstory red/white pine throughout. Pine is scattered in some areas and more dense/clumpy in others. I'd estimate there's ~10BA residual of each pine species. Estimates can be higher/lower depending on where you're located in the stand.</p> <p>OPIC - FMD: aspen removed 2208.</p>
9	4133 - Aspen, Mixed Pine	Sapling Well	62.1	26	1-50	<p>2005 O.I. data lists 1988 as stand year of origin. Ownership cards list a treatment taking place in vicinity in 1987. Sap/pole BTA dominated stand with STRONG RP sap/pole production. RP is nearly a solid wall in north/NE portion of stand. BTA and RP aged to ~25-26 years. Scattered overstory leave trees in the form of WP, RP, and RO. MiFi wouldn't let me include 1% log/pole/xlog RP in the canopy list (it required me to skip two size classes). RP regen is impressive and wonder if scarification and/or fire was used during late 80's treatment.</p> <p>OPIC - FMD: scattered red pine and red oak poles.</p>
10	4130 - Aspen	Sawtimber Medium	23.9	69	51-80	<p>A lighter stocking level/density of BTA (dominant species) throughout. Canopy closer is seemingly at the higher end of 50-75%. Overstory RP scattered throughout. Variable height RP saps common in the understory. Red oak saps well represented as well. Scattered log/pole RO and WP present. Tempted to let BTA senesce and allow RP, RO, and WP to fill the gaps. The stand would still be a medium stocking level and offer great snag and cwd material.</p> <p>OPIC - FMD: OI Stand Year Origin was 1944</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
11	4133 - Aspen, Mixed Pine	Sapling Medium	46.8	26	1-50	<p>2005 O.I. data lists 1988 as year of origin. Ownership cards indicate a treatment took place in vicinity in 1987. Variable density sap/pole BTA, RP, and some JP/WP throughout. Natural openings/low density areas stand out with "leaf on" imagery. Northern boundary has heavier sap/pole JP presence. Scattered log/xlog RP and log RO leave trees present. MiFi wouldn't allow me to enter 3%, 14" log/xlog Red Pine that was 70 years old.</p> <p>OPIC - FMD: OI Stand Year Origin was 1988</p>
12	42110 - Planted Red Pine	Poletimber Well	126.1	48	141-170	<p>Planted in 1969 based upon ownership cards (couldn't find official planting record). Estimating RP was 2yrs old when planted. No harvest record(s) found and no cut stumps observed. Some areas of reduced canopy closure where RP most likely failed. No major failure locations observed however. Still primarily pole sized with a few log sized RP scattered within. Some natural/larger RP observed, mainly along perimeter. Pockets of naturally occurring JP present. RP looked healthy with decent live crown ratios. RP averaged 4-5 merchantable sticks.</p> <p>OPIC - FMD: MAY WANT TO RELEASE PINE.</p>
13	4133 - Aspen, Mixed Pine	Poletimber Well	66.8	43	51-80	<p>Based upon ownership cards, it appears this stand was harvested in 1972. Mainly BTA poles dominate north of Ivy Ln. Much more RP and some WP mixed in when you enter the block south of Ivy Ln. Southern block also features more open&amp;low density tree areas. A buffer was left along N/S line against private 40ac (J&amp;J Spantak) north of Wartella Rd. These few acres are now a mature BTA, Pine, RO, RM mix. Recent survey by private now clearly delineates the PVT/State line (brush line, stakes, corners, flagging). Scattered log sizes present of most overstory species listed above. Possible non-timber trespass along southern E/W private/state land interface (shed, fence, driveway). Will verify once snow dissipates (couldn't find those corners, will try again and speak with owner).</p> <p>OPIC - FMD: just converting to poles.</p> <p>*Trespass Update. Spoke with home owner Mike Sova on 5/4/15. He knows some of his "stuff" is on state and will begin moving over to his prop. A portion of crudely made wooden fence appears to be on State that surrounds some of his "stuff". I asked if he knew where his corners were. He believes one is in Upper Mograin Rd and his E/W wire fence ends at props NE corner. Bay station center point may of been observed in road (don't believe it's a corner though). Told him I'd be back to run the line. Very easy going and knows he has some possessions on state land.</p>
14	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	5.5	33	1-50	<p>Current stand structure seems to be the result of a removal harvest that originated in Std.30 of ATLC165 to the north (~30+ yrs ago). Some heavy aspen clones of sap/pole and pole/sap present. Very good RP and WP sap/pole and pole/sap presence as well, JP to lesser extent. Residual overstory remains in the form of log RP, WP, RO, and some aspen. Sap converting to pole in areas, and areas with more poles.</p>





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	4133 - Aspen, Mixed Pine	Sapling Well	24.1	18	1-50	Removal harvest in '97 based upon ownership cards. Couldn't locate sale docs. Cut all BTA/red maple and left all pine/oak. BTA clones heavy in areas with fewer pine/oak in overstory. Heavy white pine log/pole/xlog remain in eastern half and in clumps throughout the rest. Red pine exist in clumps and as scattered singles. I.R. imagery clearly shows pine that remains. OPIC - FMD: scattered red pine and red oak poles.
16	42110 - Planted Red Pine	Poletimber Well	29.2	62	171-200	Red Pine stand planted in October of 1955 based on planting record (2yr old RP). Records indicate a 7.5ft x 7.5ft spacing. Current spacing is more 8x8ft to 9x9ft spacing. Hard to tell with no available cut records but it doesn't appear that this stand has been treated in the past? Didn't observe any stumps. Large pole/small log size RP dominate with size class variability throughout. Southern polygon, west of forest road, features larger size (log) classes of RP and a heavier presence of WP. Natural pine mixing from Stand 20 is occurring along west boundary of southern poly as well. Two planted RP cored. Very little radial growth over the past 20-25 years based on these cores. Average height was about ~50ft with some areas noticeably shorter and some areas taller. Very good form throughout with decent live crown ratios. Cored one XLog RP that was 25" DBH and 112 + 8yrs to DBH (=120 years old). OPIC - FMD: THIN IN 10 YEARS, A FEW SCATTERED ASPEN POLES.
17	4133 - Aspen, Mixed Pine	Sawtimber Well	4.4	72	81-110	Portions of this stand located within Stand 4 are on a slight ridge line. Northern portion outside of Stand 4 are atop level ground. Some blow down/tip-up BTA observed. RP, WP, and RO filling in gaps vacated by BTA. Canopy closer is at the low end of 75-100%. This stand is most likely the result of red pine failure within Std.4.
18	42290 - Natural Mixed Pine	Sawtimber Medium	25.5	47	81-110	Another stand with variable canopy closure and size classes (appears two-aged). Some areas have less closure and other locations have higher closure. In my opinion, canopy closure is on the high end of 50-75%. Variable ages within, especially pine species. Aged three RP's at 25yrs (large sapling), 47yrs (large pole), and 68yrs (large log, but not an xlog). Not sure if this is the result of a deciduous removal in the past, or just a result of natural canopy gaps. Didn't see much vegetative growth so it might be the result of the latter opinion. Numerous clumps of RP, JP, and WP sap/pole production throughout. Had some heartburn calling it a "log" size stand but it seemed a better fit than "pole". OPIC - FMD: ASPEN WAS CUT 10 YEARS AGO. (ownership card suggested a 1977 hwd/aspen removal, JSP)
19	42210 - Natural Red Pine	Sawtimber Medium	64.2	74	81-110	Shelterwood completed in 2010. RP mark thinned and BTA/RM removal. BTA/RM sprouts beginning to thicken in areas where removed. RP and WP are of good form with healthy crowns (much better than Std23). RP & WP should respond well based on live crown ratio observed. Cores didn't show much of a response yet. OPIC - FMD: MIXED STAND, VARIOUS AGES. ALSO CONTAINS SOME WHITE BIRCH. Harvest on bare ground to scarify soil. Alternative regeneration: Will accept any combination of white birch, red pine white pine, aspen, jack pine, red maple, and oak.-----shelterwood cut complete 9/2010-54-041-07-01



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4311 - Pine, Aspen Mix	Sawtimber Well	57.5	77	111-140	<p>Could be a variation of what U.P. Foresters call "Mackinaw Mix". Natural overstory red pine present in nearly any direction you travel. Some plantation RP makes its way into the stand along the boundary with Stand 16. Three RP ages taken and came out to 61, 77, 108yrs (all had + 8yrs added to core age) . Variability of species composition, age, and diameter is obvious throughout yet not to an outrageous degree. Given the prominence of aspen/red maple in the understory, I'd suspect a removal harvest occurred in the past. Ownership cards indicate treatments in '72 and '77 within general area. Balsam fir seed/saps and "lowerland" species more common as you near cedar Stand 21. Super canopy/legacy WP/RP was on the order of 110-130 years old.</p> <p>OPIC - FMD: VERY MIXED STAND BOTH SPECIES AND AGE.</p>
21	6120 - Lowland Cedar	Poletimber Well	37.5	110	171-200	<p>Variable density/canopy closure cedar dominated stand. Two cedars cored at 115 &amp; 95yrs + 15yrs to DBH. Features some notable cedar seedling/sapling regeneration in areas. Layering regen observed as well. Blow down pockets present as well a few small upland islands. Unclear of details but appears a PVT (or state) harvest may of snuck onto State land in spots. An obvious equipment path begins on state. Didn't completely walk it as its quite grown over now. A PVT land harvest south of this stand (and west of Std22) did occur at some in the past.</p> <p>OPIC - FMD: OI Stand Year Origin was 1900</p>
22	6112 - Lowland Aspen	Poletimber Well	80.1	41	81-110	<p>Western portion (along State/PVT line near walkable trail) features larger diameter representations of conifer and some deciduous species. Unable to find corners along interface. Some of the WP/RP exceed legacy tree diameter (26") and aged at ~120+ years. This sub 5-acre area may of served as a buffer during possible harvest in the past. Rest of the stand is just moving into merchantable stage. The limited merchantable decreases as you move into eastern (wetter) areas of stand. Low w/up is what the stand appeared to be in mid-December 2014 following wet fall. Ownership cards suggest a majority of this stand was treated in 1976.</p> <p>OPIC - FMD: just converting to poles.</p>
23	42210 - Natural Red Pine	Sawtimber Medium	4.8	82	81-110	<p>As stated below, thin completed in 2010 along with shelterwood cut in Stand 19. Large pole/small log remain and residual BA was less than 100 sq/ft. On the high side of 50-75% canopy closure. Two cores (73 &amp; 74yrs + 8yrs to DBH) taken that hadn't shown much diameter response (yet). Live crow ratios on residual RP were quite low. Probably on the lower side of 15-25%. Thin also removed RM and Aspen. RM sprouts and Aspen suckers are taking off, so expect competition if RP replant is being considered following next cycle.</p> <p>OPIC - FMD: THIN STAND TO INCREASE GROWTH ON LOG TREES----thin completed 9/2010---54-041-07-01</p>
24	4199 - Other Mixed Upland Deciduous	Poletimber Well	13.1	75	141-170	<p>Interior portions are more upland with species being a bit larger in diameter and taller. More lowland as you near the perimeter on all sides of the stand. Snow covered with wet ground when visited in late December 14'. Could go either up w/low or low w/up. A bit more QA/BTA plus conifer/pine in the N.W. finger.</p> <p>OPIC - FMD: OI Stand Year Origin was 1946</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	42220 - Natural Jack Pine	Poletimber Well	7.3	48	51-80	<p>Pole with some log size JP stand. I had a difficult time deciding on a canopy closure figure. This stand is more open than MC6 Stand 34 to the SW. Closure is right around 75% (my opinion) but areas are more dense (north tip) and less dense (remainder of stand), thus bending my confidence. I'll state that canopy closure is on the very low end of 75-100%. Clean understory that's easy to walk through.</p> <p>OPIC - FMD: OI Stand Year Origin was 1950</p>
27	4130 - Aspen	Sawtimber Medium	12.7	71	1-50	<p>Similar composition and appearance as A8 Stand 10. Canopy closure is on the higher end of 50-75%. Very open understory but does have 3-5ft and 5-15ft RO nearly everywhere. Sap (some poles) WP/RP exist as 3-5ft and 5-15ft examples. BTA is of the lower stocking level variety. This is very common (when mature) within comp/and area based upon what I've observed.</p> <p>OPIC - FMD: harvest with stands 127 &amp; 306. Mixed aspen-hwd reproduction will be acceptable. A variance was granted for the following reason: Prescriptions were supposed to have been dropped at review per review decision.</p>
28	4133 - Aspen, Mixed Pine	Sawtimber Medium	21.5	65	81-110	<p>Portions of the stand feature reclaimed openings (similar to Std.1) populated by sap/pole RP, WP, JP, RO, and other deciduous species of lesser dominance. An obvious ~3ac clump of log/pole RP and WP is present in the southeast corner on stand. On the higher end of 50-75% canopy closure. Stand 14 was split out of this stand (Std.14 was to structurally different to belong within this stand).</p>
30	4133 - Aspen, Mixed Pine	Sawtimber Medium	43.6	67	81-110	<p>Aspen is even-aged in northern portion and somewhat two-aged in bottle-neck and southern portion of stand. Size classes correspond as well. Log/pole ~67 year old aspen in north and 33 &amp; 67 year old aspen in southern area. Younger aspen accounts for ~10-15% of canopy. Heavier pine component in north/northeast area of stand. Canopy closure and stocking densities vary. 75-100% in north/northeast and begins to decrease as you move into NW. Bottleneck and southern areas are quite open and are easily in the 50-75% range. Decent advanced red oak and white pine production in understory. Red pine production is present in areas as well.</p> <p>OPIC - FMD: OI Stand Year Origin was 1934</p>
33	42290 - Natural Mixed Pine	Sawtimber Well	14.7	72	111-140	<p>Every bit of a mixed conifer stand. A nearly pure J9 begins 300ft west of ORV trail. WP and RP begin mixing in as you near ORV trail while walking east. RP begins to dominate East of Zebra Trail/Rd. Portions west and east of Zebra Trl were formally part of plantation RP Stand 6. JP clumps and WP mixing occurs in area east of Zebra Trl as well. Northern and eastern boundary line were part of '99/07 removal harvests. Heavy BTA clones and RM sprouts in those areas.</p>
34	42290 - Natural Mixed Pine	Poletimber Well	7.7	36	81-110	<p>Pole/sap size JP stand with some log size JP present. Some gaps present but primarily 75-100% canopy closure. Red pine has a strong presence. Especially along the southern boundary as you near Stand 119. Clean understory for the most part.</p> <p>OPIC - FMD: ASPEN WAS CUT 10 YEARS AGO. (not in this stand, JSP).</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
103	4130 - Aspen	Sawtimber Well	6.3	73	81-110	Served as a buffer strip when Std.13 was cut in '72 (is my thinking). Large BTA present with WP, RP, RO and a few northern hardwood species.  OPIC - FMD: buffer strip in sub-division.
104	42110 - Planted Red Pine	Sawtimber Well	61.1	62	141-170	Planted in the fall of '55 (2yr old RP) and in transition from pole to log (like Stds 4,6,16). No cut record(s) found and no cut stumps observed. Planted 7.5ft x 7.5ft spacing. Current spacing is more 8x8ft to 9x9ft spacing. A bit more stable size class distribution than it's siblings (Stds.4,6,16) that were planted in '55 as well. RP is primarily small log size yet there are still plenty of larger poles present. RP averages 5-6 merch sticks, plus or minus a stick depending on the location. Two areas feature natural pine (mainly JP) mixing with planted RP. Both locations have an associated OFS point. The location west of Zebra Trl. is ~4ac and is heavy to JP/and some deciduous species. The location east of Zebra is ~2ac with a heavy JP component. Pockets of natural RP observed in areas as well. RP looks healthy with decent live crown ratios. A nearly clean understory with RO saps common throughout.
110	42290 - Natural Mixed Pine	Poletimber Well	20.3	62	81-110	White pine pole/log/sap dominated in southern "chunk" and is more densely stocked than northern bottleneck. Bottleneck in north is a less dense pine/aspen mix with a few natural openings. Observed a handful of xlog WP in the south. Southern "chunk" is pole/small log and north is more log size. Some plantation RP mixing in along boundaries of Stds. 6&104. More JP pole/log in northern part of bottleneck. Some BTA clones in southern boundary because of past removal harvests in Stds. 9&15.  OPIC - FMD: OI Stand Year Origin was 1944
119	42210 - Natural Red Pine	Sawtimber Well	65.7	83	141-170	What appears to be a natural Red Pine stand. RP looks healthy and has done well for itself on this site. Most RP examples are of log/larger log size. Pockets of high density RP are composed of pole to small log size RP. Western/northern boundary picks up some pole/log JP. Stumps and lower BA's present in N/NE portion near Stands 18/34. Remainder of stand may of been treated in 70's based on ownership cards. Deciduous stump sprouts/suckers present but understory is still quite navigable and clean throughout most of stand. Southwest portion has heavy WP sap production. Second RP age taken was 85+8yrs to DBH= 93yrs.  OPIC - FMD: MIXED STAND, VARIOUS AGES.ALSO CONTAINS SOME WHITE BIRCH .
127	4130 - Aspen	Sawtimber Medium	15.5	72	51-80	BTA dominated (low stocking) with RP/WP in the overstory. Again, similar in appearance, structure, and composition to Stds.10&27. RP and WP saps (some poles) are present in understory at variable heights. RO saps common throughout.  OPIC - FMD: harvest with stands 27 & 227Mixed aspen-hwd reproduction will be acceptable.
300	6127 - Lowland Pine	Poletimber Well	6.8	66	51-80	More WP/RP/JP in central and western portion of stand. Black spruce more prevalent in eastern portion. Could go either way with regard to low w/up or up w/low. Quite "pit and moundy" with water filling the pits. Water present was frozen when visited on 12/12/14. Fall of 2014 was quite wet. Deciduous removal may of occurred in 1976 based on ownership cards.  OPIC - FMD: OI Stand Year Origin was 1946.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
301	42210 - Natural Red Pine	Sawtimber Well	3.3	81	201+	Appears to be natural RP but may of been planted? RP is quite tall, with healthy crowns, and has self-pruned nicely. Pit and mound terrain within stand. Water observed in pits when first visited in mid-Dec of 14'. Perimeter of stand is surrounded by low w/up Stand 22. It's this examiners opinion that all management options wouldn't be worth the trouble of disturbing this small but growingly unique stand. Appears to of avoided 1976 treatment within the area.
302	4319 - Mixed Upland Forest	Poletimber Well	12.5	72	81-110	Very apparent species and size class variability within this stand. At least two pockets of dense WP sap/poles were observed that featured few merchantable species. Two OFS points designate these locations (one in NE and one in NW area of the stand). Both WP pockets were ~1-3 acres in size (estimated). Remainder of stand was a merchantable mix of RM, BTA, WP, RP, and some PB. Trace amount of red oak is present in overstory. Pit and mound with ice/water in pits. OPIC - FMD: just converting to poles.
304	42210 - Natural Red Pine	Sawtimber Well	4.5	79	201+	West polygon is a portion of Stand 19 that wasn't shelterwood cut in 2010. I believe it served as a buffer before getting into low/wet ground. RP in west polygon is a bit shorter/smaller diameter and understory is more dense with red maple & white pine saps/poles (than east poly). The east polygon features more log/xlog BTA. Aged an RP in east poly at 74yrs + 8yrs to DBH. Aged an RP in west pol at 71yrs + 8yrs to DBH. OPIC - FMD: just converting to poles.
305	42200 - Natural White Pine	Poletimber Well	10.4	69	111-140	North line along Stand 4 has portions of failed planted red pine. South line has obvious portions that were part of Stand 7's removal harvest in '97 (BTA clones and RM sprouts). Northeast area has a small and nearly non-forested open area. Red maple saps are a bit dense in northwest/north central. White pine pole/log and BTA are the primary overstory species. Overstory RP present but not prolific. OPIC - FMD: SOME SCATTERED RED OAK POLES AND POOR QUALITY LOGS.



Stand	Cover Type	Acres	Managed Site	General Comments:
25	6229 - Mixed lowland shrub	8.4	No	Low/seasonally low lying with low density conifer and a few scattered pockets of higher density conifer of mainly pole size. Leather leaf and other lowland shrub species present. Wasn't as wet as I thought it should of been when visited in mid-December, 2014. Fall of 14' was pretty wet.
303	622 - Lowland Shrub	0.4	No	Lowland shrub opening with a few seedlings populating the interior.
400	310 - Herbaceous Openland	0.4	No	Grassy opening with a few BTA saps present.
401	3303 - Mixed Low Density Trees	9.6	Yes	Sapling and log sizes of all the species listed above were observed. Snow covered but grass, sedge, and fern observed. OIPC comment stated that wildlife wanted to "reclaim original opening by burning and maintain with fire". Unsure if this ever occurred. OPIIC - FMD: mostly bracken fern with some aspen encroaching, rocky soil.
402	3303 - Mixed Low Density Trees	5.1	No	Snow covered but could determine the presence of a grass, sedge, and fern layer. Sapling and some log sizes of the species listed above were observed.