



Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72196

Entry Year 2018

Acreage: 2,148

County Crawford

Management Area: AuSable Outwash

Revision Date: 2016-06-28

Stand Examiner: Thomas Barnes

Legal Description:

T25N R04W Sections 22, 23, 24, 26, 27

Identified Planning Goals:

To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management.

Soil and topography:

The compartment has flat to gently rolling terrain and the primary soil type throughout is Grayling sand.

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

There is mostly state ownership with scattered private parcels. Active oil and gas well sites are located west of Military Road in Section 22.

Unique Natural Features:

Kirtland's warbler has historically been documented in section 22, however, the 2015 census did not record any KW in this compartment. There is the potential for dry prairie plants such as Hill's thistle, rough fescue, Alleghany plum and pale agoseris to occur in grassy openings and open jack pine. There is also the potential for dusted skipper, grizzled skipper, and red-legged spittlebug to be found in grassy openings. Kirtland's warbler and prairie warbler may be found in young jack pine.

Archeological, Historical, and Cultural Features:

None

Special Management Designations or Considerations:

Stands 9, 23 and 29 are to be managed as fuel breaks. An additional fire break will be created in stand 101 and 102. There are older pipelines crossing the Jack Pine type in the southwest quarter of section 22, there are also pipeline running above ground in stand 114.

Watershed and Fisheries Considerations:

None.

Wildlife Habitat Considerations:

Maintain and increase the Aspen and Oak cover types for deer, grouse, turkey and squirrel.

Mineral Resource and Development Concerns and/or Restrictions

There is an old sand pit in the SESW of section 23 that is currently being used for target practice. Consider blocking the two-track into the pit and allow nature to continue to restore it. Surface sediments in the compartment consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift is the Michigan Formation. The Michigan is quarried for gypsum elsewhere in the State. A gravel pit is located in Section 36 and there may be some potential. The compartment is leased for oil and gas and one-half is located in the Beaver Creek Field. The field has produced over 21 MBO from the Devonian Richfield and over 5 Bcf gas from the Ordovician Prairie du Chien.

Vehicle Access:

The compartment is completely surrounded and also filled with a network of roads, including two tracks, well-maintained county roads, seasonal county roads and a state highway. 7 Mile Road, half paved and half gravel, borders the north side of the compartment. Fletcher Road runs through the middle of the compartment. Military Road runs north and south between section 22 and 23. US 127 is the east boundary of the compartment. A grid of several other roads and two-tracks run along 40 lines.

Survey Needs:

None needed.

Recreational Facilities and Opportunities:

: Recreational opportunities include hunting, bird watching, blueberry picking, ORV riding and Snowmobiling. The Beaver Creek ORV trail traverses through the south half of section 24 and the Beaver Creek Snowmobile trail runs through section 23 along portions of King Road. Also the Cross Country Cycle trial runs through the compartment.

Fire Protection:

Fire protection falls under the jurisdiction of the Beaver Creek Volunteer Fire Department and the Michigan DNR. The compartment is primarily made up of pine cover types and has oil and gas wells/pipelines distributed east of Military Road which could pose problems during fire suppression. Sour gas is a major concern. Actions taken to reduce these hazards include the creation of several fuel breaks and the establishment of a no-plow zone in the areas of oil and gas wells/pipelines. The closest water source is the Beaver Creek Volunteer Fire Department.

Additional Compartment Information:

This compartment was realigned since last inventory cycle, sections 26 and 27 were shifted from compartment 195 to this compartment. All compartment stands now lie west of US 127.

The following reports from the Inventory are attached:

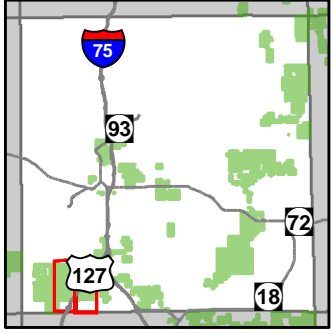
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

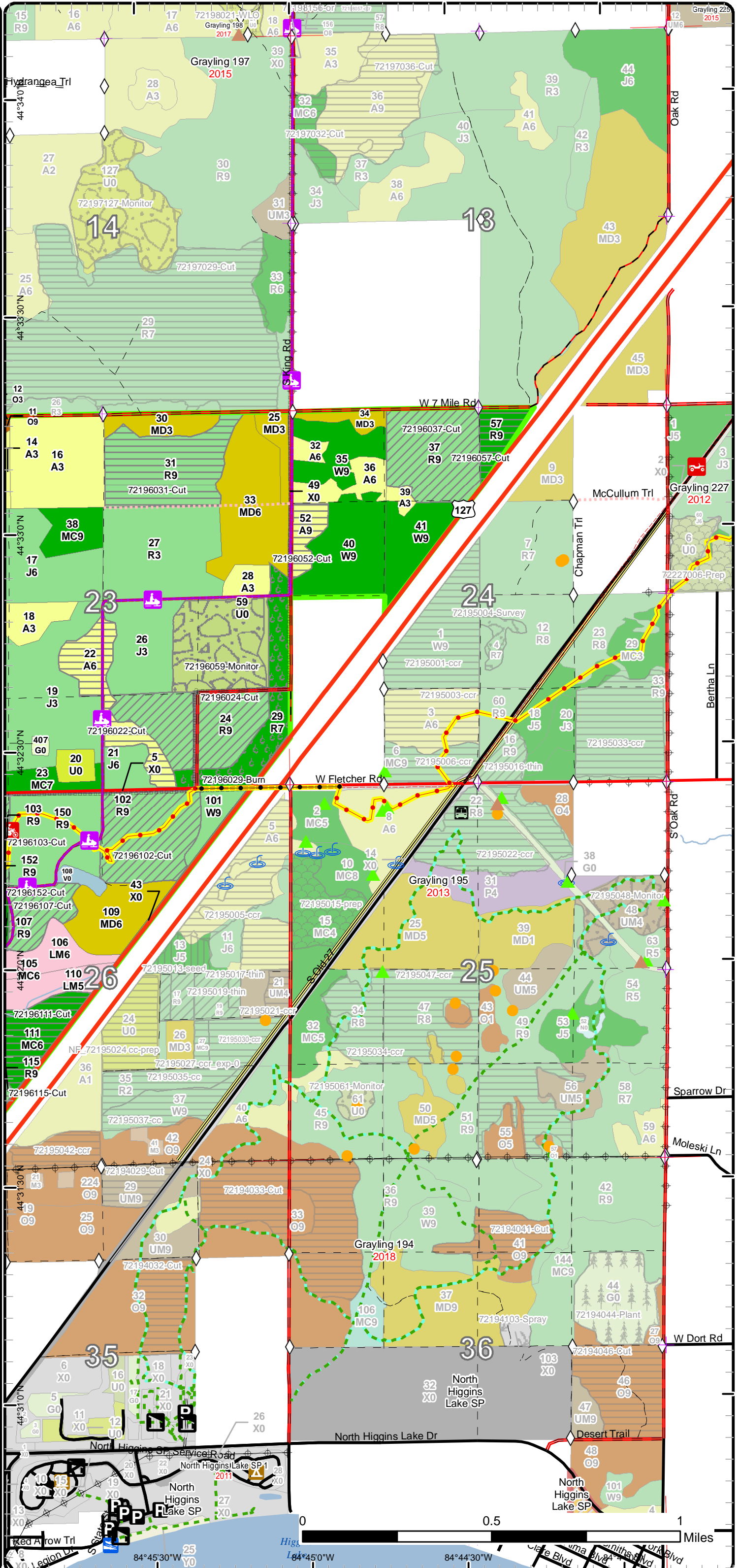
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatment Map

Compartment: 196
 T25N,R04W, Sec. 22-27, 34-36
 County: Crawford
 Unit: Grayling
 Mgmt Area: AuSable Outwash
 YOE: 2018
 Acres: 2148 GIS Calculated
 Examiner: Thomas Barnes
 Map Revised: 3/9/2017
 Map Phase: Post-Review



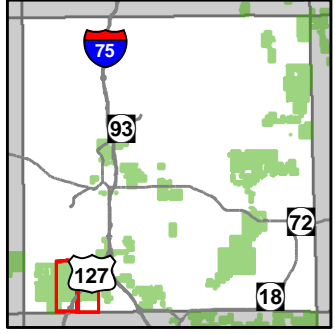
- Miris Corners
- Remonumented Section Corners
- Field Grade GPS Corners
- Berms
- Toilet
- Boating Access Site
- Campground
- OFS Human Impact
- OFS Hydro
- OFS Other-Specify
- OFS Transportation
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- Streams
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- Powerline
- Unspecified
- Compartment Boundary
- Clearcut (w/Reserves)
- Prescribed Burn
- Regeneration Survey
- Thinning (Crown, Low, Systematic)
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 622 - Lowland Shrub
- Lakes



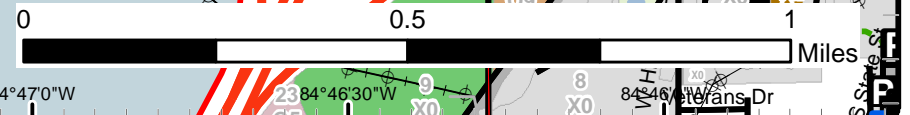
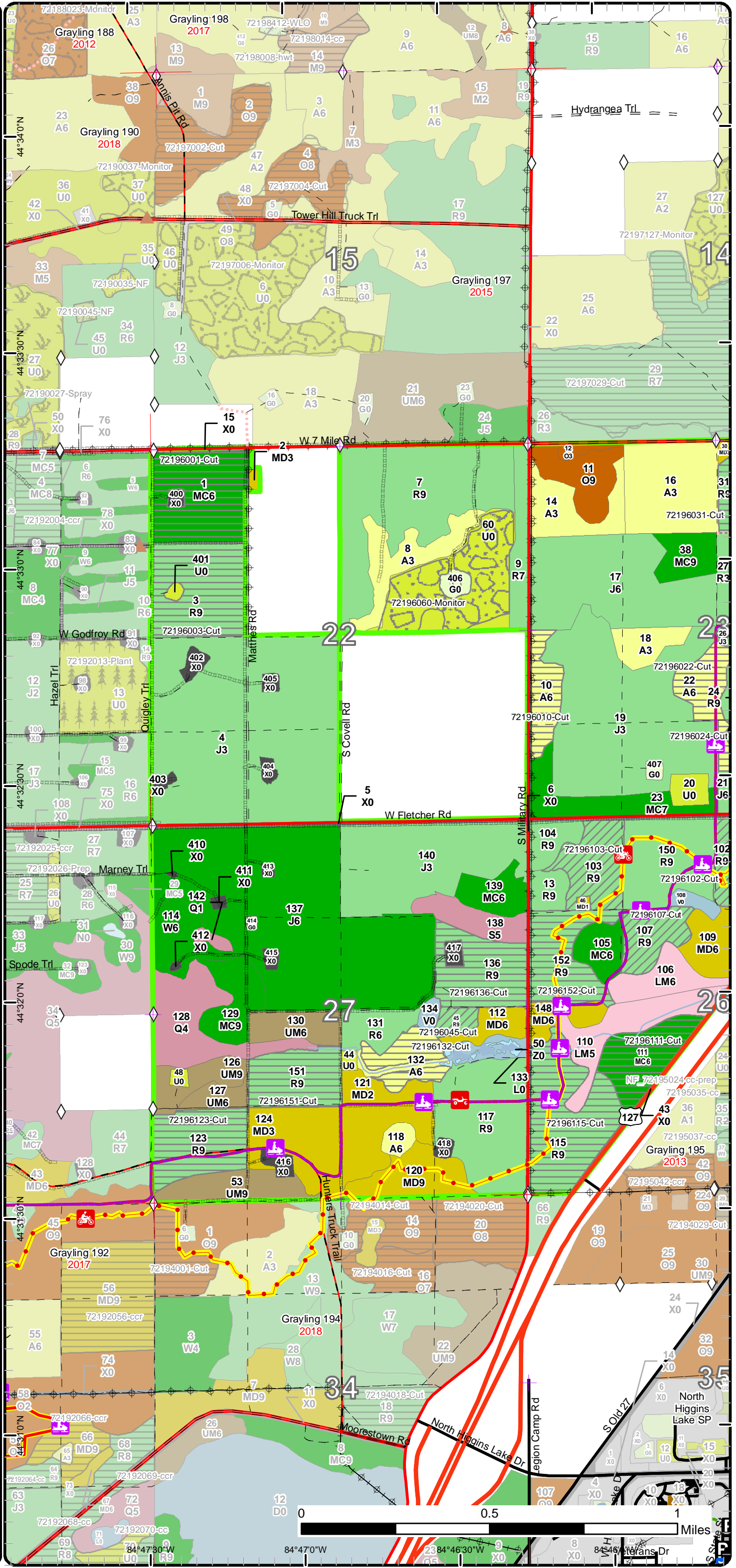
84°45'30"W 25 Y0
 84°45'0"W
 84°44'30"W
 18th Blvd
 19th Blvd
 20th Blvd

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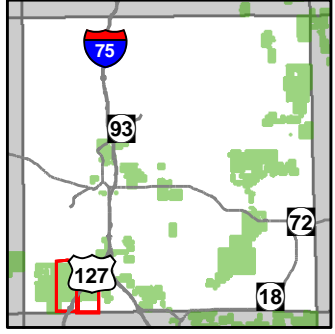


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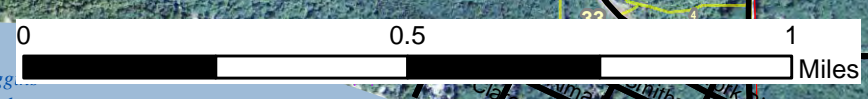
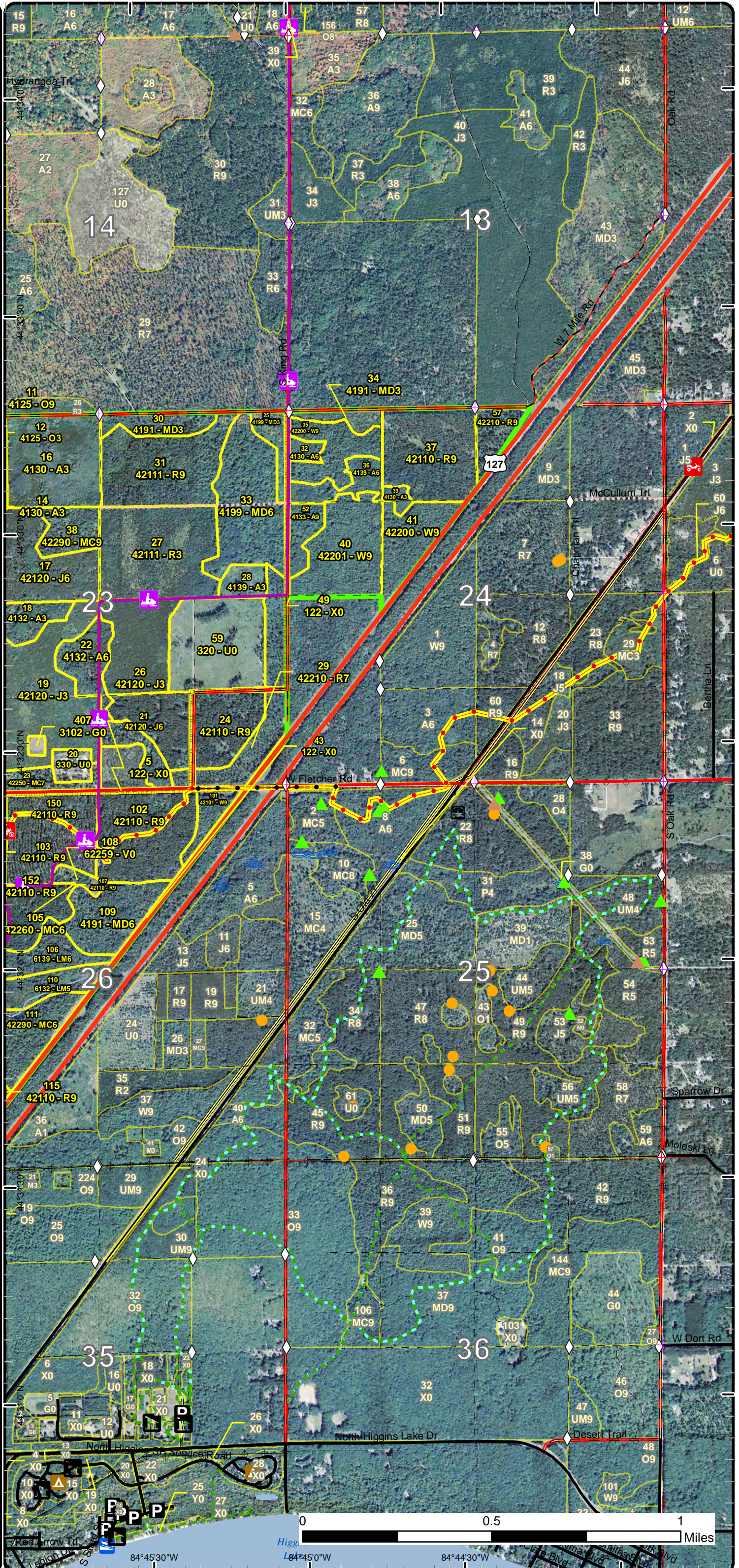


Stand Boundary Map

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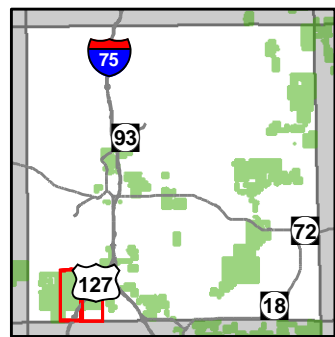
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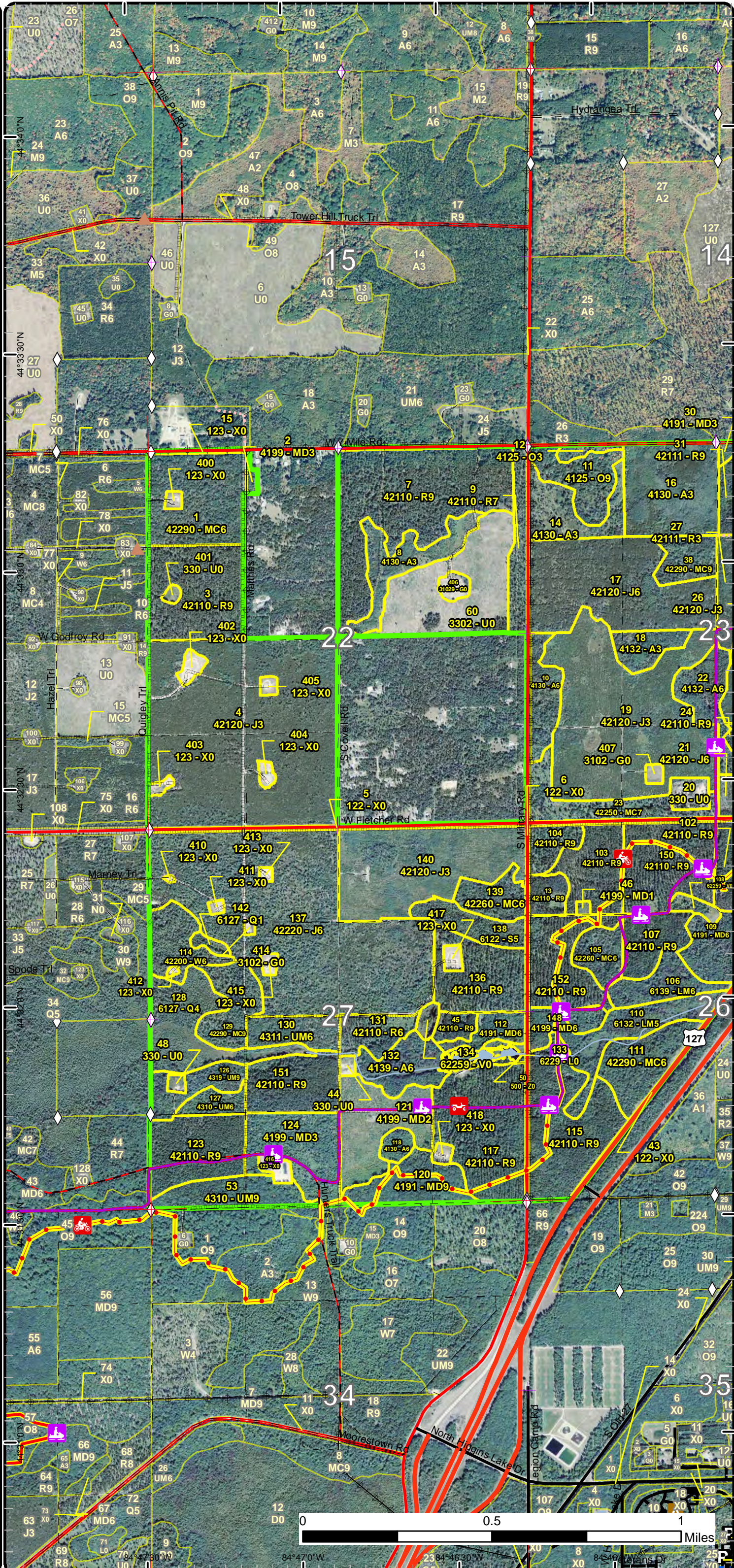
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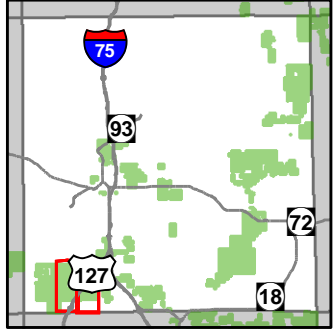


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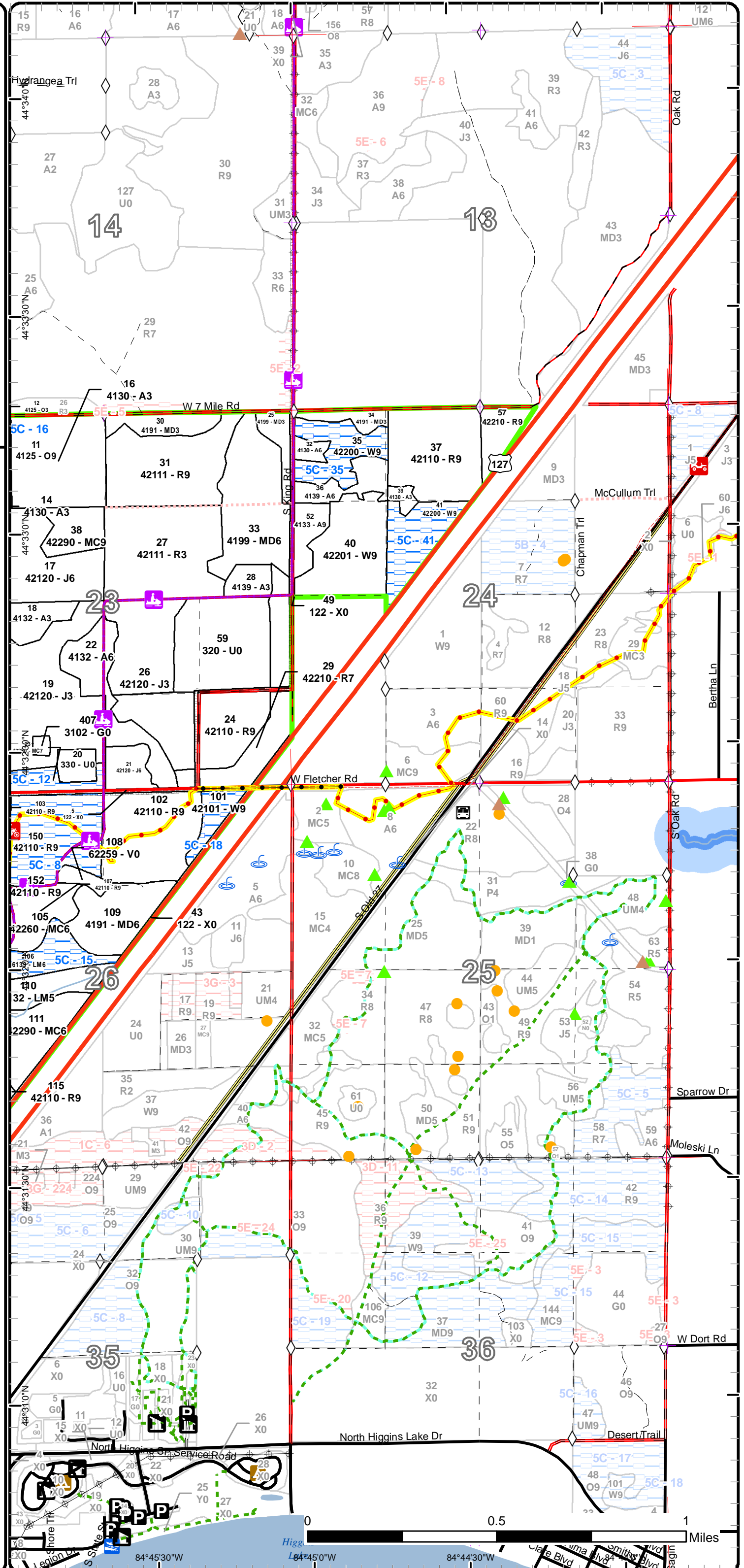


Special Conservation Areas & Site Conditions Map

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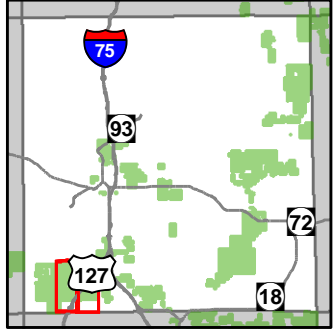


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- Available w/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Stand Boundaries
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Cold Water Streams
- Cold Water Lakes

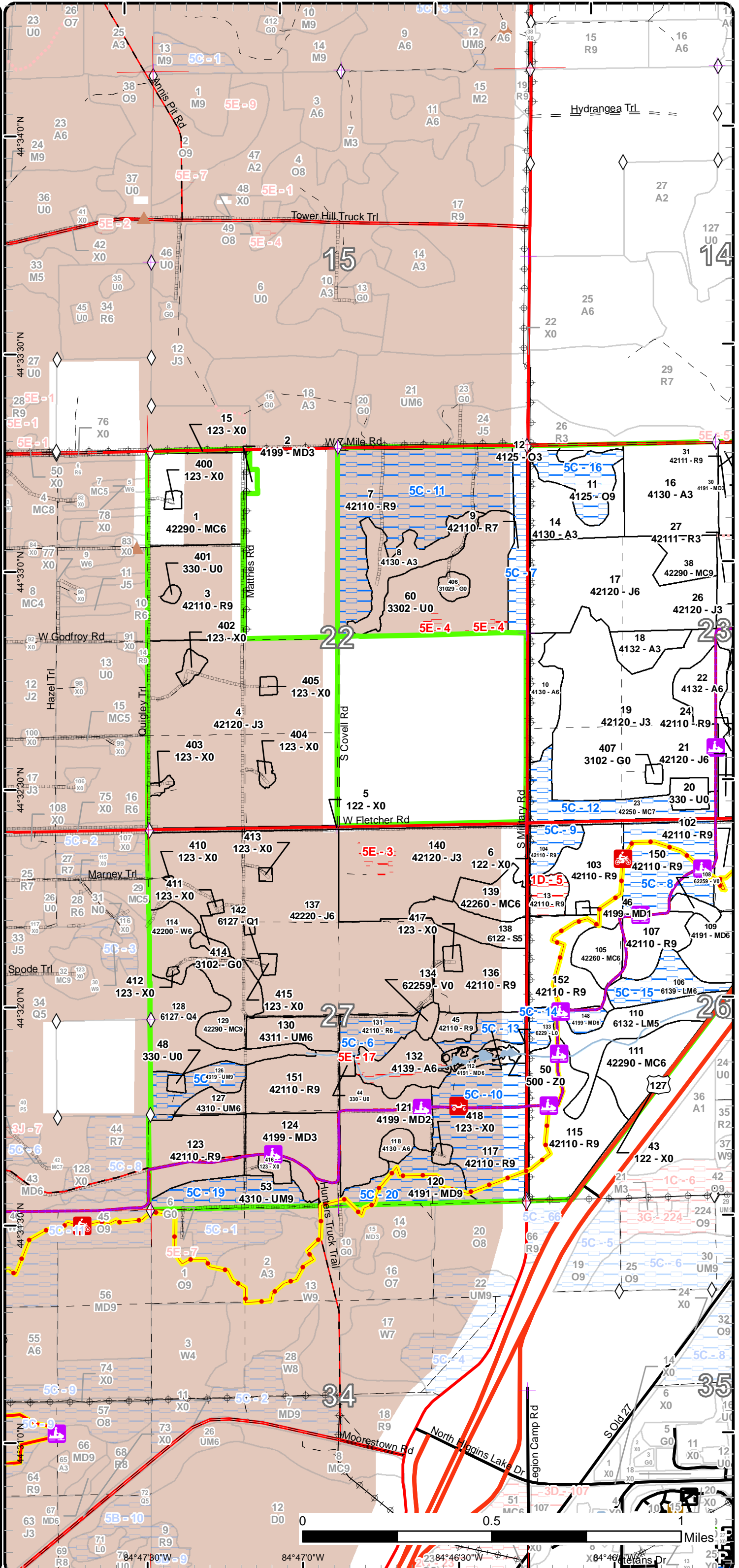


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- Active Railroads
- Streams
- Lakes and Rivers All
- Pipeline
- Powerline
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 1D: Interest Group / Neighbor
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- Research, Development, and Military Lands



Report 1 – Total Acres by Cover Type and Age Class

Grayling Mgt. Unit

Compartment 196 Year of Entry 2018

Thomas Barnes : 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 | 25 | 33 | 39 | 0 | 26 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 176 |
| Bog | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Herbaceous Openland | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Jack Pine | 0 | 0 | 160 | 331 | 64 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 563 |
| Low-Density Trees | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| Lowland Conifers | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| Lowland Mixed Forest | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| Lowland Shrub | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Lowland Spruce/Fir | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| Mixed Upland Deciduous | 0 | 1 | 44 | 80 | 0 | 0 | 23 | 0 | 0 | 17 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 184 |
| Natural Mixed Pines | 0 | 0 | 0 | 0 | 0 | 61 | 0 | 0 | 0 | 55 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132 |
| Oak | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| Red Pine | 0 | 0 | 0 | 48 | 0 | 0 | 0 | 0 | 0 | 473 | 147 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 668 |
| Upland Mixed Forest | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 18 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| Upland Shrub | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 |
| Urban | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 |
| Water | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| White Pine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 36 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| Total | 175 | 26 | 237 | 501 | 66 | 107 | 85 | 32 | 13 | 642 | 231 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 2147 |



Report 2 – Treatment Summary

Grayling Mgt. Unit

Year of Entry: 2018

Acres of Harvest

Compartment 196

Total Compartment Acres: 2,148

Commercial Harvest - 515
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

| | Clearcut | Selection | Patch Clearcut | Seed Tree | Shelterwood | Thinning | Overstory Removal | Salvage | Other | Total Acres |
|---------------------|------------|-----------|----------------|-----------|-------------|------------|-------------------|----------|----------|-------------|
| Aspen | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 |
| Natural Mixed Pines | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 |
| Red Pine | 242 | 0 | 0 | 0 | 0 | 154 | 0 | 0 | 0 | 397 |
| Total | 361 | 0 | 0 | 0 | 0 | 154 | 0 | 0 | 0 | 515 |

Proposed and Next Step Treatments by Method

| | Harvest | Site Prep | Planting | Seeding | Burning | Pesticide | Monitoring | Other | Non-Forest Mgt. | Total Acres |
|--------------|------------|------------|------------|----------|-----------|------------|------------|----------|-----------------|-------------|
| Current | 515 | 0 | 0 | 0 | 26 | 0 | 74 | 0 | 0 | 615 |
| Next Step | 0 | 671 | 303 | 0 | 0 | 303 | 725 | 0 | 0 | 2002 |
| Total | 515 | 671 | 303 | 0 | 26 | 303 | 798 | 0 | 0 | 2617 |



| 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 |
|-----------------------|----------------|-------|----------------------------|-----------------|-----------|----------|----------------|-------------------------|-------------------------|---------------|----------------------|
| 1 | 72196001-Cut | 39.0 | 42290 - Natural Mixed Pine | Poletimber Well | 45 | 81-110 | Harvest | Clearcut with Retention | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |

Habitat Cut: No

Site Condition:

Prescription Final harvest with retention, follow standard retention guidelines and focus retention where scotch pine is not present and along perimeter of stand. Low stump, chipping and pipeline specs need to added.

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

Acceptable Planted red pine at densities ensuring a well stocked red pine plantation.

Other
Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|---|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|
| 3 | 72196003-Cut | 39.2 | 42110 - Planted Red Pine | Sawtimber Well | 89 | 111-140 | Harvest | Clearcut with Retention | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|---|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Final harvest with retention, follow retention standard guidelines. Remove all stems 2" and greater. Retention should be place along perimeter to help facilitate site prep. Conduct all site prep and chemical application as needed. Add pipeline spec. Chipping is required to help with planting.

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

Acceptable Planted red pine at sufficient densities to ensure a well stocked pine plantation.

Other
Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|------|--------------|-----------------|----|-------|---------|----------|-------------|-----------|----------------------|
| 10 | 72196010-Cut | 13.5 | 4130 - Aspen | Poletimber Well | 52 | 51-80 | Harvest | Clearcut | 413 - Aspen | Even-Aged | Draft Field Boundary |
|----|--------------|------|--------------|-----------------|----|-------|---------|----------|-------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Final harvest without retention due to size and trying to maximize aspen regeneration. Harvest all trees 2" and up. Add drumming spec.

Next Step Monitoring, Natural Regen (Re-Inventory)

Acceptable Medium to well stocked stand of aspen and mixed associated species.

Other Adjacent to Military road good break up job.

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|------|-------------------------|-----------------|----|-------|---------|-------------------------|-------------|-----------|----------------------|
| 22 | 72196022-Cut | 22.8 | 4132 - Aspen, Jack Pine | Poletimber Well | 52 | 51-80 | Harvest | Clearcut with Retention | 413 - Aspen | Even-Aged | Draft Field Boundary |
|----|--------------|------|-------------------------|-----------------|----|-------|---------|-------------------------|-------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Final harvest with retention, follow standard retention guidelines. Include snowmobile trail specs and drumming log specs. Try to focus some of the retention along the snowmobile trail.

Next Step Monitoring, Natural Regen (Re-Inventory)

Acceptable Medium to well stocked stand of aspen and mixed associated species.

Other
Comment:

Proposed Start Date: 10/01/2017



| S t a n d | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|-----------------------|----------------|-------|--------------------------|----------------|-----------|----------|----------------|------------------|-------------------------|---------------|----------------------|
| 24 | 72196024-Cut | 37.9 | 42110 - Planted Red Pine | Sawtimber Well | 92 | 141-170 | Harvest | Crown Thinning | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |

Habitat Cut: No

Site Condition:

Prescription Thin stand down to approximately 100 square feet of basal area. Focus on removing multiples and stems that are being suppressed. Include pipeline spec.

Next Step
Treatments:

Acceptable
Regen:

Other Good access to Class A road.

Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|---------------|------|--------------------------|----------------|----|------|------|------------|-------------------------|----------|----------------------|
| 29 | 72196029-Burn | 25.7 | 42210 - Natural Red Pine | Sawtimber Poor | 81 | 1-50 | Burn | Fuel Break | 4211 - Planted Red Pine | Two-Aged | Draft Field Boundary |
|----|---------------|------|--------------------------|----------------|----|------|------|------------|-------------------------|----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Conducted a prescribed burn to removed understory vegetation. Follow up treatment of roller chopping if necessary.

Specs:

Next Step SitePrep, Roller Chopping; Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable Mixture of hardwood species naturally regenerating follow the fuel break burn. Overstory to remain mature planted red pine.

Regen:

Other Stand has scattered red pine.

Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|------|---|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|
| 31 | 72196031-Cut | 40.5 | 42111 - Planted Red Pine, Mixed Deciduous | Sawtimber Well | 82 | 111-140 | Harvest | Clearcut with Retention | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|----|--------------|------|---|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Final harvest with retention, follow retention standard guidelines. Remove all stems 2" and greater. Retention should be place along perimeter to help facilitate site prep. Conduct all site prep and chemical application as needed. Add pipeline spec. Chipping is required to help with planting.

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

Acceptable Planted red pine of sufficient densities to ensure a well stocked red pine plantation.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|------|--------------------------|----------------|----|---------|---------|----------------|-------------------------|-----------|----------------------|
| 37 | 72196037-Cut | 37.1 | 42110 - Planted Red Pine | Sawtimber Well | 87 | 141-170 | Harvest | Crown Thinning | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|----|--------------|------|--------------------------|----------------|----|---------|---------|----------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Thin stand down to approximately 100 square feet of basal area. Focus on removing multiples and stems that are being suppressed. Remove all maple and oak unless needed to achieve desired BA level.

Next Step
Treatments:

Acceptable
Regen:

Other

Comment:

Proposed Start Date: 10/01/2017



| S t a n d | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|-----------------------|----------------|-------|--------------------------|----------------|-----------|----------|----------------|------------------|-------------------------|---------------|----------------------|
| 45 | 72196045-Cut | 5.0 | 42110 - Planted Red Pine | Sawtimber Well | 89 | 171-200 | Harvest | Crown Thinning | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |

Habitat Cut: No

Site Condition:

Prescription Thin stand down to approximately 100-120 square feet of basal area. Focus on removing multiples and stems that are being suppressed.

Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|-----|--------------------------|----------------|----|--------|---------|-------------------------|-------------|-----------|----------------------|
| 52 | 72196052-Cut | 8.0 | 4133 - Aspen, Mixed Pine | Sawtimber Well | 46 | 81-110 | Harvest | Clearcut with Retention | 413 - Aspen | Even-Aged | Draft Field Boundary |
|----|--------------|-----|--------------------------|----------------|----|--------|---------|-------------------------|-------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Final harvest with retention, following standard retention guidelines. Include drumming log specs.

Specs:

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

Acceptable Medium to well stocked stand of aspen with mixed associated species.
Regen:

Other
Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|------|--------------------------|----------------|----|--------|---------|----------|-------------------------|-----------|----------------------|
| 57 | 72196057-Cut | 10.2 | 42210 - Natural Red Pine | Sawtimber Well | 86 | 81-110 | Harvest | Clearcut | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|----|--------------|------|--------------------------|----------------|----|--------|---------|----------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Final harvest without retention due to size. Remove all species. Site prep as needed to then trench and plant to red pine.

Specs:

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

Acceptable Planting levels at sufficient densities to ensure a well stocked red pine plantation.
Regen:

Other
Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | | |
|----|------------------|------|--------------------|------------|--|--|-------------|------------|-----------------------|-------------------------|-----------|----------------------|
| 59 | 72196059-Monitor | 34.5 | 320 - Upland Shrub | Nonstocked | | | Unspecified | Monitoring | Artificial Regen(1yr) | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|----|------------------|------|--------------------|------------|--|--|-------------|------------|-----------------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription plant to red pine

Specs:

Next Step ; ; ; ; Monitoring, Artificial Regen(3yr)
Treatments:

Acceptable full stocking in planted RP
Regen:

Other Percent to Treat = 100%
Comment:

Proposed Start Date: 10/01/2016



| S t a n d | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|-----------------------|----------------|-------|-----------------|--------------|-----------|----------|----------------|------------------|----------------------|---------------|-----------------|
|-----------------------|----------------|-------|-----------------|--------------|-----------|----------|----------------|------------------|----------------------|---------------|-----------------|

| | | | | | | | | | | | |
|----|------------------|------|----------------------------------|------------|--|-------------|------------|-----------------------|-------------------------|-----------|----------------------|
| 60 | 72196060-Monitor | 39.1 | 3302 - Low Density Conifer Trees | Nonstocked | | Unspecified | Monitoring | Artificial Regen(3yr) | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|----|------------------|------|----------------------------------|------------|--|-------------|------------|-----------------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription check regen

Specs:

Next Step

Treatments:

Acceptable full stocking in RP

Regen:

Other

Comment:

Proposed Start Date: 04/20/2018

| | | | | | | | | | | | |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|----------------|-------------------------|-----------|----------------------|
| 102 | 72196102-Cut | 37.4 | 42110 - Planted Red Pine | Sawtimber Well | 86 | 141-170 | Harvest | Crown Thinning | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|----------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Thin stand down to approximately 100 square feet of basal area. Focus on removing multiples and stems that are being suppressed. Include

Specs: cross county cycle and snowmobile trail spec.

Next Step

Treatments:

Acceptable

Regen:

Other

Stand fronts fletcher road would be a good spring break up stand.

Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|----------------|-------------------------|-----------|----------------------|
| 103 | 72196103-Cut | 21.6 | 42110 - Planted Red Pine | Sawtimber Well | 88 | 141-170 | Harvest | Crown Thinning | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|----------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Thin stand down to approximately 100 square feet of basal area. Focus on removing multiples and stems that are being suppressed. Add cycle

Specs: trail spec.

Next Step

Treatments:

Acceptable

Regen:

Other

Can use stand 46 for a landing believe was cleared for a well that was never put in.

Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|----------------|-------------------------|-----------|----------------------|
| 107 | 72196107-Cut | 15.3 | 42110 - Planted Red Pine | Sawtimber Well | 86 | 141-170 | Harvest | Crown Thinning | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|----------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Thin stand down to approximately 100 square feet of basal area. Focus on removing multiples and stems that are being suppressed. Include

Specs: snowmobile trail spec.

Next Step

Treatments:

Acceptable

Regen:

Other

Stand is bordered by snowmobile trail on the north and west border. Portions of this trail will be used during the harvesting operation.

Comment:

Proposed Start Date: 10/01/2017



| Stand Name | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|------------|----------------|-------|----------------------------|-----------------|-----------|----------|----------------|-------------------------|-------------------------|---------------|----------------------|
| 111 | 72196111-Cut | 22.0 | 42290 - Natural Mixed Pine | Poletimber Well | 85 | 111-140 | Harvest | Clearcut with Retention | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |

Habitat Cut: No

Site Condition:

Prescription Final harvest with retention, follow retention standard guidelines. Remove all stems 2" and greater. Retention should be place along perimeter
Specs: to help facilitate site prep. Conduct all site prep and chemical application as needed. Chipping is required to help with planting.

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

Acceptable Planted red pine of sufficient densities to ensure a well stocked red pine plantation.
Regen:

Other Class A access thru stand 115.

Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|
| 115 | 72196115-Cut | 45.6 | 42110 - Planted Red Pine | Sawtimber Well | 96 | 111-140 | Harvest | Clearcut with Retention | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Final harvest with retention, follow retention standard guidelines. Remove all stems 2" and greater. Retention should be place along perimeter
Specs: to help facilitate site prep. Conduct all site prep and chemical application as needed. Chipping and low stumps specs are required to help with planting. Add snowmobile and cycle trail specs.

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

Acceptable Planted red pine of sufficient densities to ensure a well stocked red pine plantation.
Regen:

Other Stand fronts Military road good break up sale.

Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|
| 123 | 72196123-Cut | 29.0 | 42110 - Planted Red Pine | Sawtimber Well | 89 | 111-140 | Harvest | Clearcut with Retention | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Final harvest with retention, follow retention standard guidelines. Remove all stems 2" and greater. Retention should be place along perimeter
Specs: to help facilitate site prep. Conduct all site prep and chemical application as needed. Chipping and low stumps are required to help with planting. Add snowmobile.

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

Acceptable Planted red pine at sufficient densities to ensure a well stocked red pine plantation.
Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|-----|--------------|------|-------------------------------|-----------------|----|-------|---------|-------------------------|-------------|-----------|----------------------|
| 132 | 72196132-Cut | 13.4 | 4139 - Aspen, Mixed Deciduous | Poletimber Well | 57 | 51-80 | Harvest | Clearcut with Retention | 413 - Aspen | Even-Aged | Draft Field Boundary |
|-----|--------------|------|-------------------------------|-----------------|----|-------|---------|-------------------------|-------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Final harvest with retention. Retention has already been removed from the treatment area. Include grouse specs with this sale.
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Medium to well stocked aspen with associated species.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017



| S t a n d | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|-----------------------|----------------|-------|--------------------------|----------------|-----------|----------|----------------|-------------------------|-------------------------|---------------|----------------------|
| 136 | 72196136-Cut | 27.6 | 42110 - Planted Red Pine | Sawtimber Well | 90 | 111-140 | Harvest | Clearcut with Retention | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |

Habitat Cut: No Site Condition:

Prescription Final harvest with retention, follow retention standard guidelines. Remove all stems 2" and greater. Retention should be place along perimeter
Specs: to help facilitate site prep. Conduct all site prep and chemical application as needed. Chipping is required to help with planting.

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

Acceptable Regen: Planted red pine at sufficient densities to ensure a well stocked red pine plantation.

Other Comment: Stand fronts Military Rd could be a good sale for spring break up.

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|
| 151 | 72196151-Cut | 23.7 | 42110 - Planted Red Pine | Sawtimber Well | 90 | 111-140 | Harvest | Clearcut with Retention | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|

Habitat Cut: No Site Condition:

Prescription Final harvest with retention, follow retention standard guidelines. Remove all stems 2" and greater. Retention should be place along perimeter
Specs: to help facilitate site prep. Conduct all site prep and chemical application as needed. Chipping is required to help with planting. Add snowmobile trail spec.

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

Acceptable Regen: Planted red pine at the sufficient densities to ensure a well stocked pine plantation.

Other Comment: Snowmobile trail might need to be used for hauling of products, however, this would be a last resort as there are other roads that could be used.

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|
| 152 | 72196152-Cut | 26.5 | 42110 - Planted Red Pine | Sawtimber Well | 86 | 111-140 | Harvest | Clearcut with Retention | 4211 - Planted Red Pine | Even-Aged | Draft Field Boundary |
|-----|--------------|------|--------------------------|----------------|----|---------|---------|-------------------------|-------------------------|-----------|----------------------|

Habitat Cut: No Site Condition:

Prescription Final harvest with retention, follow retention standard guidelines. Remove all stems 2" and greater. Retention should be place along perimeter
Specs: to help facilitate site prep. Conduct all site prep and chemical application as needed. Chipping is required to help with planting. Add snowmobile and cycle trail spec.

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

Acceptable Regen: Planted red pine at sufficient densities that will ensure a well stocked red pine plantation.

Other Comment: The cross country cycle trail and snowmobile trails run thru this stand.

Proposed Start Date: 10/01/2017

Total Treatment Acreage Proposed: 614.6

Report 4 – Site Conditions

Grayling Mgt. Unit

Thomas Barnes : Examiner

Compartment: 196

Year of Entry: 2018

Availability for Management

| Total Acres | Acres Available | Acres Avail | | Dominant Site Conditions | Dominant Site Conditions | | |
|----------------|--------------------|----------------|---------------|--------------------------|--------------------------|----|----|
| | | With Condition | Not Available | | 5C | 1D | 5E |
| 176 | 173 | 0 | 3 | Aspen | | | 3 |
| 6 | 6 | 0 | 0 | Bog | | | |
| 5 | 5 | 0 | 0 | Herbaceous Openland | | | |
| 563 | 560 | 0 | 4 | Jack Pine | | | 4 |
| 55 | 51 | 0 | 4 | Low-Density Trees | | | 4 |
| 34 | 34 | 0 | 0 | Lowland Conifers | | | |
| 39 | 24 | 14 | 0 | Lowland Mixed Forest | 14 | | |
| 5 | 5 | 0 | 0 | Lowland Shrub | | | |
| 13 | 13 | 0 | 0 | Lowland Spruce/Fir | | | |
| 184 | 147 | 37 | 0 | Mixed Upland Deciduous | 37 | | 0 |
| 133 | 112 | 21 | 0 | Natural Mixed Pines | 21 | | |
| 21 | 3 | 18 | 0 | Oak | 18 | | |
| 667 | 470 | 190 | 7 | Red Pine | 190 | 7 | |
| 50 | 20 | 31 | 0 | Upland Mixed Forest | 31 | | |
| 39 | 39 | 0 | 0 | Upland Shrub | | | |
| 62 | 62 | 0 | 0 | Urban | | | |
| 3 | 3 | 0 | 0 | Water | | | |
| 94 | 48 | 45 | 0 | White Pine | 45 | | |
| 2,148 | 1,774 | 357 | 17 | Total Forested Acres | 357 | 7 | 11 |
| | 83% | 17% | 1% | Relative Percent | | | |

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

| Site No. | Dominant Site Cond Availability | Dominant Site Condition | Acres | Other Site Condition | Other Site Condition | Other Site Condition | Other Site Condition |
|------------------|---------------------------------|--|-------|----------------------|----------------------|----------------------|----------------------|
| 1 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 13 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| | | | | | | | |

Report 4 – Site Conditions

Grayling Mgt. Unit
Thomas Barnes : Examiner

Compartment: 196
Year of Entry: 2018

| | | | | | | | |
|---|-------------|--|----|-------------|-------------|-------------|-------------|
| 3 | Unavailable | 5E: Long-Term Retention | 4 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 4 | Unavailable | 5E: Long-Term Retention | 4 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 5 | Unavailable | 1D: Interest Group / Neighbor | 7 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: Research plot. | | | | | | | |
| 6 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 12 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: Stand was treated in 2008, like other stands in compartment this stand can hold for another 10 years. | | | | | | | |
| 7 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 13 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: Stand is being used as a fire break, roughly 30 BA of red pine with hardwood understory. | | | | | | | |
| 8 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 34 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: Stand can hold another 10yrs. | | | | | | | |

Report 4 – Site Conditions

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Thomas Barnes : Examiner

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Year of Entry: 2018

| | | | | | | | |
|--------------------------------|------------------|---|----|-------------|-------------|-------------|-------------|
| 9 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 9 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 10 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 48 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 11 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 75 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 12 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 21 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: Fuel Break | | | | | | | |
| 13 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 8 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |

Report 4 – Site Conditions

Grayling Mgt. Unit
Thomas Barnes : Examiner

Compartment: 196
Year of Entry: 2018

| | | | | | | | |
|------------------|-------------|--|----|---|-------------|-------------|-------------|
| 14 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 9 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 15 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 15 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 16 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 18 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 17 | Unavailable | 5E: Long-Term Retention | 3 | 2G: Too wet (sensitive soils, does not include access issues) | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 18 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 7 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |

Report 4 – Site Conditions

Grayling Mgt. Unit

Compartment: 196

Thomas Barnes : Examiner

Year of Entry: 2018

| | | | | | | | |
|------------------|-----------|--|----|-------------|-------------|-------------|-------------|
| 19 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 18 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 20 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 20 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 35 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 18 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 41 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 21 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |



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

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

| SCA Name | SCA Category | Detail Type | Recommendation | Acres |
|-----------------------|----------------------|-------------|----------------|-------|
| | Potential Old Growth | | SCA Removal | 18 |
| Comments | | | | |
| Doesn't meet criteria | | | | |
| | Potential Old Growth | | SCA Removal | 20 |
| Comments | | | | |
| Doesn't meet criteria | | | | |

**Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

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

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

| Conservation Area | Type | Description |
|--------------------------|-----------------------------|--|
| SCA | Cold Water Lake | A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200. |
| SCA | Cold Water Stream | A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210. |
| SCA | Research and Military Areas | These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|---|--|--------------------|-------|--------------|-------------|---|
| 1 | 42290 - Natural Mixed Pine | Poletimber Well | 39.0 | 45 | 81-110 | Mixed pine stand. Believe this stand was planted to Scotch Pine of which failed. Planting failed but roughly 35 percent of stand is scotch pine. Natural White Pine, Oak and Jack Pine regenerated in the failed areas. Stand consists of pockets of Oak and pockets of Jack Pine and pockets of White Pine. An oil and gas well was placed within the stand. North side of the stand borders 7 Mile Road and the West side of the stand borders Qugley Road. Five BA swings were taken with stand average at 88. |
| 2 | 4199 - Other Mixed Upland Deciduous | Sapling Well | 1.2 | 17 | Immature | Clear cut March 2000 contract # 046-99-01, McGodfrey Forty Block.. Too small acreage for a contract crew to plant. Parcel is up for disposal. 2006: Check on parcel for disposal. Stand is naturally regenerating to Cherry brush with a few scattered Jack Pine and Red Maple. |
| 3 | 42110 - Planted Red Pine | Sawtimber Well | 39.2 | 89 | 111-140 | Nice stand of red pine with a well developed understory. Primary understory is oak, maple, cherry and aspen. Few white pine scattered. Stems look in good health. Diameters are pushing mid to upper teens. Five BA swings were taken with stand average at 136. OPIC - FMD: Mature Red Pine stand. Thinned in March 2000 contract # 046-99-01, Mc Godfrey Forty Block. West side of stand borders Qugley Rd: east side of stand borders Mathers Road and the south side of the stand borders Godfrey Road. Hold another 10 years for visual management. |
| 4 | 42120 - Planted Jack Pine | Sapling Well | 152.7 | 25 | Immature | OPIC - FMD: Large immature Jack Pine stand. Avg dia 3inches and avg height is about 10 foot. Stand is transected by roads on all sides and through the middle (Qugley, McGodfrey, Mathers and Fletcher Roads.). Stand also contains several oil and gas wells. Some Oak and Aspen scattered throughout the stand. |
| 7 | 42110 - Planted Red Pine | Sawtimber Well | 75.1 | 80 | 81-110 | High quality red pin stand with an understory mixed hwd. Seven BA swings taken with average stand BA of 108. Areas where pine was skidded have regenerated heavily to red pine. Mainly stems of this regen have died off. This stand is heathy and can be held for another 10 years. OPIC - FMD: Stand of Red Pine. Oil and Gas well placed within the stand. Also pipelines were created. Pockets of natural Red Pine regen and scattered Red Pine regen. O1 Understory. Northside of the stand borders 7 Mile Road. Private on the south and west sides of the stand. THICKER RED PINE IN NE NE THINNED 1990, FDF stand. Thinned under contract #72-052-99-01 Aspen Pine Block in 2000/2001. About 20 acres in the NENE was thinned to 110 BA. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|--------------------------|-----------------|-------|--------------|-------------|---|
| 8 | 4130 - Aspen | Sapling Well | 20.4 | 17 | Immature | <p>Young aspen stand on perimeter of red pine plantation. Gas equipment and pipelines run thron parts of the stand OPIC - FMD: Immature Aspen stand. Oil and gas well site within the stand now along with pipe lines that are running through portion of the stand. Trying to expand Aspen within the surrounding stand. Some pockets of Jack Pine regeneration and scattered Red Pine regeneration throughtout the stand.</p> <p>MARK BOUNDARIES BY PHOTO EXPAND ASPEN TYPE. Clear cut under contract #72-052-99-01 Aspen Pine Block in 2000.</p> |
| 9 | 42110 - Planted Red Pine | Sawtimber Poor | 13.0 | 80 | 1-50 | <p>See old comments. Understory is developing nicely. Treat in 10yrs. OPIC - FMD: FUEL BREAK DO A HEAVY THIN THIS YOE TO GET OAK STARTED CUT REST IN 20. Heavy cut under #72-052-99-01 Aspen Pine Block in 2001/2002. Stand's east side border Military Road. Old road, pipeline or powerline ran through stand at one time as seen in arial photos.</p> |
| 10 | 4130 - Aspen | Poletimber Well | 13.5 | 52 | 51-80 | <p>Mixture of aspen, oak and jack pine. Understory fairly well developed with cherry.</p> <p>OPIC - FMD: Aspen stand. Scattered Oak and Jack Pine throughout the stand. Stand borders Military Road on the west side of it. Stand is part of fuel break. Understory consists of U2. Hold 10 years and than harvest.</p> |
| 11 | 4125 - Black, N. Pin Oak | Sawtimber Well | 17.8 | 99 | 51-80 | <p>Sparse stand of oak, aspen and mixed conifer. Hold stand for another cycle. Not much for volume or quality. Stand does provide some mast production for wildlife.</p> <p>OPIC - FMD: Mature Oak stand. Scattered Jack Pine throughout the stand. W2 Understory/U2. Some Oak regen. Stands west side borders Military Road. Recommend Final harvest. Oak is primary objective, but will accept a mix of other species. Include with stand 14. Protect White Pine Regeneration.</p> |
| 12 | 4125 - Black, N. Pin Oak | Sapling Well | 2.8 | 23 | Immature | <p>Young stand of mixed oak, maples and aspen. OPIC - FMD: STORM DAMAGE CUT IN 94 SOME ASPEN AND BRUSH</p> |
| 13 | 42110 - Planted Red Pine | Sawtimber Well | 6.8 | 88 | 51-80 | <p>See old comments as they describe Stand well. Part of a research project.</p> <p>OPIC - FMD: (MIMS plots are located in the southwest corner of this stand. Old comment.) Seven acres in the SW corner of NWNW Section 26 were removed from the sale area because it is a research area. The research is with the University of Tennessee on red pine/oak regeneration basal area regimes in conjunction with introduction of fire as a management tool. Timber sale # 72-005-04-01 (Research Red Pine) cut by Timberline Logging for Biewer Sawmill in the Spring of 2005. The sale area has a residual of approximately 100 square feet basal area of red pine. 07/05/2005 mm 2008 timbersale closure update: The previously mentioned sale (Research RP) encompassed only the north half of stand 103 and stand 150. The south half of stand 103 was thinned under 720060401 (ORV Red Pine) by Lutke in Nov-Dec 2007.</p> |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|---------------------------|-----------------|-------|--------------|-------------|---|
| 14 | 4130 - Aspen | Sapling Well | 18.8 | 8 | Immature | Young reenerating stand o mixed species. Mainly aspen/Hwd with jack and red pine as well. OPIC - FMD: Small Jack Pine stand. West side borders Military Road. A5/W2 transitional zone between Oak stand to North and Jack Pine stand. Recommend final harvest and replant to Jack Pine or Red Pine . Check Kotar, if suitable to Red Pine, plant Red Pine. Stand cut in sale #720360801 rusty truck pine mix. Replanting to red pine. |
| 16 | 4130 - Aspen | Sapling Well | 39.2 | 27 | Immature | Immature Aspen stand, natural in origin ans scattered throughout with natural Oak and Jack Pine regeneration. North side of stand borders 7 Mile Road. |
| 17 | 42120 - Planted Jack Pine | Poletimber Well | 64.2 | 37 | 81-110 | Young Jack Pine that is moving into a pole size stand with some mixture of other species.OPIC - FMD: Immature Jack Pine stand (planted). West side borders Military Road. Stand is close to reaching pole size. Some BA within the stand. Cherry brush in the understory. Mosses, Sedges and some Bracken Fern for ground cover. |
| 18 | 4132 - Aspen, Jack Pine | Sapling Well | 10.1 | 16 | Immature | Plantiny fuiled stend is primarily young aspen with som Jack pine. Small stand surround by jack pine OPIC - FMD: Aspen stand mixed with some Jack pine. Hold at least another 10yrs to stagger some of the Aspen within the compartment. OLD: Stand final harvested under sale 54-99-01, completed in 3/01. Stand furrowed and seeded in 2002 which failed, so site replanted to JP in June 2003 with 2-0 JP. Old Yr of origin was 1965- updated to 2001, year of orifin of planted seedlings. |
| 19 | 42120 - Planted Jack Pine | Sapling Well | 99.4 | 14 | Immature | Large immature Jack Pine plantation. Planted to 2-0 JP in june 2003. Cut in year 2000 contract #008-99-01, Fletcher 19 Block. FTP # C72-427 submitted for planting of JP. Upland brush (Cherry along with a few pockets of A2 scattered throughout the stand.) |
| 21 | 42120 - Planted Jack Pine | Poletimber Well | 8.5 | 54 | 51-80 | Pole size spine stand with some oak and aspen. Majority of stand is locate in a depression. OPIC - FMD: Immature Jack Pine stand that has just reached pole status. Stand was planted. Stand borders Fletcher Road on its southside and a two track to its westside. Jack Pine is somewhat larger in a narrow strip along both the two track and Fletcher Road. Stand is located in a depression. |
| 22 | 4132 - Aspen, Jack Pine | Poletimber Well | 22.8 | 52 | 51-80 | Aspen stand in the North west and Jack pine in the North east. Oak and Jack pine in the middle half of the stand and Aspen in south end of stand. South end of stand is fuel break which also borders Fletcher Road. Jack Pined portion in the northeast has two small bogs. Recommend looking at again in 10yr to determine whether to harvest or leave another 10yr. Currently managing for Aspen and Oak with patches of Jack Pine within the stand. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|--|-------------------|-------|--------------|-------------|---|
| 23 | 42250 - Pine, Oak | Sawtimber Poor | 20.5 | 86 | 1-50 | Fuel break, along Military Rd mostly oak. Along Fletcher Rd a mixture of red pine, whit pine and oak. Majority of stems are lug size. Understory is a mixtu Understory is a mixtu of Canopy. OPIC - FMD: red maple, aspen, and jack pine removed 2011 sale #720350801. FUEL BREAK CUT IN 5 YEARS AFTER STD 19 HAS BEEN PLANTED, CONVERT TO OAK. 2006 Notes: Final harvest, but leave all Oak, Red Pine and White Pine. Visual management is a concern. A residual basal area will be left. Regeneration, will accept a mix of species. Retention is to be left except for Jack Pine |
| 24 | 42110 - Planted Red Pine | Sawtimber Well | 37.9 | 92 | 141-170 | Mature stand of red pine, primarily log size wit both XLog and large poles. Understory min of crabapple oak and maple . OPIC - FMD: FDF STAND. Stand thinned in 2001 timbersale# 72-054-00. Average residual 90BA. |
| 25 | 4199 - Other Mixed Upland Deciduous | Sapling Well | 6.5 | 18 | Immature | Young mixed stand of oak, aspen and maple. OPIC - FMD: Aspen stand mixed with Oak and Jack Pine regeneration. 1" dia. 3-6' tall. Brackent Fern and Sedges. North side of the stand borders 7 Mile Road and east side borders King Road and Snowmobile trail (West Higgins Connector #7). Cut in 1999 contract #007-99-01, Seven King Block. |
| 26 | 42120 - Planted Jack Pine | Sapling Well | 27.2 | 25 | Immature | Immature Jack Pine Plantation. Avg diameter of 3 inches and 8-12 ft tall. North side of stand and a portion of the west side of stand borders the Snowmobile trail (West Higgins Connector #7). |
| 27 | 42111 - Planted Red Pine, Mixed Deciduous | Sapling Well | 47.8 | 25 | Immature | Immature Red Pine plantation. Planted in 1992. Stand is mixed with Oak, Aspen, Jack Pine and Cherry brush regeneration. South side of stand borders Snowmobile trail (West Higgins Connector #7). |
| 28 | 4139 - Aspen, Mixed Deciduous | Sapling Well | 6.4 | 6 | Immature | Cut in 2010 #720350801. young stand of A pen and Re maple. There is a pocket of retention from prior sale. Some Hawthorne is present as well |
| 29 | 42210 - Natural Red Pine | Sawtimber Poor | 25.7 | 81 | 1-50 | Fuel break with less than 50 BA of Red pine, understory developing nicely, treat in 10 years. OPIC - FMD: FIRE BREAK LET MAPLE OAK RESIDUAL TAKE OVER. Stand thinned in 2001 timbersale# 72-054-00. Average residual 30BA. |
| 30 | 4191 - Mixed Upland Deciduous with Conifer | Sapling Well | 10.3 | 22 | Immature | Planted red pine stem that has not done well. Primary species is red maple and oak stump sprouts. Roughly 20% of stand is red pine. OPIC - FMD: Small immature Red Pine plantation. Avg diameter 1/2-1 inch and 2-3 feet tall. O2 in some pockets in overstory. Some Aspen and Red Maple regeneration. Braken Fern and Sedges North side of the stand border 7 Mile Road. STORM DAMAGE CUT IN 1994 |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|--|-----------------|-------|--------------|-------------|--|
| 31 | 42111 - Planted Red Pine, Mixed Deciduous | Sawtimber Well | 40.5 | 82 | 111-140 | <p>Red Pine stand. East end of stand more of a mixture of hwd and confer Stand appears to be a plantation, however, not much sign of past management. Five BA plots taken with stand average of 132.</p> <p>OPIC - FMD: Red Pine Stand (Planted). Low and high Bas in different areas of the stand. A couple of pot holes within the stand contain hardwoods. Understory consists of M2 and ground cover consists of blueberry and sedges. Recommend holding stand another entry year and than final harvesting and planting back to Red Pine.</p> |
| 32 | 4130 - Aspen | Poletimber Well | 3.0 | 46 | 81-110 | <p>Aspen stand surrounded by mature white pine. Stand is growing well should be ready for harvest during next inventory cycle.</p> <p>OPIC - FMD: Small Aspen stand of pole size and smaller. Some Red Maple and Oak mixed throughtout the stand. West side of the stand borders King Road and Snowmobile trail (West Higgins Connector #7).</p> |
| 33 | 4199 - Other Mixed Upland Deciduous | Poletimber Well | 39.8 | 21 | 81-110 | <p>Stand had all dead oak removed in late 90's. The residual pole red maple and aspen have responded well to the cut. Oak Log/xlog and large dead snags. keepiny Log size Stand.</p> <p>OPIC - FMD: DEAD OAK SALVAGE SALE IN 1996</p> |
| 34 | 4191 - Mixed Upland Deciduous with Conifer | Sapling Well | 5.7 | 18 | Immature | <p>Narrow band of sapling regeneration along mile and king Rd . Mixture of Oak, Jack Pine and Aspen.OPIC - FMD: Aspen stand mixed with Oak and Jack Pine regeneration. 1" dia. 3-6' tall. Brackent Fern and Sedges. North side of the stand borders 7 Mile Road and east side borders King Road and Snowmobile trail (West Higgins Connector #7). Cut in 1999 contract #007-99-01, Seven King Block.</p> |
| 35 | 42200 - Natural White Pine | Sawtimber Well | 17.8 | 103 | 141-170 | <p>Mature white pine stend with some associated species, suclas red pine, red maple and some oak. Leave for diversity stand is healthy. OPIC - FMD: Mature White Pine stand with an Red Maple sapling understrory. Portions of the stand borders King Road (West Higgins Connector Snowmobile trail). Stand is an SCA (unique stand structure). At the request of Wildlife</p> |
| 36 | 4139 - Aspen, Mixed Deciduous | Poletimber Well | 10.5 | 46 | Unspecified | <p>Nice mixed stand of aspen and maple. Medium size poles w/some large red and white pine. Hold for another 10 years.</p> <p>OPIC - FMD: Aspen stand mixed with Red Maple. Pockets of White Pine sawtimber and some White Pine saplings naturally seeding in. West side of the stand has more of a component of Oak and Red Maple within the stand.</p> |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|---|-----------------|-------|--------------|-------------|---|
| 37 | 42110 - Planted Red Pine | Sawtimber Well | 37.1 | 87 | 141-170 | <p>Mature Red pine stand thinned in 2004. Four BA swings were taken with stand average of 142. NW Corner pocket of dead Pine filling in with R Maple, Assume it is result of Bark Beetle. Other than the pocket of dead stems in good shape and remainder of stand looks healthy.</p> <p>OPIC - FMD: Red Pine stand. North side of stand borders 7 Mile Road. Recommend holding for 10 years and than thinning this stand.</p> <p>(THINNED 1987. FDF STAND. Old comment.) Stand was thinned in 2004. Timber sale 72-030-02-01, Seven Mile Road Red Pine. Contract with Bell Timber; sale was cut by Frank Blake. Residual basal area of red pine is 87 square feet. Many trees were cut as utility poles. 08/26/2004 mm</p> |
| 38 | 42290 - Natural Mixed Pine | Sawtimber Well | 11.7 | 86 | 81-110 | <p>Mixed pine stand dominated by white and jack pine. Some oak and aspen. Stand health is decent stems are not the greatest of quality but add a nice diversity to all the red pine in the area. Hold the stand and treat in 10 years.</p> <p>OPIC - FMD: Red and White Pine stand with Aspen and some Jack pine scattered throughout the stand. White Pine is very limby (Open grown).</p> |
| 39 | 4130 - Aspen | Sapling Well | 2.5 | 18 | Immature | <p>Young Aspen stand regenerating nicely. OPIC - FMD: Immature Aspen stand. Some Red Maple and White Pine regeneration throughout the stand. Cut in 1999 Contract # 007-99-01, Seven King Block.</p> |
| 40 | 42201 - Natural White Pine, Mixed Deciduous | Sawtimber Well | 32.5 | 83 | 111-140 | <p>White pine stand with varying diameter classes. Some pockets of aspen. Understory is primarily red maple.</p> <p>OPIC - FMD: White Pine stand mixed with hardwoods (Red Maple and some Aspen). Jack Pine was a large component last entry year however, most of the Jack Pine is dead now. Lots of standing dead and down dead throughout the stand. Some weevil damage. Limby White Pine.</p> |
| 41 | 42200 - Natural White Pine | Sawtimber Well | 20.5 | 99 | 141-170 | <p>Mature white pine stand with mixed hardwoods. Stem quality of the stand is not that great but good diversity of species and size classes. Hold this stand for its structural diversity. Four BA swings were taken with stand average of 165. Old OI notes mentions this is an SCA stand, it might have met that criteria during the last inventory cycle however, it does not now. Also there is not supporting documentation in the compartment folder supporting the SCA classification. The SCA notation in the GDSE layer has been removed.</p> <p>OPIC - FMD: White Pine stand mixed with Aspen and Hardwoods. Most all the Jack Pine within the stand has died. Stand borders US-127. Some wevil damage. Understory consists of M2 with patches of W2. (Sedges, Partridge berry, blueberry, hawthorn and Braken fern) Stand is a SCA(unique stand structure. Wildlife Division believe it to be a diverse stand. Lots of different kind of birds when visited.</p> |
| 45 | 42110 - Planted Red Pine | Sawtimber Well | 5.0 | 89 | 171-200 | <p>Red pine plantation with good quality stems like so many other stands in this area. Understory is not to thick. Four BA swings were taken with stand average of 175. OPIC - FMD: CUT IN 1994. Site index taken from adjacent stand. The trees were too small in the stand to get a reliable SI.</p> |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|-----|---|-----------------|-------|--------------|-------------|---|
| 46 | 4199 - Other Mixed Upland Deciduous | Sapling Poor | 0.8 | 9 | Immature | Appears to be land in for prior treatment. Seeding in with cherry, oak and some red pine. |
| 52 | 4133 - Aspen, Mixed Pine | Sawtimber Well | 8.0 | 46 | 81-110 | Mixed stand of aspen and oak with a conifer component. Aspen is looking in good shape. . Average BA was 103. Oaks are log size and pushing roughly 93 years old aspen component is much younger. Understory primarily red maple with some pine. OPIC - FMD: DEAD OAK SALVAGE SALE IN 1996 |
| 53 | 4310 - Pine, Oak Mix | Sawtimber Well | 18.2 | 88 | 111-140 | Mixed Oak and red pine stand. Maple dominates the understory. This stand is very similar to stand 120 good looking stand northern portion heavier to pine. Five BA swings taken withstand average of 138. OPIC - FMD: OI Stand Year Origin was 1915 |
| 57 | 42210 - Natural Red Pine | Sawtimber Well | 10.2 | 86 | 81-110 | Stand was treated in 1999 all red pine was left. Stand is small triangle butting up against US 27. Understory was filling in well with oak and cherry. Three BA swings were taken with stand average of 96. OPIC - FMD: LEAVE RED PINE AND RESIDUAL 4 INCH AND UNDER. 25 BA of Red Pine left. Cut in 1999 contract # 007-99-01, Seven King Block. |
| 101 | 42101 - Planted White Pine, Mixed Deciduous | Sawtimber Well | 7.1 | 81 | 111-140 | Stand is adjacent to US 27 and Fletcher Rd. Primarily white pine with a fair component of oak and aspen. Stand has pole to Xlog white pine appears to be a plantation. OPIC - FMD: ADJACENT TO US 27. The red pine in the stand gave the best SI representation. |
| 102 | 42110 - Planted Red Pine | Sawtimber Well | 37.4 | 86 | 141-170 | nice stand of red pine in need of another treatment. Growth response from last thinning has ended. Underscore sparse with white and hybrid oak. OPIC - FMD: Stand thinned in 1994. Consider treatment in 2013. SNOWMOBILE TRAIL RUNS THROUGH STAND. |
| 103 | 42110 - Planted Red Pine | Sawtimber Well | 21.6 | 88 | 141-170 | See old comments as they describe Stand well. Five BA swings taken with average at 154. Understory fairly good stocking of oak..OPIC - FMD: (MIMS plots are located in the southwest corner of this stand. Old comment.) Seven acres in the SW corner of NWNW Section 26 were removed from the sale area because it is a research area. The research is with the University of Tennessee on red pine/oak regeneration basal area regimes in conjunction with introduction of fire as a management tool. Timber sale # 72-005-04-01 (Research Red Pine) cut by Timberline Logging for Biewer Sawmill in the Spring of 2005. The sale area has a residual of approximately 100 square feet basal area of red pine. 07/05/2005 mm 2008 timbersale closure update: The previously mentioned sale (Research RP) encompassed only the north half of stand 103 and stand 150. The south half of stand 103 was thinned under 720060401 (ORV Red Pine) by Lutke in Nov-Dec 2007. |
| 104 | 42110 - Planted Red Pine | Sawtimber Well | 8.5 | 86 | 81-110 | ONorthern portion of stand ver/ open with low BA. Southern portion tough to see plantation for m large trees log to Xlog in size. Three BA swinys wil averuye at 83. OPIC - FMD: THINNED IN 1994. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|-----|---|----------------------|-------|--------------|-------------|--|
| 105 | 42260 - Natural Pine, Mixed Deciduous | Poletimber Well | 10.8 | 47 | 51-80 | Mixed stand nested within red pine plantations. Heavy to jack pine, aspen and some white pine. Hold for at least another 10 years. OPIC - FMD: OI Stand Year Origin was 1970 |
| 106 | 6139 - Mixed Lowland Forest | Poletimber Well | 14.5 | 86 | 81-110 | Good presence of lowland conifer species mixed with red maple and aspen. Occasional large white pine throughout. Soils in some places were saturated with standing water other areas just spongy. Transitional stand between upland and ephemeral/stream corridor. BA is running about 120. Stand is pole size and in good health. OPIC - FMD: SWAMPY AREA. |
| 107 | 42110 - Planted Red Pine | Sawtimber Well | 15.3 | 86 | 141-170 | Stand of red pine, understory is medium density. Stand shows signs of being treated in the past and old comments indicates that it was thinned in 1994. Stand is healthy but in need of another treatment. OPIC - FMD: THINNED IN 1994. |
| 109 | 4191 - Mixed Upland Deciduous with Conifer | Poletimber Well | 22.8 | 56 | 81-110 | Mixed stand with some lowland species in the understory. There is a small opening that is wet w/grass. Close to opening more saturated soils. Four BA Swings are my BA is 88. OPIC - FMD: OI Stand Year Origin was 1961 |
| 110 | 6132 - Mixed Lowland Forest with Cedar | Poletimber Medium | 24.0 | 87 | 1-50 | Lowland stand with ephemeral running thru in spots, not sign of distinct bed and back but good amount of standing water. Interior portion of stand is dominated by tag alder and as you move away from water start to encounter balsam fir, cedar, red maple and others. Along stand boundaries more red and white pine come into play. OPIC - FMD: OI Stand Year Origin was 1930 |
| 111 | 42290 - Natural Mixed Pine | Poletimber Well | 22.0 | 85 | 111-140 | Lowland stand with a mixture of white, red and jack pine. Red maple was prevalent throughout the stand as well. Understory is heavy to balsam fir and maple. Stand is primarily upland with a lowland area along the northern edge. Average BA was 118. OPIC - FMD: OI Stand Year Origin was 1928 |
| 112 | 4191 - Mixed Upland Deciduous with Conifer | Poletimber Well | 8.3 | 88 | 51-80 | Stand was treated in 1994 with all species being removed except oak. Stand is being classified as two aged, older oak and regen from 94 treatment. Oak is pole and log sized while other species are pole/sapling. Stand does become a little wetter as you get closer to the Beaver Creek drainage. OPIC - FMD: CUT IN 1994. Site index taken from adjacent stand. The trees were too small in the stand to get a reliable SI. |
| 114 | 42200 - Natural White Pine | Poletimber Well | 15.9 | 94 | 111-140 | Stand is a mixed conifer situated in a lowland setting. Leatherleaf B ground cover in half the area. Some areas spongy saturated soils. Red maple present in both canopy and sub canopy. Scattered a log white pine. OPIC - FMD: OI Stand Year Origin was 1940 |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|-----|--|-----------------|-------|--------------|-------------|--|
| 115 | 42110 - Planted Red Pine | Sawtimber Well | 45.6 | 96 | 111-140 | <p>Red pine plantation with a mix of white and scotch pine along with red maple and a few scattered black spruce. Black spruce located along stand boundary next to lowland types. Scotch pine is surprisingly large log to xlog size in some cases. Stand bordered by US 27 and Military road. No signs of recent activity, last 20 years. Understory well developed, primarily large sap to small pole red maple. Snowmobile and motorcycle trail run through this stand. Six BA swings were taken with stand average of 120.</p> <p>OPIC - FMD: OI Stand Year Origin was 1914</p> |
| 117 | 42110 - Planted Red Pine | Sawtimber Well | 47.9 | 88 | 111-140 | <p>Nice red pine plantation with a well developed understory of oak and maple. Stand looks healthy and doing well. Good representation of shrubs in the understory as well. Five BA swings were taken with stand average of 124. Hold stand for another 10 Years.</p> <p>OPIC - FMD: Reorganized from compt 195. No comments carried over. 2008 timbersale closure update: thinned under 720060401 (ORV Red Pine) by Lutke in Nov-Dec 2007.</p> |
| 118 | 4130 - Aspen | Poletimber Well | 4.1 | 45 | | <p>Pole sized aspen stand with a small component of oak and red maple. Good mix of understory species. OPIC - FMD: OI Stand Year Origin was 1972</p> |
| 120 | 4191 - Mixed Upland Deciduous with Conifer | Sawtimber Well | 20.3 | 102 | 141-170 | <p>Nice stand of mixed oak and red pine. Understory in areas is heavy but overall light understory. Maple and oak makes up majority of Understory. there is a presence of scotch pine and white spruce. In areas appears this may have been planted, age is for the oak. Stand has the cycle trail running through it. Five BA swings taken with average BA being 150. OPIC - FMD: OI Stand Year Origin was 1915</p> |
| 121 | 4199 - Other Mixed Upland Deciduous | Sapling Medium | 30.5 | 12 | Immature | <p>stand harvested 2005. stand has not been replanted, or if it has no survival of planting stock. Stand is mixture of cherry, oak, Maple and some aspen and jack pine. OPIC - FMD: STAND WAS FINAL HARVESTED TS#720270401 "TRIPLE J RED PINE" FTP C72-546 WILL BE PLANTED BACK TO RED PINE</p> |
| 123 | 42110 - Planted Red Pine | Sawtimber Well | 29.0 | 89 | 111-140 | <p>Red pine plantation with good quality stems. Understory is medium to heavy with primarily red maple, there is oak present as well. There is scotch pine and white spruce scattered throughout the stand. Snowmobile trail runs thru the southern third of the stand. Five BA swings were taken with average being 128sqft. OPIC - FMD: Remaining red pine BA is approximately 80 sq ft. Sale # 0070401. No FTP required following sale.</p> |
| 124 | 4199 - Other Mixed Upland Deciduous | Sapling Well | 29.3 | 23 | Immature | <p>Young stand cut in 1994 regenerating to a mixture of oak, red maple and aspen with some conifers scattered. There is a gas well, stand 416, that falls within this stand as well. Two recreation trails run through portions of this stand.</p> |
| 126 | 4319 - Mixed Upland Forest | Sawtimber Well | 12.5 | 94 | 81-110 | <p>Stand has a good diversity of species. Some areas of saturated soils and borders a lowland stand to the north. Former gas well is also next to this stand. Species are of poor form. Stand is going to be site conditioned due to variability of species. Four BA swings were taken with stand average of 90. OPIC - FMD: OI Stand Year Origin was 1917</p> |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|-----|----------------------------------|----------------------|-------|--------------|-------------|--|
| 127 | 4310 - Pine, Oak Mix | Poletimber Well | 6.7 | 42 | 81-110 | Young stand of primarily oak with oak and white pine log stems Mostly stump sprouts. OPIC - FMD: OI Stand Year Origin was 1975 |
| 128 | 6127 - Lowland Pine | Poletimber Poor | 31.5 | 61 | 1-50 | Lowland stand with spongy saturated soils. Leather leaf and sedges compose ground cover. Purple pitcher plant is also present. Perimeter of stand has greater diversity of both species and diameters. OPIC - FMD: This stand is part of a complex identified by MNFI ecologists as high quality Northern Shrub Thicket dominated by Speckled Alder (Alnus rugosa). 11/06/2001 mm |
| 129 | 42290 - Natural Mixed Pine | Sawtimber Well | 17.1 | 97 | 81-110 | Mixed conifer stand of various size classes. well developed sabcnopy of aspen and maple. Som are as of wet or saturated soils. .Four BA swings take with stand average of 127. OPIC - FMD: OI Stand Year Origin was 1920 |
| 130 | 4311 - Pine, Aspen Mix | Poletimber Well | 13.0 | 42 | 51-80 | Mixed Stand, east t west ends more conifer, middle portion more aspen. Quality is not that great, east end more open grown, west end larger red andAspen poor quacity. white pine. Othvee BASwings stand average of 80. PIC - FMD: OI Stand Year Origin was 1975 |
| 131 | 42110 - Planted Red Pine | Poletimber Well | 11.8 | 90 | 81-110 | Good looking red pine, like so many others in this compartment. Stand was last treated in 2008 and can be held for another 10 years. Stand was thinned down to a BA range of 80-100, three BA swings were taken with a stand average of 96. OPIC - FMD: Reorganized from compt 195. No comments carried over. 2008 timbersale closure update: thinned under 720060401 (ORV Red Pine) by Lutke in Nov-Dec 2007. |
| 132 | 4139 - Aspen, Mixed Deciduous | Poletimber Well | 16.6 | 57 | 51-80 | Mixed stand of aspen, maple and conifers. The re is a min or component of oak. Lowland swale runs the rough stand, indicates that Beaver Creek is part of swale, no evidence of a defined bed or bank. OPIC - FMD: OI Stand Year Origin was 1960 |
| 136 | 42110 - Planted Red Pine | Sawtimber Well | 27.6 | 90 | 111-140 | Stand was thinned in 2007 with a reported BA range of 80-100. Five BA swings were taken with a stand average of 122. Good stand of red pine. Like many stands in the area there is small component of Scotch pine. OPIC - FMD: Reorganized from compt 195. No comments carried over. 2008 timbersale closure update: thinned under 720060401 (ORV Red Pine) by Lutke in Nov-Dec 2007. |
| 137 | 42220 - Natural Jack Pine | Poletimber Well | 151.2 | 22 | Immature | You ay jack pine stand with pole to small log sized red an white pine as well as oak the re are areas of young aspen as well the re are areas of young aspen as well. Doesn't appear to have been planted. OPIC - FMD: CUT IN 1995. |
| 138 | 6122 - Black Spruce | Poletimber Medium | 13.0 | 78 | 51-80 | Lowland stand dominated by black spruce stem density van varies throughout. Stand is in good health, standing water and saturated soils. OPIC - FMD: OI Stand Year Origin was 1934 |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|-----|--|--------------------|-------|--------------|-------------|---|
| 139 | 42260 - Natural Pine, Mixed Deciduous | Poletimber Well | 11.6 | 47 | 81-110 | Mixed stand primarily aspen with super canopy re and white pine. Stand sandwiched between lowland and jack pine plantation. OPIC - FMD: In update in 2004, 8 acres was added to this stand that was not set up with the timber sale to the north. |
| 140 | 42120 - Planted Jack Pine | Sapling Well | 60.2 | 11 | Immature | you my stand of Jack and aspen. Stand was planted in 206 as per old OI comments. OPIC - FMD: There are many houses on the north side of Fletcher Road directly across from this stand. Consider leaving scattered red pine and white pine in the east half of stand. Stand was final harvested in summer of 2004 (Fletch Corner Jack 72-014-04-01). FTP completed and expected to be planted in spring of 2005. (Stand was planted in spring of 2006 under FTP C72-504. Stand was previously numbered stand 69 in compartment 195 but after compartment boundaries were rearranged, stand 69 was shifted to compartment 106 and numbered as stand 140.) |
| 142 | 6127 - Lowland Pine | Sapling Poor | 2.2 | 31 | 1-50 | Lowland stand with white pine, black spruce and red pin a mug perimeter. Leather leaf is ground cover, a pony wit well saturated soils. OPIC - FMD: OI Stand Year Origin was |
| 148 | 4199 - Other Mixed Upland Deciduous | Poletimber Well | 8.7 | 88 | 51-80 | Young sapling to pole size stand. A small 1 acre stand of wet species is included in this stand. Stand was treated in 1994 with all species being removed except oak. Stand is being classified as two aged, older oak and regen from 94 treatment. OPIC - FMD: CUT IN 1994. |
| 150 | 42110 - Planted Red Pine | Sawtimber Well | 34.2 | 87 | 81-110 | stand last treated in 200 s. Five BA swings take average BA 108. Stand is heathy and response from thinning decreasing. Understory oak and pine. OPIC - FMD: Timber sale # 72-005-04-01 (Research Red Pine) cut by Timberline Logging for Biewer Sawmill in the Spring 2005. The sale area has a residual of approximately 90 square feet of red pine. 07/05/2005 mm |
| 151 | 42110 - Planted Red Pine | Sawtimber Well | 23.7 | 90 | 111-140 | Red pine plantation with log sized stems in good healthy conditions. Very similar to other red pine stands in this compartment. Roads bordering 3 sides and a wet area bordering the northside. Five BA swings taken in this stand with stand average of 128. Northwest portion of stand has more deciduous component closer to the lowland stand. |
| 152 | 42110 - Planted Red Pine | Sawtimber Well | 26.5 | 86 | 111-140 | thinned stand of red pine, very healthy. Motorcycle trail runs thru stand. Understory more developed then other stands in area. Six BA swinys taken with average BA of 129. |



| Stand | Cover Type | Acres | Managed Site | General Comments: |
|-------|----------------------------------|-------|--------------|---|
| 5 | 122 - Road/Parking Lot | 12.8 | No | Fletcher Rd. |
| 6 | 122 - Road/Parking Lot | 10.9 | No | This stand is Military Road. |
| 15 | 123 - Other High Intensity Urban | 2.7 | No | Seven Mile Rd |
| 20 | 330 - Low-Density Trees | 5.4 | No | Old sand pit with some scattered with Jack Pine, aspen and cherry brush. Sweet fern and some grass patches. Being used for target practice. |
| 43 | 122 - Road/Parking Lot | 8.8 | No | This stand is US 27. |
| 44 | 330 - Low-Density Trees | 1.4 | No | Reclaimed well site, seeding in with red and jack pine |
| 48 | 330 - Low-Density Trees | 1.3 | No | Either old reclaimed well site or landing. Stand has or is seeding in with red and Jack pine. |
| 49 | 122 - Road/Parking Lot | 7.7 | No | King Road, road was widened with new pipeline running on west side of road. Pipeline area is grass. |
| 50 | 500 - Water | 2.5 | No | Several water bodies found within stand 133. |
| 59 | 320 - Upland Shrub | 38.8 | | <p>Planted stock is starting to die off from ground up. Stand was planted in 2016 Spring. Red Pine ASAP 720291501 islands were cut in order to make herbiciding easier for site prep</p> <p>OPIC - FMD: Cut in 2010, 720350801 FTP#C72-691 FDF STAND. Stand thinned in 2001 timbersale# 72-054-00. Average residual 90BA. Recommend final harvest and replant to Red Pine. Harvest the north part of the stand between the snowmobile trail and the two track that runs through the center of the stand. This stand was originally part of stand 24. Cultivation updates: burned to reduce slash in 2013 (C72-697), then chopped & trenched in 2015 and planted to RP in 2016 (C72-691).</p> |
| 60 | 3302 - Low Density Conifer Trees | 45.6 | | <p>Replanted Red Pine stand with cherry and oak stump sprouts. C72-621 roller-chopped & trenched in 2013, planted 2014, re-planted 2015, and release herbicided in 2015.</p> <p>OPIC - FMD: Stand of Red Pine. Oil and Gas well placed within the stand. Also pipelines were created. Pockets of natural Red Pine regen and scattered Red Pine regen. O1 Understory. Northside of the stand borders 7 Mile Road. Private on the south and west sides of the stand. Stand is visible from Military Road. Recommend final harvest and replant to Red Pine. Stand was originally part of stand Stand was harvest under sale # 720360801 Rusty Truck Pine Mix. THICKER RED PINE IN NE NE THINNED 1990, FDF stand. Thinned under contract #72-052-99-01 Aspen Pine Block in 2000/2001. About 20 acres in the NENE was thinned to 110 BA.</p> |
| 108 | 62259 - Bog (OI) | 3.5 | No | WET GRASSES THROUGHOUT. Standing Water with leather leaf on perimeter. |



| Stand | Cover Type | Acres | Managed Site | General Comments: |
|-------|----------------------------------|-------|--------------|--|
| 133 | 6229 - Mixed lowland shrub | 5.1 | No | Lowland stand with several pockets of water, stand 50. Appears to be where beaver creek flows thru but there is not a defined bed and bank. Stand is lowland shrubs. OPIC - FMD: OI Stand Year Origin was |
| 134 | 62259 - Bog (OI) | 2.7 | No | Leather leaf bog with some standing water. |
| 400 | 123 - Other High Intensity Urban | 1.3 | No | Breitburn well site. Permit #55251 State Beaver creek A1-22 Phone #888- OPIC - FMD: WELL SITE NOT ACTIVE PLANTED TO GRASS |
| 401 | 330 - Low-Density Trees | 1.1 | No | Former well site, seeding in with Red Pine. Rest of site is grass. OPIC - FMD: ACTIVE WELL SITE |
| 402 | 123 - Other High Intensity Urban | 2.6 | No | Breitburn well site with 3 wells. Highly developed with pipelines, buried cables and waterlines. Permits # 33270, 60550, 60349. State Beaver Creek B2-22,(2-22, D2-A. Phone to-2 5-18 OPIC - FMD: ACTIVE WELL SITE |
| 403 | 123 - Other High Intensity Urban | 1.4 | No | Breitburn well site. Permit # 32534 ST Beaver Creek N-1 Phone # 888-251-1681 OPIC - FMD: ACTIVE WELL SITE |
| 404 | 123 - Other High Intensity Urban | 1.6 | No | Breitburn wellPermit # 33148ST Beaver Creek D-4Phone # 888-250-1681 OPIC - FMD: ACTIVE WELL SITE |
| 405 | 123 - Other High Intensity Urban | 1.4 | No | Breitburn Active well sitePermit# 54157 ST Beaver creek D8Phone # 888-250-1681 |
| 406 | 31029 - Grass (OI) | 3.2 | No | Active well site with 3 wells. Breitburn operato Permit #60645, 60646 &55031. state Beaver Creek B4-22,C3-22,A3-22. Phone #888-250-1681. OPIC - FMD: WELL SITE NOT ACTIVE PLANTED TO GRASS |
| 407 | 3102 - Grass | 1.5 | No | WELL SITE NOT ACTIVE PLANTED TO GRASS |
| 410 | 123 - Other High Intensity Urban | 0.2 | No | Non-active well site, only metal box. Breitburn Permit #27622 ST Beaver creek j2 Phone I 888-251-1681 OPIC - FMD: Well site. |
| 411 | 123 - Other High Intensity Urban | 0.8 | No | Breitburnwell Permit # 51014 ST Beaver Creek J4 Phone # 888-250-1681 OPIC - FMD: Well site. |



| Stand | Cover Type | Acres | Managed Site | General Comments: |
|-------|----------------------------------|-------|--------------|---|
| 412 | 123 - Other High Intensity Urban | 0.4 | No | Breitburn wellPermit # 14452ST Beaver Creek J1Phone # 888-250-1681OIPC - FMD: Well site. |
| 413 | 123 - Other High Intensity Urban | 0.8 | No | Breitburn wellPermit # 33147ST Beaver Creek D-5Phone # 888-250-1681OIPC - FMD: Well site. |
| 414 | 3102 - Grass | 0.6 | No | Reclaimed well site no equipment OIPC- FMD: Well site. |
| 415 | 123 - Other High Intensity Urban | 1.5 | No | 2 Breitburn wellsPermit # 3466651 Beaver Creek J3Permit # 55311St Beaver Creek B2-27Phone # 888-250-1681OIPC - FMD: Well site. |
| 416 | 123 - Other High Intensity Urban | 3.1 | No | 3 Breitburn Wells Permit # 55034; ST Beaver Creek D2-27 Permit # 60566; ST Beaver Creek (DR23) C1-27 Permit # 60945; ST Beaver Creek C 3-27 Phone # 888-250-1681 |
| 417 | 123 - Other High Intensity Urban | 2.1 | No | 2 Breitburn wells with one tank. Permit # 55033 St Beaver Creek B4-27 Permit # 60548 St Beaver Creek A3-27 Permit # 60941 St Beaver Creek D4-22 Phone # 888-250-1681 |
| 418 | 123 - Other High Intensity Urban | 1.6 | No | Breitburn Well SitePermi#t 59157ST Beaver CreekD4-27Phone # 888-250-1681 |