



# Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12070

Entry Year 2019

Acreage: 1,619

County Dickinson

Management Area: Groveland

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**Revision Date:** 2017-08-18

**Stand Examiner:** Matt Modlin

**Legal Description:**

T42N R28W Sec 31-32, T41N R28W Sec 5-8

**Identified Planning Goals:**

To sustain and promote mature pine cover. This year harvests are planned in pine, hardwood, and mixed timber types.

**Soil and topography:**

Steep rocky outcrops with shallow soil surrounded by low, wet areas.

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

Private and company ownership surrounds this compartment

**Unique Natural Features:**

Precambrian mountain range is potential host of unusual flora and fauna.

**Archeological, Historical, and Cultural Features:**

Wing dam site was an original pine era logging dam.

**Special Management Designations or Considerations:**

Multiple stands in this compartment are not operable and therefore should be left to progress into old growth. This will create unique habitat for a variety of wildlife.

**Watershed and Fisheries Considerations:**

The West Branch of the Sturgeon River passes through this compartment along with a variety of small feeder streams and drainages. The integrity of these water bodies should be maintained by keeping appropriate best management practice buffers along their course which includes a 100 foot buffer.

**Wildlife Habitat Considerations:**

This compartment falls within the Groveland Management Area whose featured species include; blackburnian warbler, northern goshawk, and deer. Functional cover for wintering deer is very important in this portion of the historic Camp Suicide Deeryard, which currently fall within conditional deer winter range. In addition, mature forest habitat, primarily conifer, provides habitat critical for blackburnian warblers and refuge trees for black bears. Aspen and hardwood age class is important to provide continuous forage for wintering deer as is encouragement of mesic conifers to provide cover for deer to access winter forage. Mature forest areas will also be retained to provide the nesting and hunting needs of northern goshawks. Lowland hardwood and conifer stands, swales and drainages are used extensively by many wildlife species and are particularly important for black bears. Some areas of this compartment are very rugged and provide refuge for animals due to limited access by people and ORVs.

**Mineral Resource and Development Concerns and/or Restrictions**

Sand/gravel pits are located to the northeast, and there may be some potential within the compartment. The igneous and metamorphic rocks beneath the glacial sediments may have value as dimension stone where bedrock is at or near the surface. The abandoned Calumet iron mine is located in Section 8 and the former Northwestern Mine is located in Felch. Groveland Mine is five miles to the west. In addition to the mining that occurred at Calumet and Northwestern mines, there has been extensive exploration in the area. It is possible there may be additional iron ore potential, or it could be that it may not be economical to mine. There has been metallic mineral leasing in the area in the past. There is no economic oil and gas production in the UP.

**Vehicle Access:**

Vehicle access is through gated private property

**Survey Needs:**

T41N R28W Sec 5 Center of NE1/4  
T41N R28W Sec 6 Center of NE1/4

**Recreational Facilities and Opportunities:**

Hunting, fishing, bird watching

**Fire Protection:**

Poor, limited access, pine type.

**Additional Compartment Information:**

High potential for quality old growth and unique, high quality wildlife habitat in much of the compartment in the next 10-20 years. Many legacy trees are currently present throughout the compartment.

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

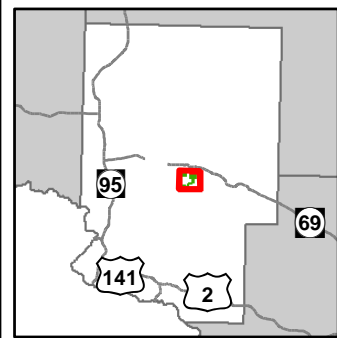
**Total Acres by Cover Type and Age Class**  
**Cover Type by Harvest Method**  
**Proposed Treatments – No Limiting Factors**  
**Proposed Treatments – With Limiting Factors**  
**Stand Details (Forested and Nonforested)**  
**Dedicated and Proposed Special Conservation Areas**  
**Site Condition Details**

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

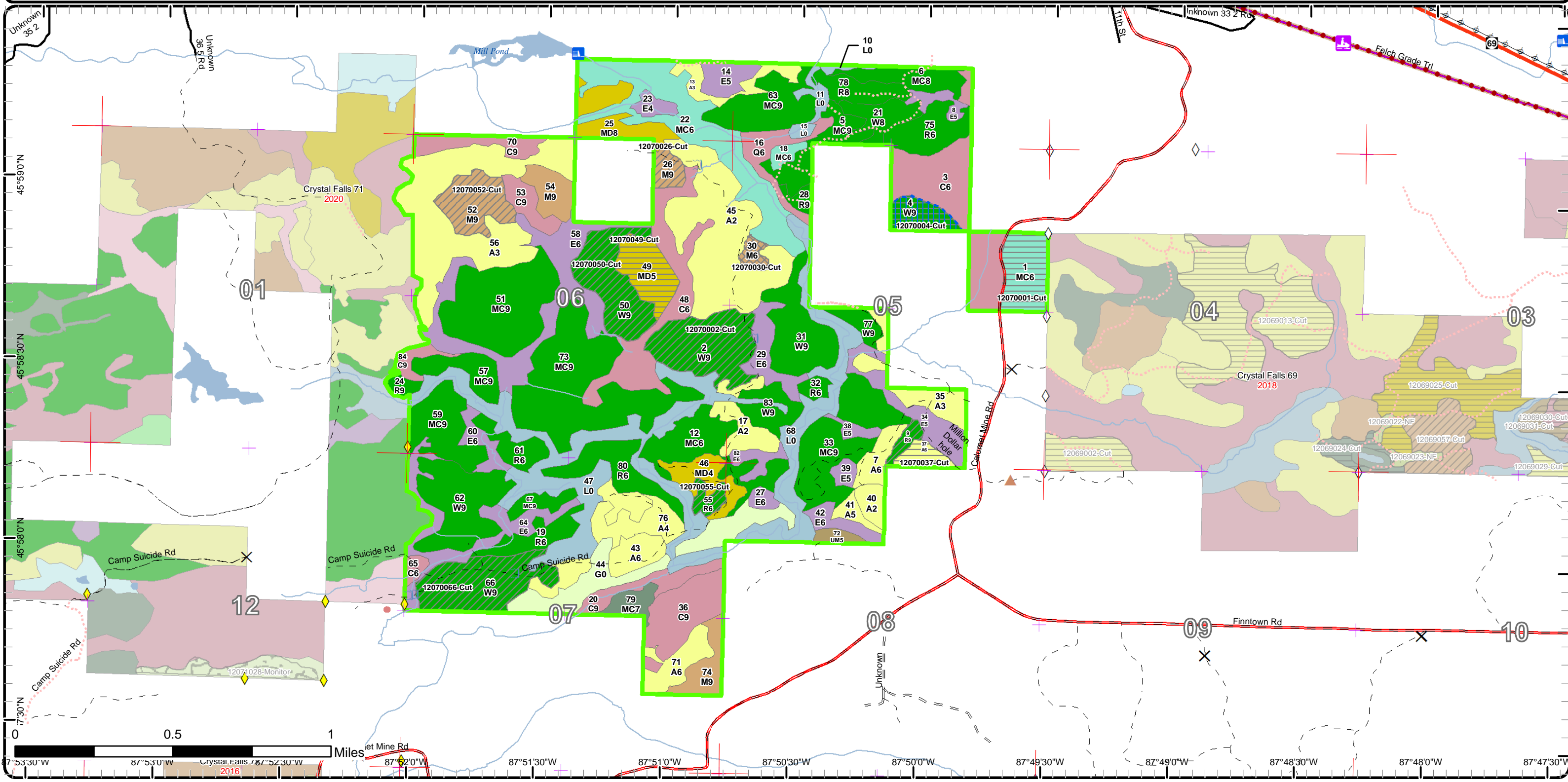
**Base feature information, stand boundaries, cover types, and numbers**  
**Proposed treatments**  
**Site condition boundaries**  
**Details on the road access system**

# Cover Type & Treatments Map

Compartment: 70  
 T41N, R28W, Sec. 5-8  
 T42N, R28W, Sec. 31, 32  
 County: Dickinson  
 Unit: Crystal Falls  
 Mgmt Area: Groveland  
 YOE: 2019  
 Acres: 1618.9 GIS Calculated  
 Examiner: Matt Modlin  
 Map Revised: 11/30/2017  
 Map Phase: Post-Review

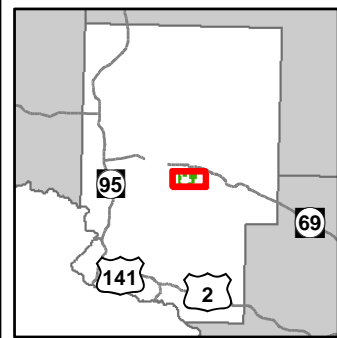


- Miris Corners
- Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Counties
- ✕ Gate
- ▲ Berms
- Culvert
- Dams
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Closed
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Treatments with Site Conditions
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- Lakes

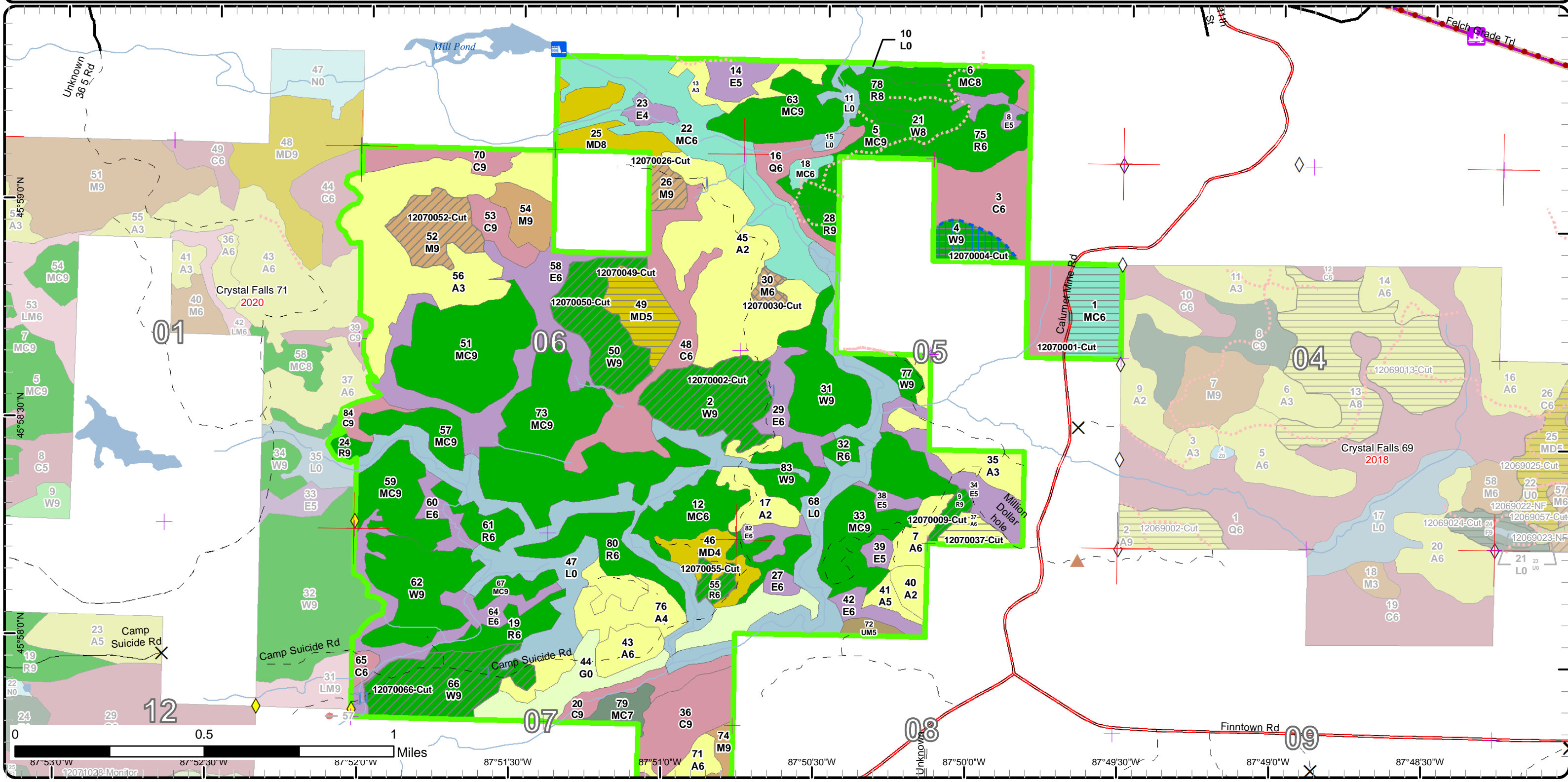


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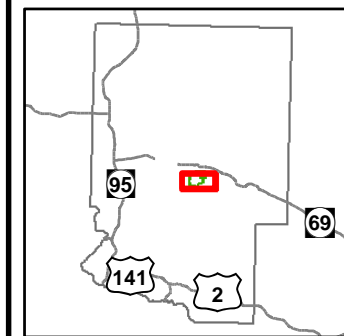


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|---|--|---|
| <ul style="list-style-type: none"> <li>— Miris Corners</li> <li>— Remonumented Section Corners</li> <li>— Survey Grade GPS Corners</li> <li>— Field Grade GPS Corners</li> <li>— Counties</li> <li>— Gate</li> <li>— Berms</li> <li>— Culvert</li> <li>— Dams</li> <li>— Snowmobile Trails</li> <li>— Designated Equestrian Trails</li> <li>— Designated ORV Route</li> <li>— Designated Snowmobile Trails</li> </ul> | <ul style="list-style-type: none"> <li>— Designated Railtrail</li> <li>— Paved Roads</li> <li>— County Gravel Roads</li> <li>— Gravel Roads</li> <li>— Poor Dirt Roads</li> <li>— Closed</li> <li>— Streams</li> <li>— Lakes and Rivers All</li> <li>— Compartment Boundary</li> <li>— Treatments with Site Conditions</li> <li>— Selection (Group, Single Tree)</li> <li>— Clearcut (w/Reserves)</li> <li>— Seed Tree (w/Reserves)</li> <li>— Thinning (Crown, Low, Systematic)</li> <li>— 411 - Northern Hardwood</li> </ul> | <ul style="list-style-type: none"> <li>413 - Aspen</li> <li>419 - Mixed Upland Deciduous</li> <li>422 - Natural Pines</li> <li>423 - Other Upland Conifers</li> <li>429 - Mixed Upland Conifers</li> <li>430 - Upland Mixed Forest</li> <li>611 - Lowland Deciduous Forest</li> <li>612 - Lowland Coniferous Forest</li> <li>310 - Herbaceous Openland</li> <li>622 - Lowland Shrub</li> <li>Lakes</li> </ul> |
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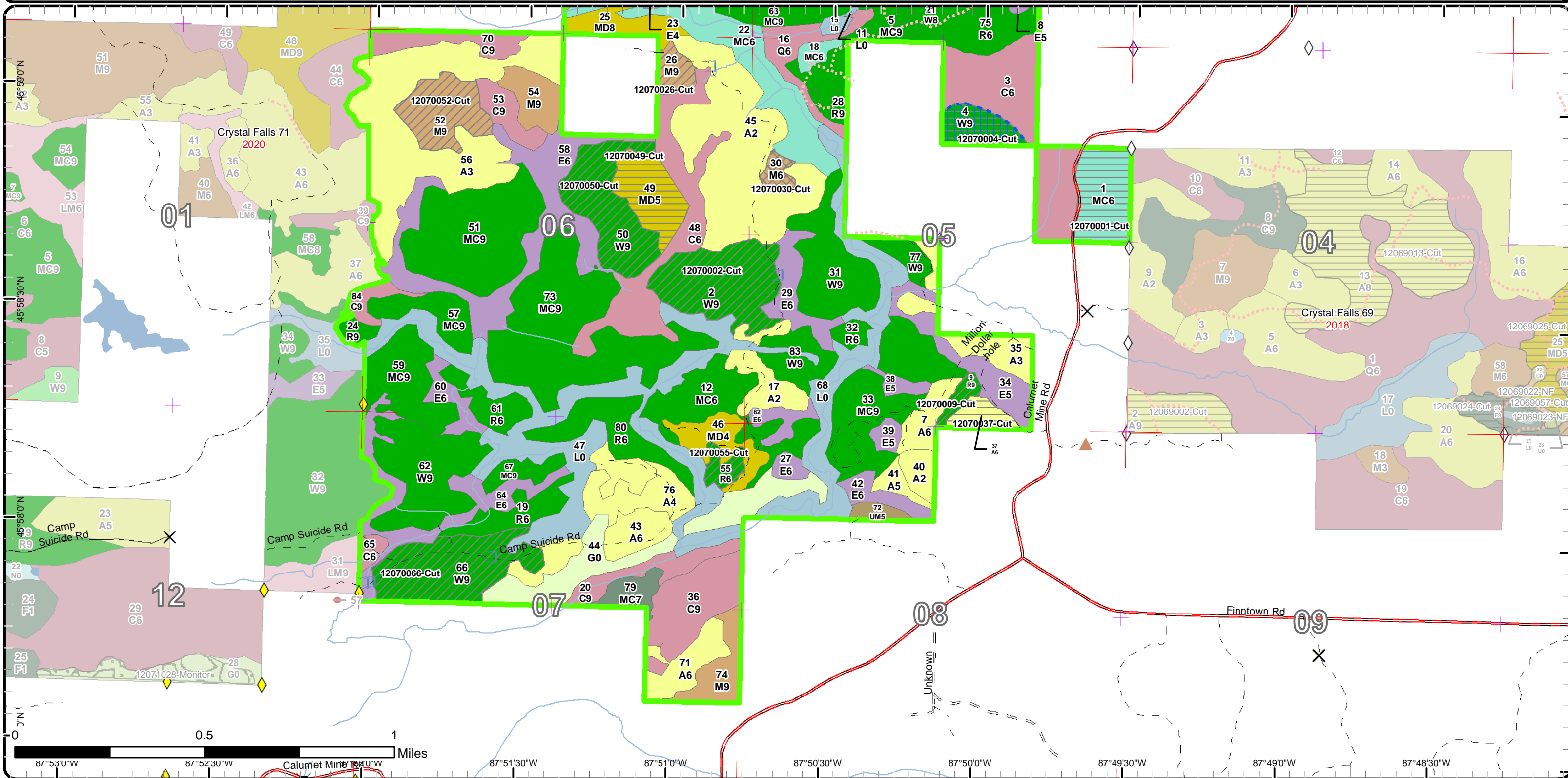


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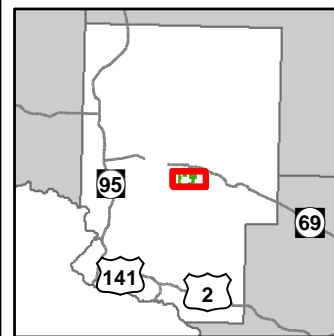


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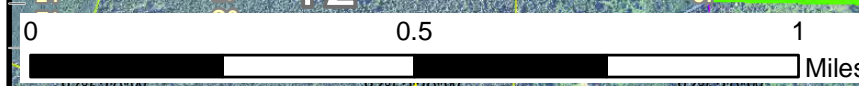
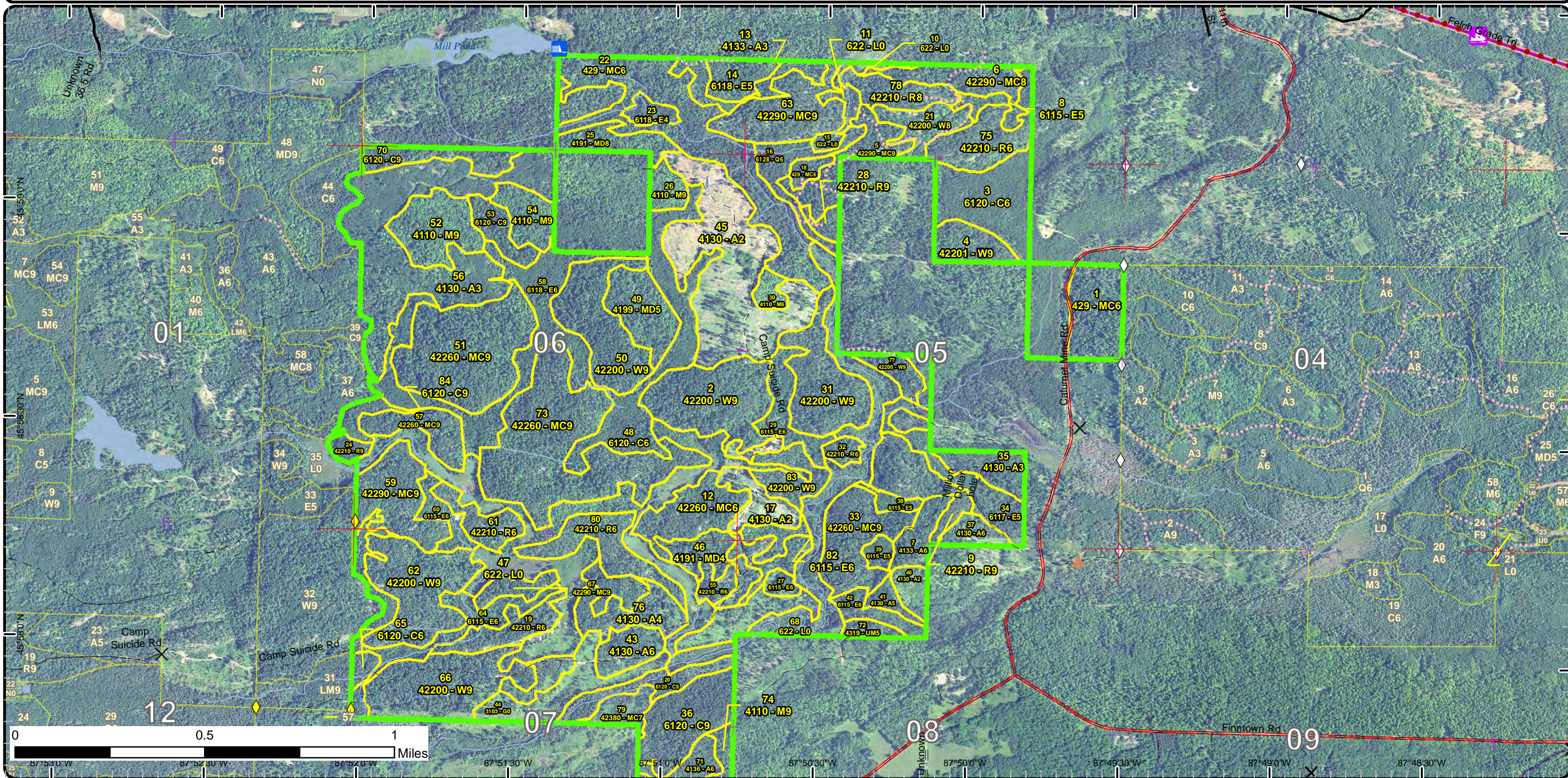


# Stand Boundary Map

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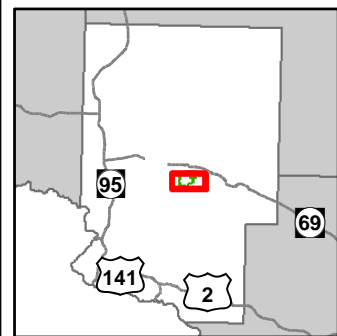
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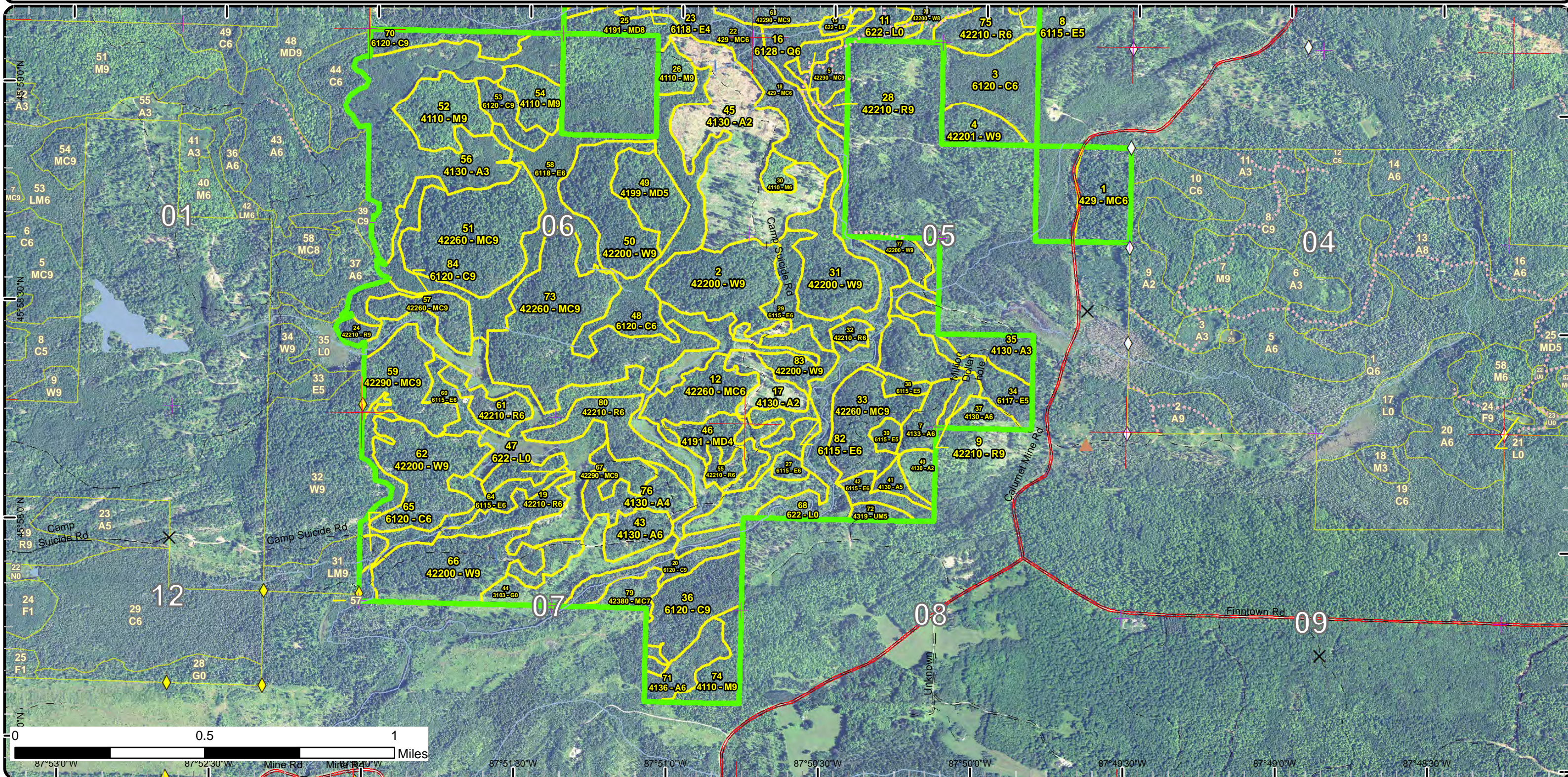
87°53'0"W    87°52'30"W    87°52'0"W    87°51'30"W    87°51'0"W    87°50'30"W    87°50'0"W    87°49'30"W    87°49'0"W    87°48'30"W

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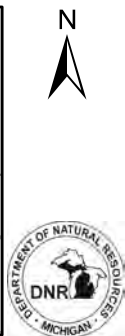
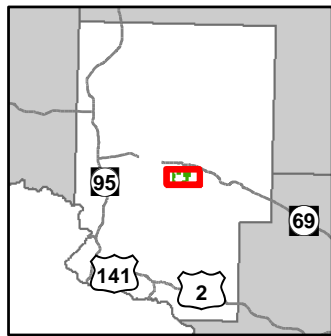


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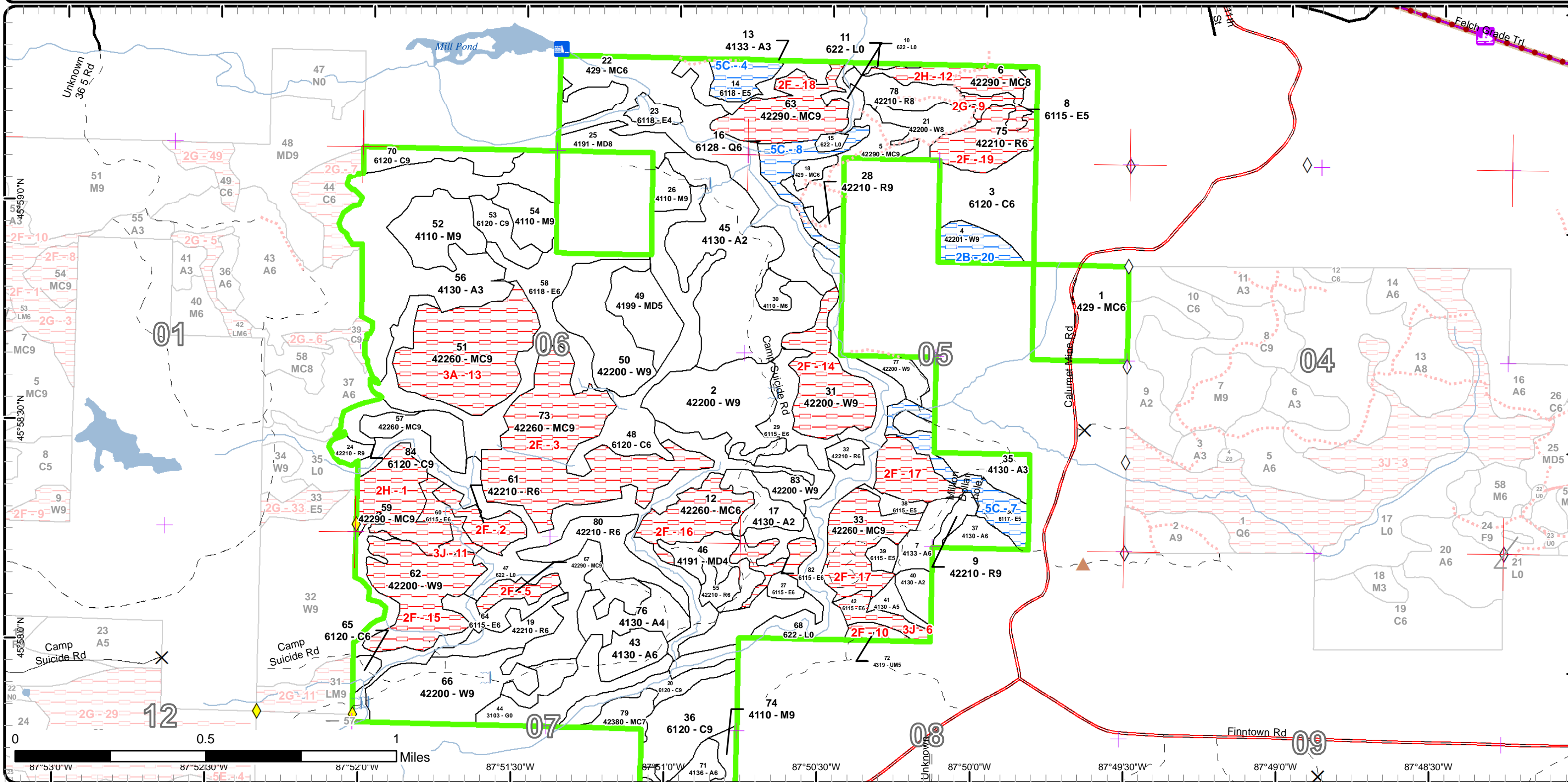


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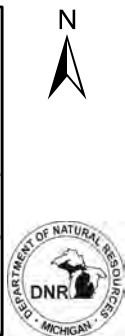
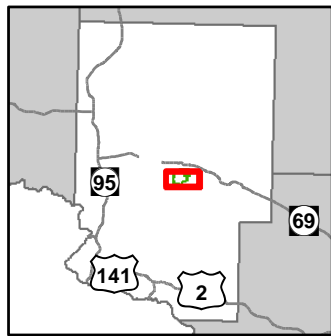
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  - Available w/ Constraints
  - Unavailable
  - Stand Boundaries
  - Cold Water Streams
  - Cold Water Lakes
- 2G: Too wet (sensitive soils, does not include access issues)  
 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)  
 3A: Conservation Values incompatible with harvest at this time  
 3J: Water quality / BMPs (stream, river, or lake)  
 5C: Delay treatment for age/size class diversity or exceptional site quality  
 2F: Too steep



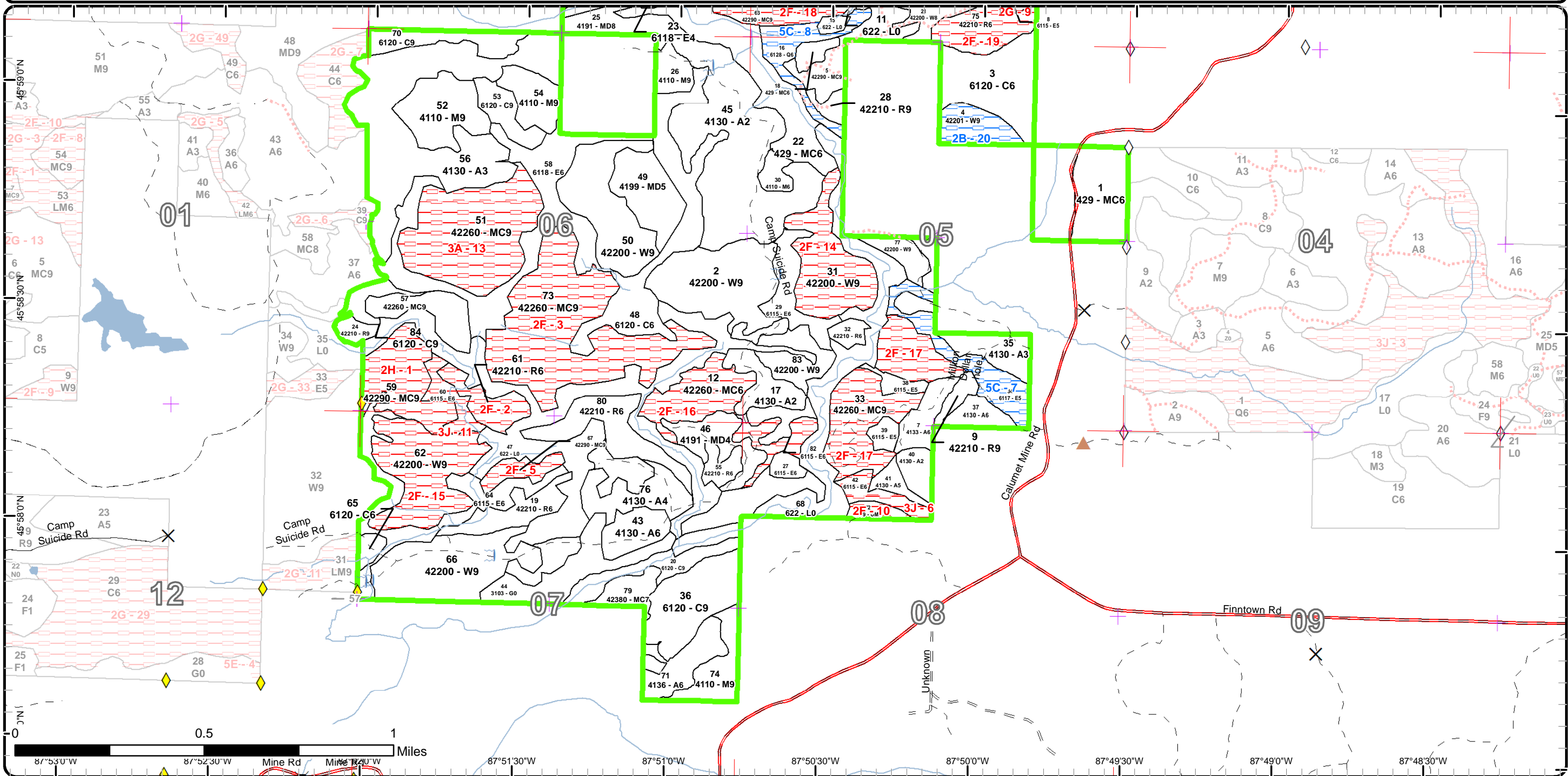


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- 3A: Conservation Values incompatible with harvest at this time
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Cold Water Streams



Report 1 – Total Acres by Cover Type and Age Class



Age Class

|                        | Non-Forest | 0-9       | 10-19     | 20-29     | 30-39     | 40-49     | 50-59     | 60-69      | 70-79      | 80-89      | 90-99      | 100-109   | 110-119   | 120-129   | 130-139   | 140-149   | 150+     | Uneven-Aged | Total       |
|------------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|----------|-------------|-------------|
| Aspen                  | 0          | 94        | 29        | 77        | 57        | 17        | 0         | 0          | 0          | 5          | 0          | 0         | 0         | 0         | 0         | 0         | 0        | 0           | 277         |
| Cedar                  | 0          | 0         | 0         | 0         | 0         | 0         | 0         | 0          | 39         | 66         | 0          | 41        | 15        | 0         | 0         | 0         | 0        | 0           | 160         |
| Herbaceous Openland    | 36         | 0         | 0         | 0         | 0         | 0         | 0         | 0          | 0          | 0          | 0          | 0         | 0         | 0         | 0         | 0         | 0        | 0           | 36          |
| Lowland Conifers       | 0          | 0         | 0         | 0         | 0         | 0         | 0         | 0          | 13         | 0          | 0          | 0         | 0         | 0         | 0         | 0         | 0        | 0           | 13          |
| Lowland Deciduous      | 0          | 0         | 0         | 0         | 0         | 0         | 0         | 74         | 14         | 53         | 18         | 0         | 0         | 0         | 0         | 0         | 0        | 0           | 158         |
| Lowland Shrub          | 136        | 0         | 0         | 0         | 0         | 0         | 0         | 0          | 0          | 0          | 0          | 0         | 0         | 0         | 0         | 0         | 0        | 0           | 136         |
| Mixed Upland Deciduous | 0          | 0         | 0         | 0         | 0         | 14        | 40        | 0          | 0          | 0          | 0          | 0         | 0         | 0         | 0         | 0         | 0        | 0           | 54          |
| Natural Mixed Pines    | 0          | 0         | 0         | 0         | 0         | 0         | 77        | 64         | 59         | 0          | 0          | 0         | 0         | 0         | 53        | 0         | 56       | 0           | 309         |
| Northern Hardwood      | 0          | 0         | 0         | 0         | 0         | 0         | 0         | 0          | 7          | 0          | 34         | 0         | 0         | 0         | 0         | 0         | 18       | 0           | 59          |
| Red Pine               | 0          | 0         | 0         | 0         | 0         | 0         | 5         | 56         | 28         | 4          | 0          | 0         | 0         | 4         | 0         | 0         | 0        | 0           | 97          |
| Upland Conifers        | 0          | 0         | 0         | 0         | 4         | 0         | 0         | 8          | 85         | 0          | 0          | 0         | 0         | 0         | 0         | 0         | 0        | 0           | 97          |
| Upland Mixed Forest    | 0          | 0         | 0         | 0         | 0         | 0         | 0         | 0          | 4          | 0          | 0          | 0         | 0         | 0         | 0         | 0         | 0        | 0           | 4           |
| White Pine             | 0          | 0         | 0         | 0         | 0         | 0         | 0         | 13         | 7          | 31         | 38         | 0         | 32        | 49        | 0         | 0         | 50       | 0           | 219         |
| <b>Total</b>           | <b>172</b> | <b>94</b> | <b>29</b> | <b>77</b> | <b>57</b> | <b>21</b> | <b>14</b> | <b>122</b> | <b>215</b> | <b>256</b> | <b>159</b> | <b>90</b> | <b>41</b> | <b>47</b> | <b>53</b> | <b>53</b> | <b>0</b> | <b>124</b>  | <b>1619</b> |



## Report 2 – Treatment Summary

Crystal Falls Mgt. Unit  
Year of Entry: 2019

Acres of Harvest

Compartment 70  
Total Compartment Acres: 1,619

Commercial Harvest - 199  
Harvests with Site Condition - 12  
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                  | 7         | 0         | 0              | 0         | 0           | 0          | 0                 | 0        | 0        | 7           |
| Mixed Upland Deciduous | 20        | 0         | 0              | 0         | 0           | 0          | 0                 | 0        | 0        | 20          |
| Northern Hardwood      | 0         | 5         | 0              | 0         | 0           | 29         | 0                 | 0        | 0        | 33          |
| Red Pine               | 0         | 0         | 0              | 0         | 0           | 9          | 0                 | 0        | 0        | 9           |
| Upland Conifers        | 23        | 0         | 0              | 0         | 0           | 0          | 0                 | 0        | 0        | 23          |
| White Pine             | 0         | 0         | 0              | 12        | 0           | 107        | 0                 | 0        | 0        | 119         |
| <b>Total</b>           | <b>49</b> | <b>5</b>  | <b>0</b>       | <b>12</b> | <b>0</b>    | <b>145</b> | <b>0</b>          | <b>0</b> | <b>0</b> | <b>211</b>  |

### Proposed and Next Step Treatments by Method

|              | Harvest    | Site Prep | Planting | Seeding  | Burning  | Pesticide | Monitoring | Other    | Non-Forest Mgt. | Total Acres |
|--------------|------------|-----------|----------|----------|----------|-----------|------------|----------|-----------------|-------------|
| Current      | 211        | 0         | 0        | 0        | 0        | 0         | 0          | 0        | 0               | 211         |
| Next Step    | 0          | 16        | 0        | 0        | 0        | 0         | 65         | 0        | 0               | 81          |
| <b>Total</b> | <b>211</b> | <b>16</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b>  | <b>65</b>  | <b>0</b> | <b>0</b>        | <b>292</b>  |



| S<br>t<br>a<br>n<br>d | Treatment<br>Name | Acres | Stand<br>CoverType             | Size<br>Density   | Stand<br>Age | BA<br>Range | Treatment<br>Type | Treatment<br>Method        | Cover Type<br>Objective       | Age<br>Structure | Approval<br>Status   |
|-----------------------|-------------------|-------|--------------------------------|-------------------|--------------|-------------|-------------------|----------------------------|-------------------------------|------------------|----------------------|
| 1                     | 12070001-Cut      | 22.6  | 429 - Mixed Upland<br>Conifers | Poetimber<br>Well | 85           | 51-80       | Harvest           | Clearcut with<br>Retention | 4319 - Mixed<br>Upland Forest | Even-Aged        | Approved<br>Proposal |

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

Prescription Clearcut leaving cedar, white pine, red pine, oak, hemlock, and sub merchantable spruce and fir. Stay out of drain in south quarter.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable All species

Regen:OtherComment:

Proposed Start Date: 10/01/2018

|   |              |      |                               |                   |     |             |         |                |  |           |                      |
|---|--------------|------|-------------------------------|-------------------|-----|-------------|---------|----------------|--|-----------|----------------------|
| 2 | 12070002-Cut | 37.3 | 42200 - Natural<br>White Pine | Sawtimber<br>Well | 135 | 141-<br>170 | Harvest | Crown Thinning | 42201 - Natural<br>White Pine,<br>Mixed<br>Deciduous | Even-Aged | Approved<br>Proposal |
|---|--------------|------|-------------------------------|-------------------|-----|-------------|---------|----------------|--|-----------|----------------------|

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

Prescription Thin pine to 120 BA leaving all red pine. Leave all legacy trees (see within stand retention guidelines)

Specs: Cut all aspen, birch, and ironwood except some good quality wildlife trees. Cut all maple 12 inches or greater. Cut all ash 8 inches or greater.

Leave all oak and cherry.

Mark out all wet areas, buffer any vernal ponds. No operating within valleys where water will flow. Stay on sides or top of ridges.

Next StepTreatments:

Acceptable Conifers and deciduous

Regen:Other

Scattered oak

Comment:

Proposed Start Date: 10/01/2018

|   |              |      |   |                   |     |             |         |                             |                              |           |                      |
|---|--------------|------|---|-------------------|-----|-------------|---------|-----------------------------|------------------------------|-----------|----------------------|
| 4 | 12070004-Cut | 11.6 | 42201 - Natural<br>White Pine, Mixed<br>Deciduous | Sawtimber<br>Well | 135 | 111-<br>140 | Harvest | Seed Tree with<br>Retention | 4220 - Natural<br>White Pine | Even-Aged | Approved<br>Proposal |
|---|--------------|------|---|-------------------|-----|-------------|---------|-----------------------------|------------------------------|-----------|----------------------|

**Habitat Cut: No****Site Condition: Unknown Access**

Prescription Leave all pine, hemlock, cedar, and sub merchantable spruce and fir.

Specs:

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Pine, spruce, fir, maple

Regen:OtherComment:

Proposed Start Date: 10/01/2018

|   |              |     |                             |                   |    |             |         |                |                             |           |                      |
|---|--------------|-----|-----------------------------|-------------------|----|-------------|---------|----------------|-----------------------------|-----------|----------------------|
| 9 | 12070009-Cut | 4.0 | 42210 - Natural<br>Red Pine | Sawtimber<br>Well | 80 | 111-<br>140 | Harvest | Crown Thinning | 42210 - Natural<br>Red Pine | Even-Aged | Approved<br>Proposal |
|---|--------------|-----|-----------------------------|-------------------|----|-------------|---------|----------------|-----------------------------|-----------|----------------------|

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

Prescription Thin pine to 80-90 BA. Protect existing regeneration as much as possible.

Specs:Next StepTreatments:

Acceptable

Regen:Other

steep slopes around edge may need to be marked out

Comment:

Proposed Start Date: 10/01/2018



| S<br>t<br>a<br>n<br>d | Treatment<br>Name | Acres | Stand<br>CoverType                | Size<br>Density   | Stand<br>Age | BA<br>Range | Treatment<br>Type | Treatment<br>Method | Cover Type<br>Objective    | Age<br>Structure | Approval<br>Status   |
|-----------------------|-------------------|-------|-----------------------------------|-------------------|--------------|-------------|-------------------|---------------------|----------------------------|------------------|----------------------|
| 26                    | 12070026-Cut      | 6.9   | 4110 - Sugar Maple<br>Association | Sawtimber<br>Well | 85           | 111-<br>140 | Harvest           | Crown Thinning      | 411 - Northern<br>Hardwood | Even-Aged        | Approved<br>Proposal |

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

Prescription Thin to 70-90 targeting growth on good sugar maple crop trees. Leave all hemlock and pine.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Steep and rocky in places

Comment:

Proposed Start Date: 10/01/2018

|    |              |     |                                   |                    |    |             |         |                 |                               |           |                      |
|----|--------------|-----|-----------------------------------|--------------------|----|-------------|---------|-----------------|-------------------------------|-----------|----------------------|
| 30 | 12070030-Cut | 4.5 | 4110 - Sugar Maple<br>Association | Poletimber<br>Well | 86 | 111-<br>140 | Harvest | Group Selection | 4319 - Mixed<br>Upland Forest | Even-Aged | Approved<br>Proposal |
|----|--------------|-----|-----------------------------------|--------------------|----|-------------|---------|-----------------|-------------------------------|-----------|----------------------|

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

Prescription Thin stand to 50-70 BA targeting higher quality maples to keep. Keep all birch and cedar. Scarify with anchor chains to promote regen.

Specs:

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Sugar maple, hemlock, white pine, spruce, fir, birch

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

|    |              |     |              |                    |    |             |         |                            |             |           |                      |
|----|--------------|-----|--------------|--------------------|----|-------------|---------|----------------------------|-------------|-----------|----------------------|
| 37 | 12070037-Cut | 6.9 | 4130 - Aspen | Poletimber<br>Well | 48 | 111-<br>140 | Harvest | Clearcut with<br>Retention | 413 - Aspen | Even-Aged | Approved<br>Proposal |
|----|--------------|-----|--------------|--------------------|----|-------------|---------|----------------------------|-------------|-----------|----------------------|

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

Prescription Clearcut 2" spec leaving all pine and paper birch

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, conifers, paper birch

Regen:

Other Blue line in on south side

Comment:

Proposed Start Date: 10/01/2018

|    |              |      |  |                      |    |             |         |                            |                               |           |                      |
|----|--------------|------|--|----------------------|----|-------------|---------|----------------------------|-------------------------------|-----------|----------------------|
| 49 | 12070049-Cut | 19.5 | 4199 - Other Mixed<br>Upland Deciduous | Poletimber<br>Medium | 60 | 111-<br>140 | Harvest | Clearcut with<br>Retention | 4319 - Mixed<br>Upland Forest | Even-Aged | Approved<br>Proposal |
|----|--------------|------|--|----------------------|----|-------------|---------|----------------------------|-------------------------------|-----------|----------------------|

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

Prescription Cut all aspen and birch except scattered designated wildlife trees. Cut all spruce and fir greater than 1 pulp stick. Cut all ash 8 inches or greater. Cut all maple 12 inches and greater. Mark out all wet areas and no operating skidding in valleys where water will flow. Can cut 8" or greater ash across the red line only that can be reached without having front tires cross the line.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Hardwoods and softwoods

Regen:

Other Possible vernal ponds in middle of stand. Possible access from the clearcut and through the swamp on the SE side.

Comment:

Proposed Start Date: 10/01/2018



| S<br>t<br>a<br>n<br>d | Treatment Name | Acres | Stand CoverType            | Size Density   | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective        | Age Structure | Approval Status   |
|-----------------------|----------------|-------|----------------------------|----------------|-----------|----------|----------------|------------------|-----------------------------|---------------|-------------------|
| 50                    | 12070050-Cut   | 32.0  | 42200 - Natural White Pine | Sawtimber Well | 120       | 141-170  | Harvest        | Crown Thinning   | 429 - Mixed Upland Conifers | Even-Aged     | Approved Proposal |

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

Prescription Cut all aspen and birch except designated wildlife den and cavity trees. Cut all spruce and fir greater than 1 stick. Cut all ash greater than or equal to 8 inches dbh. Cut all maple greater than or equal to 12 inches dbh. Mark out all wet areas, drains, and swales. Can cut within these areas only what can reach without having any tires cross the line. Leave all cedar. Leave all pine except operational trees.

Next Step  
Treatments:

Acceptable Conifers  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

|    |              |      |                                |                |     |         |         |                |                         |           |                   |
|----|--------------|------|--------------------------------|----------------|-----|---------|---------|----------------|-------------------------|-----------|-------------------|
| 52 | 12070052-Cut | 21.9 | 4110 - Sugar Maple Association | Sawtimber Well | 100 | 111-140 | Harvest | Crown Thinning | 411 - Northern Hardwood | Even-Aged | Approved Proposal |
|----|--------------|------|--------------------------------|----------------|-----|---------|---------|----------------|-------------------------|-----------|-------------------|

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

Prescription Thin to 80-90. Leave all birch for future snags, CDW, and canopy gaps.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

|    |              |     |                          |                 |    |         |         |                |                             |           |                   |
|----|--------------|-----|--------------------------|-----------------|----|---------|---------|----------------|-----------------------------|-----------|-------------------|
| 55 | 12070055-Cut | 5.2 | 42210 - Natural Red Pine | Poletimber Well | 66 | 111-140 | Harvest | Crown Thinning | 429 - Mixed Upland Conifers | Even-Aged | Approved Proposal |
|----|--------------|-----|--------------------------|-----------------|----|---------|---------|----------------|-----------------------------|-----------|-------------------|

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

Prescription Thin pine to 120 leaving all white pine. Target suppressed and poor form trees for removal. Mark scattered aspen with orange X's to keep as future snags.

Specs:

Next Step  
Treatments:

Acceptable  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

|    |              |      |                            |                |     |         |         |                |                           |           |                   |
|----|--------------|------|----------------------------|----------------|-----|---------|---------|----------------|---------------------------|-----------|-------------------|
| 66 | 12070066-Cut | 38.1 | 42200 - Natural White Pine | Sawtimber Well | 100 | 141-170 | Harvest | Crown Thinning | 4220 - Natural White Pine | Even-Aged | Approved Proposal |
|----|--------------|------|----------------------------|----------------|-----|---------|---------|----------------|---------------------------|-----------|-------------------|

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

Prescription Thin stand to 110-140 BA by thinning from below without going below 75% crown closure. Leaving all red pine and larger crown white pines. Cut all spruce and fir greater than 1 pulp stick. Cut all other species 12 inches or greater. Goal is to expand existing canopy gaps to release existing regen and thin the higher basal area patches to increase crown size and develop better future seed trees.

Specs:

Next Step  
Treatments:

Acceptable White pine, red pine, paper birch, white spruce, balsam fir  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

**Total Treatment  
Acreage Proposed: 210.5**

## Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Matt Modlin : Examiner

Compartment: 70

Year of Entry: 2019

### Availability for Management

| Total<br>Acres | Acres<br>Available | Acres Avail<br>With Condition | Acres<br>Not Available |
|----------------|--------------------|-------------------------------|------------------------|
|----------------|--------------------|-------------------------------|------------------------|

### Dominant Site Conditions

2B   5C   2F   2G   2H   3A   3J

| 278   | 278   | 0  | 0   | Aspen                  | 0  | 0  | 0   | 0  | 0  | 0  |
|-------|-------|----|-----|------------------------|----|----|-----|----|----|----|
| 161   | 161   | 0  | 0   | Cedar                  |    |    |     |    |    |    |
| 36    | 36    | 0  | 0   | Herbaceous Openland    |    |    |     |    |    |    |
| 13    | 0     | 13 | 0   | Lowland Conifers       | 13 |    |     |    |    |    |
| 158   | 109   | 29 | 21  | Lowland Deciduous      | 29 |    | 5   |    |    | 15 |
| 136   | 136   | 0  | 0   | Lowland Shrub          |    |    |     |    |    |    |
| 53    | 53    | 0  | 0   | Mixed Upland Deciduous |    |    |     |    |    |    |
| 309   | 31    | 0  | 278 | Natural Mixed Pines    |    |    | 184 | 40 | 53 |    |
| 59    | 59    | 0  | 0   | Northern Hardwood      |    |    |     |    |    |    |
| 96    | 67    | 0  | 30  | Red Pine               |    |    | 30  |    |    |    |
| 96    | 96    | 0  | 0   | Upland Conifers        |    |    |     |    |    |    |
| 4     | 0     | 0  | 4   | Upland Mixed Forest    |    |    | 4   |    |    |    |
| 219   | 139   | 12 | 68  | White Pine             | 12 |    | 68  |    |    |    |
| 1,619 | 1,166 | 54 | 400 | Total Forested Acres   | 12 | 42 | 285 | 5  | 40 | 53 |
|       | 72%   | 3% | 25% | Relative Percent       |    |    |     |    |    |    |

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

| Site No.         | Dominant Site Cond Availability | Dominant Site Condition  | Acres | Other Site Condition   | Other Site Condition  | Other Site Condition | Other Site Condition |
|------------------|---------------------------------|--|-------|--|---|----------------------|----------------------|
| 1                | Unavailable                     | 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) | 26    | 2F: Too steep  | 2G: Too wet (sensitive soils, does not include access issues) | Unspecified          | Unspecified          |
| <b>Comments:</b> |                                 |  |       |  |   |                      |                      |
| 2                | Unavailable                     | 2F: Too steep  | 11    | 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) | Unspecified   | Unspecified          | Unspecified          |
| <b>Comments:</b> |                                 |  |       |  |   |                      |                      |

## Report 4 – Site Conditions

Crystal Falls Mgt. Unit  
 Matt Modlin : Examiner

Compartment: 70  
 Year of Entry: 2019

|                  |                    |   |    |  |             |             |             |
|------------------|--------------------|---|----|--|-------------|-------------|-------------|
| 3                | <b>Unavailable</b> | <b>2F: Too steep</b>  | 77 | 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) | Unspecified | Unspecified | Unspecified |
| <b>Comments:</b> |                    |   |    |  |             |             |             |
| 4                | <b>Available</b>   | <b>5C: Delay treatment for age/size class diversity or exceptional site quality</b> | 10 | Unspecified  | Unspecified | Unspecified | Unspecified |
| <b>Comments:</b> |                    |   |    |  |             |             |             |
| 5                | <b>Unavailable</b> | <b>2F: Too steep</b>  | 7  | Unspecified  | Unspecified | Unspecified | Unspecified |
| <b>Comments:</b> |                    |   |    |  |             |             |             |
| 6                | <b>Unavailable</b> | <b>3J: Water quality / BMPs (stream, river, or lake)</b>                            | 8  | Unspecified  | Unspecified | Unspecified | Unspecified |
| <b>Comments:</b> |                    |   |    |  |             |             |             |
| 7                | <b>Available</b>   | <b>5C: Delay treatment for age/size class diversity or exceptional site quality</b> | 19 | Unspecified  | Unspecified | Unspecified | Unspecified |
| <b>Comments:</b> |                    |   |    |  |             |             |             |
| 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> |                    |   |    |  |             |             |             |



## Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Matt Modlin : Examiner

Compartment: 70

Year of Entry: 2019

|   |                    |   |    |   |                   |   |             |
|---|--------------------|---|----|---|-------------------|---|-------------|
| 9   | <b>Unavailable</b> | <b>2G: Too wet (sensitive soils, does not include access issues)</b>          | 5  | Unspecified                                       | Unspecified       | Unspecified   | Unspecified |
| <b>Comments:</b>  |                    |   |    |   |                   |   |             |
| 10  | <b>Unavailable</b> | <b>2F: Too steep</b>  | 4  | 3J: Water quality / BMPs (stream, river, or lake) | 2I: Survey needed | Unspecified   | Unspecified |
| <b>Comments:</b><br>Not enough acres to make it worth while to harvest poor timber. |                    |   |    |   |                   |   |             |
| 11  | <b>Unavailable</b> | <b>3J: Water quality / BMPs (stream, river, or lake)</b>                      | 8  | Unspecified                                       | Unspecified       | Unspecified   | Unspecified |
| <b>Comments:</b>  |                    |   |    |   |                   |   |             |
| 12  | <b>Unavailable</b> | <b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b> | 15 | 2F: Too steep                                     | Unspecified       | Unspecified   | Unspecified |
| <b>Comments:</b><br>Very rough rocky area with low areas throughout                 |                    |   |    |   |                   |   |             |
| 13  | <b>Unavailable</b> | <b>3A: Conservation Values incompatible with harvest at this time</b>         | 53 | 3L: Other wildlife concerns                       | 2F: Too steep     | 2G: Too wet (sensitive soils, does not include access issues) | Unspecified |
| <b>Comments:</b><br>Going to be the perfect wildlife stand if left untouched        |                    |   |    |   |                   |   |             |
| 14  | <b>Unavailable</b> | <b>2F: Too steep</b>  | 31 | 2E: Road needed                                   | Unspecified       | Unspecified   | Unspecified |
| <b>Comments:</b>  |                    |   |    |   |                   |   |             |

## Report 4 – Site Conditions

Crystal Falls Mgt. Unit  
Matt Modlin : Examiner

Compartment: 70  
Year of Entry: 2019

|                  |             |   |    |  |  |             |             |
|------------------|-------------|---|----|--|--|-------------|-------------|
| 15               | Unavailable | 2F: Too steep   | 38 | 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) | Unspecified  | Unspecified | Unspecified |
| <b>Comments:</b> |             |   |    |  |  |             |             |
| 16               | Unavailable | 2F: Too steep   | 30 | Unspecified  | Unspecified  | Unspecified | Unspecified |
| <b>Comments:</b> |             |   |    |  |  |             |             |
| 17               | Unavailable | 2F: Too steep   | 42 | 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) | Unspecified  | Unspecified | Unspecified |
| <b>Comments:</b> |             |   |    |  |  |             |             |
| 18               | Unavailable | 2F: Too steep   | 28 | 2G: Too wet (sensitive soils, does not include access issues)          | 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) | Unspecified | Unspecified |
| <b>Comments:</b> |             |   |    |  |  |             |             |
| 19               | Unavailable | 2F: Too steep   | 19 | 2G: Too wet (sensitive soils, does not include access issues)          | Unspecified  | Unspecified | Unspecified |
| <b>Comments:</b> |             |   |    |  |  |             |             |
| 20               | Available   | 2B: Unknown if access through adjacent landowner(s) is possible | 12 | Unspecified  | Unspecified  | Unspecified | Unspecified |
| <b>Comments:</b> |             |   |    |  |  |             |             |

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

| SCA Name        | SCA Category | Detail Type | Recommendation | Acres |
|-----------------|--------------|-------------|----------------|-------|
| <b>Comments</b> |              |             |                |       |



**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.                               |



| Stand | Crystal Falls Mgt. Unit                          |                      | Report 7 – Forested Stands |              |             | Compartment: 70<br>Year of Entry: 2019  |
|-------|--|----------------------|----------------------------|--------------|-------------|---|
|       | Level 4<br>Cover Type                            | Size<br>Density      | Acres                      | Stand<br>Age | BA<br>Range | General<br>Comments:  |
| 1     | 429 - Mixed Upland<br>Conifers                   | Poletimber<br>Well   | 22.6                       | 85           | 51-80       | Drain runs east to west through south 1/4<br>Aspen ranges from 4-14"<br>Spruce/fir being hit hard by SBW                      |
| 2     | 42200 - Natural White<br>Pine                    | Sawtimber<br>Well    | 37.3                       | 135          | 141-170     | Limby white pine, less limby red pine   |
| 3     | 6120 - Lowland Cedar                             | Poletimber<br>Well   | 50.3                       | 92           | Unspecified |   |
| 4     | 42201 - Natural White<br>Pine, Mixed Deciduous   | Sawtimber<br>Well    | 11.6                       | 135          | 111-140     | Steep North slope. Spruce and fir cut in 1980.<br>Cedar mostly around lower edges<br>Stand is on top of a rock outcrop.       |
| 5     | 42290 - Natural Mixed<br>Pine                    | Sawtimber<br>Well    | 17.3                       | 80           | 81-110      | Older spruce/fir dead from SBW<br>Young saplings being hit hard   |
| 6     | 42290 - Natural Mixed<br>Pine                    | Sawtimber<br>Medium  | 14.6                       | 72           | 111-140     | Very thick patches of red and white pine and balsam fir saplings<br>Very steep/rocky outcrops mixed with low areas throughout |
| 7     | 4133 - Aspen, Mixed<br>Pine                      | Poletimber<br>Well   | 9.7                        | 46           | 111-140     | Scattered white pine legacy trees   |
| 8     | 6115 - Lowland Ash                               | Poletimber<br>Medium | 5.2                        | 86           | Unspecified | Very wet  |
| 9     | 42210 - Natural Red<br>Pine                      | Sawtimber<br>Well    | 4.0                        | 80           | 111-140     |   |
| 12    | 42260 - Natural Pine,<br>Mixed Deciduous         | Poletimber<br>Well   | 30.3                       | 66           | 111-140     |   |
| 13    | 4133 - Aspen, Mixed<br>Pine                      | Sapling Well         | 11.0                       | 14           | Immature    | WP, RP, and Ced are supercanopy   |
| 14    | 6118 - Lowland<br>Deciduous with Cedar           | Poletimber<br>Medium | 10.1                       | 105          | 141-170     | Very wet  |
| 16    | 6128 - Lowland<br>Coniferous, Mixed<br>Deciduous | Poletimber<br>Well   | 13.4                       | 85           | Unspecified |   |
| 17    | 4130 - Aspen                                     | Sapling<br>Medium    | 14.5                       | 2            | Immature    |   |
| 18    | 429 - Mixed Upland<br>Conifers                   | Poletimber<br>Well   | 3.7                        | 40           | Unspecified |   |
| 19    | 42210 - Natural Red<br>Pine                      | Poletimber<br>Well   | 13.0                       | 80           | 141-170     | Steep rock outcrop. No access to harvest.   |
| 20    | 6120 - Lowland Cedar                             | Sawtimber<br>Well    | 12.8                       | 92           | 111-140     | Buffer for river  |

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## Crystal Falls Mgt. Unit

## Report 7 – Forested Stands

Compartment: 70  
Year of Entry: 2019

| Level 4<br>Cover Type                      | Size<br>Density      | Acres | Stand<br>Age | BA<br>Range | General<br>Comments:   |
|--|----------------------|-------|--------------|-------------|--|
| 42200 - Natural White Pine                 | Sawtimber<br>Medium  | 12.5  | 70           | 111-140     | Scattered oak, cedar, and hemlock  |
| 429 - Mixed Upland Conifers                | Poletimber<br>Well   | 62.2  | 84           | 81-110      | This stand extends from river bed up to the top of the rocky outcrops. It is not harvestable. There area scattered large red pine and pockets of pure black ash or white spruce and balsam fir.                                    |
| 6118 - Lowland Deciduous with Cedar        | Poletimber<br>Poor   | 4.9   | 77           | 81-110      | Scattered yellow birch.<br>Most of the ash is dead/dying   |
| 42210 - Natural Red Pine                   | Sawtimber<br>Well    | 3.6   | 131          | 201+        | Superior quality pine. Site index:24 inch red pine, 115 feet tall, 131 years old = Site index of 68  |
| 4191 - Mixed Upland Deciduous with Conifer | Sawtimber<br>Medium  | 20.0  | 61           | 81-110      | More white pine on the west side and more aspen on the east. Rock outcrop area. No harvest access.   |
| 4110 - Sugar Maple Association             | Sawtimber<br>Well    | 6.9   | 85           | 111-140     | A few scattered hemlock, aspen, pine, and yellow birch<br>Sugar maple is generally good quality  |
| 6115 - Lowland Ash                         | Poletimber<br>Well   | 3.4   | 85           | Unspecified |  |
| 42210 - Natural Red Pine                   | Sawtimber<br>Well    | 3.6   | 77           | 81-110      | Spruce and balsam dead from SBW  |
| 6115 - Lowland Ash                         | Poletimber<br>Well   | 13.6  | 77           | 81-110      | Some scattered PB and BS   |
| 4110 - Sugar Maple Association             | Poletimber<br>Well   | 4.5   | 86           | 111-140     | Scattered paper birch, yellow birch, and cedar in the overstory<br>A lot of crooks and knots and low branches in the maple   |
| 42200 - Natural White Pine                 | Sawtimber<br>Well    | 30.6  | 97           | 81-110      | Patches of aspen were cut in 2003, but the site is so rugged only part of the sale was completed.  |
| 42210 - Natural Red Pine                   | Poletimber<br>Well   | 3.8   | 90           | 111-140     | Scattered super canopy red and white pine<br>Very rocky. Not operable.   |
| 42260 - Natural Pine, Mixed Deciduous      | Sawtimber<br>Well    | 42.3  | 71           | 111-140     | Red pine mostly on top of rocky knobs<br>Aspen, paper birch, and red maple are scattered along the lower slopes in the lower areas<br>Scattered red and white pine legacy trees<br>Many rocky and steep parts. Not worth entering. |
| 6117 - Lowland Deciduous, Mixed Coniferous | Poletimber<br>Medium | 18.5  | 91           | 111-140     | Low area east of main rd with tag alder and cat tails  |
| 4130 - Aspen                               | Sapling Well         | 17.6  | 18           | Immature    | Scattered super canopy white pine legacy trees   |
| 6120 - Lowland Cedar                       | Sawtimber<br>Well    | 28.3  | 110          | Unspecified |  |



| Stand | Level 4 Cover Type                         | Size Density      | Acres | Stand Age | BA Range    | General Comments:  |
|-------|--|-------------------|-------|-----------|-------------|--|
| 37    | 4130 - Aspen                               | Poletimber Well   | 6.9   | 48        | 111-140     | Sugar maple generally poor condition   |
| 38    | 6115 - Lowland Ash                         | Poletimber Medium | 3.5   | 76        | Unspecified | Scattered large ash. Some WP. Very wet.  |
| 39    | 6115 - Lowland Ash                         | Poletimber Medium | 3.5   | 76        | Unspecified | Many of the trees are dead. Very wet.  |
| 40    | 4130 - Aspen                               | Sapling Medium    | 6.5   | 5         | Immature    | CALUMETRICK SALE COMPLETED 10-28-11  |
| 41    | 4130 - Aspen                               | Poletimber Medium | 4.5   | 91        | 141-170     | White pine is coming in strong under the aspen<br>Very steep slope that is not harvestable<br>Scattered white spruce and balsam along the low area   |
| 42    | 6115 - Lowland Ash                         | Poletimber Well   | 7.6   | 92        | 81-110      | This is a creek corridor in a deep valley. Bed and bank flowing the length of the stand.<br>Mostly tag alder on the east side, forested on the west  |
| 43    | 4130 - Aspen                               | Poletimber Well   | 25.7  | 37        | Unspecified | White pine is scattered in the super canopy  |
| 45    | 4130 - Aspen                               | Sapling Medium    | 73.2  | 1         | Immature    | Harvested 2016. Left all Cedar and Hemlock. Also retained Pine greater than 20 inches on the stump.  |
| 46    | 4191 - Mixed Upland Deciduous with Conifer | Poletimber Poor   | 13.9  | 53        | 1-50        | Open areas have a few scattered birch and pine. There are some thicker areas of pine and some patches aspen and black ash low areas.<br><br>Spruce and Fir removed in portions of stand due to Spruce Budworm outbreak in 2016. All streams buffered 100 feet. |
| 48    | 6120 - Lowland Cedar                       | Poletimber Well   | 38.5  | 85        | Unspecified |  |
| 49    | 4199 - Other Mixed Upland Deciduous        | Poletimber Medium | 19.5  | 60        | 111-140     | Scattered red pine overstory Ironwood, white spruce, and scattered white pine replacing stand in understory. Most of the paper birch and aspen are dying White pine is very limby Sugar maple is very poor quality   |
| 50    | 42200 - Natural White Pine                 | Sawtimber Well    | 32.0  | 120       | 141-170     | White pine is generally very limby. Red Pine is good quality Red maple and Paper birch generally poor quality An oak here and there  |
| 51    | 42260 - Natural Pine, Mixed Deciduous      | Sawtimber Well    | 53.4  | 140       | 111-140     | Vernal ponds and other wet areas throughout with a major drainage through the middle.<br>Some areas of thick white pine regen<br>Density of pine varies greatly throughout the stand<br>Stand lightly thinned in north previously<br>Steep slope in the south. |
| 52    | 4110 - Sugar Maple Association             | Sawtimber Well    | 21.9  | 100       | 111-140     | Generally a lower quality stand with a lot of forks  |

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## Crystal Falls Mgt. Unit

## Report 7 – Forested Stands

Compartment: 70  
Year of Entry: 2019

| Stand | Level 4 Cover Type                    | Size Density    | Acres | Stand Age | BA Range    | General Comments:  |
|-------|---------------------------------------|-----------------|-------|-----------|-------------|--|
| 53    | 6120 - Lowland Cedar                  | Sawtimber Well  | 9.6   | 120       | 81-110      | White pine is in the super canopy  |
| 54    | 4110 - Sugar Maple Association        | Sawtimber Well  | 12.3  | 105       | 81-110      | Scattered PB<br>Stand was thinned in 2003<br>Black ash swale on north side at bottom of high cliff   |
| 55    | 42210 - Natural Red Pine              | Poletimber Well | 5.2   | 66        | 111-140     |  |
| 56    | 4130 - Aspen                          | Sapling Well    | 77.3  | 23        | Immature    | Lower wet areas throughout<br>White pine is in the super canopy<br><br>Two small lobes of aspen on west part of stand that protrude into Compartment 73 had an OI year of origin of 2000 and were combined into stand 56.  |
| 57    | 42260 - Natural Pine, Mixed Deciduous | Sawtimber Well  | 13.9  | 85        | 81-110      | Open areas where spruce/fir have died out and where aspen is falling over. This is where most of the regen is. 10-30 BA in this area of aspen and maple.   |
| 58    | 6118 - Lowland Deciduous with Cedar   | Poletimber Well | 48.0  | 77        | 81-110      | very wet with shallow flowing water  |
| 59    | 42290 - Natural Mixed Pine            | Sawtimber Well  | 25.7  | 134       | 111-140     | Wide age range in stand. Will do a lot of damage if felling is done. A lot of sharp rock outcrops and low areas. Many legacy trees.  |
| 60    | 6115 - Lowland Ash                    | Poletimber Well | 7.7   | 101       | 51-80       | Harvestable in frozen conditions   |
| 61    | 42210 - Natural Red Pine              | Poletimber Well | 10.9  | 84        | 141-170     | Very Very steep rocky outcrop. Definitely not harvestable.   |
| 62    | 42200 - Natural White Pine            | Sawtimber Well  | 37.5  | 125       | 81-110      | steep and rocky outcrops   |
| 63    | 42290 - Natural Mixed Pine            | Sawtimber Well  | 27.8  | 80        | 111-140     | Very rocky area. Low areas throughout.   |
| 64    | 6115 - Lowland Ash                    | Poletimber Well | 26.4  | 95        | Unspecified | Very wet Streams and drainages draining through to stand to East   |
| 65    | 6120 - Lowland Cedar                  | Poletimber Well | 3.2   | 92        |             |  |
| 66    | 42200 - Natural White Pine            | Sawtimber Well  | 38.1  | 100       | 141-170     | White spruce mostly dead from SBW Overstory white pine generally very limby Red pine are superior quality White pine seedlings very dense where the hazel is not present and where the overstory is thinner. Spruce and Fir removed due to Spruce Budworm outbreak in 2016. All streams buffered 100 feet. |
| 67    | 42290 - Natural Mixed Pine            | Sawtimber Well  | 6.8   | 75        | 111-140     | Rock outcrop   |



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## Crystal Falls Mgt. Unit

## Report 7 – Forested Stands

Compartment: 70  
Year of Entry: 2019

| Stand | Level 4 Cover Type                               | Size Density      | Acres | Stand Age | BA Range    | General Comments:  |
|-------|--|-------------------|-------|-----------|-------------|--|
| 70    | 6120 - Lowland Cedar                             | Sawtimber Well    | 12.6  | 110       | 81-110      | Very wet stand with many drains and seeps. A few rocky areas as well. Good buffer to the river that's just across the property line.           |
| 71    | 4136 - Aspen, Mixed Conifer                      | Poletimber Well   | 14.2  | 33        | Immature    | Patchy in areas because of wetter soil   |
| 72    | 4319 - Mixed Upland Forest                       | Poletimber Medium | 3.9   | 81        | 51-80       | Slopes down to stream. SBW in stand.   |
| 73    | 42260 - Natural Pine, Mixed Deciduous            | Sawtimber Well    | 76.6  | 65        | 111-140     |  |
| 74    | 4110 - Sugar Maple Association                   | Sawtimber Well    | 13.1  | 80        | 81-110      | Very good quality SM<br><br>CALUMETRICK SALE COMPLETED 10-28-11  |
| 75    | 42210 - Natural Red Pine                         | Poletimber Well   | 18.7  | 70        | 171-200     | On top of rock   |
| 76    | 4130 - Aspen                                     | Poletimber Poor   | 16.5  | 37        | Unspecified | Fir cut with SBW salvage   |
| 77    | 42200 - Natural White Pine                       | Sawtimber Well    | 6.8   | 87        | 81-110      | Very steep and rocky outcrop. Not operable.  |
| 78    | 42210 - Natural Red Pine                         | Sawtimber Medium  | 12.7  | 72        | 141-170     | Hemlock pocket along trail on northeast side<br>Very thick patches of red and white pine regen<br>Very steep/rocky outcrops in areas           |
| 79    | 42380 - Non Pine Upland Conifer, Mixed Deciduous | Sawtimber Poor    | 8.0   | 75        | 1-50        | There is a lot of blowdown. Conifer and some aspen regen filling in though.  |
| 80    | 42210 - Natural Red Pine                         | Poletimber Well   | 20.8  | 75        | 81-110      | RP ranges from 4-12"<br><br>Spruce and Fir removed in portions of stand due to Spruce Budworm outbreak in 2016. All streams buffered 100 feet. |
| 82    | 6115 - Lowland Ash                               | Poletimber Well   | 5.7   | 86        | 81-110      |  |
| 83    | 42200 - Natural White Pine                       | Sawtimber Well    | 12.6  | 126       | 111-140     | Red and white pine wide size range: 4" - 30" Very steep and rocky throughout most of stand. Only about 4 acres could possibly be harvested.    |
| 84    | 6120 - Lowland Cedar                             | Sawtimber Well    | 5.5   | 125       | 111-140     | Black spruce seedlings around perimeter of stand where there is a little more light  |



| Stand | Cover Type          | Acres | Managed Site | General Comments:   |
|-------|---------------------|-------|--------------|---|
| 10    | 622 - Lowland Shrub | 1.7   | No           |   |
| 11    | 622 - Lowland Shrub | 4.5   | No           |   |
| 15    | 622 - Lowland Shrub | 2.0   | No           | Scattered white spruce and black ash throughout   |
| 44    | 3103 - Rubus-Fern   | 36.1  |              | Pockets of aspen left from SBW harvest.<br>Spruce and Fir removed in portions of stand due to Spruce Budworm outbreak in 2016. All streams buffered 100 feet. |
| 47    | 622 - Lowland Shrub | 80.8  | No           | Drainage for all surrounding stands   |
| 68    | 622 - Lowland Shrub | 47.3  | No           | Sturgeon River  |