



# Compartment Review Presentation

## Crystal Falls Forest Management Unit

Compartment 12116

Entry Year 2019

Acreage: 1,786

County Iron

Management Area: Michigamme Reservoir

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

**Stand Examiner:** Ed Rice

**Legal Description:**

T44N R31W sections 16, 17, 18, 19, 20

T44N R32W sections 12, 13

**Identified Planning Goals:**

Optimize sustainable timber production while enhancing and protecting wildlife habitat. Continue the hardwood stands on 20 year alternating cutting cycles, moving the stands toward regulation. Progress the aspen types towards sustainable acreage regulation. Protect the riparian areas and transition zones during management activity.

**Soil and topography:**

The compartment has a mix of silt loams in the northern hardwoods, sandy loams in the aspen types, with severely rugged areas of rock outcrop complex. Topography ranges from flat to extremely broken rock outcrop.

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

This compartment is fairly contiguous. A few private inholdings are present. Industrial forest land is also adjacent.

**Unique Natural Features:**

For the Crystal Falls Management Unit, a fairly large hemlock stand/complex lies in the very NE of the compartment.

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

None

**Special Management Designations or Considerations:**

Heavily used deer wintering complex

**Watershed and Fisheries Considerations:**

This compartment has Margeson Creek to the west, which is a trout stream, 300 ft buffer required in areas susceptible to aspen regeneration. BMPs for vernal pools and intermittent streams. Noyes Creek is here and needs a 100 foot buffer. BMPs should be followed to maintain canopy cover and prevent erosion into waterbodies.

**Wildlife Habitat Considerations:**

This compartment falls within the Michigamme Reservoir Management Area whose featured species include; black bear, ruffed grouse, pileated woodpecker, northern goshawk, and deer. This Compartment contains the Deerfoot Lodge DWC. Cover for wintering deer is critically important in this historic deeryard. The eastern portion of the compartment is proposed as an ERA. Rugged conditions limit access and therefore provide mature forest conditions for number of featured species. This includes conifer stands such as hemlock that provide excellent thermal cover for yarding deer and high quality bear habitat. Aspen and hardwood age class diversity is important when a goal is to provide continuous forage for wintering deer. Mesic conifers are encouraged in upland timber stands and transitions are managed to provide cover for deer to access winter forage. Mature forest areas will also be retained to provide the nesting and hunting habitat requirements 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 not located in the area, but there appears to be some potential within the compartment. Some of the bedrock formations may have value as dimension stone. There does not appear to be any iron ore potential in the compartment. Other metallic minerals have been documented in the vicinity but not in concentrations of economic significance. The compartment was previously leased for metallic mineral exploration. There is no economic oil and gas production in the UP. The state does not own the mineral rights beneath parts of this compartment.

**Vehicle Access:**

In the west half of the compartment vehicle access is good. The roads are unimproved and in the spring are for the most part impassible but access is present. The east parcels are very isolated with few roads and those present are poor, winter type roads/trails.

**Survey Needs:**

T44N R31W  
NE1/16 sec18  
SE 1/16 sec18  
S 1/16 sec18  
center 1/4 sec20

**Recreational Facilities and Opportunities:**

None

**Fire Protection:**

Access is fair to good in the west half. The majority of fuel types are aspen leaf litter. The east sections are entirely different. Access is very restricted due to the rock outcrops, spruce/fir and leaf litter, mixed with large white pine. These potentially could lend to lightning strikes in a difficult to access area.

**Additional Compartment Information:**

The following reports from the Inventory are attached:

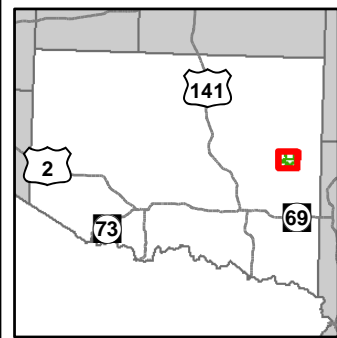
**Total Acres by Cover Type and Age Class**  
**Cover Type by Harvest Method**  
**Proposed Treatments – No Limiting Factors**  
**Proposed Treatments – With Limiting Factors**  
**Stand Details (Forested and Nonforested)**  
**Dedicated and Proposed Special Conservation Areas**  
**Site Condition Details**

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

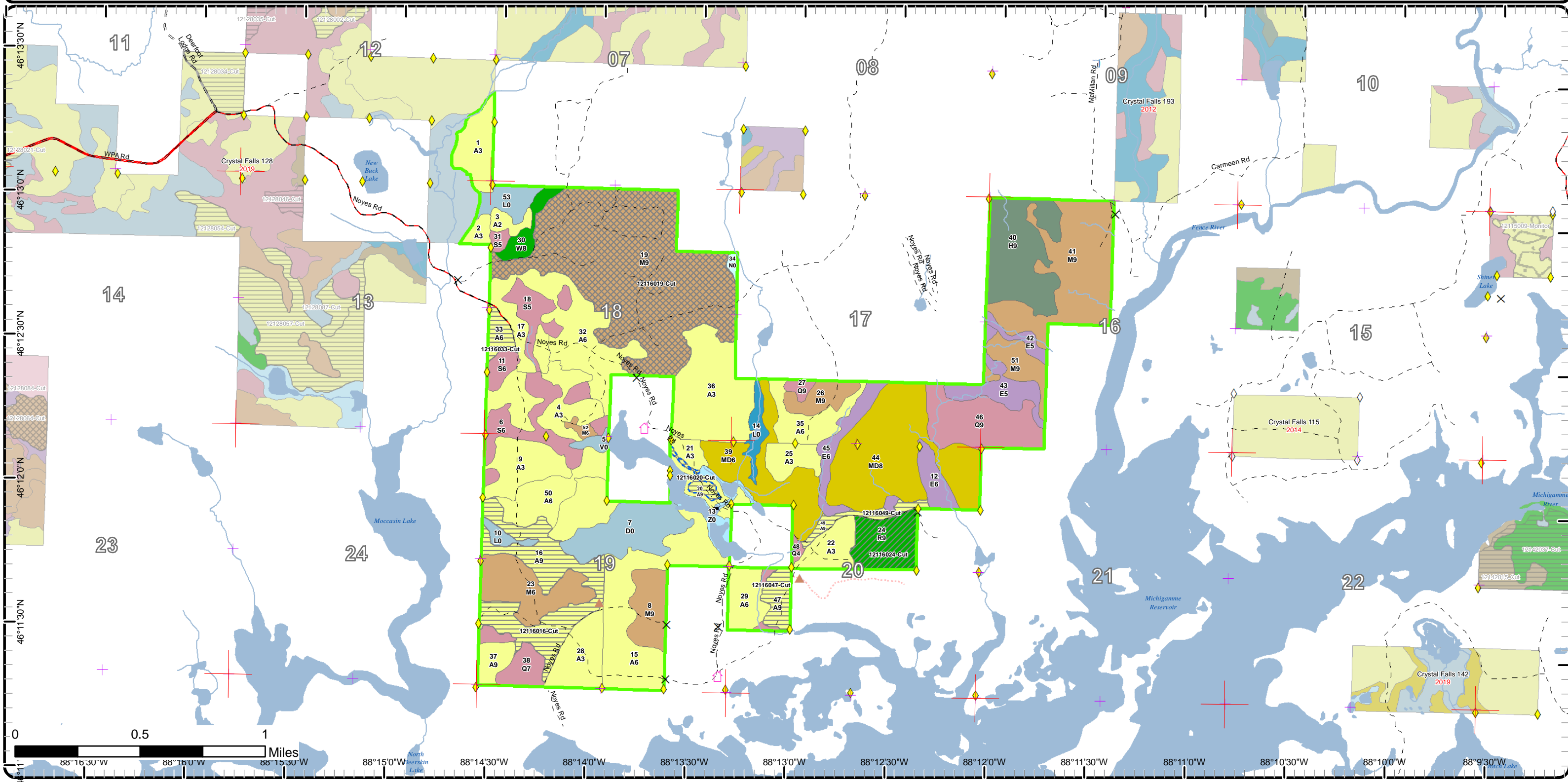
**Base feature information, stand boundaries, cover types, and numbers**  
**Proposed treatments**  
**Site condition boundaries**  
**Details on the road access system**

# Cover Type & Treatments Map

Compartment: 116  
 T44N, R31W, Sec. 16-20  
 County: Iron  
 Unit: Crystal Falls  
 Mgmt Area: Michigamme  
 Reservoir  
 YOE: 2019  
 Acres: 1786.1 GIS Calculated  
 Examiner: Ed Rice  
 Map Revised: 11/30/2017  
 Map Phase: Post-Review

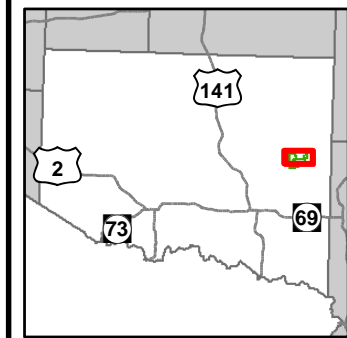


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- Counties
- ✕ Gate
- ▲ Berms
- ⚡ Bridge
- Unspecified Structure
- County Poor Dirt Roads
- - - Poor Dirt Roads
- ⋯ Closed
- Streams
- Lakes and Rivers All
- Compartment Boundary
- Treatments with Site Conditions
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Thinning (Crown, Low, Systematic)
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland

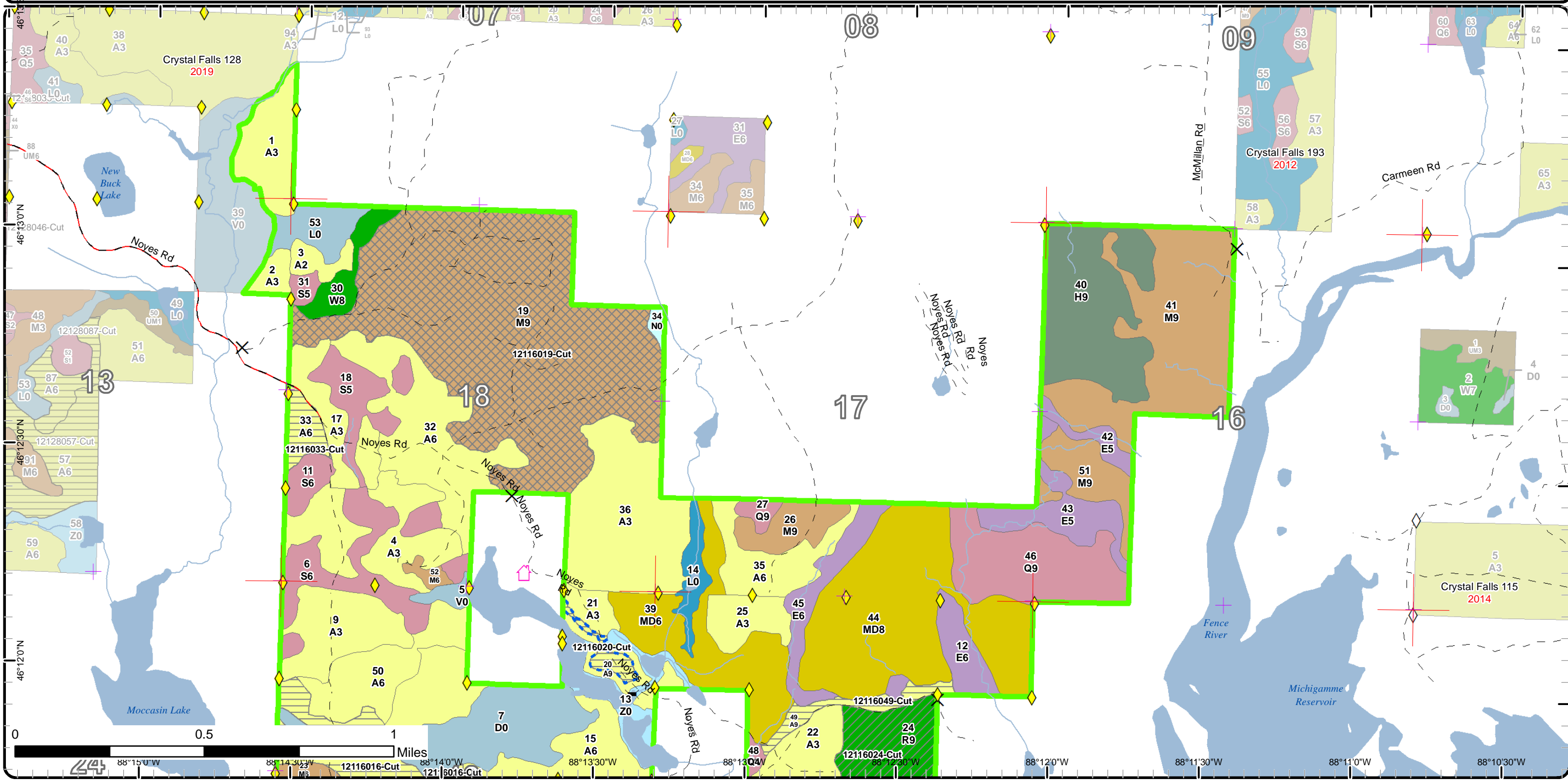


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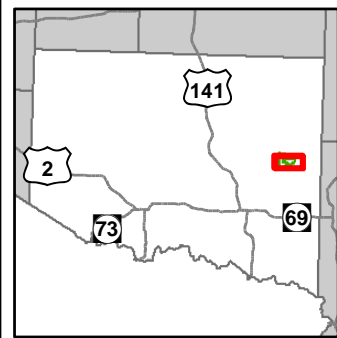


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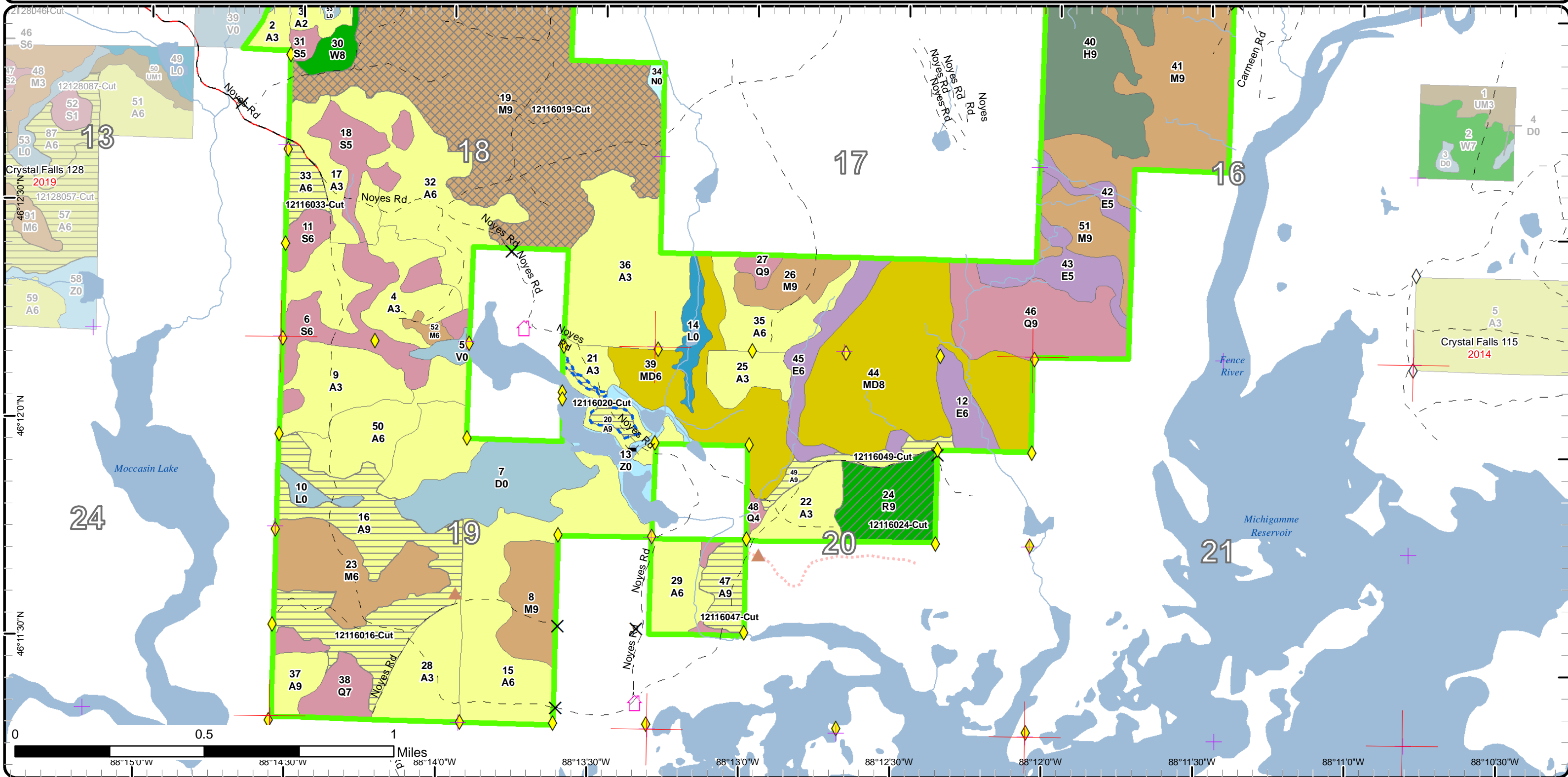


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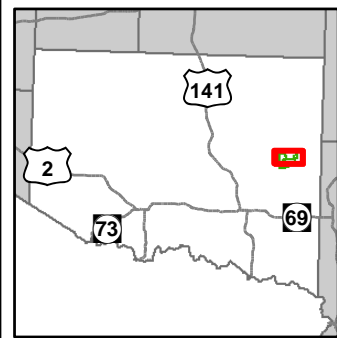


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| <ul style="list-style-type: none"> <li>— Miris Corners</li> <li>+ Remonumented Section Corners</li> <li>◆ Survey Grade GPS Corners</li> <li>◇ Field Grade GPS Corners</li> <li>- - - Counties</li> <li>✕ Gate</li> <li>▲ Berms</li> <li>⊠ Bridge</li> <li>⬜ Unspecified Structure</li> <li>— County Poor Dirt Roads</li> <li>- - - Poor Dirt Roads</li> <li>⋯ Closed</li> <li>— Streams</li> </ul> | <ul style="list-style-type: none"> <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>▨ Thinning (Crown, Low, Systematic)</li> <li>■ 411 - Northern Hardwood</li> <li>■ 413 - Aspen</li> <li>■ 419 - Mixed Upland Deciduous</li> <li>■ 422 - Natural Pines</li> <li>■ 423 - Other Upland Conifers</li> <li>■ 611 - Lowland Deciduous Forest</li> <li>■ 612 - Lowland Coniferous Forest</li> <li>■ 500 - Water</li> <li>■ 622 - Lowland Shrub</li> </ul> | <ul style="list-style-type: none"> <li>■ 623 - Emergent Wetland</li> <li>■ 629 - Mixed non-forested wetland</li> <li>■ Lakes</li> </ul> |
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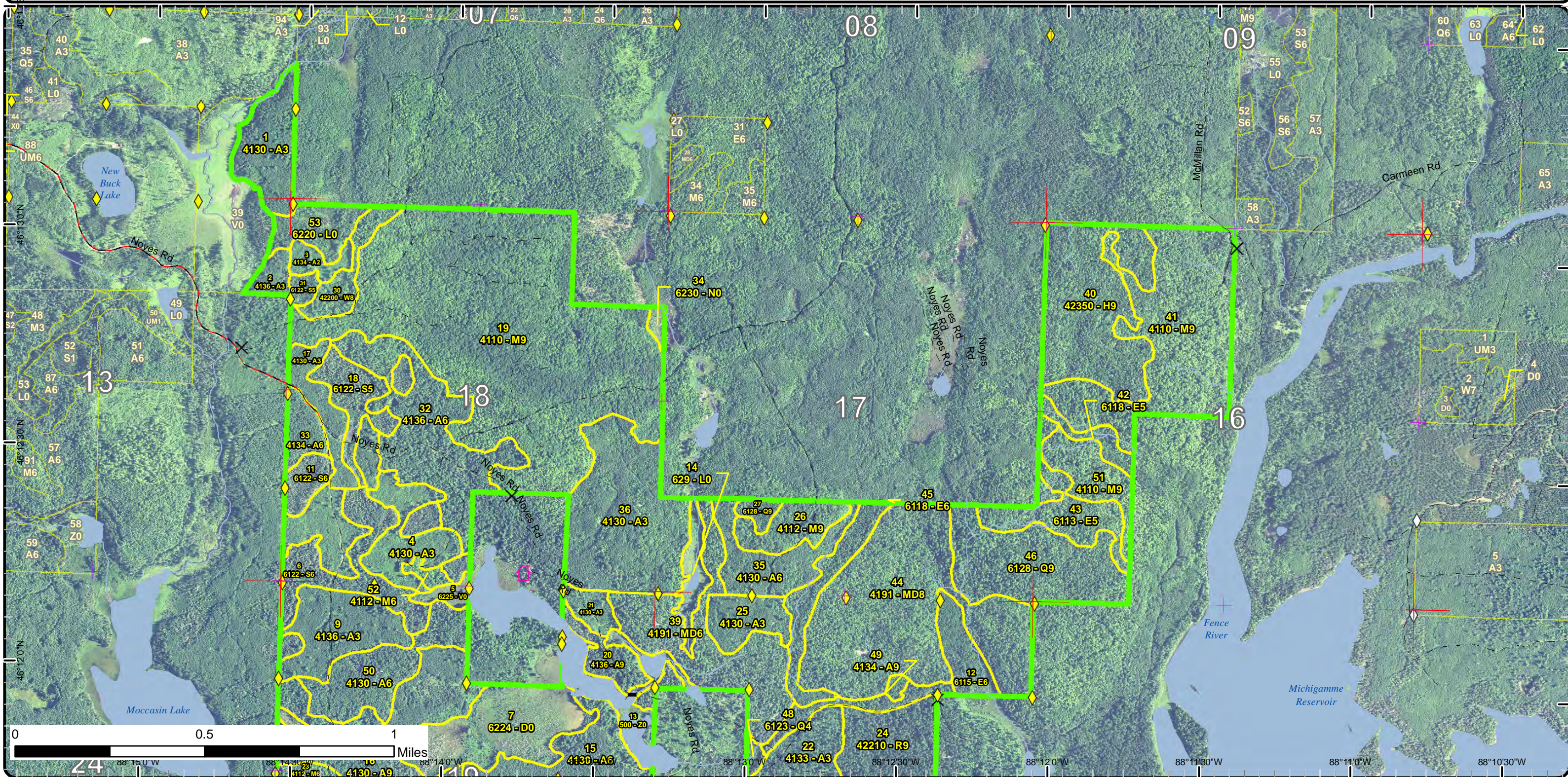


# Stand Boundary Map

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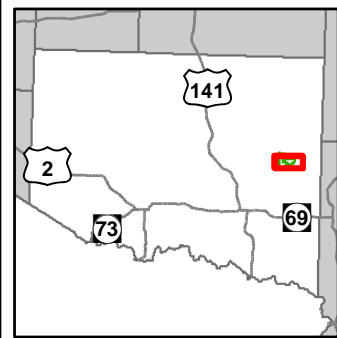


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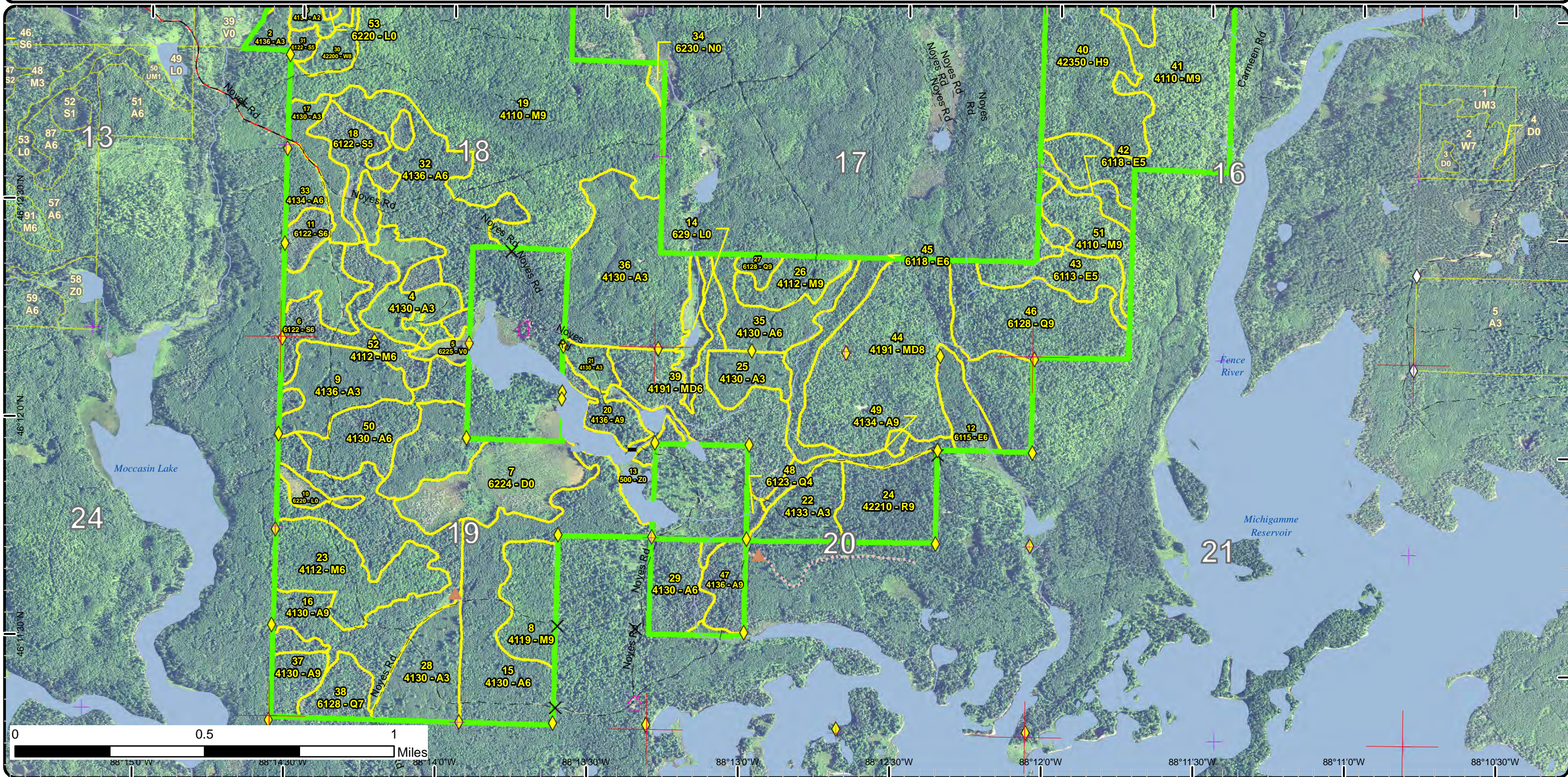


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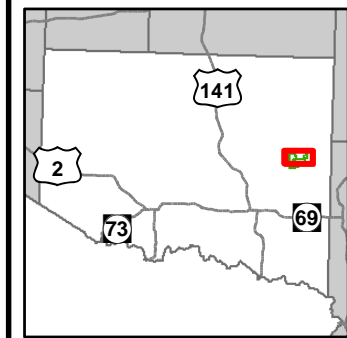


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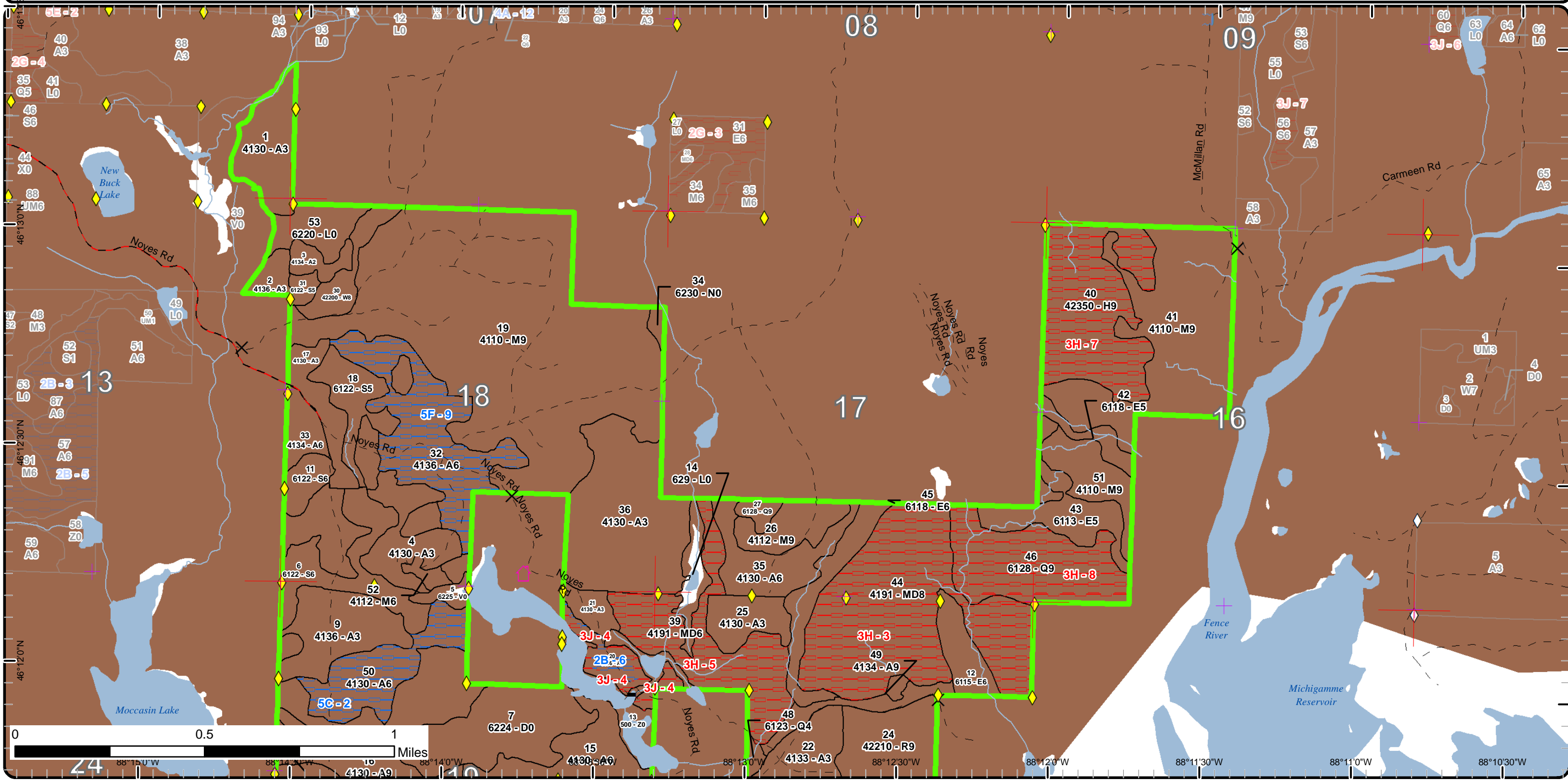


# Special Conservation Areas & Site Conditions Map

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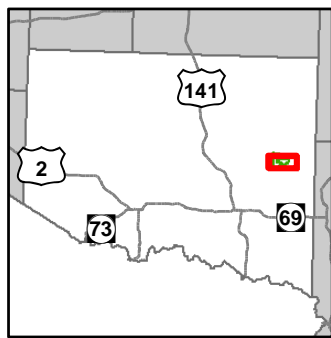
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- Available w/ Constraints
- 🚫 Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 3J: Water quality / BMPs (stream, river, or lake)
- ▭ Stand Boundaries
- 🌊 Cold Water Streams
- 🌊 Cold Water Lakes
- 🦌 Deer Winter Range



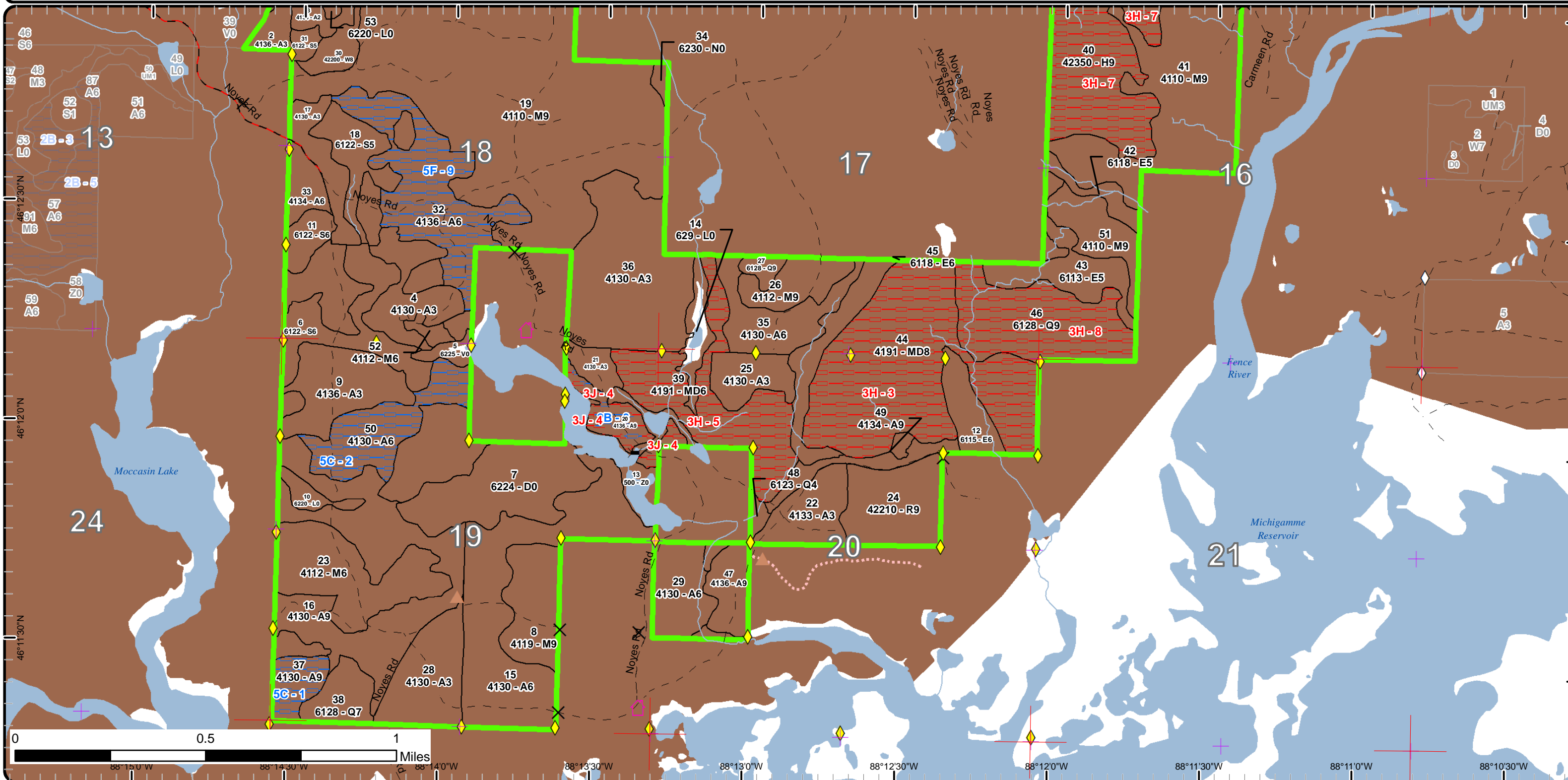


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- Deer Winter Range



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	80	48	215	81	84	162	16	0	0	0	0	0	0	0	0	0	0	686
Bog	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Hemlock	0	0	0	0	0	0	0	0	70	0	0	0	0	0	0	0	0	0	70
Lowland Conifers	0	0	0	0	25	0	0	55	4	0	0	0	0	0	0	0	0	0	84
Lowland Deciduous	0	0	0	0	0	30	25	15	0	0	0	0	0	0	0	0	0	0	70
Lowland Shrub	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Lowland Spruce/Fir	0	0	0	0	0	0	76	0	0	0	0	0	0	0	0	0	0	0	76
Marsh	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	176	176
Northern Hardwood	0	0	0	0	0	0	0	88	121	0	0	0	0	0	0	0	0	254	463
Red Pine	0	0	0	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	34
Treed Bog	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
Water	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
White Pine	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	13
<b>Total</b>	<b>114</b>	<b>80</b>	<b>48</b>	<b>215</b>	<b>106</b>	<b>114</b>	<b>263</b>	<b>174</b>	<b>242</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>430</b>	<b>1785</b>



## Report 2 – Treatment Summary

Crystal Falls Mgt. Unit  
Year of Entry: 2019

Acres of Harvest

Compartment 116  
Total Compartment Acres: 1,786

Commercial Harvest - 403  
Harvests with Site Condition - 5  
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	120	0	0	0	0	0	0	0	0	120
Northern Hardwood	0	254	0	0	0	0	0	0	0	254
Red Pine	0	0	0	0	0	34	0	0	0	34
<b>Total</b>	<b>120</b>	<b>254</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>408</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	408	0	0	0	0	0	0	0	0	408
Next Step	0	0	0	0	0	0	374	0	0	374
<b>Total</b>	<b>408</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>374</b>	<b>0</b>	<b>0</b>	<b>782</b>



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
16	12116016-Cut	78.5	4130 - Aspen	Sawtimber Well	54	Unspec ified	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Approved Proposal

**Habitat Cut: No**

**Site Condition:**

Prescription cut aspen, spruce, fir, r maple and w birch 1 stick tall and larger. leave a component of w birch - 1 tree per cruise point where possible. Do not  
Specs: cut w pine or y birch.  
follow bmp buffer guidelines to water and any vernal areas identified

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, spruce, fir

Regen:

Other check MNFI and wildlife for potential occurrence that is adjacent.

Comment:

Proposed Start Date: 10/01/2018

19	12116019-Cut	253.7	4110 - Sugar Maple Association	Sawtimber Well	65	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription thin to 60 BA. where possible, capture value of quality h maple and basswood logs/vener. target max dbh 20". avoid any vernal pond areas and  
Specs: hemlock groves. do not cut oak, w pine, or hemlock. leave components of all species. protect advanced maple regen.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable northern hardwood

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

20	12116020-Cut	5.4	4136 - Aspen, Mixed Conifer	Sawtimber Well	67	Unspec ified	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition: Unknown Access**

Prescription cut aspen, spruce, fir, w birch, r maple, b cherry 1 stick and larger. leave a component of w birch and cherry 1 tree per cruise point where  
Specs: present. do not cut r pine or w pine  
buffer water courses following bmps

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, spruce, fir, w pine

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

24	12116024-Cut	34.4	42210 - Natural Red Pine	Sawtimber Well	76	111-140	Harvest	Crown Thinning	42290 - Natural Mixed Pine	Two-Aged	Approved Proposal
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**Habitat Cut: No**

**Site Condition:**

Prescription thin to 110 BA. mark w pine only where needed for equipment access. Do not cut large w pine. cut spruce, fir 1 stick tall and larger.  
Specs:

Next Step

Treatments:

Acceptable w pine, r pine

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018



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
33	12116033-Cut	10.1	4134 - Aspen, Spruce/Fir	Poletimber Well	54	Unspec ified	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Approved Proposal

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

Prescription cut aspen, spruce, fir, r maple, cherry, and w birch 1 stick tall and larger. leave components of w birch and cherry. do not cut w pine or r pine.  
Specs:

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

Acceptable aspen, spruce/fir  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

47	12116047-Cut	14.8	4136 - Aspen, Mixed Conifer	Sawtimber Well	56	Unspec ified	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Approved Proposal
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**Habitat Cut: No****Site Condition:**

Prescription cut aspen, spruce fir, r maple, cherry and w birch 1 stick tall and larger. leave component of w birch and cherry - 1 tree per cruise plot if present.  
Specs: do not cut w pine or r pine.  
 buffer any vernal areas found

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

Acceptable aspen spruce fir  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

49	12116049-Cut	11.1	4134 - Aspen, Spruce/Fir	Sawtimber Well	54	Unspec ified	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Approved Proposal
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**Habitat Cut: No****Site Condition:**

Prescription cut aspen, spruce, fir, w birch, r maple 1 stick tall and larger. leave a component of w birch - 1 tree per cruise plot where present. do not cut w  
Specs: pine or r pine.

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

Acceptable aspen, spruce, fir  
Regen:

Other  
Comment:

Proposed Start Date: 10/01/2018

**Total Treatment  
 Acreage Proposed: 408.0**

## Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment: 116

Year of Entry: 2019

### Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions				
		With Condition	Not Available		2B	5C	5F	3H	3J
687	562	<b>115</b>	10	Aspen	<b>5</b>	<b>47</b>	62		10
5	5	<b>0</b>	0	Bog					
70	0	<b>0</b>	70	Hemlock				70	
84	29	<b>0</b>	55	Lowland Conifers				55	
70	70	<b>0</b>	0	Lowland Deciduous					
33	33	<b>0</b>	0	Lowland Shrub					
75	75	<b>0</b>	0	Lowland Spruce/Fir					
2	2	<b>0</b>	0	Marsh					
176	0	<b>0</b>	176	Mixed Upland Deciduous				176	
463	463	<b>0</b>	0	Northern Hardwood					
34	34	<b>0</b>	0	Red Pine					
49	49	<b>0</b>	0	Treed Bog					
25	25	<b>0</b>	0	Water					
13	13	<b>0</b>	0	White Pine					
1,786	1,360	<b>115</b>	311	Total Forested Acres	<b>5</b>	<b>47</b>	62	301	10
	76%	<b>6%</b>	17%	Relative Percent					

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	13	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
2	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	35	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

## Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment: 116

Year of Entry: 2019

3	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	119	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	57	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
6	Available	2B: Unknown if access through adjacent landowner(s) is possible	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
7	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	70	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
8	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	55	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

# Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment: 116

Year of Entry: 2019

9	Available	5F: Evaluated for Forest Health Considerations	62	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
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Comments

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

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

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

<b>Conservation Area</b>	<b>Type</b>	<b>Description</b>
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	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.



Stand	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 116 Year of Entry: 2019
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Sapling Well	27.2	24	Immature	difficult access due to old beaver dam and pond
2	4136 - Aspen, Mixed Conifer	Sapling Well	6.3	24	Immature	scattered aspen 4 - 5" with occasional trees having 1 pulpstick. small area of tamarack sapling regeneration in center of stand
3	4134 - Aspen, Spruce/Fir	Sapling Medium	7.1	7	Immature	
4	4130 - Aspen	Sapling Well	43.3	7	Immature	
6	6122 - Black Spruce	Poletimber Well	40.5	50	Unspecified	N end has small intermittent creek flowing N - S
8	4119 - Mixed Northern Hardwoods	Sawtimber Well	27.3	72	Unspecified	larger diam H maple component 16 - 18: dbh
9	4136 - Aspen, Mixed Conifer	Sapling Well	58.9	25	Immature	scattered 1 stick aspen - stand just moving into poletimber size class
11	6122 - Black Spruce	Poletimber Well	9.1	50	Unspecified	tree diameters decrease as progress towards center of stand
12	6115 - Lowland Ash	Poletimber Well	15.1	63	Unspecified	highly stocked b ash swamp - flowing drainage with channel. very scattered sawtimber sized b ash 12" dbh
15	4130 - Aspen	Poletimber Well	81.1	35	Unspecified	scatterd 12" dbh aspen and slight large r pine component 24" dbh
16	4130 - Aspen	Sawtimber Well	78.5	54	Unspecified	component of older aged aspen in N and E sides of stand. scattered vernal areas
17	4130 - Aspen	Sapling Well	21.9	26	Immature	SE end of stand, N of road has w pine 20 - 24" dbh with r maple sapling understory
18	6122 - Black Spruce	Poletimber Medium	21.6	57	Unspecified	areas heavier to cedar and tag alder, notably in narrow section of stand that leads south
19	4110 - Sugar Maple Association	Sawtimber Well	253.7	65	81-110	vernal areas, large rock outcrops, and boulders throughout stand. areas of good quality maple sawtimber and veneer. very scattered w ash sawtimber trees (less than 10 BA/acre). S end of stand is heavier to poletimber 7 - 9" dbh with scattered sawtimber 14" dbh. w pine 20"+ dbh along S and NW edges of stand. slight r oak and b cherry component.
20	4136 - Aspen, Mixed Conifer	Sawtimber Well	15.6	67	Unspecified	
21	4130 - Aspen	Sapling Well	7.8	7	Immature	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4133 - Aspen, Mixed Pine	Sapling Well	21.8	7	Immature	aspen regen with w pine and r pine throughout. occasional areas with moderate to fully stocking of pine
23	4112 - Maple, Beech, Cherry Association	Poletimber Well	45.9	63	81-110	S and E ends of stand heavier stocked to r maple - slightly lower quality site, leading to a timber type transition. very scattered maple sawtimber.
24	42210 - Natural Red Pine	Sawtimber Well	34.4	76	111-140	S1/2 of stand is heavier stocked to r pine. areas that are more open are stocked with aspen saplings from previous cut that removed aspen - W end of stand aspen understory is more prevalent. spruce for the most part is dead or dying from previous years SBW
25	4130 - Aspen	Sapling Well	16.3	16	Immature	areas of ledge/rock
26	4112 - Maple, Beech, Cherry Association	Sawtimber Well	17.0	64	81-110	scattered hemlock. H maple is two aged, 18 - 20" dbh and 7 - 9" dbh.
27	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	4.4	70	Unspecified	small seeps and springs
28	4130 - Aspen	Sapling Well	32.1	16	Immature	
29	4130 - Aspen	Poletimber Well	22.5	46	Unspecified	scattered 12" dbh aspen. scattered r pine and w birch
30	42200 - Natural White Pine	Sawtimber Medium	13.2	78	51-80	w pine 16 - 24" dbh. w birch has heavy top dieback - falling out of the stand. w pine is lower stocked adjacent to woods road through stand.
31	6122 - Black Spruce	Poletimber Medium	3.6	52	Unspecified	semi low ground. dense b spruce saplings. very scattered w birch poletimber
32	4136 - Aspen, Mixed Conifer	Poletimber Well	61.9	46	Unspecified	scattered aspen 12 - 14" dbh. r maple is low quality. very scattered b cherry. w spruce sawtimber sized trees impacted by previous SBW
33	4134 - Aspen, Spruce/Fir	Poletimber Well	10.1	54	Unspecified	scattered aspen 12" dbh
35	4130 - Aspen	Poletimber Well	26.3	25	Immature	small poletimber, 5 - 7" dbh, 2 - 4 sticks tall. scattered wet areas
36	4130 - Aspen	Sapling Well	74.7	28	Immature	scattered oak and w pine. tag alder occurs in small lowland inclusions with scattered b ash saplings. large rocks/boulders
37	4130 - Aspen	Sawtimber Well	12.5	52	Unspecified	aspen 8 - 10" dbh and 12 - 16" dbh



Stand	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 116 Year of Entry: 2019
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
38	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Poor	19.1	31	Immature	areas very dense to tag alder with few trees. W end heavier stocking to tamarack
39	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	56.9	47	51-80	very rugged with rock outcrops and ledge, boulders. Aspen has largely fallen out - scattered pockets of A8 remain. lowland/vernal areas are interspersed throughout having tag alder/b ash. scattered w spruce 11 - 12" dbh heavy winter deer use
40	42350 - Upland Hemlock	Sawtimber Well	70.1	75	Unspecified	small, rolling high ground ridges throughout having higher stocking of r maple. drainages interspersed throughout. heavy winter deer use
41	4110 - Sugar Maple Association	Sawtimber Well	94.0	72	81-110	excellent h maple sapling regen from previous thinning. wet, vernal areas throughout. heavy soil - any future logging should be winter access only. scattered large w pine and hemlock
42	6118 - Lowland Deciduous with Cedar	Poletimber Medium	7.6	45	Unspecified	extremely wet - drainages
43	6113 - Lowland Maple	Poletimber Medium	25.4	57	51-80	very wet - flowing water, multiple drains. W end has small low quality h maple, r maple inclusion
44	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	119.2	55	51-80	highly variable/diverse stand. very rugged with broken rock and ledge. multiple low areas/drainages mixed throughout very scattered oak and hemlock. occasional w pine groves  very heavy winter deer use
45	6118 - Lowland Deciduous with Cedar	Poletimber Well	22.3	45	Unspecified	extremely wet, multiple drainages with banks
46	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	54.8	65	51-80	intermixed stand with hemlock groves and b ash swale drainages. small higher ground knobs holding r maple and h maple. heavy winter deer use
47	4136 - Aspen, Mixed Conifer	Sawtimber Well	14.8	56	Unspecified	scattered large r pine
48	6123 - Lowland Fir	Poletimber Poor	5.8	35	Unspecified	S end of stand has less trees with heavier tag alder. fir heavily damaged by SBW in previous years. creek runs through stand
49	4134 - Aspen, Spruce/Fir	Sawtimber Well	11.1	54	Unspecified	S end holds larger aspen 12 - 14" dbh. scattered, small low lying areas
50	4130 - Aspen	Poletimber Well	34.9	52	Unspecified	scattered b cherry. r maple saplings prevalent in NE of stand
51	4110 - Sugar Maple Association	Sawtimber Well	21.8	63	81-110	slight b cherry, w pine, hemlock components. scattered wet areas holding water. very heavy soils - winter access only

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Crystal Falls Mgt. Unit

Report 7 – Forested Stands

Compartment: 116  
Year of Entry: 2019



S t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	4112 - Maple, Beech, Cherry Association	Poletimber Well	3.3	62	81-110	very little quality. very scattered aspen 8" dbh. heavy grass. present advanced regen shows very heavy deer browse



Stand	Cover Type	Acres	Managed Site	General Comments:
5	6225 - Bog	4.7	No	open bog with ponded water
7	6224 - Treed Bog	48.6	No	cattail/leatherleaf bog with areas of dead snags. scattered b spruce/tamarack
10	6220 - Alder/willow	6.0	No	tag alder, ponded
13	500 - Water	24.8	No	water edged with swamp grass and tag alder
14	629 - Mixed non-forested wetland	10.6	No	old beaver marsh - ponded water, swamp grass, creek
34	6230 - Cattail	2.4	No	pond/cattails, flooded snags
53	6220 - Alder/willow	15.9	No	tag alder with scattered b spruce and tamarack