



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12102

Entry Year 2018

Acreage: 1,598

County Dickinson

Management Area: Peavy Moraine

Revision Date: 2016-08-08

Stand Examiner: Matt Modlin

Legal Description:

T40N R30W Sections 3,4, & 10

Identified Planning Goals:

To maintain aspen and improve red oak and pine components

Soil and topography:

Soils are fine sand to sandy loam with a few areas of muck. They are anywhere from very poorly drained to excessively drained. The topography is mostly gently rolling hills with a few areas being very steep.

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

The compartment is on the edge of the state owned land. The east is mostly connected with state land and the south and west borders private land.

Unique Natural Features:

Harding Creek, Pine Creek

Archeological, Historical, and Cultural Features:

None reported

Special Management Designations or Considerations:

Pine Creek and Harding Creek are cold water streams, both needing 300 ft buffers.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Compartment has conditional deer yard. Also contains cold water streams and associated riparian habitat and corridors. Featured species include: American woodcock, black bear, eastern bluebird, white-tailed deer, and wood duck.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 50 and 100 feet. The Precambrian Michigamme and Chocoday Formations outcrop beneath the glacial drift. There is not a current economic use for these rocks. Abandoned Iron Mountain iron mines are located two miles to the south. Part of this compartment was previously leased for metallic exploration, but potential may be limited. A pit is located in Section 5 and there may be some potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Good by 2 wheel drive, very good by 4 wheeler. The 4 wheeler bridge across Harding Creek is supposedly removed. Will need a bridge there to get to the south part of the compartment.

Survey Needs:

1 corner is needed at the SW corner of the NW1/4 of the SW1/4 of section 4
3 corners are needed in the SW1/4 or the SE1/4 of section 10: the NW corner, NE corner, & SE corner.
It would also be useful to have 1/4 corners in for the missing areas on the west and north lines of section 4.

Recreational Facilities and Opportunities:

Hunting, fishing, 4x4

Fire Protection:

Additional Compartment Information:

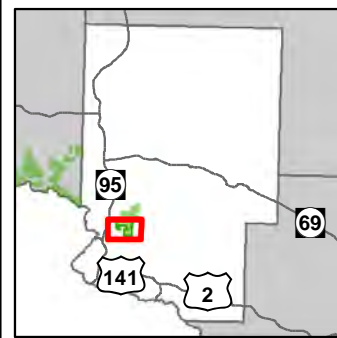
The following reports from the Inventory are attached:

- 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**

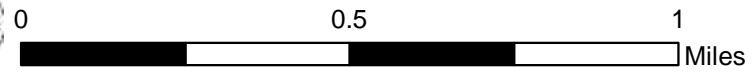
The following information is displayed, where pertinent, on the attached compartment maps:

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

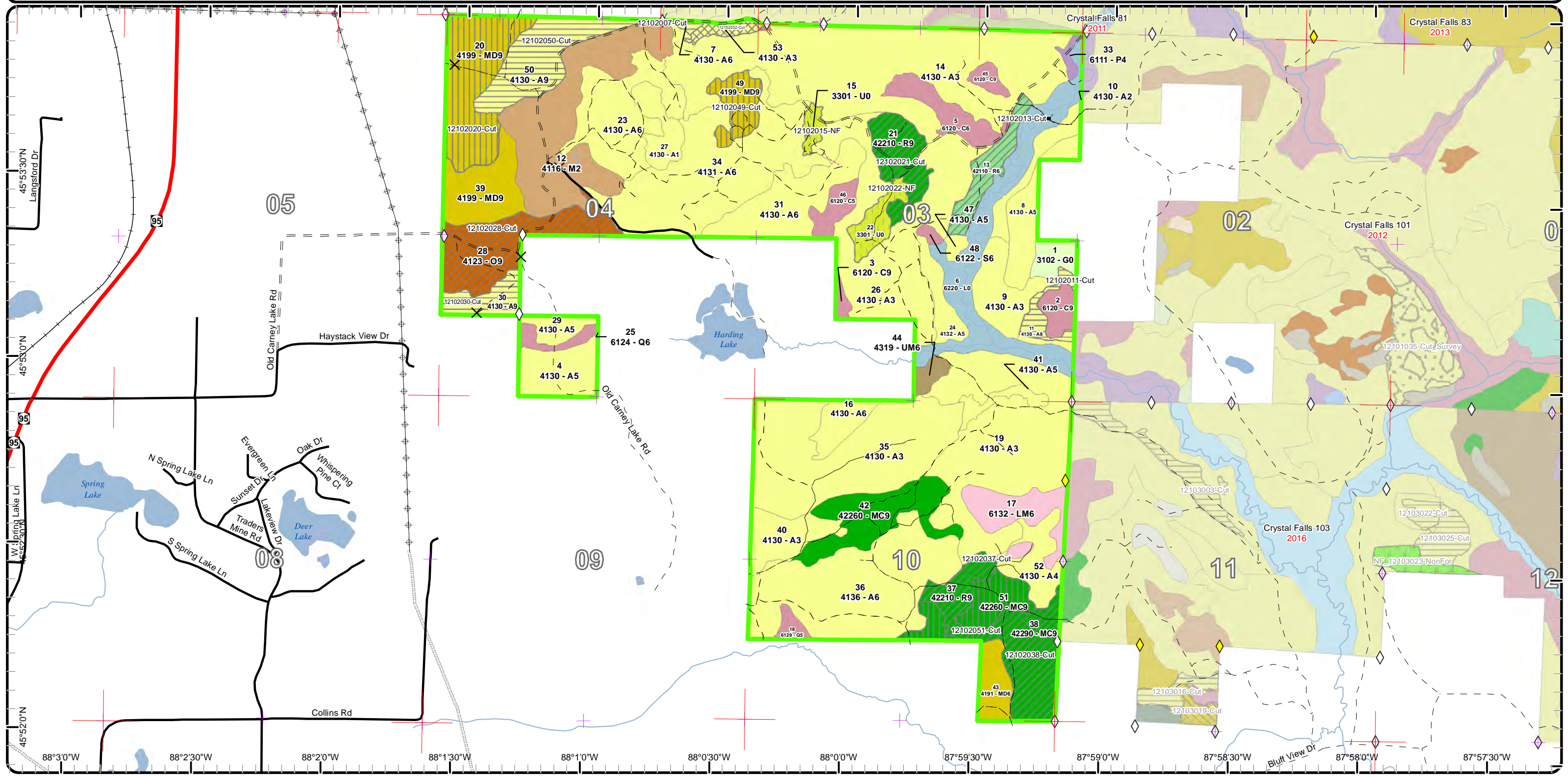
Cover Type & Treatments Map



Compartment: 102
 T40N R30W Sec. 03, 04, 10
 County: Dickinson
 Unit: Crystal Falls
 Mgmt Area: Peavy Moraine
 YOE: 2018
 Acres: 1,598 GIS Calculated
 Examiner: Matt Modlin
 Map Revised: 11/21/2016
 Map Phase: Post-Review

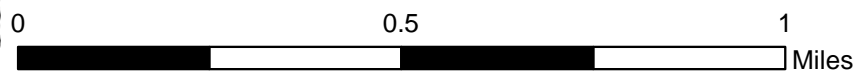
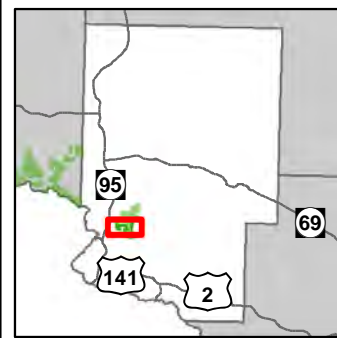


- Miris Corners
- ✚ Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- ✕ Gate
- ▲ Berms
- △ Bridges
- Highway
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Active Railroad
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- ▨ Selection (Group, Single Tree)
- ▨ Clearcut (w/Reserves)
- ▨ Opening Maintenance
- ▨ Thinning (Crown, Low, Systematic)
- ▨ Shelter Wood (w/Reserves)
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 622 - Lowland Shrub
- Lakes

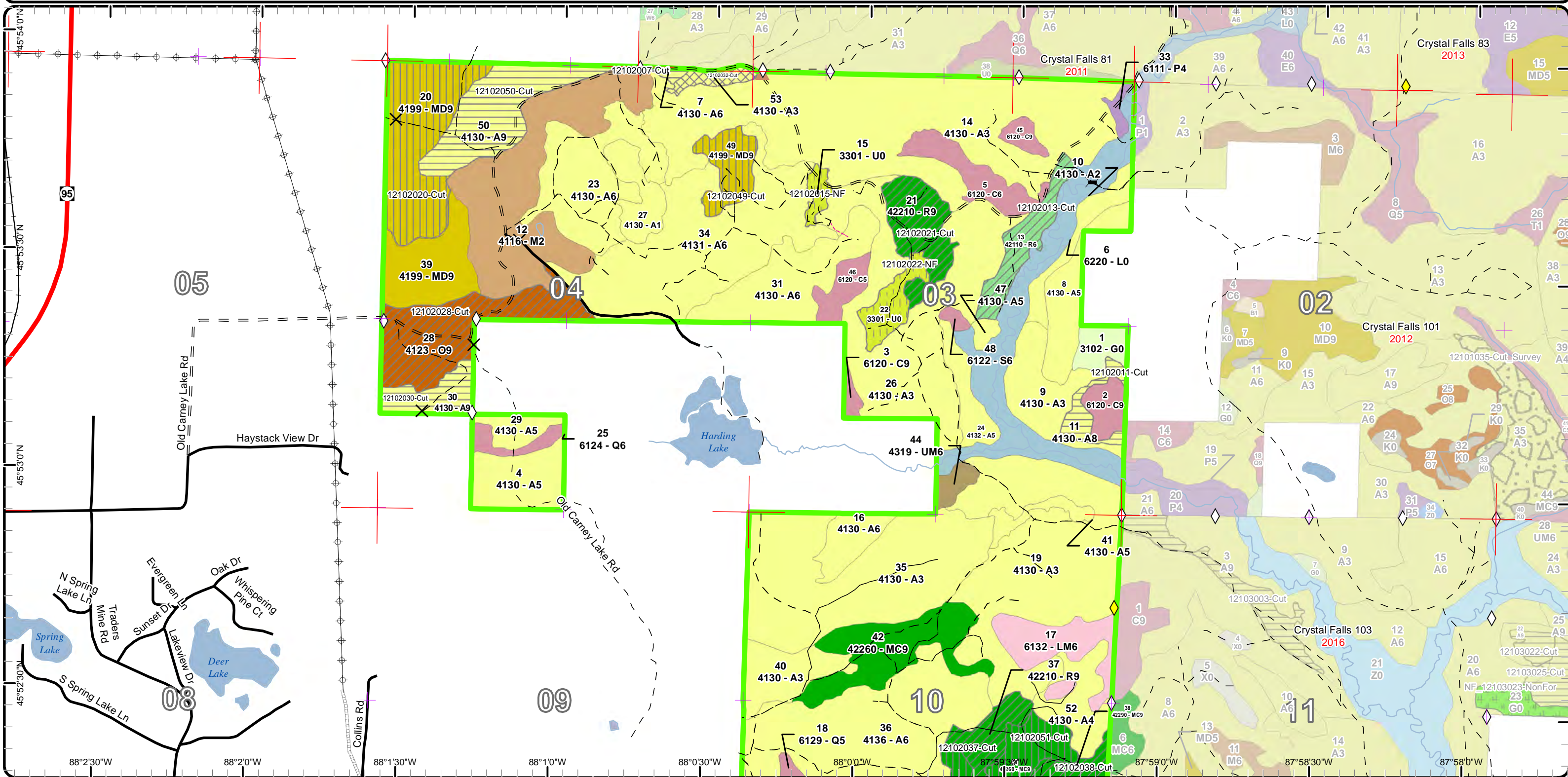


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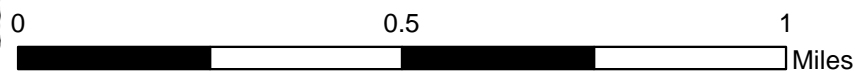
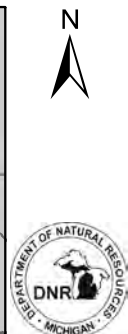
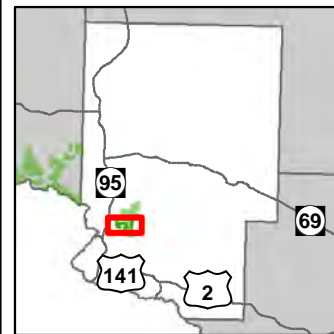


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|--------------------------------|-------------------------------------|-----------------------------------|
| — Miris Corners | — Pipeline | ■ 611 - Lowland Deciduous Forest |
| ✦ Remonumented Section Corners | — Powerline | ■ 612 - Lowland Coniferous Forest |
| ◆ Survey Grade GPS Corners | ▭ Compartment Boundary | ■ 613 - Lowland Mixed Forest |
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| — Highway | ▩ Shelter Wood (w/Reserves) | |
| — Paved Roads | ■ 411 - Northern Hardwood | |
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| — Poor Dirt Roads | ■ 413 - Aspen | |
| — Trail (Non-Recreation) | ■ 419 - Mixed Upland Deciduous | |
| — Active Railroad | ■ 421 - Planted Pines | |
| — Rivers | ■ 422 - Natural Pines | |
| | ■ 430 - Upland Mixed Forest | |

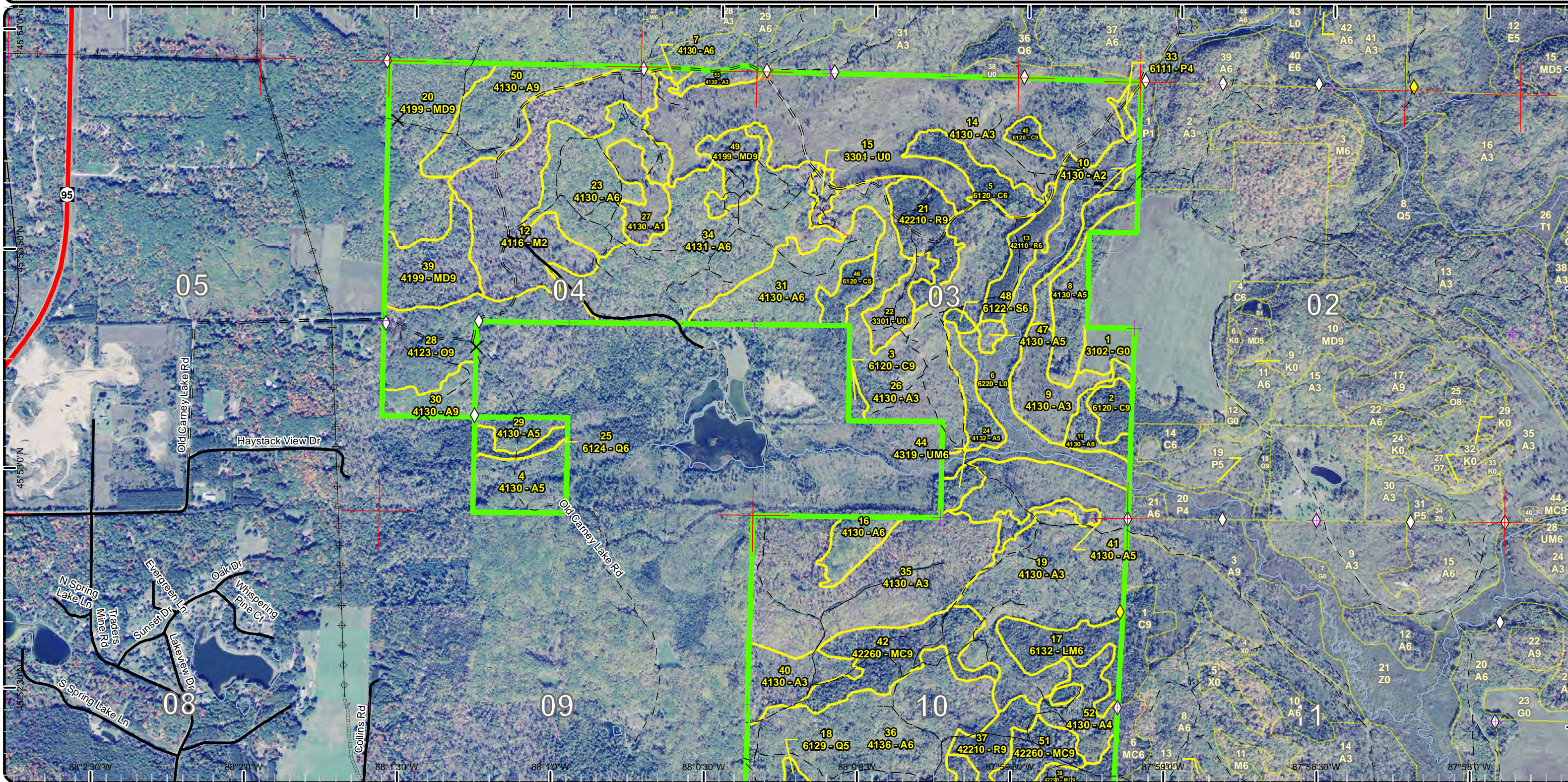


Stand Boundary Map

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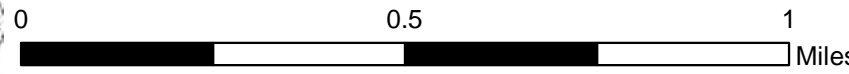
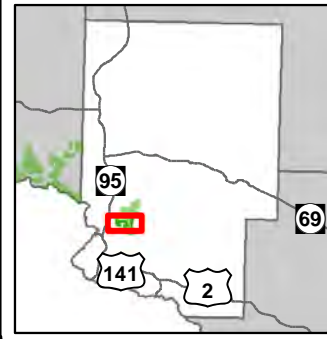


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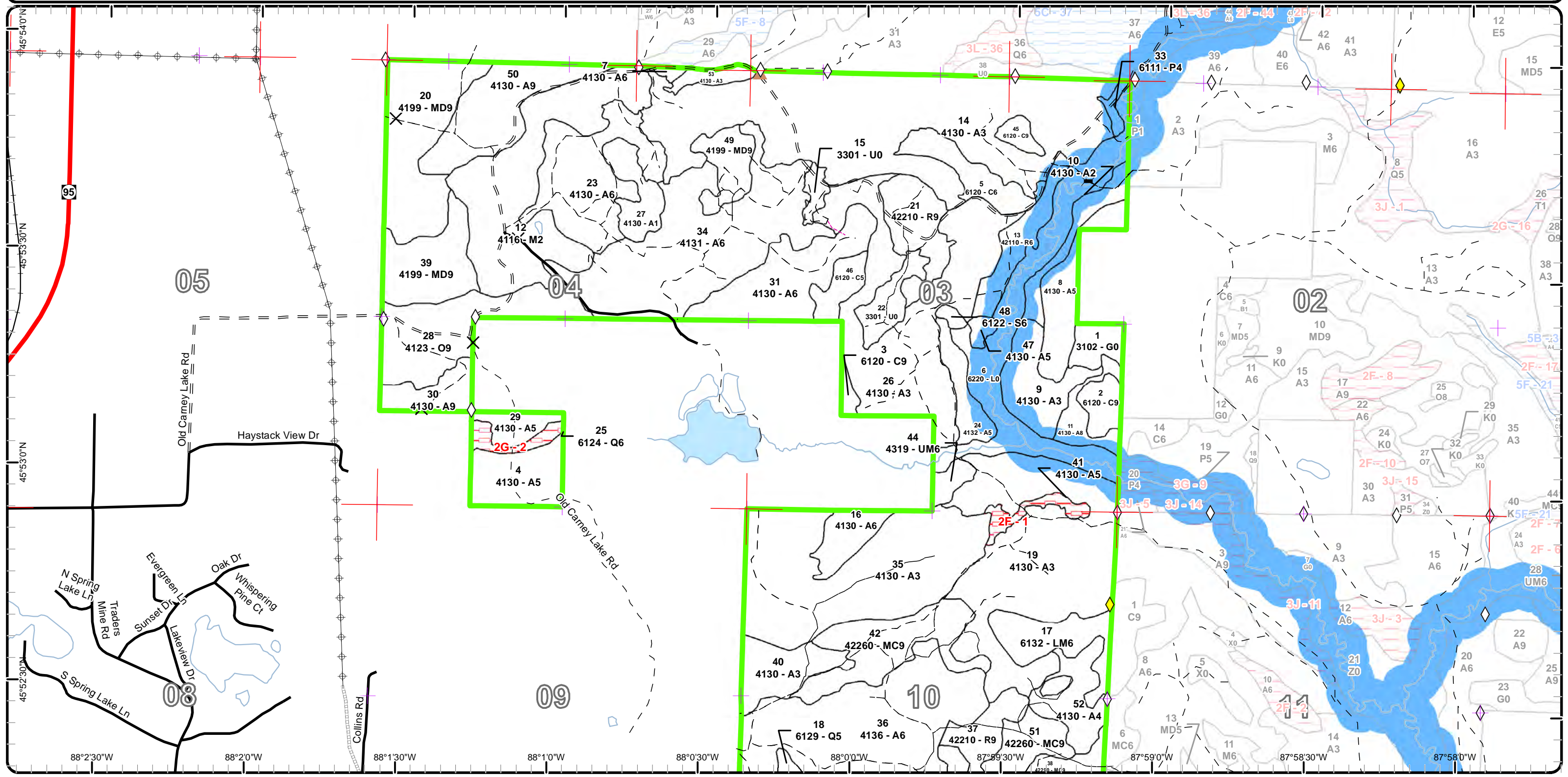


Special Conservation Areas & Site Conditions Map

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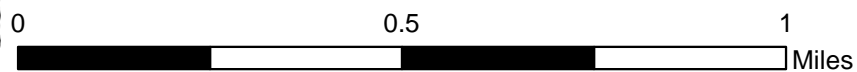
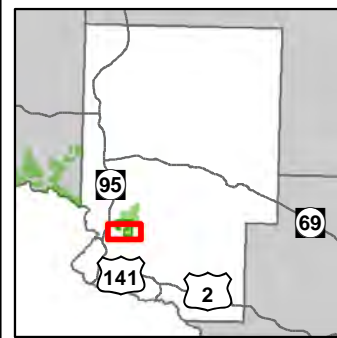


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- Active Railroad
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- Pipeline
- Powerline
- Compartment Boundary
- Unavailable
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- Stand Boundaries
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer

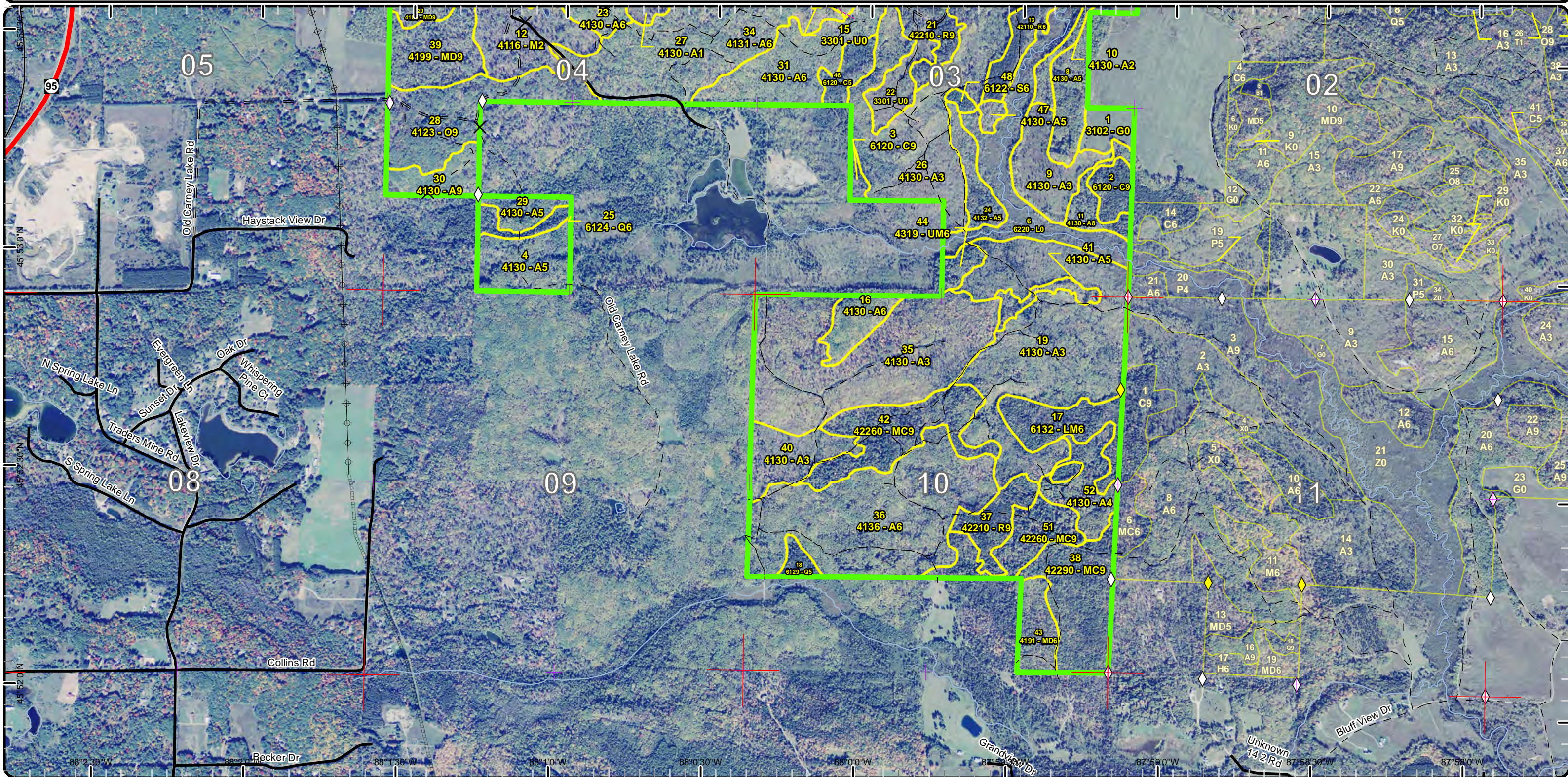


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Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	254	217	113	176	198	0	40	21	10	0	0	0	0	0	0	0	0	1028
Cedar	0	0	0	0	0	0	0	0	0	0	30	0	15	0	0	0	0	0	45
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Low-Density Trees	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Conifers	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	10
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	25
Lowland Shrub	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Lowland Spruce/Fir	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Mixed Upland Deciduous	0	0	0	0	14	0	0	81	15	0	0	0	0	0	0	0	0	0	110
Natural Mixed Pines	0	0	0	0	0	0	38	62	0	0	0	0	0	0	0	0	0	0	100
Northern Hardwood	0	0	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81
Oak	0	0	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0	0	46
Red Pine	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	0	56
Upland Mixed Forest	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	87	254	298	113	190	203	99	183	82	21	55	0	15	0	0	0	0	0	1598



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2018

Acres of Harvest

Compartment 102
Total Compartment Acres: 1,598

Commercial Harvest - 298
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	62	6	0	0	0	0	0	0	0	67
Mixed Upland Deciduous	0	0	0	0	66	0	0	0	0	66
Natural Mixed Pines	0	0	0	0	24	39	0	0	0	62
Oak	0	0	0	0	0	46	0	0	0	46
Red Pine	0	0	0	0	0	56	0	0	0	56
Total	62	6	0	0	90	141	0	0	0	298

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	298	0	0	0	0	0	0	16	0	314
Next Step	0	103	0	0	15	0	67	0	0	186
Total	298	103	0	0	15	0	67	0	16	500



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
7	12102007-Cut	1.7	4130 - Aspen	Poletimber Well	63	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Remove all aspen. Leave all white pine, fir, and oak. Leave paper birch snags and a few healthy trees for seed and diversity.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, white pine, birch

Regen:

Other Very scattered oak and fir.

Comment:

Proposed Start Date: 10/01/2017

11	12102011-Cut	8.0	4130 - Aspen	Sawtimber Medium	84	Unspec ified	Harvest	Clearcut	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut all species down to 2 inches. Leave any cherry, cedar, hemlock, and pine if found.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen and conifer

Regen:OtherComment:

Proposed Start Date: 10/01/2017

13	12102013-Cut	16.7	42110 - Planted Red Pine	Poletimber Well	58	111-140	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Thin red pine basal area down to 110-120. Leave all white pine. Concentrate cutting to trees that are forked, suppressed, or otherwise poor

Specs: quality. Potential for future utility poles.

Next StepTreatments:AcceptableRegen:

Other Good quality red pine trees. Scattered white pine. Well established skid trails from previous row thin.

Comment:

Proposed Start Date: 10/01/2017

15	12102015-NF	4.4	3301 - Low Density Deciduous Trees	Nonstocked		Unspec ified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription WLD- Treat opening. Herbaceous/opening maintenance

Specs:Next StepTreatments:AcceptableRegen:OtherComment:

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
20	12102020-Cut	50.9	4199 - Other Mixed Upland Deciduous	Sawtimber Well	60	111-140	Harvest	Shelterwood	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Thin entire stand down to 50-60 BA. Target red maple and aspen for removal. Do not cut conifers.

Specs:

The goal is to increase volume growth in the oak and promote conifer regeneration under the aspen.

Do not harvest from April-July to prevent oak wilt.

Scarify with root rake after harvest.

Next Step SitePrep, Scarification

Treatments:

Acceptable Oak, paper birch, conifers

Regen:OtherComment:

Proposed Start Date: 10/01/2017

21	12102021-Cut	23.8	42210 - Natural Red Pine	Sawtimber Well	56	171-200	Harvest	Crown Thinning	42210 - Natural Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Thin red pine to 110-120 or remove no more than 1/3 of the basal area in the thicker red pine areas. Remove all aspen. Leave all white pine, oak, and cherry.

Next StepTreatments:AcceptableRegen:Other

Fair to good form red pine, 5-6 sticks. Scattered red pine and jack pine seedlings and oak saplings and poles.

Comment:

Proposed Start Date: 10/01/2017

22	12102022-NF	12.0	3301 - Low Density Deciduous Trees	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription WLD- Treat opening. Herbaceous/opening maintenance

Specs:Next StepTreatments:AcceptableRegen:OtherComment:

Proposed Start Date: 10/01/2017

28	12102028-Cut	46.2	4123 - Red Oak	Sawtimber Well	70	111-140	Harvest	Crown Thinning	412 - Oak Types	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Thin stand to 70-90 BA to add volume to the oak. Leave the BA on the higher end on the south and east lines and around the pockets to prevent aspen spread. Target red maple, paper birch, and poor form oak for removal. Thin aspen to 50-60 BA to promote pine regen. Do not cut any conifers.

Next StepTreatments:

Acceptable Oak and pine

Regen:OtherComment:

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
30	12102030-Cut	13.8	4130 - Aspen	Sawtimber Well	75	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**Prescription Clearcut all aspen and leave all oak and coniferSpecs:Next Step Monitoring, Natural Regen (Re-Inventory); SitePrep, ScarificationTreatments:Acceptable Aspen, Oak, ConiferRegen:OtherComment:Proposed Start Date: 10/01/2017

53	12102032-Cut	5.8	4130 - Aspen	Sapling Well	8	Immature	Harvest	Group Selection	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**Prescription Remove all jack pine while protecting the aspen and white pine saplings as much as possible. Some aspen might have to be cut to make pathsSpecs: to the jack pine and not leave broken stems behind.Next Step Monitoring, Natural Regen (Re-Inventory)Treatments:Acceptable Aspen, white pine, oakRegen:Other

Cut with stand 20 and 7 After harvest this stand should eventually be merged with stand 7.

Comment:Proposed Start Date: 10/01/2017

37	12102037-Cut	15.6	42210 - Natural Red Pine	Sawtimber Well	59	171-200	Harvest	Crown Thinning	42210 - Natural Red Pine	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**Prescription Thin red pine down to 120BA / Remove no more than 1/3 of the basal areaSpecs: Leave the cherry, paper birch, and white pine
Cut all red mapleNext StepTreatments:Acceptable Red and white pine and paper birchRegen:OtherComment:Proposed Start Date: 11/09/2016

38	12102038-Cut	38.7	42290 - Natural Mixed Pine	Sawtimber Well	60	171-200	Harvest	Crown Thinning	429 - Mixed Upland Conifers	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**Prescription Leave all aspenSpecs: Cut all red maple
Thin pine to 120BA / Remove no more than 1/3 of the basal area in the thicker areas
Protect the conifer saplings during harvest.Next StepTreatments:Acceptable Red and White PineRegen:OtherComment:Proposed Start Date: 11/09/2016



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
49	12102049-Cut	15.0	4199 - Other Mixed Upland Deciduous	Sawtimber Well	70	1-50	Harvest	Shelterwood	412 - Oak Types	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Leave all oak and maple. Remove all aspen. Leave all birch snags and some healthy trees for a seed source and diversity. Leave white pine.

Specs: Prescribe burn or scarify after harvest.
Do not cut April-July to prevent oak wilt.

Next Step Burn, Understory; SitePrep, Scarification

Treatments:

Acceptable Oak, birch, white pine

Regen:

Other The oak is of fairly good quality with some decent log trees. There is an opening on the NW side with scattered trees. There are pockets of
Comment: aspen and birch but scattered individuals as well throughout the stand. The aspen is good quality but the birch is really starting to fall apart. The red maple is very low quality.

Proposed Start Date: 10/01/2017

50	12102050-Cut	38.0	4130 - Aspen	Sawtimber Well	60	Unspec ified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Clearcut leaving oak, paper birch, and any conifers

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, oak, paper birch, conifers

Regen:OtherComment:

Proposed Start Date: 10/01/2017

51	12102051-Cut	23.6	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	67	81-110	Harvest	Shelterwood	429 - Mixed Upland Conifers	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Cut all aspen and red maple

Specs: Leave all oak
In the thicker areas, thin red and white pine down to 120 targeting more of the red pine to be cut over the white pine.
Scarify after harvest to promote pine and oak

Next Step SitePrep, Scarification

Treatments:

Acceptable Red and white pine, oak

Regen:OtherComment:

Proposed Start Date: 11/09/2016

**Total Treatment
Acreage Proposed: 314.2**

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Matt Modlin : Examiner

Compartment: 102

Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available	Dominant Site Conditions	
Acres	Available	With Condition	Not Available	2F	2G
1027	1020	0	7	Aspen	7
44	44	0	0	Cedar	
9	9	0	0	Herbaceous Openland	
16	16	0	0	Low-Density Trees	
3	3	0	0	Lowland Aspen/Balsam Poplar	
11	4	0	6	Lowland Conifers	6
25	25	0	0	Lowland Mixed Forest	
62	62	0	0	Lowland Shrub	
2	2	0	0	Lowland Spruce/Fir	
111	111	0	0	Mixed Upland Deciduous	
100	100	0	0	Natural Mixed Pines	
81	81	0	0	Northern Hardwood	
46	46	0	0	Oak	
56	56	0	0	Red Pine	
5	5	0	0	Upland Mixed Forest	
1,598	1,585		13	Total Forested Acres	7 6
	99%		1%	Relative Percent	

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

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2F: Too steep	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
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	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



Stand	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 102 Year of Entry: 2018	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
2	6120 - Lowland Cedar	Sawtimber Well	9.1	95	Unspecified		
3	6120 - Lowland Cedar	Sawtimber Well	2.9	90	Unspecified	Standing water throughout. The tag alder is concentrated more in the north.	
4	4130 - Aspen	Poletimber Medium	24.0	45	Unspecified	Scattered white spruce Fair quality aspen poor quality cherry in the more open areas	
5	6120 - Lowland Cedar	Poletimber Well	17.8	90	Unspecified	Very low. Lots of standing water.	
7	4130 - Aspen	Poletimber Well	1.7	63	Unspecified	Very scattered fir and oak	
8	4130 - Aspen	Poletimber Medium	22.1	42	Unspecified	Drainage splits stand in middle east to west Steep slope on east side Scattered red, white, and jack pine, as well as spruce, balsam, and cherry Fair quality aspen	
9	4130 - Aspen	Sapling Well	23.9	3	Immature	Scattered overstory conifer and cherry	
10	4130 - Aspen	Sapling Medium	12.5	6	Immature	On a steep slope and in the buffer to the river Scattered elm, jack pine, oak, and balsam fir	
11	4130 - Aspen	Sawtimber Medium	10.2	84	Unspecified	Fair/Poor quality aspen	
12	4116 - Mixed N. Hardwood - Aspen	Sapling Medium	81.4	18	Immature	Scattered red maple, oak, and white pine poles Scattered white pine saplings Red maple tops dying Wide variety of ages and densities	
13	42110 - Planted Red Pine	Poletimber Well	16.7	58	111-140	Good quality trees. Scattered white pine. Well established skid trails from previous row thin.	
14	4130 - Aspen	Sapling Well	175.4	8	Immature	Large aspen cut on rolling hills with pockets of low ground where there is balsam, spruce, and cedar.	
16	4130 - Aspen	Poletimber Well	13.0	39	Unspecified	Good quality aspen	
17	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	24.7	95	Unspecified	Flowing drainage through middle	
18	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	4.5	85	Unspecified		
19	4130 - Aspen	Sapling Well	112.2	12	Immature		



Stand	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 102 Year of Entry: 2018
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4199 - Other Mixed Upland Deciduous	Sawtimber Well	51.4	60	111-140	Excellent quality aspen and ok. Paper birch, aspen, and oak have their own respective small pure pockets but are also mixed together throughout the stand. Turns to more oak as you go from to the west and south. More white pine and other conifers as you move south. Scattered red pine and sugar maple Some top dieback in the paper birch Fair amount of oak and white pine seedlings
21	42210 - Natural Red Pine	Sawtimber Well	23.8	56	171-200	Fair to good form red pine, 5-6 sticks. Scattered red pine and jack pine seedlings and oak saplings and poles.
23	4130 - Aspen	Poletimber Well	49.0	33	Immature	Far east peninsula has more large oak
24	4132 - Aspen, Jack Pine	Poletimber Medium	12.2	35	Unspecified	Very poor quality aspen fades to mostly jack pine in the south
25	6124 - Lowland Spruce- Fir	Poletimber Well	6.2	85	Unspecified	
26	4130 - Aspen	Sapling Well	92.7	28	Immature	Areas of dense cherry and maple brush. Far southeast part, close to creek, has more spruce and fir. Very scattered white and jack pine.
27	4130 - Aspen	Sapling Poor	14.6	5	Immature	Scattered residual paper birch (10") and oak (16") throughout Pocket of big tooth aspen in the north Only the south half is regenerating.
28	4123 - Red Oak	Sawtimber Well	46.2	70	111-140	Scattered white pine super canopy. No oak is regenerating. Scattered small aspen pockets with 16 in aspen
29	4130 - Aspen	Poletimber Medium	8.9	46	Unspecified	Fair quality aspen Scattered red pine No SBW damage yet. Saw 1 caterpillar though.
30	4130 - Aspen	Sawtimber Well	13.8	75	Unspecified	Good quality aspen North stand line is on top of very steep slope
31	4130 - Aspen	Poletimber Well	40.6	47	Unspecified	Scattered red pine to leave. Heavy red maple deer browse in the middle. Scattered poor quality overstory red maple clumps. Scattered oak.
33	6111 - Lowland Balsam Poplar	Poletimber Poor	2.8	55	Unspecified	Stand is along Pine Creek
34	4131 - Aspen, Oak	Poletimber Well	99.4	44	Unspecified	Wide variety of ages in aspen (4-12") Scattered white pine and red pine Aspen gets bigger the farther west and south you move Small, lower, coniferous pocket in the south with spruce, balsam, hemlock, red and white pine. More oak and paper birch in the middle of the stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	4130 - Aspen	Sapling Well	104.4	15	Immature	Light component of hard maple saplings. It is a sandy area with rocks and sweet fern.
36	4136 - Aspen, Mixed Conifer	Poletimber Well	102.0	38	Unspecified	Scattered jack pine, red maple, oak, and paper birch in the overstory
37	42210 - Natural Red Pine	Sawtimber Well	15.6	59	171-200	Scattered paper birch, red maple, and white pine in the overstory
38	42290 - Natural Mixed Pine	Sawtimber Well	38.7	60	171-200	White pine has not pruned very well Red pine is good quality Pockets where aspen and red maple is thicker
39	4199 - Other Mixed Upland Deciduous	Sawtimber Well	29.8	60	111-140	Excellent quality aspen and ok. Paper birch, aspen, and oak have their own respective small pure pockets but are also mixed together throughout the stand. Turns to more oak as you go from to the west and south. More white pine and other conifers as you move south. Scattered red pine and sugar maple. Some top dieback in the paper birch. Fair amount of oak and white pine seedlings
40	4130 - Aspen	Sapling Well	21.0	8	Immature	Scattered oak and jack pine
41	4130 - Aspen	Poletimber Medium	6.7	70	Unspecified	Good quality aspen SBW all over the spruce and balsam On a steep slope
42	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	37.6	57	81-110	Pines are straight and tall but branchy Wide age range in aspen (<1"-8") Wide age range in red pine (4"-24") Scattered jack pine and paper birch
43	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	14.3	33	Immature	Scattered oak, jack pine, and hemlock
44	4319 - Mixed Upland Forest	Poletimber Well	5.4	46	Unspecified	Scattered white spruce, red maple, and paper birch
45	6120 - Lowland Cedar	Sawtimber Well	4.8	113	Unspecified	Minor component of white pine saw timber. There are springs in the stand and evidence of deer usage. The cedar canopy is well established. The tag alder and black ash are more to the east end.
46	6120 - Lowland Cedar	Poletimber Medium	9.5	110	Unspecified	Cedar mainly on the north end, fades to tag alder to the south.
47	4130 - Aspen	Poletimber Medium	2.9	45	Unspecified	Very low quality, thin, 2-3 stick aspen stand with grass, ferns, and shrubs
48	6122 - Black Spruce	Poletimber Well	2.0	58	Unspecified	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
49	4199 - Other Mixed Upland Deciduous	Sawtimber Well	15.0	70	1-50	The oak is of fairly good quality with some decent log trees. There is an opening on the NW side with scattered trees. There are pockets of aspen and birch but scattered individuals as well throughout the stand. The aspen is good quality but the birch is really starting to fall apart. The red maple is very low quality.
50	4130 - Aspen	Sawtimber Well	38.0	60	Unspecified	Scattered oak and paper birch Excellent quality aspen
51	42260 - Natural Pine, Mixed Deciduous	Sawtimber Well	23.6	67	81-110	
52	4130 - Aspen	Poletimber Poor	19.9	28	Immature	Grass and/or white pine in the open areas where there isn't aspen or red maple
53	4130 - Aspen	Sapling Well	5.6	8	Immature	Pocket of large jack pine on the east and white pine saplings on the west.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	3102 - Grass	9.4	No	
6	6220 - Alder/willow	61.7	No	This is the floodplain of Pine Creek that has tag alder, buckthorn, and scattered balm.
15	3301 - Low Density Deciduous Tree	4.4	No	Open with scattered low quality cherry, aspen, maple, and oak
22	3301 - Low Density Deciduous Tree	12.0	No	Semi open with very low quality cherry, spruce, and aspen