



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12074

Entry Year 2018

Acreage: 1,184

County Dickinson

Management Area: Ralph Ground Moraine

Revision Date: 2016-08-21

Stand Examiner: Scott Sebero

Legal Description:

T41N R30W Section 8, 9 & 10

Identified Planning Goals:

Develop age class distribution in aspen type. Develop the quality while maintaining diversity in hardwood types. Maintain health of conifer types and increase acreage where possible. Maintain and improve road system.

Soil and topography:

Soil and Topography: Soils in this compartment range from mucks to fine sandy loam, some of the latter being poorly drained; topography is level in the swamps but mostly rolling and even a few steep hills.

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

Ownership Patterns, Development, and Land Use in and Around the Compartment: State-owned land and private ownership, used by loggers, hunters, fisherman and general recreationists. Land around the compartment is mostly privately owned, including some timber company land.

Unique Natural Features:

Badwater Creek. Rocky outcrops

Archeological, Historical, and Cultural Features:

None

Special Management Designations or Considerations:

Deeryard

Watershed and Fisheries Considerations:

Badwater Creek

Wildlife Habitat Considerations:

This compartment is in the Ralph Ground Moraine Management Area which has the following featured species: American woodcock, black bear, northern goshawk, ruffed grouse, and white-tailed deer. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. This compartment is now considered conditional winter range for deer, so management of uplands adjacent to critical winter cover is essential. Lowland conifers are managed as deer critical winter covers. Lowland conifers and lowland hardwood types provide winter and summer cover and are essential for travel corridors for a many species of wildlife and are essential bear spring and summer habitat. These covertypes also provide critical habitat for riparian species, as well as, movement corridors. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Mast production, such as oak, cherry and raspberry are encouraged to provide valuable forage for bear, deer, grouse and turkey.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of thin to discontinuous glacial till over bedrock. The glacial drift thickness varies between 10 and 50 feet. The Precambrian Archean Granite/Gneiss, Chocolay Group and Michigamme Formation outcrops beneath the glacial drift. There is not a current economic use for these rocks, but the granite/gneiss has building/dimension stone potential. A crushed marble quarry is located two miles to the north. The Groveland iron mine is located approximately six miles to the east. This compartment was previously leased for metallic exploration and there may still potential. A gravel pit is located two miles to the north and there may be some potential. There is no economic oil and gas production in the UP.

Vehicle Access:

County Road 607 on east side, Peavy Falls Road to the south, trails through the compartment

Survey Needs:

Recreational Facilities and Opportunities:

Hunting, dispersed camping, fishing, trapping and hiking.

Fire Protection:

Norway & Felch protection area. There is minimal access to most upland stands; standard fire equipment may have difficulty utilizing existing trails.

Additional Compartment Information:

The following reports from the Inventory are attached:

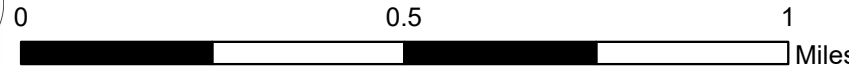
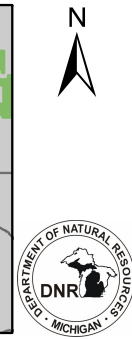
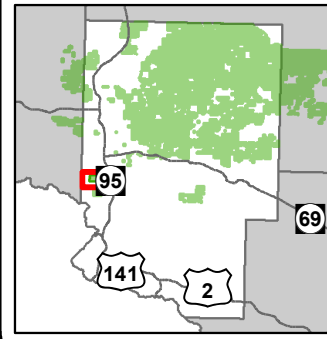
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

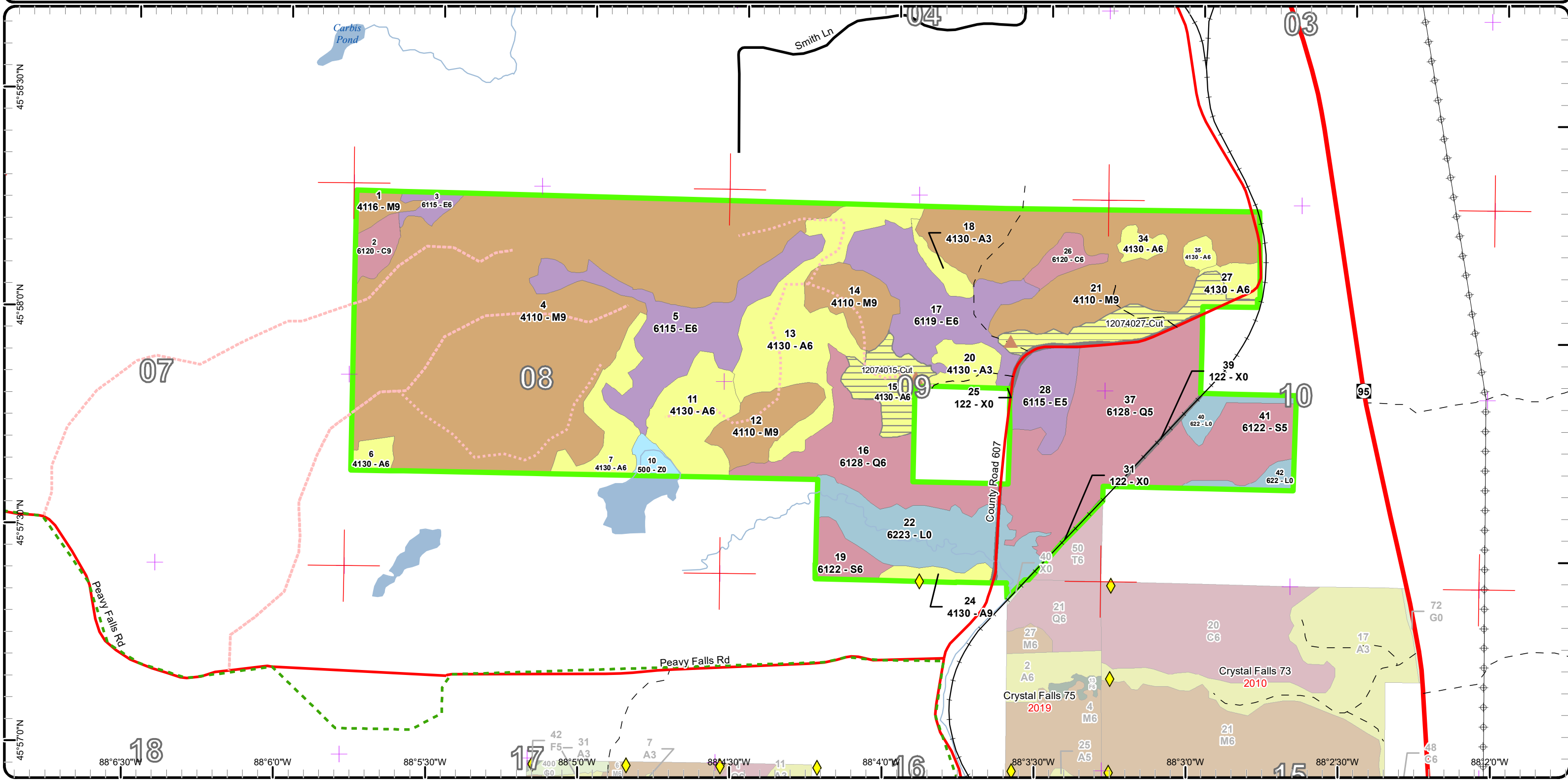
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 74
 T41N R30W Sec. 08, 09
 County: Dickinson
 Unit: Crystal Falls
 Mgmt Area: Ralph Ground
 Moraine
 YOE: 2018
 Acres: 1,185 GIS Calculated
 Examiner: Scott Sebero
 Map Revised: 11/29/2016
 Map Phase: Post-Review

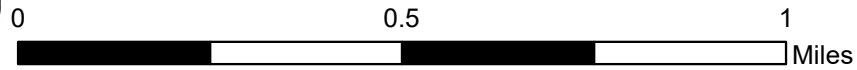
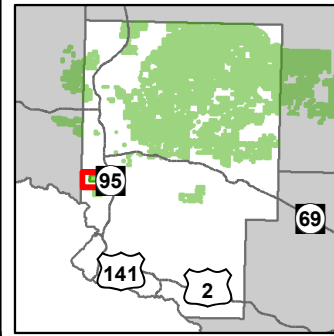


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ▲ Berms
- - - Designated Hiking Trails
- - - Designated Bicycle Trails
- Highway
- County Paved Roads
- Paved Roads
- - - Poor Dirt Roads
- - - Closed Roads
- Active Railroad
- Rivers
- ⊕ Powerline
- Compartment Boundary
- Clearcut (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 122 - Roads/Parking Lot
- 500 - Water
- 622 - Lowland Shrub
- Lakes

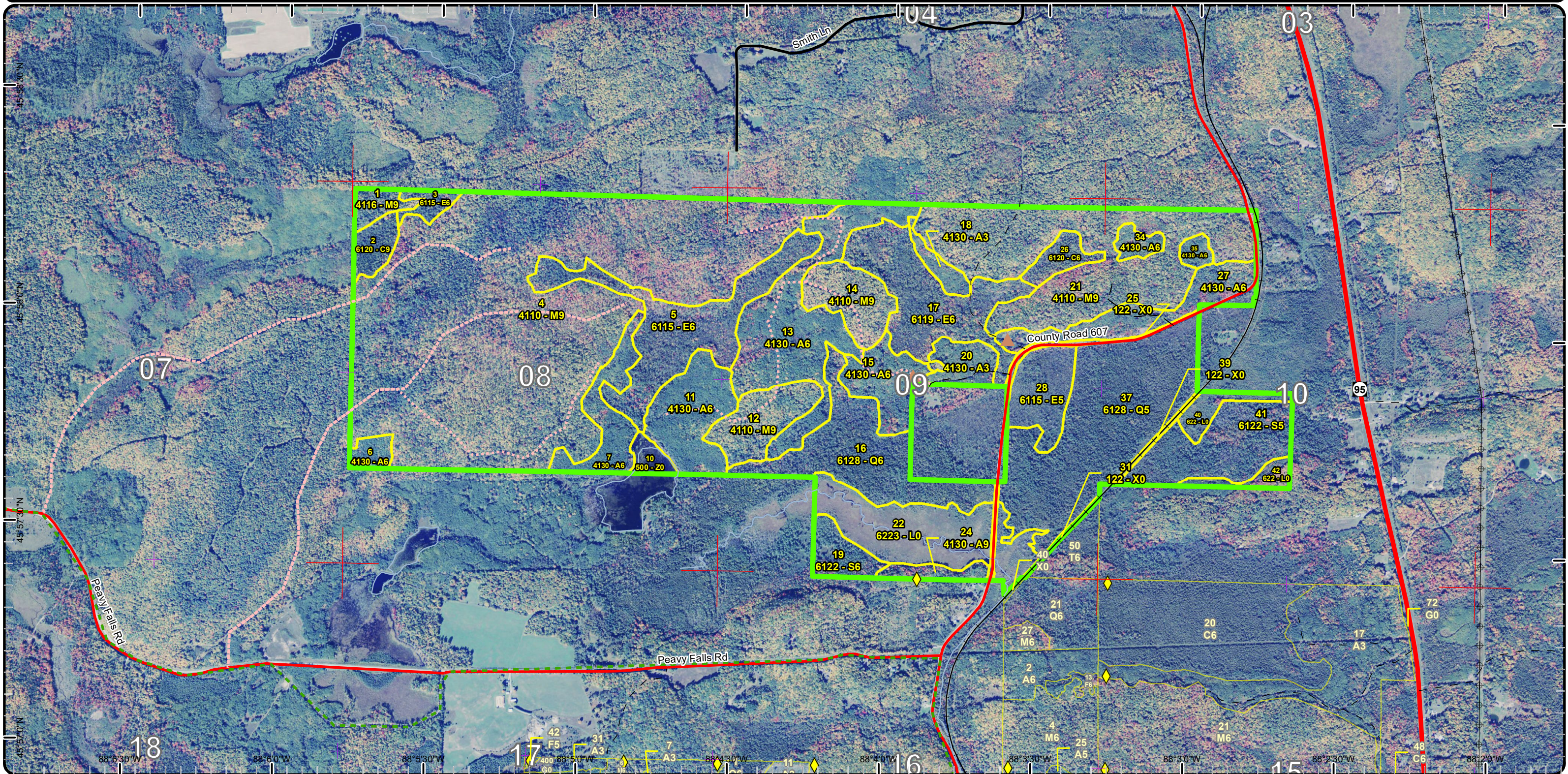


Stand Boundary Map

Compartment: 74
 T41N R30W Sec. 08, 09
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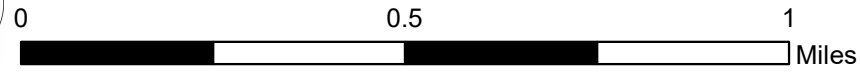
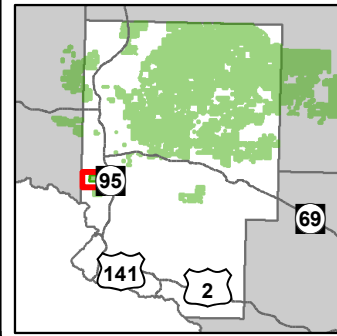


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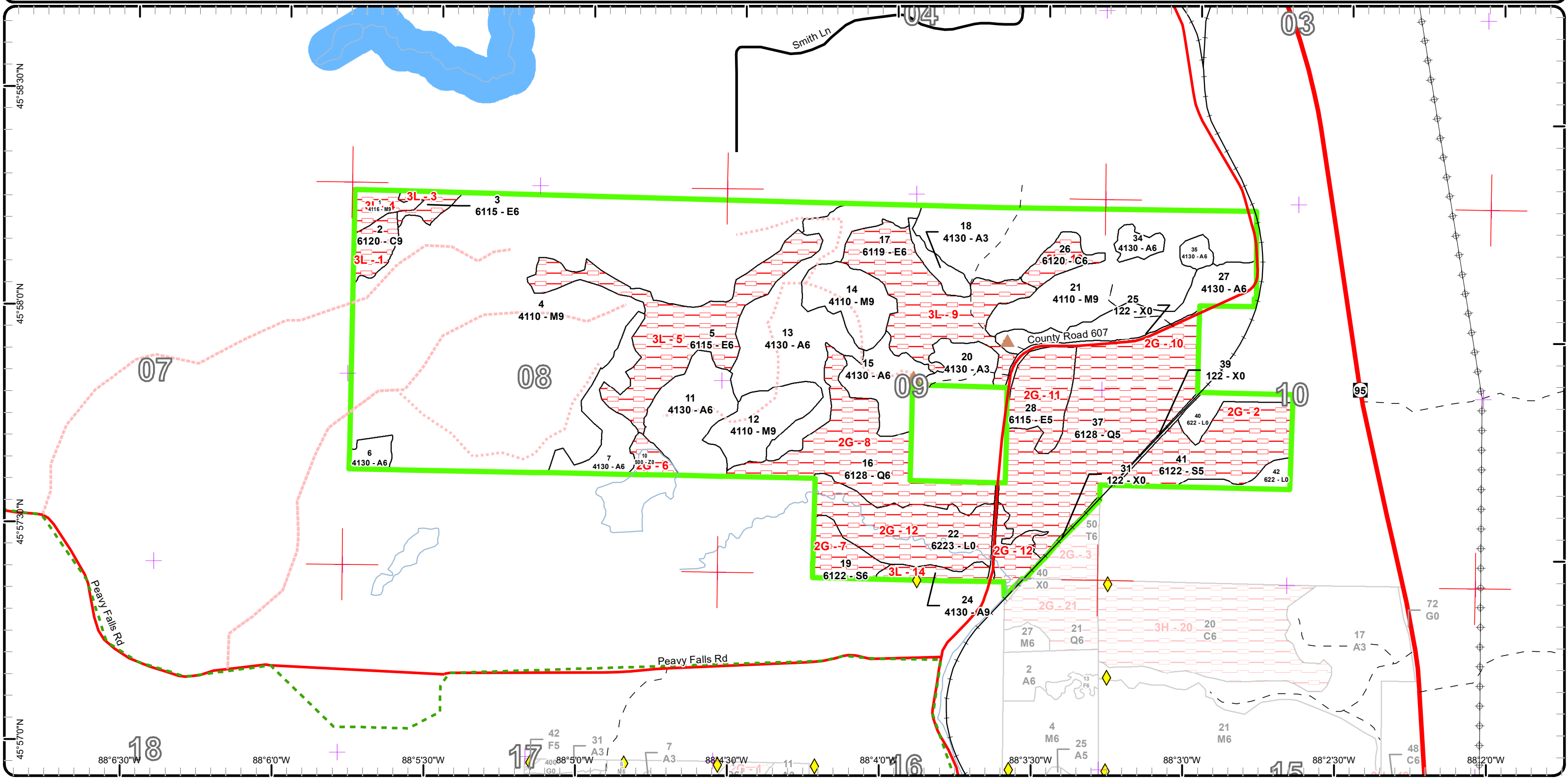


Special Conservation Areas & Site Conditions Map

Compartment: 74
 T41N R30W Sec. 08, 09
 County: Dickinson
 Unit: Crystal Falls
 Mgmt Area: Ralph Ground
 Moraine
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- - - Designated Hiking Trails
- - - Designated Bicycle Trails
- Highway
- County Paved Roads
- Paved Roads
- - - Poor Dirt Roads
- - - Closed Roads
- Active Railroad
- Rivers
- ⊕ Powerline
- Compartment Boundary
- Unavailable
- 2G: Too wet (sensitive soils, does not include access issues)
- 3L: Other wildlife concerns
- Stand Boundaries
- High Priority Trout Stream Buffer



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	0	19	0	75	62	52	0	0	7	0	0	0	0	0	0	0	0	213
Cedar	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	18
Lowland Conifers	0	0	0	0	0	0	0	0	0	55	101	0	0	0	0	0	0	0	156
Lowland Deciduous	0	0	0	0	0	0	0	0	23	117	0	0	0	0	0	0	0	0	140
Lowland Shrub	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	13	0	41	0	0	0	0	0	0	0	54
Northern Hardwood	0	0	0	0	0	0	0	0	0	520	0	0	0	0	0	0	0	0	520
Urban	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Water	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	83	0	19	0	75	62	52	0	36	708	151	0	0	0	0	0	0	0	1184



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2018

Acres of Harvest

Compartment 74
Total Compartment Acres: 1,184

Commercial Harvest - 45
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		45	0	0	0	0	0	0	0	0	45
	Total	45	0	0	0	0	0	0	0	0	45

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		45	0	0	0	0	0	0	0	0	45
Next Step		0	0	0	0	0	45	0	0	0	45
	Total	45	0	0	0	0	45	0	0	0	91



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
15 12074015-Cut	21.6	4130 - Aspen	Poletimber Well	52	81-110	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Draft Field Boundary

Habitat Cut: No

Site Condition:

Prescription Cut all aspen, maple and birch 2" or more DBH. Cut all spruce, balsam and tamarack with one or more pulpwood sticks. No red or white pine, cedar or hemlock will be cut. Protect sub merchantable ash.

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

Acceptable Regen: Mix of aspen, spruce and balsam.

Other Comment: WLD-featured species: American woodcock, black bear, northern goshawk, ruffed grouse, and white-tailed deer. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Lowland conifers and lowland hardwood types provide winter and summer cover and are essential for travel corridors for a many species of wildlife and provide essential habitat for riparian species. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Mast production, such as oak, cherry and raspberry are encouraged to provide valuable forage for bear, deer, grouse and turkey. Drainages and associated ash should be protected as critical bear habitat.

Proposed Start Date: 10/01/2017

27 12074027-Cut	23.8	4130 - Aspen	Poletimber Well	50	81-110	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Draft Field Boundary
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Habitat Cut: No

Site Condition:

Prescription Cut all aspen and maple 2" or more DBH. Cut all spruce, balsam, tamarack, birch and ash with one or more pulpwood sticks. Leave wet ash pockets and tops of rocks for retention. No red or white pine, cedar, oak or hemlock will be cut.

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

Acceptable Regen: Mix of aspen, spruce and balsam.

Other Comment: This compartment is in the Ralph Ground Moraine Management Area which has the following featured species: American woodcock, black bear, northern goshawk, ruffed grouse, and white-tailed deer. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Lowland conifers and lowland hardwood types provide winter and summer cover and are essential for travel corridors for a many species of wildlife and provide essential habitat for riparian species. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Mast production, such as oak, cherry and raspberry are encouraged to provide valuable forage for bear, deer, grouse and turkey. Drainages and associated ash should be protected as critical bear habitat.

Proposed Start Date: 10/01/2017

Total Treatment Acreage Proposed: 45.4

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 74

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	2G	3L	
214	206	0	7		7	Aspen
18	0	0	18		18	Cedar
157	0	0	157	157		Lowland Conifers
140	0	0	140	23	117	Lowland Deciduous
69	15	0	54	54		Lowland Shrub
54	0	0	54	54		Lowland Spruce/Fir
519	512	0	7		7	Northern Hardwood
8	8	0	0			Urban
6	0	0	6	6		Water
1,184	742		442	293	150	Total Forested Acres
	63%		37%			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	3L: Other wildlife concerns	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Save for cover for deer and bear.							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	41	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Unavailable	3L: Other wildlife concerns	6	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments: Save for cover for deer and bear.							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 74

Year of Entry: 2018

4	Unavailable	3L: Other wildlife concerns	7	2E: Road needed	Unspecified	Unspecified	Unspecified
Comments: Save for cover for deer and bear.							
5	Unavailable	3L: Other wildlife concerns	59	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments: Save for cover for deer and bear.							
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	3H: Deer Wintering Areas	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	55	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	3L: Other wildlife concerns	53	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments: Save for cover for deer and bear.							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 74

Year of Entry: 2018

10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	101	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	54	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	3L: Other wildlife concerns	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Save for cover for deer and bear.							
14	Unavailable	3L: Other wildlife concerns	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Riparian Habitat							

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	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: 74 Year of Entry: 2018	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	4116 - Mixed N. Hardwood - Aspen	Sawtimber Well	7.1	85	111-140		
2	6120 - Lowland Cedar	Sawtimber Well	9.4	85	111-140		
3	6115 - Lowland Ash	Poletimber Well	5.6	85	81-110		
4	4110 - Sugar Maple Association	Sawtimber Well	354.9	85	81-110		
5	6115 - Lowland Ash	Poletimber Well	58.8	85	81-110		
6	4130 - Aspen	Poletimber Well	5.5	43	51-80		
7	4130 - Aspen	Poletimber Well	22.7	42	81-110		
11	4130 - Aspen	Poletimber Well	33.4	42	81-110		
12	4110 - Sugar Maple Association	Sawtimber Well	23.3	85	81-110	was part of Multificus T-sale closed 2001	
13	4130 - Aspen	Poletimber Well	65.1	39	51-80		
14	4110 - Sugar Maple Association	Sawtimber Well	22.3	85	81-110		
15	4130 - Aspen	Poletimber Well	21.6	52	81-110		
16	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	55.4	85	51-80		
17	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	52.6	85	81-110		
18	4130 - Aspen	Sapling Well	6.4	15	Immature	was accessed from north; Bad Water Aspen T-sale	
19	6122 - Black Spruce	Poletimber Well	12.7	75	Unspecified		
20	4130 - Aspen	Sapling Well	12.1	15	Immature	Badwater Aspen T-sale closed 2001	
21	4110 - Sugar Maple Association	Sawtimber Well	112.0	85	81-110		



S t a n d	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 74 Year of Entry: 2018
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	4130 - Aspen	Sawtimber Well	7.1	80	81-110	Tree w/nail = corner? Old barbwire fence; garbage (glass containers, shingles) behind house on state land. Possible trespass, out building and garbage.
26	6120 - Lowland Cedar	Poletimber Well	9.0	95	111-140	
27	4130 - Aspen	Poletimber Well	30.2	50	81-110	Rock outcrops and small wet ash pockets.
28	6115 - Lowland Ash	Poletimber Medium	22.6	75	51-80	
34	4130 - Aspen	Poletimber Well	5.5	38	51-80	
35	4130 - Aspen	Poletimber Well	3.9	38	51-80	
37	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	101.4	95	51-80	
41	6122 - Black Spruce	Poletimber Medium	41.2	95	51-80	



Stand	Cover Type	Acres	Managed Site	General Comments:
10	500 - Water	5.6	No	
22	6223 - Inundated Shrub Swamp	53.9	No	
25	122 - Road/Parking Lot	5.6	No	CR 607
39	122 - Road/Parking Lot	2.0	No	Railroad track.
40	622 - Lowland Shrub	8.5	No	
42	622 - Lowland Shrub	6.7	No	Small upland piece in SE corner of stand.