



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12168

Entry Year 2017

Acreage: 738

County Iron

Management Area: Ralph Ground Moraine

Revision Date: 2015-07-27

Stand Examiner: Ed Rice

Legal Description:

T42N R31W section 12 and 13

Identified Planning Goals:

Optimize sustainable timber production while enhancing and protecting wildlife habitat. Continue to sustainably balance the aspen age class acres. Protect any riparian areas and transition zones during management activity.

Soil and topography:

Very fine sandy loams throughout. There is a very small conifer swamp pocket with muck soils.

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

Industrial forest ownership is on three sides of the compartment. Non industrial private lands are on the east. Active forest management is occurring throughout the area.

Unique Natural Features:

None identified

Archeological, Historical, and Cultural Features:

None recorded

Special Management Designations or Considerations:

The very northern edge of the compartment lies within a deer wintering complex.

Watershed and Fisheries Considerations:

No water features are within the compartment.

Wildlife Habitat Considerations:

This compartment is comprised of aspen of various age classes and is primarily used by featured species including ruffed grouse, American woodcock, deer and bear. This compartment is part of the historic Camp 5 Deer Wintering Complex. This area is currently providing winter cover for deer. Mast, when produced by the scattered oak and cherry, benefits deer, bear, grouse and squirrels. West Camp 5 Hunter Walking Trail will be maintained for deer, bear, and grouse.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of an end moraine of coarse-textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 10 and 100 feet. The Precambrian Hemlock Formation subcrops below the glacial drift. There is not a current economic use for the Hemlock. Abandoned iron mines are located six miles to the northwest. Part of this compartment was previously leased for metallic mineral exploration. The nearest gravel pit is one mile to the north in Section 1, and there should be some potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Good to fair. The Camp 5 Road runs through the middle of the compartment. Access off of that is somewhat limited with unimproved grass two track roads.

Survey Needs:

N 1/16 sec 11, 12

Recreational Facilities and Opportunities:

None

Fire Protection:

Fuel types consist mainly of aspen. There would be few problems in controlling a fire in this area. Low to moderate intensity ground fire would be expected. Some distance may be required to find a water source.

Additional Compartment Information:

The following reports from the Inventory are attached:

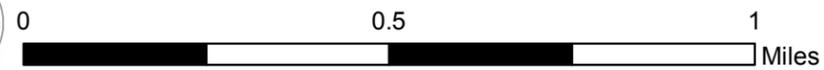
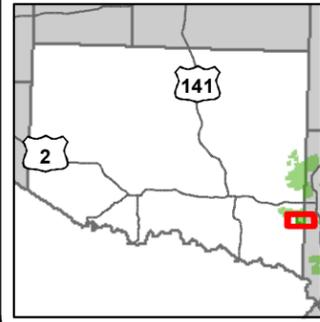
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

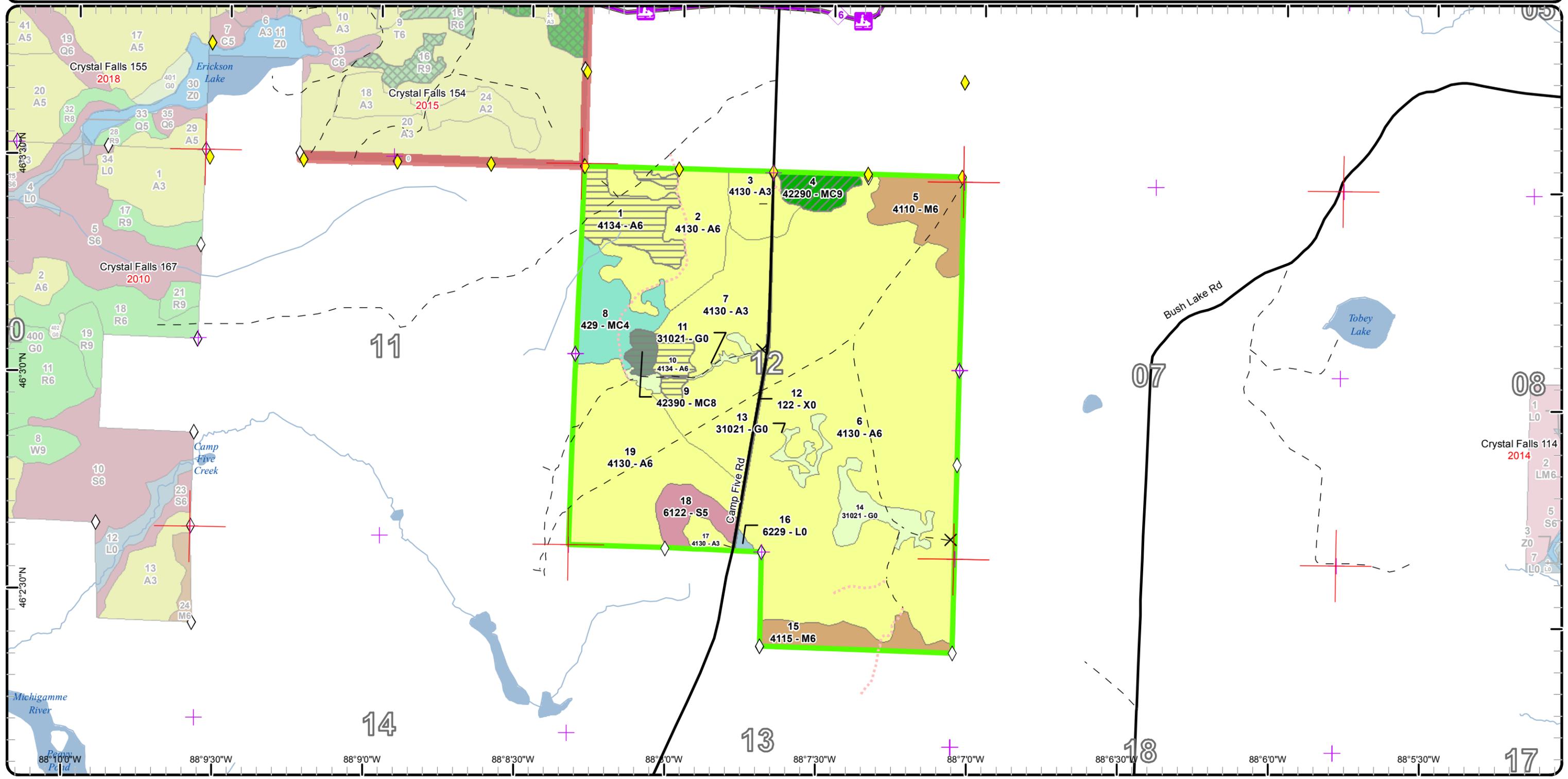
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments

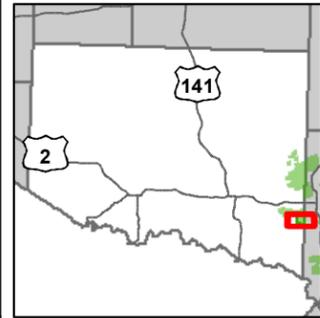
Compartment: 168
 T42NR31W 12-13
 County: Iron
 Unit: Crystal Falls
 Mgmt Area: Ralph Ground Moraine
 YOE: 2017
 Acres: 738 GIS Calculated
 Examiner: Ed Rice
 Map Revised: 8/28/2015
 Map Phase: Pre-Review



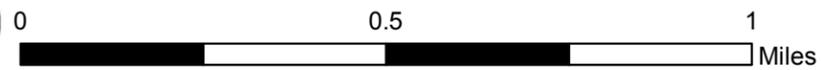
- ✚ Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Paved Roads
- - - Poor Dirt Roads
- ⋯ Closed Roads
- Snowmobile
- ✕ Gate
- 🚙 Snowmobile Trails
- Rivers
- 🟦 Lakes
- Treatments
- ▭ Clearcut (w/Reserves)
- ▨ Thinning (Crown, Low, Systematic)
- Forest Covertype
- 🟤 411 - Northern Hardwood
- 🟡 413 - Aspen
- 🟢 422 - Natural Pines
- 🟠 423 - Other Upland Conifers
- 🟡 429 - Mixed Upland Conifers
- 🟣 612 - Lowland Coniferous Forest
- Non-Forest Covertype
- 🟤 122 - Roads/Parking Lot
- 🟢 310 - Herbaceous Openland
- 🟦 622 - Lowland Shrub



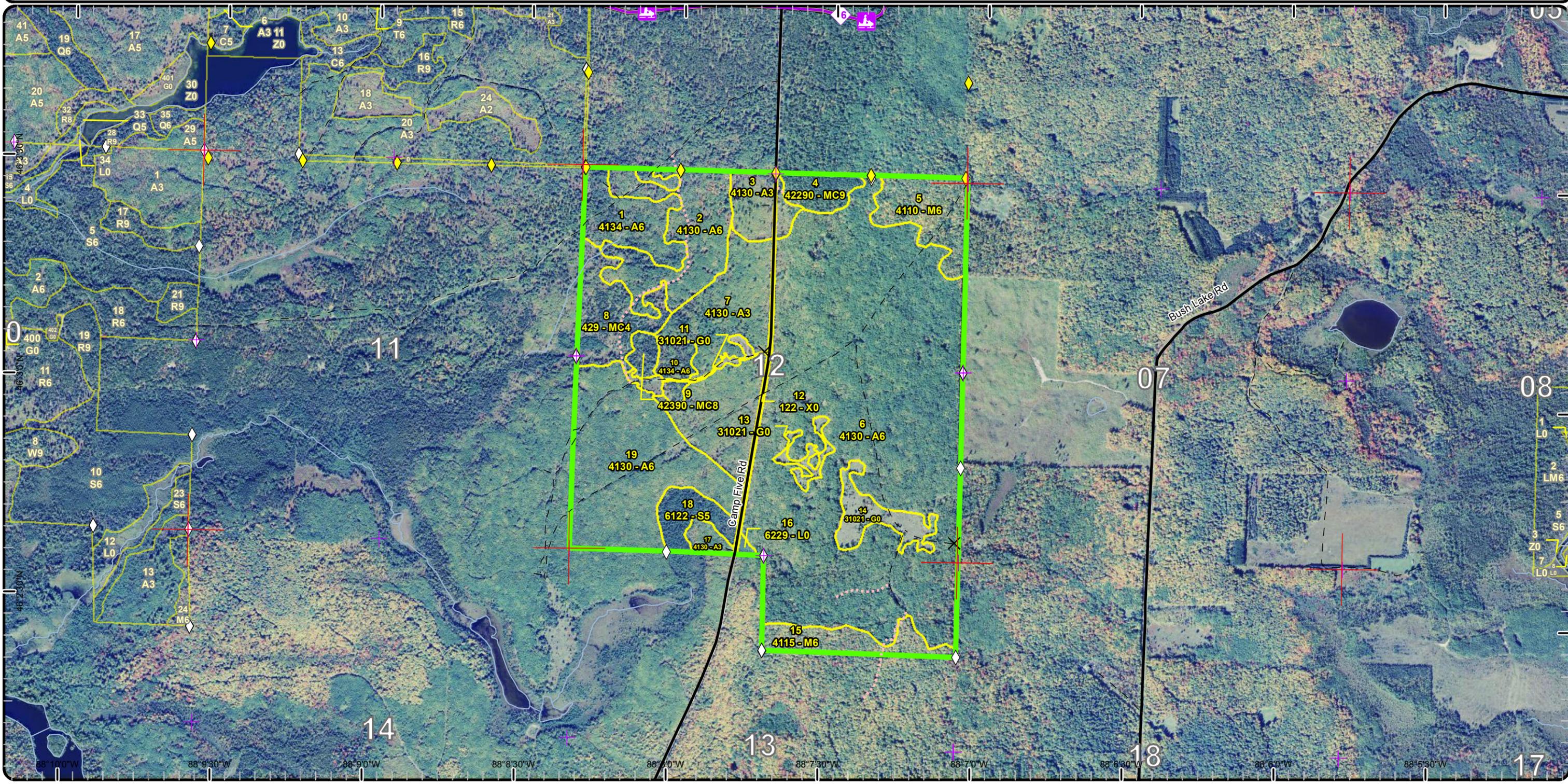
Stand Boundary Map



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 T42NR31W 12-13
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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	16	81	52	340	113	0	0	0	0	0	0	0	0	0	0	0	0	602
Herbaceous Openland	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Lowland Shrub	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Spruce/Fir	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14
Natural Mixed Pines	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11
Northern Hardwood	0	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0	0	0	46
Upland Conifers	0	0	0	28	0	0	0	0	5	0	0	0	0	0	0	0	0	0	33
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	32	16	81	80	340	127	0	57	5	0	738								



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2017

Acres of Harvest

Compartment 168
Total Compartment Acres: 738

Commercial Harvest - 52
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	36	0	0	0	0	0	0	0	0	36
Natural Mixed Pines	0	0	0	0	0	11	0	0	0	11
Upland Conifers	5	0	0	0	0	0	0	0	0	5
Total	41	0	0	0	0	11	0	0	0	52

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	52	0	0	0	0	0	0	0	0	52
Next Step	0	0	0	0	0	0	41	0	0	41
Total	52	0	0	0	0	0	41	0	0	92



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
1	12168001-Cut	27.3	4134 - Aspen, Spruce/Fir	Poletimber Well	47	Unspec ified	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription cut merchantable aspen. cut spruce/fir 2 sticks and larger. leave w pine, r pine.

Specs:

Next Step

Treatments:

Acceptable aspen, spruce/fir

Regen:

Other spruce/fir currently being heavily impacted by spruce worm. mortality likely Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

4	12168004-Cut	10.9	42290 - Natural Mixed Pine	Sawtimber Well	68	111- 140	Harvest	Crown Thinning	42260 - Natural Pine, Mixed Deciduous	Uneven- Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription thin to 100 BA, prioritize removals by defective trees then spacing. leave oak and w birch. leave mix of present species overall.

Specs:

Next Step

Treatments:

Acceptable pine, aspen, r maple

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

9	12168009-Cut	5.1	42390 - Mixed Non- Pine Upland Conifers	Sawtimber Medium	73	Unspec ified	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription cut merchantable tamarack, aspen, j pine. cut spruce/fir 1 stick and larger. leave w pine, r pine.

Specs:

Next Step

Treatments:

Acceptable tamarack, aspen, conifer

Regen:

Other move to 2016 YOE since stand 10 will be treated then Old next step comments:

Comment:

Proposed Start Date: 10/1 /2015

10	12168010-Cut	8.4	4134 - Aspen, Spruce/Fir	Poletimber Well	19	Immatur re	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription remove merchantable spruce that can be accessed without damaging advanced aspen saplings. should be moved to 2016 YOE work.

Specs:

Next Step

Treatments:

Acceptable aspen

Regen:

Other spruce is older aged than featured aspen stand Old next step comments:

Comment:

Proposed Start Date: 10/1 /2015

**Total Treatment
Acreage Proposed: 51.7**

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 6 – 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 7 – 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
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Stand	Crystal Falls Mgt. Unit		Report 8 – Forested Stands			Compartment: 168 Year of Entry: 2017	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	4134 - Aspen, Spruce/Fir	Poletimber Well	27.3	47	Unspecified	W edge has higher percent of w spruce - being heavily impacted by spruce budworm. scattered w pine, r pine, oak	
2	4130 - Aspen	Poletimber Well	47.5	26	Immature	Aspen 30 - 35' tall 1 - 3 sticks. heavy hazel	
3	4130 - Aspen	Sapling Well	16.2	7	Immature		
4	42290 - Natural Mixed Pine	Sawtimber Well	10.9	68	111-140	w pine 10 - 18" dbh, r oak 18 - 20" dbh. r maple saplings from stump sprouts. r oak seedlings/saplings	
5	4110 - Sugar Maple Association	Poletimber Well	26.9	65	81-110	basswood has good quality 12 - 14" dbh. H maple mainly is smaller poletimber. rolling hills. very scattered y birch	
6	4130 - Aspen	Poletimber Well	339.7	36	Unspecified	small scattered pockets with h maple saplings. areas of less vigorous aspen growth, notably towards the S end of stand in this area has more spruce/fir component. scattered vernal ponds throughout.	
7	4130 - Aspen	Sapling Well	72.7	17	Immature	areas in the stand aspen regen is not as vigorous due to more of a sandy pine site. scattered r pine, w pine seedlings. W edge transitions with more of a conifer component among the aspen	
8	429 - Mixed Upland Conifers	Poletimber Poor	28.2	26	Immature	semi open to open areas among the stand. scattered w spruce. small tamarack inclusion in SW. J pine saplings and small poletimber throughout.	
9	42390 - Mixed Non- Pine Upland Conifers	Sawtimber Medium	5.1	73	Unspecified	high ground tamarack. aspen is old and falling apart - much of it is gone out of the stand. very scattered j pine - mainly fallen out.	
10	4134 - Aspen, Spruce/Fir	Poletimber Well	8.4	19	Immature	w spruce poletimber left as residual from previous aspen cut. w spruce being heavily impacted by spruce budworm - likely resulting in loss of this timber. aspen saplings 20 - 25' tall - weaker stems among the spruce poletimber.	
15	4115 - Y.Birch, Hemlock NH	Poletimber Well	19.3	61	51-80	scattered h maple 12" dbh. incidental hemlock very scattered	
17	4130 - Aspen	Sapling Well	5.0	26	Immature	aspen 25 - 30' tall	
18	6122 - Black Spruce	Poletimber Medium	13.6	41	Unspecified	dense b spruce/tamarack understory, especially in S end of stand. scattered poletimber with dense alder. areas of fairly open are heavier to alder/willow.	
19	4130 - Aspen	Poletimber Well	85.9	42	Unspecified	aspen poletimber with scattered 8 - 12" dbh trees	



Stand	Cover Type	Acres	Managed Site	General Comments:
11	31021 - Cool Season Grass	4.8	No	seeded hunter walking trail. growing in well to grasses and clover
12	122 - Road/Parking Lot	5.0	No	Camp 5 Road
13	31021 - Cool Season Grass	5.2	No	field with spruce/fir at edges. scattered b cherry saplings
14	31021 - Cool Season Grass	15.5	No	open grass with scattered aspen and cherry saplings
16	6229 - Mixed lowland shrub	1.1	No	willow/tag alder. flooded