



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12107

Entry Year 2020

Acreage: 1,259

County Dickinson

Management Area: Cassidy Creek

Revision Date: 2018-07-31

Stand Examiner: Eric Brolin

Legal Description:

T40N - R28W, Sections 19 and 20

Identified Planning Goals:

Thin hardwoods and encourage conifer component in aspen stands.

Soil and topography:

Sand soils with small rock bluffs.

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

All state owned lands. Land use is recreation and forestry.

Unique Natural Features:

Many small rock bluffs and Cassidy Creek.

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

None known.

Watershed and Fisheries Considerations:

Prevent sedimentation of Cassidy Creek. Compartment contains a portion of Cassidy Creek and a small portion of a stream (Type 1 Trout stream) that feeds into Cassidy Creek downstream. A 100' buffer is recommended for Cassidy Creek plus 5' per 1% increase in slope. The unnamed stream in the northeastern portion of the compartment is a Type 1 trout stream, so A 300' buffer is recommended for the areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, a 100' plus 5' per 1% increase in slope.

Wildlife Habitat Considerations:

Potential for goshawk, redshouldered hawk, great blue heron rookery, eagle, and osprey. Potential for wood turtle along Cassidy Creek. Potential for moose and gray wolf. Create age class diversity among aspen stands for grouse and woodcock. Conserve lowland types for cover for deer. Mostly state game fund lands.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of thin to discontinuous glacial till over bedrock. There is insufficient data to determine the glacial drift thickness. The Precambrian Archean granite/gneiss subcrops below the glacial drift. The granite/gneiss may have building/dimension stone potential. The abandoned Vulcan iron mines are located two miles to the south. This compartment was previously leased for metallic exploration, and there could still be potential. Gravel pits are located in the area, but potential may be limited. There is no economic oil and gas production in the UP.

Vehicle Access:

Good four-wheel drive and two-wheel drive roads.

Survey Needs:

None

Recreational Facilities and Opportunities:

ORV and snowmobile trails.

Fire Protection:

Good access. Mostly hardwood and aspen timber types. Access into the southwest portion may be restricted by an ORV bridge.

Additional Compartment Information:

The following reports from the Inventory are attached:

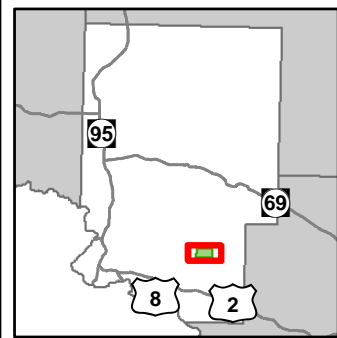
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

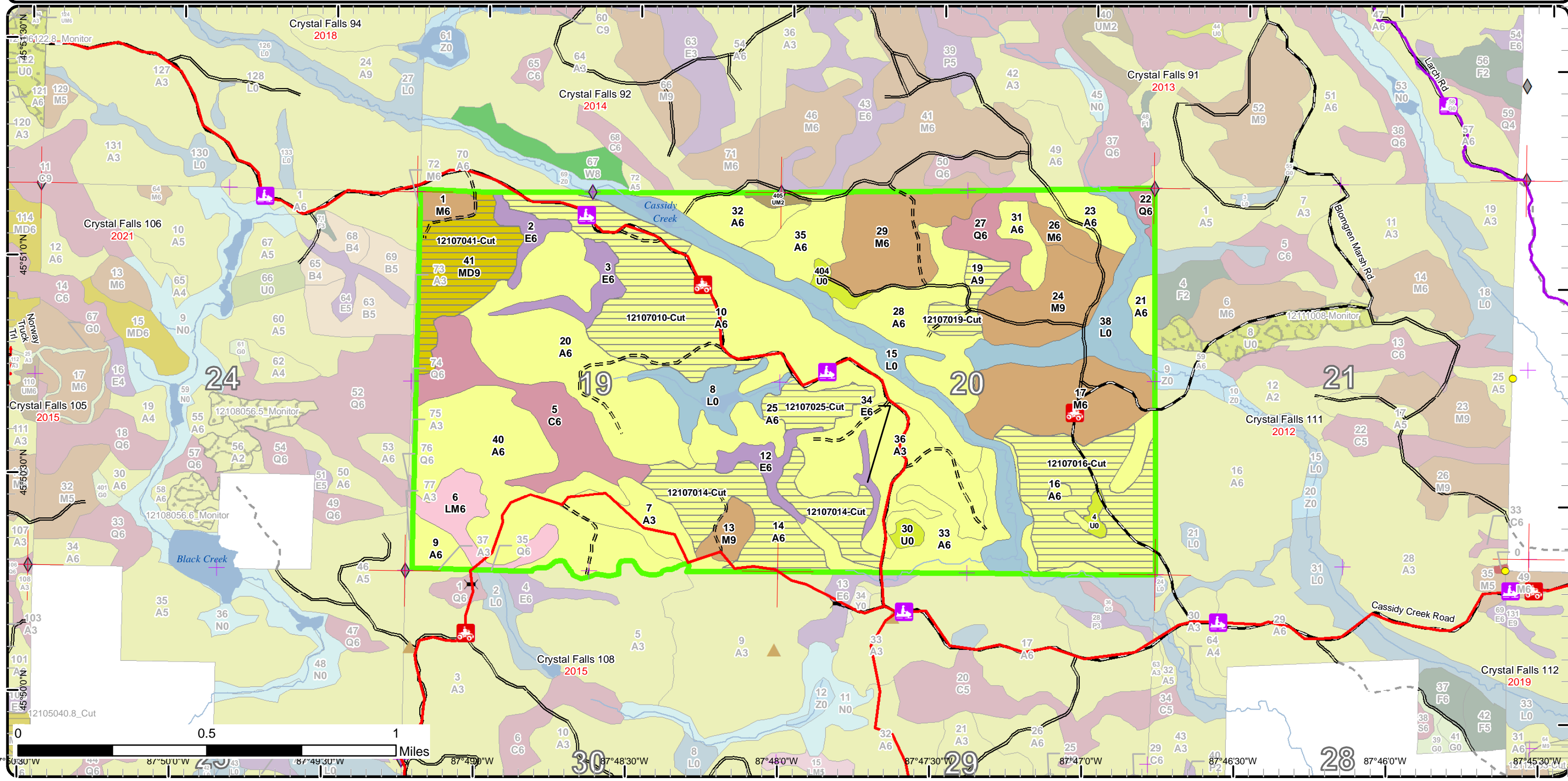
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 107
 T40N, R28W, Sec. 19, 20
 County: Dickinson
 Unit: Crystal Falls
 Mgmt Area: Cassidy Creek
 YOE: 2020
 Acres: 1,259 GIS Calculated
 Examiner: Eric Brolin
 Map Revised: 12/17/2018
 Map Phase: Post-Review

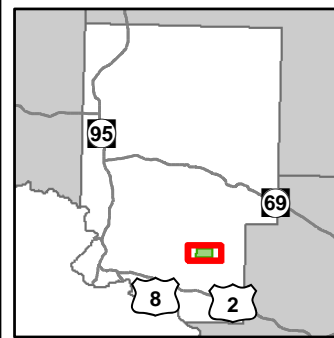


- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- ◆ Field Grade Corners
- Counties
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Private - Dirt / Gravel Road
- ORV Trails
- Snowmobile Trails
- Designated ATV
- Designated Snowmobile Trails
- ▲ Berms
- ✕ Bridges
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Clearcut (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 330 - Low Density Trees
- 622 - Lowland Shrub
- Lakes

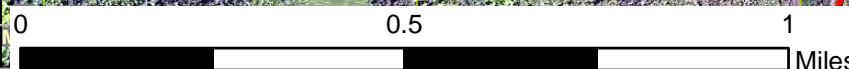
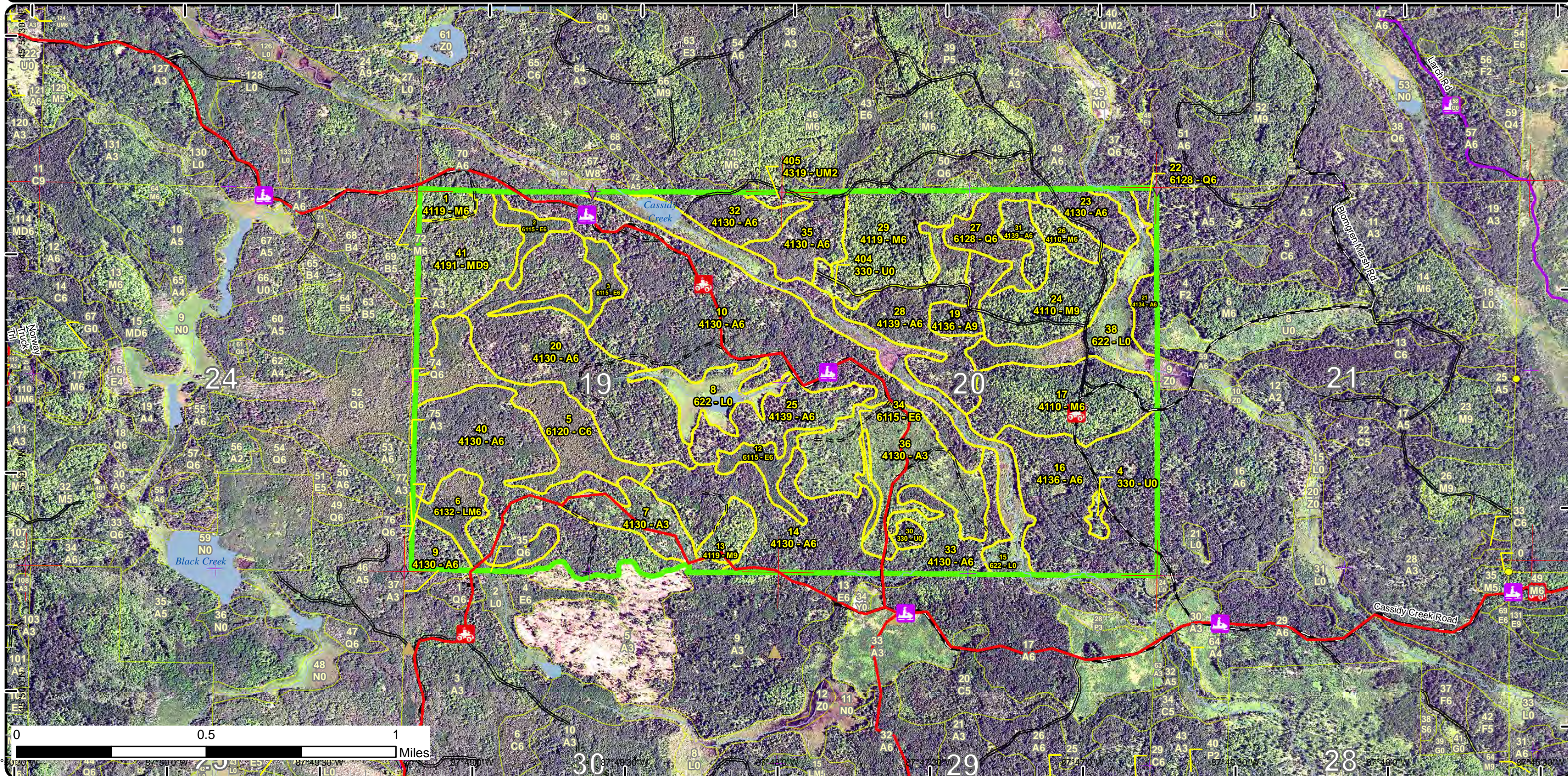


Stand Boundary Map

Compartment: 107
T40N, R28W, Sec. 19, 20
County: Dickinson
Unit: Crystal Falls
Mgmt Area: Cassidy Creek
YOE: 2020
Acres: 1,259 GIS Calculated
Examiner: Eric Brolin
Map Revised: 12/17/2018
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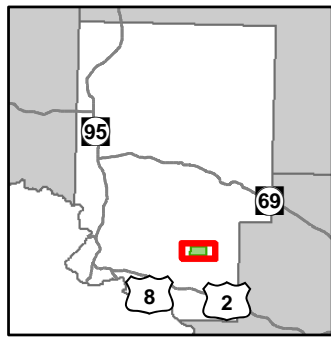
- Miris Corners
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- Counties
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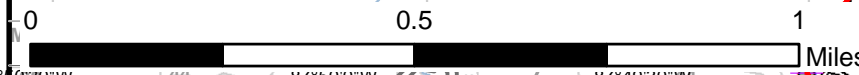
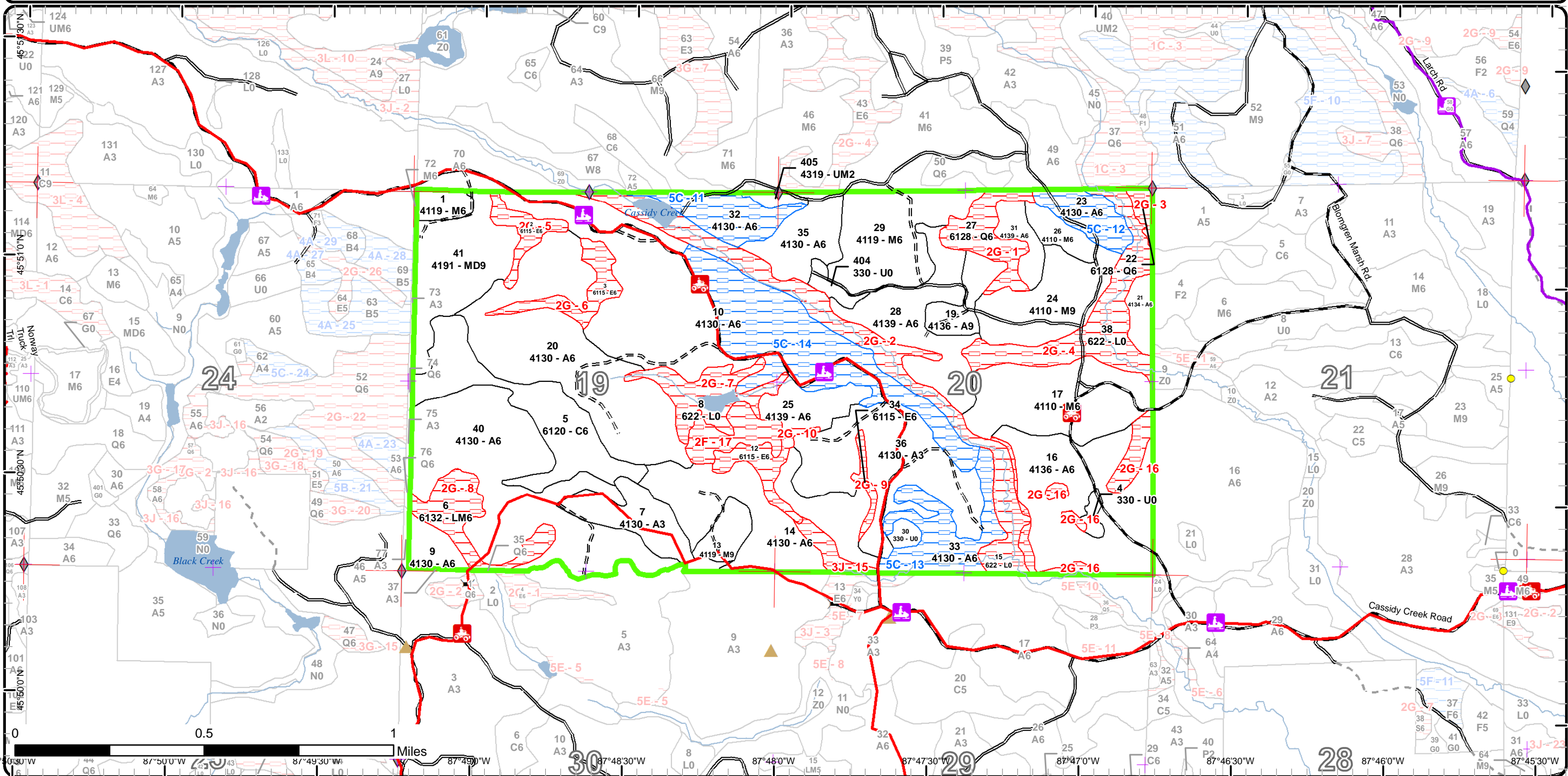
0 0.5 1 Miles

Special Conservation Areas & Site Conditions Map

Compartment: 107
 T40N, R28W, Sec. 19, 20
 County: Dickinson
 Unit: Crystal Falls
 Mgmt Area: Cassidy Creek
 YOE: 2020
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- Designated Snowmobile Trails
- ▲ Berms
- ✂ Bridges
- Island in Lake or River
- Lake/Pond
- Perennial River
- Lakes and Rivers All
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Cold Water Streams



87°03'0"W 87°50'0"W 87°49'30"W 87°48'30"W 87°48'0"W 87°47'30"W 87°47'0"W 87°46'30"W 87°46'0"W

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	65	34	0	67	555	74	0	0	0	0	0	0	0	0	0	0	0	795
Cedar	0	0	0	0	0	0	0	0	0	0	0	48	0	0	0	0	0	0	48
Low-Density Trees	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Lowland Conifers	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	23
Lowland Deciduous	0	0	0	0	0	0	0	0	0	15	22	0	0	0	0	0	0	0	37
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	21
Lowland Shrub	116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116
Mixed Upland Deciduous	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	0	0	0	43
Northern Hardwood	0	0	0	0	0	7	9	0	0	137	0	0	0	0	0	0	0	10	163
Upland Mixed Forest	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	127	65	34	0	70	562	83	0	43	137	38	91	0	0	0	0	0	10	1260



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2020

Acres of Harvest

Compartment 107
Total Compartment Acres: 1,259

Commercial Harvest - 287
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	244	0	0	0	0	0	0	0	0	244
Mixed Upland Deciduous	43	0	0	0	0	0	0	0	0	43
Total	287	0	0	0	0	0	0	0	0	287

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	287	0	0	0	0	0	0	0	0	287
Next Step	0	0	0	0	0	0	287	0	0	287
Total	287	0	0	0	0	0	287	0	0	574



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
10	12107010-Cut	80.5	4130 - Aspen	Poletimber Well	49	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Harvest to a 4" spec. to promote aspen regeneration. This harvest is to split stand 10 for age class diversity. Leave cedar, hemlock, red pine, white pine, cherry, and oak. Exclude pockets of black ash.

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

Acceptable Regen: aspen, mixed hardwood, conifer

Other Comment: ATV and/or snowmobile spec.

Proposed Start Date: 10/1 /2019

14	12107014-Cut	64.2	4130 - Aspen	Poletimber Well	49	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Harvest to a 4" spec. to promote aspen regeneration while keeping a sub-merchantable conifer component. Leave cedar, hemlock, red pine, white pine, and black ash. Exclude dense pockets of black ash. Buffer the stream 100' that forms from the black ash stand (stand 12) and flows southeast. Treatment line has been updated for buffer.

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

Acceptable Regen: aspen, spruce/fir, mixed hardwoods

Other Comment: May need a temporary bridge for access from the south for the west half of this stand. Harvest must occur during dry or frozen conditions. ATV and/or snowmobile spec.

Proposed Start Date: 10/1 /2019

16	12107016-Cut	69.3	4136 - Aspen, Mixed Conifer	Poletimber Well	49	111-140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Harvest to 2" spec. Leave black ash, cherry, cedar, hemlock, red pine, and white pine. Exclude two small patches in west half of stand, one cedar and one alder. Exclude black ash/cedar swale in northeast corner of stand. Buffer Cassidy Creek 100'. Treatment line has been modified for approximate buffers/exclusions.

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

Acceptable Regen: aspen, pine, spruce/fir

Other Comment: May re-establish grown in road up the west side of stand for access. ATV trail spec.

Proposed Start Date: 10/1 /2019

19	12107019-Cut	13.2	4136 - Aspen, Mixed Conifer	Sawtimber Well	55	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Harvest to a 4" spec. to promote aspen regeneration. Leave cedar, hemlock, and white pine and sub merchantable spruce/fir. Harvest during dry or frozen conditions.

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

Acceptable Regen: aspen, paper birch, mixed hardwood, mixed conifer

Other Comment: South half is dry ground while the north transitions to wetter areas.

Proposed Start Date: 10/1 /2019



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
25	12107025-Cut	16.3	4139 - Aspen, Mixed Deciduous	Poletimber Well	50	111- 140	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Harvest to a 2" spec. to promote aspen regeneration. Leave cedar, hemlock, red pine, white pine, and black ash. Also leave all sub merchantable spruce/fir.

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

Acceptable aspen, mixed hardwood, conifer
Regen:

Other ATV and/or snowmobile spec.
Comment:

Proposed Start Date: 10/1 /2019

41	12107041-Cut	43.4	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	74	111- 140	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Harvest to a 4" spec. to salvage the declining aspen and paper birch in the center of this stand. Mixed age classes. Green mark to leave one healthy red maple or paper birch per cruise plot where possible. Leave cedar, red pine, white pine, and black ash. Recommend harvest during dry or frozen conditions due to areas of lower ground.

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

Acceptable paper birch, red maple, aspen, conifer
Regen:

Other
Comment:

Proposed Start Date: 10/1 /2019

**Total Treatment
Acreage Proposed: 286.9**

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Eric Brolin : Examiner

Compartment: 107

Year of Entry: 2020

Availability for Management

Total Acres	Acres Available	Acres Avail			Dominant Site Conditions			
		With Condition	Not Available		5C	2F	2G	3J
794	624	135	35	Aspen	135	14	15	6
48	48	0	0	Cedar				
11	11	0	0	Low-Density Trees				
23	0	0	23	Lowland Conifers			23	
37	0	0	37	Lowland Deciduous			37	
21	0	0	21	Lowland Mixed Forest			21	
116	0	0	116	Lowland Shrub			116	
43	43	0	0	Mixed Upland Deciduous				
163	163	0	0	Northern Hardwood				
3	3	0	0	Upland Mixed Forest				
1,259	892	135	231	Total Forested Acres	135	14	211	6
	71%	11%	18%	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	2G: Too wet (sensitive soils, does not include access issues)	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	55	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Eric Brolin : Examiner

Compartment: 107

Year of Entry: 2020

3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	39	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	22	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Eric Brolin : Examiner

Compartment: 107

Year of Entry: 2020

8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	21	Unspecified	Unspecified	Unspecified	Unspecified
Comments: black ash/cedar							
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: black ash swale							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	20	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Eric Brolin : Examiner

Compartment: 107

Year of Entry: 2020

13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	30	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	70	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	15	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	2F: Too steep	14	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5E: Long-Term Retention	Unspecified	Unspecified
Comments: steep rock outcrop surrounded by ledges and/or lowlands							

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 Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4119 - Mixed Northern Hardwoods	Poletimber Well	7.2	46	81-110	West half of stand is on a rock top with thin soil and poor quality trees. Better quality poles in the east 3/4 of stand. Stand has scattered clumps of Hemlock, a few upland cedar, and scattered big old trees among mainly poles and saplings. Large aspen is already dead if not blown over yet. Ba averages about 100 across stand, lighter in the far west and a little heavier in the east.
2	6115 - Lowland Ash	Poletimber Well	9.1	106	51-80	Lowland ash swale, very wet. OPIC - FMD: OI Stand Year Origin was 1912
3	6115 - Lowland Ash	Poletimber Well	12.6	106	51-80	Lowland ash swale, very wet. OPIC - FMD: OI Stand Year Origin was 1912
5	6120 - Lowland Cedar	Poletimber Well	48.2	106	111-140	Lowland stand very heavy to solid cedar. OPIC - FMD: OI Stand Year Origin was 1912
6	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	20.9	106	111-140	Lowland black ash and cedar mix. Very wet year round. OPIC - FMD: OI Stand Year Origin was 1912
7	4130 - Aspen	Sapling Well	24.3	12	Immature	Young aspen with fir mixed in. Rocky areas and outcrops within. Scattered hardwoods left from past harvest. OPIC - FMD: OI Stand Year Origin was 2006
9	4130 - Aspen	Poletimber Well	9.7	40	81-110	Patchy stand in areas with shallow soil and rock humps within. Some hardwood mixed in the east. Larger remnant aspen found scattered. OPIC - FMD: OI Stand Year Origin was 1978
10	4130 - Aspen	Poletimber Well	150.8	49	111-140	Highly variable stand with scattered old Pine. Stand has numerous rock outcrops with older residual timber on the tops and lowland swales with black ash. The pines are regenerating well under the aspen in areas. Dense spruce/fir under story across a majority of stand. Pockets of big tooth and quaking aspen, smaller diameter trees found in more dense pockets. Found age to average 49 across stand. Should be a dry condition or frozen ground harvest due to lower areas and drainage corridors. ALL OR A PORTION OF THIS STAND HAS BEEN ADDED TO THE 2010 TREATMENT LIST. Stand harvested with Budworm Aspen sale #12-077-10-01 in 2013.
12	6115 - Lowland Ash	Poletimber Well	11.2	99	1-50	Lowland ash drainage. A steam drains out during wetter seasons from the south tip. OPIC - FMD: OI Stand Year Origin was 1919
13	4119 - Mixed Northern Hardwoods	Sawtimber Well	10.0	85	81-110	Some poorer quality hardwoods. May be some aspen around the edges. White pine seedlings in north half of stand. OPIC - FMD: Select cut in 2006.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	4130 - Aspen	Poletimber Well	70.1	49	81-110	Aspen pole stand. An area in the west/northwest has an older age class of aspen that was left in the past. Most all of the larger spruce/fir has died out, only live non-merchantable saplings and small poles remain. Patchy in spots with small rocky outcrops and some lower pockets with a few black ash mixed in. Small pockets dense to fir are scattered across the stand. Lowland patch of marshy alder area in the south. OPIC - FMD: OI Stand Year Origin was 1969
16	4136 - Aspen, Mixed Conifer	Poletimber Well	84.2	49	111-140	Mature aspen stand. A denser pocket of fir/white pine is found centered in this stand. Standing water and black ash/alder was found in the northeast. Approximately 5 acres will be excluded from the northeast to protect lowland and for long term stand retention. Opening growing in, contact WLD to include in harvest and maintain opening. Aspen is in good shape. Spruce/fir is in decent shape yet and heavy in areas ranging from 1-3 stick trees. Paper birch is starting to decline.
17	4110 - Sugar Maple Association	Poletimber Well	54.0	86	81-110	Good quality hardwood stand. Majority of stand is logs, more poles in the west 1\3 with some fir understory turning to very poor quality in the far west. Some aspen found around the edges, especially in the north most tip. Average of 90 BA. OPIC - FMD: Leave a buffer on the North side of stand. It is a hillside of mixed aspen and hardwoods. Harvest from July 15 thru Dec1 to protect snowmobile trail. Stand harvested with "Gray Owl Birch" sale 2006
19	4136 - Aspen, Mixed Conifer	Sawtimber Well	13.2	55	51-80	Aspen stand with some mixed conifer in lower areas. More solid to larger diameter aspen in the south. Lower area with some cedar mixed in the north half.
20	4130 - Aspen	Poletimber Well	95.8	40	111-140	Highly variable stand with scattered old Pine. Stand has numerous rock outcrops with older residual timber on the tops and lowland swales with black ash and pockets of alder. The pines are regenerating well under the aspen in certain areas. Dense spruce/fir under story across a majority of stand. Pockets of big tooth and quaking aspen, smaller diameter trees found in more dense pockets. Found age to average 40 across stand, areas of younger and older aspen are mixed in. Historic info suggests that overstory and/or hardwoods was removed in 1978. Should be a dry condition or frozen ground harvest due to lower areas and drainage corridors. An old grown in road accesses the south 1/3 of this stand across a strip of black ash.
21	4134 - Aspen, Spruce/Fir	Poletimber Well	7.9	40	81-110	OPIC - FMD: OI Stand Year Origin was 1978
22	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	3.9	90	111-140	Lowland cedar/black ash. OPIC - FMD: OI Stand Year Origin was 1928
23	4130 - Aspen	Poletimber Well	15.2	48	111-140	Dense dead fir understory. Some smaller patches of smaller diameter aspen found within. 300' buffer needed for stream to the east. OPIC - FMD: Good aspen with dense conifer understory



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	4110 - Sugar Maple Association	Sawtimber Well	38.0	85	51-80	<p>Hardwood log stand thinned in 2011. More basswood found in the south. White pine and ironwood seedlings scattered across stand.</p> <p>OPIC - FMD: Harvest from July 15 thru Dec1 to protect snowmobile trail. PYLORIC SEEKER SALE COMPLETED 9-1-11</p>
25	4139 - Aspen, Mixed Deciduous	Poletimber Well	30.6	50	111-140	<p>Lower quality rocky outcrop stand. The west half of this stand is inaccessible due to the surrounding lowland ash and steep rock ledges along the borders. Very large white pines are found scattered within as well as patches of white pine seedlings that have become established.</p>
26	4110 - Sugar Maple Association	Poletimber Well	9.0	50	51-80	<p>Hardwood pole stand heavy to sugar maple with some larger basswood mixed in. A vein of aspen saplings runs along the south edge. Could merge with adjacent stand 24 in the near future.</p> <p>OPIC - FMD: OI Stand Year Origin was 2001, removed all white birch, aspen, fir, and white spruce.</p>
27	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	18.8	90	111-140	<p>Lowland stand, majority is cedar. Some areas are more dense to black ash with black spruce mixed in. A smaller patch more solid to black spruce is found in the north portion of this stand.</p> <p>OPIC - FMD: OI Stand Year Origin was 1928</p>
28	4139 - Aspen, Mixed Deciduous	Poletimber Well	43.4	31	81-110	<p>Patchy wet areas across center up the northeast portion of this stand. Alder patch in center and scattered black ash in lower areas. Poor quality maple pole patch in the center about 2 acres with mixed aspen and paper birch. A lower drainage cuts east/west across the bottom 1/3 of this stand.</p>
29	4119 - Mixed Northern Hardwoods	Poletimber Well	45.2	86	81-110	<p>This stand was combined with two other small stands to the NE and west to begin managing together. A majority of this stand is Better quality log sized hardwoods. A patch in the NE is heavier to pole sized trees. A strip of shallower soil along the west side of this stand has some poorer quality hardwoods. Average around 90 BA, may be a little heavier or lighter in areas dense to poles. The northwest corner of this stand has a steeper slope that may need to be excluded.</p> <p>OPIC - FMD: PYLORIC SEEKER SALE COMPLETED 9-1-11</p>
31	4139 - Aspen, Mixed Deciduous	Poletimber Well	10.0	17	1-50	<p>Poor quality red maple with ironwood saplings/poles, large remnant pines, and aspen saplings filling in any more open areas or holes in the canopy. More aspen found around edges and in the north portion of this stand, 20'+ tall. Some rolling terrain.</p> <p>OPIC - FMD: STAND CLEAR CUT IN 2001, SALE # 11-2000-01 'SHROOMLESS'</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
32	4130 - Aspen	Poletimber Well	20.2	49	111-140	Aspen pole stand. Dense balsam understory across a majority of this stand. Some rolling terrain with a steeper ledge along the NE border. The stand line bordering the adjacent stand 35 may be hard to determine within that transition area. The very northwest tip was included in a past sale from the adjoining compartment and should be excluded from future harvest of this stand. OPIC - FMD: OI Stand Year Origin was 1969
33	4130 - Aspen	Poletimber Well	29.7	50	111-140	Good quality aspen stand with rolling terrain. Some fir found within. Denser patch of cedar with an aspen overstory found in north tip of stand. A grown in wildlife opening was split from this stand but may be restored during harvest or left to convert to aspen stand. More dominant to fir up the northeast finger.
34	6115 - Lowland Ash	Poletimber Well	3.9	90	111-140	Black ash swale.
35	4130 - Aspen	Poletimber Well	23.3	31	81-110	Younger aspen stand. A slope is found up the NE edge with some mixed hardwood and upland cedar. Fir understory. There is a drainage that enters this stand from the ash stand to the north. This drainage cuts across this stand north to south and may need to be excluded out from future harvests. Some small lowland patches are found on the north border with some cedar/alder. OPIC - FMD: OI Stand Year Origin was 1987
36	4130 - Aspen	Sapling Well	64.7	5	Immature	Aspen sapling stand with a few scattered large white pine and hardwoods. Stand harvested with Budworm Aspen sale #12-077-10-01 in 2013
40	4130 - Aspen	Poletimber Well	101.1	40	111-140	Dense fir under story. Very uniform across majority of stand. More rock outcrops and some hardwood mixed in the south with some more open patches of fir. Lowland patches scattered within which include cedar, black ash, and alder. There are also patches with scattered age classes +/- age and diameter aspen.
41	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	43.4	74	111-140	Pockets of young red and white pine in south. The center has poorer quality aspen on a shallow rocky outcrop. Fir has mostly died out. Supercanopy pines scattered within. White birch and aspen is starting to decline. Scattered fir sapling in understory. Younger age class of healthy aspen along the edges of this outcrop. A lot of low ground aspen with black ash mixed in. Open areas across stand with large dead spruce/fir.
405	4319 - Mixed Upland Forest	Sapling Medium	3.1	31	Immature	Grown in opening. Abundant spruce/fir saplings and poles with some larger scattered hardwoods, oak, and paper birch. Hardwood and aspen saplings are filling in any open gaps.



Stand	Cover Type	Acres	Managed Site	General Comments:
4	330 - Low-Density Trees	2.9	No	Opening that is growing in with aspen saplings and poles, and fir.
8	622 - Lowland Shrub	22.3	No	Lowland marsh grass with alder and fir along the edges. Appears to be standing water in the middle during wet seasons.
15	622 - Lowland Shrub	54.5	No	Lowland drainage spanning across entire compartment. Ranges from marsh grass to alder to patches of black ash in areas.
30	330 - Low-Density Trees	3.3	No	Grown in opening with fir, aspen, and ironwood saplings.
38	622 - Lowland Shrub	39.0	No	Lowland drainage spanning across entire compartment. Ranges from marsh grass to alder to patches of black ash in areas.
404	330 - Low-Density Trees	4.6	No	Opening with some small aspen clones and scattered conifer and aspen saplings.