# DNR DNR

# **Compartment Review Presentation**

**Crystal Falls Forest Management Unit** 

Compartment 12122 Entry Year 2018 Acreage: 1,179 County Iron

Management Area: Amasa Plains

Revision Date: 2016-08-20 Stand Examiner: Ed Rice

**Legal Description:** 

T44N R33W sections 10, 11

# **Identified Planning Goals:**

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

## Soil and topography:

Soils are generally fine sandy loams with large expanses of muck soils and ponding in the low ground areas. Rock outcrop complexs are interspersed throughout much of the compartment. The topography ranges from fairly steep, short hills and rock outcrop to flat and low swamp land.

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

The west side of the compartment is broken in state ownership. The remainder is contiguous state ownership. Large blocks of private ownership border the compartment. Active forest management has occurred and will continue within and surrounding the compartment. Deer hunting by far dominates the recreational use patterns.

## **Unique Natural Features:**

none identified

# Archeological, Historical, and Cultural Features:

none identified

#### **Special Management Designations or Considerations:**

Deerfoot Lodge Deer Wintering Complex-SCA in much of the compartment

## **Watershed and Fisheries Considerations:**

#### Wildlife Habitat Considerations:

Featured species includes: American woodcock, blackburnian warbler, northern goshawk, white-tailed deer, and wood dock. Species diversity throughout the compartment creates various wildlife habitats and corridors' and should be retained. Compartment contains deer wintering areas.

#### Mineral Resource and Development Concerns and/or Restrictions

#### **Vehicle Access:**

Poor. The DNR Road is an improved gravel road that access the very north end of the compartment. The remainder are old abandoned roads with multiple wet areas.

#### **Survey Needs:**

none required

## **Recreational Facilities and Opportunities:**

Snowmobile trail

#### **Fire Protection:**

The compartment has a high component of balsam fir understory with could lend to very active fire behavior. Fire starts in this area historically have been low. Equipment access is fair, there are old overgrown road systems.

#### 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** 

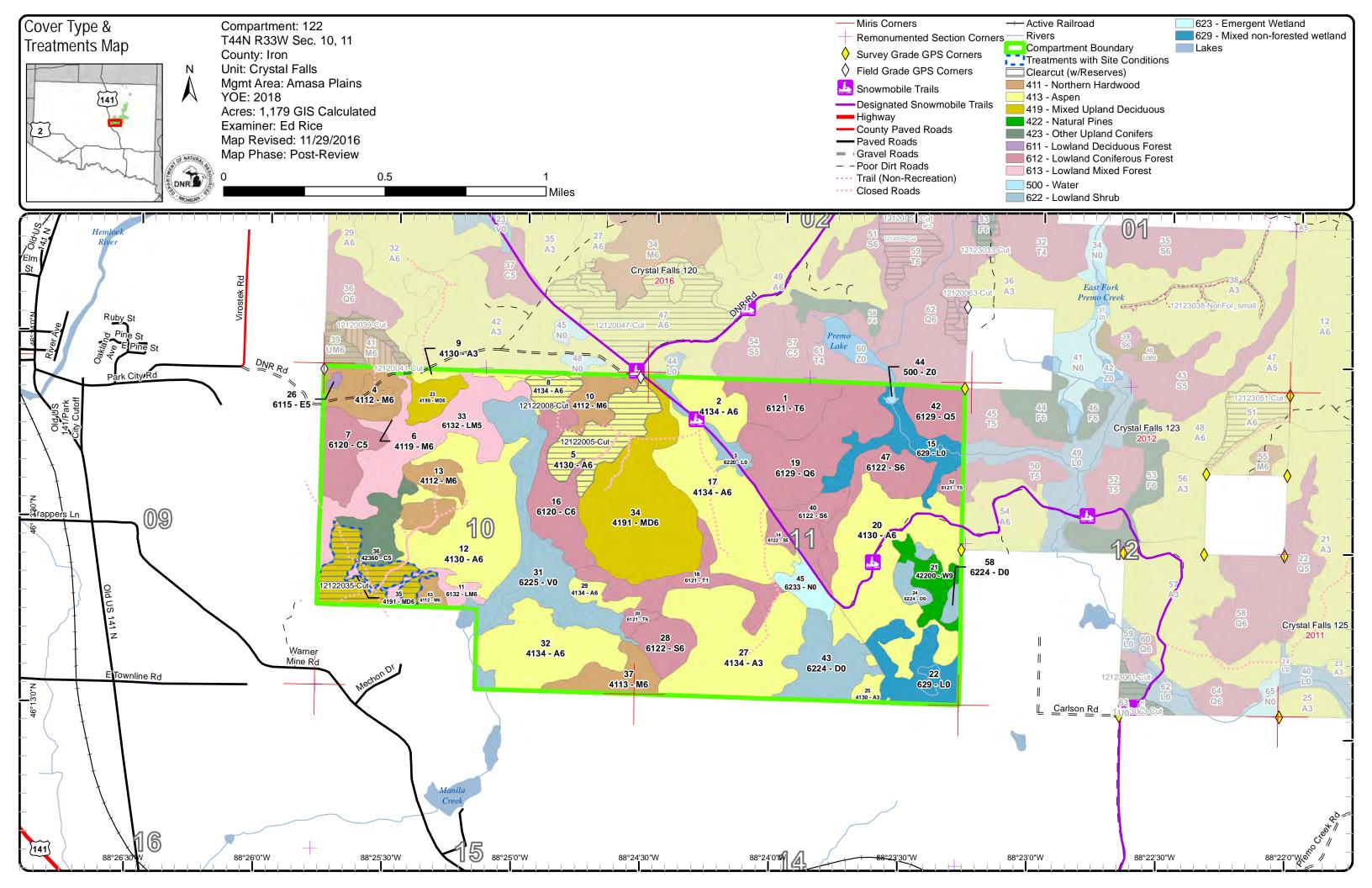
The following information is displayed, where pertinent, on the attached compartment maps:

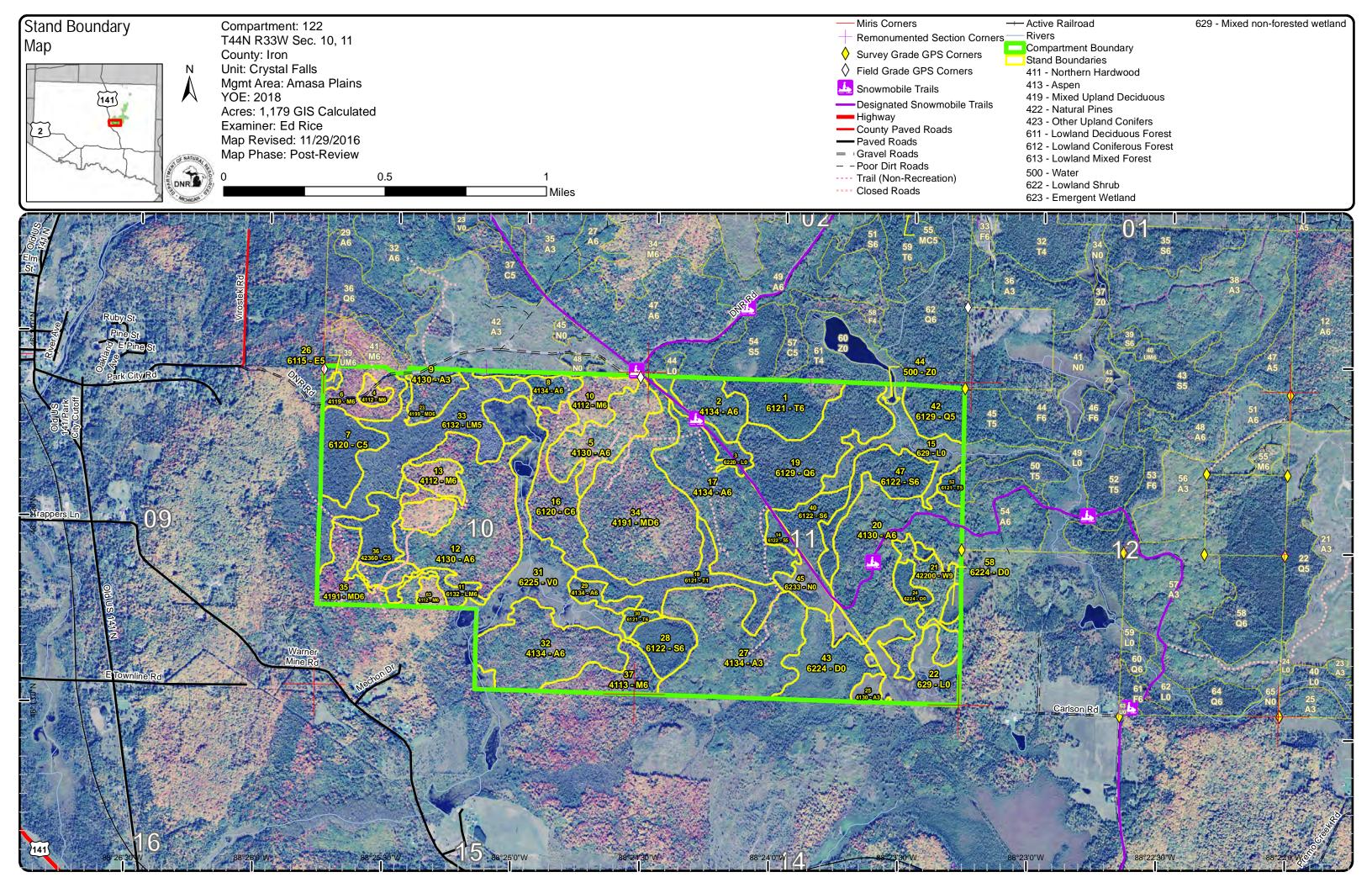
Base feature information, stand boundaries, cover types, and numbers

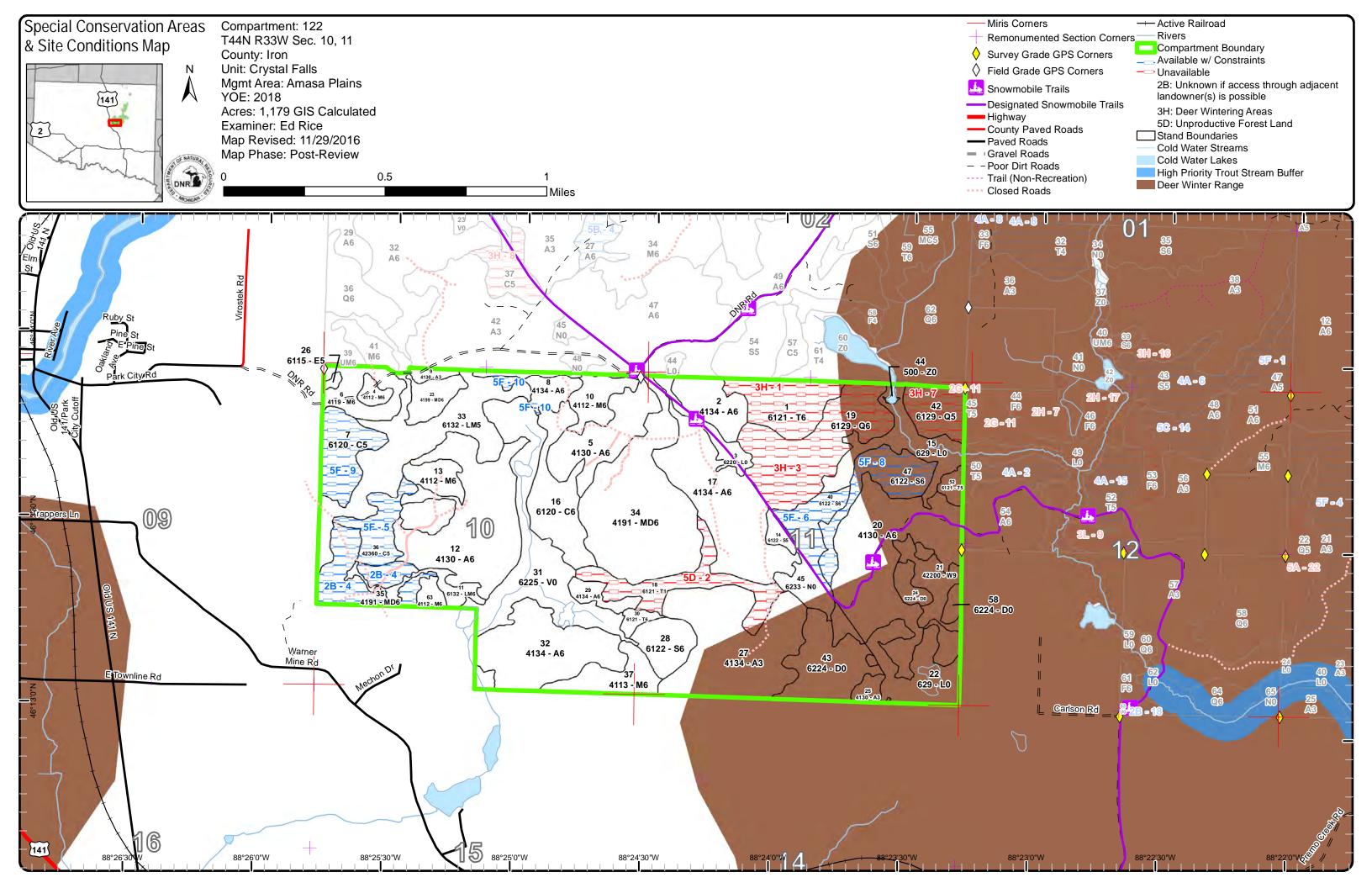
**Proposed treatments** 

Site condition boundaries

Details on the road access system







# Report 1 - Total Acres by Cover Type and Age Class

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment 122 Year of Entry 2018



## Age Class

	₹0°	A SE SE	30 / 5	0 / E	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	8 / 6	is to	» / %	58 / K	₹ \$ <sup>3</sup> /\$	80	\$ \( \sigma_0^2 \)	00,00	, , , , , , , , , , , , , , , , , , ,	i vi vi		NA /	g <sup>*</sup> Jre <sup>3</sup>	A A A
Aspen	0	16	0	75	165	162	0	10	0	0	0	0	0	0	0	0	0	0	427
Bog	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
Cedar	0	0	0	0	0	0	0	0	0	0	41	33	0	0	0	0	0	0	74
Lowland Conifers	0	0	0	0	0	57	0	0	0	18	0	0	0	0	0	0	0	0	75
Lowland Deciduous	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Mixed Forest	0	0	0	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0	69
Lowland Shrub	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
Lowland Spruce/Fir	0	0	0	0	0	43	4	16	0	0	0	0	0	0	0	0	0	0	63
Marsh	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Mixed Upland Deciduous	0	0	0	0	0	85	40	0	0	0	0	0	0	0	0	0	0	0	124
Northern Hardwood	0	0	0	0	0	19	35	0	0	0	0	0	0	0	0	0	0	24	77
Tamarack	0	0	0	0	0	0	28	4	0	4	0	0	0	0	0	0	0	29	65
Treed Bog	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
White Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15
Total	184	16	0	75	234	367	107	30	0	22	41	33	0	0	0	0	0	68	1174



# **Report 2 – Treatment Summary**

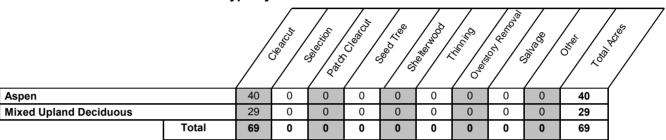
# Crystal Falls Mgt. Unit Year of Entry: 2018

#### **Acres of Harvest**

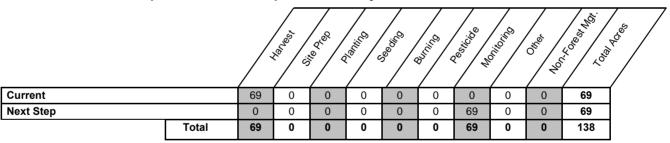
Compartment 122
Total Compartment Acres: 1,179

Commercial Harvest - 40 Harvests with Site Condition - 29 Next Step Harvest - 0 Habitat Cut - 0

## **Cover Type by Harvest Method**



# **Proposed and Next Step Treatments by Method**



Crystal Falls Mgt. Unit

Report 3 -- Treatments

Compartment: 122 Year of Entry: 2018

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
5	12122005-Cut	31.4	4130 - Aspen	Poletimber Well	48	51-80	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary

**Habitat Cut: No Site Condition:** 

Prescription Cut merchantable aspen, maple, w birch and spruce/fir. leave w pine, r pine, b ash, hemlock and cedar. leave a scattered w birch component. Specs: protect any advanced regeneration. N end may require a buffer due to a springy/lower ground area. Buffer the adjacent riparian areas/ creek to

the west 200 feet

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

S

Acceptable aspen, r maple, spruce/fir

Regen: Other Comment:

**Proposed Start Date:** 10/01/2017

12122008-Cut 8.1 4134 - Aspen, Poletimber 68 51-80 Clearcut with 4319 - Mixed Draft Field Harvest Even-Aged Spruce/Fir Well Retention **Upland Forest** Boundary

**Habitat Cut: No Site Condition:** 

Prescription Cut merchantable aspen, r maple, cherry, w birch, spruce, and fir. Leave associated w pine, cedar or hemlock, leave occasional w birch and cherry. protect advanced maple regen and any submerchantable spruce/fir. follow BMP guidelines to adjacent swamp/wetlands. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen,, r maple, spruce/fir

Regen:

Other Comment:

**Proposed Start Date:** 10/01/2017

4191 - Mixed 12122035-Cut 29.3 Poletimber 52 51-80 Harvest Clearcut with 4319 - Mixed Even-Aged Draft Field **Upland Deciduous** Retention **Upland Forest** Boundary with Conifer

**Habitat Cut: No** Site Condition: Unknown Access

Prescription cut merchantable maple, aspen, w birch, spruce and fir. leave a w birch component. leave b ash, w pine, r pine, cedar, hemlock and oak. buffer

lowland drainages and vernal areas. Specs:

Monitoring, Natural Regen (Re-Inventory) Next Step

**Treatments:** 

Acceptable r maple, aspen, spruce/fir

Regen:

Comment:

Other access may be an issue due to private lands. Adjacent private land to SW has a nearby road but runs through abandoned mining property with

multiple old mining shafts and broken ground.

**Proposed Start Date:** 

10/01/2017

**Total Treatment** Acreage Proposed:

68.8

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment: 122 Year of Entry: 2018

Availa	ability for	Managemer	nt					
Total	Acres	Acres Avail	Acres		Domina	nt Site	Cond	ditions
Acres	Available	With Condition	Not Available		2B	5F	3H	5D
429	210	219	0	Aspen		219		
65	65	0	0	Bog				
74	33	41	0	Cedar		41		
75	0	0	75	Lowland Conifers			75	
1	1	0	0	Lowland Deciduous				
69	69	0	0	Lowland Mixed Forest		0		
65	65	0	0	Lowland Shrub				
63	20	43	0	Lowland Spruce/Fir		43		
10	10	0	0	Marsh				
125	11	114	0	Mixed Upland Deciduous	29	84		
78	59	18	0	Northern Hardwood		18		
66	8	0	58	Tamarack			28	29
43	43	0	0	Treed Bog				
1	1	0	0	Water				
15	0	15	0	White Pine		15		
1,179	596	450	133	Total Forested Acres	29	421	104	29
	51%	38%	11%	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	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	28	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
2	Unavailable	5D: Unproductive Forest Land	29	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

# Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment: 122 Year of Entry: 2018

3	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	57	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	2B: Unknown if access through adjacent landowner(s) is possible	29	5F: Evaluated for Forest Health Considerations	Unspecified	Unspecified	Unspecified
	Comments:						
5	Available	5F: Evaluated for Forest Health Considerations	17	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Available	5F: Evaluated for Forest Health Considerations	17	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	18	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Available	5F: Evaluated for Forest Health Considerations	26	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

# Report 4 - Site Conditions

Compartment: 122

Crystal Falls Mgt. Unit

Ed Rice : Examiner Year of Entry: 2018

9	Available	5F: Evaluated for Forest Health Considerations	24	Unspecified	Unspecified	Unspecified	Unspecified
	comments: Cedar stand						
10	Available	5F: Evaluated for Forest Health Considerations	2	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
11	Available	5F: Evaluated for Forest Health Considerations	18	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
12	Available	5F: Evaluated for Forest Health Considerations	63	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
13	Available	5F: Evaluated for Forest Health Considerations	85	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
14	Available	5F: Evaluated for Forest Health Considerations	15	Unspecified	Unspecified	Unspecified	Unspecified
	comments: r sapling understo	ory					

# Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment: 122 Year of Entry: 2018

15	Available	5F: Evaluated for Forest Health Considerations	51	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
16	Available	5F: Evaluated for Forest Health Considerations	85	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
17	Available	5F: Evaluated for Forest Health Considerations	19	Unspecified	Unspecified	Unspecified	Unspecified
	omments: ardwood stand						

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
Comments				

Crystal Falls Mgt. Unit Compartment: 122
Year of Entry 2018



# 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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area				
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions stocked trout populations and those of other coldwater fish specific conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	es to persist from year to year. Suitable by are relatively deep, have substantial the state. Such lakes are established by				
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen condistocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	ther coldwater fish species (e.g., slimy sculpin) to persist from igan typically provide these conditions due to substantial eam flows. Such streams are established by Director's action and				
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildli and Waterfowl Production Areas, deer wintering complexes in low openings and savannas. Habitat areas are distinct from critical hat endangered or threatened species (such as Kirtland's warbler or general in nature, are not primarily associated with threatened or covered by species recovery plans that are developed in cooperation.	wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more endangered species, and are not				

S t	Crystal Falls	s Mgt. Unit		Report 7	′ – Forested	Stands Compartment: 122 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6121 - Tamarack	Poletimber Well	28.4	53	51-80	OPIC - FMD: There are spots with mostly black spruce, then spots with mostly tamarack.
2	4134 - Aspen, Spruce/Fir	Poletimber Well	18.3	36	Unspecified	aspen 2 - 4 sticks tall
4	4112 - Maple, Beech, Cherry Association	Poletimber Well	4.0	58	51-80	fair form on maple. lesser quality south of road. scattered pockets of h maple whips
5	4130 - Aspen	Poletimber Well	31.4	48	51-80	scattered larger aspen 14 - 16" dbh. NE end of stand has ledge and rock
						aspen 4 - 5 sticks tall
6	4119 - Mixed Northern Hardwoods	Poletimber Well	17.9	58	51-80	very scattered hemlock. aspen variably dispersed throughout stand. inclusions of lower ground and rocks, notably towards south edge of stand.
7	6120 - Lowland Cedar	Poletimber Medium	23.7	93	81-110	very wet - standing water. winter deer use
8	4134 - Aspen, Spruce/Fir	Poletimber Well	10.1	68	51-80	thick submerchantable fir.
9	4130 - Aspen	Sapling Well	7.3	4	Immature	
10	4112 - Maple, Beech, Cherry Association	Poletimber Well	13.5	58	81-110	fair quality - many trees are multiple stemmed. edges of stand transition to dense fir understory and r maple poletimber. N end has lowland b ash inclusion. areas with extensive small boulders and ledge.  maple 4 - 5 sticks
11	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	9.3	34	Immature	
12	4130 - Aspen	Poletimber Well	72.8	43	51-80	NE of stand is heavier to r maple and fir, ground is also more broken with rocks and ledge.
13	4112 - Maple, Beech, Cherry Association	Poletimber Well	19.3	58	81-110	edges of stand transition quickly to fir understory. narrow strip of fir, r maple, aspen runs E - W through the center of stand
14	6122 - Black Spruce	Poletimber Medium	4.3	51	Unspecified	very wet - flooded leatherleaf. stunted b spruce and tamarack. not a productive stand
16	6120 - Lowland Cedar	Poletimber Well	32.6	102	81-110	winter deer use - * very easy winter 12" snow
17	4134 - Aspen, Spruce/Fir	Poletimber Well	62.5	36	Unspecified	

S	Crystal Falls	s Mgt. Unit		Report 7	′ – Forested	Stands Compartment: 122 Year of Entry: 2018
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	6121 - Tamarack	Sapling Poor	29.3	44	1-50	just about classed as non forested stand. heavy tag alders with sparse trees.
19	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	57.4	49	51-80	wet stand with heavier stocking of cedar
20	4130 - Aspen	Poletimber Well	84.6	37	Unspecified	
21	42200 - Natural White Pine	Sawtimber Well	15.3	83	81-110	w pine 18 - 24" dbh. fairly dense r maple sapling understory.
23	4199 - Other Mixed Upland Deciduous	Poletimber Well	11.1	51	51-80	limb tips affected by SBW on submerchantable understory and larger w spruce.
25	4130 - Aspen	Sapling Well	9.0	6	Immature	
26	6115 - Lowland Ash	Poletimber Medium	1.3	43	Unspecified	
27	4134 - Aspen, Spruce/Fir	Sapling Well	74.5	23	Immature	small pockets of fir. scattered tamarack saplings along edges of stand where previous cut went into adjacent lower ground.
28	6122 - Black Spruce	Poletimber Well	16.1	61	111-140	areas heavier to tag alder
29	4134 - Aspen, Spruce/Fir	Poletimber Well	7.0	42	1-50	
30	6121 - Tamarack	Poletimber Well	3.9	61	81-110	SE edge has higher stocking of b spruce in transition to adjacent stand
32	4134 - Aspen, Spruce/Fir	Poletimber Well	51.2	40	Unspecified	scattered rock outcrops. smaller diameter poletimber with scattered submerchantable suppressed trees. areas with high stocking of fir understory.
33	6132 - Mixed Lowland Forest with Cedar	Poletimber Medium	60.1	34	51-80	very wet- swamp grass and standing water even during winter (springs). pockets purer to b ash throughout.
34	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	84.5	48	81-110	highly variable stand, very broken terrain with multiple rock ledge rides especially in the S. b ash saplings/poletimber adjacent to bottom of rock ledge with tag alder. very dense fir sapling understory. high percent of w birch saplings/small poletimber in SW. scattered aspen 12" dbh.winter deer use - * very easy winter 12" snow
35	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	29.3	52	51-80	very dense fir understory with SBW present. R maple is wolfy - multiple stemmed trees. very scattered hemlock. areas less prevalent to aspen with r maple/fir predominate.
						aspen 6 - 7 sticks, w spruce logs sized trees 7 - 8 sticks, fir 1 - 4 sticks, r maple 4 - 5 sticks tall

S	Crystal Falls	Mgt. Unit		Report 7	– Forested	Stands
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	
36	42360 - Upland Cedar	Poletimber Medium	17.4	93	51-80	
37	4113 - R.Maple, Conifer	Poletimber Well	18.5	40	81-110	very SE

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t						rear of Entry: 2018	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
36	42360 - Upland Cedar	Poletimber Medium	17.4	93	51-80	wet- standing water.	
37	4113 - R.Maple, Conifer	Poletimber Well	18.5	40	81-110	very SE corner has lowland inclusion. R maple has very little quality. dense fir understory.	
40	6122 - Black Spruce	Poletimber Well	17.1	49	1-50	very wet - low site index. tag alder prevalent throughout. fair quality tamarack scattered throughout- very little volume	
42	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	17.7	80	1-50	very wet - standing water in areas. heavier stocking to cedar along W side. heavy tag alder runs between tree groves.	
47	6122 - Black Spruce	Poletimber Well	25.5	49	51-80	heavier tag alder nearer to creek/bog	
52	6121 - Tamarack	Poletimber Medium	4.4	86	1-50	S end especially has tag alder thicket.	
63	4112 - Maple, Beech, Cherry Association	Poletimber Well	4.4	68	81-110	stand overall lays on hillside. very scattered y birch. eutypella present. scattered small diameter logs 12" dbh average. maple 3 - 5 sticks tall	

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Stand	Cover Type	Acres	Managed Site	General Comments:
3	6220 - Alder/willow	9.5	No	very wet, drainages throughout heavy tag alder
15	629 - Mixed non-forested wetland	26.7	No	open marsh - swamp grass, tag alder, scattered stunted b spruce and tamarack. Premo Creek runs through stand
22	629 - Mixed non-forested wetland	28.4	No	wet - cattails. stunted scattered tamarack 2 - 4" dbh
24	6224 - Treed Bog	7.4	No	
31	6225 - Bog	64.7	No	open marsh bog - areas of ponded water, scattered tag alder, stunted b spruce and tamarack
43	6224 - Treed Bog	32.5	No	mainly open bog with stunted b spruce and tamarack sapling sized trees. small acreage of tamarack poletimber 5 - 6" dbh along eastern edge.
44	500 - Water	0.7	No	S end of Premo Lake
45	6233 - Wet Meadow	10.4	No	beaver meadow with standing water
58	6224 - Treed Bog	3.5	No	