

Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12141 Entry Year 2018 Acreage: 1,367 County Iron

Management Area: Net River

Revision Date: 2016-08-20

Stand Examiner: Scott Sebero

Legal Description:

T43N-R33W SECTIONS 7, 8, 16, 17, 18 & 19.

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:

Fine sandy loam with rolling hills to lowland swamps and drainages.

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

State lands mixed with company lands and private parcels. Lands used mainly for hunting and fishing.

Unique Natural Features:

Long Lake, Lake Emily and Chicagon Creek.

Archeological, Historical, and Cultural Features:

None

Special Management Designations or Considerations:

West Iron Deer Wintering Complex

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

This compartment is in the Net River Management Area which has the following featured species: Black bear, American marten, moose, white-tailed deer and wood duck. This compartment is in the West Iron Deer Wintering complex. Lowland conifers and cedar, hemlock and a couple natural pine stands are critical cover for wintering deer. Upland stands in provide important winter and spring forage for 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 also provide winter and summer cover and are essential for travel corridors for a many species of wildlife and provide essential habitat for riparian species including wood duck. 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. This compartment has a hunter walking trail that provides herbaceous spring and summer forage particularly important for wildlife, and provide recreational opportunities for consumptive and non-consumptive wildlife users.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of medium and coarse-textured till and glacial outwash sand and gravel and postglacial alluvium. There is insufficient data to determine the glacial drift thickness. The Precambrian Badwater Greenstone subcrops below the glacial drift. There is not a current economic use for the Badwater. The abandoned Crystal Falls iron mines are located five miles to the east. Land near this compartment was previously leased for metallic exploration and potential may still exist. The nearest gravel pit is located inSection 20 and there should be some potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Iron County Rec. Trail, Lake Emily Road, Long Lake Road and U.S. 2.

Survey Needs:

Recreational Facilities and Opportunities:

Iron County Rec. Trail runs through compartment. Access point with boat landing on Long Lake.

Fire Protection:

Additional Compartment Information:

The following reports from the Inventory are attached:

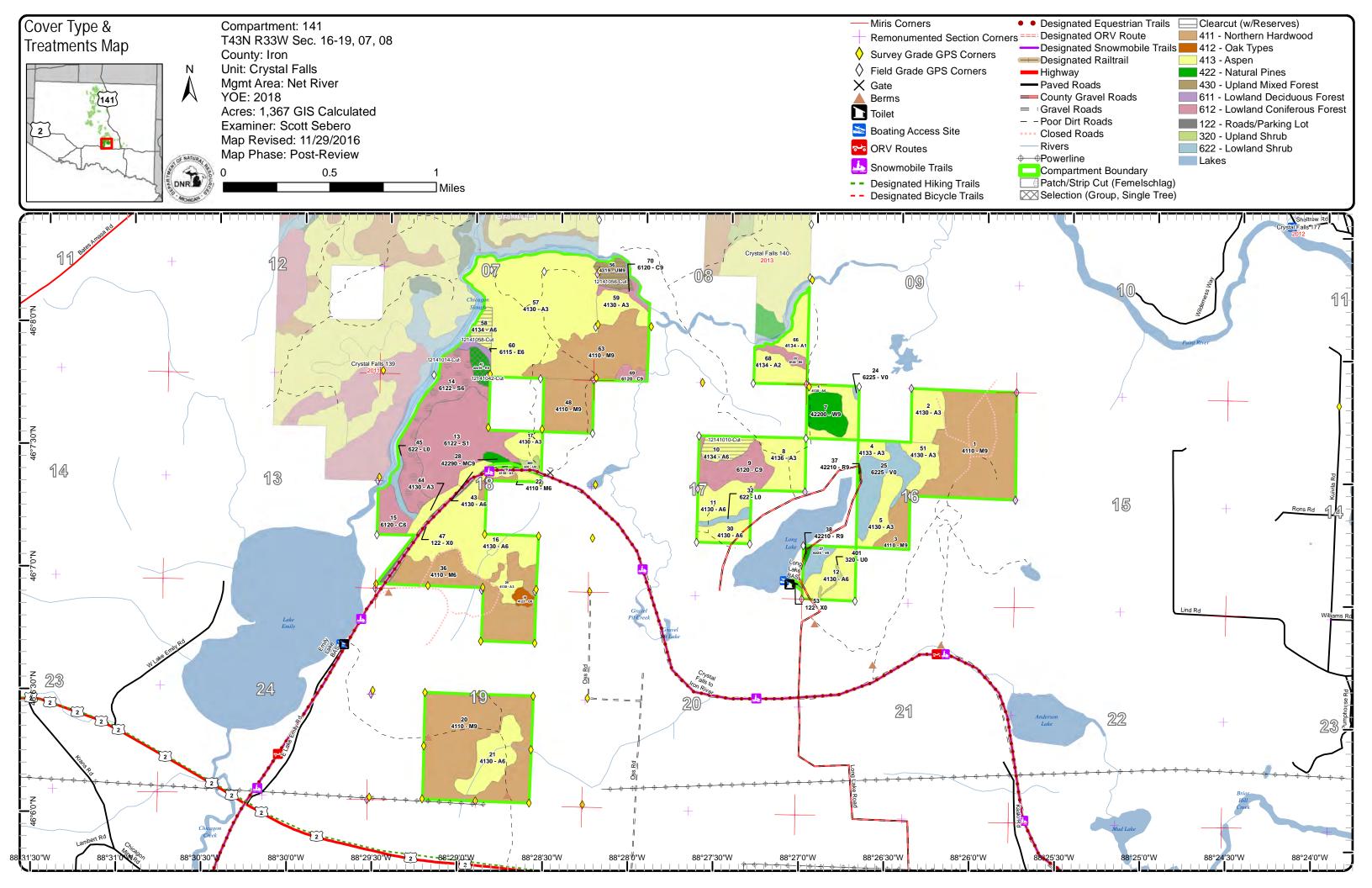
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

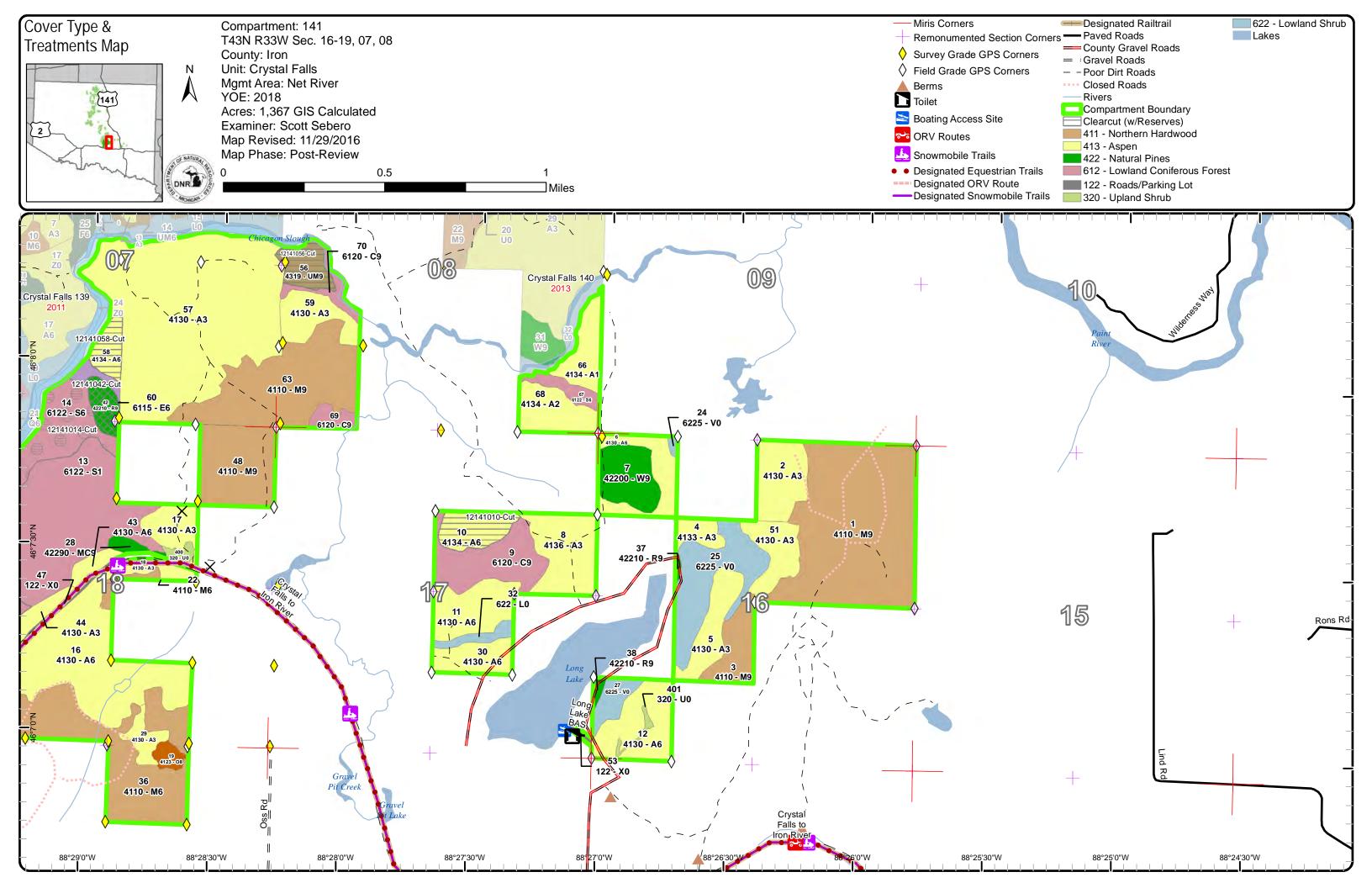
The following information is displayed, where pertinent, on the attached compartment maps:

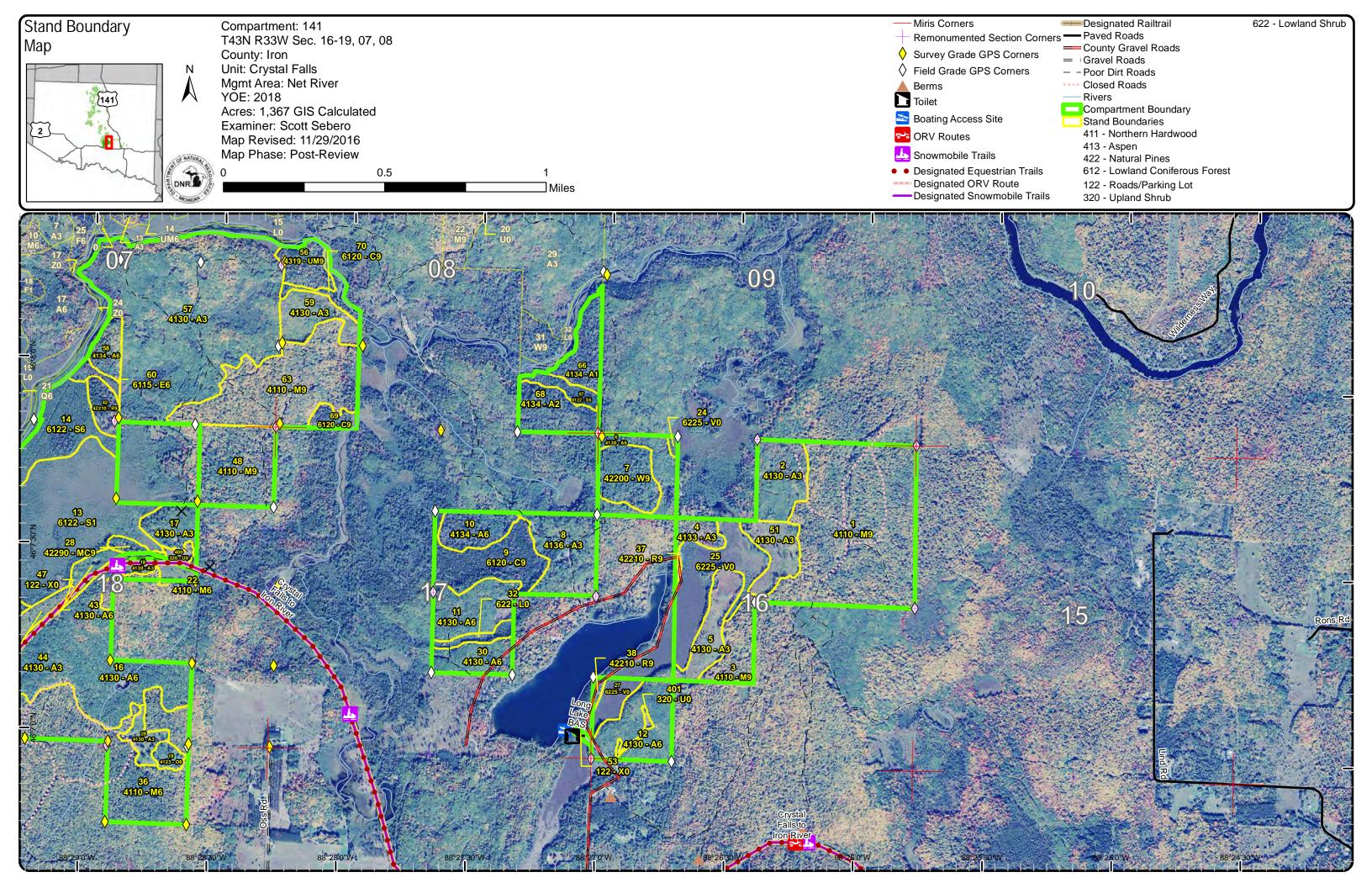
Base feature information, stand boundaries, cover types, and numbers Proposed treatments

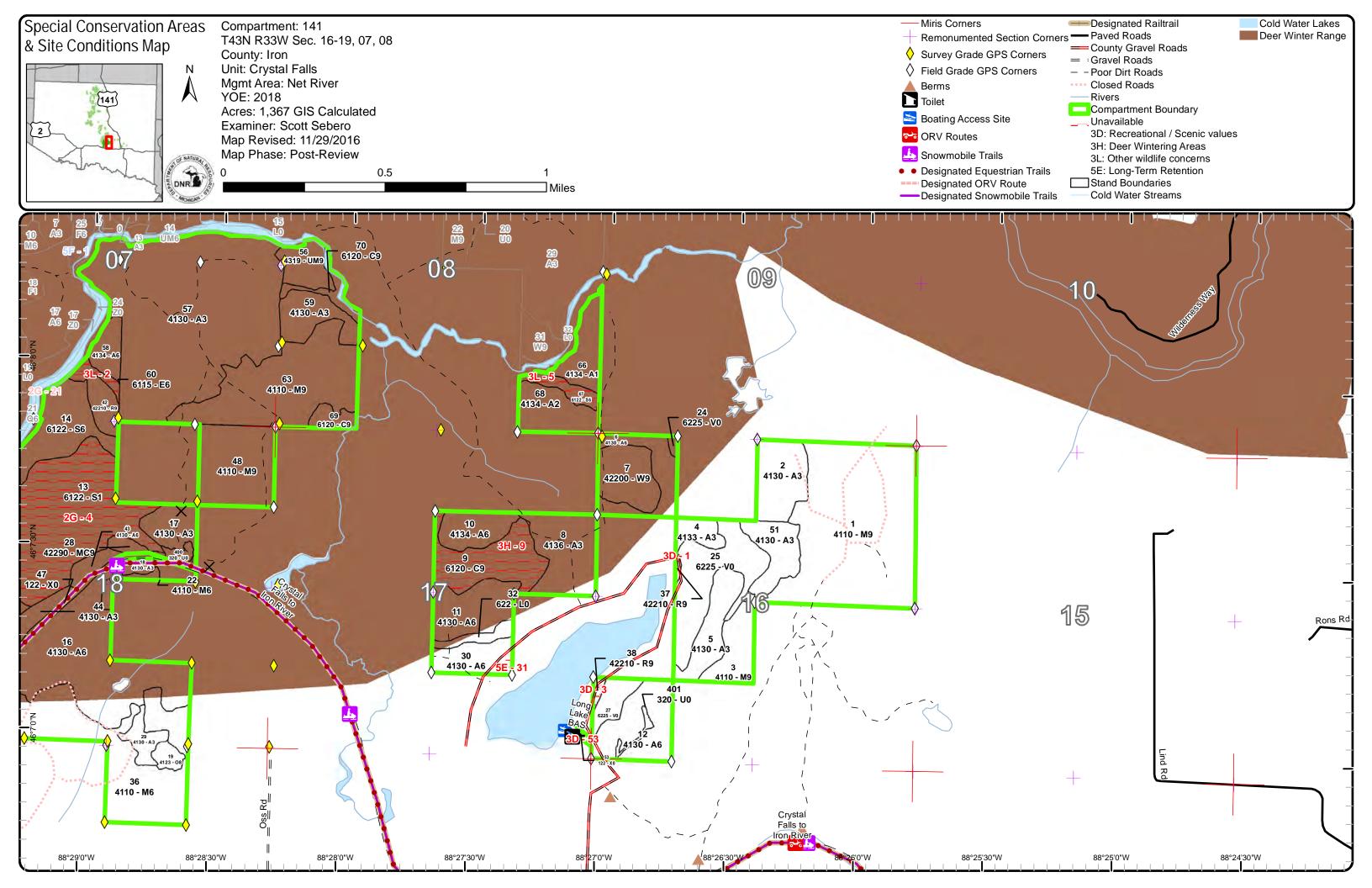
Site condition boundaries

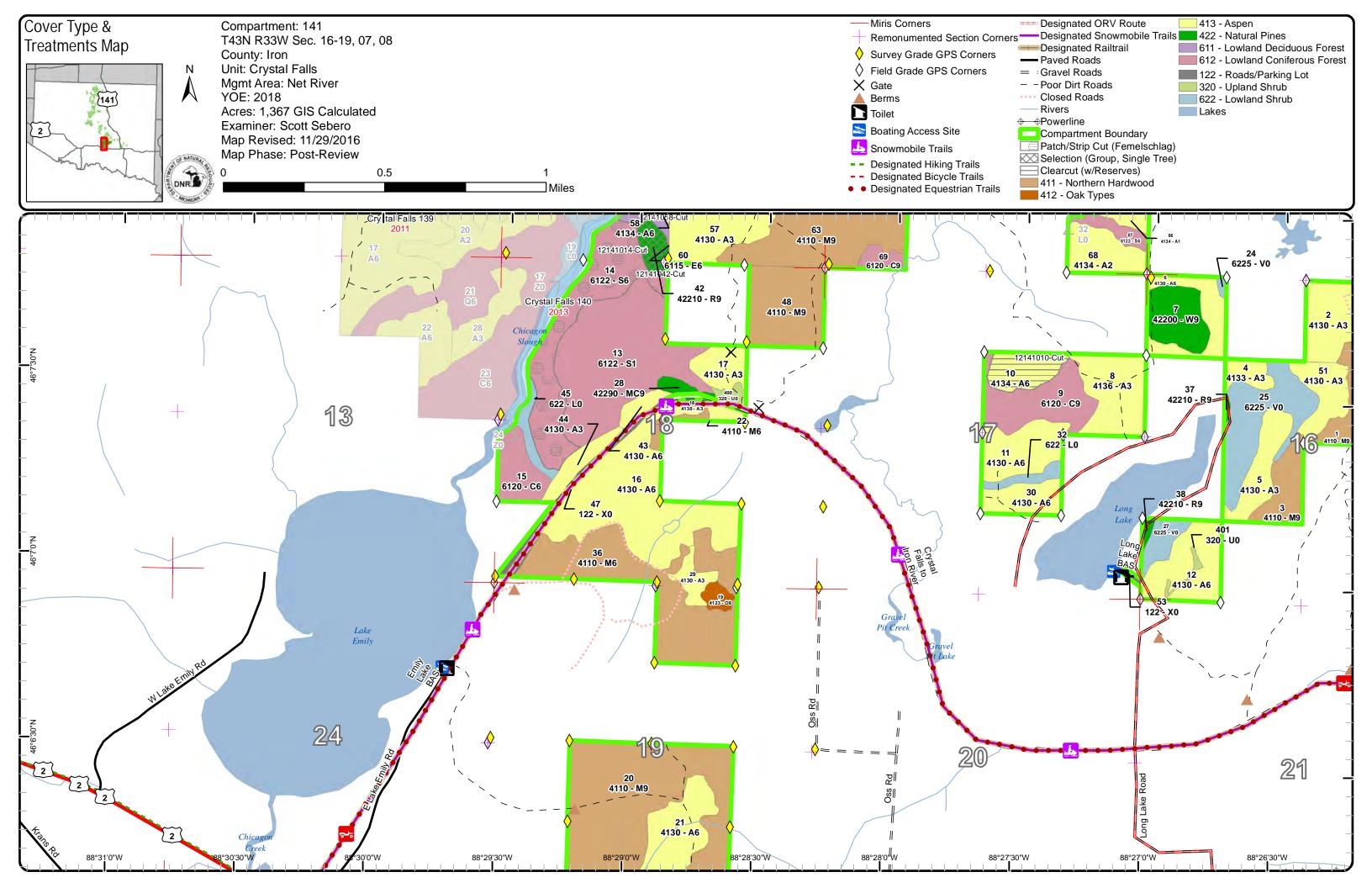
Details on the road access system

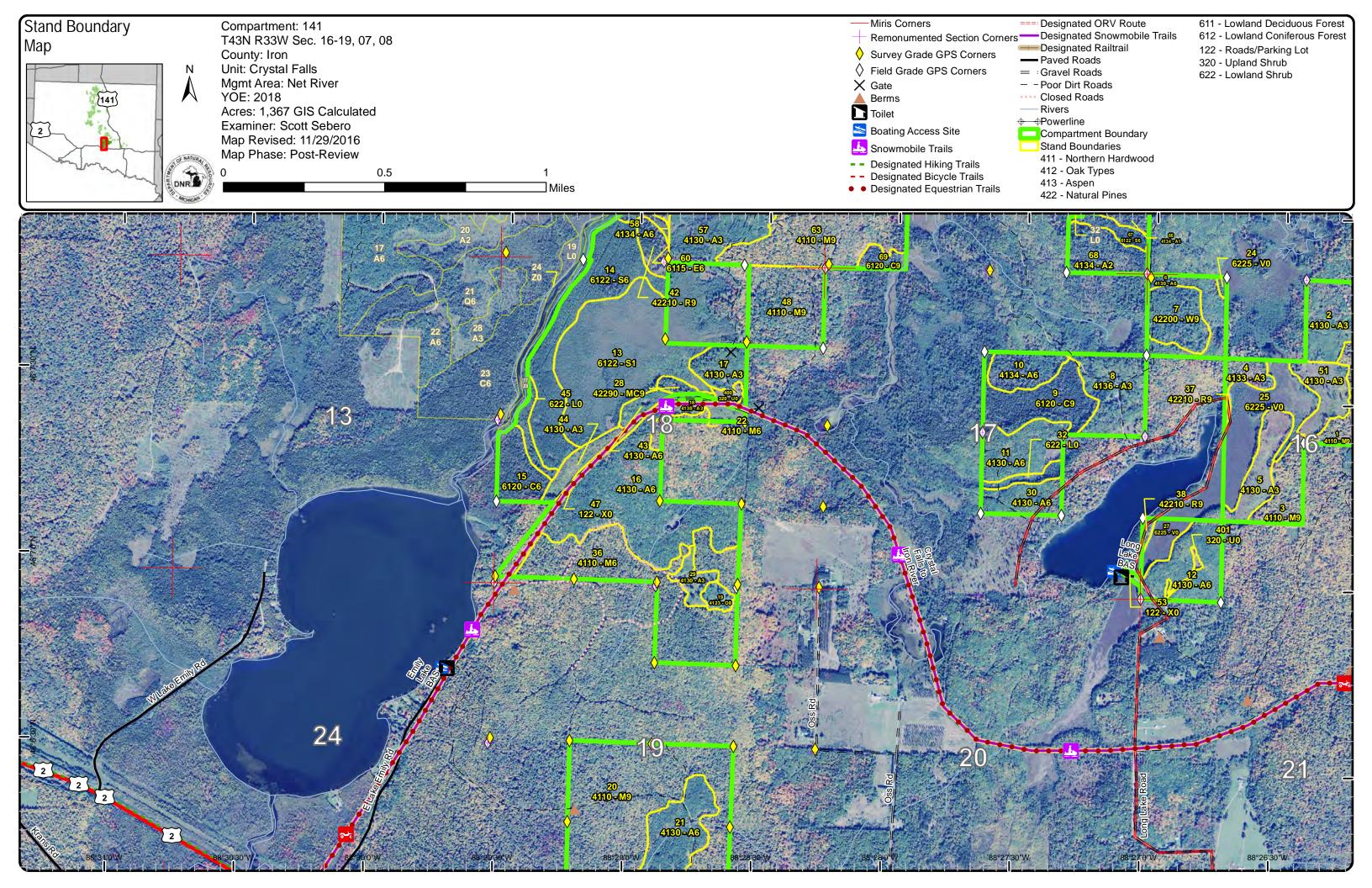


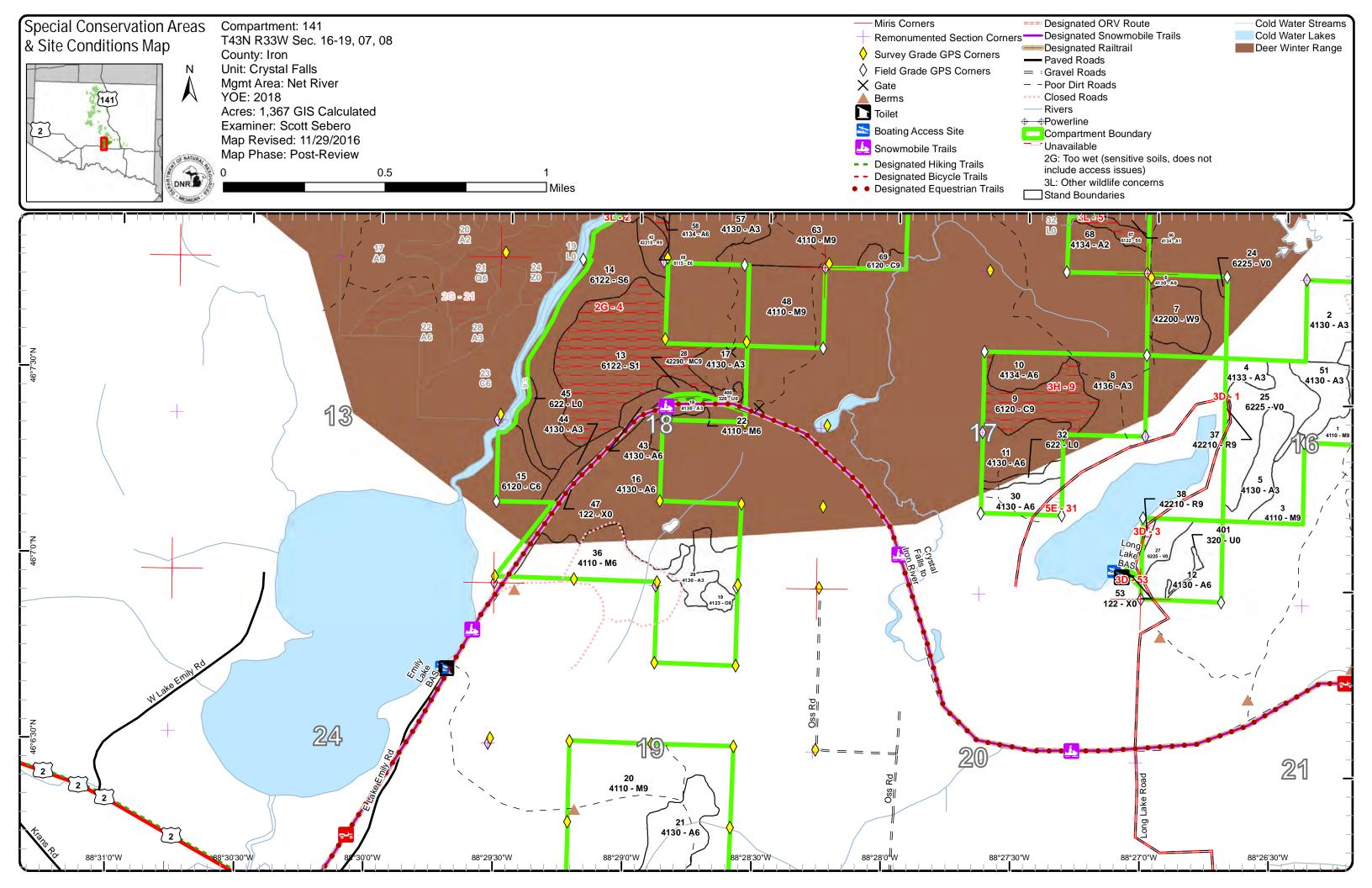












Compartment 141 Year of Entry 2018

Crystal Falls Mgt. Unit Scott Sebero : Examiner



Age Class

	No.	Le de la companya de	3 / 2	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	85 / W	10 10 10 10 10 10 10 10 10 10 10 10 10 1	, %	, 8° / ×	,	800	\$ \\ \signifering \(\signifering \)	80, 20,	\$1, \{\sigma_{\infty}^{\infty}\}	N. S. S.	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	LAS /	g ^x Ju ^o	No. No.
Aspen	0	94	48	178	122	115	0	0	12	0	9	0	0	0	0	0	0	0	578
Bog	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Cedar	0	0	0	0	0	0	0	0	0	51	12	0	0	0	0	0	0	0	62
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
Lowland Shrub	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	147	0	0	0	0	0	0	0	0	147
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
Northern Hardwood	0	0	0	0	0	4	0	0	0	242	205	0	0	0	0	0	0	0	451
Oak	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
Red Pine	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	11
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12
Upland Shrub	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Urban	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
White Pine	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	21
Total	72	94	48	178	122	119	0	0	12	443	278	0	0	0	0	0	0	0	1365



Report 2 – Treatment Summary

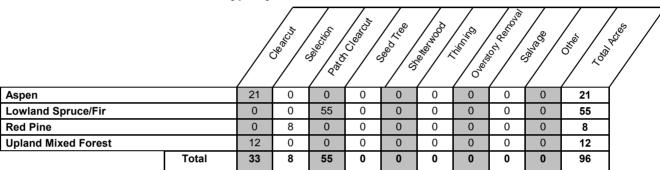
Crystal Falls Mgt. Unit Year of Entry: 2018

Acres of Harvest

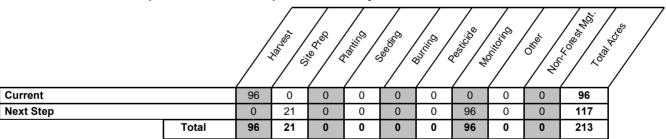
Compartment 141
Total Compartment Acres: 1,367

Commercial Harvest - 96 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Compartment: 141

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S t a									Year of	Entry: 2018	DNR DNR
n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
10	12141010-Cut	11.5	4134 - Aspen, Spruce/Fir	Poletimber Well	70	81-110	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Field Boundary - Ready for VMS

Habitat Cut: No Site Condition:

Prescription Cut all aspen and maple trees 2" DBH or greater. Cut all spruce and balsam with one or more pulpwood sticks. No red and white pine, cedar, hemlock and oak will be cut. Protect sub merchantable cherry. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of aspen, spruce and balsam.

Regen:

Severely impacted by spruce budworm. WLD-Featured species-Deer, Bear, Grouse, DWC- winter cut spec to provide forage for wintering Other deer. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Mesic Comment:

conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Oak and cherry should be maintained for mast production. Trees showing potential for nesting bird, and providing nesting and denning cavities should be

retained.

01/12/2016 **Proposed Start Date:**

12141014-Cut 54.6 6122 - Black Spruce Poletimber 111-Harvest Strip/Patch/Gap 6124 - Lowland Even-Aged Draft Field 140 Spruce-Fir Cut Boundary (Femelschlag)

Habitat Cut: No Site Condition:

Prescription Cut five patches approximately 5 acres in size. Within patches cut all trees with one or more pulpwood sticks, except red or white pine, hemlock

or cedar. Specs:

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable Mix of spruce and tamarack.

Regen:

Other (Protect any drains and wet areas. Will need to cut in winter or dry summer.

WLD-featured species: Deer, Bear, Moose, Marten. This is DWC and deer use of this stand is critical. Maintain black spruce covertype for Comment:

above species that use this habitat. Winter cut spec.

Proposed Start Date: 10/01/2017

42 12141042-Cut 42210 - Natural 141-8.4 Sawtimber Harvest Group Selection 4221 - Natural Even-Aged Draft Field Red Pine Well 170 Red Pine Boundary

Habitat Cut: No **Site Condition:**

Prescription Cut all maple, birch and aspen 2" DBH and greater. Leave all red and white pine, balsam, spruce, cedar and hemlock.

Specs:

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of red and white pine, spruce and aspen.

Regen:

Other Summer cut to increase scarification. Scarify with dozer using local resources if needed. Access is on snowmobile trail, summer cut.

WLD-Featured species: deer, bear, marten, moose. This is DWC and deer use this stand as winter cover, full compliment of conifer critical for Comment:

canopy closure.

Proposed Start Date: 10/01/2017 Crystal Falls Mgt. Unit

Report 3 -- Treatments

Compartment: 141 Year of Entry: 2018 DNR DNR

а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 12141056-Cut 12.4 4319 - Mixed Sawtimber 95 51-80 Clearcut with 4221 - Natural Draft Field 56 Harvest Even-Aged **Upland Forest** Well Retention Red Pine Boundary

Habitat Cut: No Site Condition:

Prescription Cut all aspen, maple, paper birch, spruce and balsam 4" DBH and larger. No red or white pine, cedar or hemlock will be cut.

Specs:

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t

Next Step SitePrep, Scarification; Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of pine, aspen, spruce and balsam.

Regen:

Other Summer log to allow scarification. Follow up with dozer scarification with local resources if needed. Snowmobile trail is access, summer cut.

WLD-Featured Species: Deer, Bear, Moose, Marten, Wood Duck. This stand is in a riparian corridor and had an historic eagle's nest in the super

canopy pine. Legacy tree sized Red and White Pine. Deer use portions of this stand with sufficient canopy closure. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Wildlife trees that have

cavities retained for riparian wildlife habitat and movement corridor.

Proposed Start Date: 10/01/2017

4134 - Aspen, Poletimber 95 12141058-Cut 9.1 81-110 Clearcut with 4134 - Aspen, Even-Aged **Draft Field** Harvest Spruce/Fir Well Retention Spruce/Fir Boundary

Habitat Cut: No Site Condition:

<u>Prescription</u> Cut all aspen and maple 4" DBH or larger. Cut all spruce, balsam and tamarack with one or more pulpwood sticks. Leave all red and white pine,

Specs: cedar, hemlock and oak.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of aspen, spruce, balsam and pine.

Regen:

Other Steep hill on west side is too steep to operate on. This area will be left for retention. Summer cut because of Rec. Trail access.

Comment: WLD-Featured species: deer, bear, wood duck, moose. This is a DWC so forage for wintering deer is important, winter cut spec will not be used

due to snowmobile trail access. Historic eagle nest location in this stand. 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. Large cavity trees retained for riparian wildlife habitat, ie wood duck.

Proposed Start Date: 10/01/2017

Total Treatment
Acreage Proposed:

96.0

Compartment: 141

Crystal Falls Mgt. Unit

Scott Sebero : Examiner Year of Entry: 2018

Availa	ability for	Managemer	nt					
Total	Acres	Acres Avail	Acres	I	Domina	nt Site	Cond	ditions
Acres	Available	With Condition	Not Available		2G	3D	3L	5E
578	577	0	1	Aspen				1
46	46	0	0	Bog				
62	29	0	33	Cedar	33			
4	0	0	4	Lowland Deciduous			4	
11	11	0	0	Lowland Shrub				
147	55	0	93	Lowland Spruce/Fir	86		7	
3	3	0	0	Natural Mixed Pines				
451	451	0	0	Northern Hardwood				
4	4	0	0	Oak				
11	8	0	2	Red Pine		2		
12	12	0	0	Upland Mixed Forest				
4	4	0	0	Upland Shrub				
11	10	0	1	Urban		1		
21	21	0	0	White Pine				
1,366	1,232		135	Total Forested Acres	119	4	11	1

Relative Percent

10%

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

1 Unavailable Comments:	3D: Recreational / Scenic values	1	Unspecified	Unspecified	Unspecified	Unspecified	
						Unspecified	
)							
2 Unavailable	3L: Other wildlife concerns	4	Unspecified	Unspecified	Unspecified	Unspecified	
Comments:							

90%

Report 4 – Site Conditions

Crystal Falls Mgt. Unit Scott Sebero : Examiner Compartment: 141
Year of Entry: 2018

3	Unavailable	3D: Recreational / Scenic values	2	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	86	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
5	Unavailable	3L: Other wildlife concerns	7	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	34	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
31	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Retention.						
53	Unavailable	3D: Recreational / Scenic values	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Access site for Lon	g Lake.					

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: 141
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 condition 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 cond stocked 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.	es (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildle and Waterfowl Production Areas, deer wintering complexes in low openings and savannas. Habitat areas are distinct from critical hendangered 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 cooperations.	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: 141 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Sawtimber Well	119.0	91	81-110	
2	4130 - Aspen	Sapling Well	23.1	18	Immature	OPIC - FMD: OI Stand Year Origin was 1999
3	4110 - Sugar Maple Association	Sawtimber Well	16.8	91	81-110	
4	4133 - Aspen, Mixed Pine	Sapling Well	7.3	18	Immature	
5	4130 - Aspen	Sapling Well	18.5	7	Immature	
6	4130 - Aspen	Poletimber Well	17.7	37	51-80	
7	42200 - Natural White Pine	Sawtimber Well	20.8	97	81-110	
8	4136 - Aspen, Mixed Conifer	Sapling Well	30.5	30	Immature	
9	6120 - Lowland Cedar	Sawtimber Well	33.5	87	111-140	OPIC - FMD: OI Stand Year Origin was 1930
10	4134 - Aspen, Spruce/Fir	Poletimber Well	12.3	70	81-110	OPIC - FMD: pockets of 50 year old aspen mostly at east end of stand. Young spruce and balsam 2 to 5 inches DBH. Older aspen and fir falling out of stand. Better to let younger trees mature before harvesting.
11	4130 - Aspen	Poletimber Well	24.5	37	1-50	
12	4130 - Aspen	Poletimber Well	28.3	30	Immature	
13	6122 - Black Spruce	Sapling Poor	86.0	87	1-50	Some areas with trees 4" to 6".
14	6122 - Black Spruce	Poletimber Well	54.6	87	111-140	
15	6120 - Lowland Cedar	Poletimber Well	17.0	87	111-140	
16	4130 - Aspen	Poletimber Well	80.5	45	81-110	Scattered large white pine, red oak and basswood. Aspen varries in size from areas of 6 to 8 inches to area of 4 to 6 inches. Sugar maple regen present at edges next to hardwood stands.
17	4130 - Aspen	Sapling Well	13.2	27	Immature	

s t	Crystal Falls Mgt. Unit			Report 7	Forested	Stands Compartment: 141 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	4130 - Aspen	Sapling Well	6.5	6	Immature	
19	4123 - Red Oak	Sawtimber Medium	4.1	91	51-80	
20	4110 - Sugar Maple Association	Sawtimber Well	127.5	87	81-110	
21	4130 - Aspen	Poletimber Well	34.4	40	1-50	
22	4110 - Sugar Maple Association	Poletimber Well	3.7	42	81-110	
28	42290 - Natural Mixed Pine	Sawtimber Well	3.4	87	111-140	
29	4130 - Aspen	Sapling Well	7.4	6	1-50	
30	4130 - Aspen	Poletimber Well	15.0	37	51-80	
36	4110 - Sugar Maple Association	Poletimber Well	77.5	87	81-110	
37	42210 - Natural Red Pine	Sawtimber Well	0.8	97	141-170	OPIC - FMD: buffer between Long Lake and road.
38	42210 - Natural Red Pine	Sawtimber Well	1.6	97	141-170	OPIC - FMD: buffer between Long Lake and road.
42	42210 - Natural Red Pine	Sawtimber Well	8.4	95	141-170	Ladder stand screwed into red pine at south end of stand.
43	4130 - Aspen	Poletimber Well	5.5	39	51-80	
44	4130 - Aspen	Sapling Well	9.5	6	Immature	
48	4110 - Sugar Maple Association	Sawtimber Well	37.4	87	81-110	
51	4130 - Aspen	Sapling Well	17.1	7	Immature	
56	4319 - Mixed Upland Forest	Sawtimber Well	12.4	95	51-80	Pocket of red pine in NE corner of stand. Scattered large red and white pine throughout stand. Most of the balsam and spruce are dead. Deer activity along creek on east side of stand.
57	4130 - Aspen	Sapling Well	165.0	27	1-50	

s t	Crystal Falls	s Mgt. Unit		Report 7	Forested	Stands Compartment: 141 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	4134 - Aspen, Spruce/Fir	Poletimber Well	9.1	95	81-110	Steep hill along west side of stand.
59	4130 - Aspen	Sapling Well	17.2	12	Immature	
60	6115 - Lowland Ash	Poletimber Well	4.0	95	81-110	
63	4110 - Sugar Maple Association	Sawtimber Well	68.8	95	81-110	Emerald Maple 2015.
66	4134 - Aspen, Spruce/Fir	Sapling Poor	16.4	3	Immature	Harvested 2015- Removed aspen and hardwood down to a two- inch diameter and spruce/fir, six-inch diameter at stump or greater, to regenerate more conifers. Retained all pine, cedar, hemlock and oak, where present.
67	6122 - Black Spruce	Poletimber Well	6.6	87	81-110	
68	4134 - Aspen, Spruce/Fir	Sapling Medium	19.3	3	Immature	Harvested 2015- Aspen regeneration cut; full stocking expected. Retained any red and white pine, cedar, hemlock and oak, where present, along with small diameter conifers.
69	6120 - Lowland Cedar	Sawtimber Well	5.4	95	111-140	
70	6120 - Lowland Cedar	Sawtimber Well	6.3	95	111-140	

Compartment: 141 Year of Entry: 2018



Stand	Cover Type	Acres	Managed Site	General Comments:
24	6225 - Bog	1.1	No	OPIC - FMD: OI Stand Year Origin was
25	6225 - Bog	36.7	No	
27	6225 - Bog	8.5	No	
32	622 - Lowland Shrub	5.1	No	OPIC - FMD: OI Stand Year Origin was
45	622 - Lowland Shrub	6.2	No	OPIC - FMD: OI Stand Year Origin was
47	122 - Road/Parking Lot	9.9	No	OPIC - FMD: Iron County Rec. Trail.
53	122 - Road/Parking Lot	1.1	No	OPIC - FMD: Public access site to Long Lake.
400	320 - Upland Shrub	2.5	No	Brushy opening.
401	320 - Upland Shrub	1.7	No	Previously seeded trail road.