



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12188

Entry Year 2018

Acreage: 1,482

County Iron

Management Area: Michigamme Reservoir

Revision Date: 2016-08-17

Stand Examiner: Ed Rice

Legal Description:

T45N R31W sections 15, 16, 17, 20, 21, 28

Identified Planning Goals:

Optimize sustainable timber production while enhancing and protecting wildlife habitat.. Utilize timber resources where feasible given the limited access of the area. Protect the riparian areas and transition zones during management activity

Soil and topography:

Soils are generally very fine sandy loams with cobble. Lowlands consist of muck soils. The topography ranges from steep rolling hills to flat and low swamp land.

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

The compartment is contiguous in state ownership. The adjacent areas are mixed with state, private and private industrial forest. Active forest management has been limited to the south end of the compartment. This area has in the past had no access development.

Unique Natural Features:

none identified

Archeological, Historical, and Cultural Features:

none identified

Special Management Designations or Considerations:

Area had been considered in 1977 for a natural area but was not designated. Compartment is under unit discussion whether to resubmit natural area proposal or not.

Watershed and Fisheries Considerations:

The Fence River forms the west and a portion of the south boundary of the compartment.

Wildlife Habitat Considerations:

Featured species include: black bear, pileated woodpecker, northern goshawk, ruffed grouse, and white-tailed deer. Various lowlands provide many species with wetland habitats and should not be disturbed.

Mineral Resource and Development Concerns and/or Restrictions

none identified

Vehicle Access:

None. The Fence River Road just touches the north west boundary of the compartment.

Survey Needs:

T45N R31W W1/16 sections 9, 16
1/4 sections 9, 16
S1/16 sections 15, 16

Recreational Facilities and Opportunities:

None

Fire Protection:

This area has no equipment access. Much of the compartment is not conducive to fire growth due to stands of young aspen. Lightning strike starts have occurred within the compartment but have not developed into problematic fires.

Additional Compartment Information:

The following reports from the Inventory are attached:

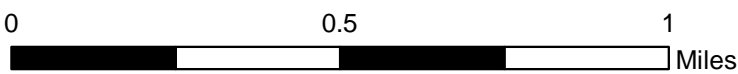
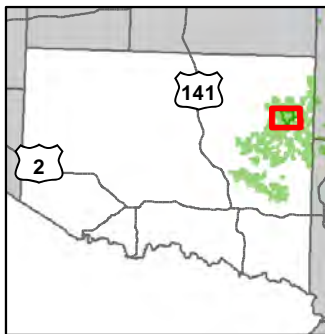
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

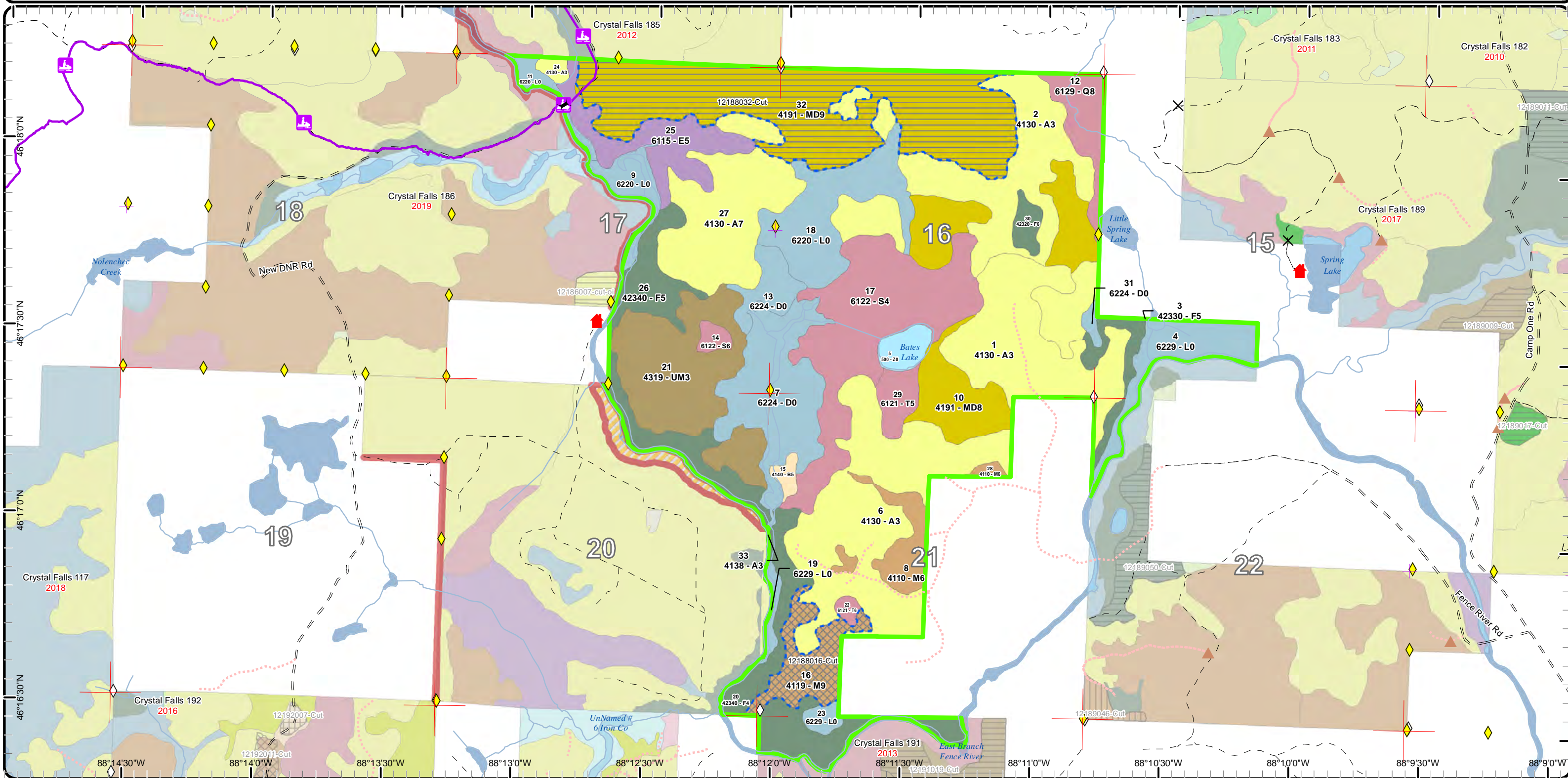
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 188
 T45N R31W Sec. 15-17, 20-22,
 28
 County: Iron
 Unit: Crystal Falls
 Mgmt Area: Michigamme
 Reservoir
 YOE: 2018
 Acres: 1,482 GIS Calculated
 Examiner: Ed Rice
 Map Revised: 11/29/2016
 Map Phase: Post-Review

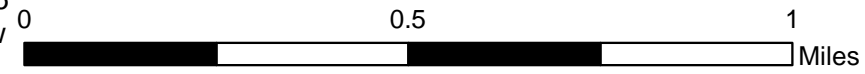
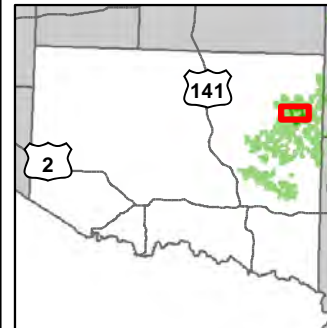


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- ✕ Gate
- ▲ Berms
- △ Bridges
- 🏠 Cabin
- 🚙 Snowmobile Trails
- Designated Snowmobile Trails
- Paved Roads
- Gravel Roads
- - Poor Dirt Roads
- Closed Roads
- Rivers
- ▭ Compartment Boundary
- ▭ Treatments with Site Conditions
- ▭ Selection (Group, Single Tree)
- ▭ Clearcut (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 500 - Water
- 622 - Lowland Shrub
- Lakes

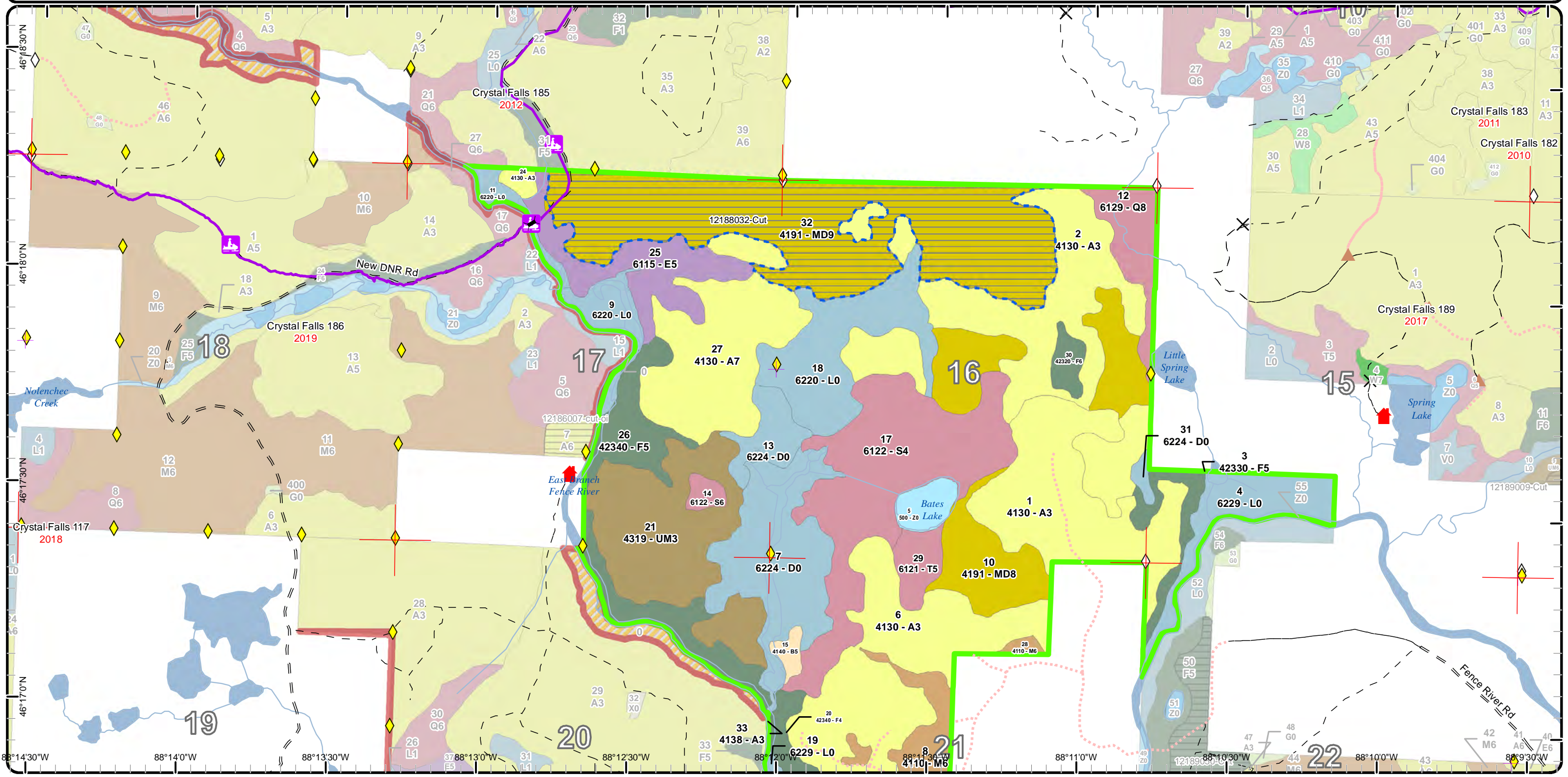


Cover Type & Treatments Map

Compartment: 188
 T45N R31W Sec. 15-17, 20-22,
 28
 County: Iron
 Unit: Crystal Falls
 Mgmt Area: Michigamme
 Reservoir
 YOE: 2018
 Acres: 1,482 GIS Calculated
 Examiner: Ed Rice
 Map Revised: 11/29/2016
 Map Phase: Post-Review

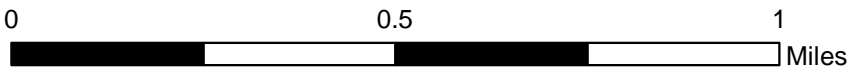
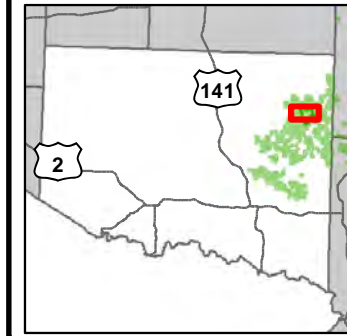


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- X Gate
- ▲ Berms
- ▲ Bridges
- Cabin
- Snowmobile Trails
- Designated Snowmobile Trails
- Paved Roads
- Gravel Roads
- - Poor Dirt Roads
- - - Closed Roads
- Rivers
- Compartment Boundary
- - - Treatments with Site Conditions
- ▭ Clearcut (w/Reserves)
- ▭ 411 - Northern Hardwood
- ▭ 413 - Aspen
- ▭ 414 - Other Upland Deciduous
- ▭ 419 - Mixed Upland Deciduous
- ▭ 423 - Other Upland Conifers
- ▭ 430 - Upland Mixed Forest
- ▭ 611 - Lowland Deciduous Forest
- ▭ 612 - Lowland Coniferous Forest
- ▭ 500 - Water
- ▭ 622 - Lowland Shrub
- ▭ Lakes

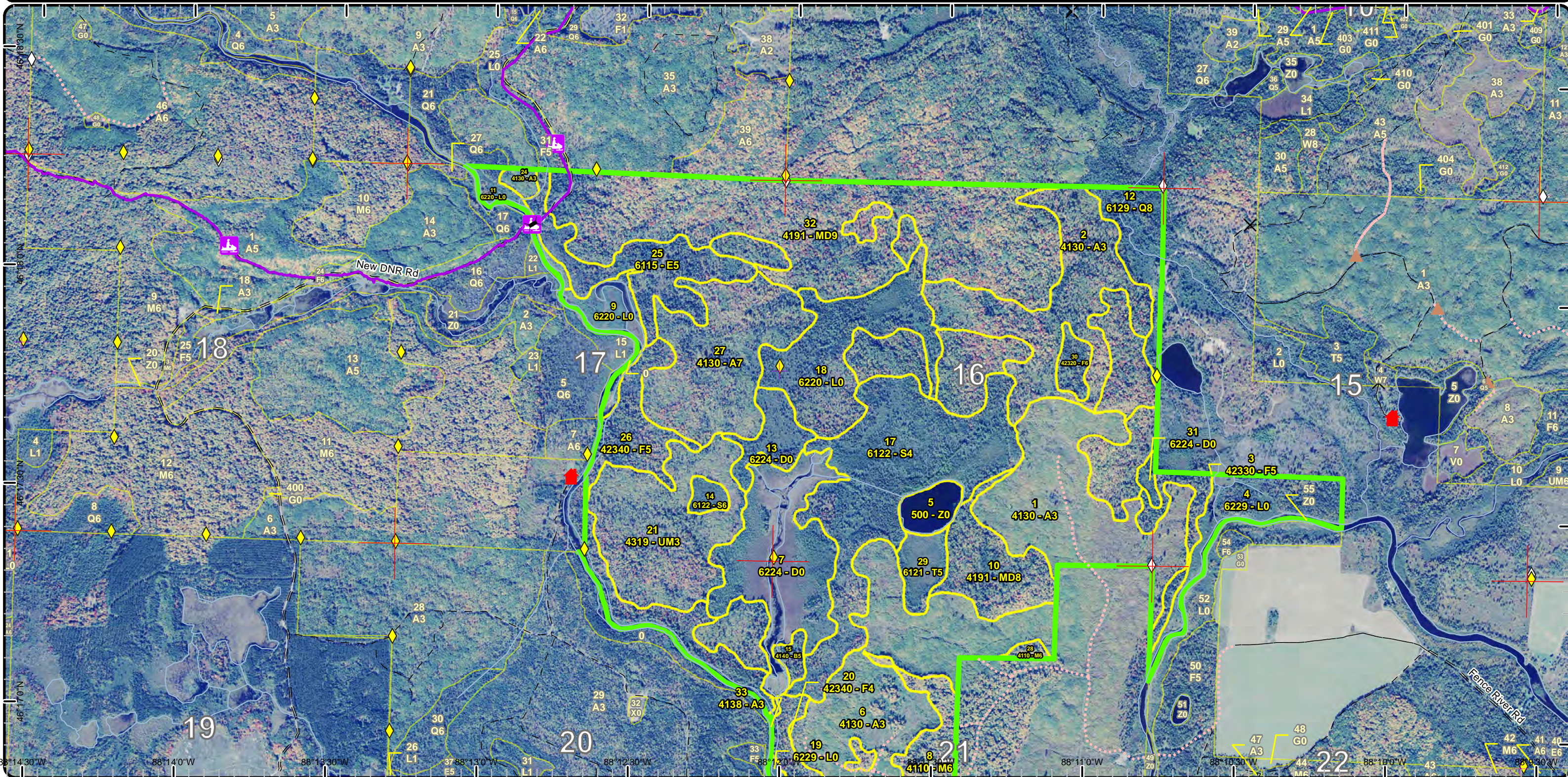


Stand Boundary Map

Compartment: 188
 T45N R31W Sec. 15-17, 20-22,
 28
 County: Iron
 Unit: Crystal Falls
 Mgmt Area: Michigamme
 Reservoir
 YOE: 2018
 Acres: 1,482 GIS Calculated
 Examiner: Ed Rice
 Map Revised: 11/29/2016
 Map Phase: Post-Review

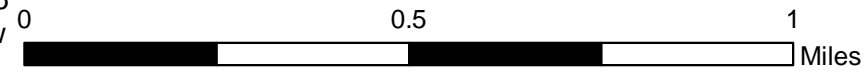
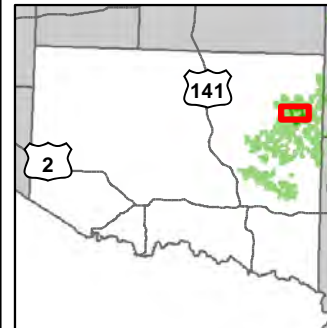


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- X Gate
- ▲ Berms
- Bridges
- Cabin
- Snowmobile Trails
- Designated Snowmobile Trails
- Paved Roads
- Gravel Roads
- - Poor Dirt Roads
- - - Closed Roads
- Rivers
- Compartment Boundary
- Stand Boundaries
- 411 - Northern Hardwood
- 413 - Aspen
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 500 - Water
- 622 - Lowland Shrub

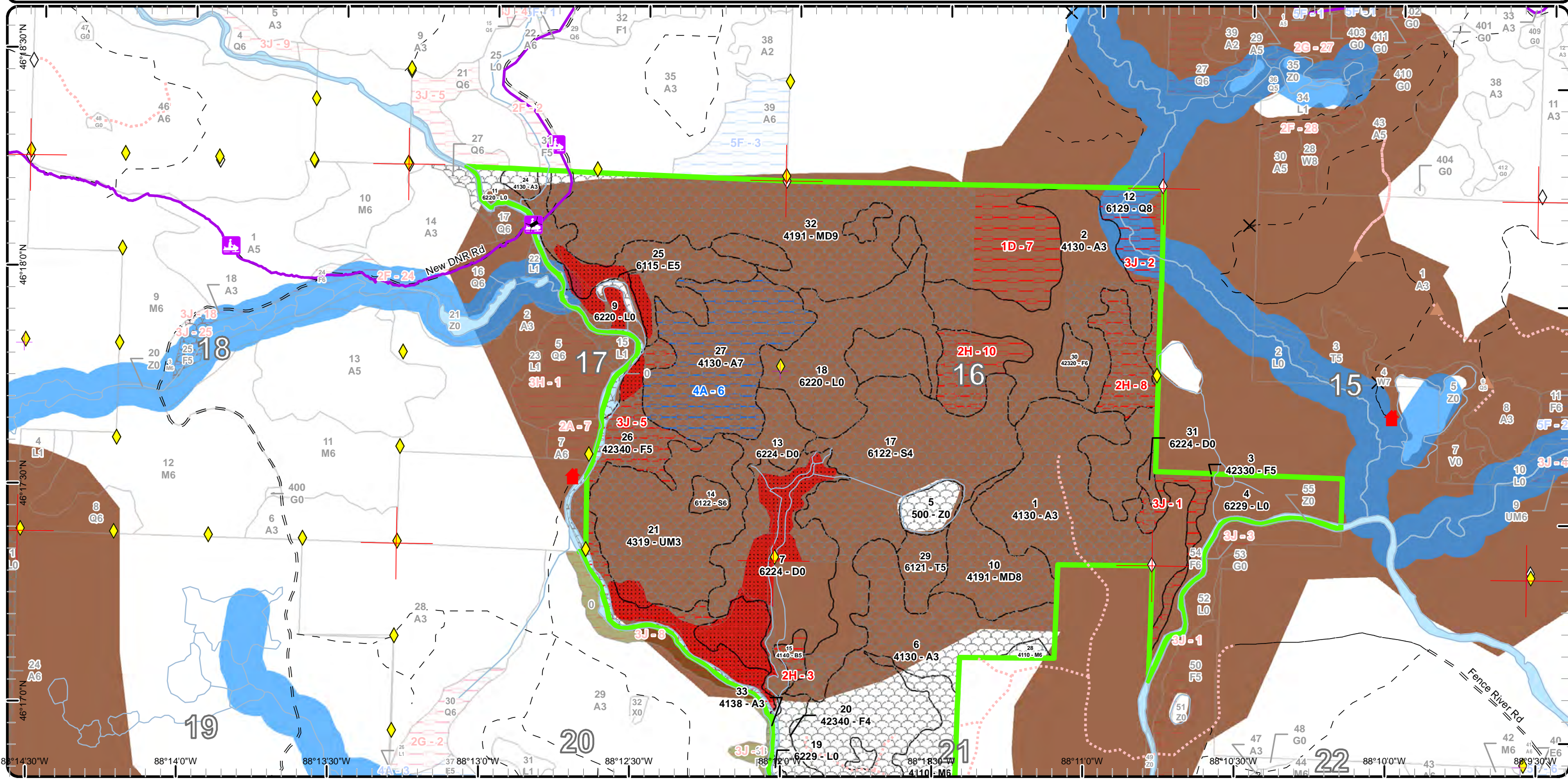


Special Conservation Areas & Site Conditions Map

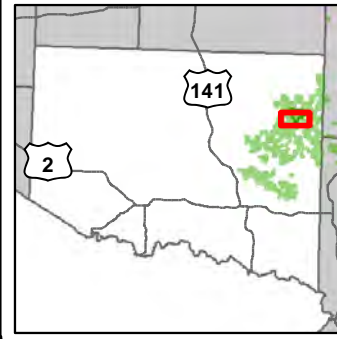
Compartment: 188
 T45N R31W Sec. 15-17, 20-22, 28
 County: Iron
 Unit: Crystal Falls
 Mgmt Area: Michigamme Reservoir
 YOE: 2018
 Acres: 1,482 GIS Calculated
 Examiner: Ed Rice
 Map Revised: 11/29/2016
 Map Phase: Post-Review



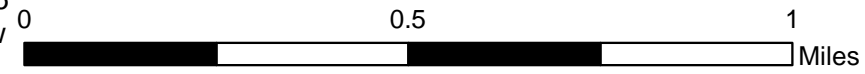
- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- X Gate
- ▲ Berms
- ≡ Bridges
- Cabin
- ⚡ Snowmobile Trails
- Designated Snowmobile Trails
- Paved Roads
- Gravel Roads
- - - Poor Dirt Roads
- ⋯ Closed Roads
- Rivers
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 4A: No Markets Available for these Forest Products
- 1D: Interest Group / Neighbor
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Ecological Reference Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Deer Winter Range
- Potential Old Growth



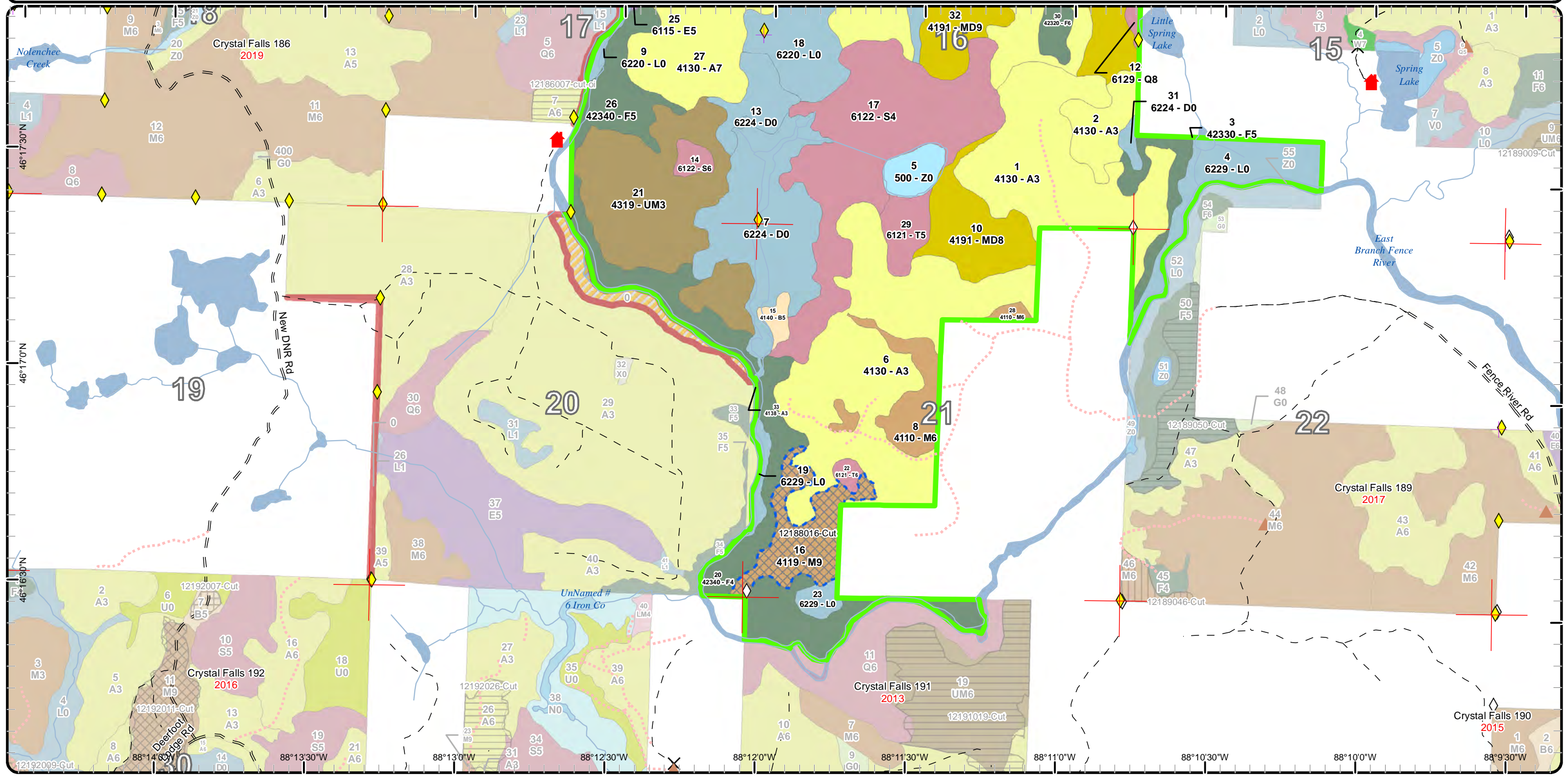
Cover Type & Treatments Map



Compartment: 188
 T45N R31W Sec. 15-17, 20-22, 28
 County: Iron
 Unit: Crystal Falls
 Mgmt Area: Michigamme Reservoir
 YOE: 2018
 Acres: 1,482 GIS Calculated
 Examiner: Ed Rice
 Map Revised: 11/29/2016
 Map Phase: Post-Review

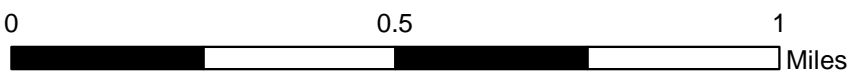
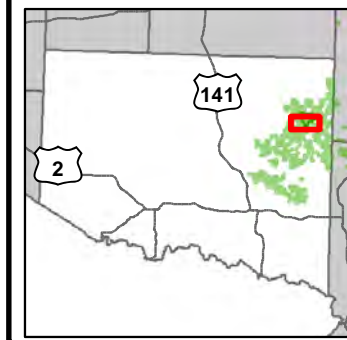


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- ✕ Gate
- ▲ Berms
- Cabin
- Gravel Roads
- - Poor Dirt Roads
- ⋯ Closed Roads
- Rivers
- ▭ Compartment Boundary
- ▭ Treatments with Site Conditions
- ▭ Selection (Group, Single Tree)
- 411 - Northern Hardwood
- 413 - Aspen
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 500 - Water
- 622 - Lowland Shrub
- Lakes

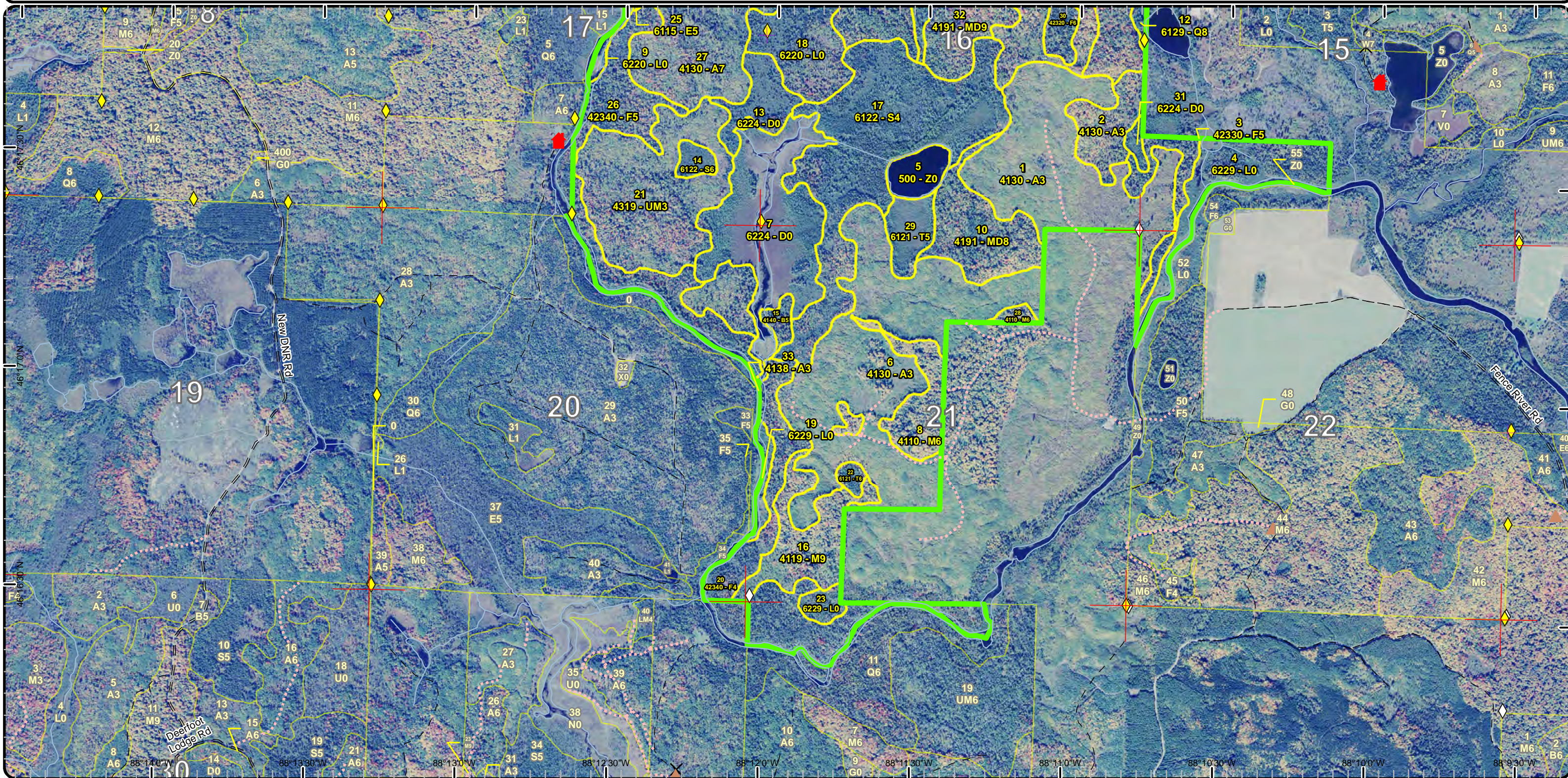


Stand Boundary Map

Compartment: 188
 T45N R31W Sec. 15-17, 20-22, 28
 County: Iron
 Unit: Crystal Falls
 Mgmt Area: Michigamme Reservoir
 YOE: 2018
 Acres: 1,482 GIS Calculated
 Examiner: Ed Rice
 Map Revised: 11/29/2016
 Map Phase: Post-Review

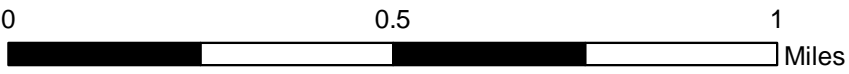
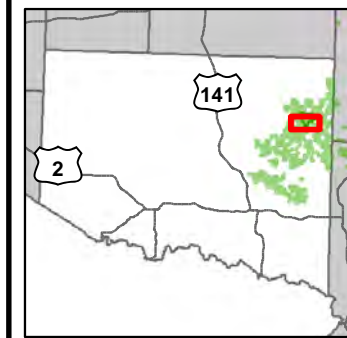


- Miris Corners
 - + Remonumented Section Corners
 - ◆ Survey Grade GPS Corners
 - ◇ Field Grade GPS Corners
 - X Gate
 - ▲ Berms
 - Cabin
 - = Gravel Roads
 - - Poor Dirt Roads
 - - - Closed Roads
 - Rivers
 - ▭ Compartment Boundary
 - ▭ Stand Boundaries
- 411 - Northern Hardwood
 - 413 - Aspen
 - 414 - Other Upland Deciduous
 - 419 - Mixed Upland Deciduous
 - 423 - Other Upland Conifers
 - 430 - Upland Mixed Forest
 - 612 - Lowland Coniferous Forest
 - 500 - Water
 - 622 - Lowland Shrub

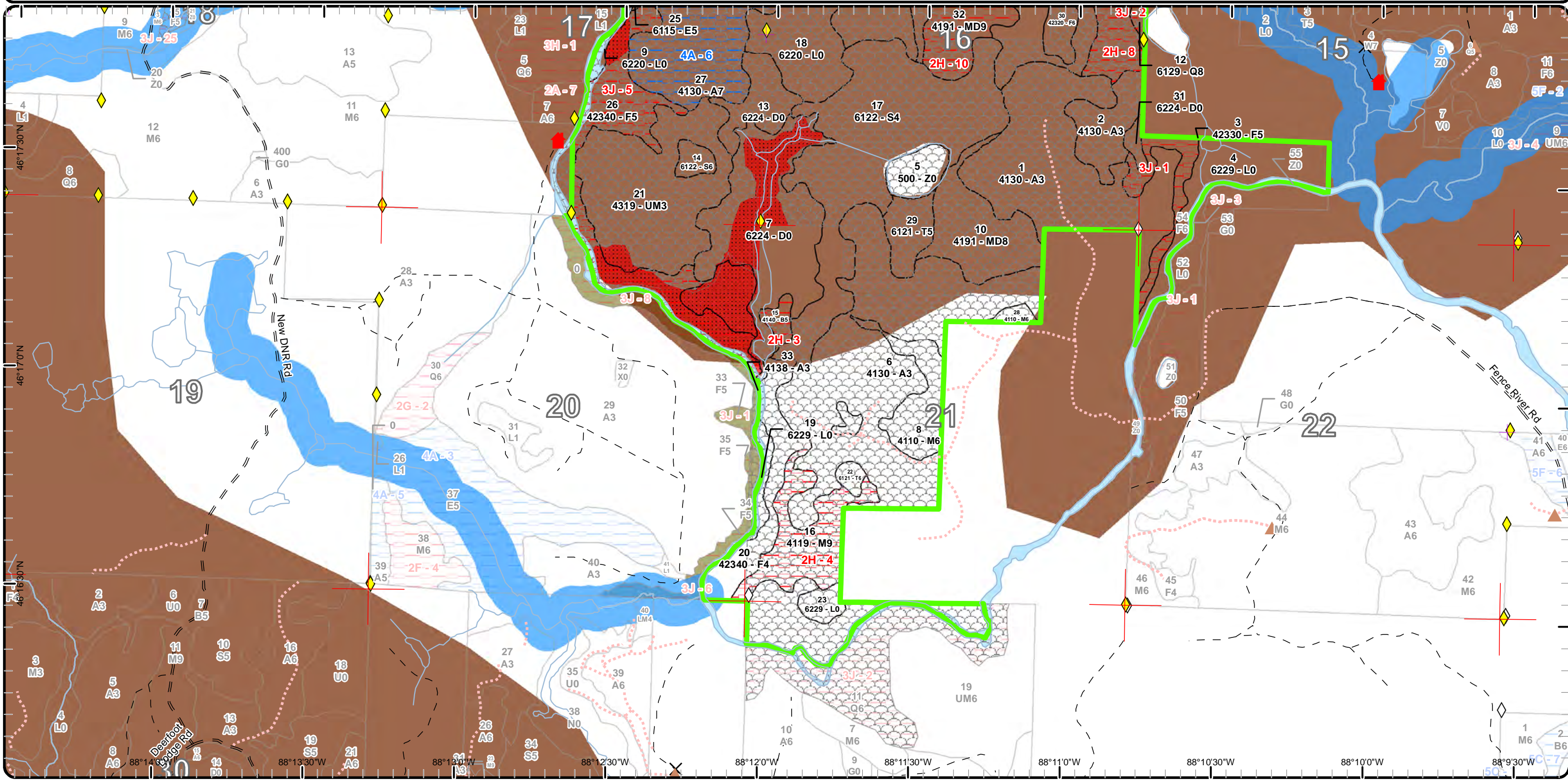


Special Conservation Areas & Site Conditions Map

Compartment: 188
 T45N R31W Sec. 15-17, 20-22, 28
 County: Iron
 Unit: Crystal Falls
 Mgmt Area: Michigamme Reservoir
 YOE: 2018
 Acres: 1,482 GIS Calculated
 Examiner: Ed Rice
 Map Revised: 11/29/2016
 Map Phase: Post-Review



- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- X Gate
- ▲ Berms
- Cabin
- Gravel Roads
- - Poor Dirt Roads
- - - Closed Roads
- Rivers
- Compartment Boundary
- SCA Removal
- Available w/ Constraints
- Unavailable
- 4A: No Markets Available for these Forest Products
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Ecological Reference Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Deer Winter Range
- Potential Old Growth
- Other SCA (No Category Assigned)



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	373	4	0	0	0	0	0	79	0	0	0	0	0	0	0	0	456
Lowland Conifers	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26
Lowland Deciduous	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	45
Lowland Shrub	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136
Lowland Spruce/Fir	0	0	0	0	0	0	123	0	0	0	0	0	0	0	0	0	0	0	123
Mixed Upland Deciduous	0	0	0	0	0	0	0	37	0	236	0	0	0	0	0	0	0	0	272
Northern Hardwood	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	34	60
Paper Birch	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Tamarack	0	0	0	0	0	0	14	0	3	0	0	0	0	0	0	0	0	0	17
Treed Bog	97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97
Upland Mixed Forest	0	0	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95
Upland Spruce/Fir	0	0	0	0	68	0	70	0	0	0	0	0	0	0	0	0	0	0	138
Water	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Total	244	0	468	4	68	45	207	68	3	341	0	0	0	0	0	0	0	34	1481



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2018

Acres of Harvest

Compartment 188
Total Compartment Acres: 1,482

Commercial Harvest -
 Harvests with Site Condition - 225
 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
Mixed Upland Deciduous	191	0	0	0	0	0	0	0	0	191
Northern Hardwood	0	34	0	0	0	0	0	0	0	34
Total	191	34	0	0	0	0	0	0	0	225

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	225	0	0	0	0	0	0	0	0	225
Next Step	0	0	0	0	0	225	0	0	0	225
Total	225	0	0	0	0	225	0	0	0	450



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
16 12188016-Cut	33.8	4119 - Mixed Northern Hardwoods	Sawtimber Well	65	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Even-Aged	Draft Field Boundary

Habitat Cut: No **Site Condition: Blocked by Obstacle**

Prescription potential cut: thin to 70 BA, creating canopy gaps. leave a component of large crowned h maple for seed trees but try to capture the value of
Specs: large sawtimber/vener. no basswood, y birch or w pine.

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

Acceptable Regen: n hardwoods

Other Comment: uneven aged stand. large sawtimber 14 - 20" dbh, poletimber 8 - 6" dbh, saplings 3 - 4" dbh. N end has steep gullies. sawtimber is fair quality, some defect is present 1 - 2 log heights. NW finger of stand has higher stocking of w birch, y birch and scattered large w pine.

Proposed Start Date: 10/01/2017

32 12188032-Cut	191.0	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	80	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
-----------------	-------	--	----------------	----	--------	---------	-------------------------	----------------------------	-----------	----------------------

Habitat Cut: No **Site Condition: Neighbor / Interest Group**

Prescription cut aspen, maple, w birch, spruce/fir 1 stick tall and larger. in inclusions of M6 - mark hardwoods to cut reducing BA to 70. No oak, y birch, r
Specs: pine or w pine. leave 1 w birch per cruise point where possible. follow BMP and cold water stream aspen buffer guidelines when adjacent to the Fence R. sale acreage is very likely to be considerably lower than inventory acreage due to more accurate mapping of 2005 windthrown areas during sale set up. new roads constructed into treatment will be closed with stumps and slash laid into the road route.

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

Acceptable Regen: aspen, maple, spruce/fir

Other Comment: inclusions of M6 scattered in several areas through the stand. N end has higher stocking of over mature aspen 16" dbh and larger. oak component also in N end. scattered large h maple - low quality but good seed trees. very NW area of stand is mainly w spruce 18 - 20" dbh and fir 10 - 14" dbh. rolling hills with some steep slopes throughout.

WLD- Nominate as SCA-Natural Area: Let natural processes proceed, provide mature forest conditions and refuge without access. Surrounded by young forest, access difficult and fragile ecosystems protected.

Proposed Start Date: 10/01/2017

Total Treatment Acreage Proposed: 224.8

Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available	Dominant Site Conditions			
Acres	Available	With Condition	Not Available	4A	1D	2H	3J
457	377	79	0	Aspen	79		0
26	0	0	26	Lowland Conifers			26
45	45	0	0	Lowland Deciduous			
136	136	0	0	Lowland Shrub			0
124	124	0	0	Lowland Spruce/Fir			
272	187	0	85	Mixed Upland Deciduous		41	45
60	26	0	34	Northern Hardwood			34
5	0	0	5	Paper Birch			5
17	17	0	0	Tamarack			
97	97	0	0	Treed Bog			
95	95	0	0	Upland Mixed Forest			
138	68	0	70	Upland Spruce/Fir			70
11	11	0	0	Water			
1,482	1,183	79	220	Total Forested Acres	79	41	83
	80%	5%	15%	Relative Percent			96

*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	3J: Water quality / BMPs (stream, river, or lake)	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Compartment: 188

Ed Rice : Examiner

Year of Entry: 2018

3	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	34	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	54	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	4A: No Markets Available for these Forest Products	79	Unspecified	Unspecified	Unspecified	Unspecified
Comments: very low cord/acre among established A3							
7	Unavailable	1D: Interest Group / Neighbor	41	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment: 188

Year of Entry: 2018

10	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							



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	Potential Old Growth		SCA Removal	6
Comments	Potential Old Growth		SCA Removal	1179
Comments This area no longer meets the criteria to be classified as a Special Conservation Area.				
Unspecified	Other SCA		SCA Removal	3
Comments SCA/Roadless Area This stand is part of the Bates Lake special conservation area and has limited access.				



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 Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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.
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.
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.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Sapling Well	94.3	10	Immature	small pockets of spruce/fir and small isolated lowland conifer inclusions
2	4130 - Aspen	Sapling Well	137.2	10	Immature	successful natural aspen regeneration from 2005 windthrow. very scattered large aspen 18" dbh. old windthrow still remains throughout the stand. rolling hills with areas of steep slope.
3	42330 - Upland Fir	Poletimber Medium	14.7	57	Unspecified	slope along Fence River. BMP buffer strip
6	4130 - Aspen	Sapling Well	141.9	10	Immature	areas of semi open in center of stand where hardwoods were salvaged with less of an aspen component.
8	4110 - Sugar Maple Association	Poletimber Well	23.7	64	81-110	
10	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	36.5	66	Unspecified	much of center of stand has windthrow from 2005 - A3M3. heavier stocking of spruce/fir in N end of stand. lowland b spruce/tamarack inclusion
12	6129 - Mixed Coniferous Lowland Forest	Sawtimber Medium	26.0	81	Unspecified	dense tag alder understory. stand adjacent to Michigan River, very wet
14	6122 - Black Spruce	Poletimber Well	5.1	56	Unspecified	deep sphagnum. successful b spruce sapling regeneration in pockets
15	4140 - Other Upland Deciduous	Poletimber Medium	4.6	65	Unspecified	extremely dense fir understory. very isolated stand
16	4119 - Mixed Northern Hardwoods	Sawtimber Well	33.8	65	81-110	uneven aged stand. large sawtimber 14 - 20" dbh, poletimber 8 - 6" dbh, saplings 3 - 4" dbh. N end has steep gullies. sawtimber is fair quality, some defect is present 1 - 2 log heights. NW finger of stand has higher stocking of w birch, y birch and scattered large w pine.
17	6122 - Black Spruce	Poletimber Poor	118.4	56	Unspecified	S end heavy to tag alder with b ash, very wet. scattered/isolated higher ground ridges
20	42340 - Upland Spruce/Fir	Poletimber Poor	59.5	37	Unspecified	much of overstory has fallen out due to old age and 2005 windthrow. dense fir understory. S end has pockets of A3. very scattered b cherry and w pine.
21	4319 - Mixed Upland Forest	Sapling Well	94.9	10	Immature	scattered mature timber among deadfalls and A3. small pockets of spruce/fir throughout. higher stocking of spruce/fir along Fence River corridor.
22	6121 - Tamarack	Poletimber Well	3.2	75	Unspecified	sphagnum/Labrador tea tamarack/b spruce swamp
24	4130 - Aspen	Sapling Well	3.9	25	Immature	



Stand	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 188 Year of Entry: 2018
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	6115 - Lowland Ash	Poletimber Medium	44.8	41	Unspecified	bottom land to Fence River. very wet - springs
26	42340 - Upland Spruce/Fir	Poletimber Medium	55.7	57	Unspecified	dense fir understory in most areas. stand transitioning from floodplain to upland
27	4130 - Aspen	Sawtimber Poor	79.4	82	Unspecified	low cords/acre areas intermixed with advanced A3 from 2005 windthrow. small lowland inclusions. scattered w birch. rolling hills, old dead falls, extremely difficult to access stand
28	4110 - Sugar Maple Association	Poletimber Well	2.7	63	81-110	area salvaged after 2005 windthrow
29	6121 - Tamarack	Poletimber Medium	13.7	51	Unspecified	wet - sphagnum. center of stand is less timbered and higher percent of tamarack
30	42320 - Upland Spruce	Poletimber Well	8.0	38	Unspecified	fairly dense spruce, w pine, j pine upland stand with higher water table. very scattered large w spruce 16 - 18" dbh
32	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	235.9	80	81-110	inclusions of M6 scattered in several areas through the stand. N end has higher stocking of over mature aspen 16" dbh and larger. oak component also in N end. scattered large h maple - low quality but good seed trees. very NW area of stand is mainly w spruce 18 - 20" dbh and fir 10 - 14" dbh. rolling hills with some steep slopes throughout.
33	4138 - Aspen (OI)	Sapling Well	0.1	32	Unspecified	OPIC - FMD: This stand is very, very diverse. It has areas with planted red pine, regenerated, white birch, aspen, white pine, white and black spruce, balsam and lots of tamarack. Some is more thickly regenerated, some is less so it makes it a very diverse, and yet productive area. Most are 10 - 30 feet tall.



Stand	Cover Type	Acres	Managed Site	General Comments:
4	6229 - Mixed lowland shrub	36.3	No	majority of stand is floodplain to Fence River with multiple drainages in N end of stand. tag alder with areas of b spruce towards E end.
5	500 - Water	11.1	No	Bates Lake
7	6224 - Treed Bog	76.0	No	open bog with scattered b spruce/tamarack at edges
9	6220 - Alder/willow	17.2	No	floodplain to Fence River - tag alder with meadow openings. very dense plant growth
11	6220 - Alder/willow	8.4	No	floodplain to Fence River - tag alder with meadow openings. very dense plant growth
13	6224 - Treed Bog	17.8	No	semi open b spruce/tamarack
18	6220 - Alder/willow	62.6	No	tag alder with scattered b spruce and tamarack. bog spruce/tamarack in NE corner
19	6229 - Mixed lowland shrub	5.6	No	floodplain to Fence River - tag alder, dense plants/ shrubs
23	6229 - Mixed lowland shrub	5.7	No	dense tag alder thicket with scattered balm and b ash saplings
31	6224 - Treed Bog	3.2	No	leatherleaf bog with b spruce and tamarack