



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12054

Entry Year 2018

Acreage: 2,689

County Dickinson

Management Area: Ralph Ground Moraine

Revision Date: 2016-08-20

Stand Examiner: Andrew Church

Legal Description:

T42N R29W Sections 8, 9, 10, 11, 14, 15, 16, 17, 22

Identified Planning Goals:

Optimize sustainable timber production while enhancing and protecting wildlife habitat. Protect riparian areas during management activity implementing Best Management Practices guidelines. Respond to Forest Health risks accordingly.

Soil and topography:

This compartment is made up of Emmet fine sandy loams in the uplands and Cathro/Carbondale mucks in the lowlands. The terrain varies from rolling hills to lowland flats.

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

The majority is contiguous State of Michigan ownership. Private parcels are located in and around this compartment. Snowmobiling, hunting, fishing, trapping, and camping are the main land use patterns.

Unique Natural Features:

Solberg Creek.

Archeological, Historical, and Cultural Features:

None identified.

Special Management Designations or Considerations:

Solberg Creek along Southern boundary is a designated cold water stream.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

This compartment is in the Ralph Ground Moraine Management Area which has the following featured species: American woodcock, black bear, northern goshawk, ruffed grouse, and white-tailed deer. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Lowland conifers provide winter and summer cover and are essential for travel corridors for a many species of wildlife and provide essential habitat for riparian species. Lowland hardwoods provide essential spring and summer habitat for a variety of wildlife but are most critical for bear. 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 maintained openings that provide 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

Vehicle Access:

Access is fair. The North Wells grade road is the main point of access. The South Wells Grade road is in poor condition. Numerous poor dirt roads and trails are present.

Survey Needs:

Corners may be needed.

Recreational Facilities and Opportunities:

Snowmobile trail along Western boundary.

Fire Protection:

Fire response will be from Norway or Crystal Falls DNR stations.

Additional Compartment Information:

The following reports from the Inventory are attached:

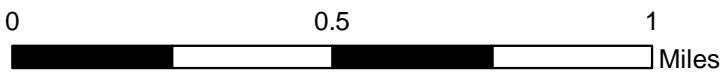
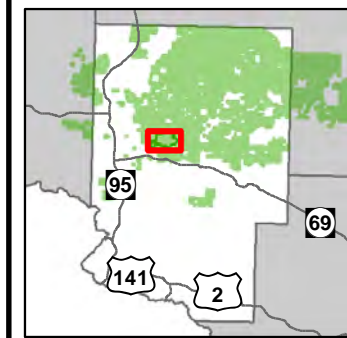
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

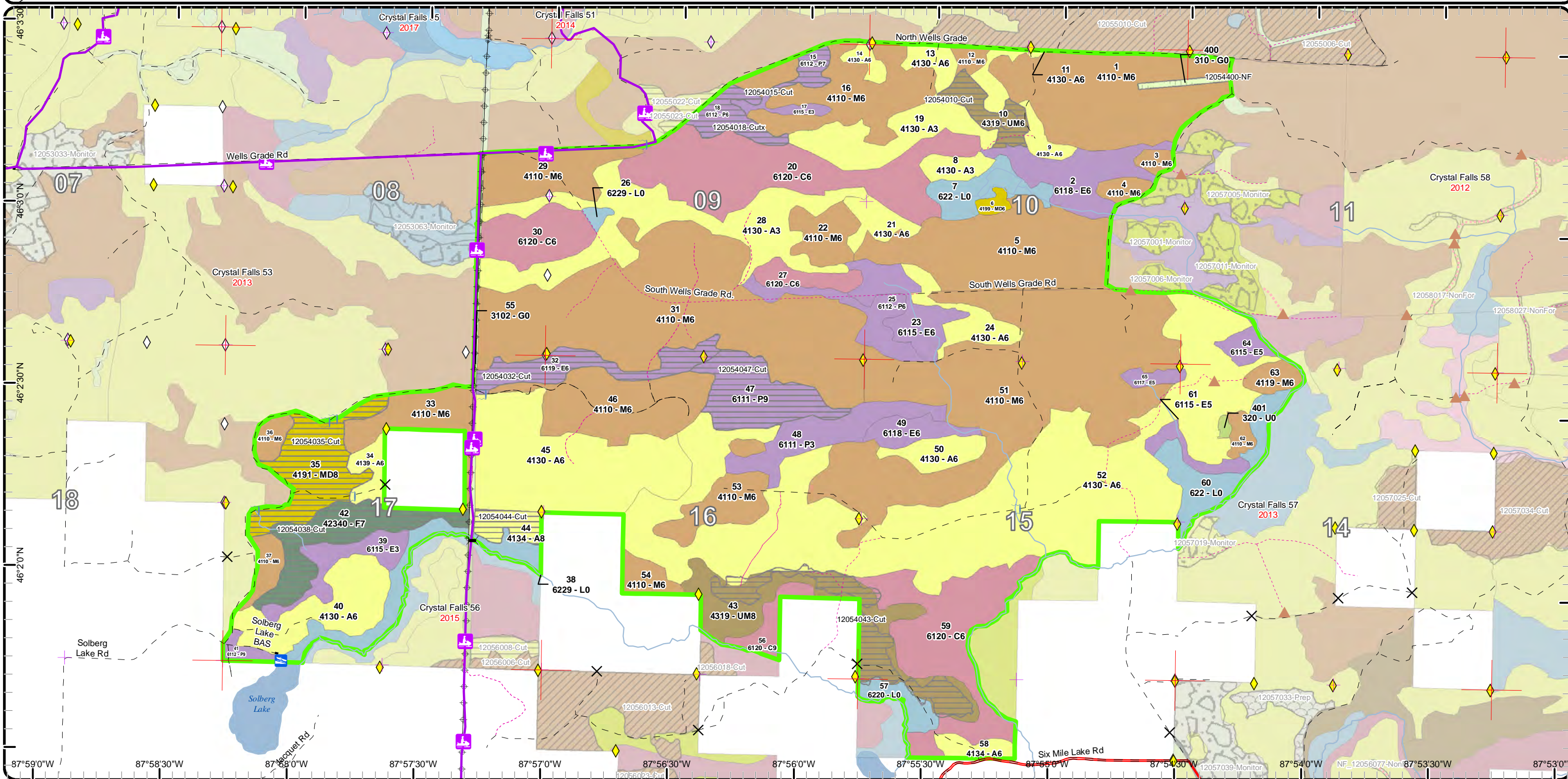
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

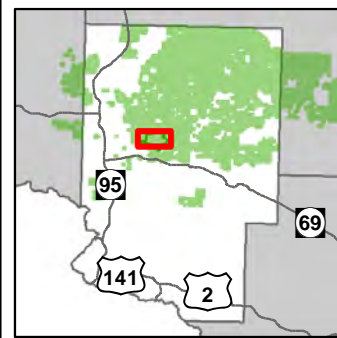
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 T42N R29W Sec. 08-11, 14-17, 22
 County: Dickinson
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 Examiner: Andrew Church
 Map Revised: 11/21/2016
 Map Phase: Post-Review



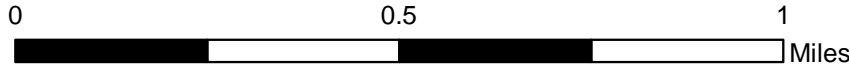
- | | | |
|--------------------------------|--------------------------------|-----------------------------------|
| — Miris Corners | — County Gravel Roads | ■ 611 - Lowland Deciduous Forest |
| — Remonumented Section Corners | — Gravel Roads | ■ 612 - Lowland Coniferous Forest |
| ◆ Survey Grade GPS Corners | — Poor Dirt Roads | ■ 310 - Herbaceous Openland |
| ◇ Field Grade GPS Corners | — Trail (Non-Recreation) | ■ 320 - Upland Shrub |
| ✕ Gate | — Closed Roads | ■ 622 - Lowland Shrub |
| ▲ Berms | — Rivers | ■ Lakes |
| ▲ Bridges | — Powerline | ■ Compartment Boundary |
| — Culverts | — Clearcut (w/Reserves) | ■ Opening Maintenance |
| — Boating Access Site | — 411 - Northern Hardwood | ■ 413 - Aspen |
| — Snowmobile Trails | — 419 - Mixed Upland Deciduous | ■ 423 - Other Upland Conifers |
| — Designated Snowmobile Trails | — 430 - Upland Mixed Forest | |
| — County Paved Roads | | |
| — Paved Roads | | |



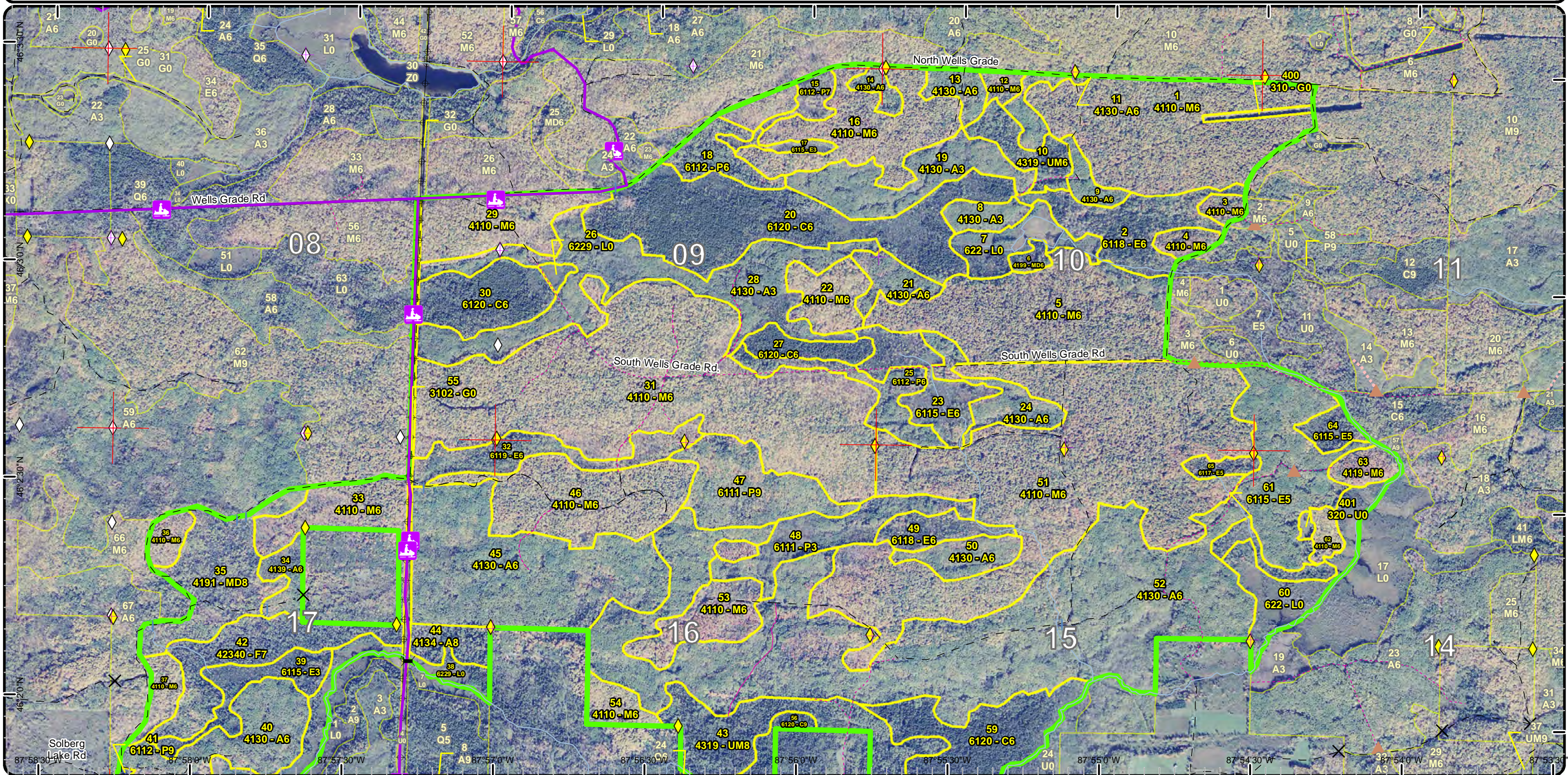
Stand Boundary Map



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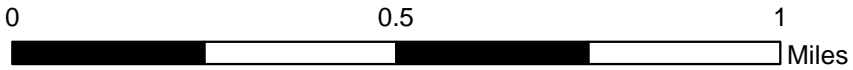
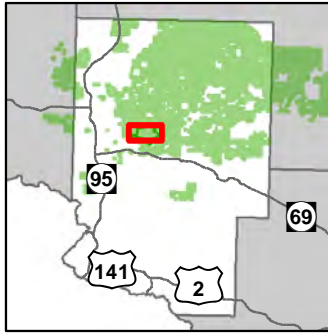


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- ▲ Berms
- ⌒ Bridges
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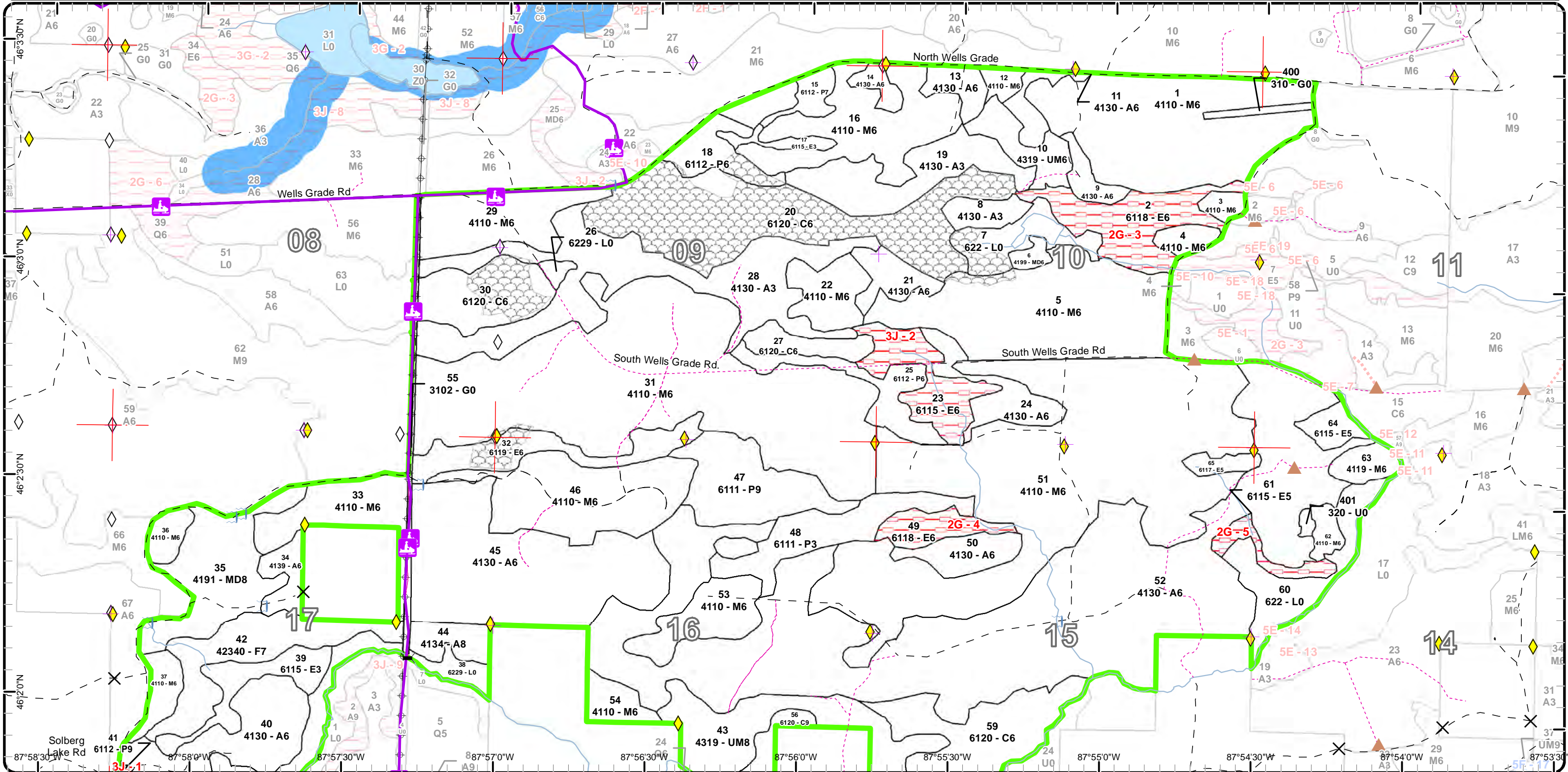


Special Conservation Areas & Site Conditions Map

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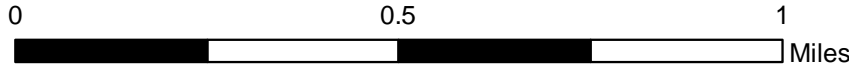
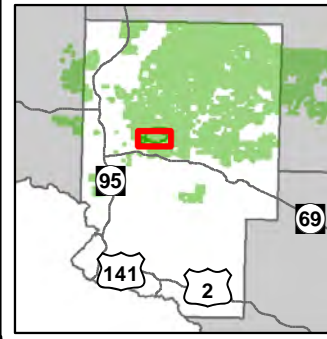


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- ▭ Compartment Boundary
- Unavailable
- 2G: Too wet (sensitive soils, does not include access issues)
- 3J: Water quality / BMPs (stream, river, or lake)
- ▭ Stand Boundaries
- Cold Water Streams
- ▭ Cold Water Lakes
- ▭ High Priority Trout Stream Buffer

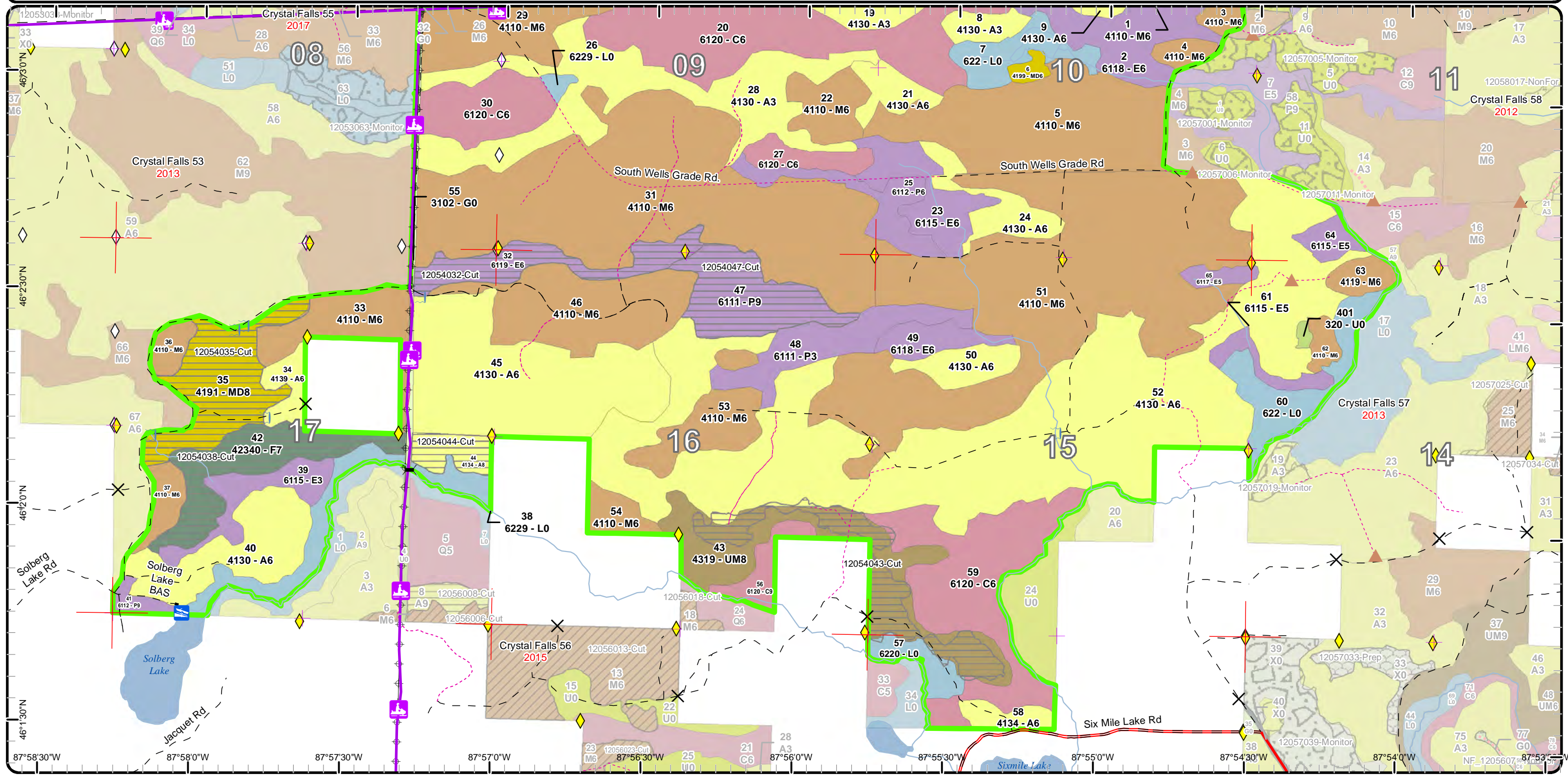


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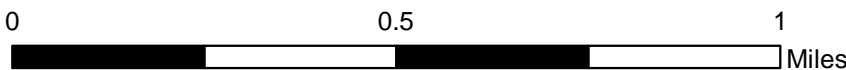
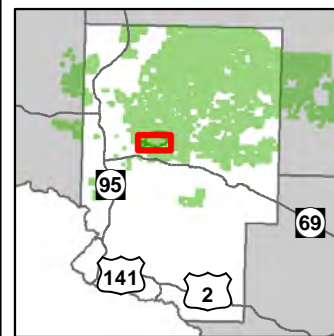


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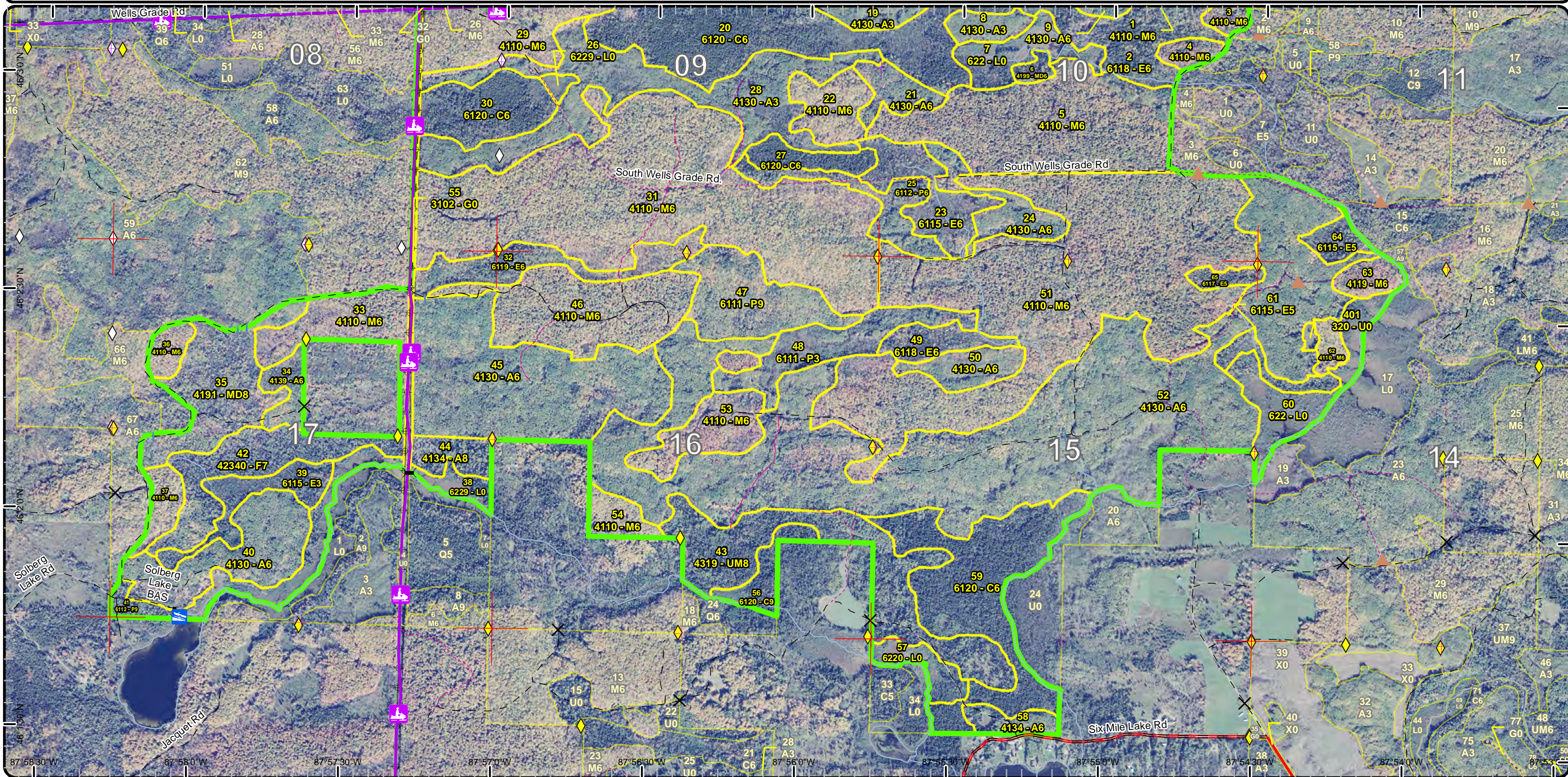


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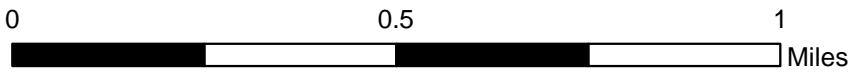
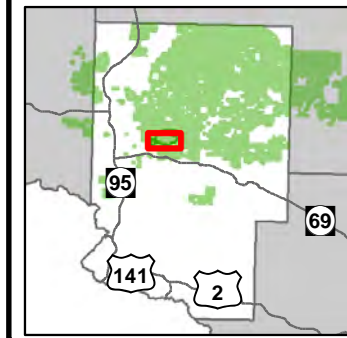


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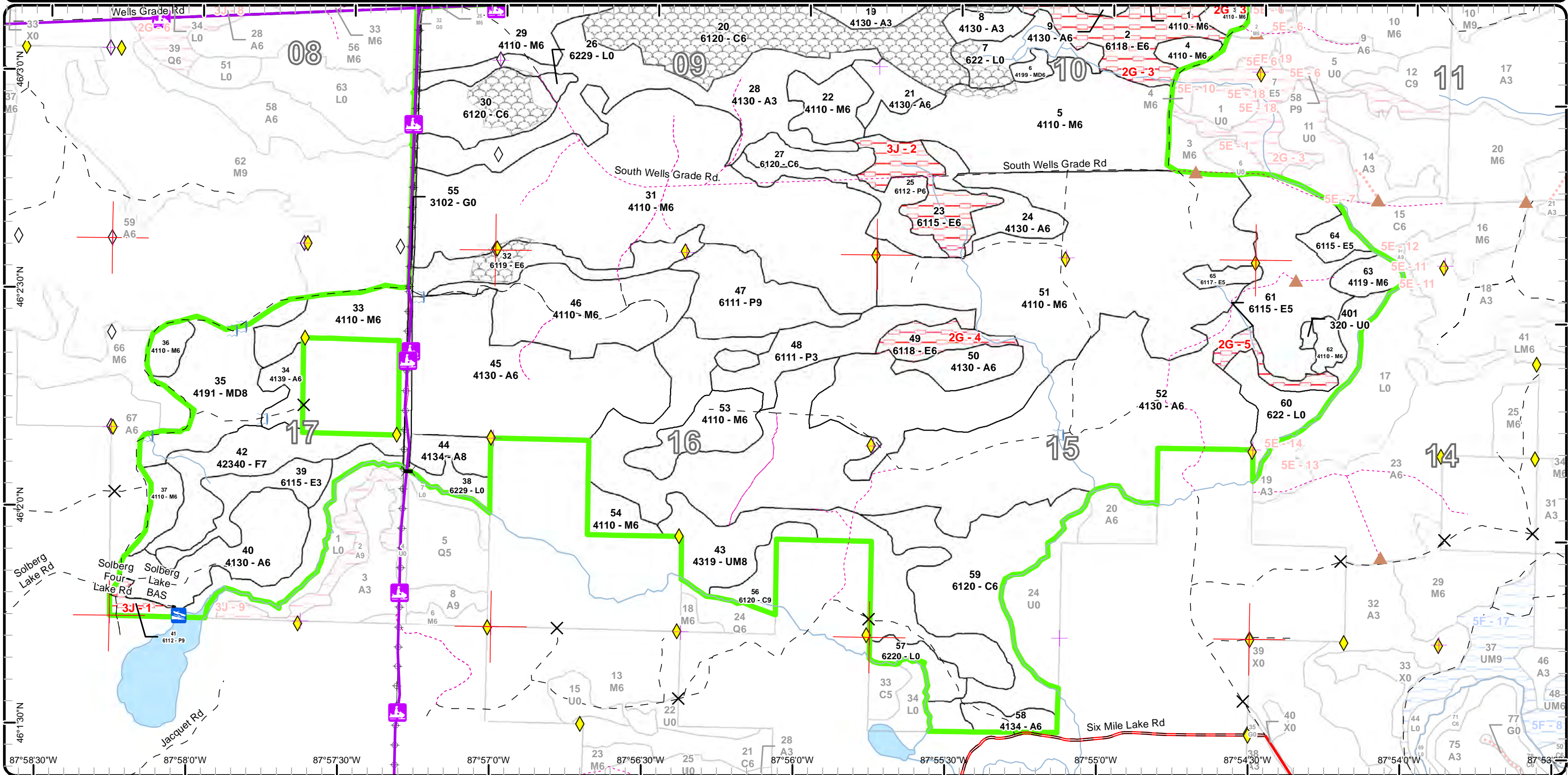


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Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	0	150	509	131	0	0	0	13	0	0	0	0	0	0	0	0	802
Cedar	0	0	0	0	0	0	0	0	0	142	99	13	0	0	0	0	0	0	254
Herbaceous Openland	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Lowland Aspen/Balsam Poplar	0	0	0	23	35	0	0	0	0	0	0	0	0	0	0	0	0	74	131
Lowland Deciduous	0	0	0	0	0	6	0	9	15	0	113	0	0	0	0	0	0	21	164
Lowland Shrub	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99
Mixed Upland Deciduous	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	51	55
Northern Hardwood	0	0	0	0	0	0	0	0	11	0	33	0	0	0	0	0	0	988	1032
Upland Mixed Forest	0	0	0	0	0	0	0	0	18	76	0	0	0	0	0	0	0	0	94
Upland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Upland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	43
Total	115	0	0	173	548	137	0	9	44	231	288	13	0	0	0	0	0	1134	2690



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2018

Acres of Harvest

Compartment 54
Total Compartment Acres: 2,689

Commercial Harvest - 262
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	13	0	0	0	0	0	0	0	0	13
Lowland Aspen/Balsam Poplar	68	0	0	0	0	0	0	0	0	68
Lowland Deciduous	31	0	0	0	0	0	0	0	0	31
Mixed Upland Deciduous	51	0	0	0	0	0	0	0	0	51
Upland Mixed Forest	56	0	0	0	0	0	0	0	0	56
Upland Spruce/Fir	43	0	0	0	0	0	0	0	0	43
Total	262	0	0	0	0	0	0	0	0	262

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	262	0	0	0	0	0	0	4	0	265
Next Step	0	0	40	0	0	0	262	0	0	301
Total	262	0	40	0	0	0	262	0	4	566



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
10	12054010-Cut	16.2	4319 - Mixed Upland Forest	Poletimber Well	72	111-140	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Cut all stems 2" and up except cedar, hemlock, pine. Retention will be cedar/wetter pocket excluded from treatment. Winter cut.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, mixed conifer, mixed hardwood

Regen:

Other WLD-Featured Species: Deer, Grouse, Bear, Woodcock and Goshawk. Wet areas with cedar provide critical bear habitat. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Retention of White Pine, hemlock, and cedar component for refuge trees and cover for bear and deer is desirable. Mast production, such as oak, cherry and raspberry are encouraged to provide valuable forage for bear, deer, grouse. Drainages and associated ash should be protected as critical bear habitat.

Proposed Start Date: 10/01/2017

15	12054015-Cut	8.0	6112 - Lowland Aspen	Sawtimber Poor	81	Unspecified	Harvest	Clearcut with Retention	6119 - Mixed Lowland Deciduous Forest	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest using 2" spec. Leave Cedar, Hemlock, Oak if found. Also leave submerchantable Ash. Frozen ground operations only.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, Ash, Maple, Mixed Conifers

Regen:

Other WLD: Featured Species Bear, Deer, Grouse and Woodcock. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Retention of White Pine, hemlock, and cedar component for refuge trees and cover for bear and deer is desirable. Mast production, such as oak, cherry and raspberry are encouraged to provide valuable forage for bear, deer, grouse. Drainages and associated ash should be protected as critical bear habitat.

Proposed Start Date: 10/01/2017

18	12054018-Cutx	17.4	6112 - Lowland Aspen	Poletimber Well	51	Unspecified	Harvest	Clearcut with Retention	611 - Lowland Deciduous Forest	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest using 2" spec. Leave Cedar, Hemlock, Oak if found. Also leave submerchantable Ash. Frozen ground operations only.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, Ash, Maple, Mixed Conifers

Regen:

Other WLD-Featured Species: Deer, Bear, Grouse. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Retention of White Pine, hemlock, and cedar component for refuge trees and cover for bear and deer is desirable. Mast production, such as oak, cherry and raspberry are encouraged to provide valuable forage for bear, deer, grouse. Drainages and associated ash should be protected as critical bear habitat.

Proposed Start Date: 10/01/2017



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
32	12054032-Cut	30.7	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	91	Unspecified	Harvest	Clearcut with Retention	611 - Lowland Deciduous Forest	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Final Harvest using 2" spec. Leave Cedar, Hemlock, Oak if found. Also leave submerchantable Ash. Frozen ground operations only.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, Ash, Maple, Mixed Conifers

Regen:

Other WLD- Featured Species, Bear, Deer, other species Red-shouldered hawk. Excellent bear habitat in this lowland hardwood, sensitive are with subsurface flow. Drainages and associated ash should be protected as critical bear habitat. Retain canopy closure to retain forested wetland characteristics. Heavy deer browse on ash regeneration.

Proposed Start Date: 10/01/2017

35	12054035-Cut	51.2	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	81	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest using 2" spec. Leave Cedar, Hemlock, Pine, and Ash if found.

Specs: Note the Northeastern 4 acres of stand is 42 year old Aspen.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, Mixed Conifers, Mixed Hardwoods

Regen:

Other WLD-Featured Species: Bear, Deer, Grouse. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Retention of White Pine, hemlock, and cedar component for refuge trees and cover for bear and deer is desirable. Mast production, such as oak, cherry and raspberry are encouraged to provide valuable forage for bear, deer, grouse. Drainages and associated ash should be protected as critical bear habitat.

Proposed Start Date: 10/01/2017

42	12054038-Cut	43.1	42340 - Upland Spruce/Fir	Sawtimber Poor	98	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest using 2" spec. Leave Cherry, Cedar, Hemlock, Pine if found. Also leave conifers less than 4" DBH. Work with WLD to exclude

Specs: some wet areas. Buffer streams 100 feet and Solberg Creek 300 feet. Frozen ground operations only.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, Mixed Conifer, Mixed Hardwoods

Regen:

Other WLD-Featured Species: Deer, Bear, Grouse. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Retention of White Pine, hemlock, and cedar component for refuge trees and cover for bear and deer is desirable. Drainages and associated ash should be protected as critical bear habitat.

Proposed Start Date: 10/01/2017



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
43	12054043-Cut	39.6	4319 - Mixed Upland Forest	Sawtimber Medium	86	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Clearcut to salvage and regenerate spruce and fir. Cut all spruce and fir that are 4" dbh and larger. Do not cut cedar, hemlock, pine or black ash. Protect wet areas and drainages. WLD will underplant hemlock or pine.

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

Acceptable Aspen, Mixed Hardwoods, Mixed Softwoods
Regen:

Other Approved out of year of entry due to Spruce Budworm concerns.
Comment:

Proposed Start Date: 10/01/2015

44	12054044-Cut	12.5	4134 - Aspen, Spruce/Fir	Sawtimber Medium	89	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest using 2" spec. Leave Cedar, Hemlock, Pine if found. Buffer stream to South 300 feet.

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

Acceptable Aspen, Mixed Softwoods, Mixed Hardwoods
Regen:

Other WLD-Featured Species: Deer, Bear, Grouse. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. Retention of White Pine, hemlock, and cedar component for refuge trees and cover for bear and deer is desirable. Most production, such as oak, cherry and raspberry are encouraged to provide valuable forage for bear, deer, grouse. Drainages and associated ash should be protected as critical bear habitat.

Proposed Start Date: 10/01/2017

47	12054047-Cut	42.9	6111 - Lowland Balsam Poplar	Sawtimber Well	51	Unspecified	Harvest	Clearcut with Retention	611 - Lowland Deciduous Forest	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest using 2" spec. Leave Cedar, Hemlock, Oak if found. Frozen ground operations only.

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

Acceptable Aspen, Ash, Maple, Mixed Conifers
Regen:

Other WLD-Featured Species: Bear, Deer, other species Woodland raptors, fisher, marten. Large diameter y. birch and hardwood provide cavities and dens for wildlife, legacy trees. . Cherry provides valuable forage for bears and numerous other wildlife, leave representative sample of cherry for most production. Drainages and associated ash should be protected as critical bear habitat. Water flowing down road system from north to south.

Proposed Start Date: 10/01/2017

400	12054400-NF	3.6	310 - Herbaceous Openland	Nonstocked		Unspecified	NonForestMgt	Herbaceous/Crop /Grass Planting	310 - Herbaceous Openland		Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Herbaceous opening maintenance

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 10/01/2017



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
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Total Treatment Acreage Proposed: 265.2

Report 4 – Site Conditions

Crystal Falls Mgt. Unit
Andrew Church : Examiner

Compartment: 54
Year of Entry: 2018

Availability for Management

Total	Acres	Acres Avail	Acres
Acres	Available	With Condition	Not Available

Dominant Site Conditions

2G 3J

803	803	0	0	Aspen		
254	254	0	0	Cedar		
14	14	0	0	Herbaceous Openland		
132	126	0	6	Lowland Aspen/Balsam Poplar		6
164	72	0	92	Lowland Deciduous	63	29
99	99	0	0	Lowland Shrub		
55	55	0	0	Mixed Upland Deciduous		
1031	1031	0	0	Northern Hardwood		
93	93	0	0	Upland Mixed Forest		
2	2	0	0	Upland Shrub		
43	43	0	0	Upland Spruce/Fir		
2,689	2,591		98	Total Forested Acres	63	35
	96%		4%	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	3J: Water quality / BMPs (stream, river, or lake)	6	3D: Recreational / Scenic values	Unspecified	Unspecified	Unspecified
Comments: Stream along South side of stand. Also, Solberg Lake Boating access site.							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	29	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit
Andrew Church : Examiner

Compartment: 54
Year of Entry: 2018

3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	39	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	15	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	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
	Potential Old Growth		SCA Removal	7
Comments Does not meet SCA criteria				
	Potential Old Growth		SCA Removal	15
Comments Does not meet SCA criteria				
	Potential Old Growth		SCA Removal	118
Comments does not meet SCA criteria				



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	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.



Stand	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 54 Year of Entry: 2018
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Poletimber Well	108.8	94	81-110	ELF PANTS HDWD sale #12-011-08-01 cut 2010-12
2	6118 - Lowland Deciduous with Cedar	Poletimber Well	38.9	92	Unspecified	Stream flows easterly along south edge
3	4110 - Sugar Maple Association	Poletimber Well	4.9	94	81-110	ELF PANTS HDWD sale #12-011-08-01 TS cut 2011-12.
4	4110 - Sugar Maple Association	Poletimber Well	6.9	94	81-110	Thinned: ELF PANTS HDWD sale #12-011-08-01 in 2011
5	4110 - Sugar Maple Association	Poletimber Well	103.2	94	81-110	ELF PANTS HDWD sale #12-011-08-01 cut 2010. Red maple along north edge. Basswood seen some busy porcupines. Far northeast sliver is heavy to ironwood, sugar maple and aspen saplings; may have been a part of an old FTP or just aspen removed in a previous cut. Directly along stream on north
6	4199 - Other Mixed Upland Deciduous	Poletimber Well	4.0	33	Immature	This stand has had most of the young aspen removed by beaver. Area was excluded from hardwood due to wetness.
8	4130 - Aspen	Sapling Well	9.9	26	Immature	
9	4130 - Aspen	Poletimber Well	8.2	30	Immature	
10	4319 - Mixed Upland Forest	Poletimber Well	17.6	72	111-140	Ground is fairly wet particularly in the "wedge" between 2 "hills"; winter cut only
11	4130 - Aspen	Poletimber Well	9.0	37	Unspecified	There are a few larger remnant aspen in here
12	4110 - Sugar Maple Association	Poletimber Well	5.0	94	81-110	thinned ELF PANTS HDWD sale #12-011-08-01 in 2011
13	4130 - Aspen	Poletimber Well	10.0	42	Unspecified	
14	4130 - Aspen	Poletimber Well	6.1	45	Unspecified	Definitely 2 ages in here, but the 45 year age class is the dominant one. Second age is 57 but because there isn't 20 years difference, I cannot code as 2-aged.
15	6112 - Lowland Aspen	Sawtimber Poor	8.0	81	Unspecified	Higher ground on SE edges. Thick understory of swamp hardwoods. Wet ground. Much Ash regenerating. Low overstory stocking as Aspen is breaking up.
16	4110 - Sugar Maple Association	Poletimber Well	66.8	94	51-80	ELF PANTS HDWD sale #12-011-08-01 cut 2012. White birch is dying out.
17	6115 - Lowland Ash	Sapling Well	5.5	41	Unspecified	Sapling Black Ash stand. Trace amounts of Yellow Birch, Maple, Aspen present on edges of stand.



S t a n d	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 54 Year of Entry: 2018	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
18	6112 - Lowland Aspen	Poletimber Well	17.4	51	Unspecified	Portions of this stand were harvested approx. 50 yrs ago. Small pockets of older Aspen/Spruce are present. Some areas within stand contain sapling Black Ash and Tag Alder. Majority of ground is wet with a few upland inclusions.	
19	4130 - Aspen	Sapling Well	41.2	22	Immature	3 Sons TS cut 1994	
20	6120 - Lowland Cedar	Poletimber Well	108.6	85	Unspecified	Dense Cedar stand	
21	4130 - Aspen	Poletimber Well	13.2	31	Immature	Trace of black cherry	
22	4110 - Sugar Maple Association	Poletimber Well	20.4	75	81-110	Young Aspen in understory along edges of stand. E-W drain through middle. Southern parts of stand has less stocking.	
23	6115 - Lowland Ash	Poletimber Well	29.1	92	Unspecified	A south bound stream is forming in this stand; very wet stand.	
24	4130 - Aspen	Poletimber Well	20.2	32	Immature		
25	6112 - Lowland Aspen	Poletimber Well	22.5	22	Unspecified	Enough depressions to class as nearly lowland. Western finger is upland Aspen.	
27	6120 - Lowland Cedar	Poletimber Well	12.8	91	Unspecified	Dense Cedar swamp. Ash around edges.	
28	4130 - Aspen	Sapling Well	98.7	22	Unspecified	Many wet areas throughout. Trees growing very well. Starting to reach merchantable size	
29	4110 - Sugar Maple Association	Poletimber Well	39.8	90	81-110	Thinned 2001	
30	6120 - Lowland Cedar	Poletimber Well	33.7	85	Unspecified		
31	4110 - Sugar Maple Association	Poletimber Well	236.1	90	81-110	Thinned 2001	
32	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	30.7	91	Unspecified	Lowland drainage. Very diverse stand. Pockets of Cedar throughout. Varying ages and densities of overstory trees.	
33	4110 - Sugar Maple Association	Poletimber Well	32.5	75	81-110	Thinned 2012	
34	4139 - Aspen, Mixed Deciduous	Poletimber Well	11.0	39	Unspecified	Northern part of stand is wet.	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Medium	50.9	81	81-110	Stand is situated on a hillside. Some upland areas are wet. Small poor quality hardwood pockets mixed throughout. Thick Fir/Spruce understory. Much mortality in stand due to wet soils, Budworm, and old age. There are some small young Aspen pockets found within stand. The Northeastern 4 acres of stand is 42 year old Aspen.
36	4110 - Sugar Maple Association	Poletimber Well	8.2	71	81-110	Thinned 2012
37	4110 - Sugar Maple Association	Poletimber Well	10.8	71	81-110	Thinned 2012
39	6115 - Lowland Ash	Sapling Well	21.4	41	Unspecified	Scattered mature Spruce and Tamarack trees. Much Black Ash, Tag Alder and Cattails throughout. Dwarf Mistletoe observed on the Black Spruce.
40	4130 - Aspen	Poletimber Well	47.2	39	Unspecified	Healthy Aspen stand. Self thinning nicely. Southern 5 acres near boat launch seems to have had some Aspen removed around the year 2000.
41	6112 - Lowland Aspen	Sawtimber Well	6.0	76	Unspecified	Small stream along southern portion of stand. Solberg Lake Boating Access site within stand. Most of Softwood has fallen out of stand.
42	42340 - Upland Spruce/Fir	Sawtimber Poor	43.1	98	Unspecified	Large diameter trees located on hillside seep. Terrain is mix of upland and lowland. Budworm hitting this stand severely. Stocking levels are low due to mortality.
43	4319 - Mixed Upland Forest	Sawtimber Medium	75.7	86	81-110	Upland Aspen/Spruce/Fir stand with lowland areas found throughout. Spruce and Fir is dying due to SBW. Aspen is in decline. Thick understory of Spruce and Fir.
44	4134 - Aspen, Spruce/Fir	Sawtimber Medium	12.5	89	Unspecified	The aspen is in decline. There is a drainage from the north that runs through the middle of the stand.
45	4130 - Aspen	Poletimber Well	115.3	42	Unspecified	VERY healthy Aspen stand. Many drainages throughout. Seems younger to SE.
46	4110 - Sugar Maple Association	Poletimber Well	65.1	75	81-110	Thinned 2012
47	6111 - Lowland Balsam Poplar	Sawtimber Well	42.9	51	Unspecified	Small upland inclusions particularly in the middle and Northern parts of stand. Majority of ground is wet. The stocking level and ages of the overstory is highly variable.
48	6111 - Lowland Balsam Poplar	Sapling Well	34.6	37	Unspecified	
49	6118 - Lowland Deciduous with Cedar	Poletimber Well	14.5	92	Unspecified	Stand has a couple of tiny red maple upland knobs; good deer cover.
50	4130 - Aspen	Poletimber Well	16.0	31	Immature	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
51	4110 - Sugar Maple Association	Poletimber Well	266.0	94	81-110	Patches of porcupine damage. WEASEL HUFFER SALE COMPLETED 1-6-12. South/southwest not marked well and have higher BAs. Some wet areas and drainages throughout stand.
52	4130 - Aspen	Poletimber Well	374.9	38	Unspecified	Aspen dbh ranges from 5-10". Drainages and low swales throughout this stand. Stand was cut between 1982-87
53	4110 - Sugar Maple Association	Poletimber Well	29.7	75	81-110	Thinned 2012
54	4110 - Sugar Maple Association	Poletimber Well	11.0	75	81-110	This stand was not harvested 2012. Far SW corner of stand is lowland. To be treated when adjacent hardwoods are entered again.
56	6120 - Lowland Cedar	Sawtimber Well	12.6	105	Unspecified	Unstocked Ash/Alder pocket in SW corner of stand.
58	4134 - Aspen, Spruce/Fir	Poletimber Well	9.6	31	Immature	Aspen focused on the east end; small wet swale in center. West has an opening with spruce/fir around it.
59	6120 - Lowland Cedar	Poletimber Well	86.0	92	Unspecified	
61	6115 - Lowland Ash	Poletimber Medium	9.3	78	Unspecified	Drainage cuts through here on the far east end; very wet stand
62	4110 - Sugar Maple Association	Poletimber Well	6.1	92	81-110	This stand is on a knob; there is some potential but not great form. Tight crowns. Should have been thinned with stand 81 last entry. Too small to thin alone.
63	4119 - Mixed Northern Hardwoods	Poletimber Well	9.7	92	81-110	Weasel Huffer TS cut 2012. Rocky knob, drainage along east edge, steep south drop off
64	6115 - Lowland Ash	Poletimber Medium	8.9	65	Unspecified	Very wet
65	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	5.8	75	Unspecified	Very wet; seeps & springs throughout. Drainage starts in here and flows out of south. The hardwood to the south is fairly wet and runs heavy to yellow birch. Due to hydrologic concerns, stand should not be cut.



Stand	Cover Type	Acres	Managed Site	General Comments:
7	622 - Lowland Shrub	22.0	No	OPIC - FMD: OI Stand Year Origin was
26	6229 - Mixed lowland shrub	2.7	No	
38	6229 - Mixed lowland shrub	30.7	No	
55	3102 - Grass	10.1	Yes	Powerline
57	6220 - Alder/willow	12.4	No	OPIC - FMD: OI Stand Year Origin was 1924
60	622 - Lowland Shrub	31.5	No	OPIC - FMD: OI Stand Year Origin was
400	310 - Herbaceous Openland	3.6	No	OPIC - FMD: The ELF line R.O.W.
401	320 - Upland Shrub	1.6	No	OPIC - FMD: OI Stand Year Origin was