



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12163

Entry Year 2015

Acreage: 676

County Iron

Management Area: Panola Plains

Revision Date: 2013-07-08

Stand Examiner:

Legal Description:

T42N-R32W Sections 12 and 13

Identified Planning Goals:

Our management goals in this compartment are to develop age class distribution in aspen types, maintain health of conifer types and increase acreage where possible.

Soil and topography:

Land is nearly level to hilly with a mix of Karlin and Vilas soils that are excessively drained to well-drained, loamy and sandy soils on ground moraines, end moraines and outwash plains. Some areas contain rock outcrops up to 50 feet in height. Some narrow depressions contain Cathro soils that are poorly drained black muck.

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

Ownership patterns in and around this compartment consist mostly of State lands, Wisconsin Electric lands, some Keweenaw lands and a few private parcels. These lands are used mainly for hunting and managed for forest products.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

Paint River and Little Mud Lake.

Wildlife Habitat Considerations:

This compartment is part of the historic Little Bull Deeryard. This compartment is similar to many of the compartments in this part of the forest. It is a mixture of aspen intermixed with pine, mostly planted. The aspen is all currently less than 30 years old, additional age classes would benefit a variety of wildlife species, including grouse. The limited amount of lowland conifer needs to be retained for winter cover for deer, and bobcat and summer habitat for wildlife such as bears. Mesic conifer should be increased to provide deer with access to winter food sources from winter cover.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 50 and 100 feet. The Precambrian Michigamme Formation subcrops below the glacial drift. There is not a current economic use for these rocks. Abandoned iron mines are located two miles to the north. This general area was previously leased for metallic exploration and potential may still exist. The nearest gravel pit is four miles to the east, but there may be some potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Survey Needs:

None.

Recreational Facilities and Opportunities:

Southern loop of Lake Mary Ski Trail passes through compartment.

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**

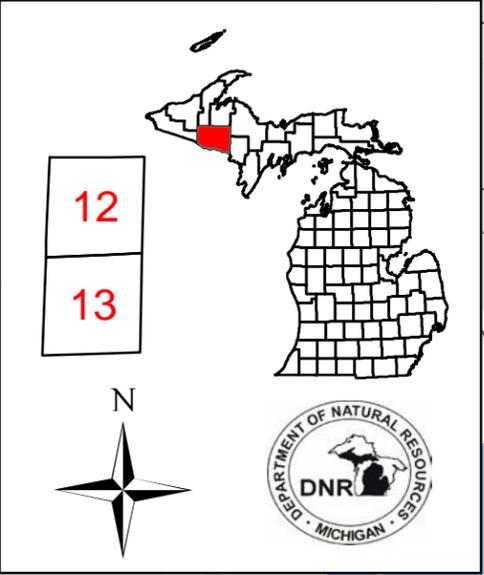
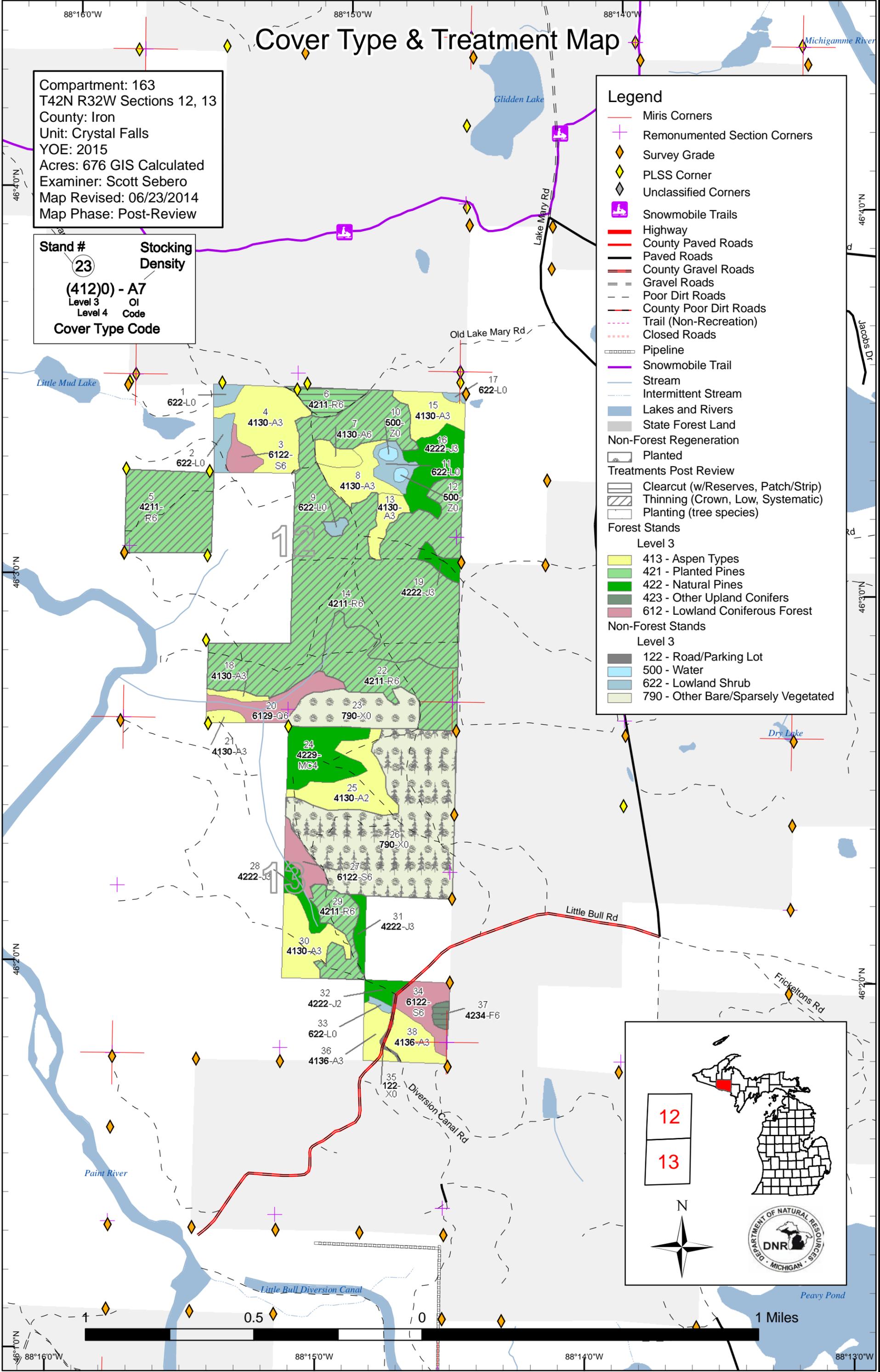
Cover Type & Treatment Map

Compartment: 163
 T42N R32W Sections 12, 13
 County: Iron
 Unit: Crystal Falls
 YOE: 2015
 Acres: 676 GIS Calculated
 Examiner: Scott Sebero
 Map Revised: 06/23/2014
 Map Phase: Post-Review

Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

Legend

- Miris Corners
- Remonumented Section Corners
- Survey Grade
- PLSS Corner
- Unclassified Corners
- Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Pipeline
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land
- Non-Forest Regeneration
- Planted
- Treatments Post Review
- Clearcut (w/Reserves, Patch/Strip)
- Thinning (Crown, Low, Systematic)
- Planting (tree species)
- Forest Stands
- Level 3
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- Non-Forest Stands
- Level 3
- 122 - Road/Parking Lot
- 500 - Water
- 622 - Lowland Shrub
- 790 - Other Bare/Sparsely Vegetated



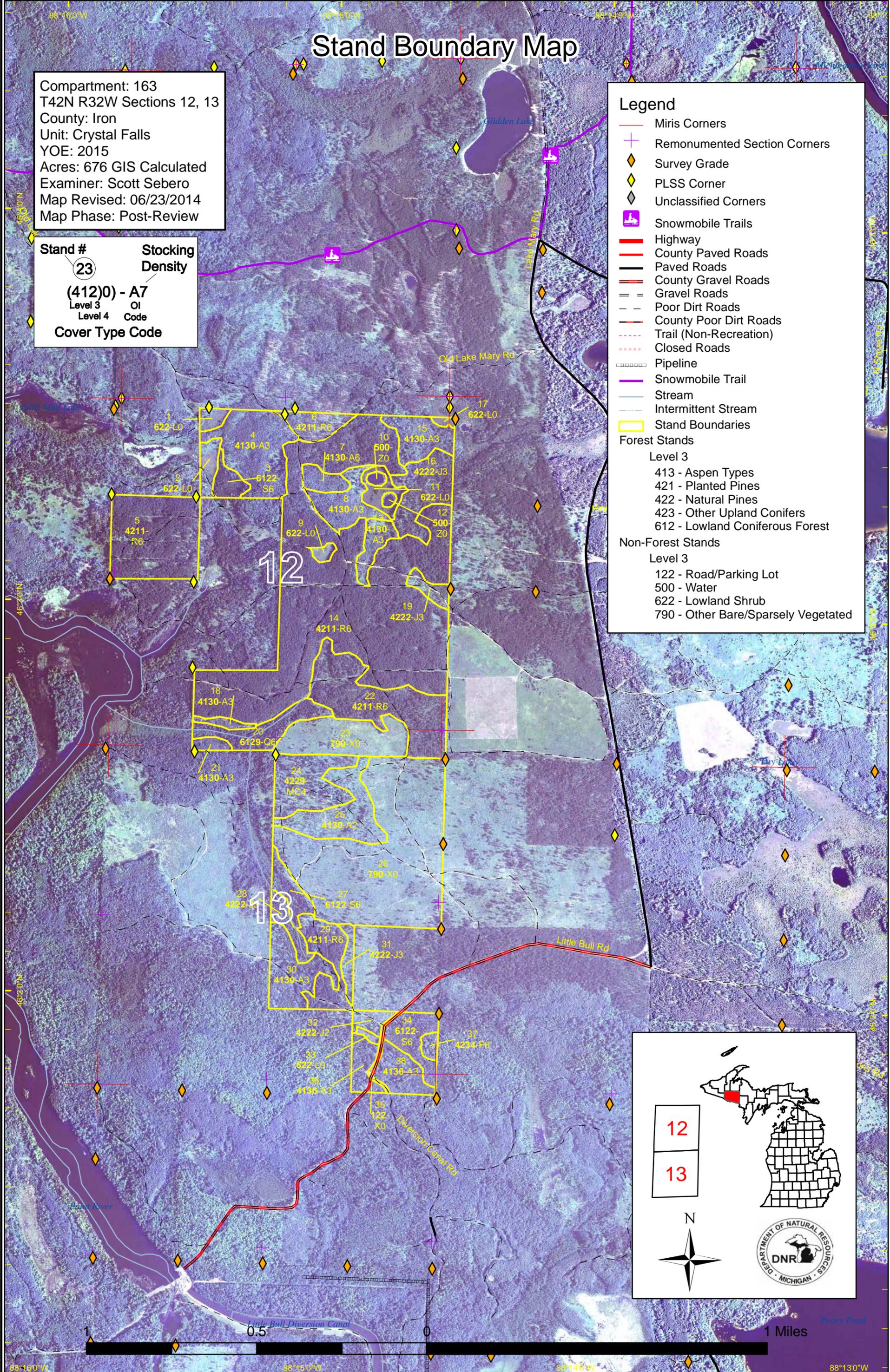
Stand Boundary Map

Compartment: 163
 T42N R32W Sections 12, 13
 County: Iron
 Unit: Crystal Falls
 YOE: 2015
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88°16'0"W 88°15'0"W 88°14'0"W 88°13'0"W

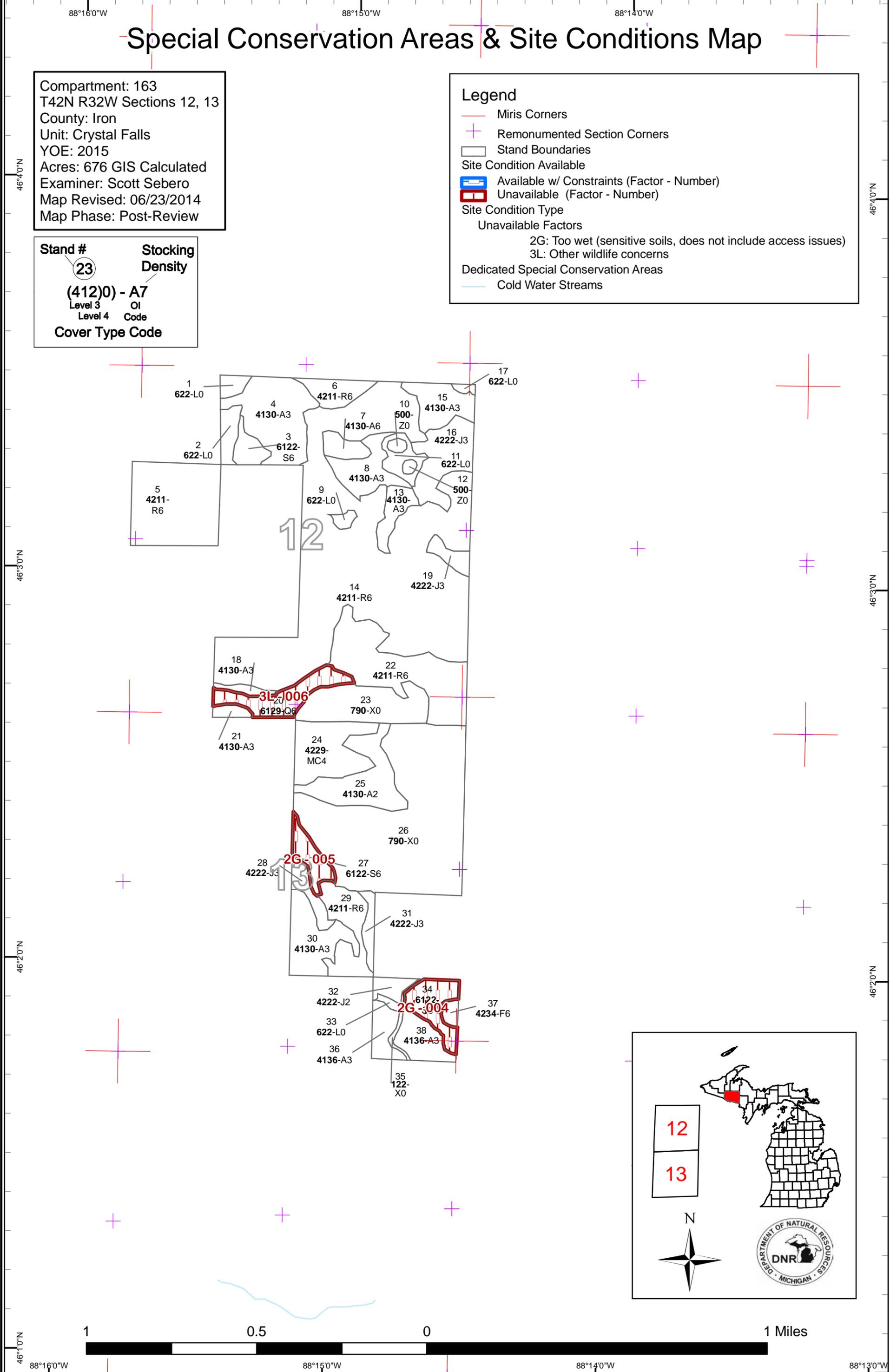
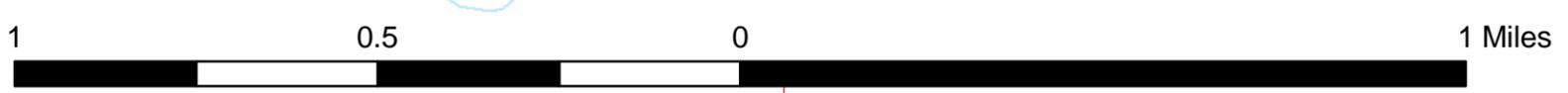
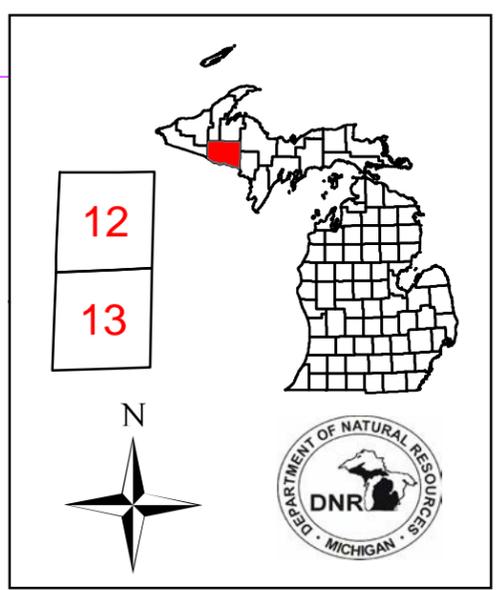
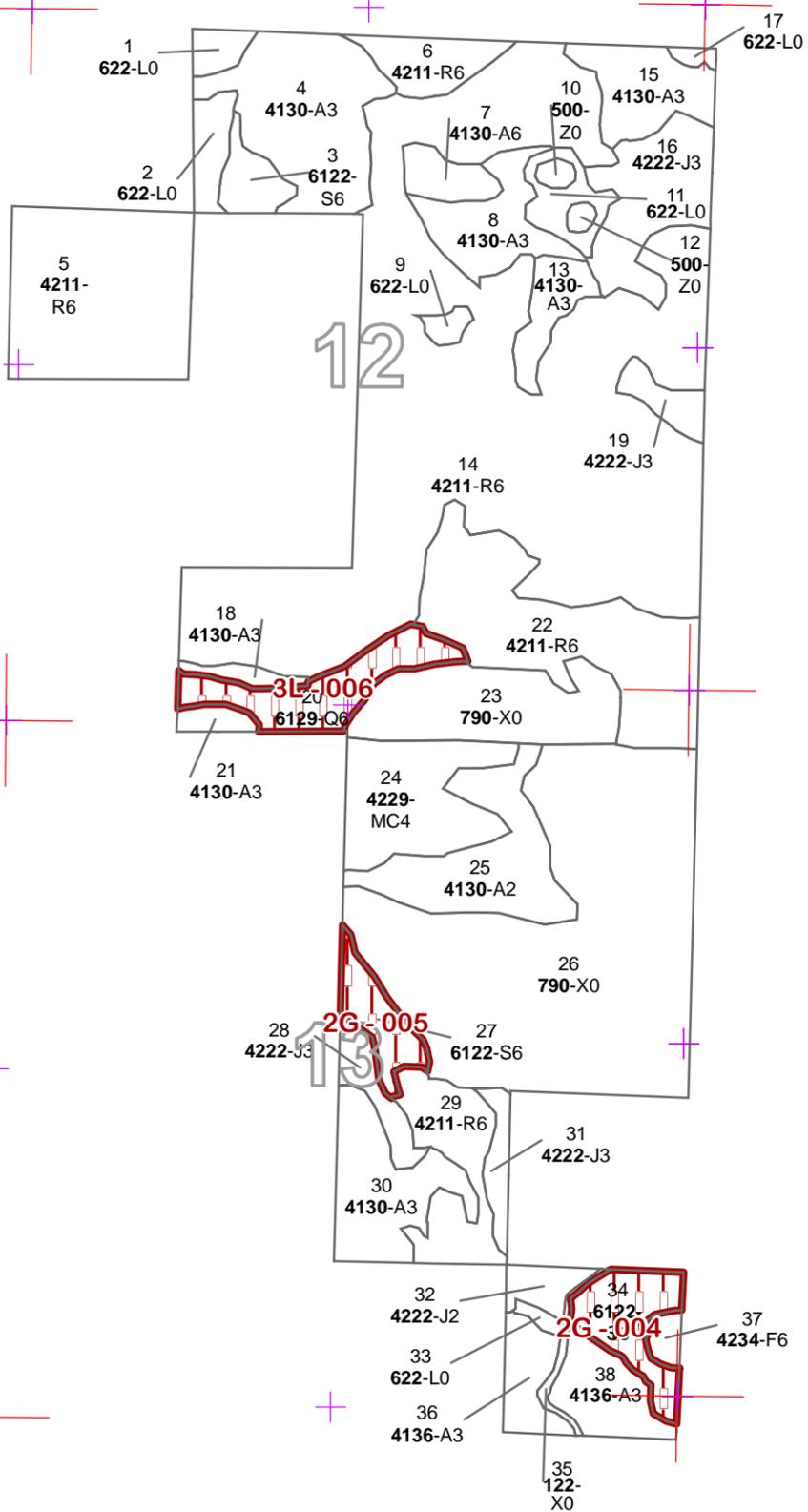
Special Conservation Areas & Site Conditions Map

Compartment: 163
 T42N R32W Sections 12, 13
 County: Iron
 Unit: Crystal Falls
 YOE: 2015
 Acres: 676 GIS Calculated
 Examiner: Scott Sebero
 Map Revised: 06/23/2014
 Map Phase: Post-Review

Legend

- Miris Corners
- Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type**
- Unavailable Factors**
- 2G: Too wet (sensitive soils, does not include access issues)
- 3L: Other wildlife concerns
- Dedicated Special Conservation Areas**
- Cold Water Streams

Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



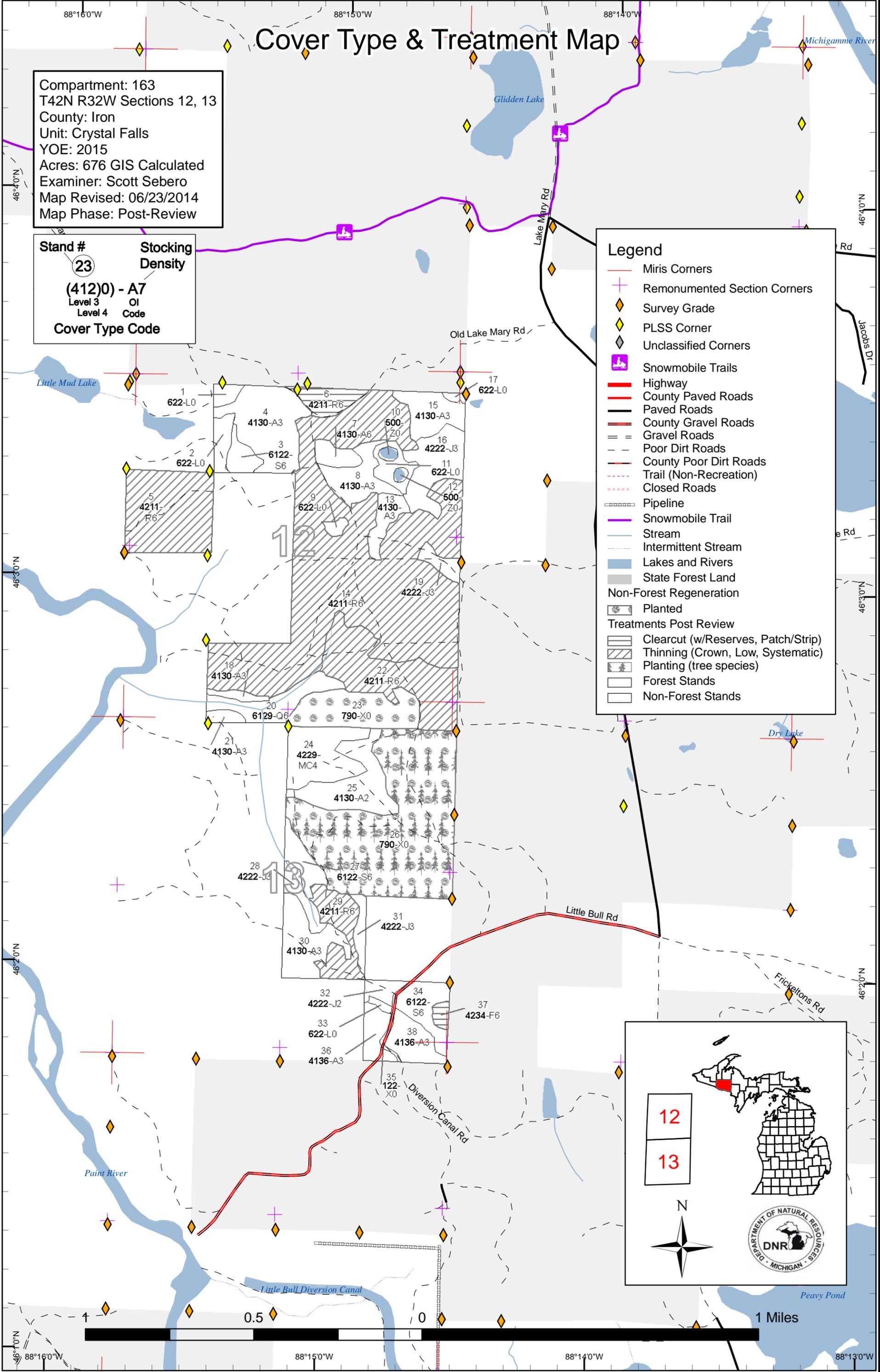
Cover Type & Treatment Map

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- Planting (tree species)
- Forest Stands
- Non-Forest Stands



12
13

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DEPARTMENT OF NATURAL RESOURCES
DNR
MICHIGAN



88°16'0"W 88°15'0"W 88°14'0"W 88°13'0"W
 46°40'0"N 46°30'0"N 46°20'0"N 46°10'0"N

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	22	25	78	0	5	0	0	0	0	0	0	0	0	0	0	0	0	130
Bare/Sparsely Vegetated	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	129
Jack Pine	0	0	31	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Lowland Conifers	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	14
Lowland Shrub	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	5	19	0	0	0	0	0	0	0	0	24
Natural Mixed Pines	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	22
Red Pine	0	0	0	0	0	0	296	0	0	0	0	0	0	0	0	0	0	0	296
Upland Spruce/Fir	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Urban	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	151	22	56	84	0	27	296	0	5	35	0	676							



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2015

Compartment 163
Total Compartment Acres: 676

Acres of Harvest

Commercial Harvest - 298
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 104

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Red Pine	8	0	0	0	0	288	0	0	0	296
Upland Spruce/Fir	2	0	0	0	0	0	0	0	0	2
Total	10	0	0	0	0	288	0	0	0	298

Proposed and Next Step Treatments by Harvest Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	298	0	104	0	0	0	0	0	0	402
Total	298	0	104	0	0	0	0	0	0	402



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
5	12163005-Cut	40.3	42110 - Planted Red Pine	Poletimber Well	59	141- 170	Harvest	Crown Thinning	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary

Prescription Thin to a BA of 100. Cut all jack pine, aspen and maple with one or more pulpwood stick.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None

6	12163006-Cut	8.2	42110 - Planted Red Pine	Poletimber Well	59	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Prescription Cut all trees with a diameter greater than 2", except oak.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Old next step comments: Machine trench and hand plant red pine. Herbicide as needed.

Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None

14	12163014-Cut	191.8	42110 - Planted Red Pine	Poletimber Well	59	111- 140	Harvest	Crown Thinning	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Prescription Thin to a BA of 120, concentrate on small diameter trees. Cut all jack pine, aspen and maple with one or more pulpwood stick.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None

22	12163022-Cut	39.9	42110 - Planted Red Pine	Poletimber Well	59	81-110	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Prescription Thin to a BA of 80, concentrate on small diameter trees. Cut all jack pine, aspen and maple with one or more pulpwood stick.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None



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
29	12163029-Cut	15.7	42110 - Planted Red Pine	Poletimber Well	52	111- 140	Harvest	Crown Thinning	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary

Prescription Thin to a BA of 100. Cut all jack pine, aspen and maple with one or more pulpwood stick.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None

37	12163037-Cut	2.2	42340 - Upland Spruce/Fir	Poletimber Well	87	51-80	Harvest	Clearcut with Retention	42340 - Upland Spruce/Fir	Even-Aged	Draft Field Boundary
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Prescription Cut all aspen and mixed hardwood, except oak, that are 2" or greater DBH. Cut all mixed softwood, except red and white pine, cedar and

Specs: hemlock, that have one or more pulpwood sticks.

Next Step

Treatments:

Acceptable

Regen:

Other

Old next step comments: Regen survey per work constructions.

Comment:

Proposed Start Date: 10/1 /2015

Site Condition: None

26	NF_12163026- Plant	104.2	790 - Other Bare/Sparsely Vegetated	Nonstocked			Planting	Initial Plant	42120 - Planted Jack Pine	Even-Aged	Draft Field Boundary
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Prescription Mahine trench and hand plant jack pine. Herbicide cherry and aspen. Leave areas of thicker aspen regen.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Old next step comments: Stocking survey per work constructions.

Comment:

Proposed Start Date: 12/30/1899

Site Condition: None

**Total Treatment
Acreage Proposed: 402.1**

Dominant Site Conditions

3L

Aspen	
Bare/Sparsely Vegetated	
Jack Pine	
Lowland Conifers	14
Lowland Shrub	
Lowland Spruce/Fir	
Natural Mixed Pines	
Red Pine	
Upland Spruce/Fir	
Urban	
Water	
Total Forested Acres	14
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
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
Comments: Small diameter, low volume and wet conditions.							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 163

Year of Entry: 2015

6	Unavailable	3L: Other wildlife concerns	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Winter Cover.							

Dominant Site Conditions

3L

Aspen	
Bare/Sparsely Vegetated	
Jack Pine	
Lowland Conifers	14
Lowland Shrub	
Lowland Spruce/Fir	
Natural Mixed Pines	
Red Pine	
Upland Spruce/Fir	
Urban	
Water	
Total Forested Acres	14
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
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
Comments: Small diameter, low volume and wet conditions.							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 163

Year of Entry: 2015

6	Unavailable	3L: Other wildlife concerns	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Winter Cover.							

Dominant Site Conditions

3L

Aspen	
Bare/Sparsely Vegetated	
Jack Pine	
Lowland Conifers	14
Lowland Shrub	
Lowland Spruce/Fir	
Natural Mixed Pines	
Red Pine	
Upland Spruce/Fir	
Urban	
Water	
Total Forested Acres	14
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
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
Comments: Small diameter, low volume and wet conditions.							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	4A: No Markets Available for these Forest Products	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 163

Year of Entry: 2015

6	Unavailable	3L: Other wildlife concerns	14	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Winter Cover.							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 6 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



Report 7 – 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
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Stand	Crystal Falls Mgt. Unit		Report 8 – Forested Stands			Compartment: 163 Year of Entry: 2015
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	6122 - Black Spruce	Poletimber Well	5.3	77	51-80	
4	4130 - Aspen	Sapling Well	28.9	29	Unspecified	
5	42110 - Planted Red Pine	Poletimber Well	40.3	59	141-170	
6	42110 - Planted Red Pine	Poletimber Well	8.2	59	51-80	
7	4130 - Aspen	Poletimber Well	5.2	42	51-80	
8	4130 - Aspen	Sapling Well	13.0	29	Unspecified	
13	4130 - Aspen	Sapling Well	7.0	10	Unspecified	
14	42110 - Planted Red Pine	Poletimber Well	191.8	59	111-140	
15	4130 - Aspen	Sapling Well	12.6	19	Unspecified	
16	42220 - Natural Jack Pine	Sapling Well	18.9	19	Unspecified	
18	4130 - Aspen	Sapling Well	2.5	19	Unspecified	
19	42220 - Natural Jack Pine	Sapling Well	4.3	19	Unspecified	
20	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	14.4	87	111-140	
21	4130 - Aspen	Sapling Well	2.5	19	Unspecified	
22	42110 - Planted Red Pine	Poletimber Well	39.9	59	81-110	
24	42290 - Natural Mixed Pine	Poletimber Poor	21.7	42	1-50	
25	4130 - Aspen	Sapling Medium	22.4	9	1-50	
27	6122 - Black Spruce	Poletimber Well	7.6	87	81-110	

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Crystal Falls Mgt. Unit

Report 8 – Forested Stands

Compartment: 163
Year of Entry: 2015



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	42220 - Natural Jack Pine	Sapling Well	5.7	27	Unspecified	
29	42110 - Planted Red Pine	Poletimber Well	15.6	52	111-140	
30	4130 - Aspen	Sapling Well	18.1	27	Unspecified	
31	42220 - Natural Jack Pine	Sapling Well	4.1	16	Unspecified	
32	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Medium	4.1	10	Unspecified	
34	6122 - Black Spruce	Poletimber Well	11.4	87	51-80	
36	4136 - Aspen, Mixed Conifer	Sapling Well	7.4	27	1-50	
37	42340 - Upland Spruce/Fir	Poletimber Well	2.2	87	51-80	
38	4136 - Aspen, Mixed Conifer	Sapling Well	10.6	27	1-50	



Stand	Cover Type	Acres	Managed Site	General Comments:
1	6229 - Mixed lowland shrub	3.0	No	
2	6229 - Mixed lowland shrub	5.2	No	
9	6229 - Mixed lowland shrub	1.7	No	
10	500 - Water	1.2	No	
11	6229 - Mixed lowland shrub	5.8	No	
12	500 - Water	0.9	No	
17	6229 - Mixed lowland shrub	1.0	No	
23	790 - Other Bare/Sparsely Vegetate	24.6		
26	790 - Other Bare/Sparsely Vegetate	104.2		
33	6229 - Mixed lowland shrub	1.0	No	
35	122 - Road/Parking Lot	1.8	No	