



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12015

Entry Year 2015

Acreage: 1,760

County Dickinson

Management Area: Ralph Ground Moraine

Revision Date: 2013-04-22

Stand Examiner:

Legal Description:

T44N R28W Sec 4-10

Identified Planning Goals:

This compartment is over three-quarters upland, the majority of it being aspen cover type. Management of all stands is to balance age class distribution and allow best suited species to grow on best suited sites while promoting sustainable timber production and enhancing and protecting wildlife habitat. Hardwood management goals are to put growth on the best trees in place by removing crown competition. Protect all bodies of water, especially Schwartz Creek.

Soil and topography:

Terrain is predominantly rolling uplands with a few steep hills. Upland soils are typically Emmet, Pemene or Rousseau fine sandy loams. The few lowlands found in this compartment are mostly on the south along Schwartz Creek and are Carbondale/Cathro mucks.

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

This compartment is almost contiguous State owned land with a couple isolated private owned parcels. It is almost entirely surrounded by State land.

Unique Natural Features:

Schwartz Creek.

Archeological, Historical, and Cultural Features:

None known within this compartment.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

Schwartz Creek, a trout stream that feeds into the West Branch of the Escanaba River, is the south boundary feature.

Wildlife Habitat Considerations:

This compartment has considerable aspen acreage with an adequate age-class distribution. This compartment does winter deer and many of the animals associated with them such as bobcats, wolves and coyotes. Transition zones between upland and lowlands should be protected and expanded to ensure cover and travel corridors are protected and improved where possible. Lowland conifer and lowland hardwood inclusions, including drainages, should be protected as wintering habitat for deer and spring- summer range for bear. Hardwoods stands are managed to ensure there is diversity in both species and structure. Mesic conifers will be encouraged especially in hardwood stands. Soft and hard mast producing species such as oak will be maintained and encouraged to provide highly valuable forage for wildlife such as deer, bear and grouse. This compartment also contains the old elf line along its western side.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of medium-textured glacial till. There is insufficient data to determine the glacial drift thickness. Precambrian Archean granite/gneiss subcrops below the glacial drift. There is not a current economic use for these rocks, although they have building stone potential. A rock quarry (? type) lies three miles to the north. Iron mines are located approximately twelve miles to the south. Gravel pits are not indicated in this area, but there appears to be good gravel potential. Most of this area was previously leased for metallic exploration and State land to the northwest is currently leased. There is no economic oil and gas production in the UP.

Vehicle Access:

Schwartz Creek/Flat Rock Road, Floodwood Road and various two-track roads access the compartment fairly thoroughly.

Survey Needs:

Survey will be needed in Section 6.

Recreational Facilities and Opportunities:

Used heavily for hunting, camping, fishing, and trapping. Snowmobile trail #32 runs south of this compartment.

Fire Protection:

Felch protection area. Access to majority of compartment is good.

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**

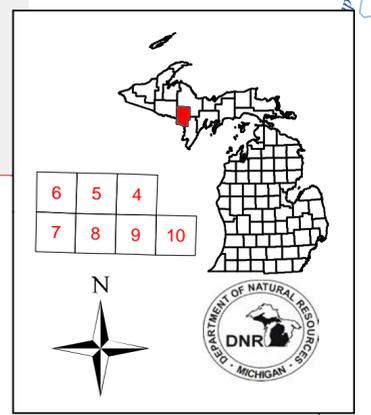
The following information is displayed, where pertinent, on the attached compartment maps:

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

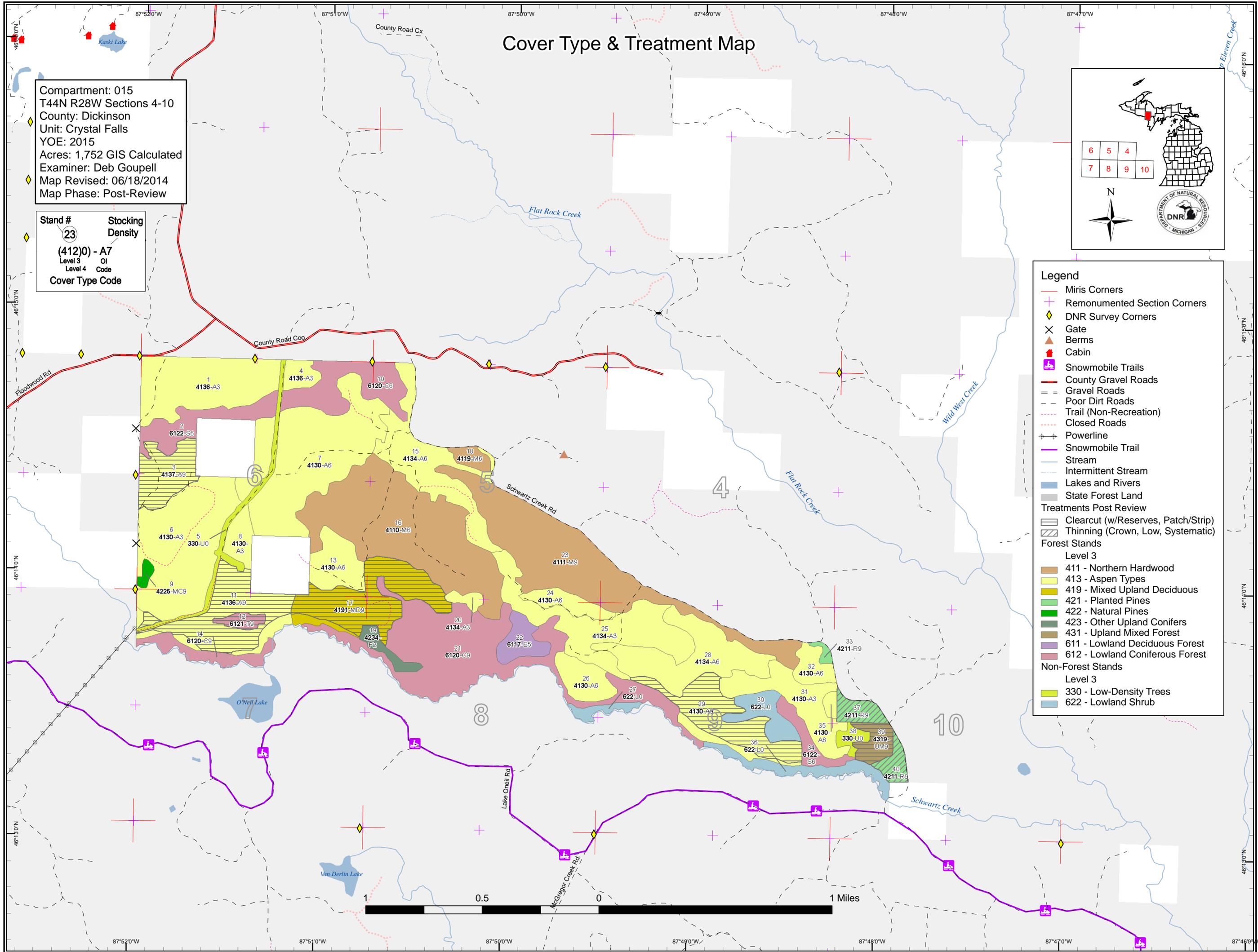
Cover Type & Treatment Map

Compartment: 015
 T44N R28W Sections 4-10
 County: Dickinson
 Unit: Crystal Falls
 YOE: 2015
 Acres: 1,752 GIS Calculated
 Examiner: Deb Goupell
 Map Revised: 06/18/2014
 Map Phase: Post-Review

Stand #
 (23)
 (4120) - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code



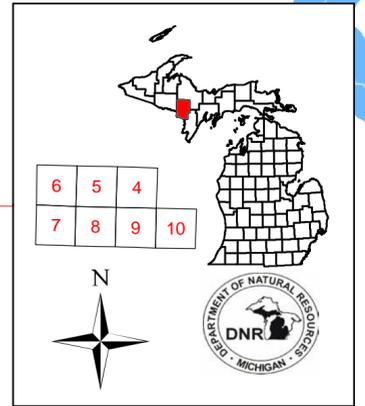
- Legend**
- Miris Corners
 - Remonumented Section Corners
 - ◆ DNR Survey Corners
 - × Gate
 - ▲ Berms
 - 🏠 Cabin
 - 🚙 Snowmobile Trails
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - Trail (Non-Recreation)
 - Closed Roads
 - ⚡ Powerline
 - Snowmobile Trail
 - Stream
 - Intermittent Stream
 - Lakes and Rivers
 - State Forest Land
 - Treatments Post Review**
 - ▨ Clearcut (w/Reserves, Patch/Strip)
 - ▨ Thinning (Crown, Low, Systematic)
 - Forest Stands**
 - Level 3**
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 431 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - Non-Forest Stands**
 - Level 3**
 - 330 - Low-Density Trees
 - 622 - Lowland Shrub



Special Conservation Areas & Site Conditions Map

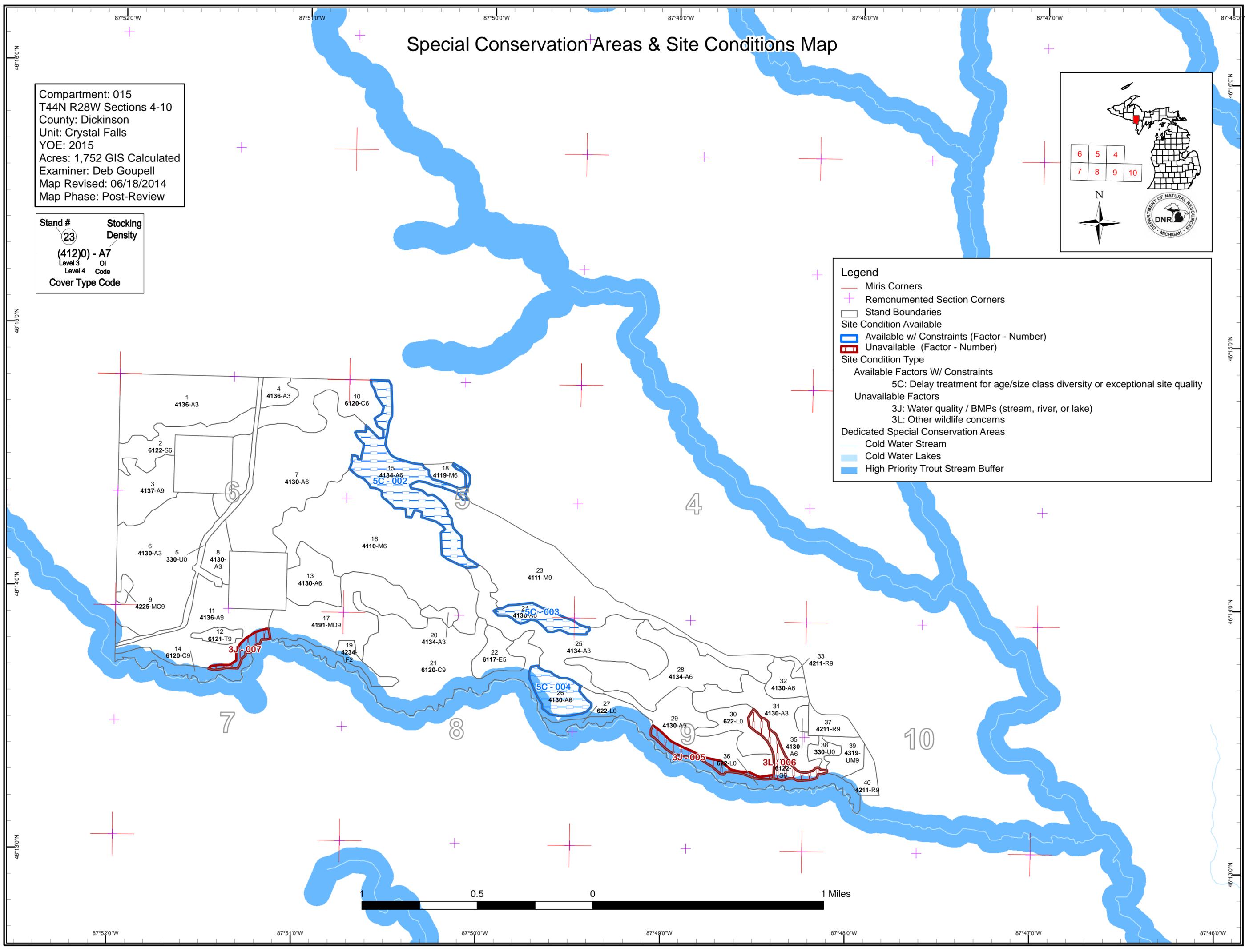
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 T44N R28W Sections 4-10
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 Unit: Crystal Falls
 YOE: 2015
 Acres: 1,752 GIS Calculated
 Examiner: Deb Goupell
 Map Revised: 06/18/2014
 Map Phase: Post-Review

Stand #
 23
Stocking Density
 (4120) - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



Legend

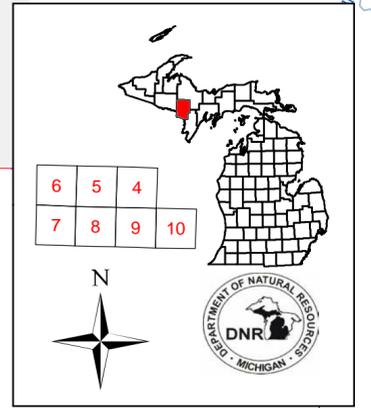
- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
- ▭ Available w/ Constraints (Factor - Number)
- ▭ Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 3J: Water quality / BMPs (stream, river, or lake)
- 3L: Other wildlife concerns
- Dedicated Special Conservation Areas
- Cold Water Stream
- Cold Water Lakes
- High Priority Trout Stream Buffer



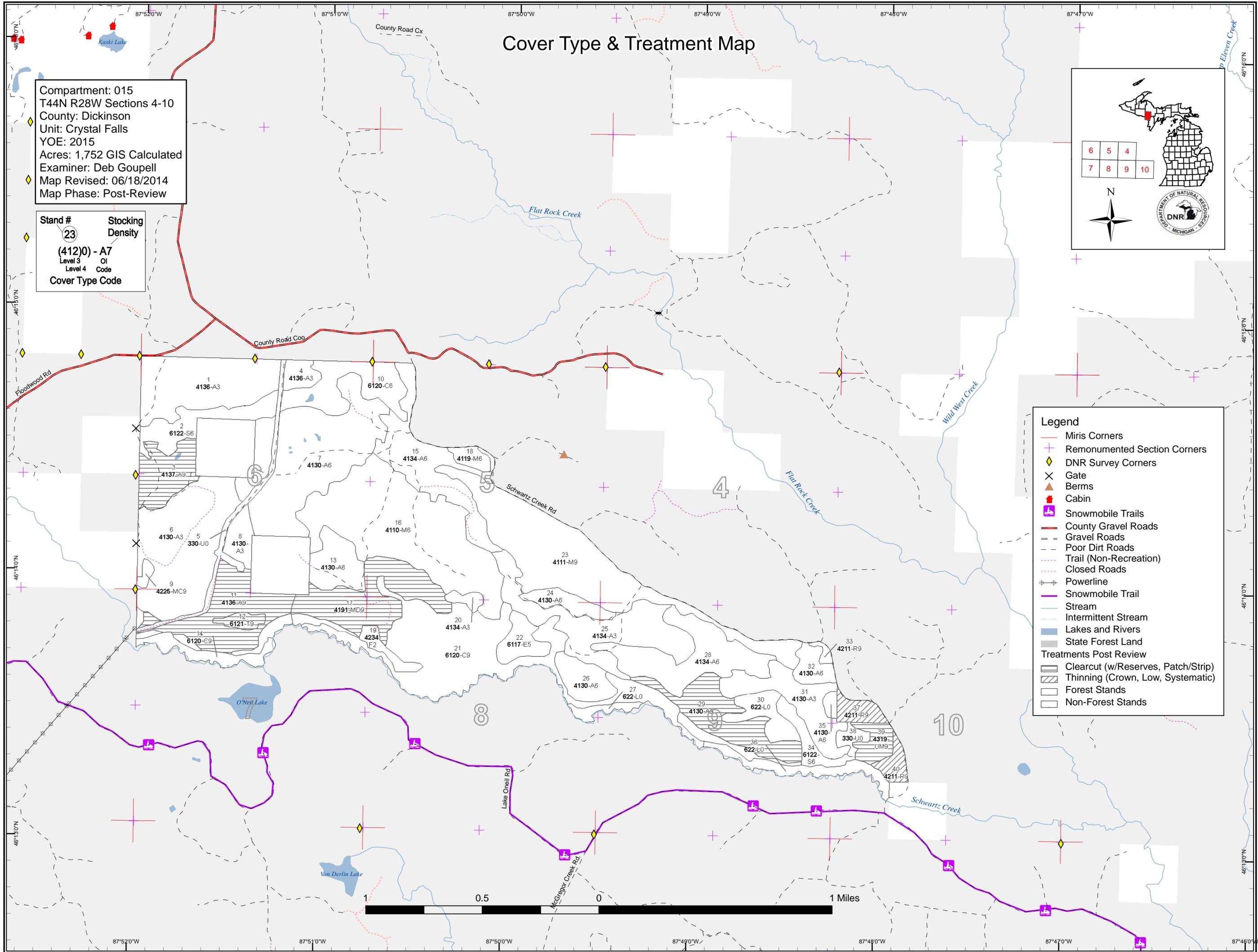
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 - ◆ DNR Survey Corners
 - ✕ Gate
 - ▲ Berms
 - Cabin
 - Snowmobile Trails
 - County Gravel Roads
 - Gravel Roads
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 - Trail (Non-Recreation)
 - Closed Roads
 - Powerline
 - Snowmobile Trail
 - Stream
 - Intermittent Stream
 - Lakes and Rivers
 - State Forest Land
- Treatments Post Review**
- ▨ Clearcut (w/Reserves, Patch/Strip)
 - ▨ Thinning (Crown, Low, Systematic)
 - ▨ Forest Stands
 - ▨ Non-Forest Stands



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	150	221	30	145	90	110	0	176	0	0	0	0	0	0	0	0	0	922
Cedar	0	0	0	0	0	0	0	0	0	48	174	0	0	0	0	0	0	0	222
Low-Density Trees	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
Lowland Deciduous	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Lowland Shrub	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	33	0	15	0	0	0	0	0	0	0	48
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	78
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	329	0	0	0	0	0	0	0	329
Red Pine	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	26
Tamarack	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
Upland Mixed Forest	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	15
Upland Spruce/Fir	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	79	150	221	58	145	90	110	0	250	48	528	0	0	0	0	0	0	78	1757



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2015

Acres of Harvest

Compartment 15
Total Compartment Acres: 1,760

Commercial Harvest - 250
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	142	0	0	0	0	0	0	0	0	142
Mixed Upland Deciduous	67	0	0	0	0	0	0	0	0	67
Red Pine	0	0	0	0	0	22	0	0	0	22
Tamarack	7	0	0	0	0	0	0	0	0	7
Upland Mixed Forest	11	0	0	0	0	0	0	0	0	11
Total	228	0	0	0	0	22	0	0	0	250

Proposed and Next Step Treatments by Harvest Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	250	0	0	0	0	0	0	0	0	250
Next Step	0	0	0	0	0	0	97	0	0	97
Total	250	0	0	0	0	0	97	0	0	347



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
3	12015003-Cut	33.5	4137 - Aspen, Birch	Sawtimber Well	77	Unspecified	Harvest	Clearcut with Retention	4131 - Aspen, Oak	Even-Aged	Field Boundary

Prescription Cut all stems 2" dbh and up, reserving pine and oak.

Specs:

Next Step

Treatments:

Acceptable Aspen, oak, pine, spruce, fir

Regen:

Other Some oak seedlings 1-2' tall; few sugar maple saplings on south near road 2-4" dbh, decent number of sugar maple seedlings scattered about 3" tall. Old next step comments: May consider additional scarification for improved oak recruitment.

Proposed Start Date: 10/1 /2014

Site Condition: None

11	12015011-Cut	56.6	4136 - Aspen, Mixed Conifer	Sawtimber Well	78	Unspecified	Harvest	Clearcut with Retention	4130 - Aspen	Even-Aged	Field Boundary
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Prescription Cut all stems 2" dbh and greater except red pine, white pine, oak and cedar. 300 ft buffer to Schwartz Ck. Additional retention will be along a drainage on far east against stand 17. Retain unmerchantable conifer 1 chain from red boundary on south.

Specs:

Next Step

Treatments:

Acceptable aspen, oak, pine, spruce, fir

Regen:

Other North half has more birch and maple, south half of stand has heavier conifer understory, some red pine in far south. More budworm activity in south half. Old next step comments: check regen per WIs

Proposed Start Date: 10/1 /2014

Site Condition: None

12	12015012-Cut	6.7	6121 - Tamarack	Sawtimber Well	90	Unspecified	Harvest	Clearcut with Retention	6121 - Tamarack	Even-Aged	Field Boundary
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Prescription Cut all stems 2" dbh and greater except cedar.

Specs:

Next Step

Treatments:

Acceptable tamarack, spruce, balm of gilead, fir

Regen:

Other Cedar will be only retention, which may be less than 3%. This is due to small acreage. Old next step comments: check regen per WIs

Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None

17	12015017-Cut	67.2	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	76	Unspecified	Harvest	Clearcut with Retention	4191 - Mixed Upland Deciduous with Conifer	Even-Aged	Draft Field Boundary
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Prescription Cut all stems 2" dbh and greater except oak and red and white pine. Retain a few birch seed trees. 300 ft buffer from Schwartz Ck. Additional retention will be an exclusion on far west side of stand where there is a seep (no bed/bank) and it is very steep.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments: check regen per WIs: expect another diverse, mixed upland stand with maple, aspen, conifer, minor amount of birch.

Comment: May consider additional scarification to recruit more oak and birch.

Proposed Start Date: 10/1 /2014

Site Condition: None



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
29	12015029-Cut	52.3	4130 - Aspen	Sawtimber Well	72	Unspecified	Harvest	Clearcut with Retention	4134 - Aspen, Spruce/Fir	Even-Aged	Draft Field Boundary

Prescription Cut all stems 2" dbh and greater except oak, red/white pine, unmerchantable conifers and cedar, if found.. Additional retention will be 300 foot
Specs: buffer to Schwartz Creek.

Next Step
Treatments:

Acceptable
Regen:

Other Old next step comments: check regen per WIs; expect aspen, maple, conifer mix.
Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None

37	12015037-Cut	12.4	42110 - Planted Red Pine	Sawtimber Well	78	111-140	Harvest	Crown Thinning	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Prescription Thin to 90-100 BA. Retain all oak.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Consider seed tree for next entry or final harvest and replant. Good red pine site.
Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None

39	12015039-Cut	11.4	4319 - Mixed Upland Forest	Sawtimber Well	78	Unspecified	Harvest	Clearcut with Retention	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary
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Prescription Cut all stems 2" dbh and greater except oak and white or red pine; Some red pine may be marked on south/southwest ridge as needed to
Specs: release crop tree crowns. Leave unmerchantable conifer.

Next Step
Treatments:

Acceptable
Regen:

Other South has a steep ridge; edges of stand have red pine and some jack pine seeding in. There is autumn olive in the grassy opening adjacent. Old
Comment: next step comments: check regen per WIs: expect a mixed upland stand with maple, aspen, jack pine, white spruce, balsam, perhaps white birch if ground is scarified sufficiently.

Proposed Start Date: 10/1 /2014

Site Condition: None

40	12015040-Cut	9.9	42110 - Planted Red Pine	Sawtimber Well	78	111-140	Harvest	Crown Thinning	42110 - Planted Red Pine	Even-Aged	Draft Field Boundary
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Prescription Thin stand to 90-100 BA (currently around 120BA), removing poorer formed trees to release crowns.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Consider seed tree or final harvest and replant for next entry.
Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None



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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: 250.0

Dominant Site Conditions

	3L	5C	5E
Aspen		110	7
Cedar			
Low-Density Trees			
Lowland Deciduous			
Lowland Shrub			
Lowland Spruce/Fir	15		
Mixed Upland Deciduous			
Natural Mixed Pines			
Northern Hardwood			
Red Pine			
Tamarack			
Upland Mixed Forest			
Upland Spruce/Fir			
Total Forested Acres	15	110	7
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
2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	71	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Holding for additional growth and for age class diversity							

Report 5 – Site Conditions

Crystal Falls Mgt. Unit

Deb Goupell : Examiner

Compartment: 15

Year of Entry: 2015

4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3L: Other wildlife concerns	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	5E: Long-Term Retention	7	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: 300 ft buffer to Schwartz Creek							

Dominant Site Conditions

	3L	5C	5E
Aspen		110	7
Cedar			
Low-Density Trees			
Lowland Deciduous			
Lowland Shrub			
Lowland Spruce/Fir	15		
Mixed Upland Deciduous			
Natural Mixed Pines			
Northern Hardwood			
Red Pine			
Tamarack			
Upland Mixed Forest			
Upland Spruce/Fir			
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Relative Percent			

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Comments:							
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Holding for additional growth and for age class diversity							

Report 5 – Site Conditions

Crystal Falls Mgt. Unit

Deb Goupell : Examiner

Compartment: 15

Year of Entry: 2015

4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3L: Other wildlife concerns	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	5E: Long-Term Retention	7	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: 300 ft buffer to Schwartz Creek							

Dominant Site Conditions

	3L	5C	5E
Aspen		110	7
Cedar			
Low-Density Trees			
Lowland Deciduous			
Lowland Shrub			
Lowland Spruce/Fir	15		
Mixed Upland Deciduous			
Natural Mixed Pines			
Northern Hardwood			
Red Pine			
Tamarack			
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5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3L: Other wildlife concerns	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
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Crystal Falls Mgt. Unit

Deb Goupell : Examiner

Compartment: 15

Year of Entry: 2015

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Comments:							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3L: Other wildlife concerns	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	5E: Long-Term Retention	7	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: 300 ft buffer to Schwartz Creek							

Dominant Site Conditions

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Natural Mixed Pines			
Northern Hardwood			
Red Pine			
Tamarack			
Upland Mixed Forest			
Upland Spruce/Fir			
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Comments:							
6	Unavailable	3L: Other wildlife concerns	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	5E: Long-Term Retention	7	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: 300 ft buffer to Schwartz Creek							

Dominant Site Conditions

	3L	5C	5E
Aspen		110	7
Cedar			
Low-Density Trees			
Lowland Deciduous			
Lowland Shrub			
Lowland Spruce/Fir	15		
Mixed Upland Deciduous			
Natural Mixed Pines			
Northern Hardwood			
Red Pine			
Tamarack			
Upland Mixed Forest			
Upland Spruce/Fir			
Total Forested Acres	15	110	7
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
2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	71	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Holding for additional growth and for age class diversity							

Report 5 – Site Conditions

Crystal Falls Mgt. Unit

Deb Goupell : Examiner

Compartment: 15

Year of Entry: 2015

4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	3L: Other wildlife concerns	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	5E: Long-Term Retention	7	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: 300 ft buffer to Schwartz Creek							

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
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	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4136 - Aspen, Mixed Conifer	Sapling Well	85.1	8	Unspecified	Floodwood Tee TS cut 2007; White pine, red pine, red oak overstory.
2	6122 - Black Spruce	Poletimber Well	33.4	73	Unspecified	Not very wet black spruce stand, possibly even summer cut. Saw a handful of cedar, reserve.
3	4137 - Aspen, Birch	Sawtimber Well	35.6	77	Unspecified	upland white/black spruce in north; oak seedlings 1-2 feet tall. Birch is breaking up, not holding well. Reserve pine and oak. Few sugar maple saplings on south near road 2-4" dbh. Decent sugar maple seedlings scattered, 3" tall. Good oak seedling/sap regen on far south
4	4136 - Aspen, Mixed Conifer	Sapling Well	10.8	8	Unspecified	Floodwood Tee Ts cut 2007; nice diversity showing up so far; small 1 acre black spruce along county line just east of old ELF line
6	4130 - Aspen	Sapling Well	117.5	17	Unspecified	Friendly Chipmunk TS cut 1998; Red pin seedlings along ELF line. Some birch coming along road. Red pine regenerating heavily along trails/roads. some top/branch mortality/browning. Very diverse stand, some cherry, red maple, white pine.
7	4130 - Aspen	Poletimber Well	144.8	30	Unspecified	Camp Swampy cut 1985; some red pine seedlings along road
8	4130 - Aspen	Sapling Well	14.5	17	Unspecified	Friendly Chipmunk TS cut 1998. There's some birch coming along road.
9	42250 - Pine, Oak	Sawtimber Well	3.5	93	81-110	
10	6120 - Lowland Cedar	Poletimber Well	47.9	88	Unspecified	fairly small diameters, diverse, multi storied
11	4136 - Aspen, Mixed Conifer	Sawtimber Well	75.4	78	Unspecified	west of ELF line is a pocket of tamarack/spruce/balm of gilead/aspen with some cedar. Cedar will be retained.
12	6121 - Tamarack	Sawtimber Well	7.0	90	Unspecified	heavy tag pocket in center of stand; only cut tamarack/spruce/other deciduous spp, no cedar.
13	4130 - Aspen	Poletimber Well	30.1	28	Unspecified	Camp Swampy TS cut 1987
14	6120 - Lowland Cedar	Sawtimber Well	18.7	97	Unspecified	Within 300 feet of Schwartz Ck.
15	4134 - Aspen, Spruce/Fir	Poletimber Well	70.9	55	Unspecified	South half is heavier to conifer under/overstory; north half has smaller diameter aspen
16	4110 - Sugar Maple Association	Poletimber Well	174.5	90	81-110	C-15 Contract Hardwood TS, cut 2006-2008. Good acorn production this year. Trace white birch and black cherry



Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	77.7	76	Unspecified	
4119 - Mixed Northern Hardwoods	Poletimber Well	8.2	90	81-110	Low quality stand, multi-stemmed, knotty, bumpy trees.
42340 - Upland Spruce/Fir	Sapling Medium	9.7	29	Unspecified	aspen clone in far west within 300 feet of Schwartz Creek; didn't see much for budworm activity. Clump of nice red pine log in southwest
4134 - Aspen, Spruce/Fir	Sapling Well	5.4	18	Unspecified	Hill & Dale TS, cut 1997.
6120 - Lowland Cedar	Sawtimber Well	155.0	97	Unspecified	A fair portion of this stand is along the Schwartz Creek.
6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	18.5	25	Unspecified	Trickle Sale, cut 1990. very thick tag
4111 - S.Maple, Hard Mast Association	Sawtimber Well	146.5	94	81-110	C-15 Contract Hwd, cut 2006-2008. Understory in east half has more leatherwood; central and west heavy to hazel/raspberry/ironwood. White spruce scattered understory, some red oak seedlings/saplings
4130 - Aspen	Poletimber Well	16.4	50	Unspecified	A lot of sugar maple saplings; may be ideal stand to allow aspen to fall out and recruit maple.
4134 - Aspen, Spruce/Fir	Sapling Well	83.7	18	Unspecified	Hill & Dale TS, cut 1997. Conifer overstory heavier in far south. Red pine seedlings in landings
4130 - Aspen	Poletimber Well	22.9	50	Unspecified	Very heavy conifer understory; there is a trace of white birch saplings/pole (4"dbh)
4134 - Aspen, Spruce/Fir	Poletimber Well	71.5	43	Unspecified	Lots of rocks. Heavy conifer component in southwest half.
4130 - Aspen	Sawtimber Well	64.6	72	Unspecified	Much of white birch is dead; severe budworm damage and fair amount of blowdown of softwood in west half. Heavy fir understory in west; surprisingly little to no hazel. South central is F2/opening with white spruce, balsam fir that has minor budworm activity. Small tag/black spruce vernal in east central will serve as retention.
4130 - Aspen	Sapling Well	48.5	8	Unspecified	Jack Left TS, 2007. Trace amounts of red oak left
4130 - Aspen	Poletimber Well	14.5	43	Unspecified	A few scattered oaks and trace amounts of jack pine, red pine, white pine.
42110 - Planted Red Pine	Sawtimber Well	2.8	78	111-140	Schwartz Creek Plantation TS, cut 2007.

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Crystal Falls Mgt. Unit

Report 8 – Forested Stands

Compartment: 15
Year of Entry: 2015

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	6122 - Black Spruce	Poletimber Well	15.5	98	Unspecified	Nice thick stand of black spruce, not particularly wet or spongy. Some sphagnum on west edge. Trace amounts of cedar.
35	4130 - Aspen	Poletimber Well	3.8	43	Unspecified	some larger dbh aspen along edges, princess pine. Trace amounts of red oak.
37	42110 - Planted Red Pine	Sawtimber Well	12.5	78	111-140	Schwartz Ck Plantation TS, 2007. Trace amounts of red oak.
39	4319 - Mixed Upland Forest	Sawtimber Well	14.9	78	Unspecified	north part has jack pine, 9"dbh and some WS. Natural RP mostly on south/southwest ridge. South has steep ridge with natural red pine and some JP seeding in. Line out this seedling/opening to protect regen. Remove all jack pine, spruce, deciduous, mark some red pine as needed. May be a candidate for final harvest and replanting.
40	42110 - Planted Red Pine	Sawtimber Well	10.5	78	111-140	Schwartz Ck Plantation TS, cut 2007. Red oak present in minor amounts
41	4130 - Aspen	Sapling Well	2.3	6	Unspecified	
42	4130 - Aspen	Sapling Well	3.2	6	1-50	Pockets of pole and log sized red oak.



Stand	Cover Type	Acres	Managed Site	General Comments:
5	330 - Low-Density Trees	20.5	No	
27	622 - Lowland Shrub	7.4	No	
30	622 - Lowland Shrub	21.8	No	
36	622 - Lowland Shrub	22.7	No	
38	330 - Low-Density Trees	6.8	No	