



# Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12136

Entry Year 2015

Acreage: 526

County Iron

Management Area: Net River

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**Revision Date:** 2013-07-15

**Stand Examiner:**

**Legal Description:**

T44N,R34W sections 7, 8 & 18

**Identified Planning Goals:**

To keep a good buffer along the Paint River a good amount of diversity in the compartment and maintain access which goes through Forest Service land. One third of this compartment is so rugged, it is not accessible for logging, but the rest should have a good diverse age class in aspen and wood harvested according to the maturity and health of the species.

**Soil and topography:**

Many rock outcrops, rough country, quite diverse with low and steep areas intermingled. Some Lupton-Cathro soil with Stambaugh-padus soils present also.

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

The Forest Service owns most land to the west, with private to the north. Plum Creek owns to the south.

**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:**

This compartment borders the Paint river and is also near the intersection of the Paint and Net rivers. Morrison Creek also runs south on Plum Creek land.

**Wildlife Habitat Considerations:**

This compartment is part of a larger complex that borders the Paint, Net and Hemlock Rivers and is part of the Hemlock Rapids Deeryard. Much of the conifer component in the treated aspen stands has been removed. The travel corridors have been maintained for deer, bear, furbearers, bears and other large home range species. It is important to protect remaining drainages and expand the conifer cover whenever possible.

**Mineral Resource and Development Concerns and/or Restrictions**

Surface sediments consist of coarse-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Precambrian Michigamme Formation subcrops below the glacial drift. There is not an economic use for the Michigamme. The Porter and Warner abandoned iron mines are located six miles to the east. This compartment has not been previously leased for metallic exploration, but potential may exist. Some kind of pit/quarry is located in Section 17 on the topo. The nearest gravel pit is located four miles to the east, but there should be potential. There is no economic oil and gas production in the UP.

**Vehicle Access:**

There is no vehicle access into this compartment. You can get close to the compartment by going through the private land with permission for harvesting timber in the north part of the compartment. There is a haul road coming from the west through forest service, and then Plum Creek land for winter use only.

**Survey Needs:**

Some corners will be needed to harvest timber this time.

**Recreational Facilities and Opportunities:**

The river is a recreational feature that you could canoe down and fish and there has been hunting on the compartment.

**Fire Protection:**

This is not a fire prone area, but access would be questionable unless you had an ATV.

**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: 136  
 T44N R34W Sections 7, 8, 18  
 County: Iron  
 Unit: Crystal Falls  
 YOE: 2015  
 Acres: 526 GIS Calculated  
 Examiner: Linda Lindberg  
 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**

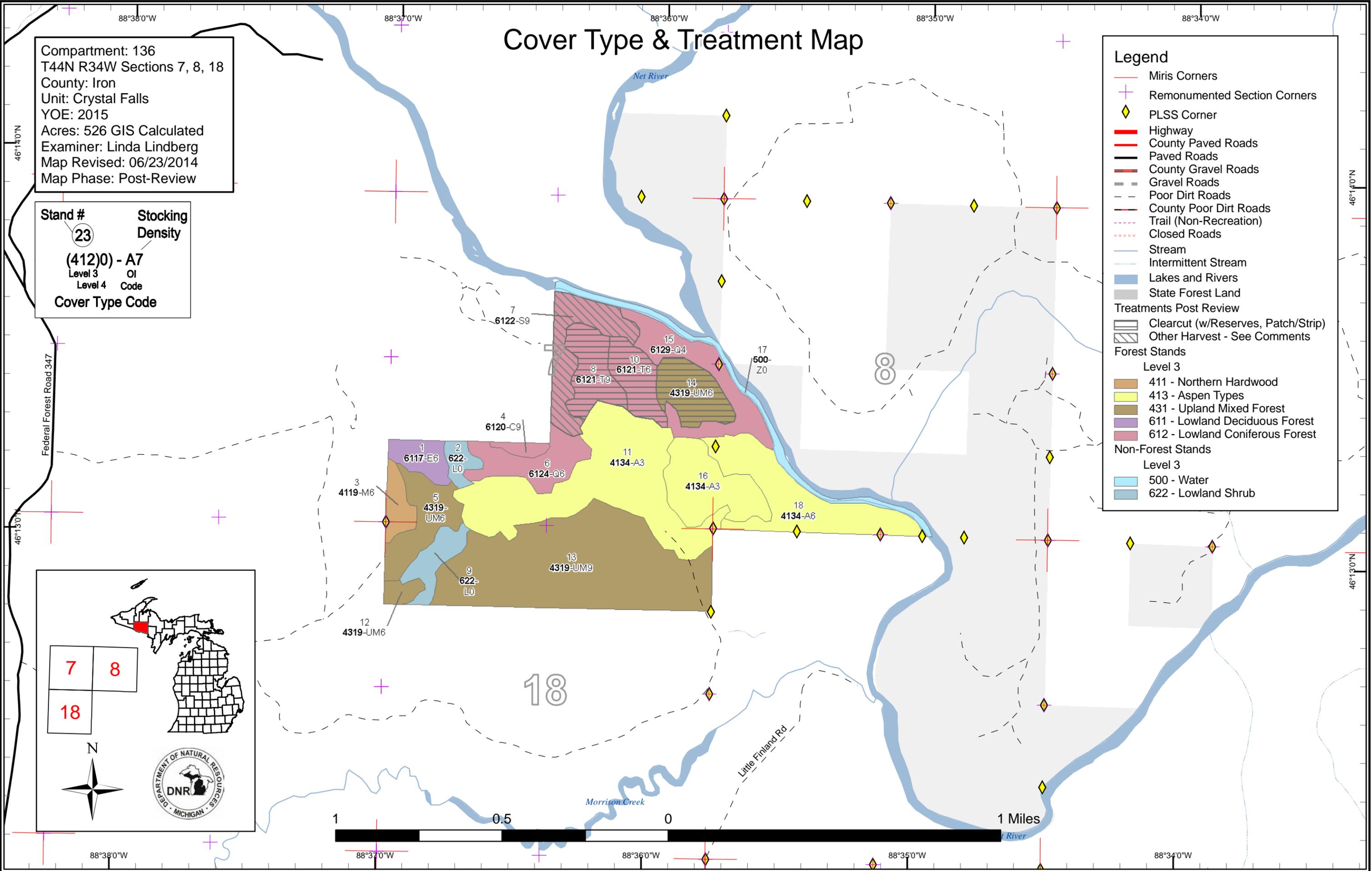
### Legend

- Miris Corners
- + Remonumented Section Corners
- ◆ PLSS Corner
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- - - Poor Dirt Roads
- - - County Poor Dirt Roads
- - - Trail (Non-Recreation)
- ⋯ Closed Roads
- Stream
- - - Intermittent Stream
- Lakes and Rivers
- State Forest Land
- Treatments Post Review**
- ▨ Clearcut (w/Reserves, Patch/Strip)
- ▨ Other Harvest - See Comments
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 413 - Aspen Types
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3**
- 500 - Water
- 622 - Lowland Shrub

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DEPARTMENT OF NATURAL RESOURCES  
 DNR  
 MICHIGAN

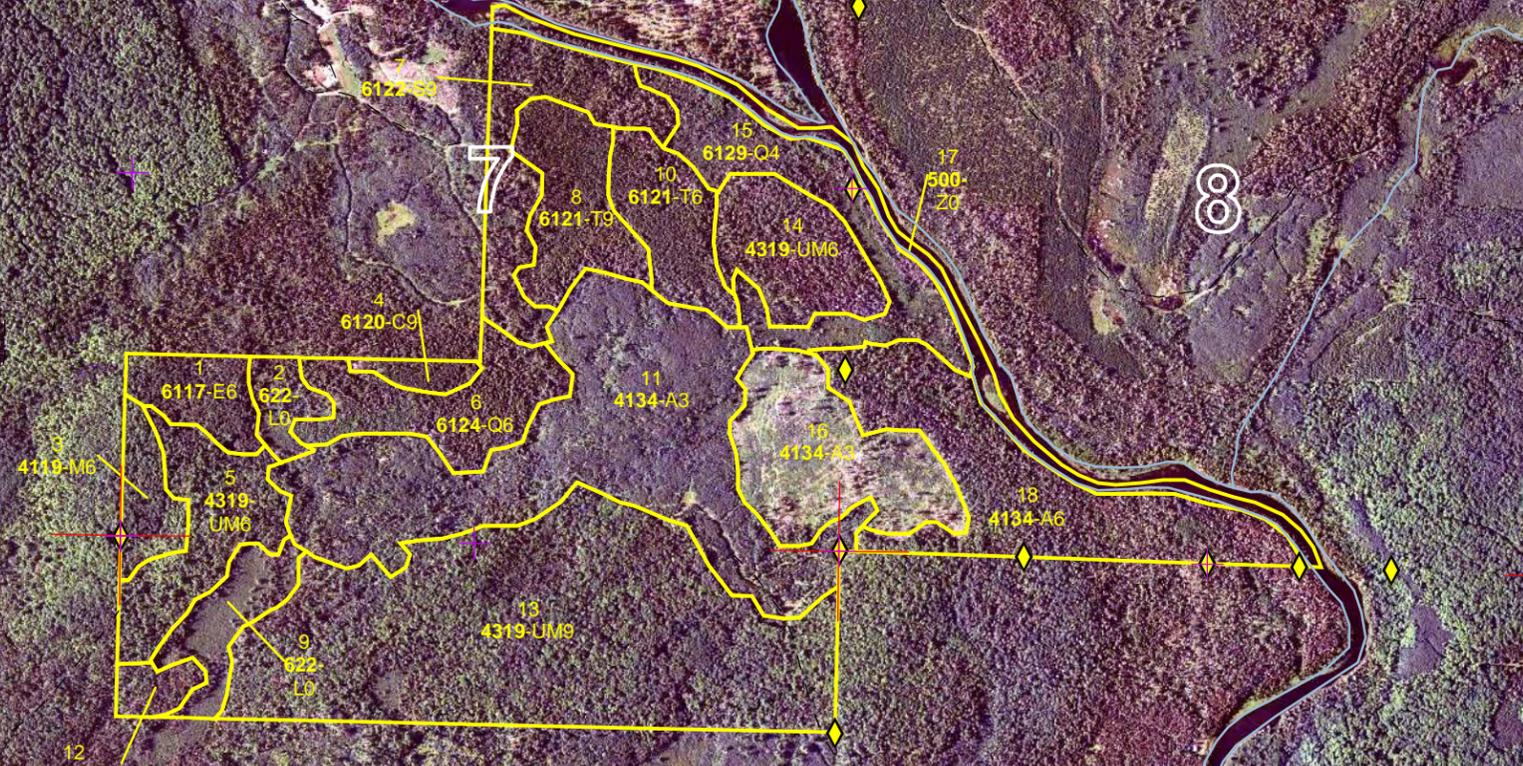


# Stand Boundary Map

Compartment: 136  
 T44N R34W Sections 7, 8, 18  
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- Legend**
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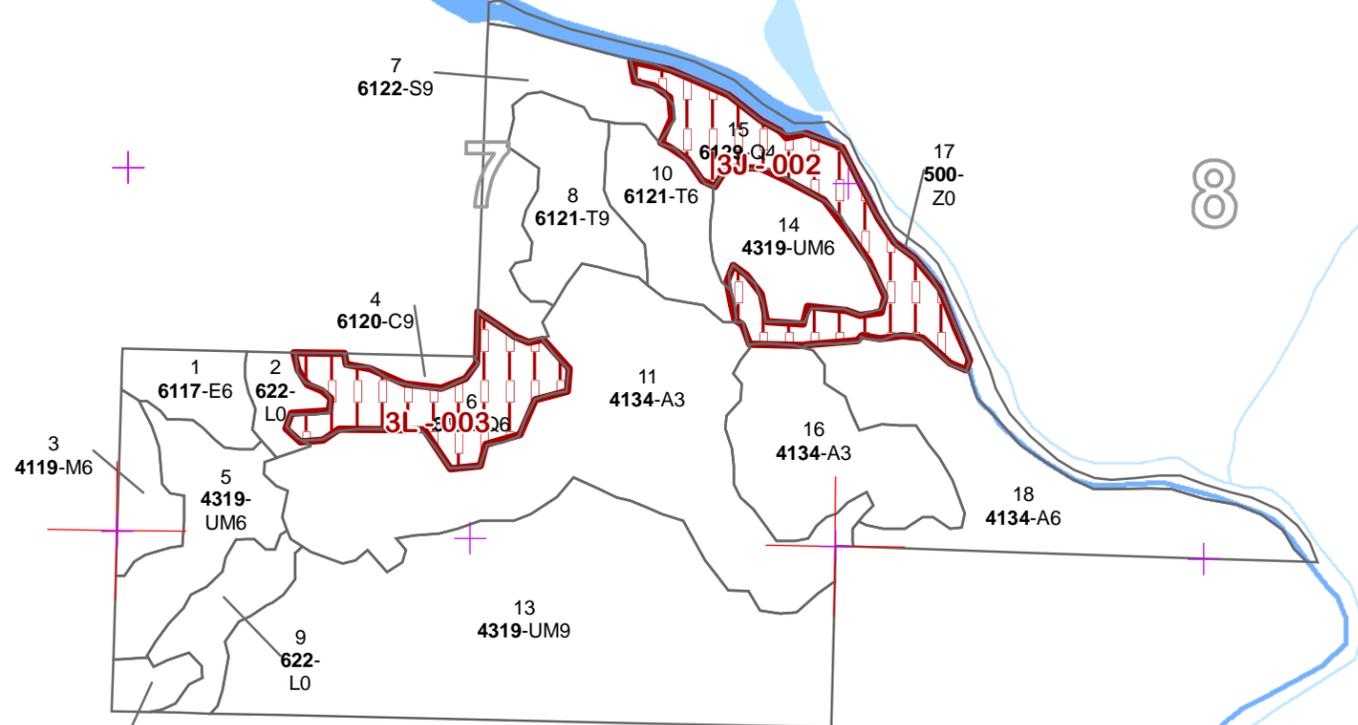

# Special Conservation Areas & Site Conditions Map

Compartment: 136  
 T44N R34W Sections 7, 8, 18  
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 Unit: Crystal Falls  
 YOE: 2015  
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 Examiner: Linda Lindberg  
 Map Revised: 06/23/2014  
 Map Phase: Post-Review

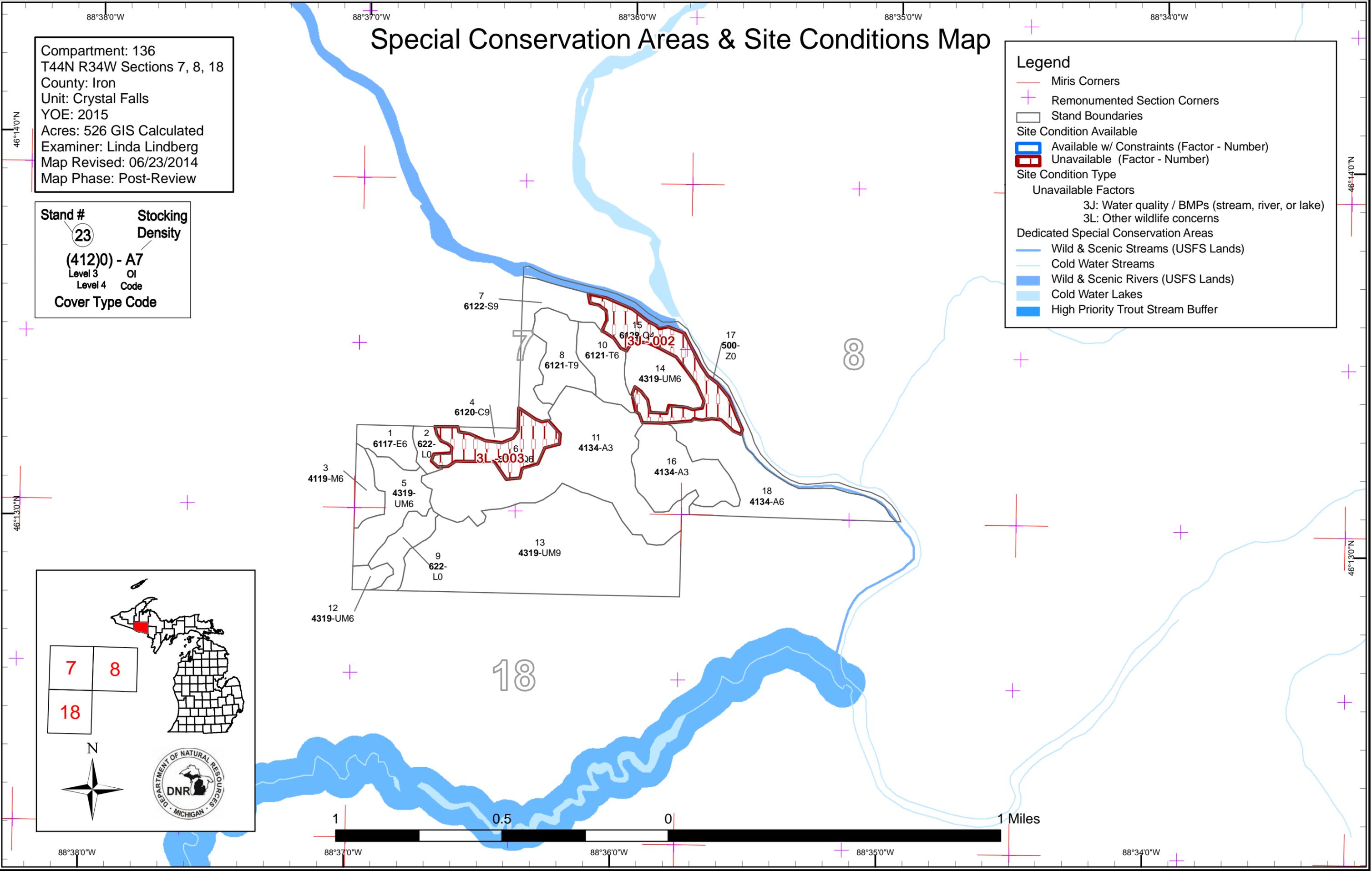
**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

**Legend**

- Miris Corners
- Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Site Condition Type
- Unavailable Factors
  - 3J: Water quality / BMPs (stream, river, or lake)
  - 3L: Other wildlife concerns
- Dedicated Special Conservation Areas
  - Wild & Scenic Streams (USFS Lands)
  - Cold Water Streams
  - Wild & Scenic Rivers (USFS Lands)
  - Cold Water Lakes
  - High Priority Trout Stream Buffer



The inset map shows the state of Michigan with a grid overlay. The northwest corner, corresponding to sections 7, 8, and 18, is highlighted in red. Below the map is a north arrow and the logo for the Michigan Department of Natural Resources (DNR).



# Cover Type & Treatment Map

Compartment: 136  
 T44N R34W Sections 7, 8, 18  
 County: Iron  
 Unit: Crystal Falls  
 YOE: 2015  
 Acres: 526 GIS Calculated  
 Examiner: Linda Lindberg  
 Map Revised: 06/23/2014  
 Map Phase: Post-Review

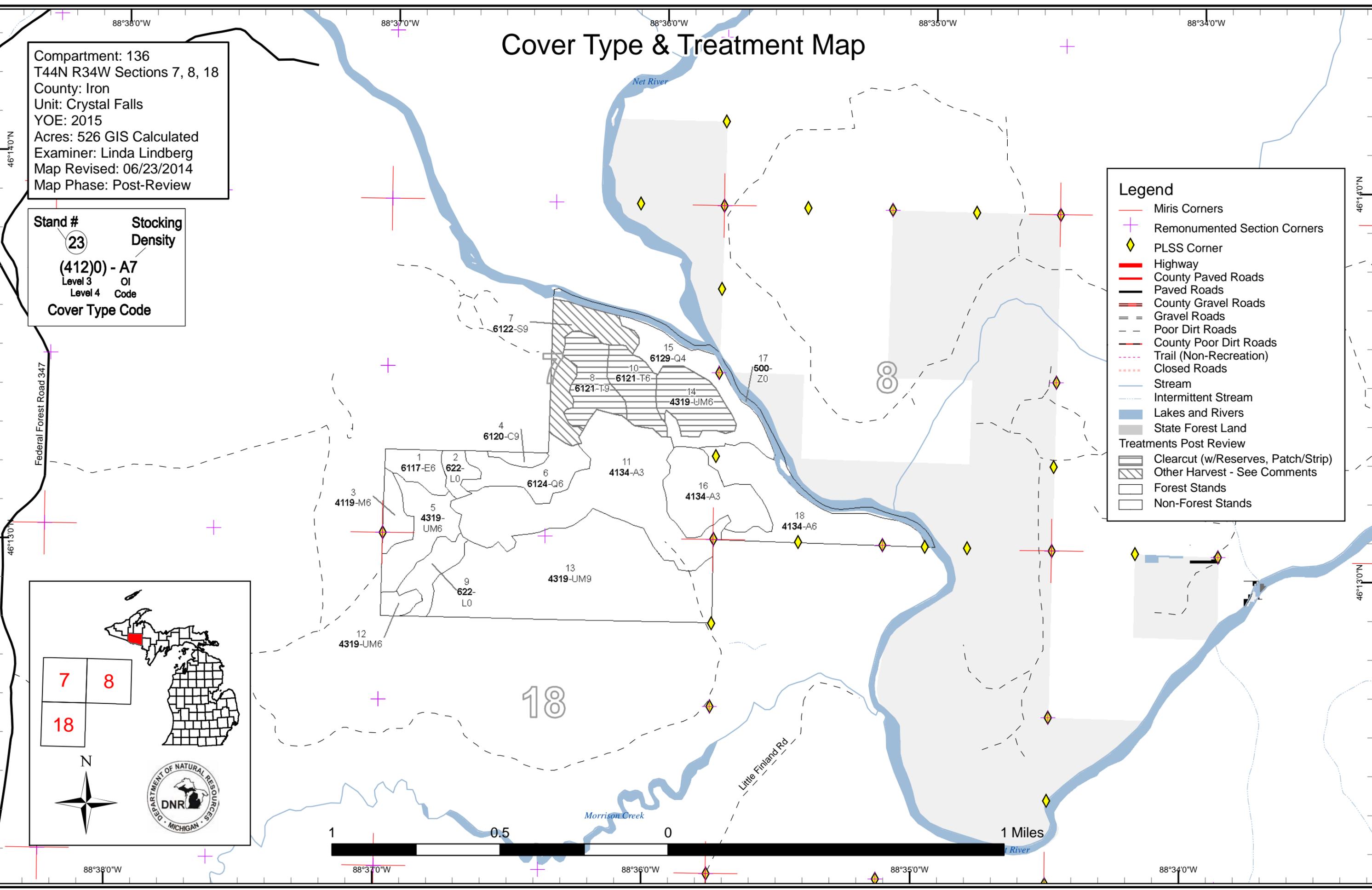
**Stand #**  
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### Legend

- Miris Corners
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- Highway
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- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land
- Treatments Post Review**
- Clearcut (w/Reserves, Patch/Strip)
- Other Harvest - See Comments
- Forest Stands
- Non-Forest Stands

7 8

18





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	34	93	0	0	49	0	0	0	0	0	0	0	0	0	0	0	0	176
Cedar	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Lowland Conifers	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	54
Lowland Deciduous	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11
Lowland Shrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	26
Northern Hardwood	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9
Tamarack	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	38
Upland Mixed Forest	0	0	0	0	0	5	0	0	0	169	0	0	0	0	0	0	0	0	174
Water	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
<b>Total</b>	<b>36</b>	<b>34</b>	<b>93</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>296</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>528</b>



## Report 2 – Treatment Summary

Crystal Falls Mgt. Unit  
Year of Entry: 2015

Acres of Harvest

Compartment 136  
Total Compartment Acres: 526

Commercial Harvest - 85  
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
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	26	26
Tamarack	38	0	0	0	0	0	0	0	0	38
Upland Mixed Forest	21	0	0	0	0	0	0	0	0	21
<b>Total</b>	<b>59</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>85</b>

### Proposed and Next Step Treatments by Harvest Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	85	0	0	0	0	0	0	0	0	85
<b>Total</b>	<b>85</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>85</b>



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
7	12136007-Cut	25.9	6122 - Black Spruce	Sawtimber Well	87	Unspec ified	Harvest	Other - Specify	6122 - Black Spruce	Unspecified	Draft Field Boundary

Prescription I would like to harvest this stand as a strip cut or patch cut to better ensure regeneration. I would cut 60 feet and leave 60 feet in strips or leave patches of 60 foot diameter patches.

Next Step  
Treatments:

Acceptable  
Regen:

Other This will have to be winter cut and the best access is through the private land to the west who has been very cooperative. A 100' buffer will be left along the river  
Comment: Old next step comments: Regen harvest next harvest.

Proposed Start Date: 10/1 /2014

**Site Condition: None**

8	12136008-Cut	20.5	6121 - Tamarack	Sawtimber Well	87	Unspec ified	Harvest	Clearcut with Retention	6121 - Tamarack	Even-Aged	Draft Field Boundary
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Prescription Harvest all merchantable tamerack, spruce and balsam in the stand. Retain all red and white pine, cherry, hemlock, cedar, elm and oak if present.

Next Step  
Treatments:

Acceptable  
Regen:

Other This stand will have to be winter cut and is most easily accessible for the west through the private land. The landowner has been very cooperative thus far. Also, access is through FS land. Old next step comments: Regen survey after harvest.

Proposed Start Date: 10/1 /2014

**Site Condition: None**

10	12136010-Cut	17.0	6121 - Tamarack	Poletimber Well	87	Unspec ified	Harvest	Clearcut with Retention	6121 - Tamarack	Even-Aged	Draft Field Boundary
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Prescription Harvest all merchantable tamerack, spruce and balsam. Retain all white and red pine, cedar, hemlock, cherry, elm and oak if present.

Next Step  
Treatments:

Acceptable  
Regen:

Other This stand will be a winter harvest because it is wet and the easiest access if from the west through the private where the landowner has been very cooperative. Also, through FS land. Old next step comments: Regen survey after harvest.

Proposed Start Date: 10/1 /2014

**Site Condition: None**

14	12136014-Cut	21.4	4319 - Mixed Upland Forest	Poletimber Well	87	51-80	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
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Prescription Harvest all species except red and white pine, cedar, hemlock, oak, elm and cherry. Cut all spruce and balsam that is 6 inches or greater at a 4 inch stump.

Next Step  
Treatments:

Acceptable  
Regen:

Other This stand will be harvested in the winter as with the others because the best access is from the west through private and FS land and through stands 7, 8 and 10 to get to it. Old next step comments: Regen survey after harvest.

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: 84.8

## Report 5 – Site Conditions

Crystal Falls Mgt. Unit  
Linda Lindberg : Examiner

Compartment: 136  
Year of Entry: 2015

### Dominant Site Conditions

3L	
Aspen	0
Cedar	
Lowland Conifers	23
Lowland Deciduous	
Lowland Shrub	
Lowland Spruce/Fir	
Northern Hardwood	
Tamarack	
Upland Mixed Forest	
Water	
Total Forested Acres	23
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	Unavailable	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	31	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Buffer for the river and not enough volume or value</p>							
3	Unavailable	<b>3L: Other wildlife concerns</b>	23	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> This is a deer yard and there is some cedar regen here which means a lot of moving water. The fact that I am cutting a good part of the swamplike area and it is a deeryard is my justification</p>							

## Report 5 – Site Conditions

Crystal Falls Mgt. Unit  
Linda Lindberg : Examiner

Compartment: 136  
Year of Entry: 2015

### Dominant Site Conditions

3L	
Aspen	0
Cedar	0
Lowland Conifers	23
Lowland Deciduous	0
Lowland Shrub	0
Lowland Spruce/Fir	0
Northern Hardwood	0
Tamarack	0
Upland Mixed Forest	0
Water	0
Total Forested Acres	23
Relative Percent	0

*\*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	Unavailable	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	31	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Buffer for the river and not enough volume or value							
3	Unavailable	<b>3L: Other wildlife concerns</b>	23	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> This is a deer yard and there is some cedar regen here which means a lot of moving water. The fact that I am cutting a good part of the swamplike area and it is a deeryard is my justification							

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

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**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 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.
SCA	Wild and Scenic Rivers	Wild and Scenic Rivers are established under authority of the National Wild and Scenic Rivers Act, Public Law 90-542, as amended. Each Wild and Scenic River has a river specific Federal management plan, and State agencies may enter into written cooperative agreements with the administering Federal agency for the management of Wild and Scenic Rivers that are upon State-owned lands. There are 18 miles of Federal designated Wild and Scenic Rivers that are located within the State Forest.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	11.2	60	Unspecified	
3	4119 - Mixed Northern Hardwoods	Poletimber Well	9.2	87	51-80	
4	6120 - Lowland Cedar	Sawtimber Well	3.7	100	111-140	
5	4319 - Mixed Upland Forest	Poletimber Well	23.4	80	81-110	
6	6124 - Lowland Spruce-Fir	Poletimber Well	22.9	82	51-80	There is cedar regen here but it is not above the snow. There seems to be more where the trees are blown down and there is a lot of water both where the cedar is and where the regen is.
7	6122 - Black Spruce	Sawtimber Well	25.9	87	Unspecified	
8	6121 - Tamarack	Sawtimber Well	20.5	87	Unspecified	There are areas with cedar that would be left
10	6121 - Tamarack	Poletimber Well	17.0	87	Unspecified	
11	4134 - Aspen, Spruce/Fir	Sapling Well	92.7	15	Unspecified	
12	4319 - Mixed Upland Forest	Poletimber Well	4.8	42	81-110	This stand is very diverse with many species so hard to come up with a Level 4 call
13	4319 - Mixed Upland Forest	Sawtimber Well	123.8	82	81-110	This stand is completely inoperable and have large concentrations of cedar in many places. There are some flat spots up in the rocks but you can't access them without going up the side of rocks
14	4319 - Mixed Upland Forest	Poletimber Well	21.4	87	51-80	
15	6129 - Mixed Coniferous Lowland Forest	Poletimber Poor	31.2	87	1-50	this stand is reiver buffer, also not very much volume and is wet
16	4134 - Aspen, Spruce/Fir	Sapling Well	33.6	4	Unspecified	
18	4134 - Aspen, Spruce/Fir	Poletimber Well	48.5	42	Unspecified	



Stand	Cover Type	Acres	Managed Site	General Comments:
2	6229 - Mixed lowland shrub	6.5	No	
9	6220 - Alder/willow	12.9	No	
17	500 - Water	17.1	No	