



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12179

Entry Year 2015

Acreage: 548

County Iron

Management Area: Net River

Revision Date: 2013-07-15

Stand Examiner:

Legal Description:

T45N,R33W sections 17 & 20 T45N,R34W section 23

Identified Planning Goals:

We will work on age class diversity in this small compartment. The half section to the west is mostly wetland and too hard to access for the little acreage of timber available in that part of the compartment. In the other part, parts have been harvested in the past largely due to a wind event that leveled the timber so we salvaged most of that. Some is buffer for the Little Hemlock River. There is a gravel pit that is used by many in the area for a shooting range. The Railroad tracks also run through the east part of the compartment and there is a ROW that needs to be honored when harvesting. Highway 141 goes north and south through part of the compartment also.

Soil and topography:

The soil is Lupton-cathro low areas and channing soil in higher ground. The land is fairly flat.

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

There is a snowmobile trail that runs through the compartment. Industry owns much of the surrounding land and the Forest Park school forest which consists of 320 acres is located to the east of the compartment.

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:

The Little Hemlock river and Nelson Creek run through this compartment.

Wildlife Habitat Considerations:

The compartment falls along the western edge of the Cable Lake-Porter Lake Deeryard. This area is important for wintering deer and lowland conifers, cedar, transition zones and mesic conifer in the uplands should be maintained and promoted to continue to meet the future needs of wintering deer. This area is heavily hunted by grouse, woodcock, hare and deer hunters.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and an end moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness. The Precambrian Michigamme Formation subcrops below the glacial drift. The Michigamme does not have a current economic use. Abandoned iron mines are located five miles to the south. This compartment was previously leased for metallic exploration, but no leases or nominations are currently located in this general area, but potential may exist. Gravel pits are located in this area and there is good potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Vehicle access to the main part of this compartment is quite good but the half section of wetland has little access except getting close on the snowmobile trail.

Survey Needs:

There is a need for survey in the portion to the east for timber harvest.

Recreational Facilities and Opportunities:

The gravel pit for shooting is available, there is hunting opportunities here and the snowmobile trail is here along with fishing on the Little Hemlock or Nelson Creek.

Fire Protection:

Fire protection would be very easy for the eastern section and not really available at all for the western area although, chances of it burning are not very high.

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**

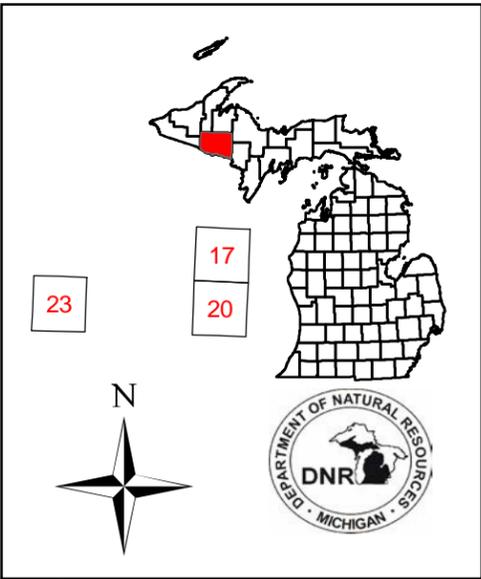
The following information is displayed, where pertinent, on the attached compartment maps:

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

Cover Type & Treatment Map

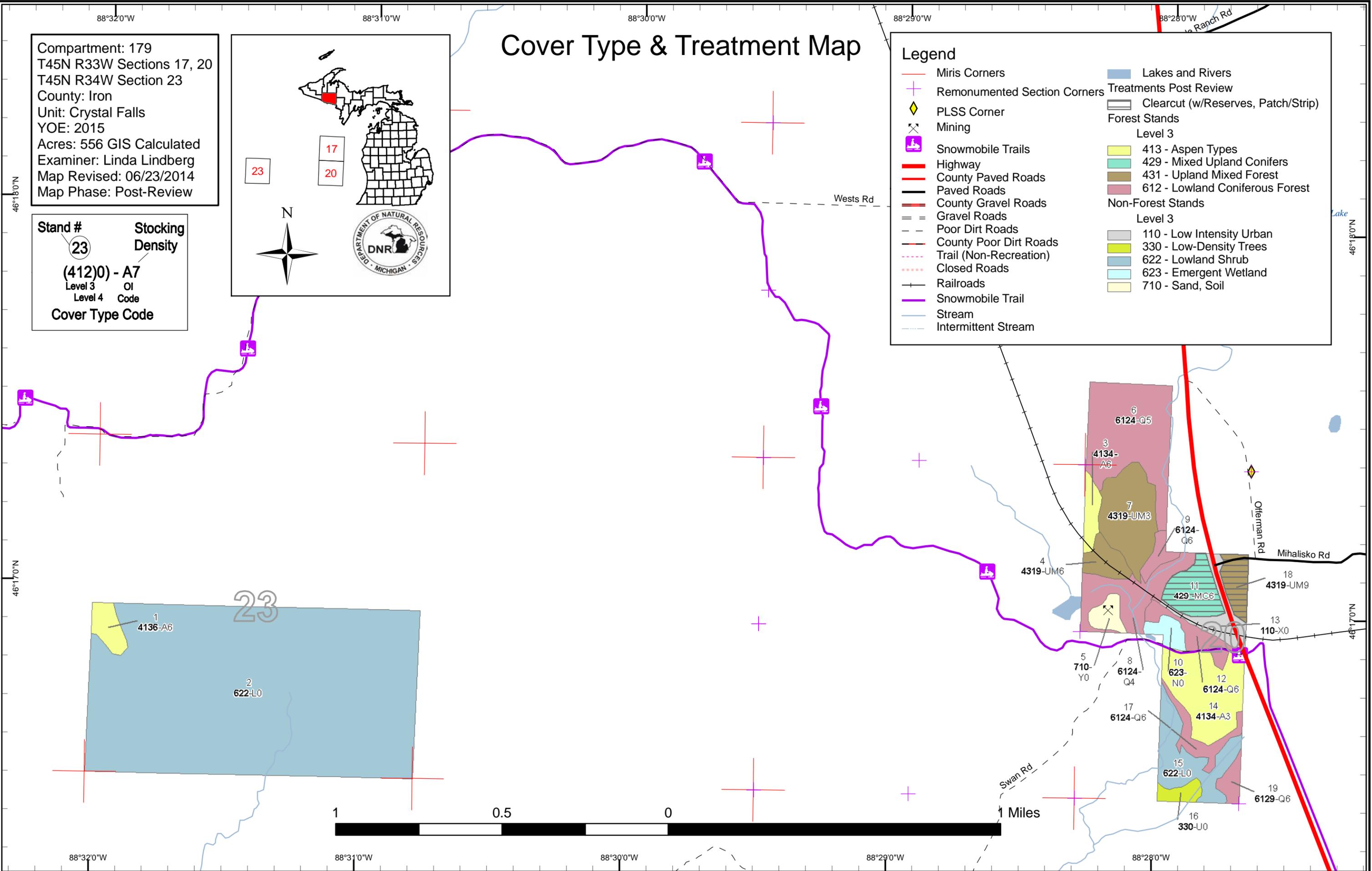
Compartment: 179
 T45N R33W Sections 17, 20
 T45N R34W Section 23
 County: Iron
 Unit: Crystal Falls
 YOY: 2015
 Acres: 556 GIS Calculated
 Examiner: Linda Lindberg
 Map Revised: 06/23/2014
 Map Phase: Post-Review

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



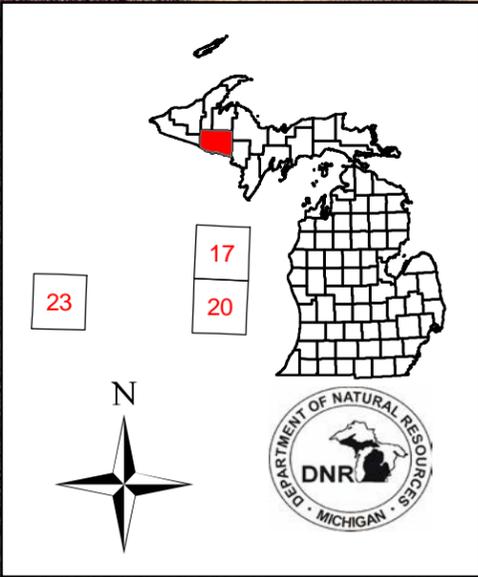
Legend

— Miris Corners	— Lakes and Rivers
+ Remonumented Section Corners	— Treatments Post Review
◆ PLSS Corner	▭ Clearcut (w/Reserves, Patch/Strip)
✂ Mining	— Forest Stands
🏠 Snowmobile Trails	Level 3
🛣 Highway	413 - Aspen Types
🛣 County Paved Roads	429 - Mixed Upland Conifers
🛣 Paved Roads	431 - Upland Mixed Forest
🛣 County Gravel Roads	612 - Lowland Coniferous Forest
🛣 Gravel Roads	Non-Forest Stands
🛣 Poor Dirt Roads	Level 3
🛣 County Poor Dirt Roads	110 - Low Intensity Urban
🛣 Trail (Non-Recreation)	330 - Low-Density Trees
🛣 Closed Roads	622 - Lowland Shrub
🛣 Railroads	623 - Emergent Wetland
🛣 Snowmobile Trail	710 - Sand, Soil
🛣 Stream	
🛣 Intermittent Stream	



Stand Boundary Map

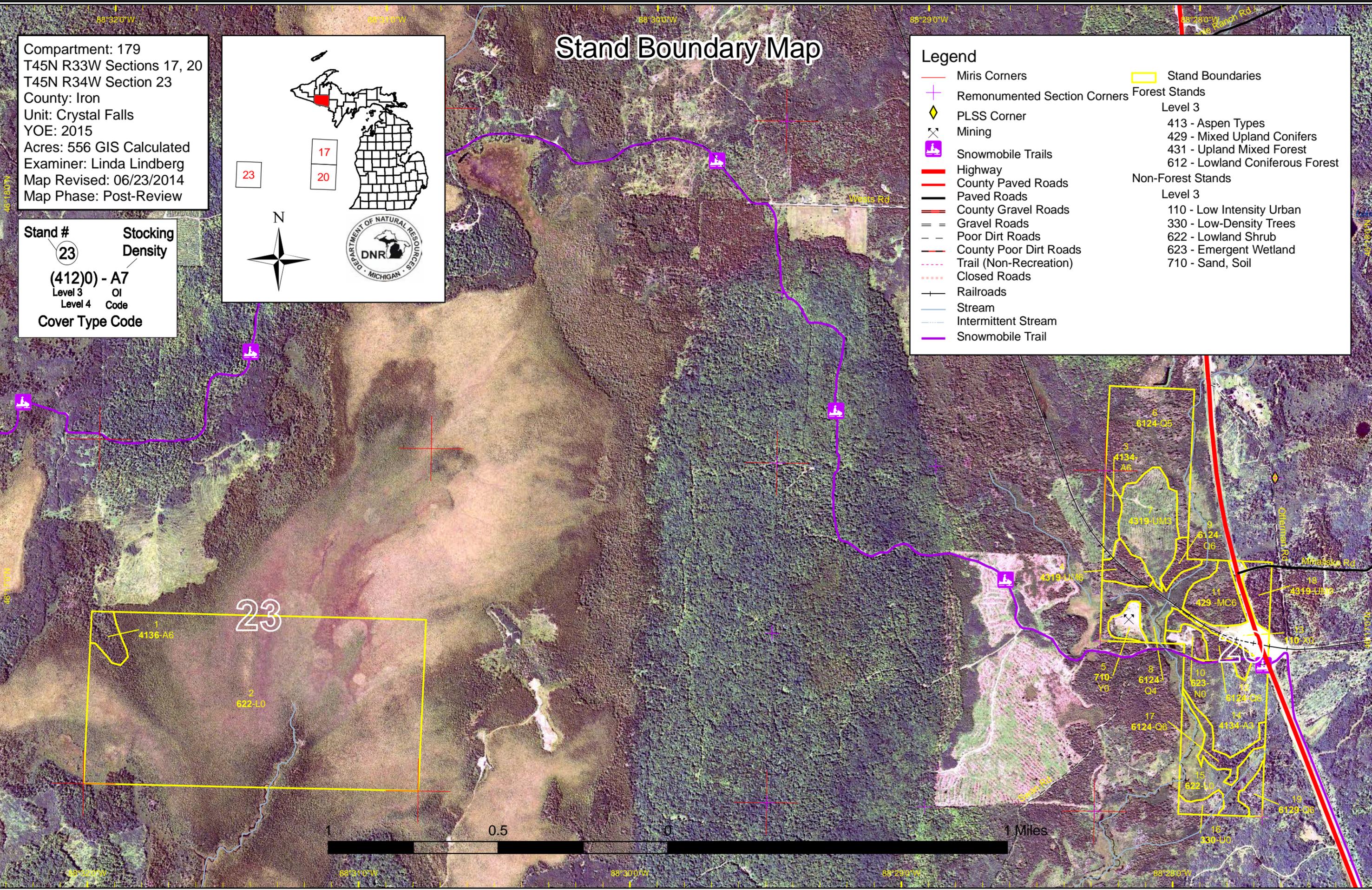
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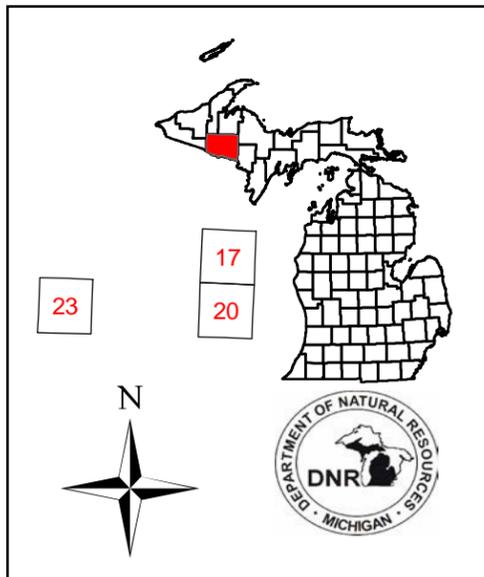
—+—	Miris Corners	□	Stand Boundaries
+—+—	Remonumented Section Corners	□	Forest Stands
◆	PLSS Corner	Level 3	
⛏	Mining	413 - Aspen Types	
🚙	Snowmobile Trails	429 - Mixed Upland Conifers	
—	Highway	431 - Upland Mixed Forest	
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—+—	Railroads		
—	Stream		
—	Intermittent Stream		
—	Snowmobile Trail		



Special Conservation Areas & Site Conditions Map

Compartment: 179
 T45N R33W Sections 17, 20
 T45N R34W Section 23
 County: Iron
 Unit: Crystal Falls
 YOE: 2015
 Acres: 556 GIS Calculated
 Examiner: Linda Lindberg
 Map Revised: 06/23/2014
 Map Phase: Post-Review

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



Legend

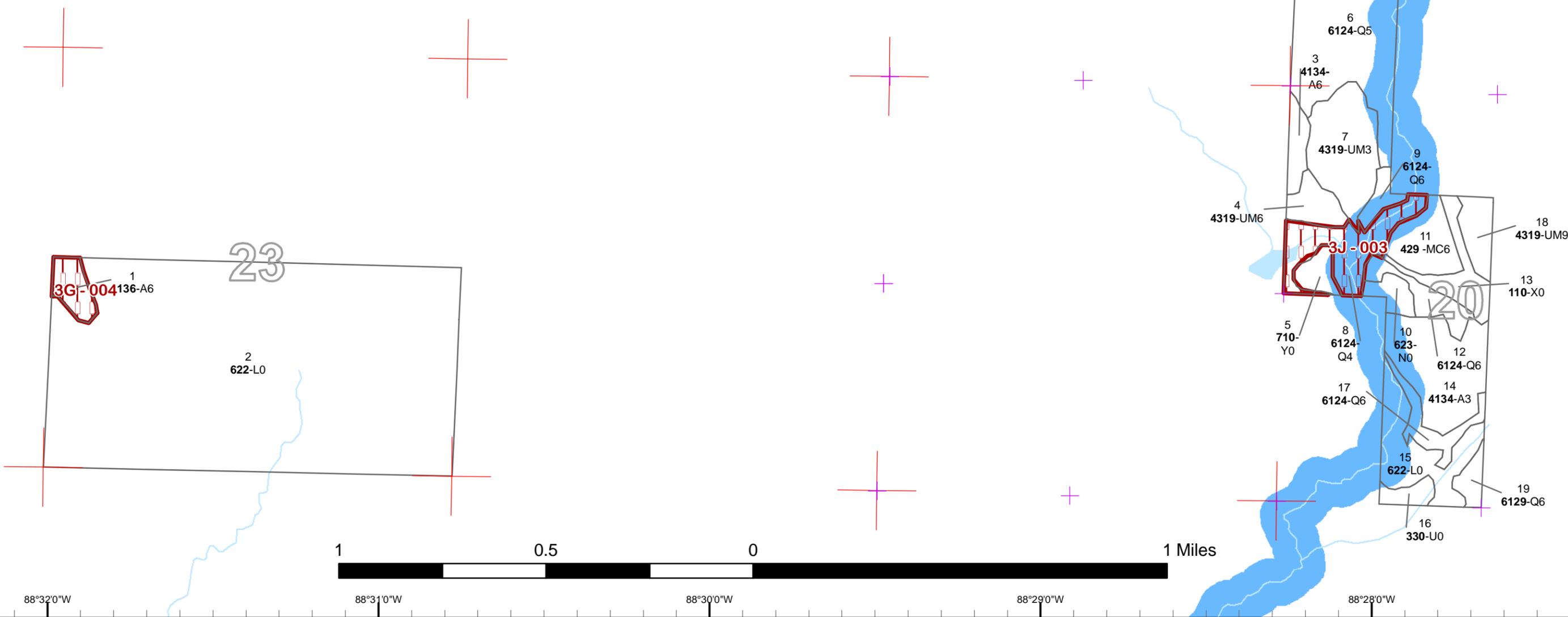
- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
- ▭ Available w/ Constraints (Factor - Number)
- ▭ Unavailable (Factor - Number)
- Site Condition Type
- Unavailable Factors
 - 3G: Other Influence zones - See comments
 - 3J: Water quality / BMPs (stream, river, or lake)
- Dedicated Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer

46°18'0"N

46°17'0"N

46°18'0"N

46°17'0"N



88°32'0"W

88°31'0"W

88°30'0"W

88°29'0"W

88°28'0"W

1

0.5

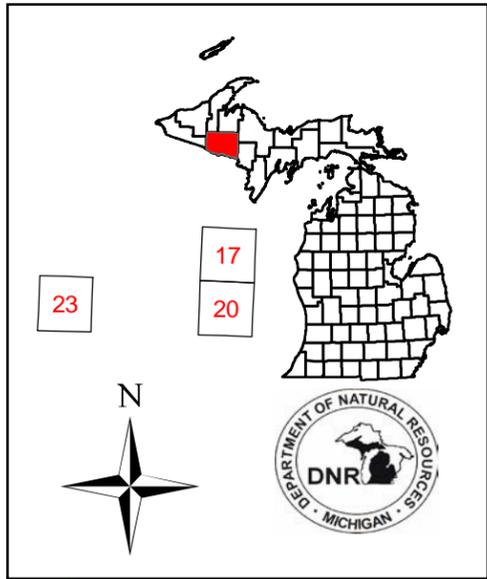
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1 Miles

Cover Type & Treatment Map

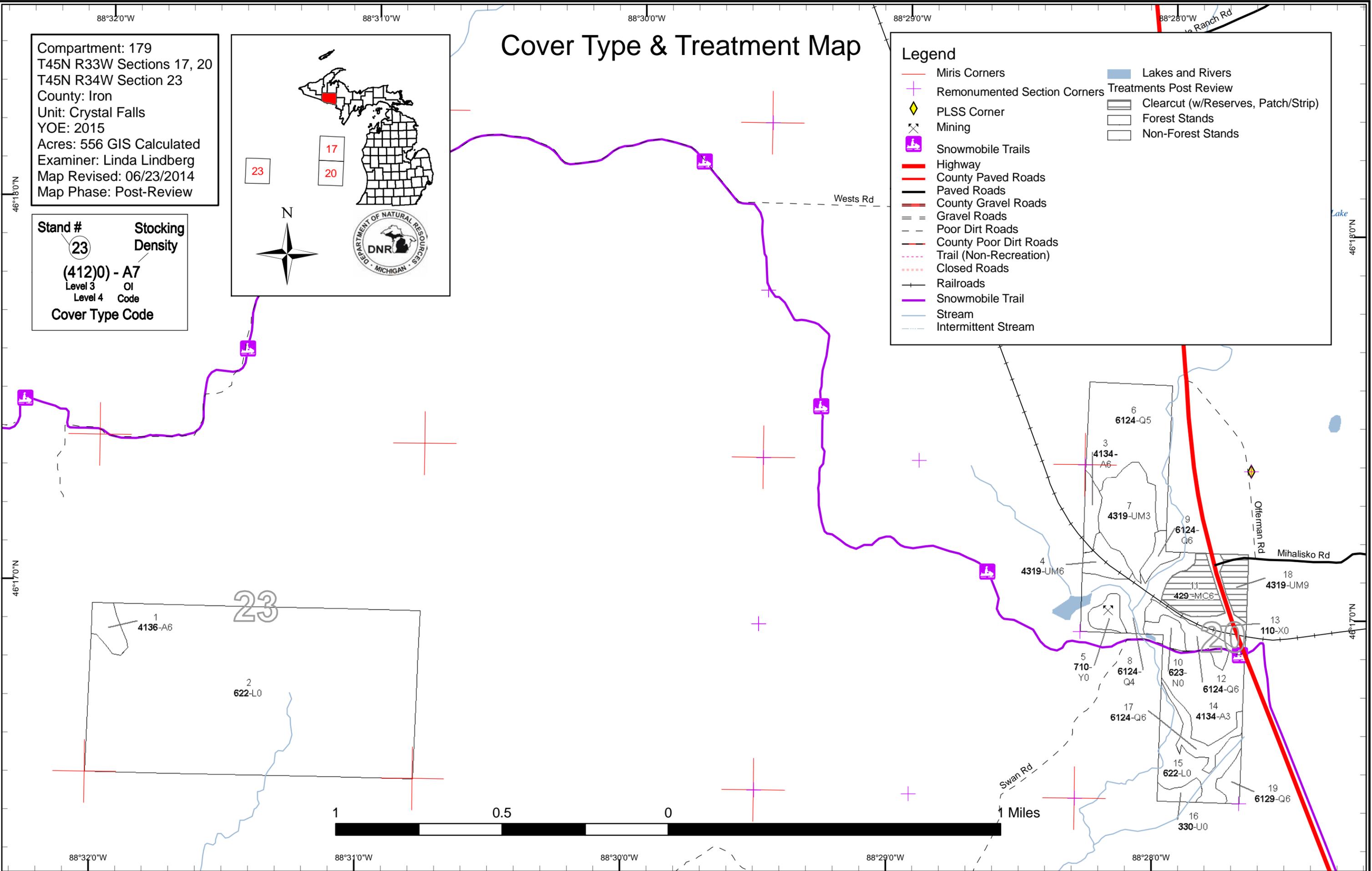
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Legend

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- Mining
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- Highway
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- · - · Trail (Non-Recreation)
- · · · Closed Roads
- Railroads
- Snowmobile Trail
- Stream
- · - · Intermittent Stream
- Lakes and Rivers
- ▨ Treatments Post Review
- ▨ Clearcut (w/Reserves, Patch/Strip)
- ▨ 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	32	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	39
Low-Density Trees	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Conifers	0	0	0	0	0	9	0	0	62	17	0	0	0	0	0	0	0	0	88
Lowland Shrub	300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	300
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Sand, Soil	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Upland Conifers	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	14
Upland Mixed Forest	0	27	0	0	0	12	0	0	0	6	0	0	0	0	0	0	0	0	45
Urban	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Total	324	59	0	0	0	21	0	0	83	23	0	510							



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2015

Compartment 179
Total Compartment Acres: 548

Acres of Harvest

Commercial Harvest - 22
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
Upland Conifers	14	0	0	0	0	0	0	0	0	14
Upland Mixed Forest	8	0	0	0	0	0	0	0	0	8
Total	22	0	0	0	0	0	0	0	0	22

Proposed and Next Step Treatments by Harvest Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	22	0	0	0	0	0	0	0	0	22
Total	22	0	0	0	0	0	0	0	0	22



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
11	12179011-Cut	14.2	429 - Mixed Upland Conifers	Poletimber Well	75	51-80	Harvest	Clearcut with Retention	429 - Mixed Upland Conifers	Even-Aged	Draft Field Boundary

Prescription Cut all trees 2 inches in diameter with the exception of red and white pine, cedar, hemlock, elm, cherry and oak. Cut all conifers that are 6
Specs: inches or larger at a 4 inch stump.

Next Step
Treatments:

Acceptable
Regen:

Other A buffer will be left along the creek if needed and the RR right of way will be honored. Old next step comments: Regen check after harvest
Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None

18	12179018-Cut	7.6	4319 - Mixed Upland Forest	Sawtimber Well	48	51-80	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
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Prescription Cut all trees 2 inches or larger with the exception of red and white pine, cedar, hemlock, oak, cherry and elm. Cut all spruce and balsam that is 6
Specs: inches dbh at a 4 inch stump

Next Step
Treatments:

Acceptable
Regen:

Other This side of the road may need a RR right of way also. Old next step comments: Regen survey needed after harvest
Comment:

Proposed Start Date: 10/1 /2014

Site Condition: None

**Total Treatment
Acreage Proposed: 21.8**

Report 5 – Site Conditions

Crystal Falls Mgt. Unit
Linda Lindberg : Examiner

Compartment: 179
Year of Entry: 2015

Dominant Site Conditions

3J

Aspen	
Low-Density Trees	
Lowland Conifers	17
Lowland Shrub	
Marsh	0
Sand, Soil	0
Upland Conifers	0
Upland Mixed Forest	0
Urban	
Total Forested Acres	17
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
3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	3G: Other Influence zones - See comments	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Crystal Falls Mgt. Unit
Linda Lindberg : Examiner

Compartment: 179
Year of Entry: 2015

Dominant Site Conditions

3J

Aspen	
Low-Density Trees	
Lowland Conifers	17
Lowland Shrub	
Marsh	0
Sand, Soil	0
Upland Conifers	0
Upland Mixed Forest	0
Urban	
Total Forested Acres	17
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
3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	3G: Other Influence zones - See comments	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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 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	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4136 - Aspen, Mixed Conifer	Poletimber Well	6.6	75	Unspecified	As mentioned above, this stand would be all to get here and it is too far in the middle of private land to go after.
4	4319 - Mixed Upland Forest	Poletimber Well	5.9	80	51-80	This stand is right at the railroad tracks on both sides. The trees are fairly small here and still can grow. I am not sure how you would get across the tracks to cut them or cross the creek which is not worth doing for so small a volume
6	6124 - Lowland Spruce-Fir	Poletimber Medium	38.6	75	51-80	
7	4319 - Mixed Upland Forest	Sapling Well	26.8	9	Unspecified	
8	6124 - Lowland Spruce-Fir	Poletimber Poor	17.0	80	1-50	This is the stream buffer and will not be cut. It is along the edge and goes down into tag alder. There are not many trees
9	6124 - Lowland Spruce-Fir	Poletimber Well	4.3	75	81-110	This is the creek buffer
11	429 - Mixed Upland Conifers	Poletimber Well	14.2	75	51-80	This has smaller diameters but is cuttable and has a lot of budworm
12	6124 - Lowland Spruce-Fir	Poletimber Well	8.8	48	51-80	This stand has mixed ages and it is low. It has bog laurel and labrdor tea and is very small.
14	4134 - Aspen, Spruce/Fir	Sapling Well	31.6	7	Unspecified	This was proposed for cutting and then blew down so was redone with more volume and area
17	6124 - Lowland Spruce-Fir	Poletimber Well	10.0	75	Unspecified	This is the creek buffer
18	4319 - Mixed Upland Forest	Sawtimber Well	12.4	48	51-80	This stand seems to have budworm but isn't very old.
19	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	8.5	75	51-80	This is a very small stand and is part buffer for the creek
20	4134 - Aspen, Spruce/Fir	Poletimber Well	0.3	33	Unspecified	THIS stand looks like it was cut with what was cut next door in ownership and it is still growing.
24	6124 - Lowland Spruce-Fir	Poletimber Poor	0.4	80	1-50	This is the stream buffer and will not be cut. It is along the edge and goes down into tag alder. There are not many trees



Stand	Cover Type	Acres	Managed Site	General Comments:
2	6220 - Alder/willow	283.8	No	
3	110 - Low Intensity Urban	2.6	No	grassy area along road and the railroad tracks going east and west
5	710 - Sand, Soil	5.0	No	This is a gravel pit that is used for sighting in guns for hunting season by all the locals and there is a good regeneration area around the outside.
10	6230 - Cattail	4.5	No	There is the low area with cattails and some gravel type area that I think people might camp at.
13	110 - Low Intensity Urban	6.4	No	grassy area along road and the railroad tracks going east and west
15	6229 - Mixed lowland shrub	16.2	No	Buffer for creek
16	3302 - Low Density Conifer Trees	3.3	No	This is the creek and the surrounding area which is low and wet
22	110 - Low Intensity Urban	1.2	No	grassy area along road and the railroad tracks going east and west
26	110 - Low Intensity Urban	1.7	No	grassy area along road and the railroad tracks going east and west