



**Crystal Falls Forest Management Unit
Compartment Review Presentation
Compartment #152 Entry Year: 2012
Compartment Acreage: 835 County: Iron**

Revision Date: July 19, 2010

Stand Examiner: Scott Sebero

Legal Description: T43N, R31W, Sections 19 and 30.

Identified Planning Goals ('Management Area' or 'RMU', if applicable):

Management 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 that may be 50 to 100 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 this compartment consist mostly of State lands with some private parcels and a few year round residents. Lands in and around this compartment are used mainly for hunting and managed for forest products.

Unique, Natural Features: Kurkura Creek and Minnehaha Creek flow through this compartment.

Archeological, Historical, and Cultural Features: None.

Special Management Designations or Considerations: None.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: This compartment is part of the east half of the Mansfield Cutoff Deeryard. It is almost an equal mix of aspen, spruce/fir, and mixed swamp conifer. Heavy winter deer use of the all of the stands currently prescribed for harvest is evident.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium sometimes thin to discontinuous over bedrock. The glacial

drift thickness varies between 0 and 50 feet. The Precambrian Hemlock Formation subcrops below the glacial drift. The abandoned Crystal Falls iron mines are located six miles to the west. Parts of this compartment were previously leased for metallic exploration. The Randville Dolomite is quarried three miles to the east. The nearest gravel pit is four miles to the west, but potential appears to be limited. There is no economic oil and gas production in the UP.

Vehicle Access: Vehicle access is from Mansfield Cutoff Road and associated trail roads.

Survey Needs: None.

Recreational Facilities and Opportunities: This area is used heavily by deer hunters as well as grouse and turkey hunters.

Fire Protection: None.

Additional Compartment Information: None.

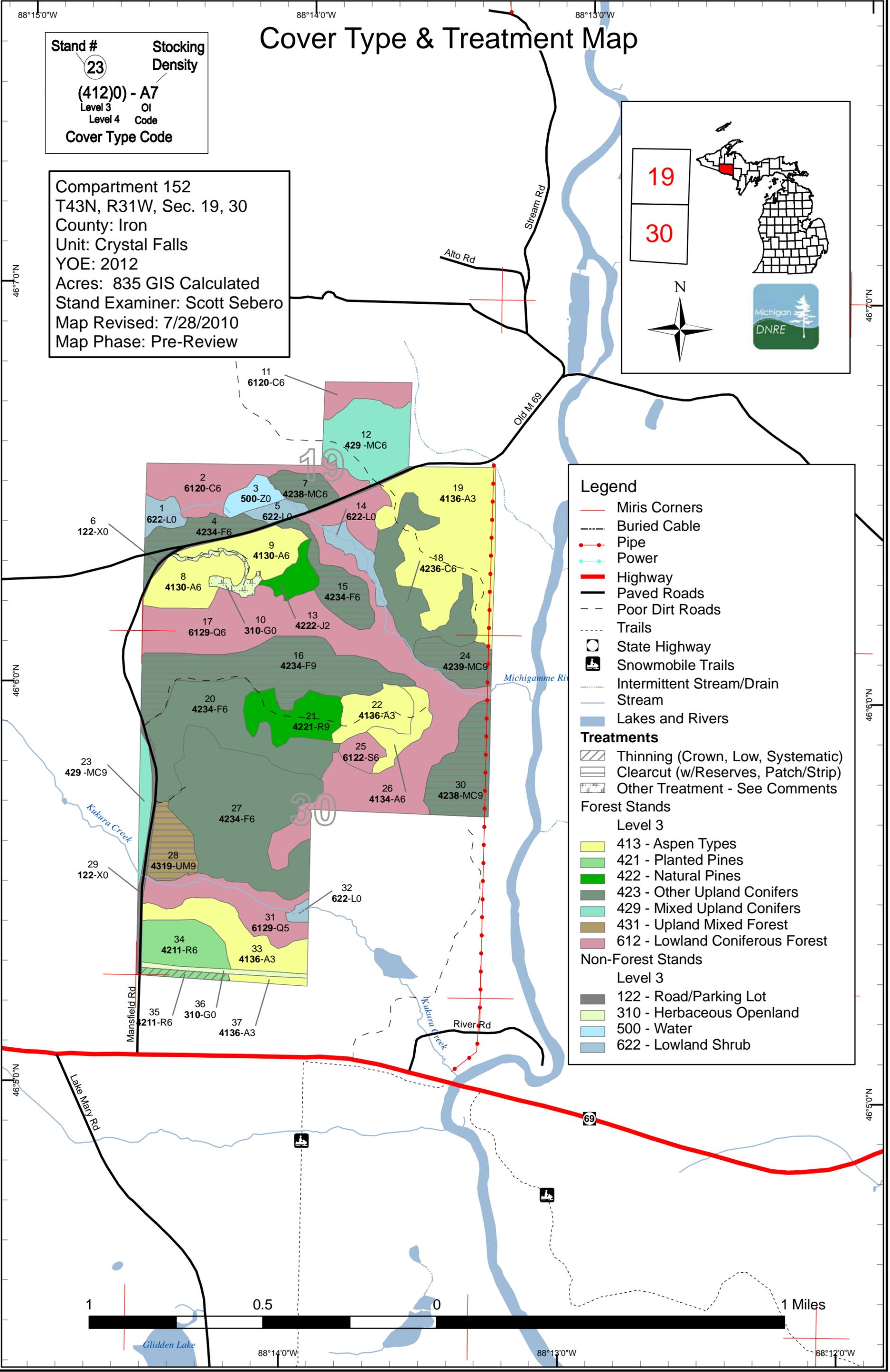
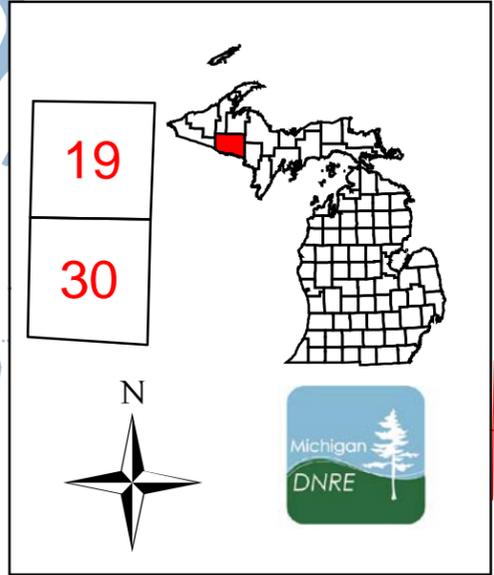
- **The following reports from the Inventory are attached:**
 - ◆ **Total Acres by Cover Type and Age Class**
 - ◆ **Proposed Treatment Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
 - ◆ **Stand Details (Forested and Nonforested)**
 - ◆ **Dedicated and Proposed Special Conservation Areas**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand boundaries, cover types, and numbers**
 - ◆ **Proposed treatments**
 - ◆ **Details on the road access system**

Cover Type & Treatment Map

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

Compartment 152
 T43N, R31W, Sec. 19, 30
 County: Iron
 Unit: Crystal Falls
 YOE: 2012
 Acres: 835 GIS Calculated
 Stand Examiner: Scott Sebero
 Map Revised: 7/28/2010
 Map Phase: Pre-Review



Legend

- Miris Corners
- Buried Cable
- Pipe
- Power
- Highway
- Paved Roads
- Poor Dirt Roads
- Trails
- State Highway
- Snowmobile Trails
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers

Treatments

- Thinning (Crown, Low, Systematic)
- Clearcut (w/Reserves, Patch/Strip)
- Other Treatment - See Comments

Forest Stands

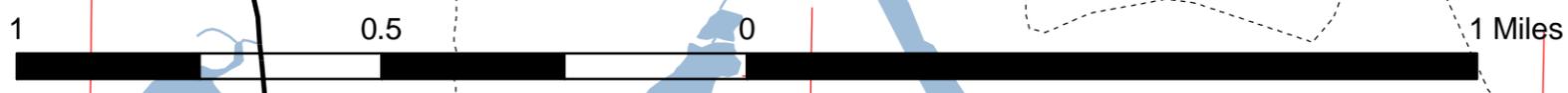
Level 3

- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub



88°15'0"W 88°14'0"W 88°13'0"W 88°12'0"W

46°7'0"N 46°6'0"N 46°5'0"N

Stand Boundary Map

Stand # **23**
 Stacking Density
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Legend

- Miris Corners
- Highway
- Paved Roads
- - -** Poor Dirt Roads
- - - -** Trails
- State Highway
- Snowmobile Trails
- Intermittent Stream/Drain
- Stream
- Stand Boundaries

Forest Stands

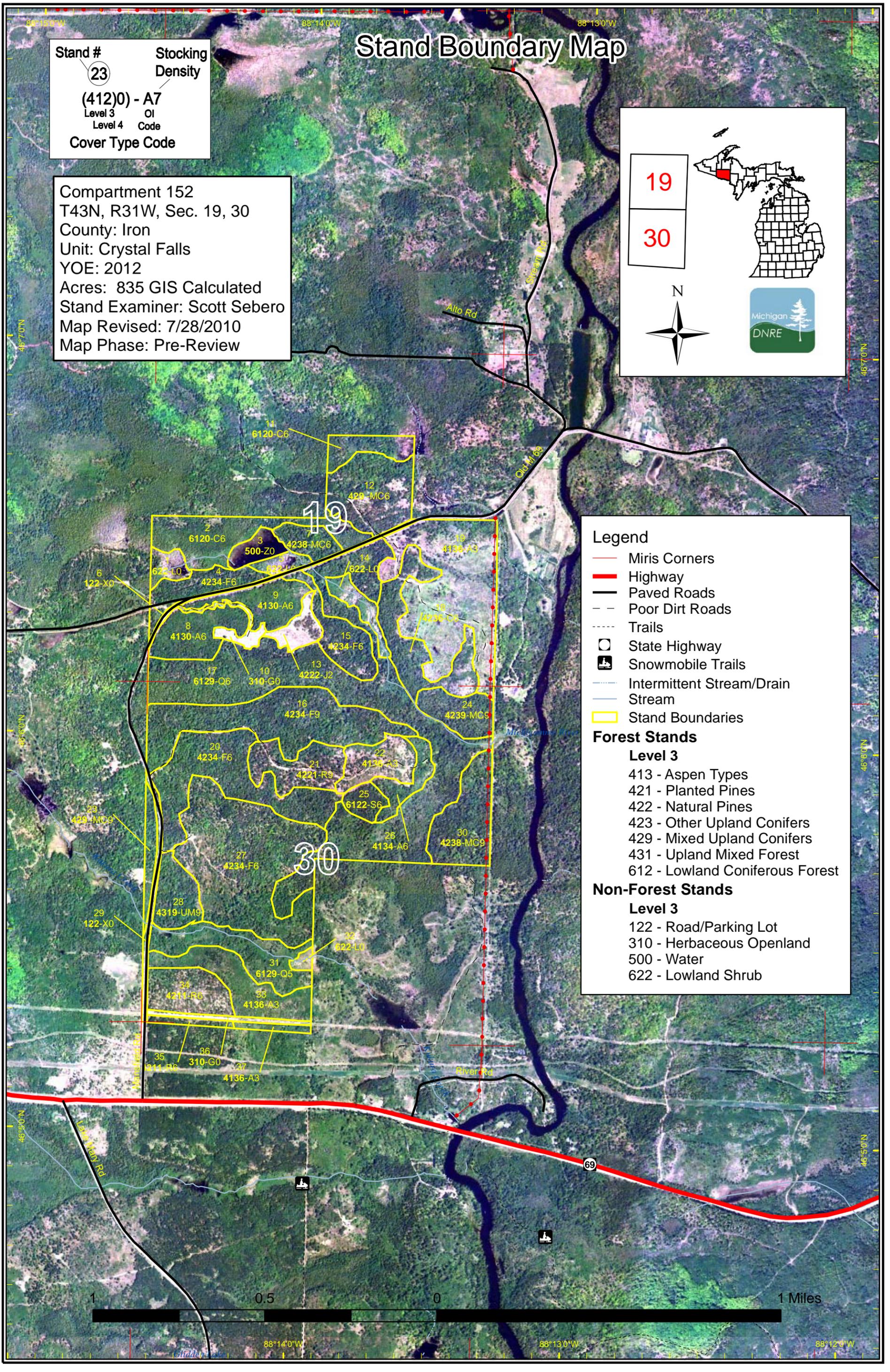
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Non-Forest Stands

Level 3

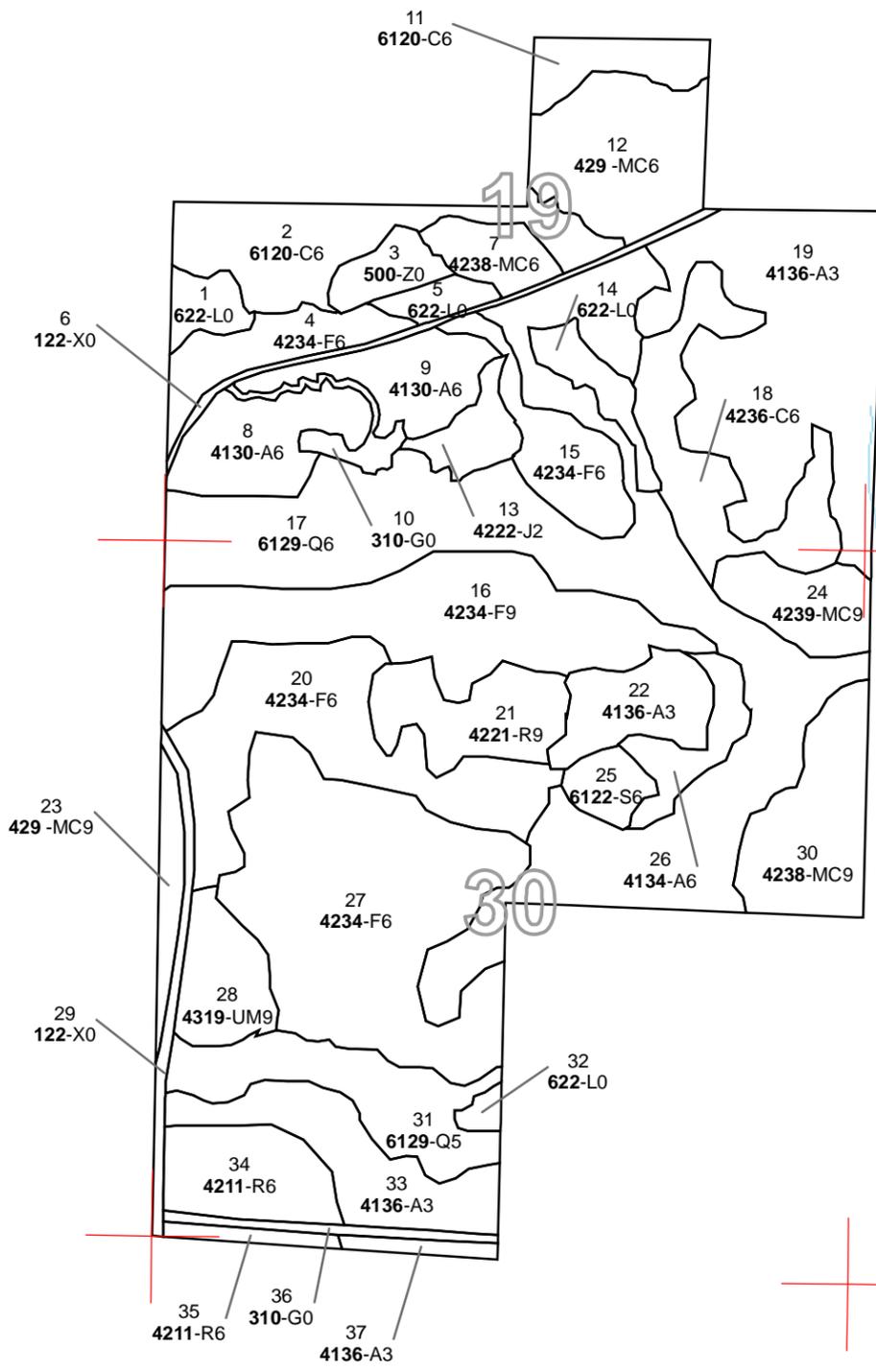
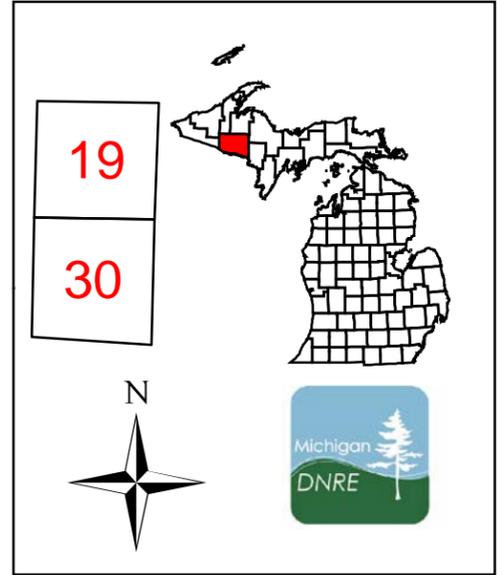
- 122 - Road/Parking Lot
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Dedicated & Proposed Special Conservation Area Map

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

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 T43N, R31W, Sec. 19, 30
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 Unit: Crystal Falls
 YOE: 2012
 Acres: 835 GIS Calculated
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 Map Revised: 7/28/2010
 Map Phase: Pre-Review



Legend

- Miris Corners
- Stand Boundaries
- Proposed Special Conservation Areas**
- ▨ SCA - Special Conservation Area
- ▩ SCA Removal
- Dedicated Special Conservation Areas**
- Cold Water Streams
- Forest Stands**
- Level 3
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
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- Non-Forest Stands**
- Level 3
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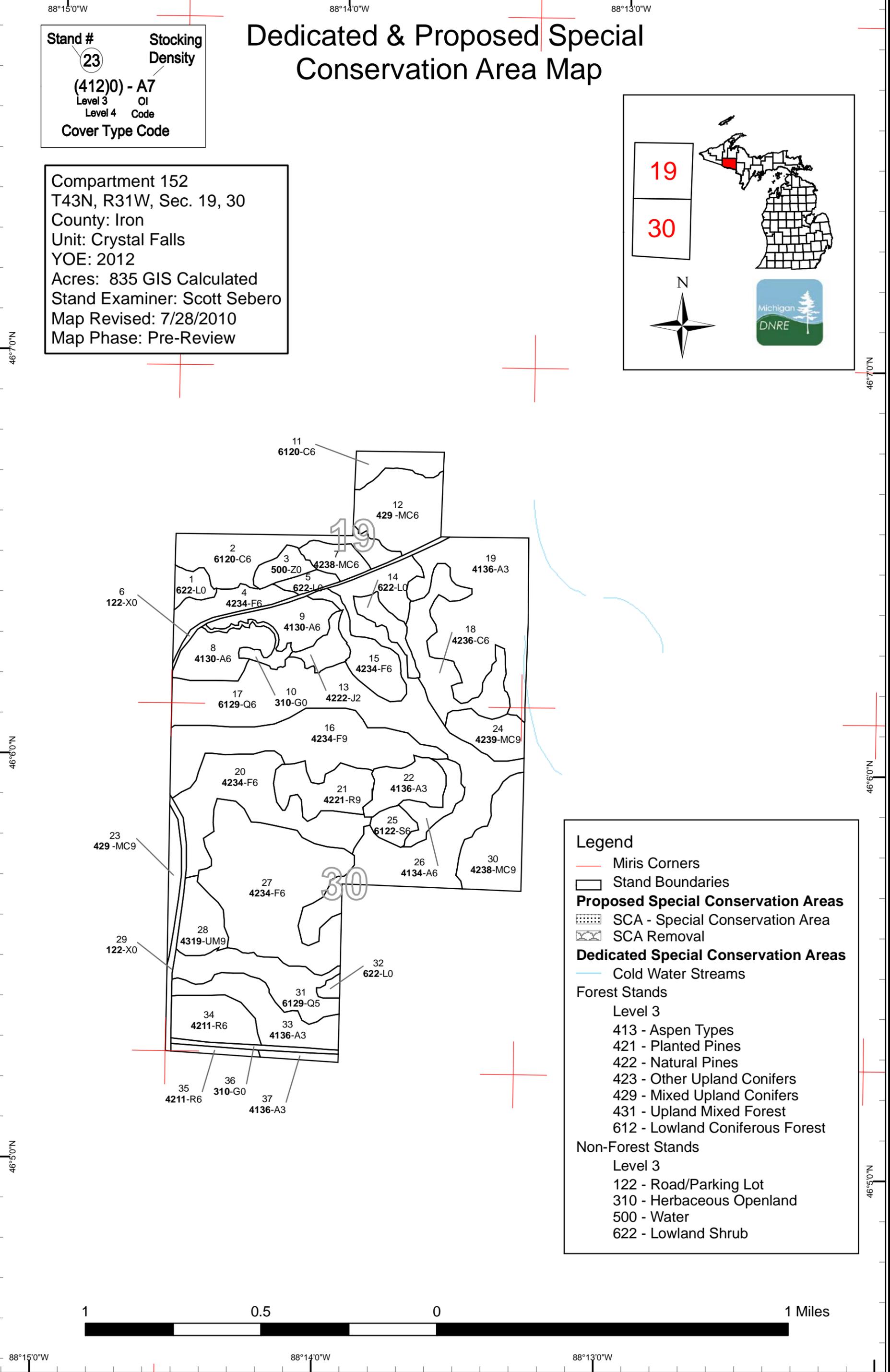


Table 1 – Total Acres by Cover Type and Age Class



	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneven Age
Aspen	0	72	45	0	10	37	0	0	0	0	0	0	0	0	0	164
Cedar	0	0	0	0	0	0	0	0	0	0	0	71	0	0	0	71
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Jack Pine	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	8
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	169	0	0	0	169
Lowland Shrub	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7
Red Pine	0	0	0	0	0	0	23	0	0	20	0	0	0	0	0	43
Upland Conifers	0	0	0	0	0	0	0	0	0	9	0	49	0	0	31	89
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	15
Upland Spruce/Fir	0	0	0	0	0	131	0	0	0	32	0	58	0	0	0	221
Urban	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Water	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	49	72	53	0	10	168	23	0	0	68	0	362	0	0	31	835



Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2012

Compartment 152
Total Compartment Acres: 835.4

Acres by Treatment Type

Commercial Harvest - 159	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 5	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Red Pine	0	0	0	0	3	0	3
Upland Conifers	51	0	0	0	0	0	51
Upland Mixed Forest	15	0	0	0	0	0	15
Upland Spruce/Fir	90	0	0	0	0	0	90
Total	156	0	0	0	3	0	159



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	12152004-Cut	14.9	42340 - Upland Spruce/Fir	High Density Pole	80	Harvest	Clearcut with Reserves	Upland Spruce/Fir	Cmpt. Review Proposal

Prescription: Cut all aspen, and mixed hardwood 2" and larger DBH. Cut all spruce, balsam and jack pine with a stump dia. of six inches or more. No red or white pine, cedar, hemlock or oak will be cut.

Other
Comments:

Next
Steps: Regen survey per work constructions.

7	12152007-Cut	9.1	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Pole	80	Harvest	Clearcut with Reserves	Upland Spruce/Fir	Cmpt. Review Proposal
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Prescription: Cut all aspen and mixed hardwood 2" DBH or greater. Cut all spruce, balsam and jack pine with a stump dia. of six inches or more. No red or white pine, cedar, hemlock or oak will be cut.

Other
Comments:

Next
Steps: Regen survey per work constructions.

15	12152015-Cut	16.7	42340 - Upland Spruce/Fir	High Density Pole	80	Harvest	Clearcut with Reserves	Upland Spruce/Fir	Cmpt. Review Proposal
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Prescription: Cut all aspen and mixed hardwood greater than 2" DBH. Cut all spruce, balsam, and jack pine with a DBH of six inches or more. No red or white pine, cedar, hemlock or oak will be cut.

Other
Comments:

Next
Steps: Regen survey per work constructions.

16	12152016-Cut	58.1	42340 - Upland Spruce/Fir	High Density Log	100	Harvest	Clearcut with Reserves	Upland Spruce/Fir	Cmpt. Review Proposal
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Prescription: Cut all aspen and mixed hardwood 2" DBH or greater. Cut all spruce, balsam, and jack pine with a stump dia. of six inches or more. No red or white pine, cedar, hemlock or oak will be cut.

Other
Comments:

Next
Steps: Regen survey per work constructions.

24	12152024-Cut	14.7	42390 - Mixed Non- Pine Upland Conifers	High Density Log	100	Harvest	Clearcut with Reserves	Mixed Non-Pine Upland Conifers	Cmpt. Review Proposal
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Prescription: Cut all aspen and mixed hardwood greater than 2" DBH. Cut all spruce, balsam and jack pine with a stump dia. of six inches or more. No red or white pine, cedar, hemlock or oak will be cut.

Other
Comments:

Next
Steps: Regen survey per work constructions.

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
28 12152028-Cut	15.0	4319 - Mixed Upland Forest	High Density Log	100	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Cut all aspen and mixed hardwood 2"DBH or greater. Cut all spruce, balsam and jack pine with a stump dia. of six inches or more. No red or white pine, cedar, hemlock or oak will be cut.

Other Comments:

Next Steps: Regen survey per work constructions.

30 12152030-Cut	27.1	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Log	100	Harvest	Clearcut with Reserves	Non Pine Upland Conifer, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Cut all aspen and mixed hardwoods 2" DBH or greater. Cut all spruce, balsam and jack pine with a stump dia. of six inches or more. No red or white pine, cedar, hemlock or oak will be cut.

Other Comments:

Next Steps: Regen survey per work constructions.

35 12152035-Cut	3.3	42110 - Planted Red Pine	High Density Pole	54	Harvest	Systematic Thinning	Planted Red Pine	Cmpt. Review Proposal
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Prescription Thin to a BA of 120.

Specs:

Other Comments: Harvest with larger stand in compartment to the South.

Next Steps:

None.

10 NF_12152010-NonFor	5.2	Non-Forested		0	Non-Forest Management	Other - Specify	Cool Season Grass	Cmpt. Review Proposal
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Prescription Opening Maintenance: Disc, Seed & Fertilize, and Berm Hunter Walking Trail.

Specs:

Other Comments:

Next Steps:

Total Treatment Acreage Proposed: 164.2

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
Specs:

Other
Comment:

Next
Steps:

Limiting Factor and No
Treatment Reason

Total Treatment
Acreage Proposed: 0

Stand	Crystal Falls Mgt. Unit		5 – Forested Stands			Compartment: 152	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012	
2	6120 - Lowland Cedar	High Density Pole	30.7	100	81-110		
4	42340 - Upland Spruce/Fir	High Density Pole	14.9	80	51-80		
7	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Pole	9.1	80	81-110		
8	4130 - Aspen	High Density Pole	20.1	40	51-80		
9	4130 - Aspen	High Density Pole	16.8	40	51-80		
11	6120 - Lowland Cedar	High Density Pole	10.8	100	81-110		
12	429 - Mixed Upland Conifers	High Density Pole	31.2	Uneven Age	51-80		
13	42220 - Natural Jack Pine	Medium Density	8.0	15			
15	42340 - Upland Spruce/Fir	High Density Pole	16.7	80	81-110		
16	42340 - Upland Spruce/Fir	High Density Log	58.1	100	81-110		
17	6129 - Mixed Coniferous Lowland Forest	High Density Pole	141.4	100	81-110		
18	42360 - Upland Cedar	High Density Pole	30.0	100	81-110		
19	4136 - Aspen, Mixed Conifer	High Density Sapling	71.7	6			
20	42340 - Upland Spruce/Fir	High Density Pole	48.3	40	51-80		
21	42210 - Natural Red Pine	High Density Log	20.4	80	111-140		Stand was thinned last entry.
22	4136 - Aspen, Mixed Conifer	High Density Sapling	16.1	17			
23	429 - Mixed Upland Conifers	High Density Log	6.9	100	81-110		
24	42390 - Mixed Non-Pine Upland Conifers	High Density Log	14.7	100	81-110		



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Crystal Falls Mgt. Unit

5 – Forested Stands

Compartment: 152

Inventory Method: IFMAP

Year of Entry: 2012



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
25	6122 - Black Spruce	High Density Pole	6.5	80	81-110	
26	4134 - Aspen, Spruce/Fir	High Density Pole	10.2	36	51-80	
27	42340 - Upland Spruce/Fir	High Density Pole	82.9	40	51-80	
28	4319 - Mixed Upland Forest	High Density Log	15.0	100	81-110	
30	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Log	27.1	100	81-110	
31	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	27.7	100	51-80	
33	4136 - Aspen, Mixed Conifer	High Density Sapling	25.6	16		
34	42110 - Planted Red Pine	High Density Pole	19.3	54	51-80	
35	42110 - Planted Red Pine	High Density Pole	3.3	54	111-140	
37	4136 - Aspen, Mixed Conifer	High Density Sapling	3.1	16		



Stand	Cover Type	Acres	Gen Cmts:
1	622 - Lowland Shrub	6.0	
3	50 - Water	7.4	
5	622 - Lowland Shrub	4.6	
6	122 - Road/Parking Lot	5.0	
10	310 - Herbaceous Openland	5.2	
14	622 - Lowland Shrub	7.8	
29	122 - Road/Parking Lot	6.8	
32	622 - Lowland Shrub	2.0	
36	310 - Herbaceous Openland	4.1	



7 – 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.

Inventory Method: IFMAP

Stand	SCA Type	SCA Name	Acres	Comments



8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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.