



**Crystal Falls Forest Management Unit
Compartment Review Presentation
Compartment #178 Entry Year: 2013
Compartment Acreage: 220 County: Iron**

Revision Date: 6/16/2011

Stand Examiner: Linda Lindberg

Legal Description: T44N,R33W Sections 8 and 19
T44N,R34W Section 11

RMU (if applicable): Text

Management Goals: This compartment is spread out along both the Paint and Hemlock Rivers with a larger parcel on or near Fire Lake. This compartment has gotten smaller as we have sold or traded several parcels of land but the three parcels remaining are valuable for their access to the Paint and Hemlock Rivers and the Fire Lake parcel is surrounding the boat landing and keeping this portion acreage with managed timber and undeveloped lake frontage. Swampland near the lake and the Hemlock river make a good riparian buffer that will not be harvested. Maintaining a variety of age classes of aspen, even in this small compartment is the goal for sustainability. Also maintaining buffers and keeping the small amount of diversity that is available present in the compartment is a key goal.

Soil and Topography: Soils vary from sandy loams to silt loams in the higher areas and outwash plains in lower acreage. There is a ridge through the riparian area along the Hemlock river and along the Paint river, a fairly flat, well drained area. There are rolling hills along portions of Fire Lake and a lower, riparian area as well.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is very broken ownership but vital to own. Active forest management has occurred on the adjacent lands and are all private. Both smaller and larger tracts occur. Most ownerships are rustic and used part time.

Unique, Natural Features: There is an old dam in section 11 and this is used as a canoe access site. We have an easement to access this acreage. The Hemlock river runs into the Paint river. Fire lake has full time homes, camps and with our boat access a fair fishing opportunity.

Archeological, Historical, and Cultural Features: The dam mentioned above in section 11 is of historical mention.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations: Text

Wildlife Habitat Considerations: This compartment consists of a few separate parcels along the Paint and Hemlock Rivers and Fire Lake. All offer excellent wildlife habitat, particularly the riparian zones. Care has been taken in past management to look to age and species diversity while providing buffered riparian zones protecting sensitive habitats and providing those mature forest conditions required by many wildlife species. The upland and lowland conifer components and stands should be maintained and promoted.

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 a current economic use for the Michigamme. The abandoned Warner and Porter iron mines are located one mile to the east. Most of the area around this compartment was previously leased for metallic exploration and potential may still exist. Gravel pits are located on the east end of the compartment. Gravel potential appears to be good in the compartment. There is no economic oil and gas production in the UP.

Vehicle Access: All of these parcels are easy to access and provide opportunities for hunting, fishing or timber management or a stroll in the woods.

Survey Needs: No survey work is needed at this time.

Recreational Facilities and Opportunities: As mentioned above, these parcels are invaluable both as hunting, fishing and hiking areas and continue to offer all those values.

Fire Protection: Not prone to burn and access is easy in all cases.

Additional Compartment Information: Text

- **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**

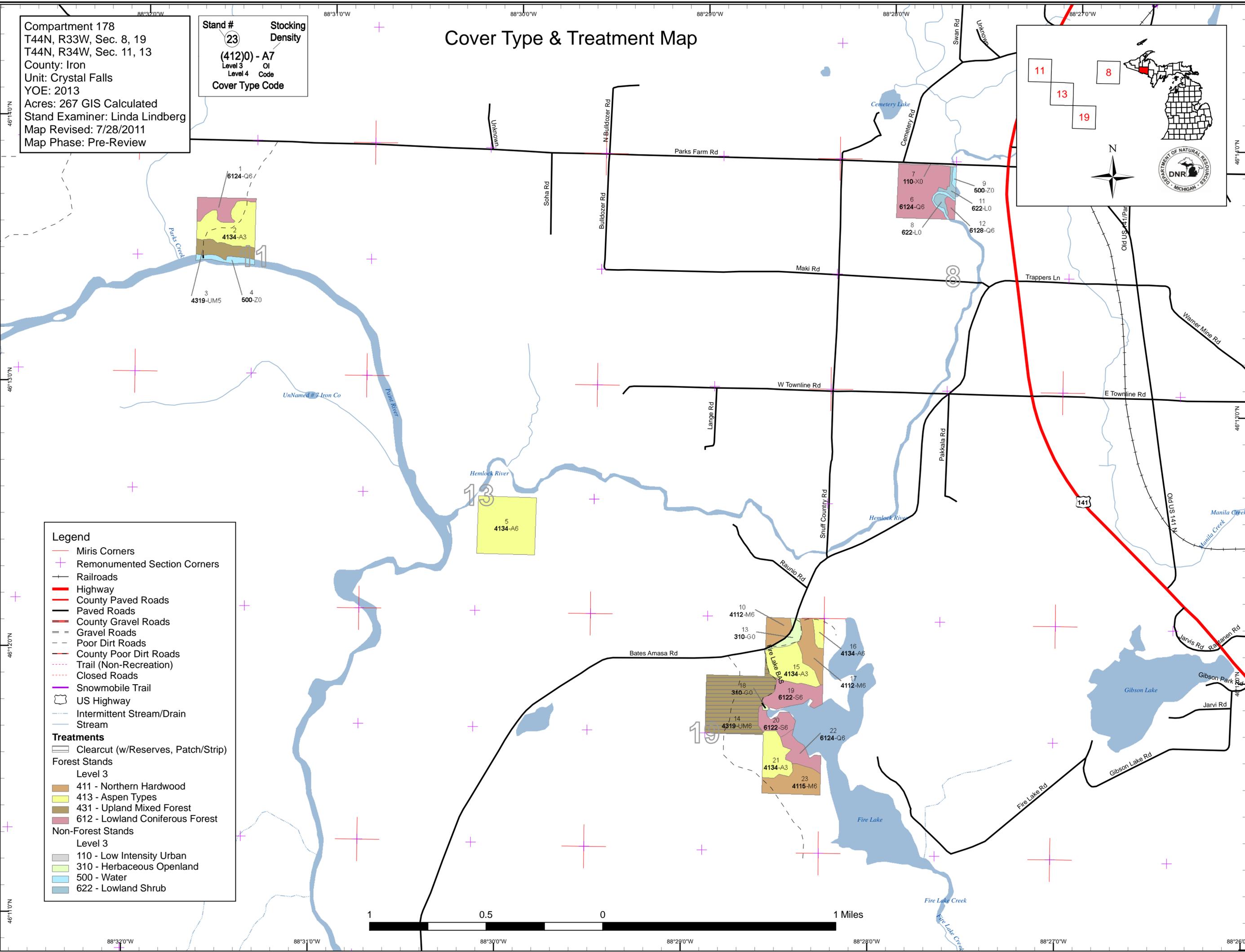
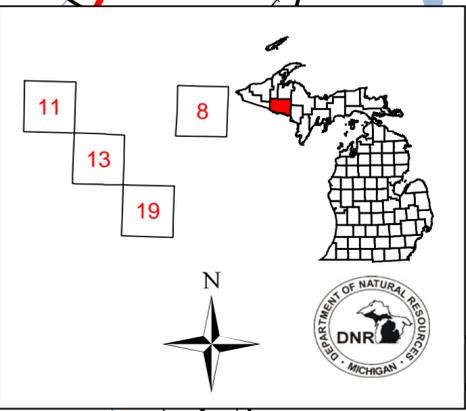
◆ **Details on the road access system**

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Cover Type & Treatment Map

Compartment 178
 T44N, R33W, Sec. 8, 19
 T44N, R34W, Sec. 11, 13
 County: Iron
 Unit: Crystal Falls
 YOY: 2013
 Acres: 267 GIS Calculated
 Stand Examiner: Linda Lindberg
 Map Revised: 7/28/2011
 Map Phase: Pre-Review

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



Legend

- Miris Corners
- Remunented Section Corners
- Railroads
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Snowmobile Trail
- US Highway
- Intermittent Stream/Drain
- Stream

Treatments

- Clearcut (w/Reserves, Patch/Strip)

Forest Stands

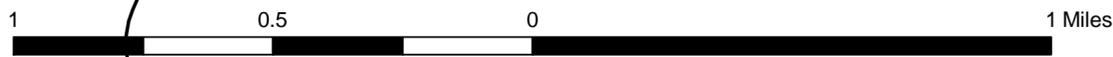
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub



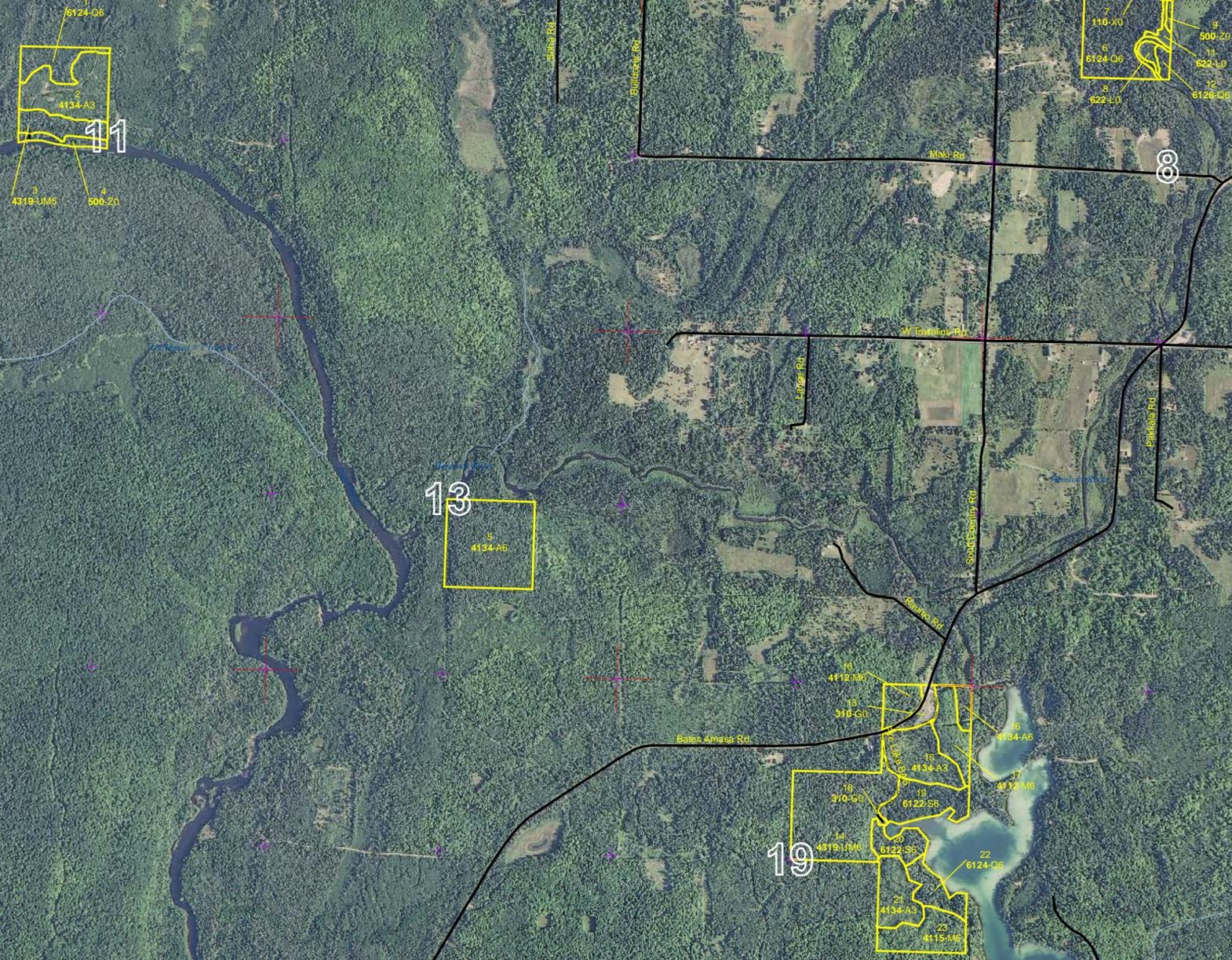
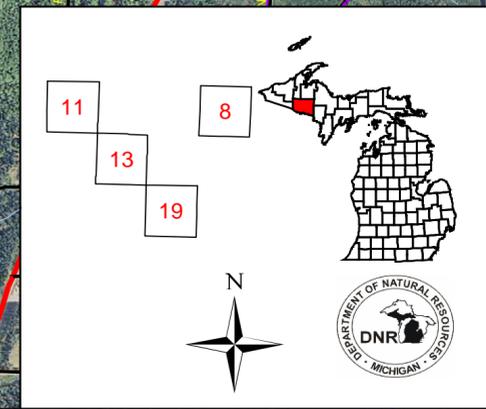
88°32'0"W 88°31'0"W 88°30'0"W 88°29'0"W 88°28'0"W 88°27'0"W

46°14'0"N 46°13'0"N 46°12'0"N 46°11'0"N

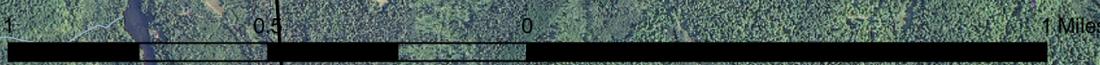
Stand Boundary Map

Compartment 178
 T44N, R33W, Sec. 8, 19
 T44N, R34W, Sec. 11, 13
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 Map Phase: Pre-Review

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



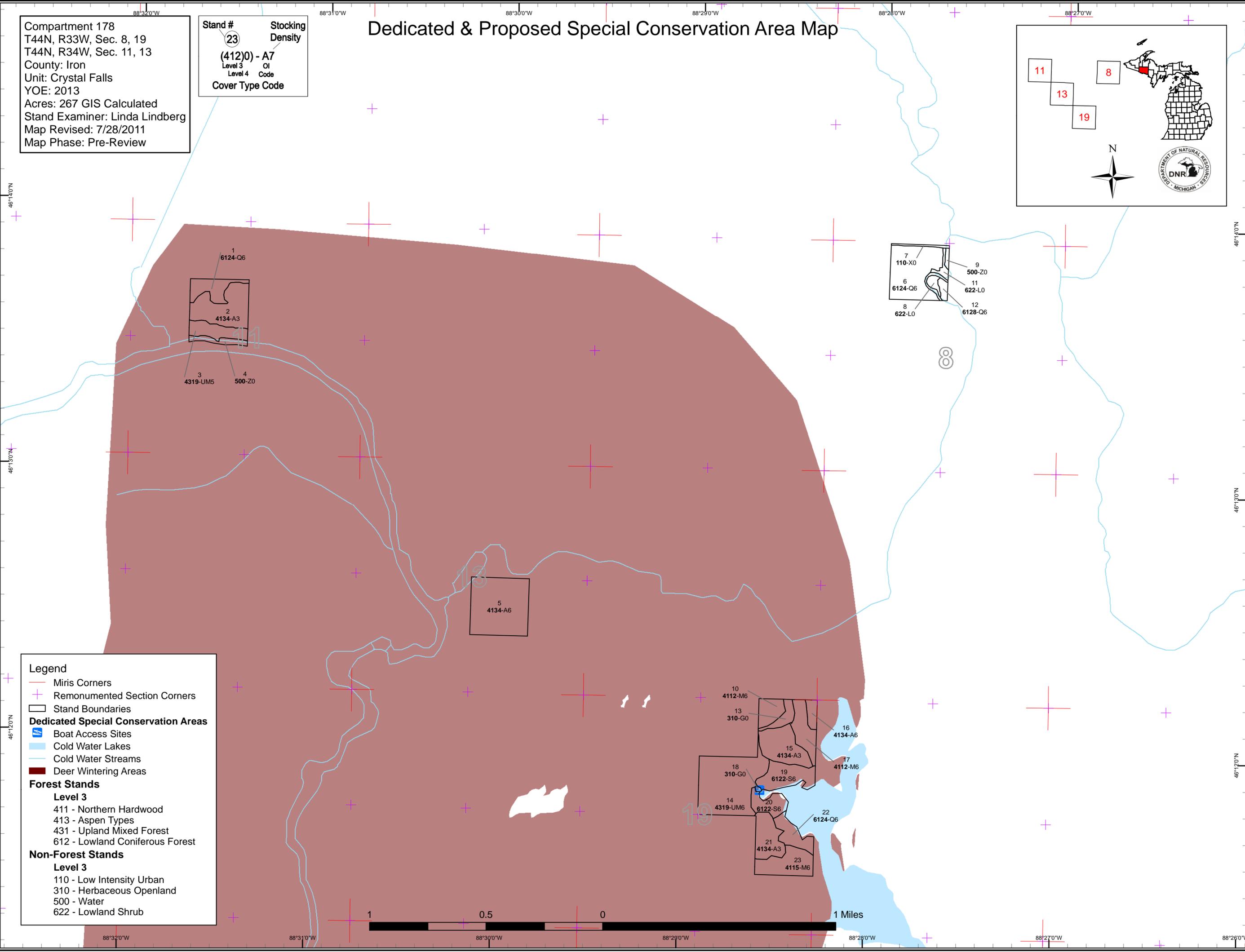
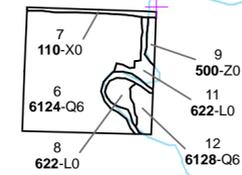
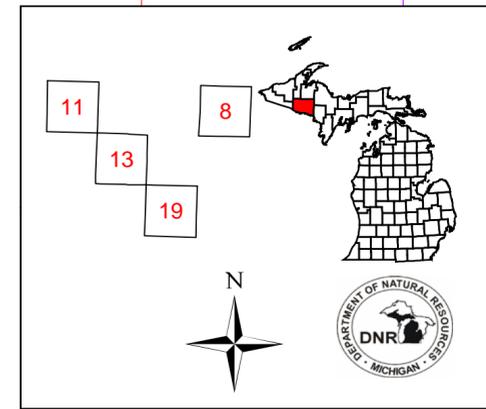
- Legend**
- Miris Corners
 - + Remonumented Section Corners
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - Closed Roads
 - Railroads
 - Intermittent Stream/Drain
 - Stream
 - Stand Boundaries
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
 - 413 - Aspen Types
 - 431 - Upland Mixed Forest
 - 612 - Lowland Coniferous Forest
- Non-Forest Stands**
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Dedicated & Proposed Special Conservation Area Map

Compartment 178
 T44N, R33W, Sec. 8, 19
 T44N, R34W, Sec. 11, 13
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 Unit: Crystal Falls
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 Acres: 267 GIS Calculated
 Stand Examiner: Linda Lindberg
 Map Revised: 7/28/2011
 Map Phase: Pre-Review

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



- Legend**
- Miris Corners
 - + Remonumented Section Corners
 - Stand Boundaries
 - Dedicated Special Conservation Areas**
 - ☒ Boat Access Sites
 - ☒ Cold Water Lakes
 - ☒ Cold Water Streams
 - ☒ Deer Wintering Areas
 - Forest Stands**
 - Level 3**
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 431 - Upland Mixed Forest
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 - Non-Forest Stands**
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Table 1 – Total Acres by Cover Type and Age Class

Linda Lindberg : Examiner



	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	52	0	0	0	0	43	0	0	0	0	0	0	0	0	95
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Lowland Conifers	0	0	0	0	0	0	0	0	31	18	0	0	0	0	0	49
Lowland Shrub	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	8	0	14	0	0	0	0	22
Northern Hardwood	0	0	0	0	0	0	0	0	26	7	0	0	0	0	0	33
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	51	0	0	0	0	0	51
Urban	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Water	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	16	52	0	0	0	0	43	0	65	77	14	0	0	0	0	267



Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2013

Compartment 178
Total Compartment Acres: 267.3

Acres by Treatment Type

Commercial Harvest - 42	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Upland Mixed Forest	42	0	0	0	0	0	0	42
Total	42	0	0	0	0	0	0	42

**Table 3 -- Treatments Prescribed
with No Limiting Factor**

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	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
14	12178014-Cut	42.2	4319 - Mixed Upland Forest	High Density Pole	81	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription: Treatment=>Harvest all species down to 2 inches in diameter with the exception of cherry, elm, oak, hemlock, cedar and red and white pine.

Specs: Also all spruce and balsam should be cut except those less than 6 inches at the stump at a 4 inches above the ground.

Other Comments: There are some areas in this stand that will be taken out due to lower ground and/or steep areas.

Next Steps: Monitor regeneration in 3 years

**Total Treatment
Acreage Proposed: 42.2**

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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**

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2013



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12060_OutOfYOE-Cut	6.0				Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription: Clearcut 2" dbh and above except cedar, hemlock and pine if present.

Specs:

Other:

Comments:

Next

Steps:

**Total Treatment
Acreage Proposed: 6.0**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6124 - Lowland Spruce-Fir	High Density Pole	9.5	85	51-80	
2	4134 - Aspen, Spruce/Fir	High Density Sapling	22.1	7		
3	4319 - Mixed Upland Forest	Medium Density Pole	9.3	83	51-80	This is a buffer to the Paint River and there is an easement to get here from the Parks Farm road as it is a canoe entrance to the Paint.
5	4134 - Aspen, Spruce/Fir	High Density Pole	39.5	51		
6	6124 - Lowland Spruce-Fir	High Density Pole	28.9	76	51-80	This stand is being used by wildlife quite a bit. There were a multitude of tracks in the snow of prey and predators
10	4112 - Maple, Beech, Cherry Association	High Density Pole	7.2	85	81-110	
12	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	2.0	76	81-110	
14	4319 - Mixed Upland Forest	High Density Pole	42.2	81	51-80	
15	4134 - Aspen, Spruce/Fir	High Density Sapling	17.2	6		
16	4134 - Aspen, Spruce/Fir	High Density Pole	3.4	51	51-80	
17	4112 - Maple, Beech, Cherry Association	High Density Pole	11.0	75	81-110	
19	6122 - Black Spruce	High Density Pole	14.5	91	81-110	
20	6122 - Black Spruce	High Density Pole	7.8	74		
21	4134 - Aspen, Spruce/Fir	High Density Sapling	12.9	6		
22	6124 - Lowland Spruce-Fir	High Density Pole	8.8	86	51-80	Lake Buffer to Fire Lake and is riparian so will be left as an SCA
23	4115 - Y.Birch, Hemlock NH	High Density Pole	15.2	75	81-110	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	50 - Water	3.8	No	Unspecified	The Paint River
7	11 - Low Intensity Urban	1.2	No	Unspecified	The Parks Farm Road
8	6220 - Alder/willow	1.8	No	Unspecified	
9	50 - Water	2.4	No	Unspecified	The Paint River
11	6220 - Alder/willow	1.9	No	Unspecified	
13	3102 - Grass	4.6	No	Unspecified	
18	3102 - Grass	0.3	No	Unspecified	This is the boat landing and parking area for Fire Lake



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.

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 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	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.