



**XXXX Forest Management Unit
Compartment Review Presentation
Compartment #95 Entry Year: 2012
Compartment Acreage: 1228 County: Dickinson**

Revision Date: 6/16/2010

Stand Examiner: Cynthia Cooper

Legal Description: T40N, R29W, Sections 11, 14

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

Management Goals: Maintain and improve current timber types and recreational uses.

Soil and Topography: Lowlands with mucky soils to hills and rock outcrops with well drained soils.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Solid State ownership managed for timber and recreation.

Unique, Natural Features: Cassidy Creek.

Archeological, Historical, and Cultural Features: None known

Special Management Designations or Considerations: None known.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations: Compartment 95 is located along the Norway Truck Trail with Cassidy Creek cutting through the south half. It is in the south edge of the Breen Creek Deeryard and east of the Rock Lake Deeryard. Increasing upland and lowland conifer components, primarily as future winter thermal cover for deer, in an agreed upon management emphasis in the Rock Lake Deeryard Restoration Project Area. Care should be taken to be sure that drainages remain intact. If areas can't be accessed, without crossing or compromising the integrity of the drainages, that portion of the stand should be omitted from the sale. All E-types should be buffered. Migration routes should be protected to allow for east, west, north and south movements.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of thin to discontinuous glacial sediments over bedrock. Precambrian Archean granite/gneiss outcrops at or near the surface. There is not an economic use for these rocks, although some might have dimension stone potential. The Iron Mountain Iron mine is located approximately five miles to the south. There has been no metallic

leasing in this compartment. A gravel pit is located four miles to the southwest. There appears to be limited gravel potential. There is no economic oil and gas production in the UP.

Vehicle Access: Norway Truck Trail runs through center of the compartment. Otherwise several poor dirt roads access a few of the stands.

Survey Needs: Several corners will be needed along the west side of the compartment.

Recreational Facilities and Opportunities: A designated ORV crosses the southern half of this compartment.

Fire Protection:

Additional Compartment Information: None.

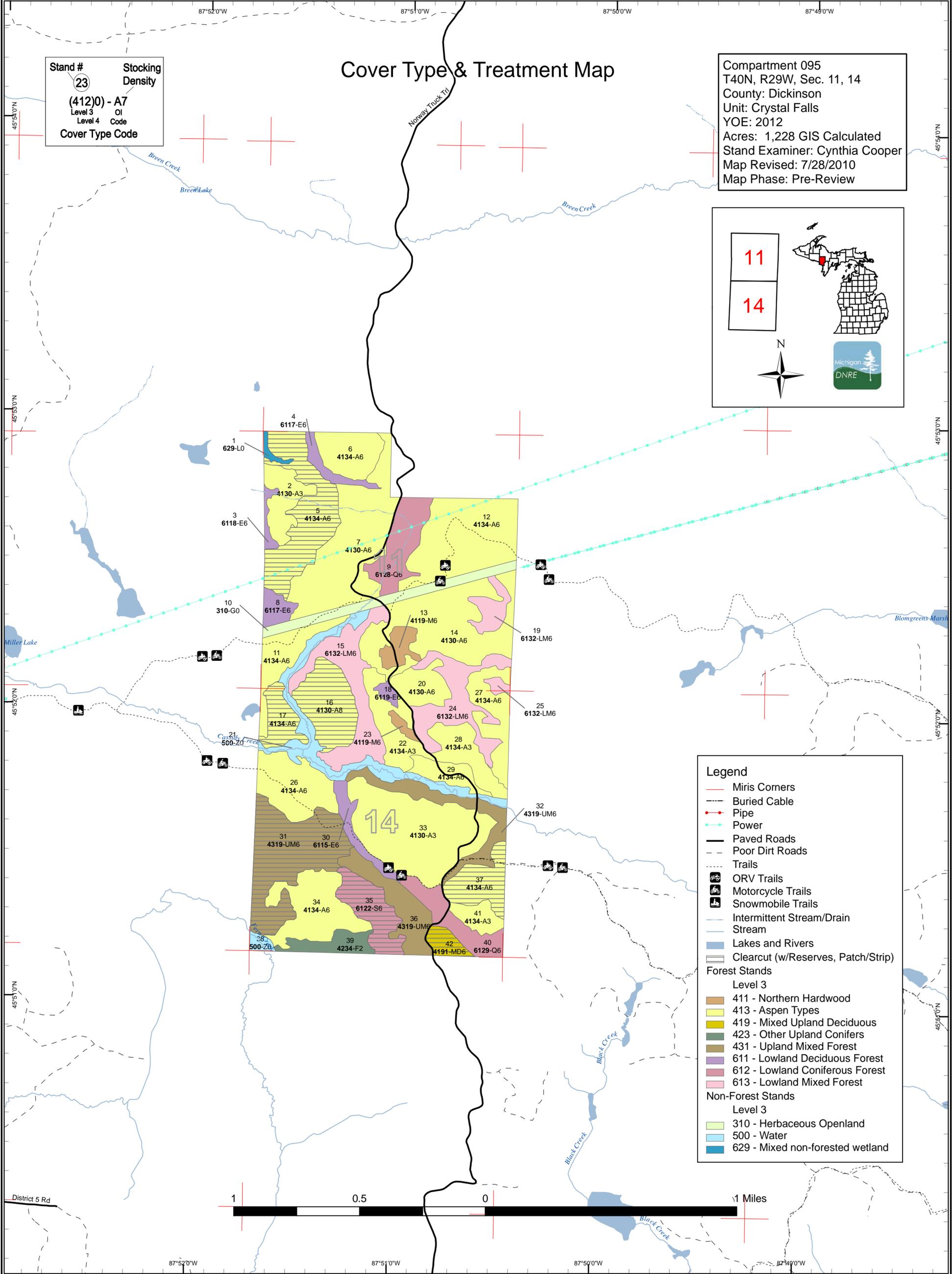
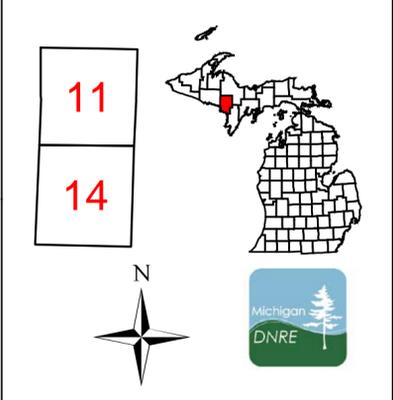
- **The following reports from the Inventory are attached:**
 - ◆ **Total Acres by Cover Type and Age Class**
 - ◆ **Proposed Treatment Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
 - ◆ **Stand Details (Forested and Nonforested)**
 - ◆ **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 095
 T40N, R29W, Sec. 11, 14
 County: Dickinson
 Unit: Crystal Falls
 YOE: 2012
 Acres: 1,228 GIS Calculated
 Stand Examiner: Cynthia Cooper
 Map Revised: 7/28/2010
 Map Phase: Pre-Review



Legend

- Miris Corners
- Buried Cable
- Pipe
- Power
- Paved Roads
- Poor Dirt Roads
- Trails
- ORV Trails
- Motorcycle Trails
- Snowmobile Trails
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- Clearcut (w/Reserves, Patch/Strip)

Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

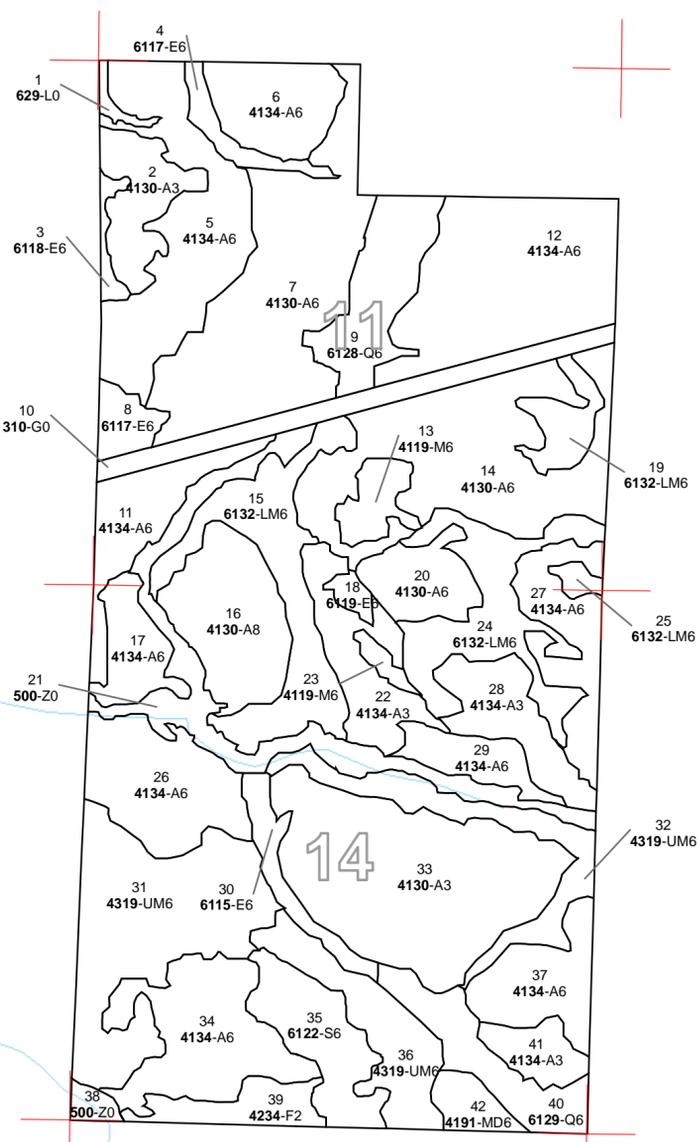
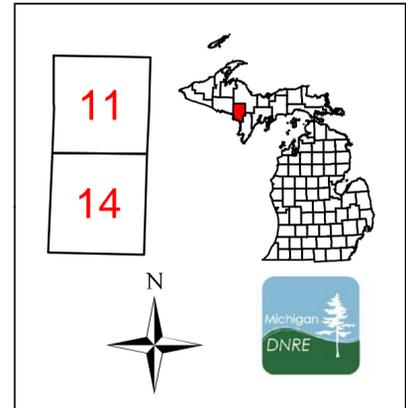
Level 3

- 310 - Herbaceous Openland
- 500 - Water
- 629 - Mixed non-forested wetland

Dedicated & Proposed Special Conservation Area Map

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

Compartment 095
 T40N, R29W, Sec. 11, 14
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 Map Revised: 7/28/2010
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- Legend**
- Miris Corners
 - Stand Boundaries
 - Proposed Special Conservation Areas**
 - ▨ SCA - Special Conservation Area
 - ▩ SCA Removal
 - Dedicated Special Conservation Areas**
 - Wildlife Management Areas
 - Cold Water Streams
 - Forest Stands**
 - Level 3**
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
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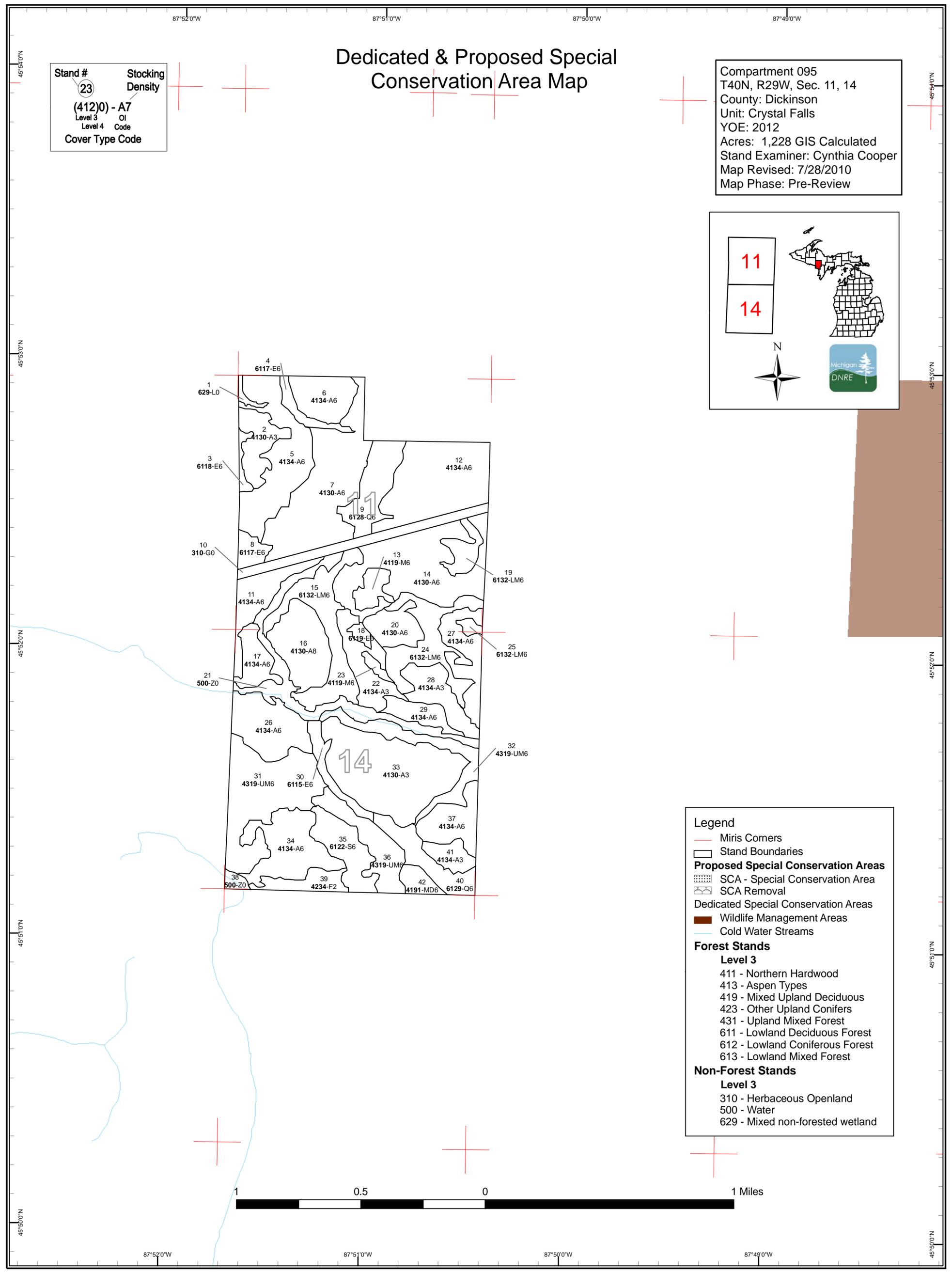
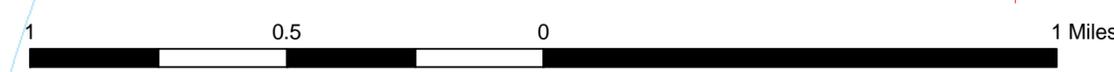


Table 1 – Total Acres by Cover Type and Age Class



	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	144	187	49	197	0	0	0	165	17	0	0	0	0	0	760
Herbaceous Openland	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Lowland Conifers	0	0	0	0	0	0	0	0	25	0	31	0	0	0	0	56
Lowland Deciduous	0	0	0	0	0	0	0	0	0	24	13	0	0	0	0	37
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	56	48	0	0	0	0	103
Lowland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	29
Mixed Upland Deciduous	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9
Northern Hardwood	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	14
Upland Mixed Forest	0	0	30	0	0	0	0	0	28	75	0	0	0	0	0	133
Upland Spruce/Fir	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14
Water	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Total	73	144	232	49	197	0	9	0	217	185	120	0	0	0	0	1228



Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2012

Compartment 095
Total Compartment Acres: 1228

Acres by Treatment Type

Commercial Harvest - 254	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
Aspen	142	0	0	0	0	0	142
Lowland Spruce/Fir	29	0	0	0	0	0	29
Mixed Upland Deciduous	9	0	0	0	0	0	9
Upland Mixed Forest	75	0	0	0	0	0	75
Total	254	0	0	0	0	0	254



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	12095005-Cut	60.1	4134 - Aspen, Spruce/Fir	High Density Pole	75	Harvest	Clearcut with Reserves	Aspen	Cmpt. Review Proposal

Prescription clearcut retaining pine and oak if present. Leave spruce and fir under 6 inches on the stump. A buffer left along small creek will also serve as retention.

Other
Comments:

Next
Steps: Regeneration survey.

16	12095016-Cut	39.1	4130 - Aspen	Medium Density Log	75	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Clear cut retaining any cedar, oak and pine present. Also retain spruce and fir 6 inches and under on the stump.

Specs:

Other
Comments:

Next
Steps: regeneration survey.

17	12095017-Cut	16.9	4134 - Aspen, Spruce/Fir	High Density Pole	82	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Clear cut reserving cedar, oak and pine as well as spruce/fir 6 inches and less at the stump. Area sloping down to creek will also serve as retention.

Other
Comments:

Next
Steps: regeneration survey.

31	12095031-Cut	74.8	4319 - Mixed Upland Forest	High Density Pole	86	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Clear cut retaining individual pine and cedar as well as low,wet mixed cedar areas, and spruce/fir 6 inches and less on the stump.

Specs:

Other
Comments:

Next
Steps: regeneration survey.

35	12095035-Cut	28.5	6122 - Black Spruce	High Density Pole	93	Harvest	Clearcut with Reserves	Black Spruce	Cmpt. Review Proposal
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Prescription Clear cut with pockets of spruce retained along edges for seed source.

Specs:

Other
Comments:

Next
Steps: Regeneration survey.

Table 3 -- Treatments Prescribed
with No Limiting FactorS
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	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37	12095037-Cut	25.5	4134 - Aspen, Spruce/Fir	High Density Pole	75	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription. Clear cut retaining oak. Also retain spruce and fir 6 inches and less at the stump. This and slopes too steep to cut will serve as retention.

Specs:

Other

Comments:

Next regeneration survey.

Steps:

42	12095042-Cut	8.9	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	55	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription. Clear cut retaining spruce/fir regeneration.

Specs:

Other

Comments:

Next Aspen regeneration check.

Steps:

**Total Treatment
Acreage Proposed: 253.8**



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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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#Error

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: 095	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012	
2	4130 - Aspen	High Density Sapling	22.2	23			
3	6118 - Lowland Deciduous with Cedar	High Density Pole	4.1	98			
4	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	8.4	80			
5	4134 - Aspen, Spruce/Fir	High Density Pole	60.1	75		Patches of 6" aspen but mostly older aspen, spruce/fir and some mixed hardwood.	
6	4134 - Aspen, Spruce/Fir	High Density Pole	25.8	75			
7	4130 - Aspen	High Density Pole	88.0	37		Hardwoods closer to center of stand and near powerline. Some oak in stand.	
8	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	8.7	98			
9	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	31.0	98		Wet. Buffer to un-named creek.	
11	4134 - Aspen, Spruce/Fir	High Density Pole	25.1	37			
12	4134 - Aspen, Spruce/Fir	High Density Pole	74.7	18			
13	4119 - Mixed Northern Hardwoods	High Density Pole	10.8	80	81-110	Oak and white ash in stand.	
14	4130 - Aspen	High Density Pole	82.2	18		Spruce and fir on ridges and along road. ORV trail/road very poor.	
15	6132 - Mixed Lowland Forest with Cedar	High Density Pole	47.8	97		Ranges from areas of mostly black ash to cedar with aspen and spruce fir. All areas wet.	
16	4130 - Aspen	Medium Density Log	39.1	75			
17	4134 - Aspen, Spruce/Fir	High Density Pole	16.9	82			
18	6119 - Mixed Lowland Deciduous Forest	High Density Pole	3.4	80			
19	6132 - Mixed Lowland Forest with Cedar	High Density Pole	12.0	80			



S t a n d	Crystal Falls Mgt. Unit		5 – Forested Stands			Compartment: 095
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012
						General Comments:
20	4130 - Aspen	High Density Pole	18.6	18		
22	4134 - Aspen, Spruce/Fir	High Density Sapling	26.4	5		
23	4119 - Mixed Northern Hardwoods	High Density Pole	3.3	82	81-110	
24	6132 - Mixed Lowland Forest with Cedar	High Density Pole	40.8	80		Highly varied between lowland hardwood and lowland conifer.
25	6132 - Mixed Lowland Forest with Cedar	High Density Pole	2.9	80		Highly varied between lowland hardwood and lowland conifer.
26	4134 - Aspen, Spruce/Fir	High Density Pole	39.2	35		Two aged aspen with heavy understory of spruce/fir type in most of stand. Several wet spots with balsam poplar, black ash or cedar. Uneven terrain but operable.
27	4134 - Aspen, Spruce/Fir	High Density Pole	27.3	24		
28	4134 - Aspen, Spruce/Fir	High Density Sapling	24.4	5		
29	4134 - Aspen, Spruce/Fir	High Density Pole	14.2	70		Creek buffer and hillside along Norway Truck Trail.
30	6115 - Lowland Ash	High Density Pole	12.4	86		
31	4319 - Mixed Upland Forest	High Density Pole	74.8	86		Highly varied stand with at least one cedar inclusion near road.
32	4319 - Mixed Upland Forest	High Density Pole	28.1	75		Sloping buffer to Cassidy Creek. Mostly spruce/fir with old aspen and paper birch.
33	4130 - Aspen	High Density Sapling	93.5	5		
34	4134 - Aspen, Spruce/Fir	High Density Pole	45.0	35		Occasional mixed pine and cherry.
35	6122 - Black Spruce	High Density Pole	28.5	93		
36	4319 - Mixed Upland Forest	High Density Pole	30.2	17		
37	4134 - Aspen, Spruce/Fir	High Density Pole	25.5	75		
39	42340 - Upland Spruce/Fir	Medium Density	14.5	15		



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Crystal Falls Mgt. Unit

5 – Forested Stands

Compartment: 095

Inventory Method: IFMAP

Year of Entry: 2012



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	6129 - Mixed Coniferous Lowland Forest	High Density Pole	24.6	76		
41	4134 - Aspen, Spruce/Fir	High Density Sapling	11.6	17		Drainage divides stand 44 from 40.
42	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	8.9	55		Highly mixed stand. Highly varied terrain.



Stand	Cover Type	Acres	Gen Cmts:
1	629 - Mixed non-forested wetland	2.4	
10	3102 - Grass	24.6	powerline
21	50 - Water	42.7	CASSIDY CREEK
38	50 - Water	3.6	CREEK



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
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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.