



**Crystal Falls Forest Management Unit
Compartment Review Presentation
Compartment #52 Entry Year: 2012
Compartment Acreage: 1841 County: Dickinson**

Revision Date: May 24, 2010

Stand Examiner: Linda Lindberg

Legal Description: T43N, R29W Sections 25, 26, 27, 34, 35, 36

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

Management Goals: The goal in this compartment is to continue management similar to the past as it has been managed in a fairly sustainable manner with several age classes of aspen and hardwood on its way to regulation. The hardwood takes up about one third of the compartment. There are no pure cedar stands but the lowland conifer swamps serve as buffers for both the Sturgeon River and other water in the compartment. There are several openings in the compartment that have been planted and will be maintained. There is a pipeline that goes through the compartment and will be maintained as opening.

Soil and Topography: The majority of this compartment is flat to gently rolling hills with some rock bluffs which prove to be inaccessible for harvesting. There is a fair amount of lowland areas. There is well drained Emmet and Pemene sandy loams in the uplands and Carbondale and Cathro mucks dominate the lowland types.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Most of this compartment consists of State land with a small amount of private and industrial land mixed in. There is a fair amount of hunting and other recreation including snowmobiling on the main road system through the compartment.

Unique, Natural Features: The Sturgeon River is a nice natural feature on the south side of this compartment and it flows out of Gene's Pond.

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: None known

Watershed and Fisheries Considerations: The Sturgeon River flows on the south edge of the compartment. There are also several unnamed creeks flowing north and south.

Wildlife Habitat Considerations: Compartment 52 is located north and west of Gene's Pond in north central Dickinson County. The compartment is divided north and south by the Elf line and east to west by gas pipelines which adds to the opening component. Turkeys, deer, songbirds, raptors and other animals take advantage of this grass type. 50% of the compartment is aspen with fairly good distribution, 30% is swamp conifer that should be maintained for cover.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of medium-textured glacial till. The glacial drift thickness varies between 50 and 100 feet. The Cambrian Munising Formation and Precambrian Michigamme and Randville Dolomite subcrop below the glacial drift. The Randville is used as a dimension stone. The other formations do not have a current economic use. The topo indicates a rock (Randville?) quarry is located ½ mile to the south. Groveland Iron mine is located approximately seven miles to the southwest. Section 35 was previously leased for metallic exploration and potential may still exist. A gravel pit is indicated two miles to the east. There should be gravel potential. There is no economic oil and gas production in the UP currently.

Vehicle Access: The Pirlot road is the primary access road into this compartment to the north and there is a road to the south that goes to a bridge that crosses the Sturgeon river and continues to another compartment.

Survey Needs: Most corners are established but some will be needed to accomplish the proposed sales for this Y.O.E.

Recreational Facilities and Opportunities: Snowmobiling, deer, grouse, and turkey hunting, fishing, and potential for most other recreational opportunities.

Fire Protection: Felch Protection Area

Additional Compartment Information: This compartment contains the old ELF line which runs to the north and south which is now obsolete so it will be left to be natural.

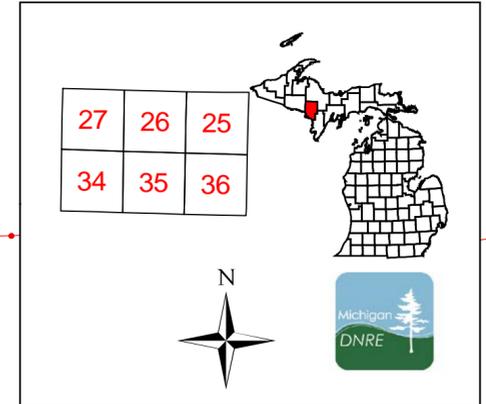
- **The following reports from the Inventory are attached:**
 - ◆ **Total Acres by Cover Type and Age Class**
 - ◆ **Proposed Treatment Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**
 - ◆ **Stand Details (Forested and Nonforested)**
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

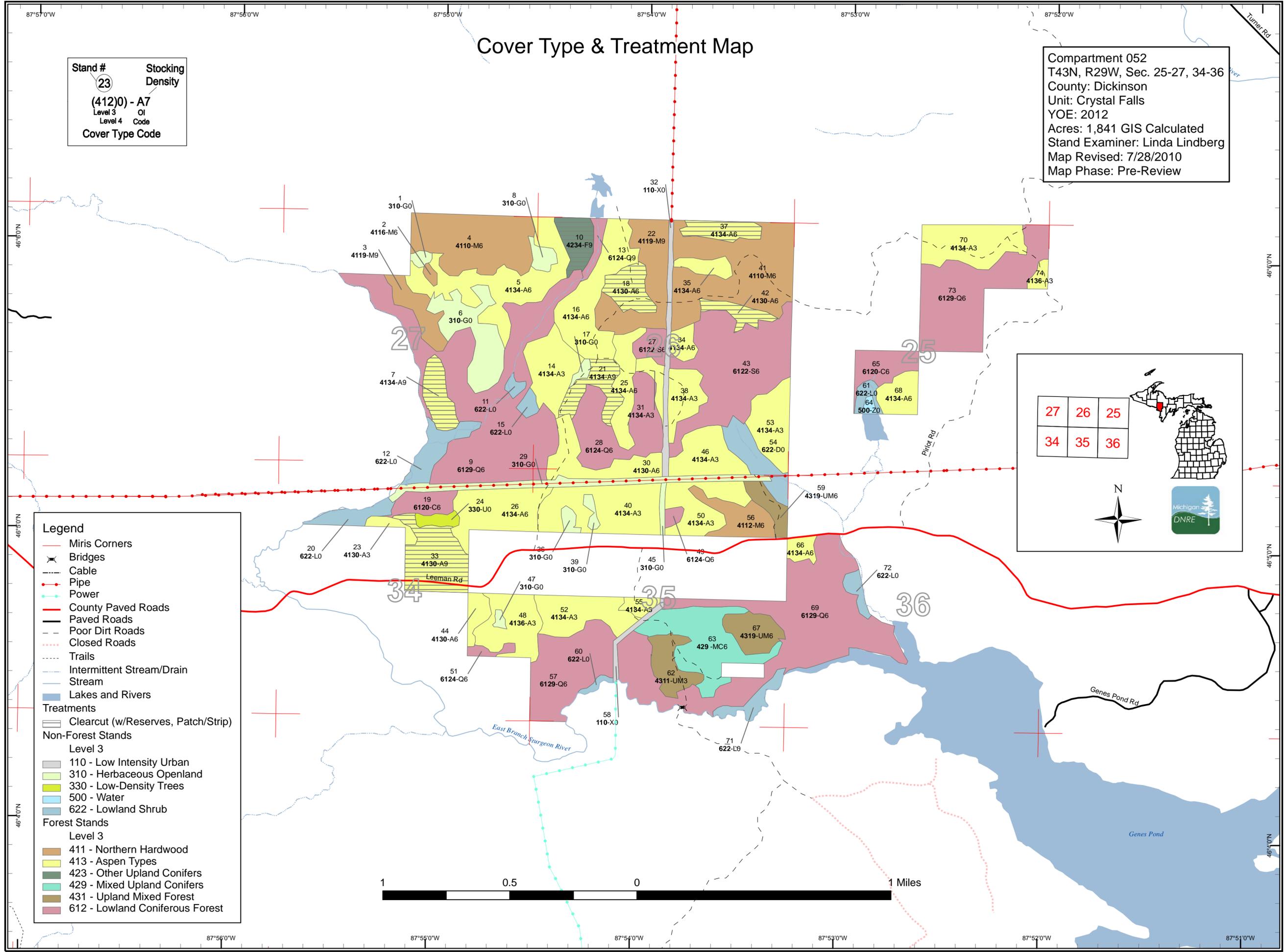
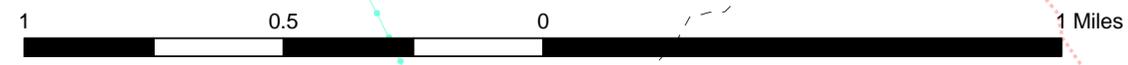
Cover Type & Treatment Map

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

Compartment 052
 T43N, R29W, Sec. 25-27, 34-36
 County: Dickinson
 Unit: Crystal Falls
 YOY: 2012
 Acres: 1,841 GIS Calculated
 Stand Examiner: Linda Lindberg
 Map Revised: 7/28/2010
 Map Phase: Pre-Review



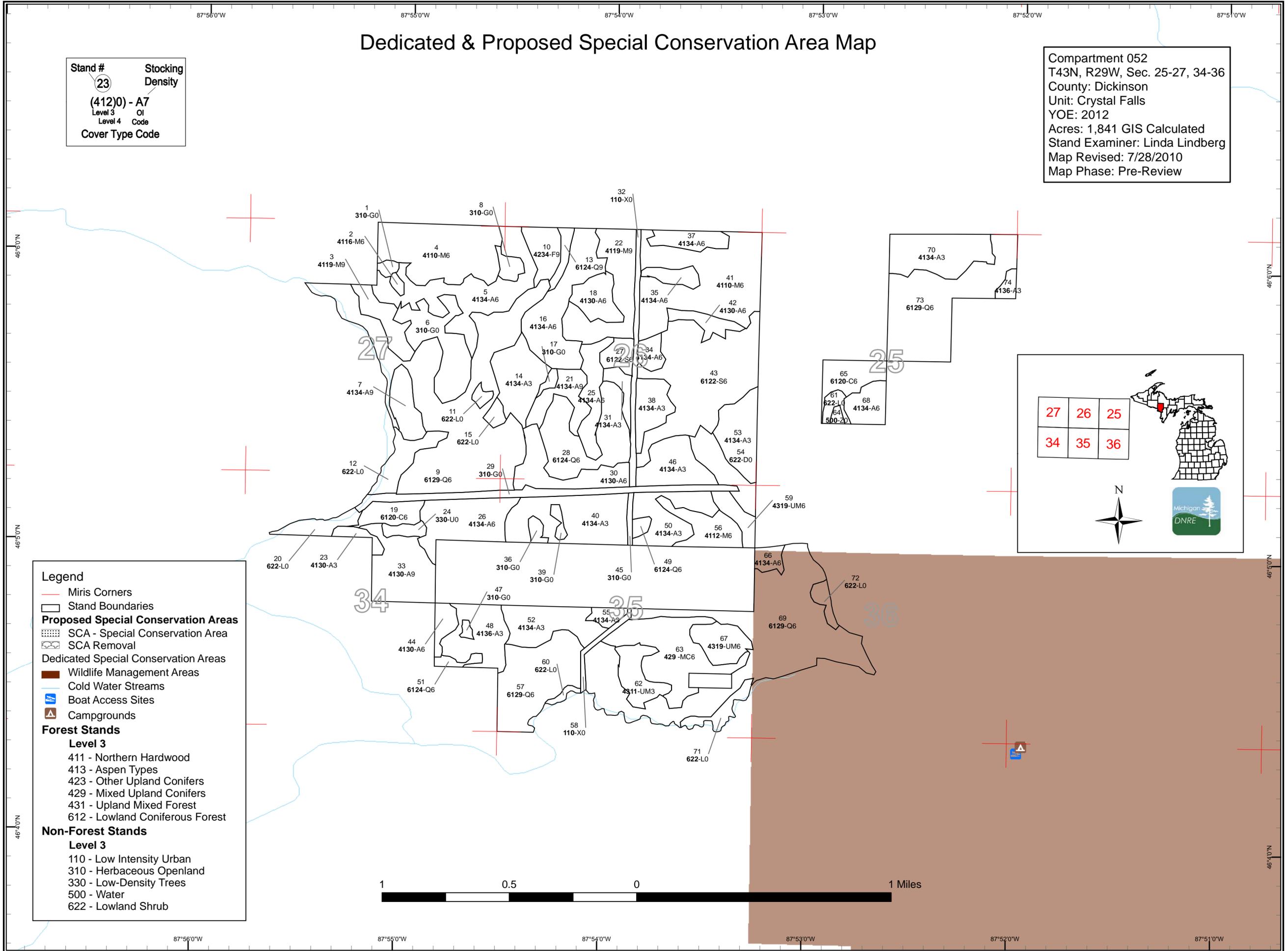
- Legend**
- Miris Corners
 - ✕ Bridges
 - Cable
 - Pipe
 - Power
 - County Paved Roads
 - Paved Roads
 - Poor Dirt Roads
 - Closed Roads
 - Trails
 - Intermittent Stream/Drain
 - Stream
 - Lakes and Rivers
 - Treatments**
 - ▨ Clearcut (w/Reserves, Patch/Strip)
 - Non-Forest Stands**
 - Level 3
 - 110 - Low Intensity Urban
 - 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - Forest Stands**
 - Level 3
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 423 - Other Upland Conifers
 - 429 - Mixed Upland Conifers
 - 431 - Upland Mixed Forest
 - 612 - Lowland Coniferous Forest



Dedicated & Proposed Special Conservation Area Map

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

Compartment 052
 T43N, R29W, Sec. 25-27, 34-36
 County: Dickinson
 Unit: Crystal Falls
 YOE: 2012
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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
 - Boat Access Sites
 - ▲ Campgrounds
 - Forest Stands**
 - Level 3**
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 423 - Other Upland Conifers
 - 429 - Mixed Upland Conifers
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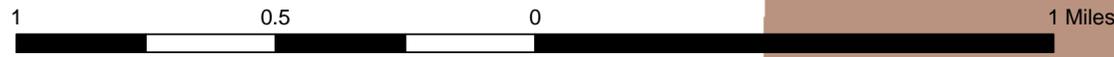


Table 1 – Total Acres by Cover Type and Age Class



	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	0	143	285	118	49	13	0	0	17	35	0	0	0	0	660
Cedar	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0	32
Herbaceous Openland	86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86
Low-Density Trees	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	3	502	6	0	0	0	0	511
Lowland Shrub	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	102	0	0	0	0	0	102
Northern Hardwood	0	0	0	0	0	0	64	43	0	0	0	0	0	0	124	230
Treed Bog	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53
Upland Mixed Forest	0	0	0	29	18	0	0	0	0	0	0	0	0	0	0	48
Upland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15
Urban	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	190	0	143	315	136	49	77	43	3	653	56	0	0	0	176	1841



Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2012

Compartment 052
Total Compartment Acres: 1841

Acres by Treatment Type

Commercial Harvest - 129	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	114	0	0	0	0	0	114
Upland Spruce/Fir	15	0	0	0	0	0	15
Total	129	0	0	0	0	0	129



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
7	12052007-Cut	16.5	4134 - Aspen, Spruce/Fir	High Density Log	94	Harvest	Clearcut with Reserves	Aspen, Mixed Conifer	Cmpt. Review Proposal

Prescription Cut all species except oak, elm, cherry, hemlock, cedar and red and white pine if present in the stand . Cut all spruce and balsam that is greater than 6 inches in diameter at a 4 inch stump.

Other
Comments:

Next
Steps: Regeneration survey per work instructions.

10	12052010-Cut	15.4	42340 - Upland Spruce/Fir	High Density Log	94	Harvest	Clearcut with Reserves	Aspen, Mixed Conifer	Cmpt. Review Proposal
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Prescription Cut all species except oak, elm, cherry, hemlock, cedar and red and white pine. Cut all spruce and balsam that is larger than 6 inches diameter at a 4 inch stump.

Other
Comments:

Next
Steps: Regeneration survey per work instruction.

18	12052018-Cut	17.2	4130 - Aspen	High Density Pole	85	Harvest	Clearcut with Reserves	Aspen, Mixed Conifer	Cmpt. Review Proposal
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Prescription Cut all species except oak, elm, cherry, hemlock, cedar and red and white pine if they are present in the stand. Cut all spruce and balsam greater than 6 inches in diameter on a 4 inch stump.

Other
Comments:

Next
Steps: Regeneration check per work instructions

21	12052021-Cut	18.5	4134 - Aspen, Spruce/Fir	High Density Log	94	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Cut all species except oak, elm, cherry, hemlock, cedar and red and white pine. Cut all spruce and balsam that is greater than 6 inches in diameter at a 4 inch stump.

Other
Comments: See locked comments.

Next
Steps: Regeneration survey according to work instructions.

33	12052033-Cut	38.8	4130 - Aspen	High Density Log	44	Harvest	Clearcut with Reserves	Aspen, Mixed Conifer	Cmpt. Review Proposal
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Prescription Cut all species except oak, elm, cherry, hemlock, cedar and red and white pine if in the stand . Cut all spruce and balsam that is greater than 6 inches in diameter at a 4 inch stump.

Other
Comments:

Next
Steps: Regeneration check according to work instructions.

**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
37 12052037-Cut	13.3	4134 - Aspen, Spruce/Fir	High Density Pole	50	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal

Prescription Cut all species except oak, elm, cherry, hemlock, cedar, and red and white pine. Cut all spruce and balsam that is greater than 6 inches in diameter at a 4 inch stump.

Other Comments:

Next Steps: Regeneration survey according to work instructions.

42 12052042-Cut	9.8	4130 - Aspen	High Density Pole	49	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription Cut all species except oak, elm, cherry, hemlock, cedar and red and white pine if present in the stand. Cut all spruce and balsam that is greater than 6 inches in diameter at a 4 inch stump.

Other Comments:

Next Steps: Regeneration survey per work instructions.

**Total Treatment
Acreage Proposed: 129.4**

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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: 052	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012	
2	4116 - Mixed N. Hardwood - Aspen	High Density Pole	2.1	60	81-110		
3	4119 - Mixed Northern Hardwoods	High Density Log	16.9	Uneven Age	51-80		
4	4110 - Sugar Maple Association	High Density Pole	63.6	51	81-110		
5	4134 - Aspen, Spruce/Fir	High Density Pole	58.1	34			
7	4134 - Aspen, Spruce/Fir	High Density Log	16.5	94	81-110		
9	6129 - Mixed Coniferous Lowland Forest	High Density Pole	159.3	85	81-110		
10	42340 - Upland Spruce/Fir	High Density Log	15.4	94	111-140		
13	6124 - Lowland Spruce-Fir	High Density Log	6.0	94	111-140		
14	4134 - Aspen, Spruce/Fir	High Density Sapling	30.7	17			
16	4134 - Aspen, Spruce/Fir	High Density Pole	48.6	24			
18	4130 - Aspen	High Density Pole	17.2	85	81-110		
19	6120 - Lowland Cedar	High Density Pole	13.4	85	111-140		
21	4134 - Aspen, Spruce/Fir	High Density Log	18.5	94	81-110		
22	4119 - Mixed Northern Hardwoods	High Density Log	41.2	60	51-80		
23	4130 - Aspen	High Density Sapling	5.2	16			
25	4134 - Aspen, Spruce/Fir	High Density Pole	20.7	36			
26	4134 - Aspen, Spruce/Fir	High Density Pole	38.2	25			
27	6122 - Black Spruce	High Density Pole	9.2	85	81-110		



S t a n d	Crystal Falls Mgt. Unit		5 – Forested Stands			Compartment: 052
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012
						General Comments:
28	6124 - Lowland Spruce- Fir	High Density Pole	49.1	85	111-140	
30	4130 - Aspen	High Density Pole	28.9	25		
31	4134 - Aspen, Spruce/Fir	High Density Sapling	7.1	25		
33	4130 - Aspen	High Density Log	38.8	44		
34	4134 - Aspen, Spruce/Fir	High Density Pole	7.5	36		
35	4134 - Aspen, Spruce/Fir	High Density Pole	8.2	39	81-110	
37	4134 - Aspen, Spruce/Fir	High Density Pole	13.3	50	51-80	
38	4134 - Aspen, Spruce/Fir	High Density Sapling	18.1	25		
40	4134 - Aspen, Spruce/Fir	High Density Sapling	50.1	17		
41	4110 - Sugar Maple Association	High Density Pole	86.2	Uneven Age	51-80	
42	4130 - Aspen	High Density Pole	9.8	49	111-140	
43	6122 - Black Spruce	High Density Pole	93.1	85	51-80	
44	4130 - Aspen	High Density Pole	8.1	34		
46	4134 - Aspen, Spruce/Fir	High Density Sapling	27.1	25		
48	4136 - Aspen, Mixed Conifer	High Density Sapling	31.2	26		
49	6124 - Lowland Spruce- Fir	High Density Pole	3.0	75	51-80	
50	4134 - Aspen, Spruce/Fir	High Density Sapling	29.4	10		
51	6124 - Lowland Spruce- Fir	High Density Pole	3.8	89	81-110	



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Crystal Falls Mgt. Unit

5 – Forested Stands

Compartment: 052

Inventory Method: IFMAP

Year of Entry: 2012



Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4134 - Aspen, Spruce/Fir	High Density Sapling	31.3	26		
4134 - Aspen, Spruce/Fir	High Density Sapling	27.5	19		
4134 - Aspen, Spruce/Fir	High Density Sapling	5.5	26		
4112 - Maple, Beech, Cherry Association	High Density Pole	20.4	Uneven Age	51-80	
6129 - Mixed Coniferous Lowland Forest	High Density Pole	56.8	85	51-80	
4319 - Mixed Upland Forest	High Density Pole	10.5	25		
4311 - Pine, Aspen Mix	High Density Sapling	18.7	26		
429 - Mixed Upland Conifers	High Density Pole	52.7	Uneven Age		
6120 - Lowland Cedar	High Density Pole	18.7	85	81-110	
4134 - Aspen, Spruce/Fir	High Density Pole	6.7	25		
4319 - Mixed Upland Forest	High Density Pole	18.4	35	81-110	
4134 - Aspen, Spruce/Fir	High Density Pole	14.8	34		
6129 - Mixed Coniferous Lowland Forest	High Density Pole	153.7	85	81-110	
4134 - Aspen, Spruce/Fir	High Density Sapling	38.3	20		
6129 - Mixed Coniferous Lowland Forest	High Density Pole	78.9	85	81-110	
4136 - Aspen, Mixed Conifer	High Density Sapling	4.4	20		



Stand	Cover Type	Acres	Gen Cmts:
1	31022 - Warm Season Grass	2.7	
6	3102 - Grass	37.1	
8	3102 - Grass	5.8	
11	6220 - Alder/willow	2.8	
12	6220 - Alder/willow	17.6	
15	6220 - Alder/willow	3.9	
17	3102 - Grass	2.5	
20	6220 - Alder/willow	11.4	
24	330 - Low-Density Trees	5.3	This is an opening with some trees in it.
29	3102 - Grass	27.0	pipeline
32	11 - Low Intensity Urban	13.2	pipeline
36	3102 - Grass	3.5	
39	3102 - Grass	2.9	
45	3102 - Grass	2.7	pipeline
47	3102 - Grass	1.7	
54	6224 - Treed Bog	20.6	this is flooded and there is dead cedar in the water. There are cattails also
58	11 - Low Intensity Urban	5.0	Power line
60	6220 - Alder/willow	2.3	



Stand	Cover Type	Acres	Gen Cmts:
61	6220 - Alder/willow	5.0	
64	50 - Water	1.9	
71	6220 - Alder/willow	9.4	
72	6220 - Alder/willow	5.8	



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.
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.