

Crystal Falls Forest Management Unit Compartment Review Presentation Compartment #67 Entry Year: 2012

Compartment Acreage: 1598 County: Dickinson

Revision Date: 5-23-2010

Stand Examiner: Debbie Goupell

Legal Description: T42N R27W Sec 19-21, 28-30

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

Management Goals: This compartment has a good degree of upland with wet types throughout. Approximately one-third of the compartment is aspen, most of it under 30 years old, one-third is lowland type, one-quarter is other upland. Management of all stands is to balance age class and allow best suited species to continue to grow on best suited sites. We will protect all bodies of water, especially the Hardwood Impoundment and its tributaries.

Soil and Topography: The majority of the upland is dominated by Emmet fine sandy loam, a well drained soil found on level to rolling hills. Lowland soils are Carbondale and Cathro mucks which are very poorly drained soils, found on low flats and depressions.

Ownership Patterns, Development, and Land Use in and Around the Compartment: State-owned land with private parcels throughout, used by loggers, hunters, fisherpeople, campers, trappers, general recreationists. State land is adjacent to the compartment boundary on the west and north, bound by private on the east and south.

Unique, Natural Features: Hardwood Impoundment

Archeological, Historical, and Cultural Features: None known

Special Management Designations or Considerations: SCA: Deer Wintering Area in the south half of the compartment.

Watershed and Fisheries Considerations: Protect water quality for all bodies of water, particularly the Hardwood Impoundment and tributaries. Promote long lived conifer species along these waterbodies and use adequate buffer protection.

Wildlife Habitat Considerations:

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of medium-textured glacial till. The glacial drift thickness varies between 10 and 50 feet. The Cambrian Munising Formation and Precambrian Archean Volcanics subcrop below the glacial drift. The Randville Dolomite, used for crushed marble and stone, is quarried two miles to the south. Groveland Iron mine is located approximately eleven miles to the west. Part of this Compartment was previously leased for metallic exploration. Gravel pits are located within a few miles of the compartment. There is no economic oil and gas production in the UP.

Vehicle Access: Camp 3, a gravel county road, is the compartment's east boundary; the north is bound by the White Post road, a poor dirt two-track.

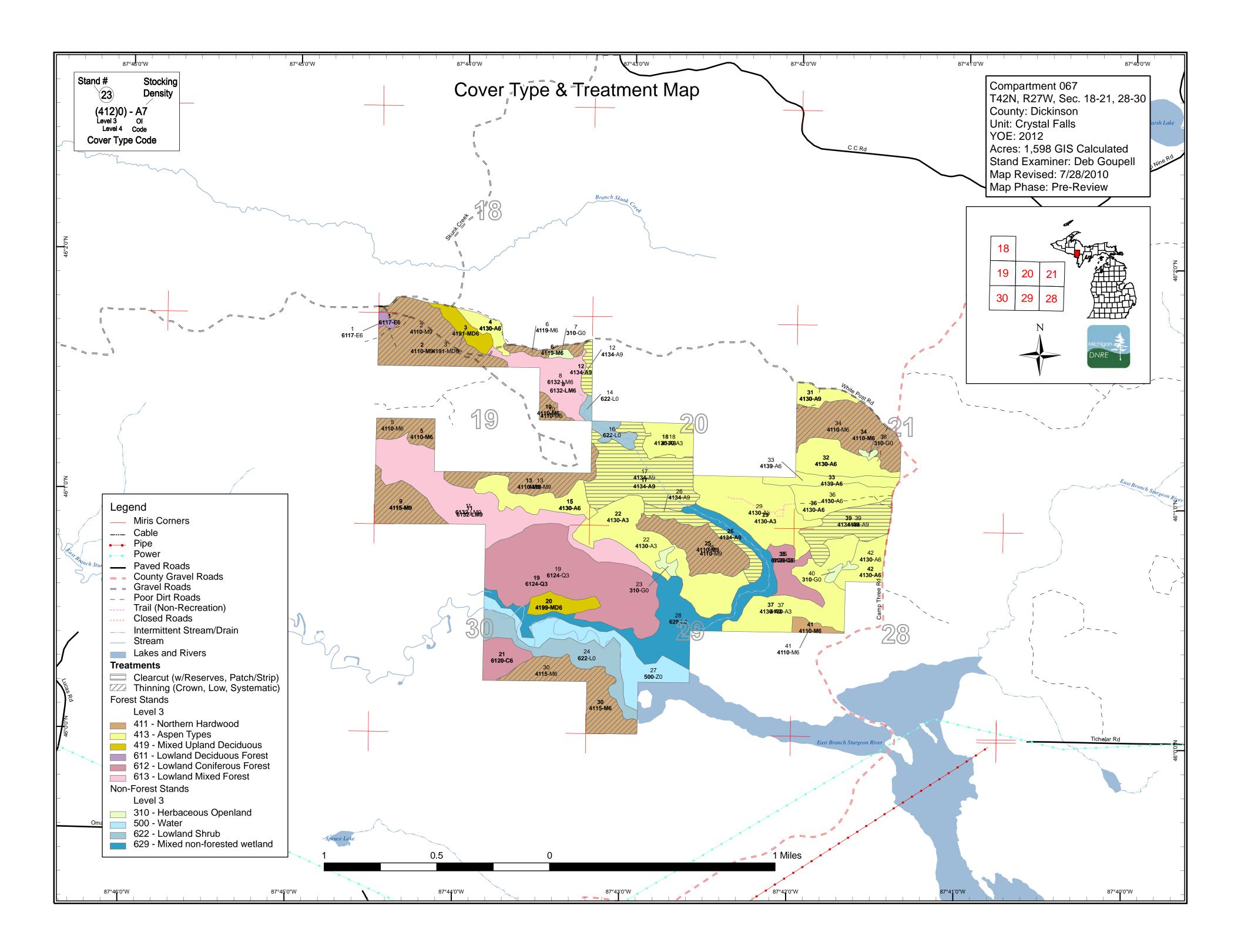
Survey Needs: Needed in Section 19, 21, 29 & 30

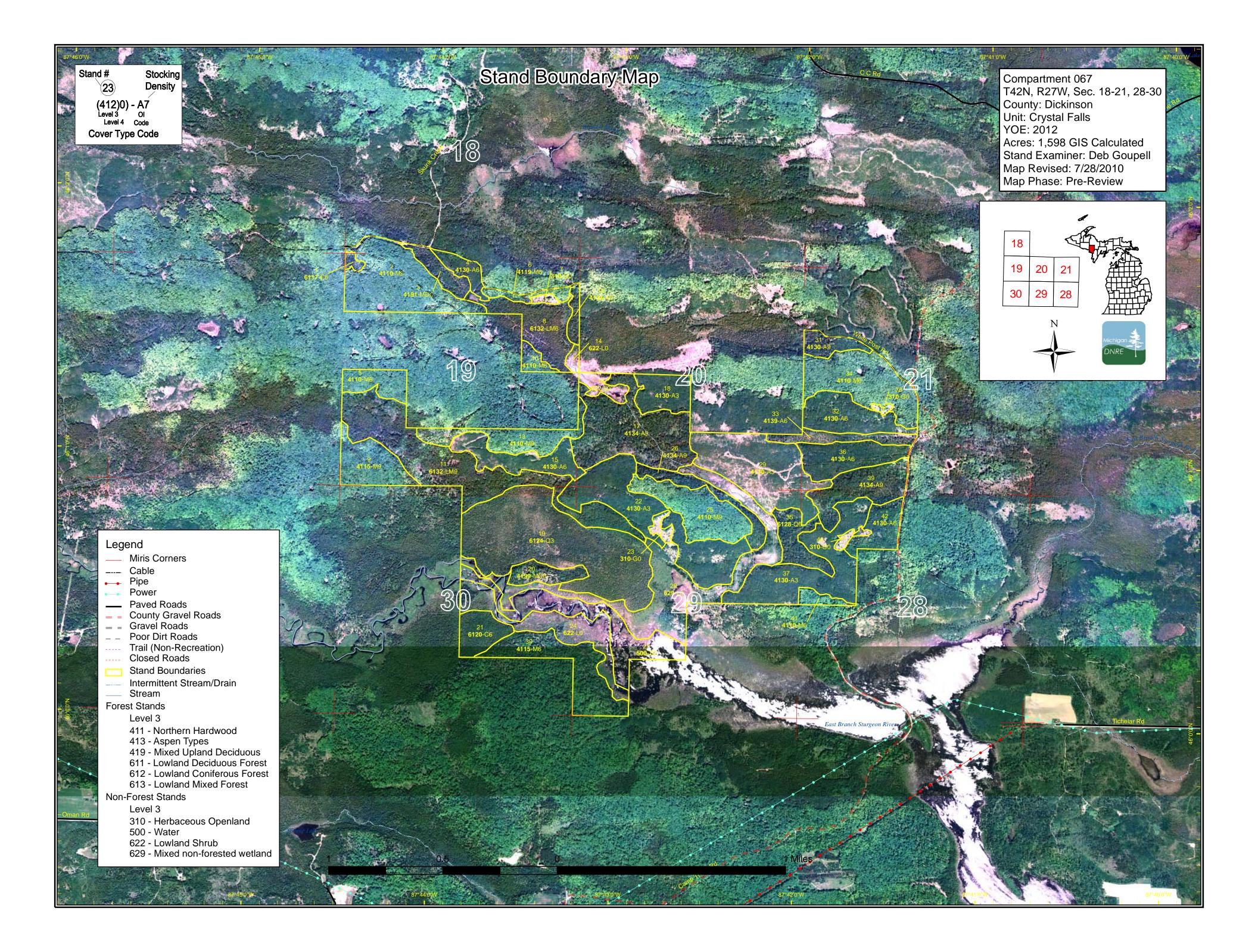
Recreational Facilities and Opportunities: Hunting, camping, fishing, trapping, hiking, canoeing.

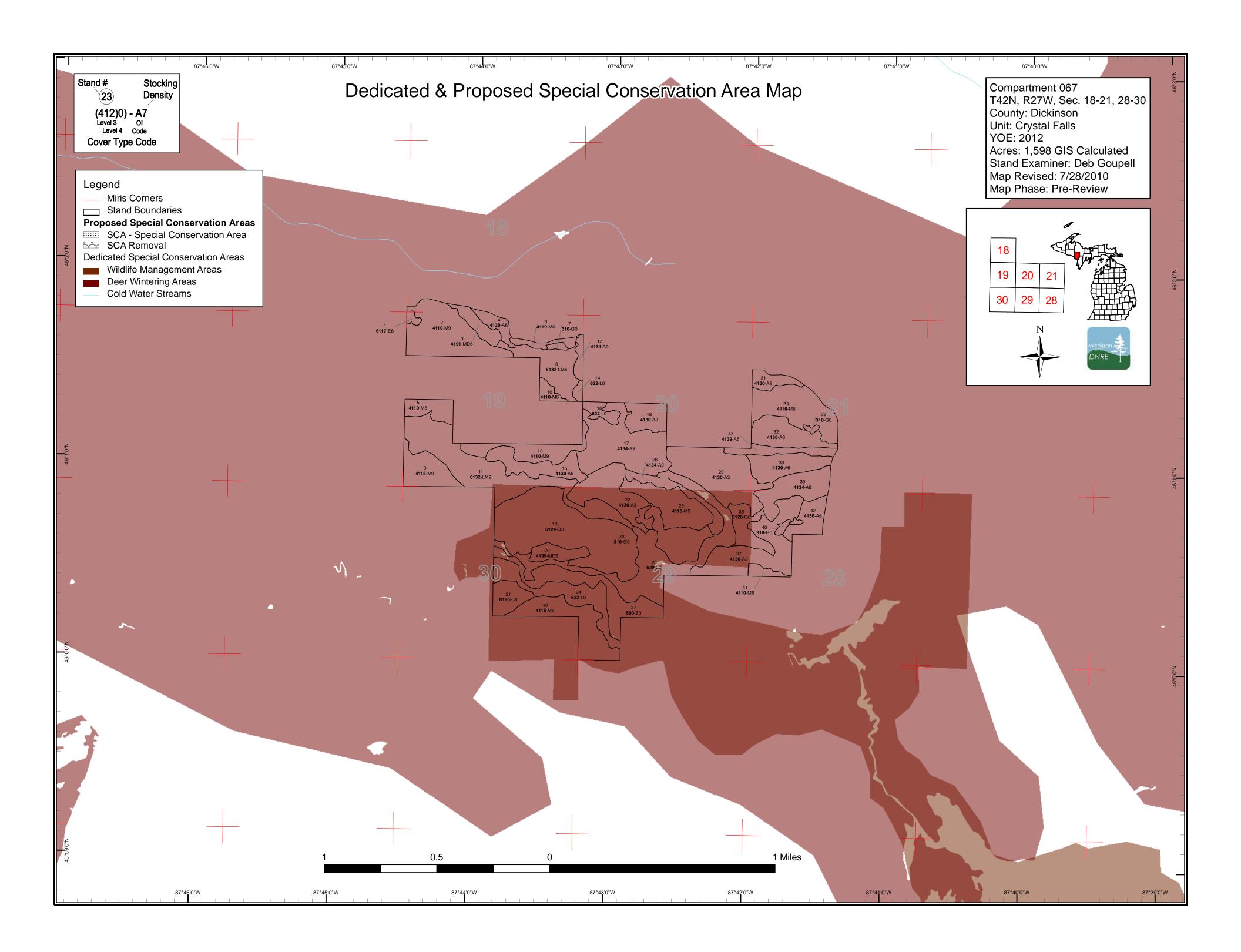
Fire Protection: Felch protection area. Access to most upland stands is poor to fair, access to some swamp types would be difficult.

Additional Compartment Information:

- > 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









	Age Class																
	¥or c	O See /	87/	0,79	St. D.	No. No.	D. C.	\$5.05 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	89.00	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	\$ 6	86.38	00,00	70,779	70× Jue	8 / X	, \$ ³
Aspen	0	0	0	353	36	36	18	109	48	0	0	0	0	0	0	600	
Cedar	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	22	
Herbaceous Openland	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
Lowland Conifers	0	0	0	0	0	0	0	0	0	161	23	0	0	0	0	184	
Lowland Deciduous	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	41	0	0	0	117	158	
Lowland Shrub	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170]
Mixed Upland Deciduous	0	0	0	0	0	0	0	15	0	17	0	0	0	0	0	32	
Northern Hardwood	0	0	0	0	0	0	0	0	0	356	0	0	0	0	0	356	
Water	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60]
Total	243	0	0	353	36	36	18	127	48	533	64	22	0	0	117	1598]



Table 2 – Proposed Treatment Summaries

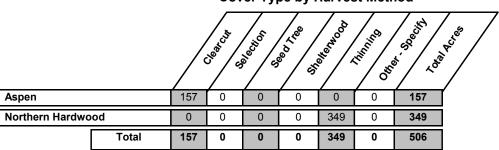
Crystal Falls Mgt. Unit Compartment 067 Year of Entry 2012 **Total Compartment Acres: 1598**

Acres by Treatment Type

Commercial Harvest - 506 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



Compartment: 067 Crystal Falls Mgt. Unit Table 3 -- Treatments Prescribed with No Limiting Factor Year of Entry 2012 s t а **Treatment** Acres Stage1 Size Stand **Treatment Treatment Cover Type Approval** n Method Name CoverType Density Objective **Status** d Age Type 2 12067002-Cut 78.2 4110 - Sugar Maple High Density Log 82 Harvest Crown Thinning Sugar Maple Cmpt. Review Association Association Proposal Prescription Thin to residual BA 80 by releasing the crowns of crop trees and removing the poorer formed trees. Hemlock, cedar and pine will not be cut. Specs: Other Comments: Next Steps: 12067005-Cut 20.0 4110 - Sugar Maple High Density Pole Crown Thinning Sugar Maple Cmpt. Review Harvest Association Association Proposal Prescription Thin to residual BA of 80 by releasing the crowns of crop trees and removing the poorer formed trees. Hemlock & cedar will not be cut. Mark lightly around any wet areas. There is a pocket of spurce/fir on south central permiter of stand which should be included with this stand marked Specs: through lightly; this will also serve as in-stand retention Other_ Comments: check for regeneration per Work Instructions Next Steps: 12067006-Cut 8 4 4119 - Mixed High Density Pole 82 Harvest Crown Thinning Mixed Northern Cmpt. Review Northern Hardwoods Hardwoods Proposal Prescription Thin to residual BA 80 by releasing the crowns of crop trees and removing the poorer formed stems; favor minor species to be retained; no cedar or hemlock to be cut Specs: Other Comments: Next Steps: 12067009-Cut 34.2 9 4115 - Y.Birch, High Density Log 82 Crown Thinning Y.Birch, Hemlock NH Cmpt. Review Harvest Hemlock NH Proposal Prescription Thin to residual BA 80 by releasing crowns of crop trees and removing poorer formed trees; favor minor species Specs: Other A small hemlock/cedar/yellow birch pocket runs east/west in central/west part of stand. Quality of hardwood deteriorates as you go east. Comments: <u>Next</u> Steps: 10 12067010-Cut 7.5 4110 - Sugar Maple High Density Pole 80 Harvest Crown Thinning Sugar Maple Cmpt. Review Association Association Proposal Prescription Thin to BA 80 Specs: Sale is already sold as C67 timber sale <u>Other</u> Comments: <u>Next</u> Steps: 12067012-Cut 7.1 4134 - Aspen, High Density Log 77 Harvest Clearcut with Aspen, Spruce/Fir Cmpt. Review Spruce/Fir Reserves Proposal Prescription Cut to regenerate Specs: Other_ Sale is already sold as C67 Sale Comments:

regen check per WIs

Next

Steps:

Compartment: 067 Crystal Falls Mgt. Unit Table 3 -- Treatments Prescribed with No Limiting Factor Year of Entry 2012 s t а **Treatment** Acres Stage1 Size Stand **Treatment Treatment Cover Type Approval** n **Density** Method Name CoverType Objective **Status** d Age Type 13 12067013-Cut 34.3 4110 - Sugar Maple High Density Log 82 Harvest Crown Thinning Sugar Maple Cmpt. Review Association Association Proposal Prescription Thin to BA 80 Specs: Other Stand is already sold as part of the C67 Sale Comments: <u>Next</u> Steps: 12067017-Cut 88.6 4134 - Aspen, High Density Log Harvest Clearcut with Aspen, Spruce/Fir Cmpt. Review Spruce/Fir Reserves Proposal Prescription Harvest all stems reserve cedar protect drainage Specs: <u>Other</u> Stand is already sold as part of the C67 Sale Comments: follow with regeneration check per WIs <u>Next</u> Steps: 12067025-Cut 48.2 4110 - Sugar Maple Crown Thinning Sugar Maple Cmpt. Review High Density Log Harvest Association Association Proposal Prescription. Thin to residual BA 80 by releasing crowns of crop trees and removing poorer formed stems. Hemlocks will not be cut. Specs: Other Access will be through private and may be tricky. Comments: Next Steps: 26 12067026-Cut 20.4 4134 - Aspen, High Density Log 64 Harvest Clearcut with Aspen Cmpt. Review Spruce/Fir Reserves Proposal Prescription Remove all stems 2" dbh and greater except for any cedar, hemlock or pine. To be included with hardwood sale to south as a separate unit. Specs: Stand is far enough from actual drainage. There is a fair amount of blowdown and mortality; aspen has conks. <u>Other</u> Comments: Check for regeneration per Work Instructions Next Steps: 30 12067030-Cut 55.5 4115 - Y.Birch, High Density Pole Harvest Crown Thinning Y.Birch, Hemlock NH Cmpt. Review Hemlock NH Proposal Prescription Thin to residual BA 80 by releasing crowns of crop trees and removing poorer formed/competing stems. Hemlock, cedar and pine will be retained. Access will be through private, which may become an issue. Red maple is heavier on north/west side of stand; mark through favoring Specs: better crop trees. Red maple is on the fringe, heaviest on north/west side. Other_

Comments:

Next
Steps:

Table 3 -- Treatments Prescribed Compartment: 067 Crystal Falls Mgt. Unit Year of Entry 2012 with No Limiting Factor s t **Treatment** Acres Stage1 Size Stand **Treatment Treatment Cover Type Approval** n Method Objective Name CoverType Density **Status** Age Type 12067034-Cut 82 34 62.5 4110 - Sugar Maple High Density Pole Harvest Crown Thinning Sugar Maple Cmpt. Review Association Association Proposal

Specs:

Prescription Thin to residual BA 80 by releasing crowns of crop trees and removing poorer formed stems. There are a lot of small poles/saplings closest to White Post roads, which may not need marking. There are 2 separate but small (<1/4 acre) clones of aspen close to some low-lying grass openings/potential ponds. Aspen may or may not be marked, but do not permit trees to be felled into nor skidding through these low areas.

PREREVIEW: do not cut hemlock or cedar

Other

There are 2 separate but small (<1/4 acre) clones of aspen close to some low-lying grass openings/potential vernal ponds.

Comments:

Next Steps:

39 12067039-Cut 41.1 4134 - Aspen, Spruce/Fir

High Density Log 70 Harvest

Clearcut

Aspen

Cmpt. Review Proposal

Prescription Remove all stems greater than 2" dbh except cedar or pine, if found. There is a variety of upland and low lying terrain, some which will need to be red lined out (tag alder, wetter swales). High ground ridge has beautiful mature aspen. Sale should be winter cut. Specs:

Other_

Comments:

<u>Next</u>

Regeneration should be checked per Work Instructions

Steps:

Total Treatment

505.9 Acreage Proposed:

s t	S t					ents Prescrib	Compartment: 067 Year of Entry 2012	Michigan DNRE	
a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error						
Pres Spec	cription cs:								
Othe Com	<u>r</u> ment:								
Next Step									

Total Treatment Acreage Proposed:

Limiting Factor and No Treatment Reason

0

s t					rested Stand Method: IFMA	Vienter 2
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	3.0	66		
2	4110 - Sugar Maple Association	High Density Log	78.2	82	111-140	took 7 BA points for average of 131BA
3	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	15.2	65		
4	4130 - Aspen	High Density Pole	12.1	27		
5	4110 - Sugar Maple Association	High Density Pole	20.0	82		large diameter trees on east end
6	4119 - Mixed Northern Hardwoods	High Density Pole	8.4	82	111-140	small diameter trees
8	6132 - Mixed Lowland Forest with Cedar	High Density Pole	41.1	96		
9	4115 - Y.Birch, Hemlock NH	High Density Log	34.2	82	111-140	small hemlock/cedar YB pocket runs east-west in central/west part of stand; quality deteriorates as you go east.
10	4110 - Sugar Maple Association	High Density Pole	7.5	80	111-140	
11	6132 - Mixed Lowland Forest with Cedar	High Density Log	117.1	Uneven Age		There are several upland maple/aspen ridges within this stand. An intermittent drainage flows between/within this stand and maple stand to south. Cedar was aged.
12	4134 - Aspen, Spruce/Fir	High Density Log	7.1	77		
13	4110 - Sugar Maple Association	High Density Log	34.3	82	111-140	C67 TS sold 2010; larger trees and better quality as you head east
15	4130 - Aspen	High Density Pole	34.9	27		
17	4134 - Aspen, Spruce/Fir	High Density Log	88.6	67	,	sold as C67 TS 2010; there is a buffer along drainage that goes through center of stand.
18	4130 - Aspen	High Density Sapling	24.2	28		
19	6124 - Lowland Spruce- Fir	High Density Sapling	161.0	80		About half of this stand was cut prior to 1939 and has regenerated but not to size class as would be expected. The southeast portion of the stand is more to cedar and was not harvested.
 20	4199 - Other Mixed Upland Deciduous	High Density Pole	16.6	85		

S t	Crystal Falls Mgt. Unit				orested Stan	AP Year of Entry: 2012
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	6120 - Lowland Cedar	High Density Pole	21.5	106		
22	4130 - Aspen	High Density Sapling	87.3	22		Dick's Hill TS closed 1987
 25	4110 - Sugar Maple Association	High Density Log	48.2	82	111-140	
26	4134 - Aspen, Spruce/Fir	High Density Log	20.4	64		
29	4130 - Aspen	High Density Sapling	82.4	25		Camp Charles TS closed 1984
30	4115 - Y.Birch, Hemlock NH	High Density Pole	55.5	82	111-140	Red maple & balsam fir mixed in along the fringe of the stand; red maple on north and west side. There were 2 sales in here, the Impoundment Sale closed 1996 and the Deep Freeze sale, closed 1996, the latter appears to be an aspen removal along the west half of the stand.
31	4130 - Aspen	High Density Log	13.5	48		
32	4130 - Aspen	High Density Pole	37.4	26		
33	4139 - Aspen, Mixed Deciduous	High Density Pole	18.3	50		
34	4110 - Sugar Maple Association	High Density Pole	62.5	82	111-140	
35	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	23.3	96		There is a drainage in the narrows between stands 37 & 29.
36	4130 - Aspen	High Density Pole	35.7	38		Some buckthorn along trail going west
37	4130 - Aspen	High Density Sapling	74.7	25		Camp Charles TS closed 1984
39	4134 - Aspen, Spruce/Fir	High Density Log	41.1	70		Some low-lying areas, however same timber type; high ground ridge has large, mature aspen.
41	4110 - Sugar Maple Association	High Density Pole	7.0	82	111-140	
42	4130 - Aspen	High Density Pole	22.4	40		South ridge along private is all ironwood saplings 4" dbh; hardwood is concentrated along Camp 3 rd

Crystal Falls Mgt. Unit

6 - Nonforested Stands Inventory Method: IFMAP

Compartment: 067 Year of Entry: 2012



Stand	Cover Type	Acres	Gen Cmts:
7	310 - Herbaceous Openland	2.6	
14	622 - Lowland Shrub	3.5	
16	622 - Lowland Shrub	10.5	
23	310 - Herbaceous Openland	4.8	
24	622 - Lowland Shrub	49.9	
27	50 - Water	59.9	
28	629 - Mixed non-forested wetland	106.5	
38	310 - Herbaceous Openland	1.7	
40	310 - Herbaceous Openland	3.7	

Crystal Falls Mgt. Unit Compartment: 067

Year of Entry: 2012



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

Crystal Falls Mgt. Unit

Compartment: 067 Year of Entry 2012



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.

Conservation Area	Туре	Description	HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish specified year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	ies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildle and Waterfowl Production Areas, deer wintering complexes in los openings and savannas. Habitat areas are distinct from critical hendangered or threatened species (such as Kirtland's warbler or general in nature, are not primarily associated with threatened or covered by species recovery plans that are developed in cooperation.	wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more rendangered species, and are not