



**Crystal Falls Forest Management Unit
Compartment Review Presentation
Compartment # 65 Entry Year: 2014
Compartment Acreage: 1742 (GIS calculated) County: Dickinson**

Revision Date: 06/19/12

Stand Examiner: Andy Church

Legal Description: T42N R27W Sections 7, 16-19, 21

RMU (if applicable):

Management Goals: Optimize sustainable timber production while enhancing and protecting wildlife habitat. Protect the riparian areas and transition zones during management activity.

Soil and Topography: Soils range from very poorly drained Cathro mucks to well drained Emmet fine sandy loams. The topography is mostly rolling hills.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Blocks of private ownership are scattered within and around this compartment. Active forest management has occurred and will continue within and surrounding the compartment. Hunting is the main recreational use pattern.

Unique, Natural Features: None identified

Archeological, Historical, and Cultural Features: None identified

Special Management Designations or Considerations: Some areas lie within the Designated '78 Deeryard map.

Watershed and Fisheries Considerations: Protect water quality for all bodies of water, particularly, the East Branch of the Skunk Creek. Promote long lived conifer species along water bodies and use adequate buffer protection.

Wildlife Habitat Considerations: Compartment 65 incorporates a portion of the Sturgeon River Deer Wintering Complex. Due to the critical nature of thermal cover in such an area, not only lowland conifer cover, but upland conifer cover and transition zones should be protected and enhanced. Underplanting of hemlock and pine took place, during the last year of entry, in an effort to address this concern. Spruce budworm impacts on the spruce and fir component will be significant, putting addition importance on cedar, hemlock and pine cover that are present. Hunter walking trails will be maintained. These are particularly popular with grouse, bear, deer and turkey hunters.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of coarse-textured glacial till. The glacial drift thickness varies between 10 and 50 feet. The Cambrian Trempealeau and Munising Formations, and the Precambrian Archean volcanic and sedimentary rocks subcrop below the glacial drift. There is not an economic use for these rocks, although the Trempealeau could be used for stone. A Randville Dolomite marble quarry is located five miles to the southwest. The Groveland Iron mine is located approximately twelve miles to the southwest. This compartment was previously leased for metallic exploration and potential may still exist. Gravel pits are located two miles to the north and there should be potential. There is no economic oil and gas production in the UP.

Vehicle Access: Excellent road systems are in place throughout entire compartment. Many State forest poor dirt roads are also present.

Survey Needs: Corners are needed adjacent to private lands.

Recreational Facilities and Opportunities: Hunter walking trails.

Fire Protection: Felch Protection Area. Access for fire suppression in the more fire prone forest types is fairly good.

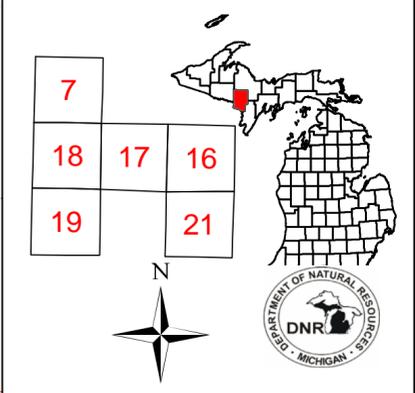
Additional Compartment Information:

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

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

Cover Type & Treatment Map

Compartment: 065
 T42N R27W Sec. 7, 16 - 19, 21
 County: Dickinson
 Unit: Crystal Falls
 YOY: 2014
 Acres: 1,743 GIS Calculated
 Examiner: Andy Church
 Map Revised: 07/16/2012
 Map Phase: Pre-Review



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

Legend

- Miris Corners
- Remonumented Section Corners
- Corners
- Gate
- Berms
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stream
- Intermittent Stream
- Lakes and Rivers

Treatments

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

Forest Stands

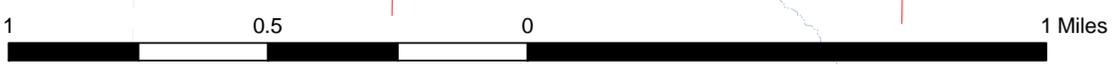
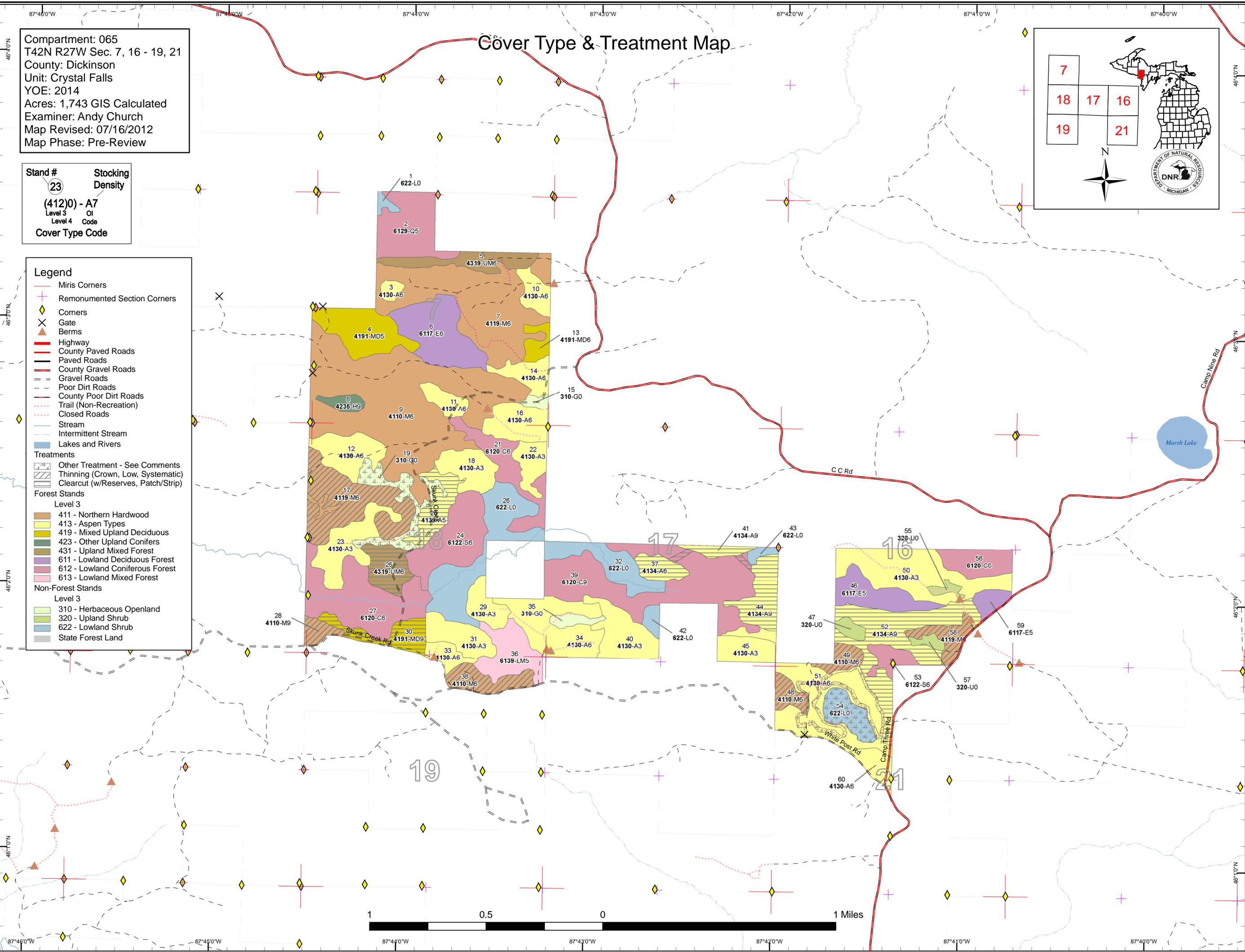
Level 3

- 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

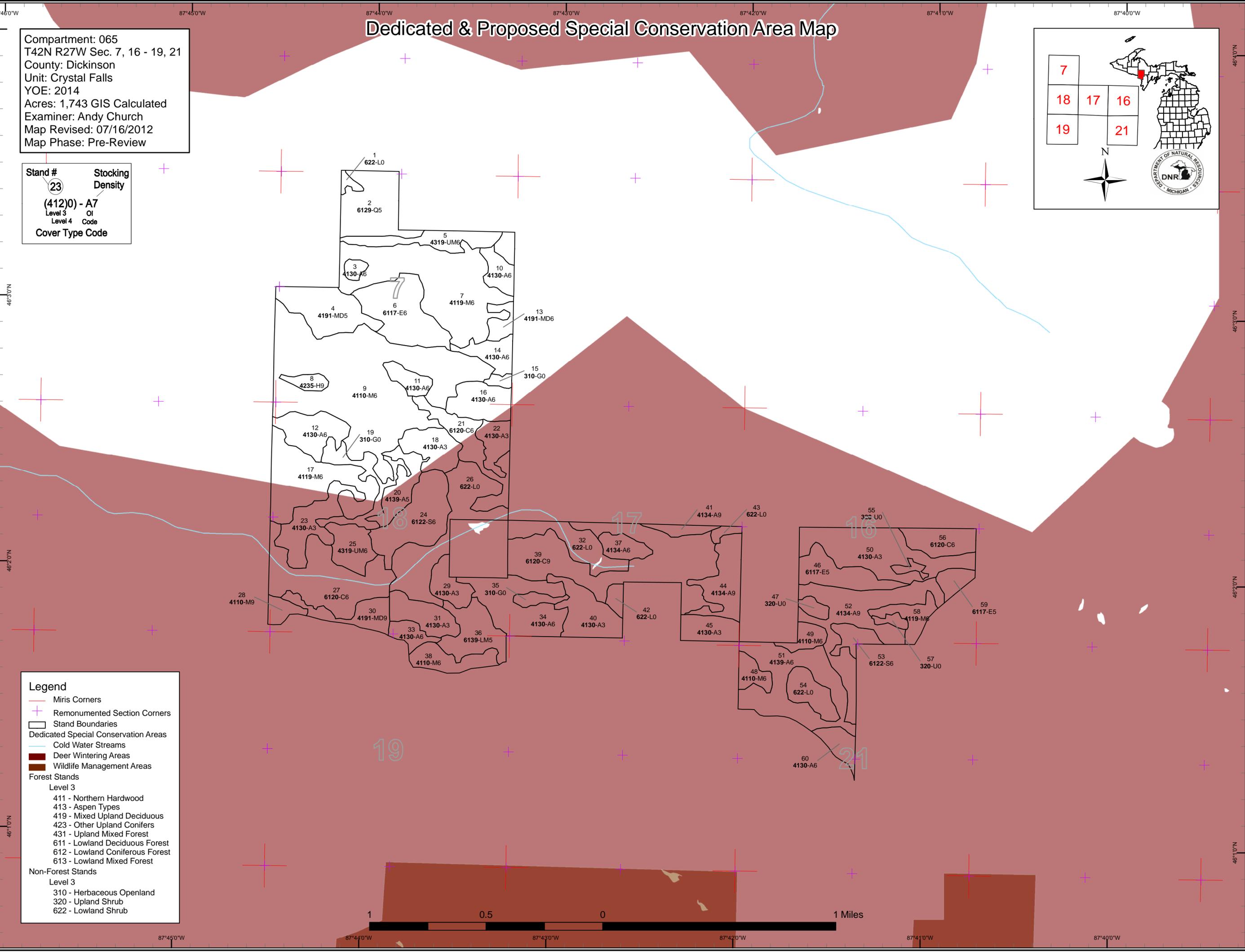
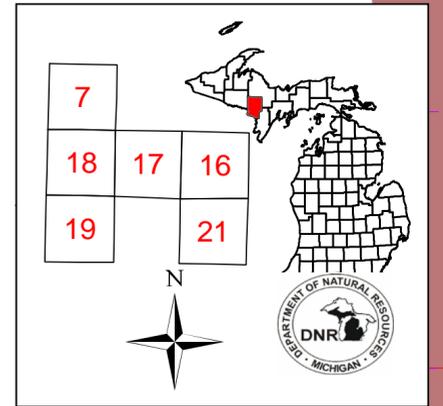
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 622 - Lowland Shrub
- State Forest Land



Dedicated & Proposed Special Conservation Area Map

Compartment: 065
 T42N R27W Sec. 7, 16 - 19, 21
 County: Dickinson
 Unit: Crystal Falls
 YOE: 2014
 Acres: 1,743 GIS Calculated
 Examiner: Andy Church
 Map Revised: 07/16/2012
 Map Phase: Pre-Review

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



- Legend**
- Miris Corners
 - ⊕ Remonumented Section Corners
 - ▭ Stand Boundaries
 - ▭ Dedicated Special Conservation Areas
 - Cold Water Streams
 - Deer Wintering Areas
 - Wildlife Management Areas
 - 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
 - 320 - Upland Shrub
 - 622 - Lowland Shrub



87°45'0"W 87°44'0"W 87°43'0"W 87°42'0"W 87°41'0"W 87°40'0"W

46°30'0"N 46°20'0"N 46°10'0"N

46°30'0"N 46°20'0"N 46°10'0"N

Table 1 – Total Acres by Cover Type and Age Class



	Age Class													Total	
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneren Age
Aspen	68	117	57	140	83	0	0	116	0	0	0	0	0	0	581
Cedar	0	0	0	0	0	0	0	0	0	228	0	0	0	0	228
Hemlock	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7
Herbaceous Openland	33	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Lowland Conifers	0	0	0	0	0	0	0	44	0	0	0	0	0	0	44
Lowland Deciduous	0	0	0	0	37	50	0	0	0	0	0	0	0	0	86
Lowland Mixed Forest	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30
Lowland Shrub	118	0	0	0	0	0	0	0	0	0	0	0	0	0	118
Lowland Spruce/Fir	0	0	0	0	0	0	46	11	0	0	0	0	0	0	57
Mixed Upland Deciduous	0	0	0	0	0	0	59	0	9	0	0	0	0	0	67
Northern Hardwood	0	0	0	0	0	0	0	63	371	0	0	0	0	0	433
Upland Mixed Forest	0	0	0	24	0	0	21	0	0	0	0	0	0	0	45
Upland Shrub	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Total	232	117	57	164	120	50	156	233	380	228	0	7	0	0	1743



Table 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2014

Compartment 065
Total Compartment Acres: 1743

Acres by Treatment Type

Commercial Harvest - 298	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 56	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	132	0	0	0	0	0		132
Cedar	3	0	0	0	0	0		3
Mixed Upland Deciduous	20	0	0	0	0	0		20
Northern Hardwood	0	0	0	0	122	0		122
Upland Mixed Forest	21	0	0	0	0	0		21
Total	176	0	0	0	122	0		298



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17	12065017-Cut	59.9	4119 - Mixed Northern Hardwoods	High Density Pole	74	111-140	Harvest	Low Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Thin. Leave Cedar, Hemlock, Oak if found. Exclude vernal pond area from treatment.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u> Rolling terrain. Aspen/Maple/Fir around some vernal ponds on West side of stand. High quality sugar maple pole stand. Great potential. Not a designated '78 deeryard.</p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
20	12065020-Cut	21.2	4139 - Aspen, Mixed Deciduous	Medium Density Pole	43		Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest using 2" spec. Leave some overmature Aspen along transition to wet area. Also, leave all: Pine, Hemlock, Cedar, and Oak if found.</p> <p><u>Specs:</u> RETENTION: Pine, Hemlock, Cedar, Oak, and some larger Aspen</p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
25	12065025-Cut	20.8	4319 - Mixed Upland Forest	High Density Pole	67		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest using 2" spec. Leave Hemlock, Cedar, Oak, Pine, and submerchantable conifers if found. Buffer stream to South minimum 200 feet.</p> <p><u>Specs:</u> RETENTION: Buffer, Cedar, Hemlock, Oak, Pine, and submerchantable conifers ACCEPTABLE ALTERNATIVE REGEN: Maple/Fir</p> <p><u>Other Comments:</u> More Fir to South, more Aspen to North. Budworm damage evident. Diameters on Aspen vary. Larger Firs are dying, and Aspen is breaking up. Trace amounts of Pine. Designated '78 deeryard.</p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
28	12065028-Cut	8.2	4110 - Sugar Maple Association	High Density Log	83	81-110	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Thin. Leave Cedar, Hemlock, Oak if found.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
30	12065030-Cut	20.0	4191 - Mixed Upland Deciduous with Conifer	High Density Log	67		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest using 2" spec. Do not cut Cedar, Hemlock, Oak and submerchantable conifers if found. Also, leave an area to satisfy 3% retention requirement. <u>Specs:</u> RETENTION: Cedar, Hemlock, Oak, and submerchantable conifers, Reserve areas. ACCEPTABLE ALTERNATIVE REGEN: Maple/Fir <u>Other</u> Evidence of Budworm. Thick understory of conifer. Poor Hardwood pocket in SE corner. Aspen showing mortality and conks. Smaller diameter <u>Comments:</u> along road. Most of stand is upland, with portions lowland. Portions of stand are designated '78 deeryard. <u>Next Steps:</u> <u>Proposed Start Date:</u> 10/01/2013										
37	12065037-Cut	12.1	4134 - Aspen, Spruce/Fir	High Density Pole	75		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest using 2" spec. Leave Cedar, Hemlock, Oak, and submerchantable conifers if found. Frozen conditions only due to access route. <u>Specs:</u> Buffer stream minimum 150 feet. RETENTION: Buffer, Cedar, Hemlock, Oak, submerchantable conifers ACCEPTABLE ALTERNATIVE RGEN: Maple/Fir <u>Other</u> Upland pocket in middle of swamp. Much mortality and windthrow. Budworm damage evident. Need trail through swamp for access. East <u>Comments:</u> Branch of Skunk Creek to South. Designated '78 deeryard. <u>Next Steps:</u> <u>Proposed Start Date:</u> 10/01/2013										
38	12065038-Cut	19.2	4110 - Sugar Maple Association	High Density Pole	81	81-110	Harvest	Crown Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Thin. Leave Cedar, Hemlock, Oak if found. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next Steps:</u> <u>Proposed Start Date:</u> 10/01/2013										
39	12065039-Cut	2.6	6120 - Lowland Cedar	High Density Log	98		Harvest	Clearcut	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest a small trail across this stand to access adjacent harvest (St#37 and St#41). Frozen conditions only. Forester and Biologist will <u>Specs:</u> layout skid trails together. RETENTION: Remaining stand ACCEPTABLE ALTERNATIVE REGEN: Tamarack/Fir <u>Other</u> Designated '78 Deeryarding area. <u>Comments:</u> <u>Next Steps:</u> <u>Proposed Start Date:</u> 10/01/2013										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
41	12065041-Cut	7.0	4134 - Aspen, Spruce/Fir	High Density Log	74		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest using 2" spec. Leave Cedar, Hemlock, Oak and submerchantable conifers if found.										
<u>Specs:</u> RETENTION: Cedar, Hemlock, Oak, submerchantable conifers ACCEPTABLE ALTERNATIVE REGEN: Maple/Fir										
<u>Other</u> Cedar scattered throughout. Aspen declining. Softwood mortality due to budworm. Check for survey needs. Access through private.										
<u>Comments:</u> Designated '78 deeryard.										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
44	12065044-Cut	25.8	4134 - Aspen, Spruce/Fir	High Density Log	74		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest using 2" spec. Leave all Cedar, Hemlock, Oak and submerchantable conifers if found. Do not include wetter area to South reflected in treatment boundary.										
<u>Specs:</u> RETENTION: Southern Exclusion, Cedar, Hemlock, Oak, submerchantable conifers ACCEPTABLE ALTERNATIVE REGEN: Maple/Fir										
<u>Other</u> Aspen declining, and budworm evident on softwood. Much windthrow. Wetter drainage area to South. Access through Private. Check for										
<u>Comments:</u> survey needs. Designated '78 deeryard.										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
48	12065048-Cut	10.3	4110 - Sugar Maple Association	High Density Pole	84		Harvest	Low Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Thin. Leave Cedar, Hemlock, Oak if found.										
<u>Specs:</u>										
<u>Other</u> Great Potential. Not Designated '78 deeryard.										
<u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
49	12065049-Cut	9.6	4110 - Sugar Maple Association	High Density Pole	84	111-140	Harvest	Low Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Thin. Leave Cedar, Hemlock, Oak if found.										
<u>Specs:</u>										
<u>Other</u> Great potential. Designated '78 deeryard.										
<u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
52	12065052-Cut	66.3	4134 - Aspen, Spruce/Fir	High Density Log	78		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest using 2" spec. Leave Pine, Cedar, Hemlock, Oak and submerchantable conifers if found.										
<u>Specs:</u> RETENTION: Pine, Cedar, Hemlock, Oak, submerchantable conifers. ACCEPTABLE ALTERNATIVE REGEN: Maple/Fir										
<u>Other</u> Budworm mortality evident. Aspen declining. Windthrow throughout stand. Portion of stand in Section 16 is designated '78 deeryard, portion of										
<u>Comments:</u> stand in Section 21 is not designated '78 deeryard. Check for survey needs.										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
58	12065058-Cut	14.9	4119 - Mixed Northern Hardwoods	High Density Pole	81	81-110	Harvest	Low Thinning	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Thin. Leave Hemlock, Cedar, Oak if found.										
<u>Specs:</u>										
<u>Other</u> Designated '78 deeryard										
<u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> 10/01/2013										
51	12065051- NonFor	32.7	4139 - Aspen, Mixed Deciduous	High Density Pole	47		Non-Forest Management	Other - Specify	3205 - Mixed Upland Shrub	Cmpt. Review Proposal
<u>Prescription</u> WLD will treat hunter walking trail within this stand.										
<u>Specs:</u>										
<u>Other</u> <u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> Unspecified										
19	NF_12065019- NonFor	23.5	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3205 - Mixed Upland Shrub	Cmpt. Review Proposal
<u>Prescription</u> Disk and Seed - Opening maintenance of system.										
<u>Specs:</u>										
<u>Other</u> <u>Comments:</u>										
<u>Next</u> <u>Steps:</u>										
<u>Proposed</u> <u>Start Date:</u> Unspecified										
Total Treatment Acreage Proposed:		354.0								

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Error

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Error

Limiting Factor and No
Treatment Reason

Total Treatment
Acreage Proposed: 0

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

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12091001-Cut	31.4	4110 - Sugar Maple Association	High Density Log	87		Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal - Incomplete

Prescription: Mark trees to 80 BA leaving best tree in place according to the Compleat Marker but focusing on White Ash to avoid Emerald Ash borer devastation. Create canopy gaps for regeneration

Other Comments:

Next Steps: Regen check according to certification

Proposed Start Date: 10/01/2013

Total Treatment Acreage Proposed: 31.4



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	43.9	75	1-50	Low volumes. Good diameter distribution.
3	4130 - Aspen	High Density Pole	4.4	31		Stand starting to become merchantable sized. Great Sugar Maple recruitment. Stream on West side.
4	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	38.6	67		Low volumes. Cut in 1984, but left much unharvested.
5	4319 - Mixed Upland Forest	High Density Pole	23.8	38		Transition zone to swamp. Quality is not great, but stand is not mature yet.
6	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	49.7	53		Pockets of Cedar mixed throughout. Swamp conifers starting to become merchantable sized. MANY drainages or streams with bed and banks within stand. Much immature Birch and Ash, especially in South. More Aspen to the West.
7	4119 - Mixed Northern Hardwoods	High Density Pole	110.0	87	81-110	Some great regen pocket found throughout stand. Stand has much defect. Not enough BA to thin. There is 10-20 sq. ft. in the regen pockets. May consider regen treatment.
8	42350 - Upland Hemlock	High Density Log	6.7	110	111-140	Hemlock pocket. Retained for diversity.
9	4110 - Sugar Maple Association	High Density Pole	198.8	87	51-80	Thinned last year of entry.
10	4130 - Aspen	High Density Pole	12.3	31		Trees just starting to become merchantable sized. Some Cedar and Ash in East portion.
11	4130 - Aspen	High Density Pole	10.6	31		Drainage to South of Stand
12	4130 - Aspen	High Density Pole	26.9	38		Majority of trees in stand are not quite mature.
13	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	8.8	83		Unique stand. Mostly upland but does have wet areas. Mix of everything. Aspen not mature.
14	4130 - Aspen	High Density Pole	15.1	34		Trees starting to become merchantable sized.
16	4130 - Aspen	High Density Pole	25.0	27		Stand starting to become merchantable sized. Some Hemlock and Cedar in overstory.
17	4119 - Mixed Northern Hardwoods	High Density Pole	62.6	74	111-140	Rolling terrain. Aspen/Maple/Fir around some vernal ponds on West side of stand. High quality sugar maple pole stand. Great potential. Not a designated '78 deeryard.
18	4130 - Aspen	High Density Sapling	23.0	16		Scattered Pine, Cedar, and Hemlock in overstory. Some lowland pockets.

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Crystal Falls Mgt. Unit

5 – Forested Stands

Compartment: 065

Year of Entry: 2014



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4139 - Aspen, Mixed Deciduous	Medium Density Pole	21.2	43		Highly variable and diverse stand. Openings, mature pockets, immature pockets. Wait for entire stand to reach maturity.
21	6120 - Lowland Cedar	High Density Pole	31.6	94		Higher stocking in Northern Finger. Farther South is lower stocking and smaller diameter trees. Drainages throughout. Designated '78 deeryard.
22	4130 - Aspen	High Density Sapling	14.9	16		Scattered White Pine, Hemlock, and Cedar in overstory. Some lowland pockets.
23	4130 - Aspen	High Density Sapling	31.5	24		
24	6122 - Black Spruce	High Density Pole	46.0	65		Dense Black Spruce stand with Tag Alder in pockets. Majority of stand is immature. Tamarack and Cedar on edges, with scattered Aspen and Birch throughout.
25	4319 - Mixed Upland Forest	High Density Pole	20.8	67		More Fir to South, more Aspen to North. Budworm damage evident. Diameters on Aspen vary. Larger Firs are dying, and Aspen is breaking up. Trace amounts of Pine. Designated '78 deeryard.
27	6120 - Lowland Cedar	High Density Pole	68.9	97		Understory is heavy to Fir. Stand is a '78 designated deeryard.
28	4110 - Sugar Maple Association	High Density Log	8.2	83	81-110	
29	4130 - Aspen	High Density Sapling	15.3	6		
30	4191 - Mixed Upland Deciduous with Conifer	High Density Log	20.0	67		Evidence of Budworm. Thick understory of conifer. Poor Hardwood pocket in SE corner. Aspen showing mortality and conks. Smaller diameter along road. Most of stand is upland, with portions lowland. Portions of stand are designated '78 deeryard.
31	4130 - Aspen	High Density Sapling	22.4	6		
33	4130 - Aspen	High Density Pole	9.9	37		
34	4130 - Aspen	High Density Pole	48.7	37		2 small HDWD pockets. One NW of opening, one South of opening. Aspen healthy in far Southern and far Northern portions of stand. Poorer quality in middle. Aspen is merchantable, but not mature. Site is more suited for Red Pine (Kotar). Possibility to convert this poor quality Aspen to a high quality Pine stand while increasing diversity. Site will need harvest, herbicide, plant to Red Pine. Will consult with WLD, then update decision after pre-review.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
36	6139 - Mixed Lowland Forest	Medium Density Pole	30.3	65		Good WB regen. Aspen holding. Wet pockets mixed throughout. Large Tag drainage through middle. Low stocking. Could cut upland NE portion, then plant to pine with adjacent stand to East.
37	4134 - Aspen, Spruce/Fir	High Density Pole	12.1	75		Upland pocket in middle of swamp. Much mortality and windthrow. Budworm damage evident. Need trail through swamp for access. East Branch of Skunk Creek to South. Designated '78 deeryard.
38	4110 - Sugar Maple Association	High Density Pole	19.2	81	81-110	Will be ready next rotation.
39	6120 - Lowland Cedar	High Density Log	106.5	98		Thick Cedar swamp. Fir and Tag Alder in open pockets. Designated '78 Deeryard.
40	4130 - Aspen	High Density Sapling	30.8	6		
41	4134 - Aspen, Spruce/Fir	High Density Log	7.0	74		Cedar scattered throughout. Aspen declining. Softwood mortality due to budworm. Check for survey needs. Access through private. Designated '78 deeryard.
44	4134 - Aspen, Spruce/Fir	High Density Log	30.3	74		Aspen declining, and budworm evident on softwood. Much windthrow. Wetter drainage area to South. Access through Private. Check for survey needs. Designated '78 deeryard.
45	4130 - Aspen	High Density Sapling	17.2	18		
46	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	27.3	47		Good diameter distribution. Pure Black Ash pocket on Northern tip. Birch healthy. Trace amounts of Cedar in overstory.
48	4110 - Sugar Maple Association	High Density Pole	10.3	84		Great Potential. Not Designated '78 deeryard.
49	4110 - Sugar Maple Association	High Density Pole	9.6	84	111-140	Great potential. Designated '78 deeryard.
50	4130 - Aspen	High Density Sapling	62.2	13		
51	4139 - Aspen, Mixed Deciduous	High Density Pole	61.8	47		Trees healthy. Overgrown WLD openings throughout stand are reclaiming to Aspen, Fir, Spruce.
52	4134 - Aspen, Spruce/Fir	High Density Log	66.3	78		Budworm mortality evident. Aspen declining. Windthrow throughout stand. Portion of stand in Section 16 is designated '78 deeryard, portion of stand in Section 21 is not designated '78 deeryard. Check for survey needs.
53	6122 - Black Spruce	High Density Pole	10.9	75		Not quite mature yet. Designated '78 deeryard.

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Crystal Falls Mgt. Unit

5 – Forested Stands

Compartment: 065
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	6120 - Lowland Cedar	High Density Pole	21.4	94		Designated '78 deeryard
58	4119 - Mixed Northern Hardwoods	High Density Pole	14.9	81	81-110	Designated '78 deeryard
59	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	9.2	47		Birch old, but healthy. Some small Cedar pockets throughout.
60	4130 - Aspen	High Density Pole	11.8	32		Aspen starting to become commercial sized. South side of stand is more of M6 type.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	6220 - Alder/willow	3.1	N/A	Unspecified	
15	3105 - Mixed Upland Herbaceous	3.5	No	Unspecified	
19	3105 - Mixed Upland Herbaceous	23.5	No	Unspecified	
26	6229 - Mixed lowland shrub	58.3	No	Unspecified	
32	6220 - Alder/willow	29.1	No	Unspecified	
35	3105 - Mixed Upland Herbaceous	6.0	No	Unspecified	
42	6220 - Alder/willow	5.3	No	Unspecified	
43	6220 - Alder/willow	3.6	No	Unspecified	
47	3205 - Mixed Upland Shrub	5.4	No	Unspecified	
54	6220 - Alder/willow	18.5	No	Unspecified	
55	3205 - Mixed Upland Shrub	3.6	No	Unspecified	
57	3205 - Mixed Upland Shrub	3.9	No	Unspecified	



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 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.