



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 64

Entry Year 2016

Acreage: 2,361

County Dickinson

Management Area: Ralph Ground Moraine

Revision Date: 07/25/2014

Stand Examiner: Andy Church

Legal Description:

T43N R27W Sec. 31-34 T42N R27W Sec. 3-6

Identified Planning Goals:

Optimize sustainable timber production while enhancing and protecting wildlife habitat. Protect riparian areas during management activity implementing the Best Management Practices guidelines.

Soil and topography:

The compartment is primarily fine sandy loam uplands with Cathro mucks located in the lowlands near the Ford River. The terrain is rolling hills.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

Most of this compartment is contiguous State of Michigan ownership with the exception of one private landowner within the boundary. Hunting, trapping, dispersed camping and fishing are the main recreational use patterns.

Unique Natural Features:

Ford River and Coffee Creek.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

The Lantz road is a Natural Beauty Road. The Ford River and Coffee creek are designated cold water streams. Also, the entire compartment lies within the Deer Winter Complex.

Watershed and Fisheries Considerations:

Protect water quality for all bodies of water, including the Ford River and Coffee Creek. Implement buffer protections following best management practice guidelines along watercourses.

Wildlife Habitat Considerations:

This compartment comprises a good portion of the historic Ford River Deeryard. Conifer in the northern hardwood stands and aspen stands should be maintained and enhanced to provide diversity and cover within the stand for use by game and nongame species. Softwoods and lowland hardwoods along transition zones between upland and lowlands provide an important source of food and shelter, as well as, travel corridors for deer, bear, fisher, wolves, small mammals and game and nongame bird species.

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 and Trempealeau Groups and Precambrian Archean granite/gneiss, Volcanics and Sedimentary rocks subcrop below the glacial drift. The Granite/Gneiss could be used for decorative or building stone. A Randville Dolomite marble quarry is located six miles to the southwest. Groveland Iron mine is located approximately twelve miles to the southwest. Part of this compartment was previously leased for metallic exploration and potential may still exist. A gravel pit is located in Section 32 and there should be potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Access is good. Lantz Road and Camp 9 Road are both seasonal county classification. They are located on the West and East side of the compartment respectively. Several state forest poor dirt roads are found throughout.

Survey Needs:

Survey needs will be requested.

Recreational Facilities and Opportunities:

None.

Fire Protection:

Fire response will be from Crystal Falls or Norway DNR stations.

Additional Compartment Information:

The following reports from the Inventory are attached:

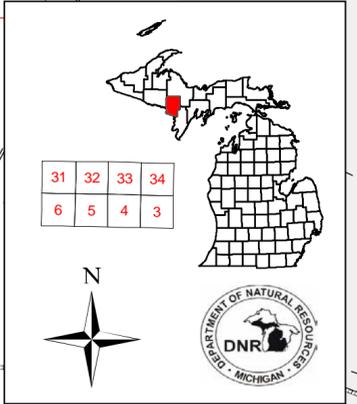
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

The following information is displayed, where pertinent, on the attached compartment maps:

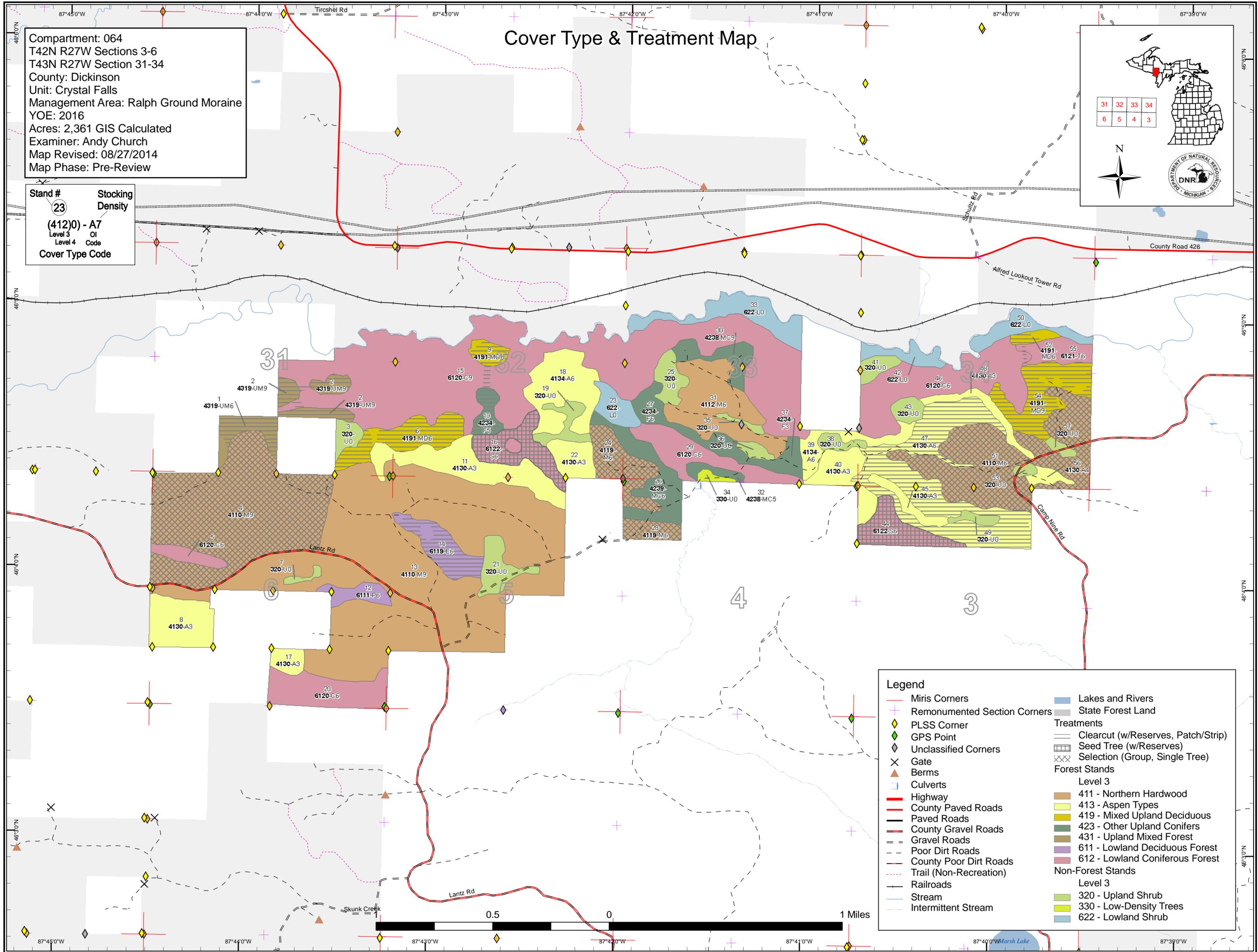
Base feature information, stand boundaries, cover types, and numbers
Proposed treatments
Site condition boundaries
Details on the road access system

Cover Type & Treatment Map

Compartment: 064
 T42N R27W Sections 3-6
 T43N R27W Section 31-34
 County: Dickinson
 Unit: Crystal Falls
 Management Area: Ralph Ground Moraine
 YOE: 2016
 Acres: 2,361 GIS Calculated
 Examiner: Andy Church
 Map Revised: 08/27/2014
 Map Phase: Pre-Review



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



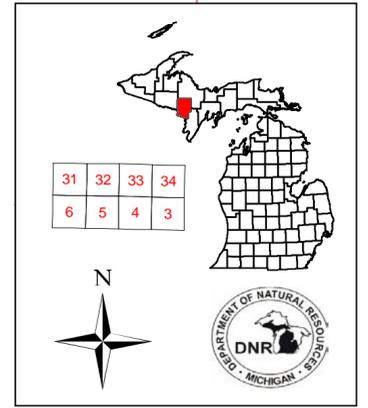
Legend

— Miris Corners	— Lakes and Rivers
+ Remonumented Section Corners	— State Forest Land
◆ PLSS Corner	Treatments
◆ GPS Point	— Clearcut (w/Reserves, Patch/Strip)
◆ Unclassified Corners	▨ Seed Tree (w/Reserves)
× Gate	▨ Selection (Group, Single Tree)
▲ Berms	Forest Stands
— Culverts	Level 3
— Highway	■ 411 - Northern Hardwood
— County Paved Roads	■ 413 - Aspen Types
— Paved Roads	■ 419 - Mixed Upland Deciduous
— County Gravel Roads	■ 423 - Other Upland Conifers
— Gravel Roads	■ 431 - Upland Mixed Forest
— Poor Dirt Roads	■ 611 - Lowland Deciduous Forest
— County Poor Dirt Roads	■ 612 - Lowland Coniferous Forest
— Trail (Non-Recreation)	Non-Forest Stands
— Railroads	Level 3
— Stream	■ 320 - Upland Shrub
— Intermittent Stream	■ 330 - Low-Density Trees
	■ 622 - Lowland Shrub



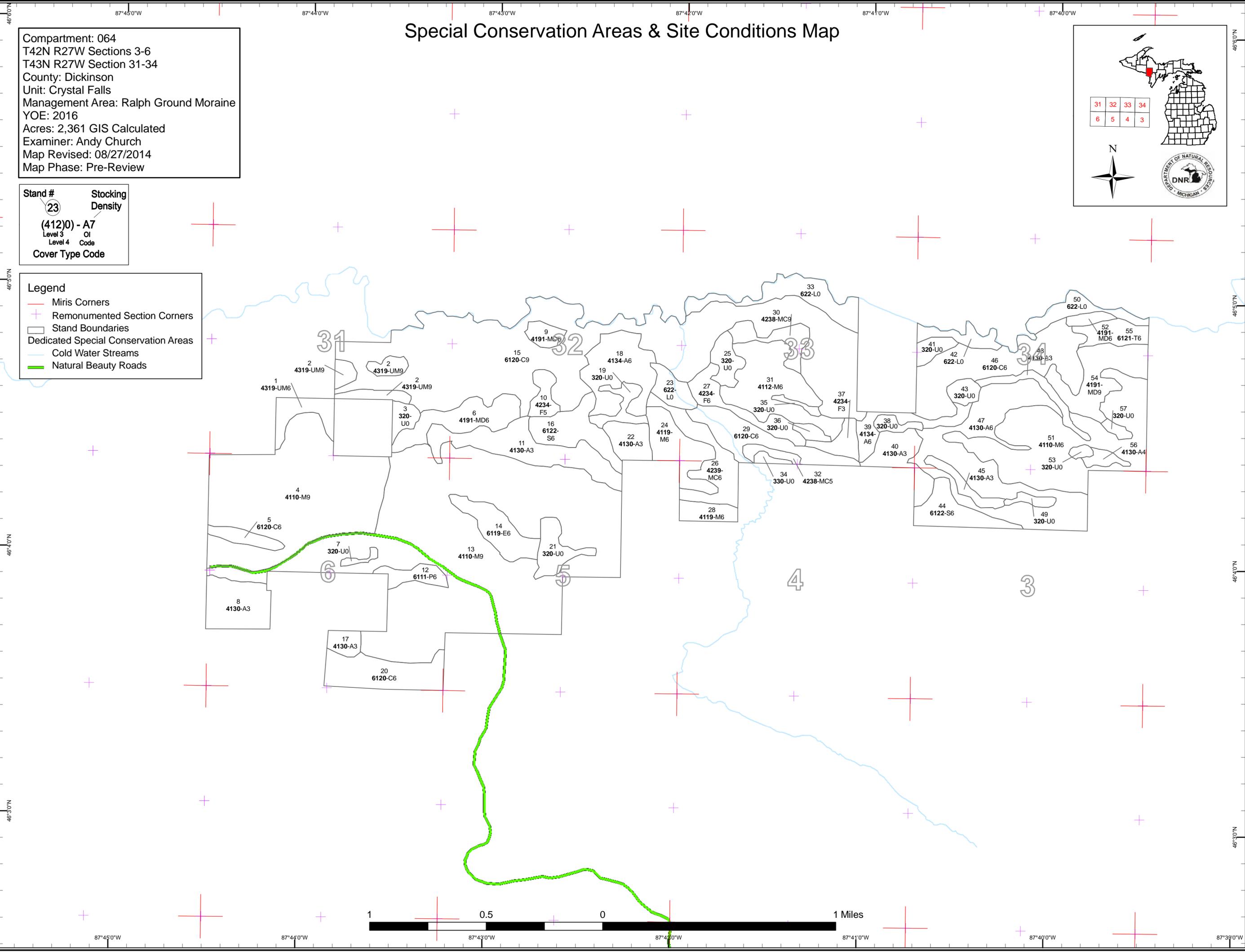
Special Conservation Areas & Site Conditions Map

Compartment: 064
 T42N R27W Sections 3-6
 T43N R27W Section 31-34
 County: Dickinson
 Unit: Crystal Falls
 Management Area: Ralph Ground Moraine
 YOE: 2016
 Acres: 2,361 GIS Calculated
 Examiner: Andy Church
 Map Revised: 08/27/2014
 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
 — Natural Beauty Roads



46°50'N 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°50'N
 46°45'0"N
 46°40'N
 46°35'0"N
 46°30'N
 87°45'0"W 87°44'0"W 87°43'0"W 87°42'0"W 87°41'0"W 87°40'0"W 87°39'0"W

Report 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 +		Uneven Age
Aspen	18	46	106	6	71	0	113	0	0	0	0	0	0	0	360
Cedar	0	0	0	0	0	0	0	44	124	364	0	0	0	0	533
Low-Density Trees	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Aspen/Balsam Poplar	0	0	0	0	13	0	0	0	0	0	0	0	0	0	13
Lowland Deciduous	0	0	0	0	0	0	0	0	28	0	0	0	0	0	28
Lowland Shrub	81	0	0	0	0	0	0	0	0	0	0	0	0	0	81
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	61	0	0	0	0	0	61
Mixed Upland Deciduous	0	0	0	0	0	0	61	0	37	0	0	0	0	0	98
Northern Hardwood	0	0	0	0	0	0	0	133	785	0	0	0	0	0	918
Tamarack	0	0	0	0	18	0	0	0	0	0	0	0	0	0	18
Upland Conifers	0	0	0	6	0	0	0	0	36	0	0	18	0	0	61
Upland Mixed Forest	0	0	0	0	0	0	0	0	40	0	0	0	0	0	40
Upland Shrub	99	0	0	0	0	0	0	0	0	0	0	0	0	0	99
Upland Spruce/Fir	0	0	12	0	25	0	0	0	12	0	0	0	0	0	48
Total	202	46	118	12	126	0	174	177	1123	364	0	18	0	0	2361



Report 2 – Proposed Treatment Summaries

Crystal Falls Mgt. Unit
Year of Entry 2016

Compartment 064
Total Compartment Acres: 2,361

Acres by Treatment Type

Commercial Harvest - 730 Tree Planting - 0 Other - 0
 Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	113	0	0	0	0	0	113
Lowland Coniferous Forest	4	0	59	0	0	0	63
Lowland Deciduous Forest	25	0	0	0	0	0	25
Mixed Upland Deciduous	89	0	0	0	0	0	89
Northern Hardwood	0	391	0	0	0	0	391
Other Upland Conifers	12	0	0	0	0	0	12
Upland Mixed Forest	37	0	0	0	0	0	37
Total	280	391	59	0	0	0	730



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	12064001-Cut	15.5	4319 - Mixed Upland Forest	High Density Pole	87		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final harvest using 2" spec. Leave Cedar and Hemlock. Also leave submerchantable conifers (less than 6" stump) Buffer bed and bank in far West of stand 100 feet. <u>Specs:</u> ACCEPTABLE ALTERNATIVE REGEN: Maple/Fir RETENTION: Cedar, Hemlock, Buffer</p> <p><u>Other</u> Most of Aspen has fallen out of stand. Spruce/Fir growing in understory of canopy caps. Looks like bed and bank along far West side of stand. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										
2	12064002-Cut	21.2	4319 - Mixed Upland Forest	High Density Log	87		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest using 2 inch spec. Leave all Cedar, Hemlock, Pine. Mark to leave some large Sugar Maple in the Northern Hardwood portion for seed tree purposes. Frozen conditions needed for accessing the NE portion of stand. <u>Specs:</u> RETENTION: Cedar, Hemlock, Pine, Leave trees ACCEPTABLE ALT REGEN: Maple/Fir</p> <p><u>Other</u> Much windthrow evident especially on the Spruce and Fir. Low volume on the island in the swamp. Thick regeneration of Red Maple saplings in canopy openings. Access to all portions of stand will have to be through Cedar swamp. Approximately 4 acres on West side of stand is VERY poor quality Northern Hardwoods with much Red Maple mixed in. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										
4	12064004-Cut	211.3	4110 - Sugar Maple Association	High Density Log	89	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal
<p><u>Prescription</u> Thin targeting 70-80 residual BA. Create new, and expand existing regen gaps to 60 feet. Leave all Cedar, Hemlock, Pine. <u>Specs:</u></p> <p><u>Other</u> BAs vary greatly throughout stand. Good quality hardwood stand. Uneven aged. Some Ash in understory near Lantz Rd. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										
6	12064006-Cut	35.7	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	81	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Mark some Sugar Maples to leave as seed source in the pure Northern Hardwood portion of stand. In addition, leave all Cedar, Hemlock, Pine. <u>Specs:</u> Exclude the large wet drainage areas from treatment boundary. Expect Aspen regen except in Northern Hardwood portion of stand. RETENTION: Hemlock, Cedar, Pine, Wet Areas ACCEPTABLE ALT REGEN: Maple/Swamp HDWDS</p> <p><u>Other</u> Diverse stand. About 7 acres of this stand is poor quality Northern Hardwoods, the rest is a mix of everything. Many drainages mixed throughout. Much mortality on Aspen. Also, the Aspen varies greatly in age and size. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
9	12064009-Cut	8.0	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	64		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest using 2 inch spec. Leave all Cedar, Hemlock, Pine. Buffer Ford River 300 feet. Frozen ground operations only due to haul route <u>Specs:</u> sensitivity. After buffer taken out, approx 8 acres should be harvestable. RETENTION: Cedar, Hemlock, Pine, Buffer ACCEPTABLE ALT REGEN: Maple/Fir <u>Other</u> Close to river. Access to stand would be across Cedar swamp. This is an upland island in the middle of Cedar swamp. Stand is of poor health. <u>Comments:</u> Aspen and Birch is in decline. If not treated, stand will most likely move towards Mixed Conifer/Red Maple stand. <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										
10	12064010-Cut	11.6	42340 - Upland Spruce/Fir	Medium Density Pole	81		Harvest	Clearcut with Reserves	42340 - Upland Spruce/Fir	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest using 2 inch spec. Leave Cedar, Hemlock, Pine. Exclude wet areas from treatment boundary. Recommend winter harvest due to <u>Specs:</u> wet access. RETENTION: Cedar, Hemlock, Pine, Wet Exclusions ACCEPTABLE ALT REGEN: Maple/Aspen <u>Other</u> Mostly upland with lowland portions around edges. Drainage in middle and South parts of stand. Thick understory of conifer poles. Stand has <u>Comments:</u> some windthrow on the larger trees. Budworm damage evident throughout entire stand regardless of size and crown position. <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										
14	12064014-Cut	25.2	6119 - Mixed Lowland Deciduous Forest	High Density Pole	85	81-110	Harvest	Clearcut with Reserves	611 - Lowland Deciduous Forest	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest using 2 inch spec. Leave all Cedar, Hemlock, Pine. Buffer pond 50 feet. Expect Aspen regen on upland portions. Recommend <u>Specs:</u> frozen conditions. RETENTION: Cedar, Hemlock, Pine, Buffer ACCEPTABLE ALT REGEN: Aspen/Northern Hardwoods <u>Other</u> Some parts of stand are upland, but most of stand is lowland. Aspen around the edges of the lowlands. Pond in NW part of stand. <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										
15	12064015-Cut	3.2	6120 - Lowland Cedar	High Density Log	97		Harvest	Clearcut	612 - Lowland Coniferous Forest	Cmpt. Review Proposal
<u>Prescription</u> Parts of this stand may need to be harvested for accessing other treatments. <u>Specs:</u> Final Harvest using 2 inch spec. Frozen conditions only. Only harvest portions of this stand as needed for access. RETENTION: None due to small acreage ACCEPTABLE ALTERNATIVE REGEN: Tamarack/Fir <u>Other</u> Thick Cedar swamp. Ford River along northern boundary. <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
16	12064016-Cut	31.3	6122 - Black Spruce	High Density Pole	89		Harvest	Seed Tree with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<u>Prescription</u> Final harvest using 2 inch spec. Leave all Cedar, Hemlock, Pine. Exclude an island in middle of stand for retention. Mark clumps of Black <u>Specs:</u> Spruce leave trees for seed. Expect Aspen to regenerate in upland portions of treatment. RETENTION: Cedar, Hemlock, Pine, Island ACCEPTABLE ALT REGEN: Tamarack/Swamp Hardwoods/Aspen <u>Other</u> <u>Comments:</u> Mostly lowland but stand does transition to uplands along edges of stand boundary. Spruce is tall, straight, and healthy. No mistletoe observed on any Spruce. Swamp hardwoods in understory. Aspen in the upland portions are over-mature and are of poor health. <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										
24	12064024-Cut	34.3	4119 - Mixed Northern Hardwoods	High Density Pole	89	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal
<u>Prescription</u> Thin targeting 80-90 RBA. Leave all Cedar and Hemlock <u>Specs:</u> <u>Other</u> Poor quality. Many forks, seams, splits, etc... <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										
28	12064028-Cut	12.7	4119 - Mixed Northern Hardwoods	High Density Pole	89	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal
<u>Prescription</u> Thin targeting 80-90 RBA. Leave all Cedar and Hemlock <u>Specs:</u> <u>Other</u> Poor quality. Many splits, seams, forks, etc... <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										
44	12064044-Cut	27.6	6122 - Black Spruce	High Density Pole	81		Harvest	Seed Tree with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<u>Prescription</u> Seed tree pockets of Black Spruce. Leave Cedar <u>Specs:</u> RETENTION: Cedar, Black Spruce seed trees ACCEPTABLE ALT REGEN: Tamarack/Fir <u>Other</u> Healthy Black Spruce stand with Cedar and Tamarack mixed in. Mortality evident on Tamarack. <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2015										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
46	12064046-Cut	0.9	6120 - Lowland Cedar	High Density Pole	86		Harvest	Clearcut	612 - Lowland Coniferous Forest	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest using 2 inch spec. Frozen conditions only. Only harvest portions of this stand as needed for access.</p> <p><u>Specs:</u> RETENTION: None due to small acreage ACCEPTABLE ALTERNATIVE REGEN: Tamarack/Fir</p> <p><u>Other</u> Thick Cedar swamp. More Fir/Spruce along edges. A few scattered Tamarack.</p> <p><u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										
47	12064047-Cut	113.0	4130 - Aspen	High Density Pole	61		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest using 2 inch spec. Leave all Cedar, Hemlock, Pine. Exclude small pocket of Sugar Maple regen from sale boundary. Within the 2 <u>Specs:</u> acre Northern Hardwood portion of stand, leave tree mark some large Sugar Maple trees for seed source to try and replicate regen success adjacent to this hardwood pocket. RETENTION: Cedar, Hemlock, Pine, Regen pocket, Sugar Maple seed trees ACCEPTABLE ALT REGEN: Maple/Fir</p> <p><u>Other</u> Varying ages on Aspen. Stand was once an upland opening that is now naturally filling in with trees. Poor quality on some Aspen. Also, some <u>Comments:</u> mortality is present. This stands includes a 2 acre Northern Hardwood pocket in SE corner of stand too small to meet minimum mapping standards. There is heavy Sugar Maple sapling recruitment near this 2 acre stand.</p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										
51	12064051-Cut	133.0	4110 - Sugar Maple Association	High Density Pole	77	141-170	Harvest	Single Tree Selection	411 - Northern Hardwood	Cmpt. Review Proposal
<p><u>Prescription</u> Thin targeting residual BA 80. Leave all Cedar, Hemlock, Pine <u>Specs:</u></p> <p><u>Other</u> Great potential. Large overstory trees are suppressing the Sugar Maple poles. Varying ages and densities throughout stand. <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										
52	12064052-Cut	3.3	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	64		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Final Harvest using 2 inch spec. Leave all Cedar, Hemlock, Pine. Buffer Ford River 300 feet. Frozen ground operations only due to haul route <u>Specs:</u> sensitivity. After buffer taken out, approx 3.5 acres will be harvestable. RETENTION: Cedar, Hemlock, Pine, Buffer ACCEPTABLE ALT REGEN: Maple/Fir</p> <p><u>Other</u> Close to river. Access to stand would be across Cedar swamp. This is an upland island in the middle of Cedar swamp. Stand is of poor health. <u>Comments:</u> Aspen and Birch is in decline. If not treated, stand will most likely move towards Mixed Conifer/Red Maple stand.</p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2015</p>										

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	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
54	12064054-Cut	42.0	4191 - Mixed Upland Deciduous with Conifer	High Density	68		Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal

Prescription Final Harvest using 2 inch spec. Leave all Cedar, Hemlock, Pine. Exclude grassy openings from treatment boundary.

Specs: RETENTION: Cedar, Hemlock, Pine
ACCEPTABLE ALTERNATIVE REGEN: Maple/Fir

Other Pockets of good Sugar Maple regen in understory. Evidence of budworm damage. Aspen is in decline. Small grassy openings in North part of stand. Some wet areas of stand near bordering Cedar swamp.

Next Steps:

Proposed Start Date: 10/01/2015

Total Treatment Acreage Proposed: 729.9



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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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#Type! #Type!

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

Total Treatment
Acreage Proposed: 0.0

Report 5 – Site Conditions

Crystal Falls Mgt. Unit

Compartment 064

Andy Church : Examiner

Year of Entry 2016

Availability for Management

Total Acres	Acres Available	Acres Not Available	Dominant Site Conditions	No
360	360		Aspen	360
532	532		Cedar	532
13	13		Lowland Aspen/Balsam Poplar	13
28	28		Lowland Deciduous	28
61	61		Lowland Spruce/Fir	61
98	98		Mixed Upland Deciduous	98
918	918		Northern Hardwood	918
18	18		Tamarack	18
61	61		Upland Conifers	61
39	39		Upland Mixed Forest	39
48	48		Upland Spruce/Fir	48
2,177	2,177		Total Forested Acres	2,177
	100%		Relative Percent	

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*



Report 6 – 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.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

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.
SCA	Visual Management Area	An area of general social appreciation that is managed to recognize and preserve a particular visual value. Examples of these areas include scenic vistas, scenic or natural beauty roads, and lakeshore areas.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4319 - Mixed Upland Forest	High Density Pole	18.3	87		Most of Aspen has fallen out of stand. Spruce/Fir growing in understory of canopy caps. Looks like bed and bank along far West side of stand.
2	4319 - Mixed Upland Forest	High Density Log	21.2	87		Much windthrow evident especially on the Spruce and Fir. Low volume on the island in the swamp. Thick regeneration of Red Maple saplings in canopy openings. Access to all portions of stand will have to be through Cedar swamp. Approximately 4 acres on West side of stand is VERY poor quality Northern Hardwoods with much Red Maple mixed in.
4	4110 - Sugar Maple Association	High Density Log	211.3	89	81-110	BAs vary greatly throughout stand. Good quality hardwood stand. Uneven aged. Some Ash in understory near Lantz Rd.
5	6120 - Lowland Cedar	High Density Pole	11.0	91		
6	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	37.1	81	81-110	Poor quality diverse hardwood stand. About 7 acres of this stand is Northern Hardwoods, the rest is a mix of everything. Many drainages mixed throughout. Much mortality on Aspen. Also, the Aspen varies greatly in age and size.
8	4130 - Aspen	High Density Sapling	36.9	16		
9	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	9.1	64		Close to river. Access to stand would be across Cedar swamp. This is an upland island in the middle of Cedar swamp. Stand is of poor health. Aspen and Birch is in decline. If not treated, stand will most likely move towards Mixed Conifer/Red Maple stand.
10	42340 - Upland Spruce/Fir	Medium Density Pole	11.6	81		Mostly upland with lowland portions around edges. Drainage in middle and South parts of stand. Thick understory of conifer poles. Stand has some windthrow on the larger trees. Budworm damage evident throughout entire stand regardless of size and crown position.
11	4130 - Aspen	High Density Sapling	56.9	28		
12	6111 - Lowland Balsam Poplar	High Density Pole	12.6	43		Wet with Black Ash in understory. Trees are quite healthy.
13	4110 - Sugar Maple Association	High Density Log	461.1	88	81-110	High quality Northern Hardwood stand. Thinned last Year of Entry.
14	6119 - Mixed Lowland Deciduous Forest	High Density Pole	28.3	85	81-110	Some parts of stand are upland, but most of stand is lowland. Aspen around the edges of the lowlands. Pond in NW part of stand.
15	6120 - Lowland Cedar	High Density Log	353.4	97		Thick Cedar swamp.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	6122 - Black Spruce	High Density Pole	33.6	89		Mostly lowland but stand does transition to uplands along edges of stand boundary. Spruce is tall, straight, and healthy. No mistletoe observed on any Spruce. Swamp hardwoods in understory.
17	4130 - Aspen	High Density Sapling	9.3	15		Supercanopy Cedar found
18	4134 - Aspen, Spruce/Fir	High Density Pole	51.5	41		Northern portions of stand growing better than Southern portions.
20	6120 - Lowland Cedar	High Density Pole	43.7	78		Thick Cedar stand
22	4130 - Aspen	High Density Sapling	17.9	7		Scattered supercanopy cedars throughout
24	4119 - Mixed Northern Hardwoods	High Density Pole	34.3	89	111-140	Poor quality. Many forks, seams, splits, etc...
26	42390 - Mixed Non-Pine Upland Conifers	High Density Pole	36.4	89		Cedar/Hemlock/Mixed Hardwood stand. Mostly upland with some drainage areas throughout. Stand is extremely diverse.
27	42340 - Upland Spruce/Fir	High Density Pole	24.5	41		Sparse conifer supercanopy of Cedar/Spruce. Scattered Hemlock and White Pines found throughout. Stand is fully stocked with conifer and deciduous pole sized trees. Barring insect or disease, this stand will have more volume in 10 years when the Spruce/Fir is more mature.
28	4119 - Mixed Northern Hardwoods	High Density Pole	12.7	89	111-140	Poor quality. Many splits, seams, forks, etc...
29	6120 - Lowland Cedar	High Density Pole	39.1	87		Coffee Creek runs through middle of stand.
30	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Log	18.3	110	81-110	Unique stand. Diverse upland Cedar/Hemlock/Fir/Mixed Deciduous stand. Scattered supercanopy White Pines throughout. Much Fir/Spruce in understory.
31	4112 - Maple, Beech, Cherry Association	High Density Pole	65.6	88	81-110	Thinned 2009. Far Southern reaches of stand was not thinned because it was private ownership in 2009. Should treat the Southern portion when entire stand is thinned again.
32	42380 - Non Pine Upland Conifer, Mixed Deciduous	Medium Density Pole	6.3	36		Camp once stood in the Southern portion of stand. The stand is reclaiming to Cherry/Fir/Spruce. Low stocking. Extremely diverse stand; varying ages, diameters, openings, and different species. Supercanopy Hemlock throughout.
37	42340 - Upland Spruce/Fir	High Density Sapling	12.2	21		Patchy harvest last time; Not cut clean in past. Scattered supercanopy trees found throughout.
39	4134 - Aspen, Spruce/Fir	High Density Pole	19.3	46		Thick understory of 2-3 stick conifers. Aspen has poor form, but is still healthy. Will have more volume in this stand next yoe.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	4130 - Aspen	High Density Sapling	26.3	28		
44	6122 - Black Spruce	High Density Pole	27.6	81		Healthy Black Spruce stand with Cedar and Tamarack mixed in. Mortality evident on Tamarack. Could be ELB. Will consult Forest Health specialist.
45	4130 - Aspen	High Density Sapling	10.3	28		
46	6120 - Lowland Cedar	High Density Pole	85.4	86		Thick Cedar swamp. More Fir/Spruce along edges. A few scattered Tamarack.
47	4130 - Aspen	High Density Pole	113.2	61		Varying ages on Aspen. Stand was once an upland opening that is now naturally filling in with trees. Poor quality on some Aspen. Also, some mortality is present. This stands includes a 2 acre Northern Hardwood pocket in SE corner of stand too small to meet minimum mapping standards. There is heavy Sugar Maple sapling recruitment near this 2 acre stand.
48	4130 - Aspen	High Density Sapling	12.5	23		
51	4110 - Sugar Maple Association	High Density Pole	133.0	77	141-170	Great potential. Large overstory trees are suppressing the Sugar Maple poles. Varying ages and densities throughout stand.
52	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	5.8	64		Close to river. Access to stand would be across Cedar swamp. This is an upland island in the middle of Cedar swamp. Stand is of poor health. Aspen and Birch is in decline. If not treated, stand will most likely move towards Mixed Conifer/Red Maple stand.
54	4191 - Mixed Upland Deciduous with Conifer	High Density Log	45.9	68		Pockets of good Sugar Maple regen in understory. Evidence of budworm damage. Aspen is in decline. Small grassy openings in North part of stand. Some wet areas of stand near bordering Cedar swamp.
55	6121 - Tamarack	High Density Pole	18.0	48		Healthy Tamarack stand.
56	4130 - Aspen	Low Density Pole	6.1	36		Varying ages and diameters on trees. Stand was once a grassy opening, but is now filling in with Aspen naturally.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	320 - Upland Shrub	8.5	Unspecified	Unspecified	
7	320 - Upland Shrub	2.8	Unspecified	Unspecified	
19	320 - Upland Shrub	12.0	Unspecified	Unspecified	
21	320 - Upland Shrub	18.9	Unspecified	Unspecified	
23	622 - Lowland Shrub	14.2	Unspecified	Unspecified	
25	320 - Upland Shrub	13.8	Unspecified	Unspecified	
33	622 - Lowland Shrub	35.6	Unspecified	Unspecified	
34	330 - Low-Density Trees	3.2	Unspecified	Unspecified	
35	320 - Upland Shrub	3.2	Unspecified	Unspecified	
36	320 - Upland Shrub	5.2	Unspecified	Unspecified	
38	320 - Upland Shrub	6.4	Unspecified	Unspecified	
41	320 - Upland Shrub	8.5	Unspecified	Unspecified	
42	622 - Lowland Shrub	12.9	Unspecified	Unspecified	
43	320 - Upland Shrub	8.1	Unspecified	Unspecified	
49	320 - Upland Shrub	5.1	Unspecified	Unspecified	
50	622 - Lowland Shrub	18.5	Unspecified	Unspecified	
53	320 - Upland Shrub	3.0	Unspecified	Unspecified	
57	320 - Upland Shrub	3.8	Unspecified	Unspecified	