

Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12004
Entry Year 2017
Acreage: 2,680
County Dickinson

Management Area: Ralph Ground Moraine

Revision Date: 2015-07-30

Stand Examiner: Scott Sebero

Legal Description:

T44N-R29W SECTIONS 5, 6, 7. T44N-R30W SECTIONS 1, 2, 11 & 12.

Identified Planning Goals:

Our management goals in this compartment are to develop age class distribution in aspen types. Maintain health of conifer types and increase acreage where possible. Develop the quality while maintaining diversity in hardwood types. Develop buffers on lakes and streams and maintain and improve road system.

Soil and topography:

A mix of Zimmerman fine sand, 18 to 35 percent slopes, rolling, excessively well drained soil on foot slopes, side slopes, and ridges and Pemene fine sandy loam, 6 to 18 percent slopes, gently rolling, well drained soil is on foot slopes, side slopes, and ridges in the uplands.

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

Ownership patterns in this compartment consist mostly of State lands and Plum Creek Timberlands with some private parcels and hunting camps. Lands in and around this compartment are used mainly for hunting and managed for forest products.

Unique Natural Features:

Parmalee Lake, Floodwood Lakes, and Michigamme River.

Archeological, Historical, and Cultural Features:

None identified.

Special Management Designations or Considerations:

None identified.

Watershed and Fisheries Considerations:

100 foot buffers should be implemented around any lake, non-trout stream, and emergent wetland plus 5 feet per 1% increase of slope. An increased slope should also be considered when determining appropriate buffer. Streams, regardless of their size or frequency of flow, are connected to downstream waters and strongly influence their function. Additionally, wetlands and open waters in riparian areas and floodplains are physically, chemically, and biologically integrated with rivers via functions that improve downstream water quality. These systems act as effective buffers to protect downstream waters from pollution and are essential components of river food webs. BMP's should be implemented to control sediment sources from adjacent uplands. Fine sediments such as silt and sand negatively affect natural reproduction of fish, decrease the diversity of aquatic invertebrate and fish taxa, and result in lower overall fish populations.

Wildlife Habitat Considerations:

This compartment is the only large opening complex in the Ralph Management Area. It has been managed historically with fire and herbaceous plantings to discourage encroachment by trees and shrubs. The grassland associated species that this area is currently managed for once included sharp-tailed grouse and migrating geese. Herbaceous plantings meet forage needs of deer leaving the conifer cover of the Floodwood Deer Wintering Complex which incorporates this compartment. Oak and Hazel understory in aspen stands provide highly sought after mast for bear, deer, turkeys and grouse.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured till and an end moraine of coarse-textured till. The glacial drift thickness varies between 10 and 100 feet. The Precambrian Michigamme Formation and Archean Granite/Gneiss subcrop below the glacial drift. The Negaunee Iron Formation also subcrops in the compartment. There is not a current economic use for the Granite/gneiss, although it has building/dimension stone potential. Abandoned Iron mines are located approximately twelve miles to the southwest. A gravel pit is located in Section 1, and potential is good. Part of this compartment was previously

leased for metallic mineral exploration, and active metallic mineral leases are located less than two miles to the east. There is no economic oil and gas production in the UP.

Vehicle Access:

M-95. Floodwood Road. Khoury Road and associated woods roads.

Survey Needs:

None needed.

Recreational Facilities and Opportunities:

Hunting and fishing.

Fire Protection:

Additional Compartment Information:

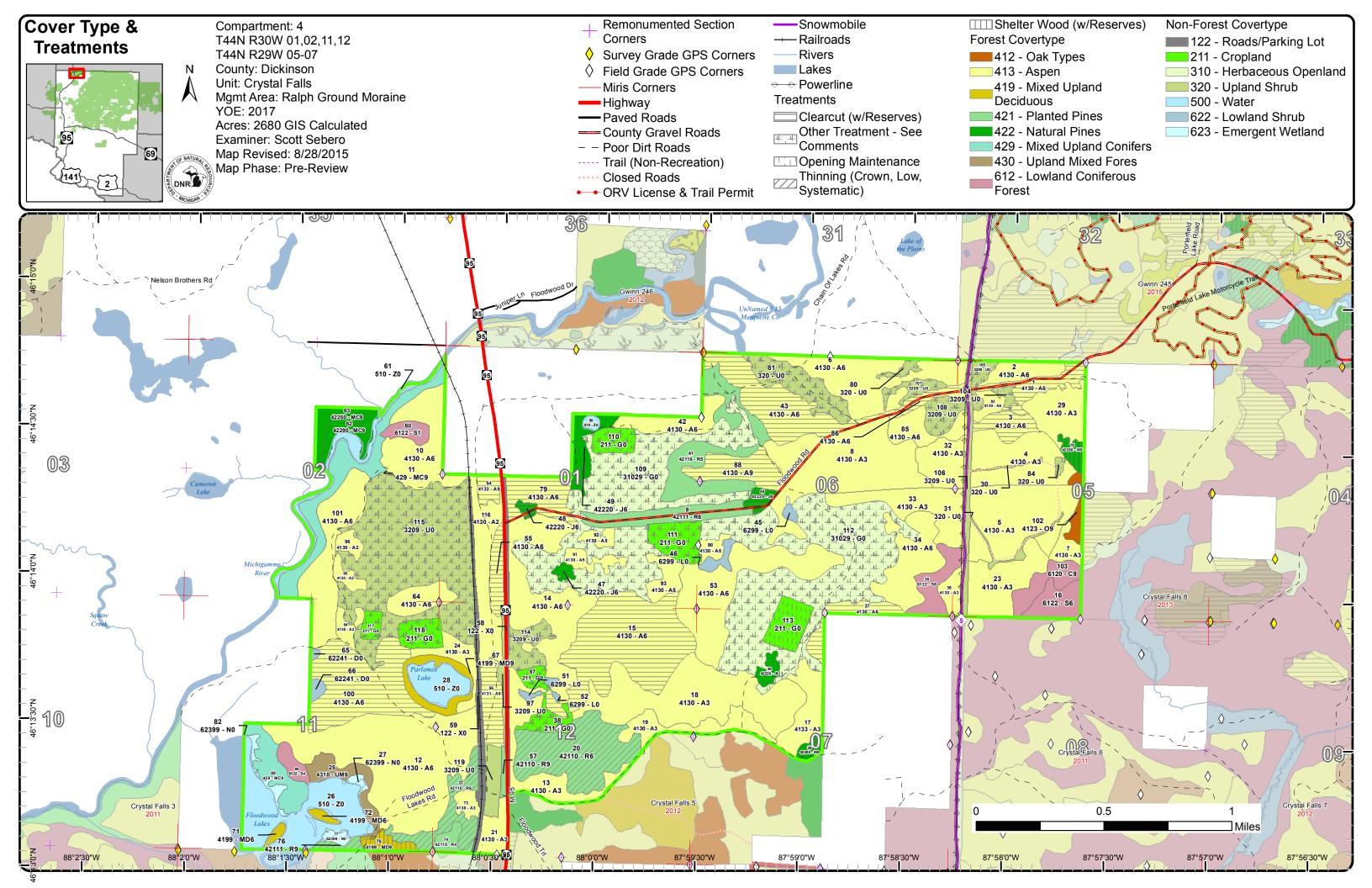
None.

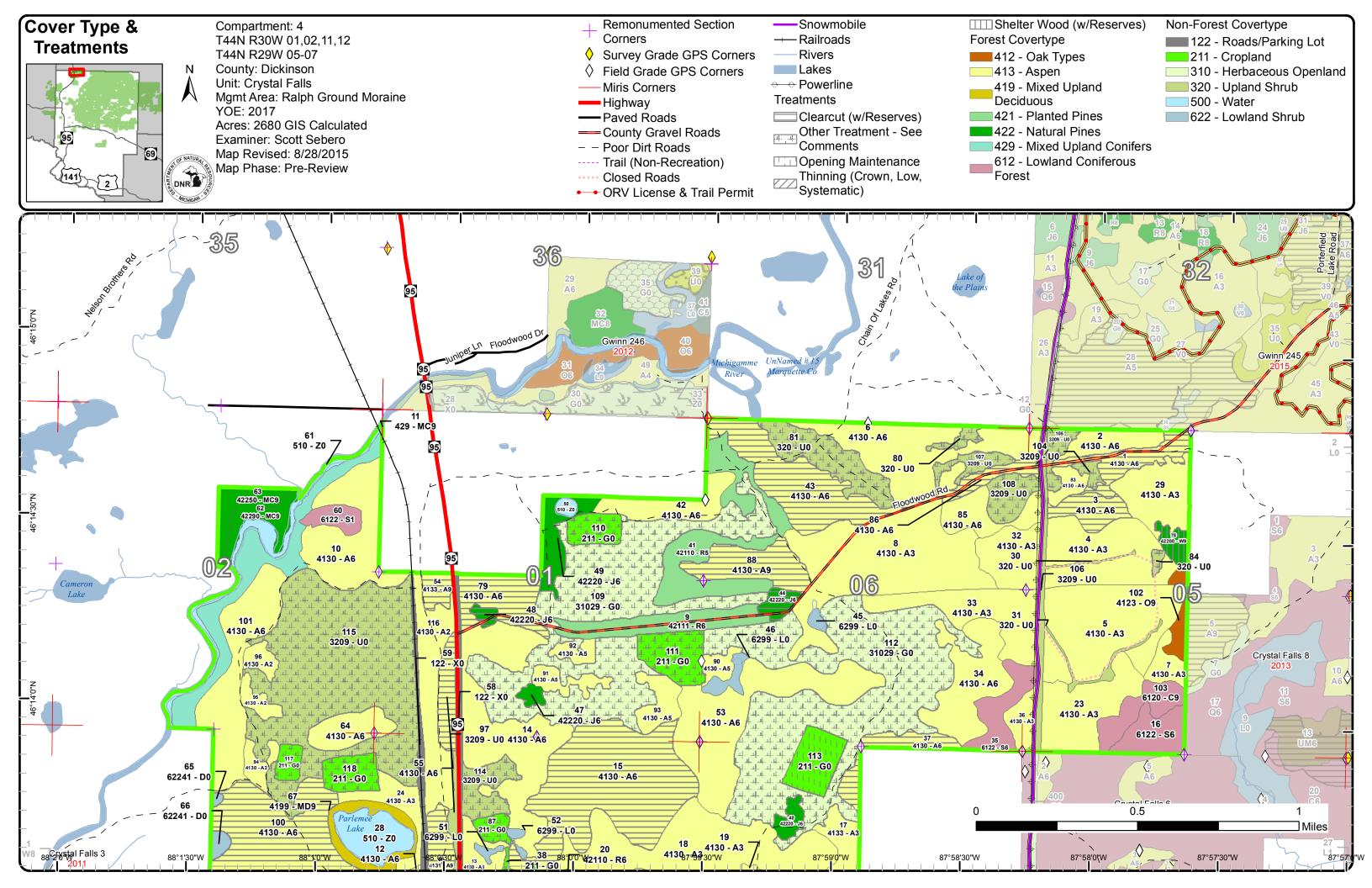
The following reports from the Inventory are attached:

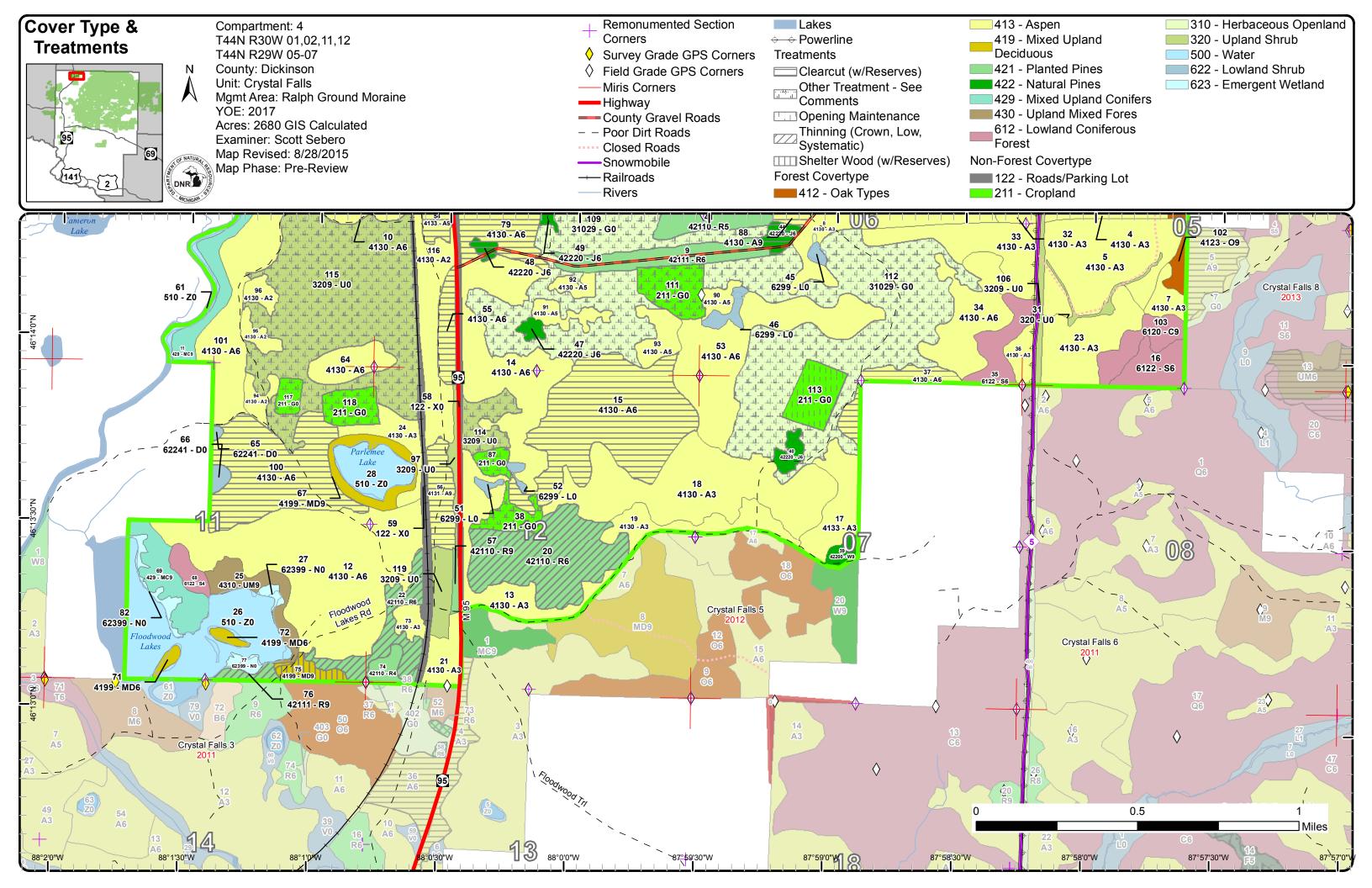
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

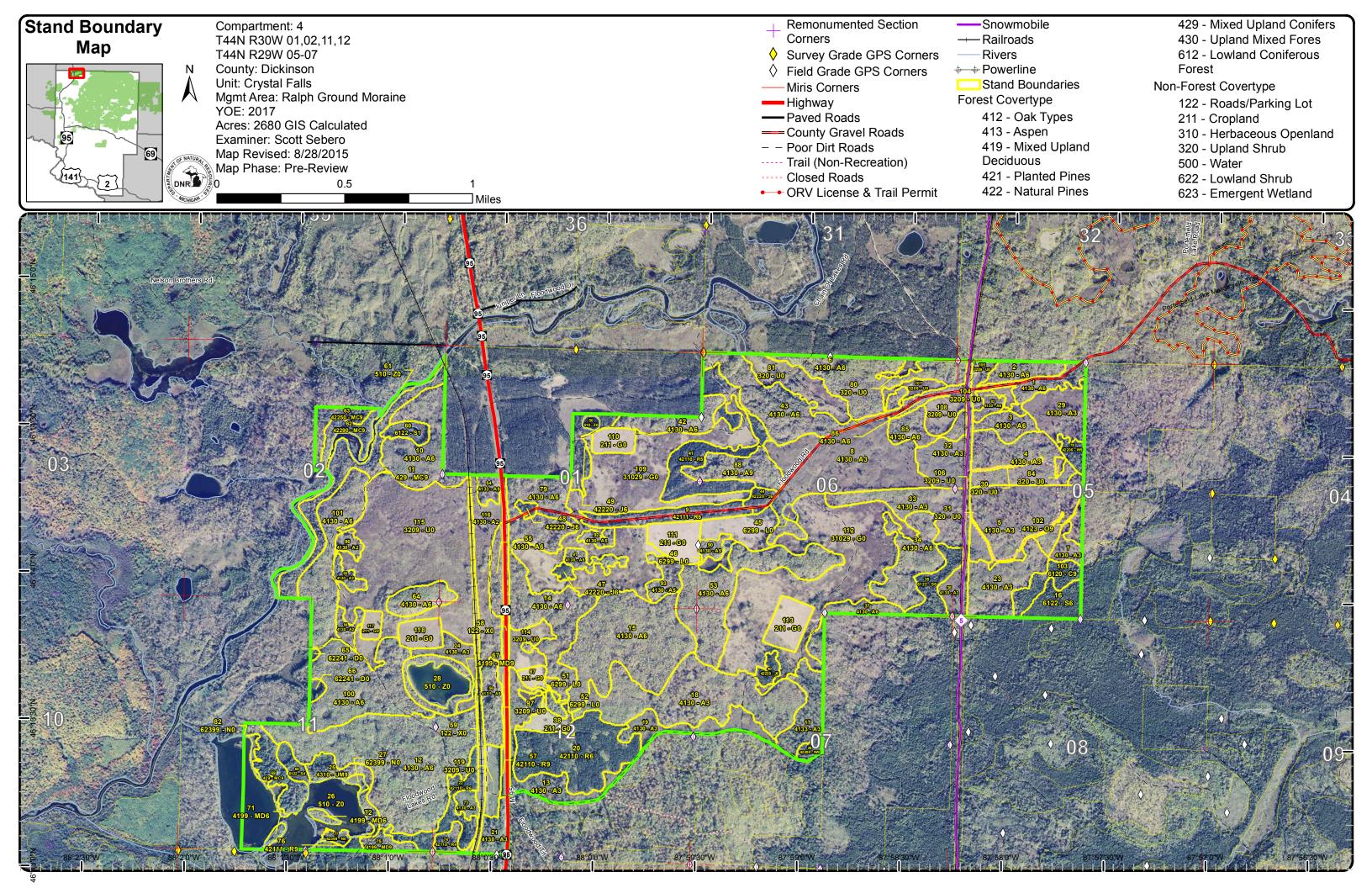
The following information is displayed, where pertinent, on the attached compartment maps:

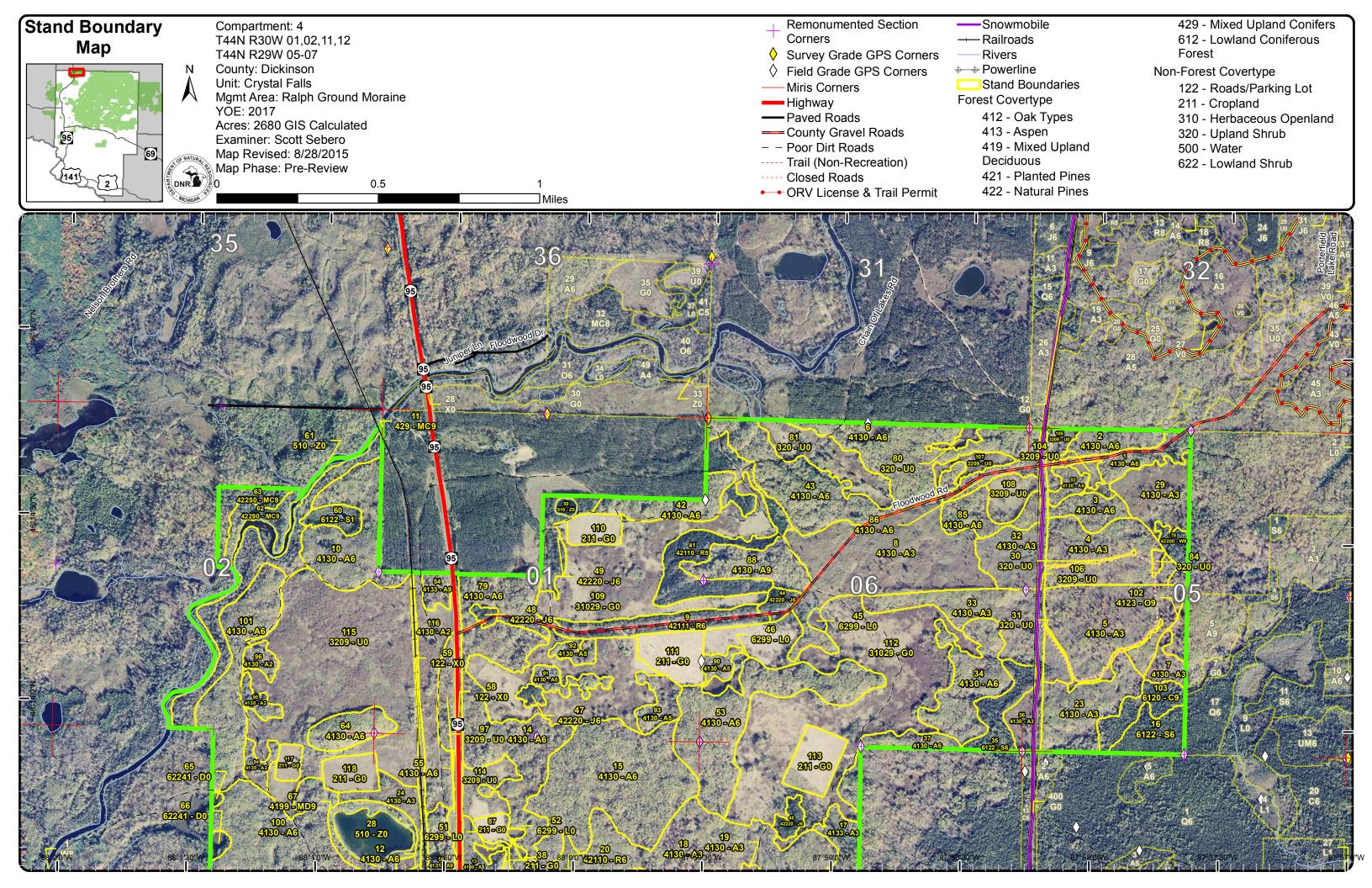
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

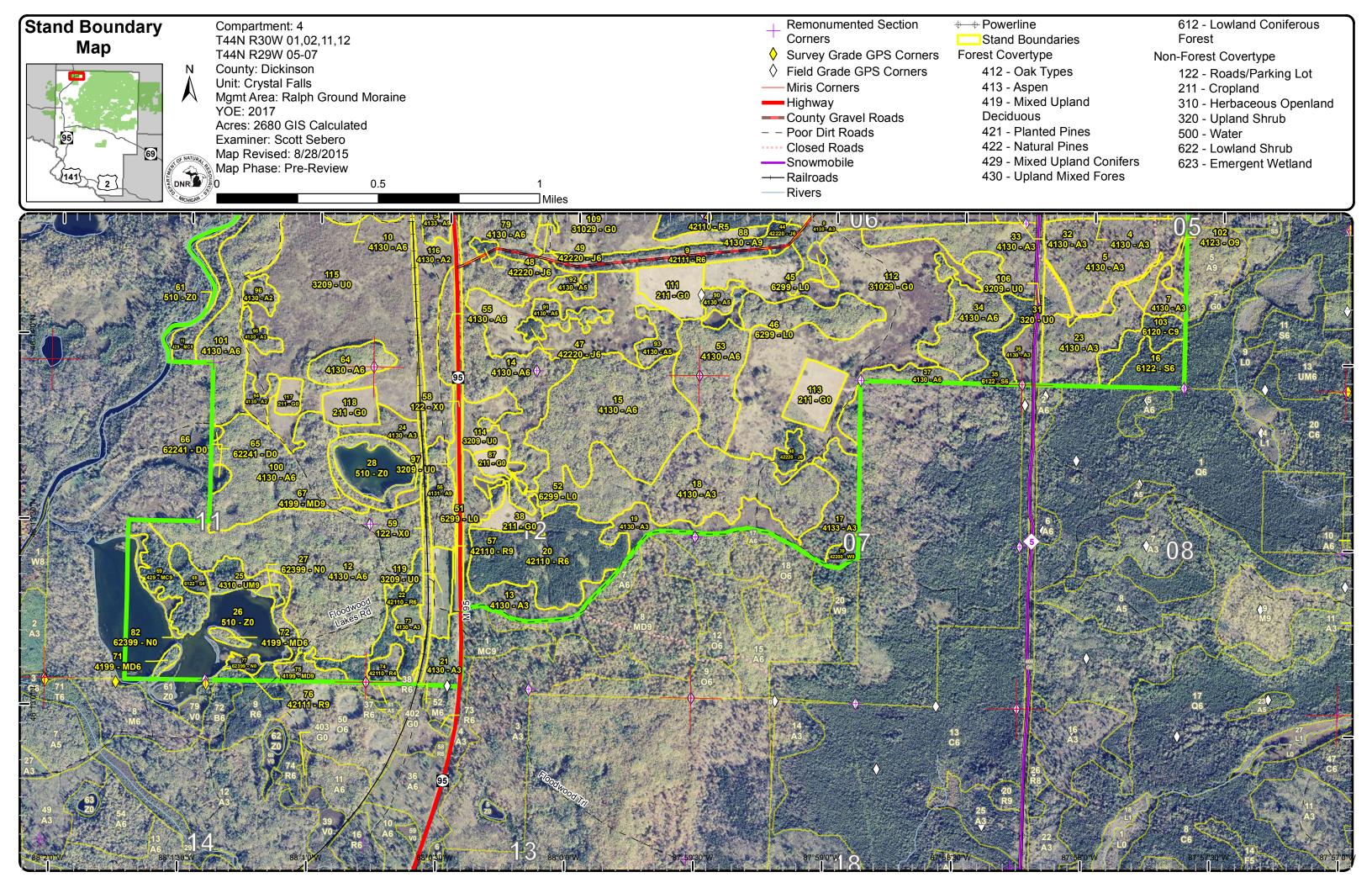


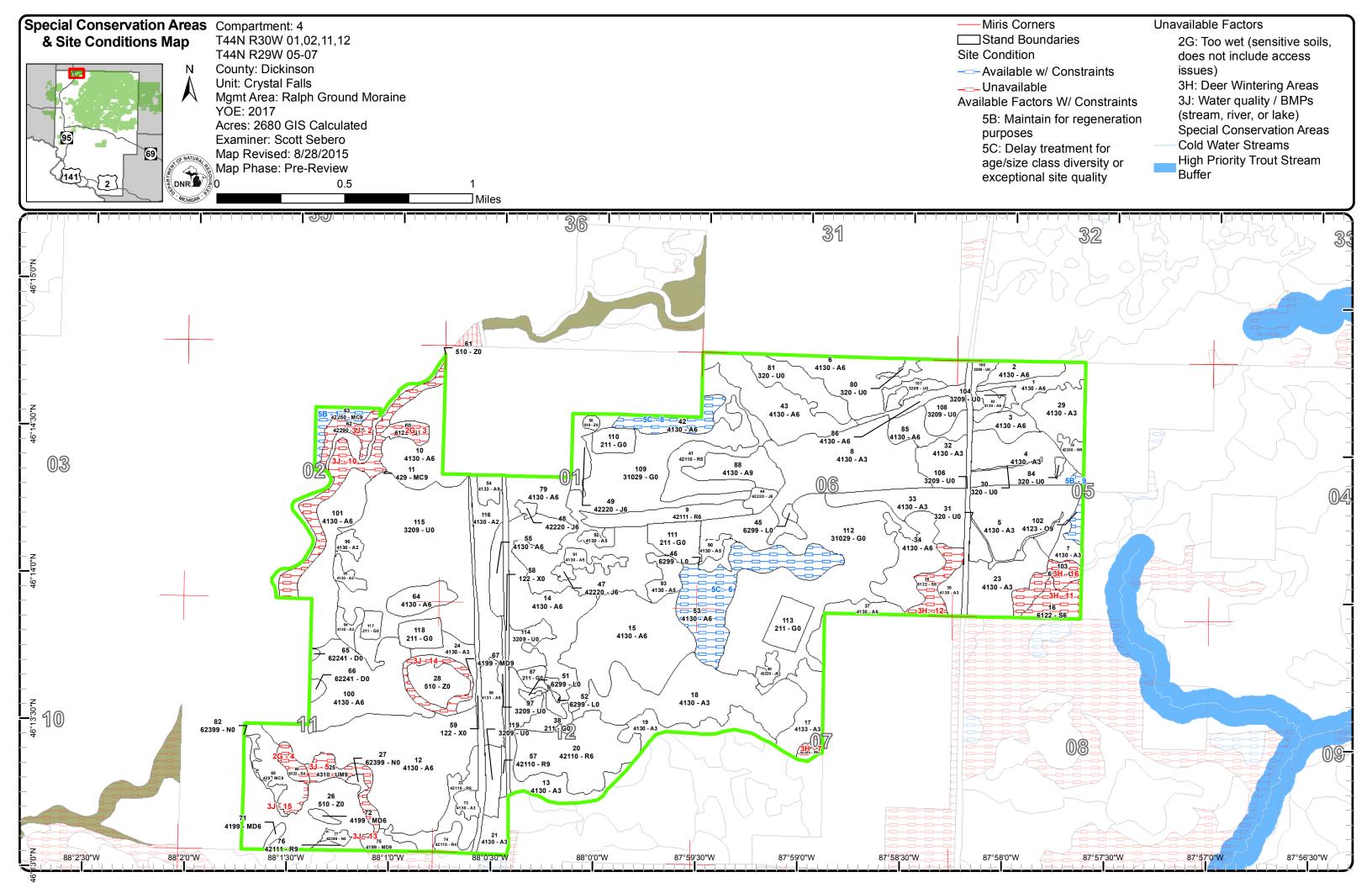


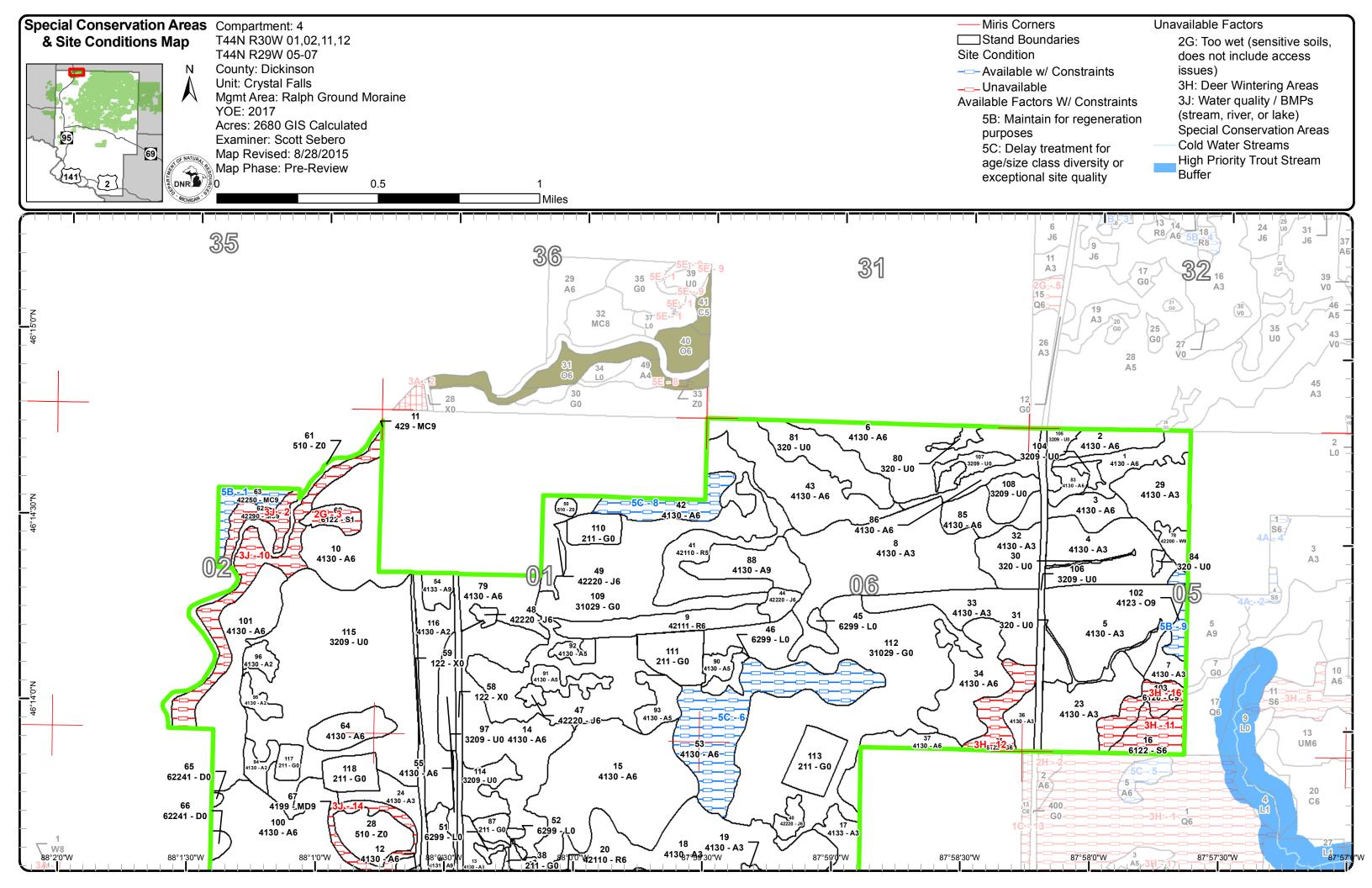


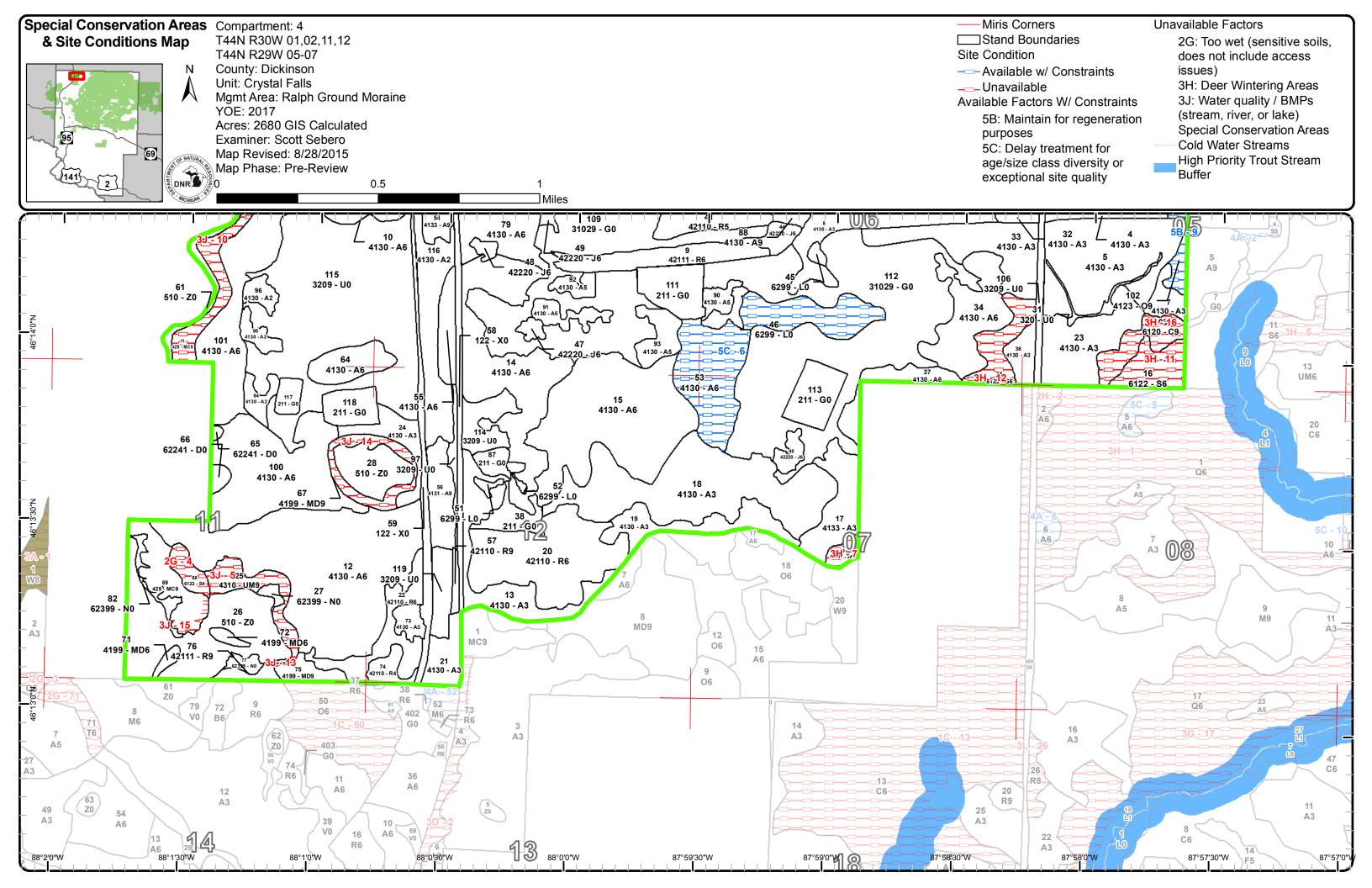












Compartment 4

Year of Entry 2017

Crystal Falls Mgt. Unit Scott Sebero : Examiner



Age Class

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Aspen	0	195	178	251	488	11	202	151	0	0	0	0	0	0	0	0	0	8	1484
Cedar	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	15
Cropland	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77
Herbaceous Openland	311	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	311
Jack Pine	0	0	0	0	5	3	22	0	0	0	0	0	0	0	0	0	0	0	30
Lowland Shrub	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	14	33	0	0	0	0	0	0	0	47
Marsh	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	23
Oak	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7
Red Pine	0	0	0	67	0	0	99	0	0	0	0	0	0	0	0	0	0	0	166
Treed Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Upland Conifers	0	0	0	0	0	0	0	0	0	57	0	0	0	0	0	0	0	0	57
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16
Upland Shrub	261	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	261
Urban	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Water	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99
White Pine	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	6	11
Total	802	195	178	318	493	14	323	151	0	101	69	0	0	0	0	0	0	39	2683



Report 2 – Treatment Summary

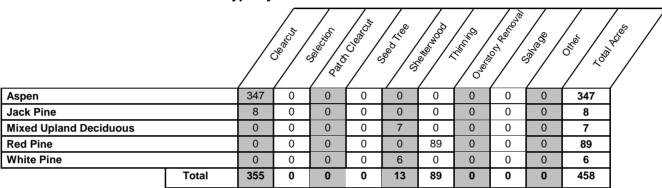
Crystal Falls Mgt. Unit Year of Entry: 2017

Acres of Harvest

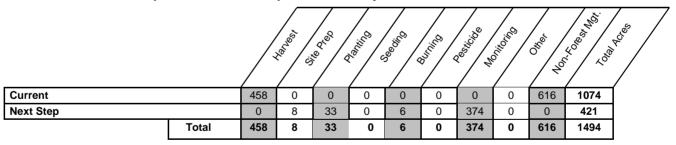
Compartment 4
Total Compartment Acres: 2,680

Commercial Harvest - 458 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Compartment: 4 Year of Entry: 2017

Red Pine

DNR STORY
Approval

NATUE

n	Treatment	Acres	Stand	Size	Stand	BA	Treatment	Treatment	Cover Type	Age	Approval
d	Name		CoverType	Density	Age	Range	Type	Method	Objective	Structure	Status
1	12004001-Cut	17.0	4130 - Aspen	Poletimber Well	60	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal

Habitat Cut: No Site Condition:

Prescription Cut all trees 2" DBH or greater, except oak and red and white pine. Cut all red pine 4" DBH or greater, except leave 3-5 trees per acre.

Specs:

s

Next Step Planting, Initial Plant; Monitoring, Natural Regen (Re-Inventory); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable Aspen, oak, pine mix, except along road corridor where it will be red pine.

Regen: Other

Plant red pine along north side of road corridor. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

3 12004003-Cut 12.2 4130 - Aspen Poletimber 60 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Proposal Retention

Habitat Cut: No Site Condition:

Prescription Cut all trees 2" DBH or greater, except oak and red and white pine.

Specs:

Next Step Treatments:

Acceptable Aspen, oak, pine mix.

Regen:

Other Winter cut per wildlife request. Snowmobile trail specs for 4" snow on trail, no decking wood or parking equipment within 50' of the trail and no

Comment: weekend hauling. Old next step comments:

Proposed Start Date: 10/1 /2016

15 12004015-Cut 98.2 4130 - Aspen Poletimber 60 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Proposal Retention

Habitat Cut: No Site Condition:

Prescription Cut all trees 2" DBH or greater, except oak and red and white pine.

Specs:

Next Step Treatments:

Acceptable Aspen, oak, pine mix.

Regen:

Other Winter cut and no chipping of tops per wildlife request. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

20 12004020-Cut 62.2 42110 - Planted Poletimber 51 141- Harvest Crown Thinning 4211 - Planted Even-Aged Proposal

Red Pine Well 170

Habitat Cut: No Site Condition:

Prescription Mark red pine to reduce BA to 120.

Specs:

Next Step

Treatments:

Acceptable Regen:

Other Old no

Old next step comments:

Comment:

Crystal Falls Mgt. Unit Report 4 -- Treatments Compartment: 4 s Year of Entry: 2017 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type Approval** Age n Objective Name CoverType Density Age Range Type Method Structure **Status** d 42110 - Planted 22 12004022-Cut 22.5 Poletimber 56 141-Crown Thinning 4211 - Planted Even-Aged Harvest Proposal Red Pine Well 170 Red Pine **Habitat Cut:** No **Site Condition:** Prescription Mark red pine to reduce BA to 120. Specs: Next Step Treatments: Acceptable Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 12004037-Cut 14.0 4130 - Aspen Poletimber 50 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Proposal Well Retention **Habitat Cut: No Site Condition:** Prescription Cut all trees 2" DBH or larger, except oak and red and white pine. Specs: Next Step **Treatments:** Acceptable Aspen, oak, pine mix. Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 12004038-NF Unspec NonForestMgt 2113 - Forage 9.7 211 - Cropland Nonstocked 0 Other - Specify Approved Crops Proposal ified **Habitat Cut: Yes Site Condition:** Prescription Forage crops maintained by disking, seeding, mowing, burning, or herbicide treatment. Specs: Next Step **Treatments:** <u>Acceptable</u> Regen: **Other** Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 12004043-Cut 47.5 50 4130 - Aspen Poletimber 81-110 Clearcut with 413 - Aspen Even-Aged Proposal Harvest Well Retention **Habitat Cut: No Site Condition:** Prescription Cut all trees 2" DBH or larger, except oak and red and white pine.

Specs:
Next Step

<u>Treatments:</u>

<u>Acceptable</u> Aspen, oak, pine mix. <u>Regen:</u>

Other Old next step comments:

Comment:

Crystal Falls Mgt. Unit Report 4 -- Treatments Compartment: 4 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 12004044-Cut 5.5 42220 - Natural Poletimber 50 Clearcut with 4222 - Natural 44 111-Harvest Even-Aged Proposal Jack Pine Well 140 Retention Jack Pine **Site Condition: Habitat Cut: No** Prescription Cut all trees 2" DBH or grater, except oak and red and white pine. Specs: Next Step **Treatments:** Acceptable Jack pine, red pine mix. Regen: Other Summer cut to promote scarification. No chipping jack pine tops. Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 12004048-Cut 2.4 42220 - Natural Poletimber 50 111-Harvest Clearcut with 4222 - Natural Even-Aged Proposal Jack Pine Well 140 Retention Jack Pine **Habitat Cut: No Site Condition:** Prescription Cut all trees 2" DBH or greater, except oak and red and white pine. Specs: Next Step SitePrep. Scarification: Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Jack pine, red pine mix. Regen: Other Summer cut to promote scarification. No chipping jack pine tops. Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 12004054-Cut 6.2 4133 - Aspen, Sawtimber 50 51-80 Clearcut with 4136 - Aspen, Proposal Harvest Even-Aged Mixed Pine Retention Mixed Conifer Well **Habitat Cut: No Site Condition:** Prescription Cut all trees 2" DBH or larger, except oak and white pine. Specs: Planting, Initial Plant; Monitoring, Artificial Regen(3yr) Next Step **Treatments:** Acceptable Mix of aspen, mixed softwood and mixed hardwood.

Regen:

Other

Poor quality aspen. Soils much better suited to pine. Old next step comments: Comment:

Proposed Start Date: 10/1 /2016

12004055-Cut 11.0 4130 - Aspen Poletimber 45 51-80 Clearcut with 413 - Aspen Proposal Harvest Even-Aged Well Retention

Habitat Cut: No Site Condition:

Prescription Cut all trees 2" DBH or larger, except oak and white pine.

Specs:

Next Step **Treatments:**

Acceptable Mix of aspen, mixed softwood and mixed hardwood.

Regen:

Poor quality aspen. Soils much better suited to pine. Old next step comments: Other

Comment:

Crystal Falls Mgt. Unit Report 4 -- Treatments Compartment: 4 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Method Name CoverType Density Age Range Type Objective Structure **Status** d 56 12004056-Cut 16.1 4131 - Aspen, Oak Sawtimber 81-110 Clearcut with 413 - Aspen 50 Harvest Even-Aged Proposal Well Retention **Habitat Cut: No Site Condition:** Prescription Cut all trees 2"DBH or larger, except oak and red and white pine. Specs: Next Step **Treatments:** Acceptable Aspen, oak, pine mix. Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 75 12004075-Cut 7.0 4199 - Other Mixed Sawtimber 80 111-Harvest Shelterwood 4122 - Oak, Pine Two-Aged Proposal **Upland Deciduous** Well 140 **Habitat Cut: No Site Condition:** Prescription Cut all trees 2" DBH or greater, except oak and red and white pine. Specs: Next Step **Treatments:** Acceptable Oak and pine. Regen: 100 foot buffer on Floodwood Lakes reflected in treatment boundary. Old next step comments: Other Comment: **Proposed Start Date:** 10/1 /2016 12004076-Cut 42111 - Planted 4211 - Planted Sawtimber 51 141-Crown Thinning Even-Aged Proposal 4.6 Harvest Red Pine Red Pine, Mixed Well 170 Deciduous **Habitat Cut: No Site Condition:** Prescription Cut all trees 2" DBH or greater, except oak and red and white pine. Mark red pine to reduce the BA to 120. Specs: Next Step Treatments:

<u>Acceptable</u>

Regen:

Other BMP guidelines will be followed in 100 foot buffer along Floodwood Lakes. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

78 12004078-Cut 6.2 42200 - Natural Sawtimber 80 51-80 Harvest Shelterwood 4220 - Natural Two-Aged Proposal

White Pine

White Pine Well

Habitat Cut: No Site Condition: Prescription Reduce white pine BA to 50.

Specs:

Next Step

Treatments:

Acceptable White pine.

Regen:

Other Burn or herbicide and scarify if burn isn't successful. Old next step comments:

Comment:

Crystal Falls Mgt. Unit Report 4 -- Treatments Compartment: 4 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 413 - Aspen 79 12004079-Cut 23.0 4130 - Aspen Poletimber 51 81-110 Clearcut with Harvest Even-Aged Proposal Well Retention **Habitat Cut: No Site Condition:** Prescription Cut all trees 2" DBH or greater, except oak and red and white pine. Specs: Next Step Treatments: Acceptable Aspen, oak, pine mix. Regen: Other Summer cut to promote scarification. No chipping jack pine tops. Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 12004080-NF 3.2 320 - Upland Shrub Nonstocked Unspec NonForestMgt Other - Specify 320 - Upland Approved ified Shrub Proposal **Habitat Cut: Yes Site Condition:** Prescription Upland shrub condition maintained by burning or mechanical treatment. Specs: Next Step **Treatments:** Acceptable Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 12004081-NF 25.9 320 - Upland Shrub Nonstocked Unspec NonForestMgt 320 - Upland 0 Other - Specify Approved Shrub Proposal ified **Habitat Cut: Yes Site Condition:** Prescription Upland shrub habitat type maintained by burning or mechanical treatment. Specs: Next Step **Treatments:** <u>Acceptable</u> Regen:

Other Old next step comments: Comment:

Proposed Start Date: 10/1 /2016

12004084-NF 1.5 320 - Upland Shrub Nonstocked 320 - Upland Unspec NonForestMgt Other - Specify Approved ified Shrub Proposal

Habitat Cut: Yes Site Condition:

Prescription Upland shrub condition maintained by burning or mechanical treatment.

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other Old next step comments:

Comment:

Crystal Falls Mgt. Unit Report 4 -- Treatments Compartment: 4 s Year of Entry: 2017 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Name CoverType Density Age Range Type Method Objective Structure **Status** d 86 12004086-Cut 9.7 4130 - Aspen Poletimber 50 81-110 Clearcut with 4211 - Planted Even-Aged Harvest Proposal Well Retention Red Pine **Habitat Cut: No Site Condition:** Prescription Cut all trees 2" DBH or greater, except oak and red and white pine. Cut all red pine 4" DBH or larger, except leave 3 -5 trees per acre. Specs: Planting, Initial Plant; Monitoring, Artificial Regen(3yr) Next Step Treatments: Acceptable Red pine. Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 12004087-NF 5.1 211 - Cropland Nonstocked 0 Unspec NonForestMgt Other - Specify 2113 - Forage Approved ified Crops Proposal **Habitat Cut: Yes Site Condition:** Prescription Forage crops maintained by disking, seeding, mowing, burning, or herbicide treatment. Specs: Next Step **Treatments:** Acceptable Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 12004088-Cut 23.7 4130 - Aspen Sawtimber 60 111-Clearcut with 413 - Aspen Even-Aged Proposal Harvest

Habitat Cut: No Site Condition:

Prescription Cut all trees 2" DBH or larger, except oak and red and white pine.

Specs:

Next Step **Treatments:**

Acceptable Aspen, oak, pine mix.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

100 12004100-Cut 68.7 37 4130 - Aspen Poletimber 81-110 Clearcut with 413 - Aspen Even-Aged Proposal Harvest

140

Retention

Retention

Well

Well

Habitat Cut: No Site Condition:

Prescription Cut all trees 2" DBH or larger, except oak and red and white pine.

Specs:

Next Step Treatments:

Acceptable Aspen, oak, pine mix.

Regen:

Other 100 foot buffer along Parmalee Lake reflected in treatment boundary. Old next step comments:

Comment:

Crystal Falls Mgt. Unit Report 4 -- Treatments Compartment: 4 s Year of Entry: 2017 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type Approval** Age n Name CoverType Density Age Range Type Method Objective Structure **Status** d 12004104-NF 2.8 3209 - Upland Unspec NonForestMgt Other - Specify 320 - Upland 104 Nonstocked Approved Shrub (OI) ified Shrub Proposal **Habitat Cut:** Yes **Site Condition:** Prescription Upland shrub condition maintained by burning or mechanical treatment. Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 105 12004105-NF 6.3 3209 - Upland Nonstocked Unspec NonForestMgt Other - Specify 320 - Upland Approved Shrub (OI) ified Shrub Proposal **Habitat Cut: Yes Site Condition:** Prescription Upland shrub condition maintained by burning or mechanical treatment. Specs: Next Step **Treatments:** Acceptable Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 107 12004107-NF 3209 - Upland Unspec NonForestMgt 320 - Upland 6.9 Nonstocked Other - Specify Approved Shrub (OI) ified Shrub Proposal **Habitat Cut: Yes Site Condition:** Prescription Upland shrub condition maintained by burning or mechanical treatment. Specs: Next Step **Treatments:** <u>Acceptable</u> Regen: **Other** Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 3209 - Upland 12004108-NF 320 - Upland Approved 11.6 Nonstocked Unspec NonForestMgt Other - Specify Shrub (OI) ified Shrub Proposal **Habitat Cut: Yes Site Condition:** Prescription Upland shrub condition maintained by burning or mechanical treatment. Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Old next step comments:

10/1 /2016

Comment:

Crystal Falls Mgt. Unit Report 4 -- Treatments Compartment: 4 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type Approval** Age n Method Name CoverType Density Age Range Type Objective Structure **Status** d 109 12004109-NF 142.5 31029 - Grass (OI) Nonstocked Unspec NonForestMgt Other - Specify 310 -Approved ified Herbaceous Proposal Openland **Habitat Cut: Yes Site Condition:** Prescription Maintained in open condition by burning or mechanical treatment. Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 2113 - Forage 110 12004110-NF 10.1 211 - Cropland Nonstocked Unspec NonForestMgt Other - Specify Approved ified Proposal Crops **Habitat Cut: Yes Site Condition:** Prescription Forage crops may be maintained by disking, seeding, burning, herbicide treatment. Specs: Next Step Treatments: Acceptable Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 111 12004111-NF 2113 - Forage 18.1 211 - Cropland Nonstocked Unspec NonForestMgt Other - Specify Proposal ified Crops **Habitat Cut: Yes Site Condition:** Prescription Forage crops maintained by disking, seeding, burning, or herbicide treatment. Specs: Next Step Treatments: **Acceptable** Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 112 12004112-NF 168.5 31029 - Grass (OI) Nonstocked Unspec NonForestMgt Other - Specify 310 -Approved Proposal ified Herbaceous Openland **Habitat Cut: Yes Site Condition:** Prescription Maintain open condition by burning or mechanical treatment. Specs: Next Step **Treatments:** <u>Acceptable</u> Regen: **Other** Old next step comments:

10/1 /2016

Comment:

Crystal Falls Mgt. Unit Report 4 -- Treatments Compartment: 4 s Year of Entry: 2017 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type Approval** Age n Objective Name CoverType Density Age Range Type Method Structure **Status** d 12004113-NF 16.7 211 - Cropland Unspec NonForestMgt Herbaceous/Crop 2113 - Forage 113 Nonstocked Approved ified /Grass Planting Crops Proposal **Habitat Cut: Yes Site Condition:** Prescription Open forage cropland. May be maintained by disking, seeding, burning, or herbicide treatment. Specs: Next Step Treatments: Acceptable Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 114 12004114-NF 13.9 3209 - Upland Nonstocked Unspec NonForestMgt Other - Specify 310 -Approved Shrub (OI) ified Herbaceous Proposal Openland **Habitat Cut: Yes Site Condition:** Prescription Open condition maintained by burning or mechanical treatment. Specs: Next Step Treatments: Acceptable Regen: **Other** Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 115 12004115-NF 3209 - Upland 320 - Upland 156.3 Nonstocked Unspec NonForestMgt Other - Specify Approved Shrub (OI) ified Shrub Proposal **Site Condition: Habitat Cut: Yes** Prescription Upland shrub condition maintained by burning or mechanical treatment. Specs: Next Step Treatments: **Acceptable** Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 117 12004117-NF 5.2 211 - Cropland Nonstocked Unspec NonForestMgt Other - Specify 2113 - Forage Approved Proposal ified Crops **Habitat Cut: Yes Site Condition:** <u>Prescription</u> Forage crops maintained by disking, seeding, mowing, burning, or herbicide treatment. Specs: Next Step Treatments:

Old next step comments:

10/1 /2016

Acceptable
Regen:
Other

Comment:

Crystal Falls Mgt. Unit Report 4 -- Treatments Compartment: 4 s Year of Entry: 2017 t а **Cover Type Treatment** Acres Stand Size Stand BA **Treatment Treatment** Age **Approval** n Method Objective **Density** Status Name CoverType Age Range Type Structure 12004118-NF 11.7 211 - Cropland Unspec NonForestMgt Other - Specify 2113 - Forage 118 Nonstocked Approved ified Crops Proposal **Habitat Cut: Yes Site Condition:** Prescription Forage crops maintained by disking, seeding, mowing, burning, or herbicide treatment. Specs: Next Step Treatments: <u>Acceptable</u> Regen:

Total Treatment Acreage Proposed: 1073.7

Old next step comments:

10/1 /2016

<u>Other</u>

Comment:

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 4
Year of Entry: 2017

Availa	bility for	Managemer	nt						
Total	Acres	Acres Avail	Acres		Dominar	nt Site	e Con	dition	s
Acres	Available	With Condition	Not Available		5B	5C	2G	3H	3J
1483	1397	85	0	Aspen		85			
15	0	0	15	Cedar				15	
77	77	0	0	Cropland					
311	311	0	0	Herbaceous Openland					
30	30	0	0	Jack Pine					
9	9	0	0	Lowland Shrub					
47	1	0	47	Lowland Spruce/Fir			14	33	
10	10	0	0	Marsh					
25	12	0	13	Mixed Upland Deciduous					13
23	0	11	12	Natural Mixed Pines	11				12
7	0	7	0	Oak	7				
165	165	0	0	Red Pine					
4	4	0	0	Treed Bog					
57	18	0	39	Upland Conifers					39
16	0	0	16	Upland Mixed Forest					16
261	261	0	0	Upland Shrub					
31	31	0	0	Urban					
99	99	0	0	Water					
11	6	0	5	White Pine				5	
2,680	2,430	103	147	Total Forested Acres	17	85	14	53	80
·	91%	4%	5%	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.

NO. C	ond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5B: Maintain for regeneration purposes	11	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
Ha	ad aspen and map	ble cut out in1988.					

Report 5 – Site Conditions

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	12	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Buffer for Michigan	nme River.					
3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Very wet with very	little product.					
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: Wet with very little	product. Also partly in buffer fo	r Flood	wood Lakes.			
5	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	16	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Buffer for Floodwood	od lakes.					
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	67	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Stand has pockets	of younger aspen. This stand v	was spl	it off stand 15 and seems to	b be in good shape.		
7	Unavailable	3H: Deer Wintering Areas	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 5 - Site Conditions

Compartment: 4

Crystal Falls Mgt. Unit

Year of Entry: 2017 Scott Sebero : Examiner 8 Unspecified Unspecified Unspecified **Available** 5C: Delay treatment for 19 Unspecified age/size class diversity or exceptional site quality Comments: Pockets of younger aspen. Stand seems to be in good shape. Unspecified Unspecified Unspecified Unspecified 9 **Available** 5B: Maintain for 7 regeneration purposes Comments: Everything but oak was cut out of stand last entry. 10 Unavailable 3J: Water quality / BMPs Unspecified Unspecified Unspecified Unspecified 37 (stream, river, or lake) Comments: Buffer for Michigamme River. Unspecified Unspecified 11 Unavailable 3H: Deer Wintering Areas 16 Unspecified Unspecified Comments: Stand in good shape. 3H: Deer Wintering Areas Unspecified Unspecified Unspecified Unspecified 12 Unavailable 17 Comments: Stand in good shape. Unspecified Unspecified Unspecified Unspecified 13 Unavailable 3J: Water quality / BMPs 0 (stream, river, or lake) **Comments:** 100 foot buffer on Floodwood Lakes. 3J: Water quality / BMPs Unspecified Unspecified Unspecified Unspecified 14 Unavailable 13 (stream, river, or lake) Comments: 100 foot buffer on Parmalee Lake.

Report	5 –	Site	Con	ditions
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Crystal Falls Mgt. Unit

Scott Sebero : Examiner

15	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified		
Comments: 100 foot buffer on Floodwood Lakes.									
16	Unavailable	3H: Deer Wintering Areas	15	Unspecified	Unspecified	Unspecified	Unspecified		
C	Comments:								

Mgt. Unit

Compartment: #Type! Year of Entry:



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				

Crystal Falls Mgt. Unit





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.

Conservation Area	n Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cor stocked trout populations and those of other coldwater fish spe year to year. Coldwater streams in Michigan typically provide th contributions of groundwater to their stream flows. Such stream designated as trout resources by Fisheries Order 210.	cies (e.g., slimy sculpin) to persist from nese conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems influences the aquatic ecosystem and vice-versa. Because of t streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their eff as aesthetics, habitat, bank stability, timber production, and the	he unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian ects on water quality and quantity, as well

S t	Crystal Falls	s Mgt. Unit		Report 8	- Forested Sta	Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Poletimber Well	17.0	60	81-110	
2	4130 - Aspen	Poletimber Well	12.5	35	81-110	OPIC - FMD: OI Stand Year Origin was 1980
3	4130 - Aspen	Poletimber Well	12.2	60	81-110	
4	4130 - Aspen	Sapling Well	43.7	25	Immature	OPIC - FMD: OI Stand Year Origin was 1990
5	4130 - Aspen	Sapling Well	65.0	17	Immature	OPIC - FMD: OI Stand Year Origin was 1998
6	4130 - Aspen	Poletimber Well	54.7	35	81-110	OPIC - FMD: OI Stand Year Origin was 1980
7	4130 - Aspen	Sapling Well	7.6	5	Immature	
8	4130 - Aspen	Sapling Well	90.8	5	Immature	
9	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	23.7	22	51-80	OPIC - FMD: OI Stand Year Origin was 1993
10	4130 - Aspen	Poletimber Well	44.2	27	51-80	OPIC - FMD: OI Stand Year Origin was 1988
11	429 - Mixed Upland Conifers	Sawtimber Well	36.8	86	81-110	OPIC - FMD: Buffer for Michigamme River.
12	4130 - Aspen	Poletimber Well	134.2	37	81-110 C	PIC - FMD: Young aspen stand with scattered large pine and oak. Pockets of small red maple.
13	4130 - Aspen	Sapling Well	32.6	7	Immature	OPIC - FMD: OI Stand Year Origin was 2008
14	4130 - Aspen	Poletimber Well	67.0	35	51-80	OPIC - FMD: OI Stand Year Origin was 1980
15	4130 - Aspen	Poletimber Well	98.2	60	81-110 F	Pockets of red maple. scattered oak and paper birch. Aspen seems to be two aged and is starting to break up.
16	6122 - Black Spruce	Poletimber Well	16.4	91	51-80	OPIC - FMD: Influence zone for deer. No cut.
17	4133 - Aspen, Mixed Pine	Sapling Well	23.5	17	Immature	OPIC - FMD: A3 with scattered large oak and white pine.
18	4130 - Aspen	Sapling Well	92.8	27	Immature	OPIC - FMD: OI Stand Year Origin was 1988

S t	Crystal Falls	s Mgt. Unit		Report 8	Forested S	Compartment: 4 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	4130 - Aspen	Sapling Well	23.1	7	Immature	OPIC - FMD: OI Stand Year Origin was 2008
20	42110 - Planted Red Pine	Poletimber Well	62.2	51	141-170	OPIC - FMD: OI Stand Year Origin was 1964
21	4130 - Aspen	Sapling Well	12.5	17	Immature	OPIC - FMD: OI Stand Year Origin was 1998
22	42110 - Planted Red Pine	Poletimber Well	22.5	56	141-170	OPIC - FMD: OI Stand Year Origin was 1959
23	4130 - Aspen	Sapling Well	35.0	25	Immature	OPIC - FMD: OI Stand Year Origin was 1990
24	4130 - Aspen	Sapling Well	13.2	7	Immature	
25	4310 - Pine, Oak Mix	Sawtimber Well	16.0	90	81-110	Paper birch mostly all fallen out of stand. Lots of oak regen coming in.
29	4130 - Aspen	Sapling Well	26.4	5	Immature	
32	4130 - Aspen	Sapling Well	21.2	17	Immature	OPIC - FMD: OI Stand Year Origin was 1998
33	4130 - Aspen	Sapling Well	35.7	25	Immature	OPIC - FMD: OI Stand Year Origin was 1990
34	4130 - Aspen	Poletimber Well	37.0	35	51-80	
35	6122 - Black Spruce	Poletimber Well	16.6	91	81-110	OPIC - FMD: Influence zone for deer. No cut.
36	4130 - Aspen	Sapling Well	8.4	6	Immature	
37	4130 - Aspen	Poletimber Well	14.0	50	81-110	
39	42200 - Natural White Pine	Sawtimber Well	4.6	91	171-200	
40	42220 - Natural Jack Pine	Poletimber Well	5.1	30	51-80	
41	42110 - Planted Red Pine	Poletimber Medium	43.2	22	Immature	OPIC - FMD: OI Stand Year Origin was 1993
42	4130 - Aspen	Poletimber Well	18.5	50	81-110	

S t	Crystal Fall		Report 8	Forested Sta	rinds Compartment: 4 Year of Entry: 2017	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
43	4130 - Aspen	Poletimber Well	47.5	50	81-110	
44	42220 - Natural Jack Pine	Poletimber Well	5.5	50	111-140	jack pine starting to break up.
47	42220 - Natural Jack Pine	Poletimber Well	2.8	40	81-110	OPIC - FMD: OI Stand Year Origin was 1975
48	42220 - Natural Jack Pine	Poletimber Well	2.4	50	111-140	
49	42220 - Natural Jack Pine	Poletimber Well	13.8	50	81-110	
53	4130 - Aspen	Poletimber Well	66.9	50	81-110	Pockets of younger aspen. Pockets of red maple,
54	4133 - Aspen, Mixed Pine	Sawtimber Well	6.2	50	51-80	Aspen and birch breaking up.
55	4130 - Aspen	Poletimber Well	11.0	45	51-80	Aspen breaking up.
56	4131 - Aspen, Oak	Sawtimber Well	16.1	50	81-110	Aspen and birch breaking up.
57	42110 - Planted Red Pine	Sawtimber Well	2.5	56	141-170	OPIC - FMD: OI Stand Year Origin was 1959
60	6122 - Black Spruce	Sapling Poor	7.5	86	1-50	OPIC - FMD: OI Stand Year Origin was 1929
62	42290 - Natural Mixed Pine	Sawtimber Well	12.1	86	141-170	OPIC - FMD: Buffer for Michigamme River.
63	42250 - Pine, Oak	Sawtimber Well	10.5	86	81-110	
64	4130 - Aspen	Poletimber Well	15.2	37	51-80	OPIC - FMD: OI Stand Year Origin was 1978
67	4199 - Other Mixed Upland Deciduous	Sawtimber Well	12.8	70	81-110	OPIC - FMD: Buffer for Parmalee Lake.
68	6122 - Black Spruce	Poletimber Poor	6.7	80	1-50	
69	429 - Mixed Upland Conifers	Sawtimber Well	20.6	80	81-110	OPIC - FMD: Floodwood Lakes.
71	4199 - Other Mixed Upland Deciduous	Poletimber Well	2.3	80	81-110	OPIC - FMD: Island.

S t	Crystal Falls Mgt. Unit			Report 8	 Forested Stands 	Compartment: 4 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
72	4199 - Other Mixed Upland Deciduous	Poletimber Well	2.4	80	81-110	OPIC - FMD: Island.
73	4130 - Aspen	Sapling Well	5.4	17	Immature	OPIC - FMD: OI Stand Year Origin was 1998
74	42110 - Planted Red Pine	Poletimber Poor	6.5	56	1-50	
75	4199 - Other Mixed Upland Deciduous	Sawtimber Well	7.4	80	111-140	
76	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	4.6	51	141-170	OPIC - FMD: OI Stand Year Origin was 1964
78	42200 - Natural White Pine	Sawtimber Well	6.2	80	51-80	
79	4130 - Aspen	Poletimber Well	23.0	51	81-110	OPIC - FMD: OI Stand Year Origin was 1964
83	4130 - Aspen	Poletimber Well	5.6	35	51-80	OPIC - FMD: OI Stand Year Origin was 1980
85	4130 - Aspen	Poletimber Well	16.2	35	51-80	OPIC - FMD: OI Stand Year Origin was 1980
86	4130 - Aspen	Poletimber Well	9.7	50	81-110	older aspen along road is breaking up.
88	4130 - Aspen	Sawtimber Well	23.7	60	111-140	
90	4130 - Aspen	Poletimber Medium	5.1	35	51-80	
91	4130 - Aspen	Poletimber Medium	7.9	35	51-80	
92	4130 - Aspen	Poletimber Medium	4.9	35	51-80	
93	4130 - Aspen	Poletimber Medium	11.0	35	51-80	
94	4130 - Aspen	Sapling Medium	6.3	15	Immature	
95	4130 - Aspen	Sapling Medium	5.4	15	Immature	
96	4130 - Aspen	Sapling Medium	5.3	15	Immature	

S t	Crystal Falls Mgt. Unit			Report 8	Forested	Stands Compartment: 4 Year of Entry: 2017	OF NATURAL PROPERTY OF NAT
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN
100	4130 - Aspen	Poletimber Well	68.7	37	81-110	Pockets of larger aspen and hardwoods.	
101	4130 - Aspen	Poletimber Well	47.6	37	81-110	OPIC - FMD: Young aspen stand with scattered larg oak.	e pine and
102	4123 - Red Oak	Sawtimber Well	7.0	80	81-110		
103	6120 - Lowland Cedar	Sawtimber Well	15.2	91	141-170	OPIC - FMD: Influence zone for deer. No co	ut.
116	4130 - Aspen	Sapling Medium	33.0	15	Immature	Was part of opening complex, stand 115, but has encroaching and taking over stand. Some large old trees in poor condition. Poor aspen site. Should continue to the condition of	der aspen



Stand	Cover Type	Acres	Managed Site	General Comments:
26	510- Water (OI)	62.8	No	OPIC - FMD: Floodwood Lakes.
27	62399 - Marsh (OI)	2.0	No	
28	510- Water (OI)	18.9	No	OPIC - FMD: Parmalee Lake.
30	320 - Upland Shrub	1.1	Yes	OPIC - FMD: SEEDED ROAD.
31	320 - Upland Shrub	3.5	Yes	Seeded road.
38	211 - Cropland	9.7	Yes	
45	6299 - Lowland Shrub (OI)	1.8	No	OPIC - FMD: Pond. Dried up at time of Inventory.
46	6299 - Lowland Shrub (OI)	4.6	No	Holding water at time of inventory.
50	510- Water (OI)	2.0	No	OPIC - FMD: Pond.
51	6299 - Lowland Shrub (OI)	1.5	No	
52	6299 - Lowland Shrub (OI)	1.6	No	
58	122 - Road/Parking Lot	14.0	No	OPIC - FMD: M-95.
59	122 - Road/Parking Lot	17.2	No	OPIC - FMD: Soo Line R.R. track.
61	510- Water (OI)	15.0	No	OPIC - FMD: Michigamme River.
65	62241 - Treed Bog (OI)	0.8	No	
66	62241 - Treed Bog (OI)	2.8	No	
77	62399 - Marsh (OI)	3.1	No	
80	320 - Upland Shrub	3.2	Yes	



Stand	Cover Type	Acres	Managed Site	General Comments:
81	320 - Upland Shrub	25.9	Yes	
82	62399 - Marsh (OI)	4.7	No	
84	320 - Upland Shrub	1.5	No	
87	211 - Cropland	5.1	Yes	
97	3209 - Upland Shrub (OI)	4.2	No	
104	3209 - Upland Shrub (OI)	2.8	No	
105	3209 - Upland Shrub (OI)	6.3	No	
106	3209 - Upland Shrub (OI)	13.1	No	OPIC - FMD: POWER LINE AND SNOWMOBILE TRAIL.
107	3209 - Upland Shrub (OI)	6.9	No	
108	3209 - Upland Shrub (OI)	11.6	No	
109	31029 - Grass (OI)	142.5	Yes	
110	211 - Cropland	10.1	Yes	OPIC - FMD: SEEDED GOOSE PASTURE
111	211 - Cropland	18.1	Yes	OPIC - FMD: SEEDED GOOSE PASTURE
112	31029 - Grass (OI)	168.5	Yes	
113	211 - Cropland	16.7	Yes	OPIC - FMD: SEEDED GOOSE PASTURE
114	3209 - Upland Shrub (OI)	13.9	No	
115	3209 - Upland Shrub (OI)	156.3	Yes	
117	211 - Cropland	5.2	Yes	OPIC - FMD: SEEDED GOOSE PASTURE
				_

Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
118	211 - Cropland	11.7	Yes	OPIC - FMD: SEEDED GOOSE PASTURE
119	3209 - Upland Shrub (OI)	10.6	Yes	Floodwood Landing.