

Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12142
Entry Year 2019
Acreage: 857
County Iron

Management Area: Ralph Ground Moraine

Revision Date: 2017-08-17

Stand Examiner: Scott Sebero

Legal Description:

T44N, R31W 22, 23, 26, 27, 35 and 36.

Identified Planning Goals:

Develop age class distribution in aspen type. Develop the quality while maintaining diversity in hardwood types. Maintain health of conifer types and increase acreage where possible. Develop buffers on lakes and streams. Maintain and improve road system.

Soil and topography:

Nearly level to hilly, well drained to somewhat poorly drained, loamy soils on moraines and end moraines.

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

State lands mixed with company lands and private parcels. Lands used mainly for hunting and fishing.

Unique Natural Features:

Michigamme Reservoir, Michigamme River, Lake Ellen, Crotch Lake, Lake Wallace.

Archeological, Historical, and Cultural Features:

Multiple compartments were determined to have no known archaeological sites within them; we have no concerns for these compartments: 10, 14, 30, 50, 70, 75, 93, 112, 116, 138, 142, 144, 156, 166, and 186.

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

This compartment features the Michigamme River, Lake Ellen and drainages into Michigamme River and Crotch Lake. All BMPs should be followed to maintain canopy cover and prevent erosion into waterbodies. Specifically 100 foot buffers on those waterbodies.

Wildlife Habitat Considerations:

The featured species for this MA include deer, bear, grouse, woodcock, and northern goshawk. This compartment includes both wildlife purchased land and Iron-Floodwood DWC. MNFI has suggested this compartment has the potential for goshawk, red-shouldered hawk. Great blue heron rookery, loons, eagle and osprey all use this compartment. Potential for wood turtle along drainages. Moose use the lowlands, lakes, and riparian habitat corridors. Wolves have been documented to use this area for den and rendezvous sites. Conifer canopy closure, transition zones and riparian corridors are very important as components for the DWC and provide critical wildlife habitat. Aspen age and stand size diversity are important for deer, grouse, woodcock, bear and snowshoe hare in this compartment.

Mineral Resource and Development Concerns and/or Restrictions

There is a potential gravel pit in Section 27, there is potential for additional sand and gravel within the compartment. The Amasa iron formation apparently intersects part of the compartment, but this area is not considered to have significant iron ore potential. There may be potential for other metallic minerals within the compartment. There has been metallic mineral leasing in this area in the past but little in the way of exploration. The discovery site for the Lake Ellen kimberlite is located in this compartment. Globally, kimberlites can an important source of diamonds. While exploration efforts in Michigan have found diamonds, no deposits of economic significance have been located. There is no economic oil and gas production in the UP.

Vehicle Access:

Three parcels in north part of compartment are accessible only through private or corporate lands. Rest of compartment has good access.

Survey Needs:

None.

Recreational Facilities and Opportunities:

Fire Protection:

Additional Compartment Information:

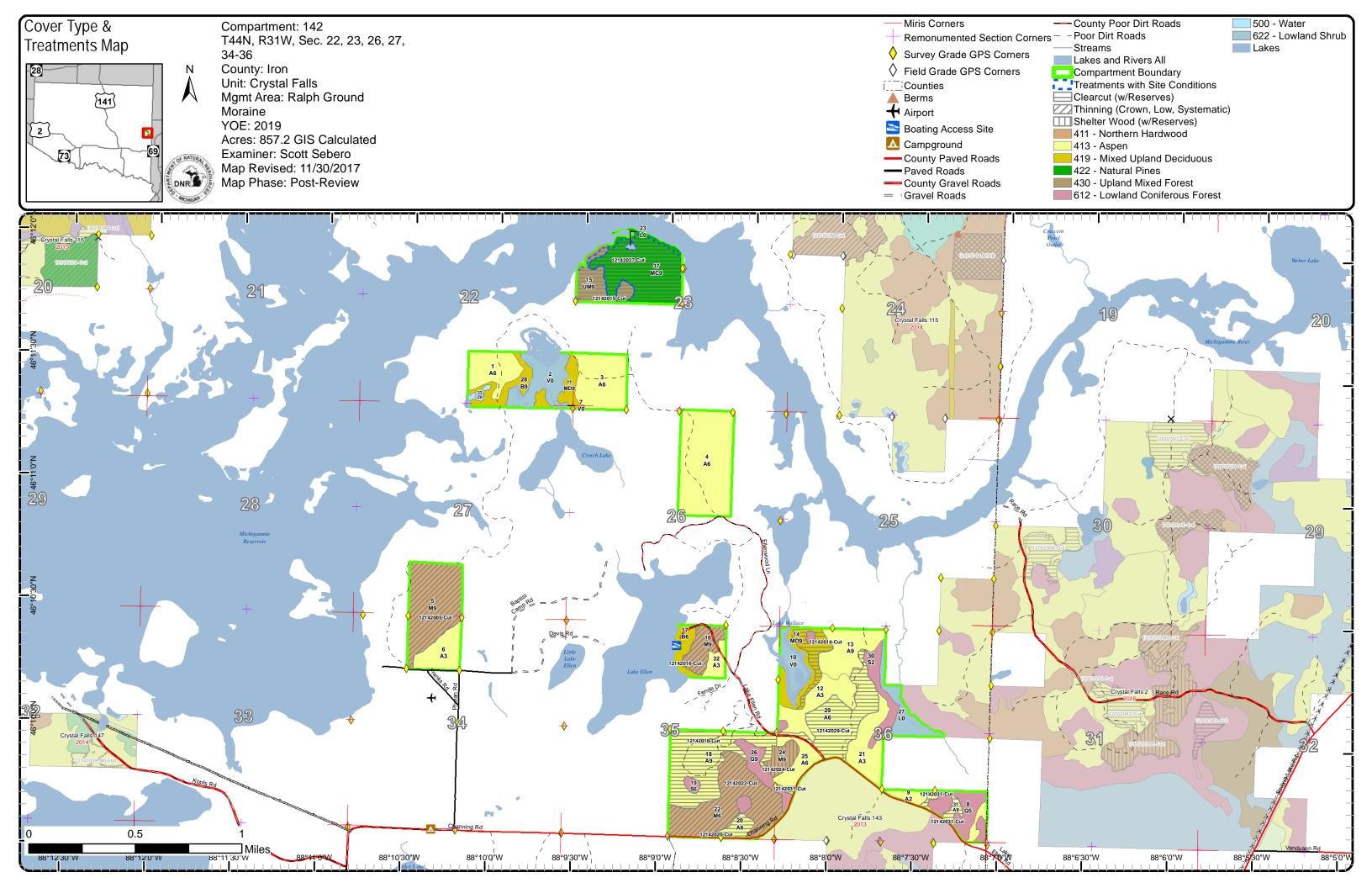
Parcel containing stands 15 and 37 was gifted to State by BLM. Treatments within this parcel currently coded with a site condition until clarification on the State of Michigan's ability to manage parcel.

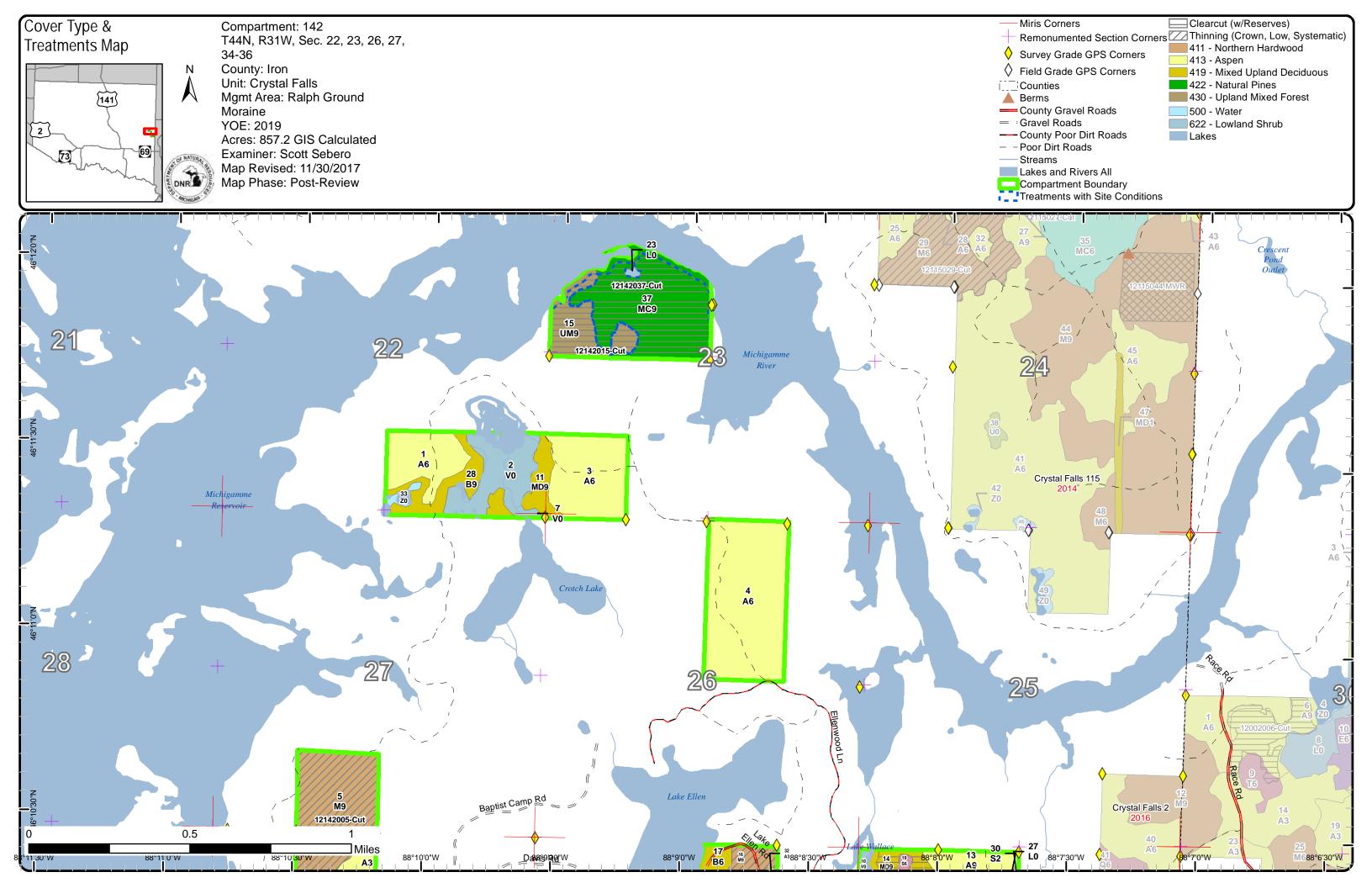
The following reports from the Inventory are attached:

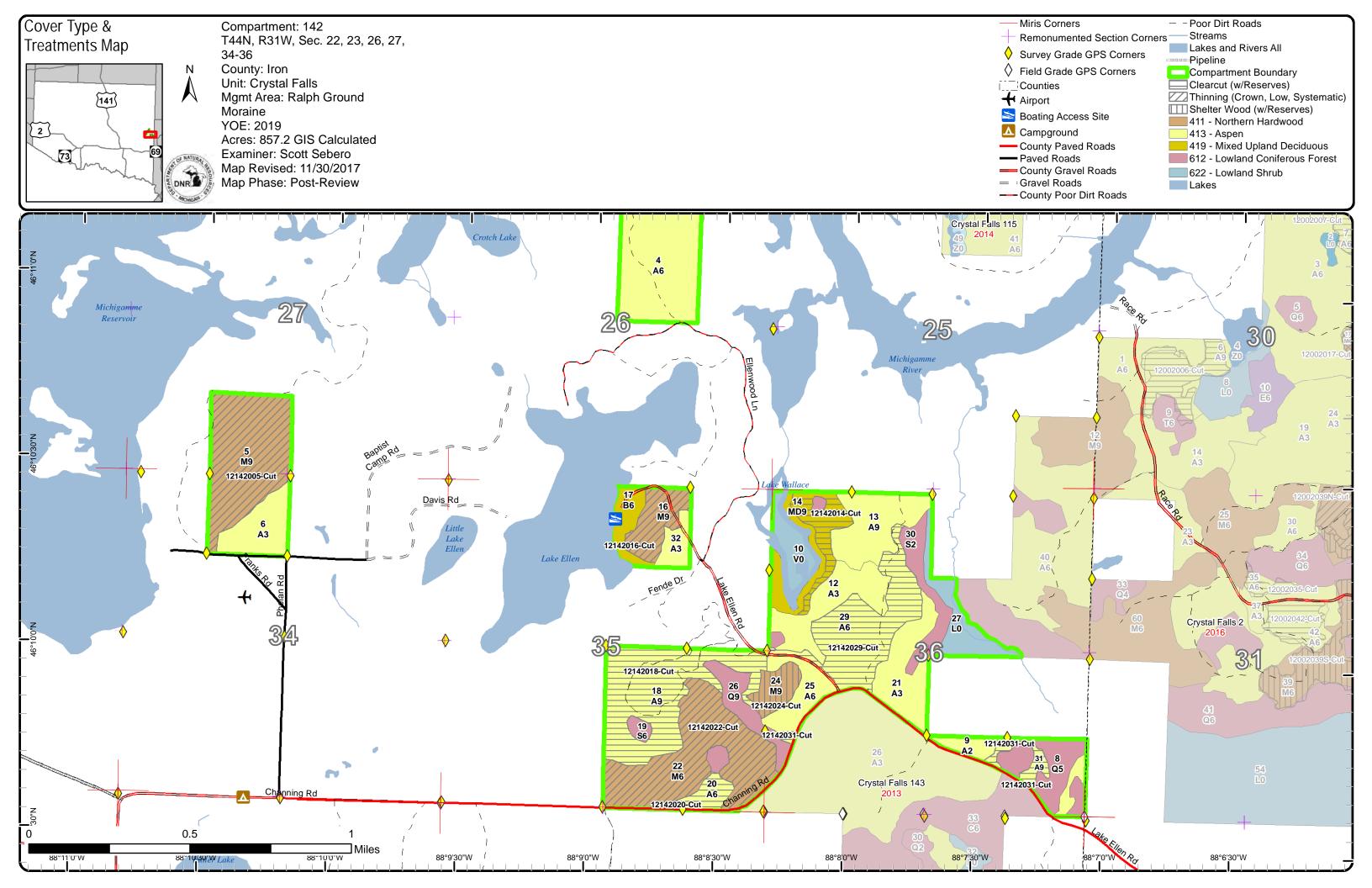
Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas Site Condition Details

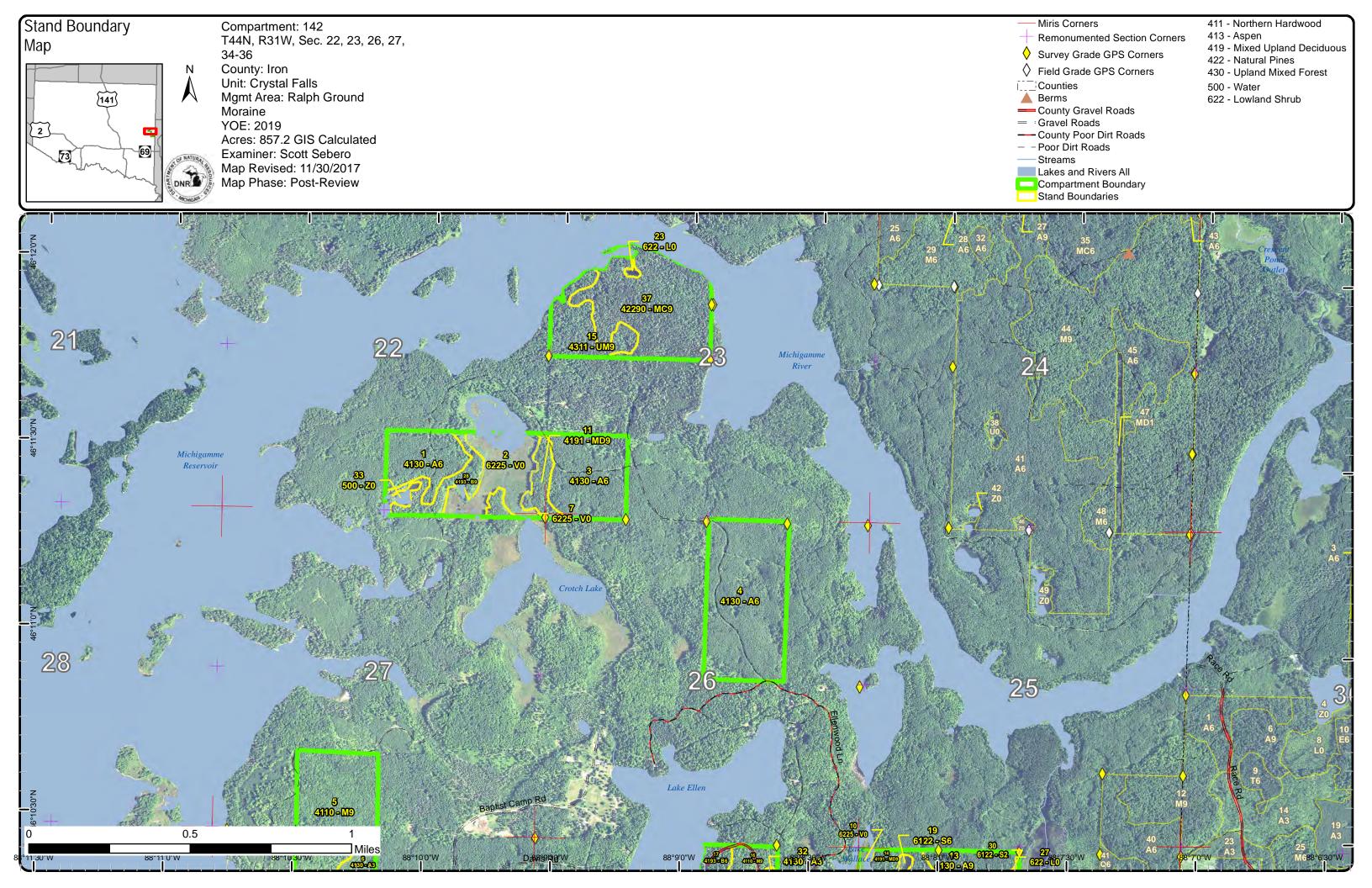
The following information is displayed, where pertinent, on the attached compartment maps:

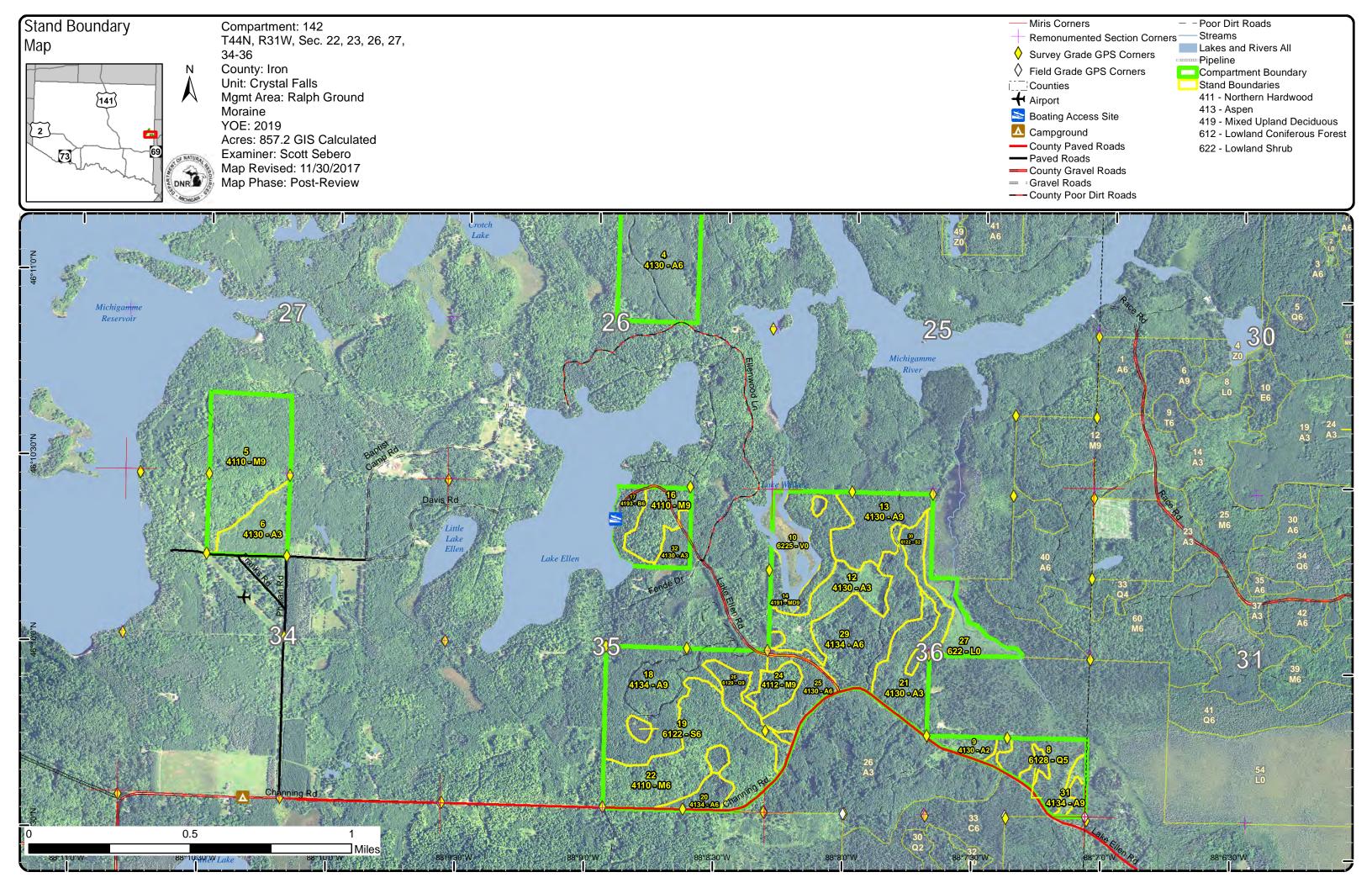
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

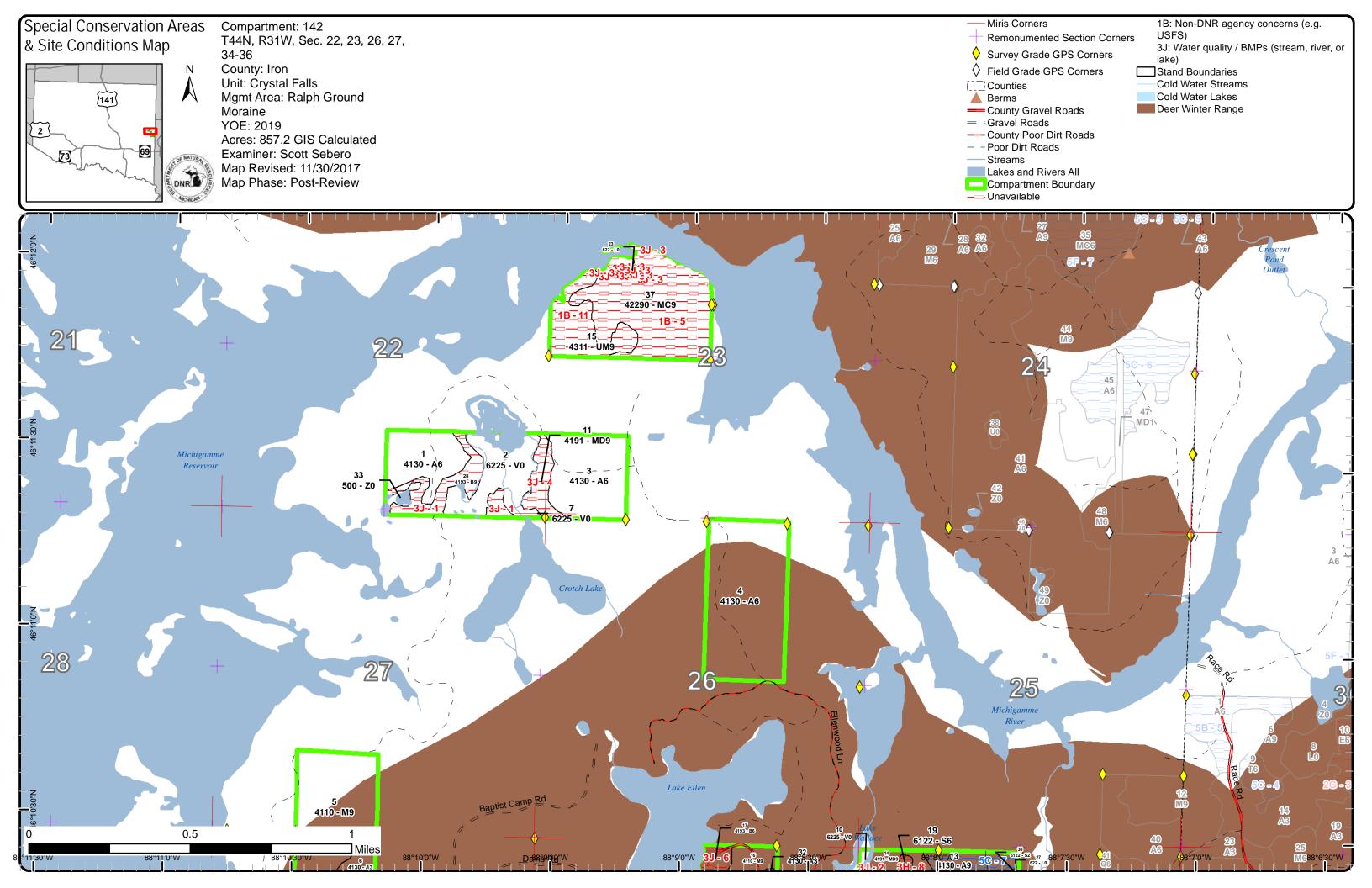


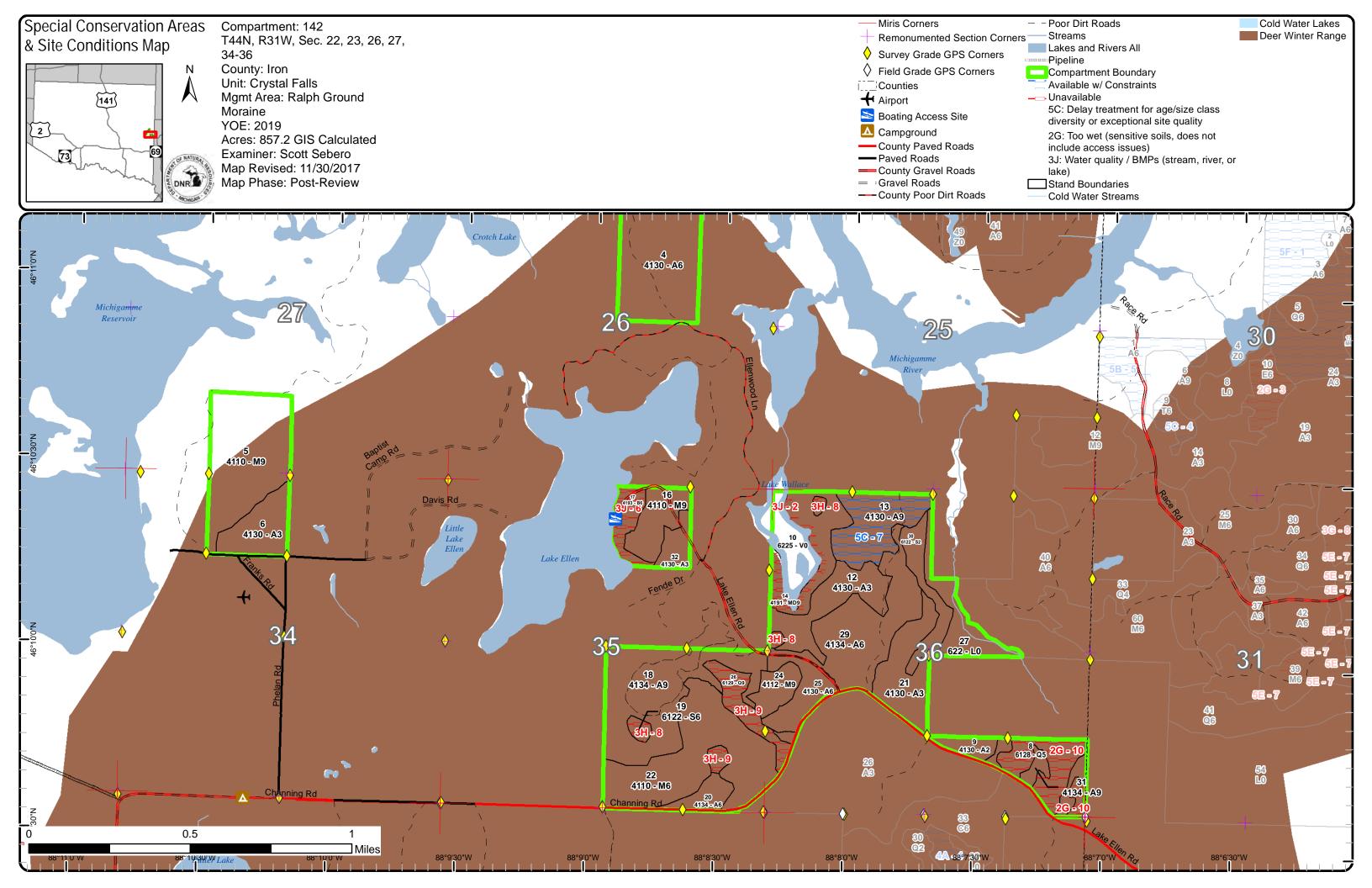












Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment 142 Year of Entry 2019



Age Class

| ¥oc € | A CONTRACT OF THE PROPERTY OF | 3/2 | 87. | \$ \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | S / 1/2 | \$ 10° | , , , , , | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 80,00 | 3 /0 | 70, | 81, /82 82, | \$\$. \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | \$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 8. Z. | Dr. July | No. No. |
|-------|---|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| 0 | 59 | 8 | 106 | 81 | 9 | 144 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 413 |
| 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 69 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 156 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 156 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 70 | 59 | 8 | 106 | 97 | 9 | 144 | 0 | 0 | 0 | 365 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 857 |
| | 0 48 0 19 0 0 0 0 0 | 0 59 48 0 0 0 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 59 8 48 0 0 0 0 0 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 0 0 | 0 59 8 106 48 0 0 0 0 0 0 0 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 0 0 0 | 0 59 8 106 81 48 0 0 0 0 0 0 0 0 0 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 0 0 0 0 | 0 59 8 106 81 9 48 0 0 0 0 0 0 0 0 0 0 0 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 0 0 0 0 0 | 0 59 8 106 81 9 144 48 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 19 0 0 0 0 0 0 0 0 0 0 | 0 59 8 106 81 9 144 0 48 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 19 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 59 8 106 81 9 144 0 0 48 0< | 0 59 8 106 81 9 144 0 0 0 48 0< | 0 59 8 106 81 9 144 0 0 0 7 48 0< | 0 59 8 106 81 9 144 0 0 0 7 0 48 0< | 0 59 8 106 81 9 144 0 0 0 7 0 0 48 0< | 0 59 8 106 81 9 144 0 0 0 7 0 0 0 48 0< | 0 59 8 106 81 9 144 0 0 0 7 0 0 0 0 48 0< | 0 59 8 106 81 9 144 0 0 7 0 </td <td>0 59 8 106 81 9 144 0 0 7 0<!--</td--><td>0 59 8 106 81 9 144 0 0 0 7 0<!--</td--></td></td> | 0 59 8 106 81 9 144 0 0 7 0 </td <td>0 59 8 106 81 9 144 0 0 0 7 0<!--</td--></td> | 0 59 8 106 81 9 144 0 0 0 7 0 </td |



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit Year of Entry: 2019

Acres of Harvest

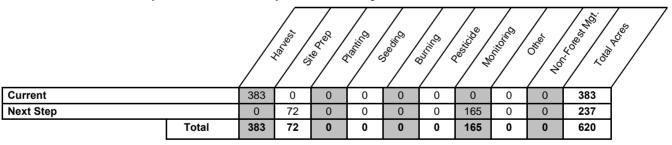
Compartment 142
Total Compartment Acres: 857

Commercial Harvest - 300 Harvests with Site Condition - 82 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method

| | The state of the s | | | | | | | | | | | |
|------------------------|--|-----|---------|--|---|----|---------------------------------------|-------------|---------|---|-----|---|
| | | | # 1 0 m | 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | | | O O O O O O O O O O O O O O O O O O O | Outum State | Key Co. | 80 / 80 / 80 / 80 / 80 / 80 / 80 / 80 / | | |
| Aspen | | 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 | |
| Mixed Upland Deciduous | | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | |
| Natural Mixed Pines | | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 | 1 |
| Northern Hardwood | | 0 | 0 | 0 | 0 | 10 | 146 | 0 | 0 | 0 | 156 | |
| Upland Mixed Forest | | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | |
| | Total | 227 | 0 | 0 | 0 | 10 | 146 | 0 | 0 | 0 | 383 | |

Proposed and Next Step Treatments by Method



Other

100 foot BMP buffer.

Comment:

10/01/2018 **Proposed Start Date:**

12142016-Cut 17.4 4110 - Sugar Maple Sawtimber 90 141-Harvest Crown Thinning 411 - Northern Even-Aged Approved

> Association Well 170

Habitat Cut: No Site Condition:

Prescription Mark hardwoods to 80 BA using Compleat marker as guide. Cut all aspen, spruce and balsam with one or more pulpwood stick. No red or white

pine will be cut. Specs:

Next Step **Treatments:**

<u>Acceptable</u> Regen:

Other

Comment:

Proposed Start Date: 10/01/2018 Proposal

Hardwood

S

Compartment: 142 Year of Entry: 2019



| a n d | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|-------------|-------------------|-------|-----------------------------|-------------------|--------------|-------------|-------------------|----------------------------|-----------------------------|------------------|----------------------|
| 18 | 12142018-Cut | 64.6 | 4134 - Aspen, Spruce/Fir | Sawtimber Well | 53 | 81-110 | Harvest | Clearcut with Retention | 4134 - Aspen, Spruce/Fir | Even-Aged | Approved Proposal |

Site Condition: Habitat Cut: No

Prescription Cut all aspen and mixed hardwood, except oak, 2" or greater DBH. Cut all tamarack, spruce and balsam with one or more pulpwood stick. No Specs:

cedar, hemlock, red or white pine or oak will be cut.

Monitoring, Natural Regen (Re-Inventory)

Next Step **Treatments:**

Acceptable Mix of aspen, hardwood and softwood.

Regen:

Other Hunter Walking Trail-delineated and add treatment and rework access due to land trade eliminating access to the trailhead,

Comment:

Proposed Start Date: 10/01/2018

4134 - Aspen, Poletimber 20 12142020-Cut 8.7 4134 - Aspen, 42 81-110 Harvest Clearcut with Even-Aged Approved Spruce/Fir Well Retention Spruce/Fir Proposal

Habitat Cut: No Site Condition:

Prescription Cut all aspen and mixed hardwood, except oak, 2" or greater DBH. Cut all spruce and balsam with one or more pulpwood stick. No cedar,

hemlock, red or white pine or oak will be cut. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of aspen, spruce and balsam.

Regen:

Other Comment:

Proposed Start Date: 10/01/2018

12142022-Cut 68.8 4110 - Sugar Maple Poletimber 90 Crown Thinning 411 - Northern Even-Aged 111-Harvest Approved 140 Proposal Association Well Hardwood

Habitat Cut: No Site Condition:

Prescription Mark hardwoods to 80 BA using Compleat marker as guide. Cut all aspen, spruce and balsam with one or more pulpwood stick. No red or white

Specs: pine will be cut.

Next Step **Treatments:**

<u>Acceptable</u>

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

12142024-Cut 10.4 4112 - Maple, 90 141-411 - Northern Sawtimber Harvest Shelterwood Two-Aged Approved Beech, Cherry Well 170 Hardwood Proposal

Association

Habitat Cut: No Site Condition:

Prescription Mark maple to 50 BA, favoring sugar maple. Cut all spruce, balsam, tamarack and aspen 2" or greater DBH. No cedar, hemlock, red or white

pine or oak will be cut. Specs:

Next Step SitePrep, Scarification

Treatments:

Acceptable Mix of maple, aspen and softwood.

Regen:

Other Scarify after harvest.

Comment:

WLD: a series of vernal pools and wetland are interspersed through this stand and will need to be buffered and worked around. A Legacy tree

and some wildlife trees are marked for retention.

Proposed Start Date: 10/01/2018 Crystal Falls Mgt. Unit

Report 3 -- Treatments

Compartment: 142 Year of Entry: 2019

а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Method Objective Name CoverType Density Age Range Type Structure **Status** d 29 12142029-Cut 49.6 4134 - Aspen, Poletimber 51-80 Clearcut with 4134 - Aspen, Approved 53 Harvest Even-Aged Spruce/Fir Well Retention Spruce/Fir Proposal

Site Condition: Habitat Cut: No

Prescription Cut all aspen and mixed hardwood, except oak, 2" or greater DBH. Cut all tamarack, spruce and balsam with one or more pulpwood stick. No Specs:

cedar, hemlock, red or white pine or oak will be cut.

Monitoring, Natural Regen (Re-Inventory)

Next Step **Treatments:**

s

t

Acceptable Mix of aspen, hardwood and softwood.

Regen: Other Comment:

Proposed Start Date: 10/01/2018

4134 - Aspen, 31 12142031-Cut 6.9 4134 - Aspen, Sawtimber 90 81-110 Harvest Clearcut with Even-Aged Approved Spruce/Fir Well Retention Spruce/Fir Proposal

Habitat Cut: No Site Condition:

Prescription Cut all aspen and mixed hardwood, except oak, 2" or greater DBH. Cut all tamarack, spruce and balsam with one or more pulpwood stick. No

cedar, hemlock, red or white pine or oak will be cut. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of aspen, mixed hardwood, spruce and balsam.

Regen:

Other Comment:

Proposed Start Date: 10/01/2018

12142037-Cut 42290 - Natural 61.4 Sawtimber 90 111-Harvest Clearcut with 4222 - Natural Even-Aged Approved Mixed Pine Well Retention Jack Pine Proposal 140

Habitat Cut: No Site Condition: Non-DNR agency concerns

Prescription Cut all aspen and mixed hardwood, except oak, that are 2" or greater DBH. Cut all spruce, balsam and jack pine with one or more pulpwood Specs: sticks. Cut all red pine, except 3 to 5 trees per acre, which will be marked with green paint. No white pine, cedar, hemlock or oak will be cut.

SitePrep, Scarification Next Step

Treatments:

Acceptable Mix of jack pine, red pine and aspen.

Regen:

Other 100 foot BMP buffer. Scarify after harvest to regenerate jack pine and red pine.

Comment:

Proposed Start Date: 10/01/2018

Total Treatment Acreage Proposed:

382.5

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 142 Year of Entry: 2019

| Availa | Availability for Management | | | | | | | | | | |
|--------|-----------------------------|----------------|---------------|------------------------|--------|---------|-------|---------|----|--|--|
| Total | Acres | Acres Avail | Acres | | Domina | nt Site | e Con | ditions | S | | |
| Acres | Available | With Condition | Not Available | | 5C | 1B | 2G | 3H | 3J | | |
| 414 | 384 | 30 | 0 | Aspen | 30 | | | | | | |
| 48 | 48 | 0 | 0 | Bog | | | | | | | |
| 40 | 0 | 0 | 40 | Lowland Conifers | | | 24 | 17 | | | |
| 19 | 19 | 0 | 0 | Lowland Shrub | | | | | | | |
| 21 | 16 | 0 | 5 | Lowland Spruce/Fir | | | | 5 | | | |
| 35 | 15 | 0 | 21 | Mixed Upland Deciduous | | | | | 21 | | |
| 69 | 0 | 0 | 69 | Natural Mixed Pines | | 61 | | | 7 | | |
| 156 | 156 | 0 | 0 | Northern Hardwood | | | | | | | |
| 29 | 0 | 0 | 29 | Paper Birch | | | | | 29 | | |
| 23 | 0 | 0 | 23 | Upland Mixed Forest | | 21 | | | 2 | | |
| 3 | 3 | 0 | 0 | Water | | | | | | | |
| 857 | 640 | 30 | 187 | Total Forested Acres | 30 | 82 | 24 | 22 | 59 | | |
| - | 75% | 4% | 22% | 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.

| Site No | Dominant Site Cond Availability | Dominant Site Condition | Acres | Other Site Condition | Other Site Condition | Other Site Condition | Other Site Condition |
|------------|-----------------------------------|--|-------------|---------------------------|---------------------------|-------------------------|----------------------|
| 1 | Unavailable | 3J: Water quality / BMPs (stream, river, or lake) | 18 | Unspecified | Unspecified | Unspecified | Unspecified |
| | Comments: Buffer wider than ne | eeded for BMP's, but not enou | ıgh left to | cut now. May look at cutt | ting some of stand when a | djacent stand is ready. | |
| 2 | Unavailable | 3J: Water quality / BMPs (stream, river, or lake) | 11 | Unspecified | Unspecified | Unspecified | Unspecified |
| | Comments: | | | | | | |
| 3 | Unavailable | 3J: Water quality / BMPs (stream, river, or lake) | 10 | Unspecified | Unspecified | Unspecified | Unspecified |
| | Comments: | | | | | | |
| 4 / 0 0 | 2017 2:08:26 PM Page | | | | | | SWADTZ |

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Scott Sebero : Examiner

Compartment: 142 Year of Entry: 2019

| 4 | Unavailable | 3J: Water quality / BMPs (stream, river, or lake) | 10 | Unspecified | Unspecified | Unspecified | Unspecified |
|---|---|---|-----------|----------------------------|-------------------------------|----------------------------|-----------------------|
| | Comments: Buffer wider than no | eeded for BMP's, but not enoug | h left to | cut now. May look at cut | tting some of stand when ad | jacent stand is ready. | |
| 5 | Unavailable | 1B: Non-DNR agency concerns (e.g. USFS) | 61 | Unspecified | Unspecified | Unspecified | Unspecified |
| | Comments: BLM gifted land. | | | | | | |
| 6 | Unavailable | 3J: Water quality / BMPs (stream, river, or lake) | 11 | Unspecified | Unspecified | Unspecified | Unspecified |
| | Comments: Stand is wider than this stand. | needed for BMP's, but aspen v | vas cut o | ut of stand in 1998, outsi | ide 100 foot buffer and resid | ual trees from the harvest | ed area were added to |
| 7 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 30 | Unspecified | Unspecified | Unspecified | Unspecified |
| | Comments: Stand in good shap | e. Only a minor component of | spruce a | nd balsam in stand. | | | |
| 8 | Unavailable | 3H: Deer Wintering Area - habitat is incompatible with harvest at this time | 5 | Unspecified | Unspecified | Unspecified | Unspecified |
| | Comments: Winter deer range. | | | | | | |
| 9 | Unavailable | 3H: Deer Wintering Area - habitat is incompatible with harvest at this time | 17 | Unspecified | Unspecified | Unspecified | Unspecified |
| | Comments: Winter deer range. | | | | | | |
| | | | | | | | |

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Compartment: 142 Year of Entry: 2019 Scott Sebero : Examiner

| 10 | Unavailable | 2G: Too wet (sensitive soils, does not include access issues) | 24 | Unspecified | Unspecified | Unspecified | Unspecified |
|----|-------------------------------|---|----|-------------|-------------|-------------|-------------|
| C | comments: | | | | | | |
| 11 | Unavailable | 1B: Non-DNR agency concerns (e.g. USFS) | 21 | Unspecified | Unspecified | Unspecified | Unspecified |
| | comments: BLM gifted land. | | | | | | |

Mgt. Unit

Compartment: #Type! Year of Entry:



Report 5 - 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 Compartment: 142
Year of Entry 2019



Report 6 – 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.

| Conservati Area | on Type | Description | ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area | | | | |
|--------------------|----------------------|---|---|--|--|--|--|
| SCA | Cold Water Lake | A coldwater lake has temperature and dissolved oxygen condition stocked trout populations and those of other coldwater fish specific conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries | es to persist from year to year. Suitable by are relatively deep, have substantial the state. Such lakes are established by | | | | |
| SCA | Cold Water Stream | | | | | | |
| SCA | Habitat Area | An area that provide some specific need for the life cycle of wildle and Waterfowl Production Areas, deer wintering complexes in low openings and savannas. Habitat areas are distinct from critical hendangered or threatened species (such as Kirtland's warbler or general in nature, are not primarily associated with threatened or covered by species recovery plans that are developed in cooperation. | wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more endangered species, and are not | | | | |

| s t | Crystal Falls | s Mgt. Unit | | Report 7 | Forested | Stands Compartment: 142 Year of Entry: 2019 |
|-------------|--|----------------------|-------|--------------|----------------------------|---|
| a n d | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
| 1 | 4130 - Aspen | Poletimber Well | 25.0 | 37 | 81-110 | |
| 3 | 4130 - Aspen | Poletimber Well | 39.0 | 37 | 81-110 | |
| 4 | 4130 - Aspen | Poletimber Well | 78.9 | 25 | 51-80 | |
| 5 | 4110 - Sugar Maple Association | Sawtimber Well | 59.3 | 90 | 111-140 | |
| 6 | 4130 - Aspen | Sapling Well | 20.7 | 6 | 1-50 | |
| 8 | 6128 - Lowland Coniferous, Mixed Deciduous | Poletimber Medium | 23.5 | 90 | 51-80 | |
| 9 | 4130 - Aspen | Sapling Medium | 10.8 | 6 | Immature | |
| 11 | 4191 - Mixed Upland Deciduous with Conifer | Sawtimber Well | 9.7 | 90 | 81-110 | Buffer for a bog lake. Birch in poor condition. May consider cutting some of this buffer with adjacent stand when it is ready. |
| 12 | 4130 - Aspen | Sapling Well | 27.1 | 5 | Immature | |
| 13 | 4130 - Aspen | Sawtimber Well | 30.1 | 53 | 81-110 | Several small ponds at NE side of stand. |
| 14 | 4191 - Mixed Upland Deciduous with Conifer | Sawtimber Well | 25.7 | 90 | 81-110 | Several small ponds near spruce stand on north side of stand. Save small pockets of hardwood on far north side and far south side. |
| 15 | 4311 - Pine, Aspen Mix | Sawtimber Well | 23.0 | 90 | 111-140 | |
| 16 | 4110 - Sugar Maple Association | Sawtimber Well | 17.4 | 90 | 141-170 | |
| 17 | 4193 - Birch, Aspen | Poletimber Well | 11.2 | 90 | 51-80 | This stand was cut in 1996 and underplanted with Pine and Norway Spruce. This was Lake Ellen State Campground, but is now closed. |
| 18 | 4134 - Aspen, Spruce/Fir | Sawtimber Well | 64.6 | 53 | 81-110 | |
| 19 | 6122 - Black Spruce | Poletimber Well | 5.3 | 90 | 111-140 | |
| 20 | 4134 - Aspen, Spruce/Fir | Poletimber Well | 8.7 | 42 | 81-110 | |

| S t | Crystal Fall | s Mgt. Unit | | Report 7 | – Forested | Stands Compartment: 142 Year of Entry: 2019 |
|-------------|--|--------------------|-------|--------------|-------------|--|
| a n d | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
| 21 | 4130 - Aspen | Sapling Well | 27.5 | 26 | 1-50 | |
| 22 | 4110 - Sugar Maple Association | Poletimber Well | 68.8 | 90 | 111-140 | |
| 24 | 4112 - Maple, Beech, Cherry Association | Sawtimber Well | 10.4 | 90 | 141-170 | |
| 25 | 4130 - Aspen | Poletimber Well | 16.5 | 30 | 81-110 | |
| 26 | 6129 - Mixed Coniferous Lowland Forest | Sawtimber Well | 16.7 | 90 | 81-110 | |
| 28 | 4193 - Birch, Aspen | Sawtimber Well | 17.5 | 90 | 81-110 | Buffer for a bog lake. Birch in poor condition. May harvest part of stand with adjacent stand when it is ready. |
| 29 | 4134 - Aspen, Spruce/Fir | Poletimber Well | 49.6 | 53 | 51-80 | Pockets of younger two stick aspen mixed in with older aspen, spruce and balsam. Strip along road is two to three stick spruce and balsam left from previous cut. Budworm damage present in spruce and balsam. |
| 30 | 6122 - Black Spruce | Sapling Medium | 15.5 | 30 | 1-50 | |
| 31 | 4134 - Aspen, Spruce/Fir | Sawtimber Well | 6.9 | 90 | 81-110 | |
| 32 | 4130 - Aspen | Sapling Well | 8.4 | 19 | 1-50 | |
| 37 | 42290 - Natural Mixed Pine | Sawtimber Well | 68.8 | 90 | 111-140 | |

Compartment: 142 Year of Entry: 2019



| Stand | Cover Type | Acres | Managed Site | General Comments: |
|-------|---------------------|-------|-----------------|---|
| 2 | 6225 - Bog | 31.1 | No | OPIC - FMD: OI Stand Year Origin was |
| 7 | 6225 - Bog | 0.0 | No | OPIC - FMD: OI Stand Year Origin was |
| 10 | 6225 - Bog | 17.3 | No | Lake Wallace |
| 23 | 622 - Lowland Shrub | 0.8 | No | OPIC - FMD: I am proposing to cut this but it has to be Oked with the BLM before it can have any treatment. Also, it may have to be cut early if the Jack Pine budwom gets to it before we do. No white or red pine would be cut. |
| 27 | 622 - Lowland Shrub | 18.5 | No | OPIC - FMD: 1-2-4" Aspen 20 feet tall |
| 33 | 500 - Water | 2.7 | No | OPIC - FMD: OI Stand Year Origin was |