

Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12068
Entry Year 2020
Acreage: 3,482

County Dickinson

Management Area: Ralph Ground Moraine

Revision Date: 2018-08-16

Stand Examiner: Andrew Church

Legal Description:

T42N, R27W, Sections 11-15, 21-23, 26-28

Identified Planning Goals:

Optimize sustainable timber production, enhance wildlife habitat and protect riparian areas.

Soil and topography:

Topography is gently rolling with well drained Emmet fine sandy loam soil. Carbondale and Cathro mucks dominate the lowland soil types.

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

Private ownership is scattered through this compartment. The land is used heavily by hunters, fishermen, campers, and trappers.

Unique Natural Features:

Hardwood Reservoir Flooding.

Archeological, Historical, and Cultural Features:

none

Special Management Designations or Considerations:

Hardwood Reservoir Flooding State Wildlife Management Area, Obligate Deer Wintering Complex

Watershed and Fisheries Considerations:

This compartment contains a northern portion of the Hardwood Impoundment and unnamed streams and drainage area that flow into Hardwood Impoundment. A 100' buffer plus 5' per 1% increase in slope for all waterbodies is recommended.

Wildlife Habitat Considerations:

This compartment contains both wildlife purchased lands and deer winter range. Featured species in this Management Area (Ralph Ground Moraine MA) include; deer, bear, grouse, woodcock and northern goshawk. Management for Deer winter cover, including transition zones, movement corridors and conifer component throughout the forage stands is critical in this compartment. Aspen age and stand size diversity are important management goals for deer, bear, grouse and woodcock and goshawks. The hemlock and cedar components provide winter cover for deer. The large mature pine, cedar and hemlock provide ideal habitat for black bears especially as refuge trees for cub rearing and critical lowland habitat.

Mineral Resource and Development Concerns and/or Restrictions

The nearest active sand/gravel pit is located four miles to the west, but there may be some sand & gravel potential within the compartment on the uplands. There has been past mineral leasing in this area, and there is record of only very limited metallic mineral exploration. Metallic mineral potential beneath the compartment is considered low at this time. There is no economic oil and gas production in the UP. The state does not own all of the mineral rights within the compartment. Private mineral rights owners must be allowed reasonable access to the land should they choose to explore and/or develop the minerals.

Vehicle Access:

Access is off Swan Peterson along the West side of the compartment. Fair and poor two-tracks cross most of the compartment on state land. Access to the majority of the compartment is through private landowners.

Survey Needs:

none

Recreational Facilities and Opportunities:

Hunting, camping, fishing, trapping, hiking, canoeing, boating.

Fire Protection:

Felch protection area.

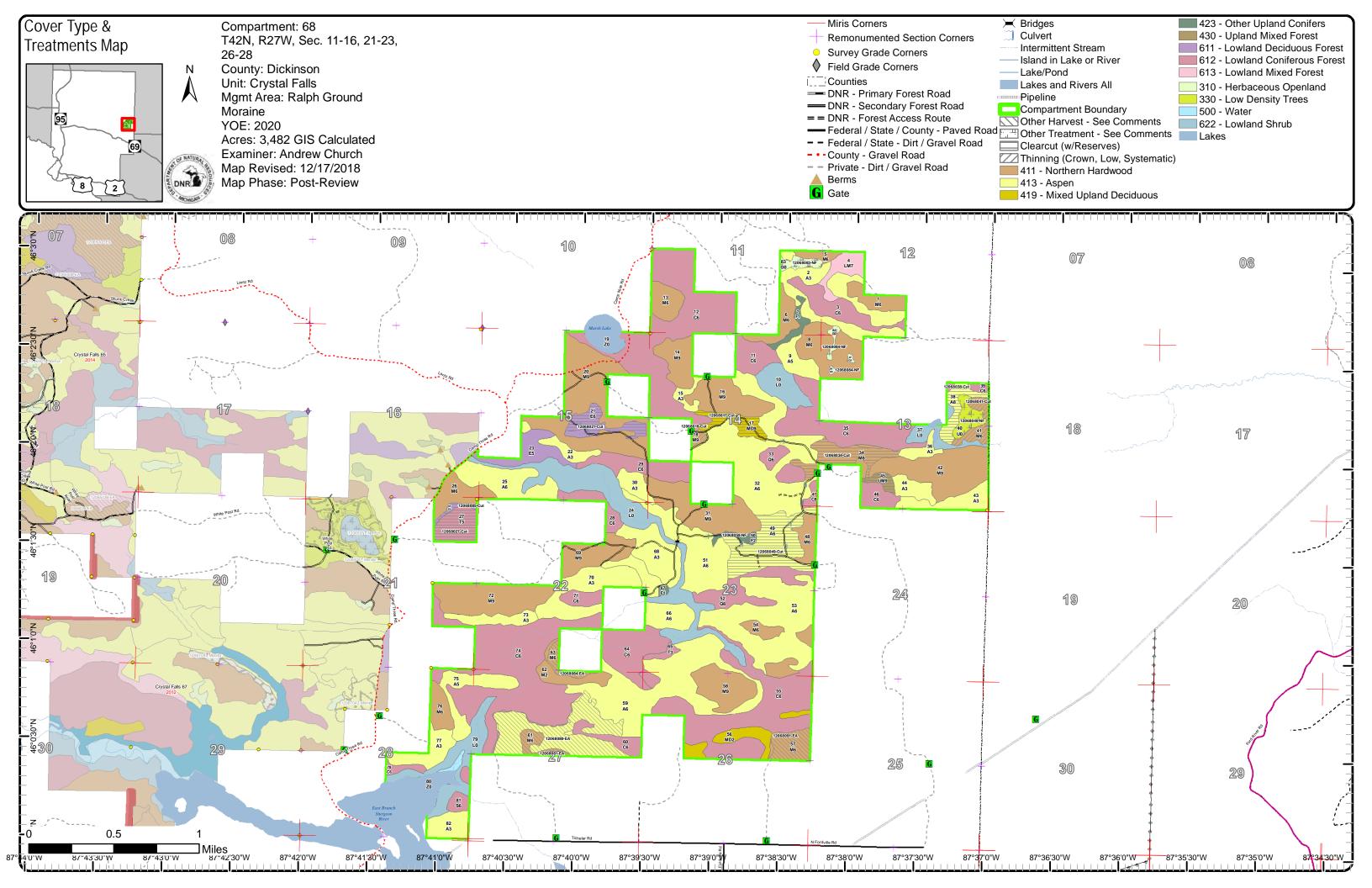
Additional Compartment Information:

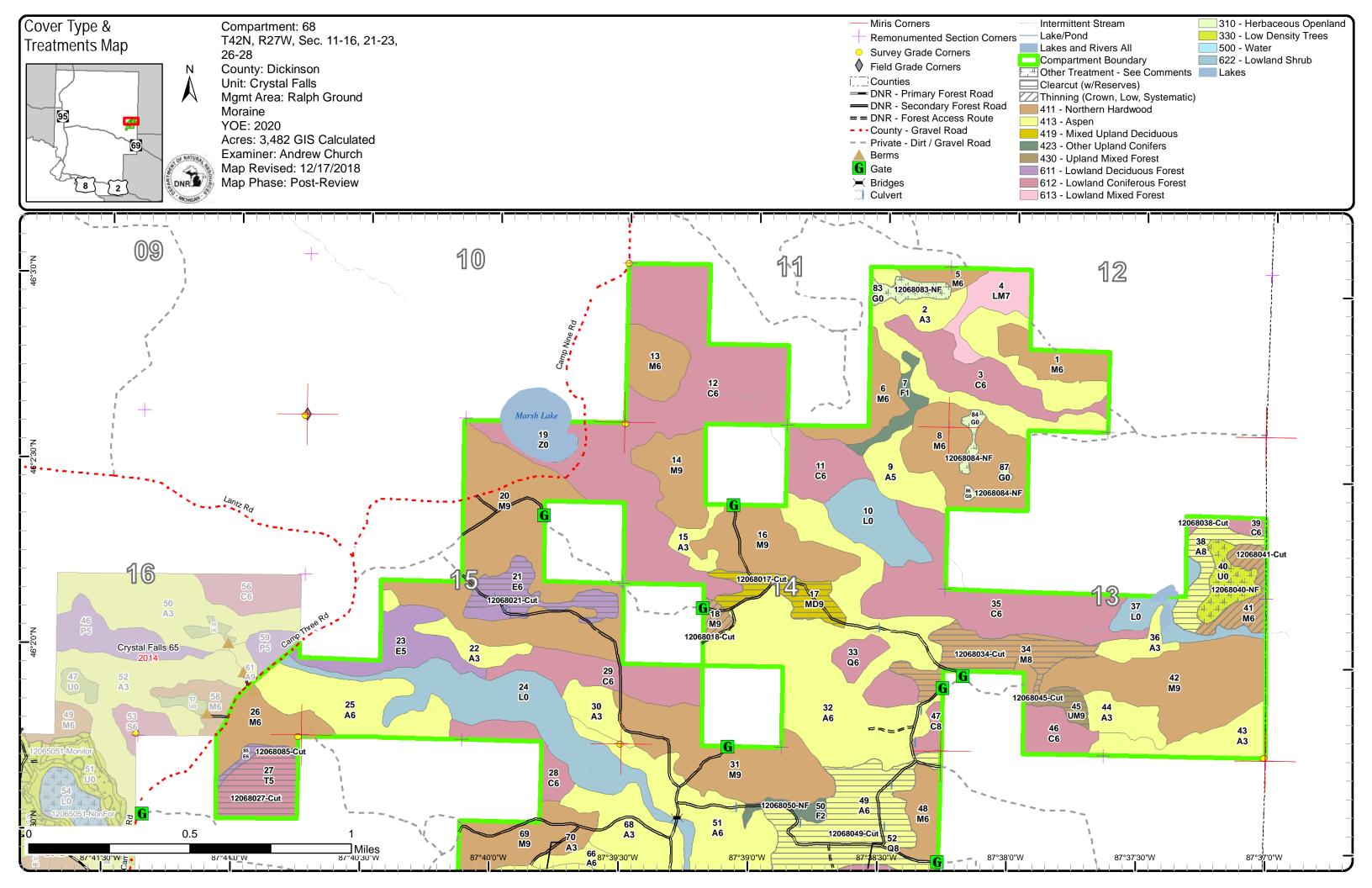
The following reports from the Inventory are attached:

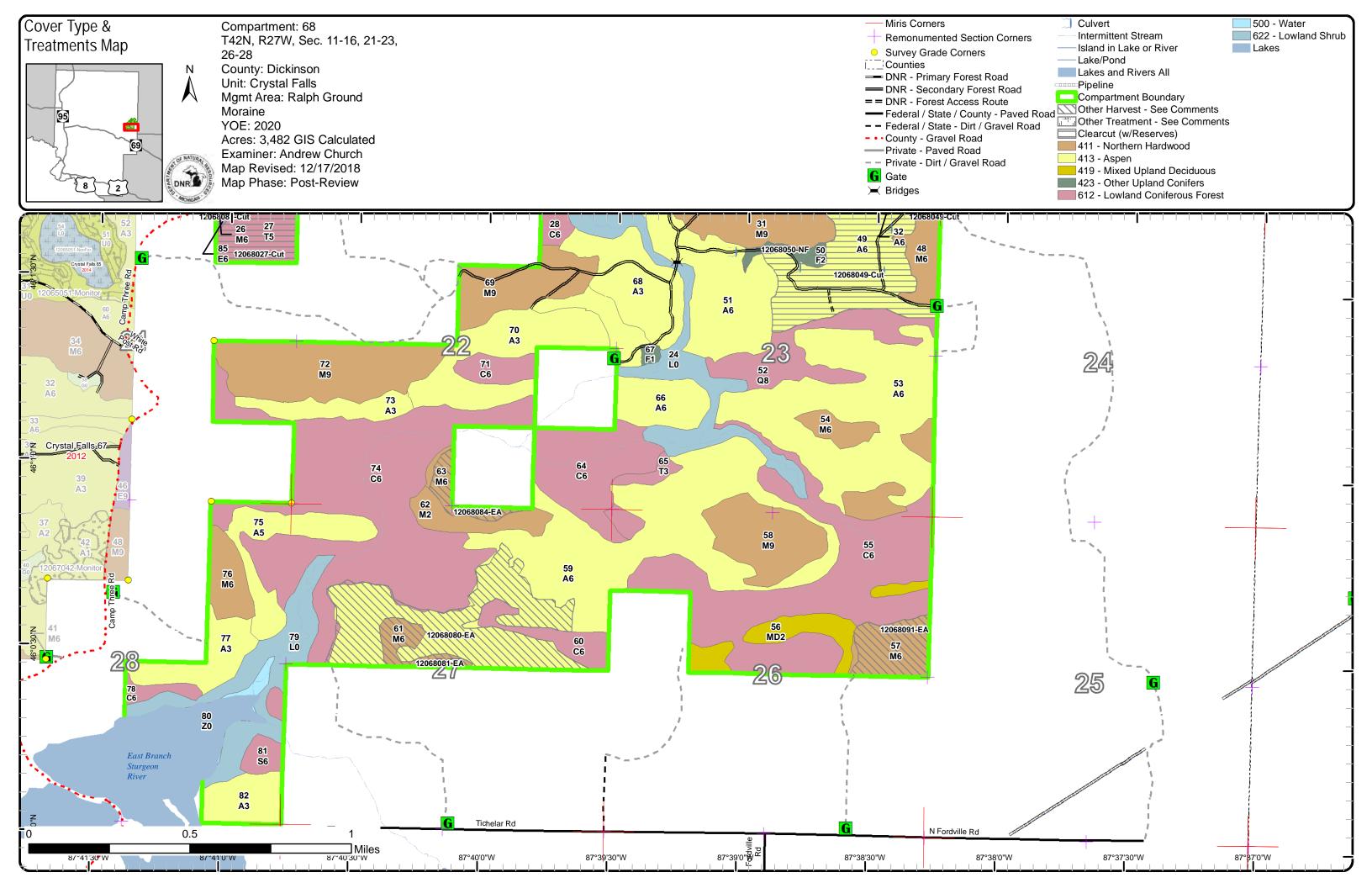
Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas Site Condition Details

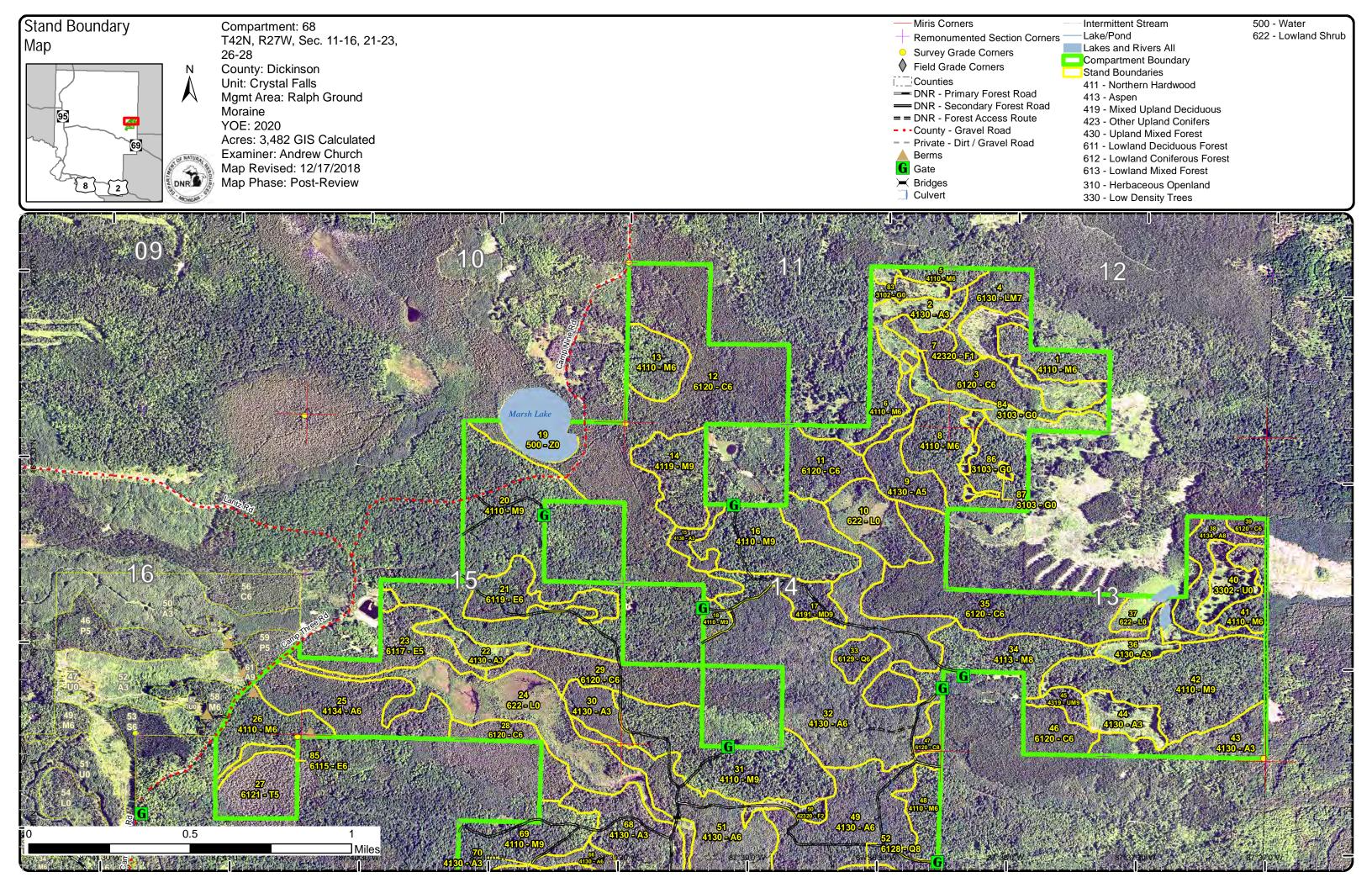
The following information is displayed, where pertinent, on the attached compartment maps:

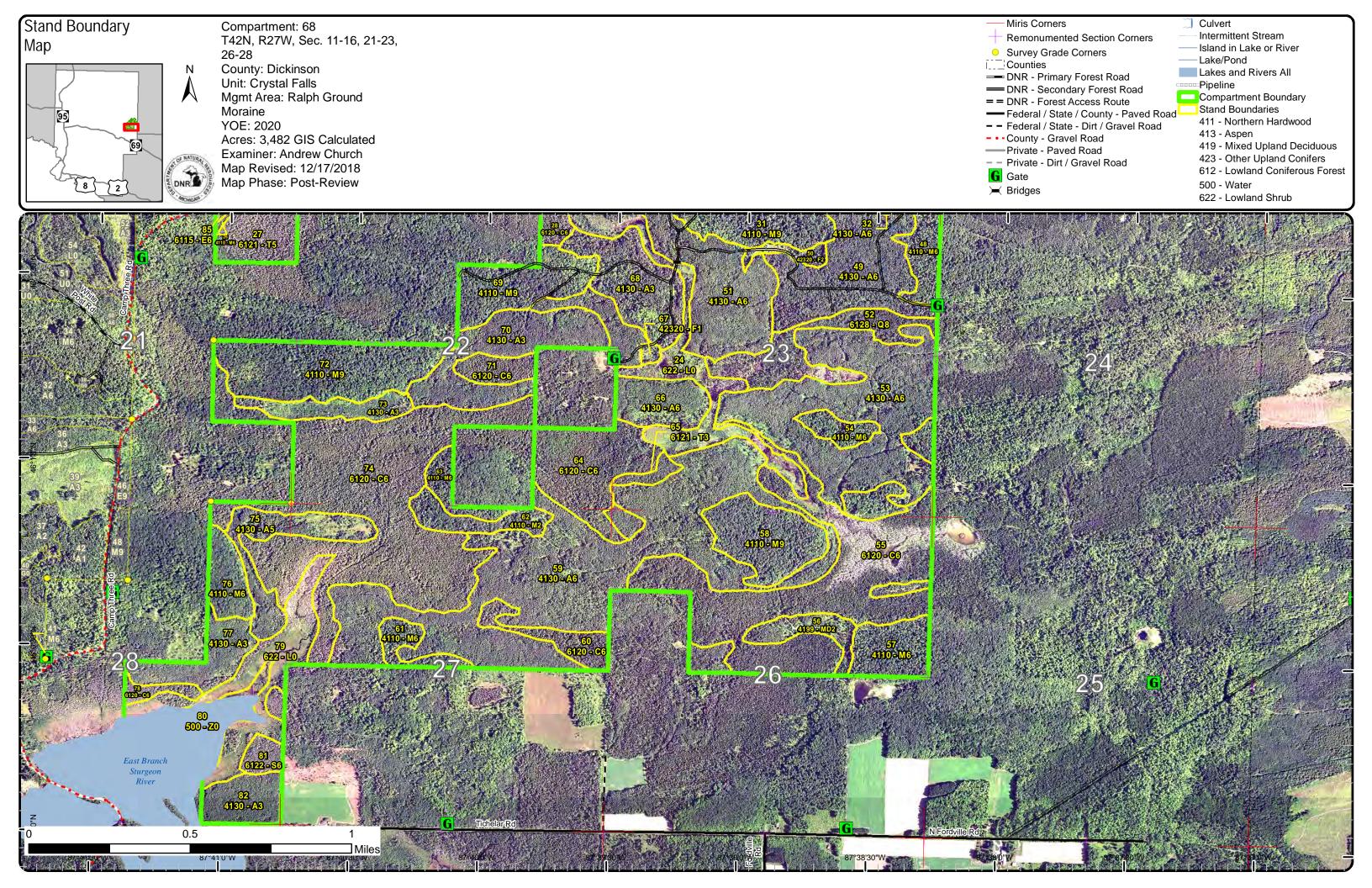
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

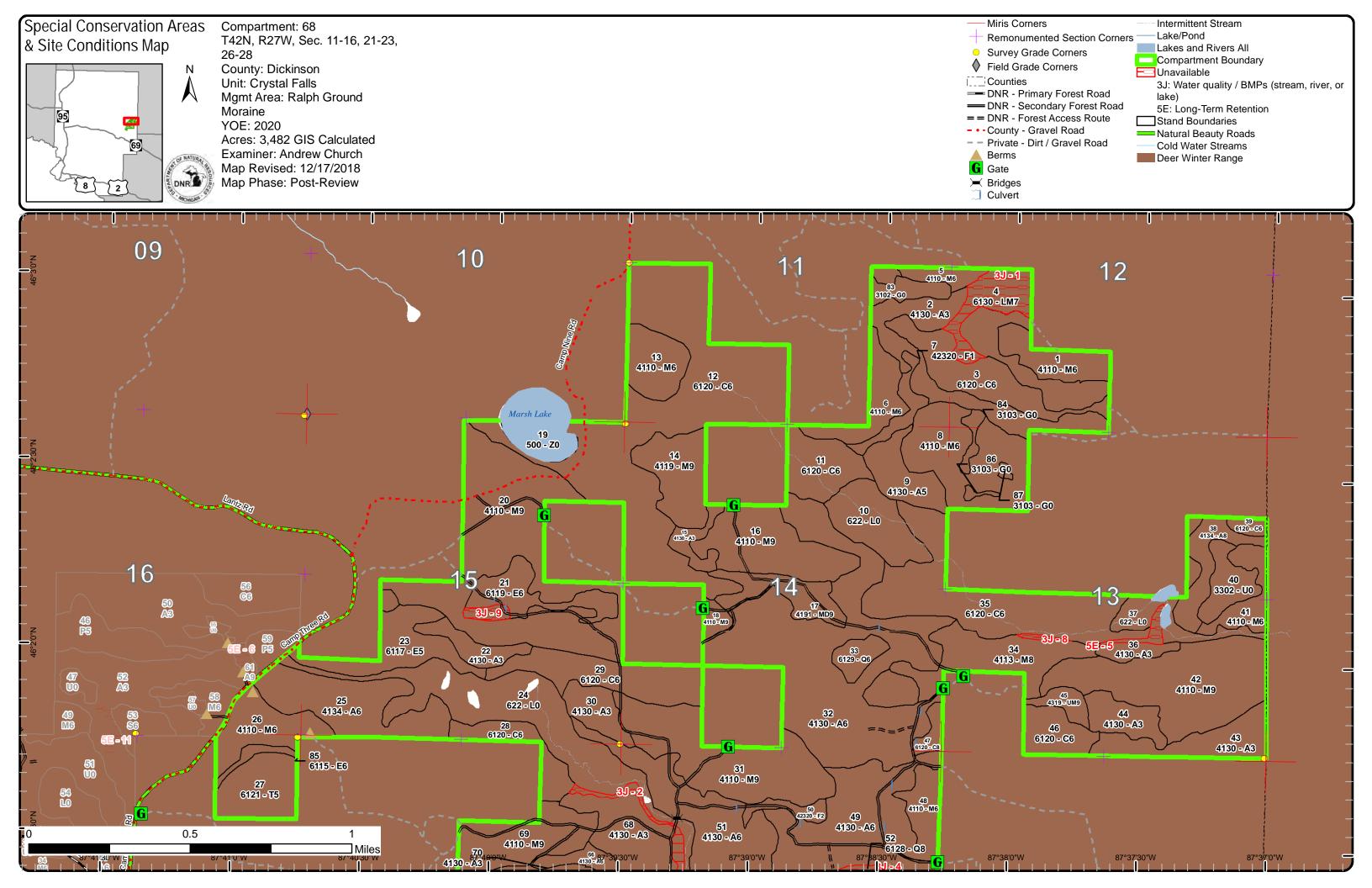


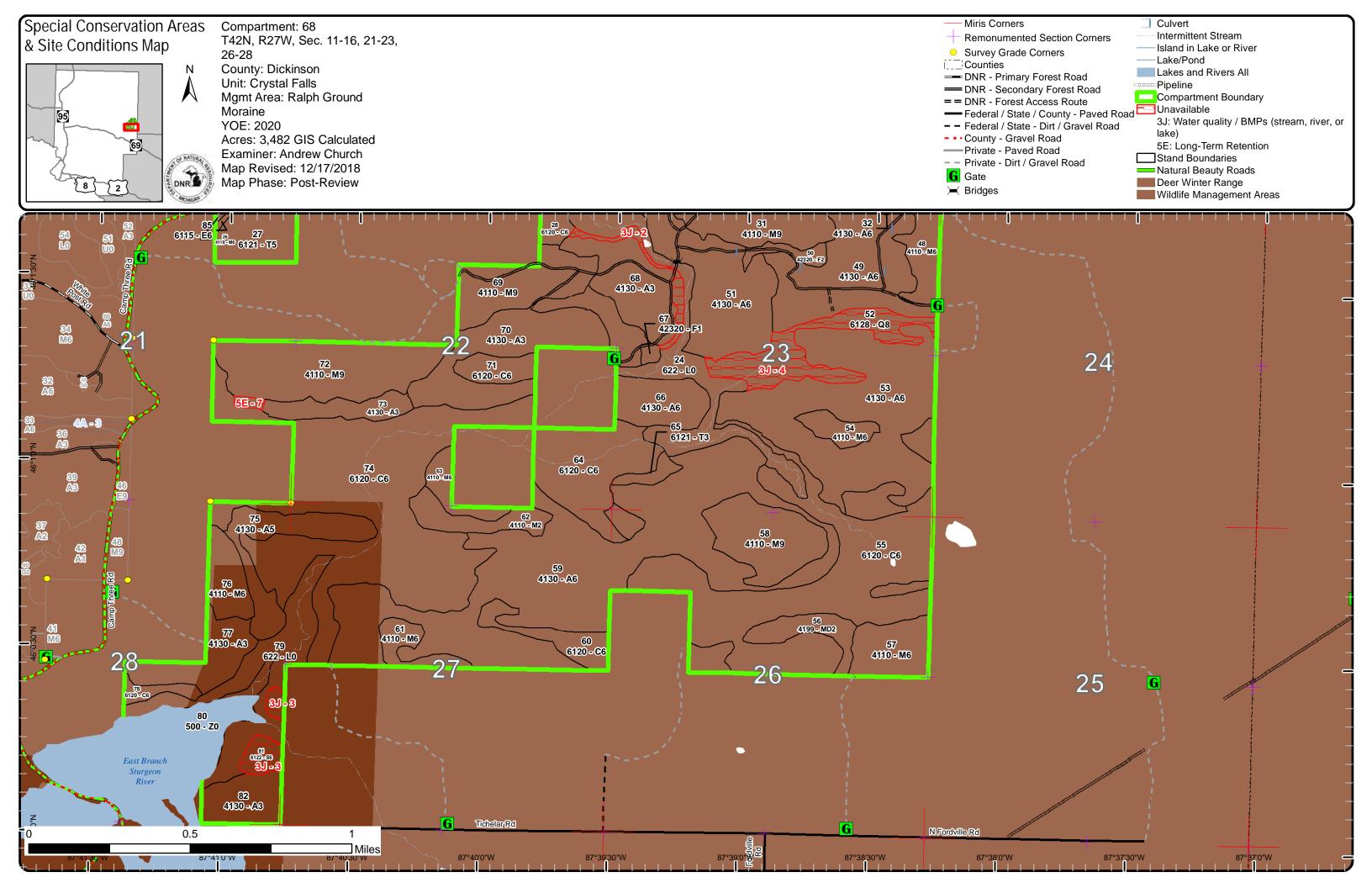












Compartment 68

Year of Entry 2020

Crystal Falls Mgt. Unit Andrew Church : Examiner



Age Class

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Aspen	0	179	0	103	703	95	117	0	0	0	0	0	0	0	0	0	0	0	1196
Cedar	0	0	0	0	0	0	0	0	0	0	857	0	0	0	0	0	0	0	857
Herbaceous Openland	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Low-Density Trees	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Lowland Conifers	0	0	0	0	0	0	0	19	0	0	40	0	0	0	0	0	0	0	59
Lowland Deciduous	0	0	0	0	0	4	32	27	0	0	0	0	0	0	0	0	0	0	63
Lowland Mixed Forest	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	21
Lowland Shrub	223	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	223
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	11
Mixed Upland Deciduous	0	0	0	28	0	0	0	21	0	0	0	0	0	0	0	0	0	0	49
Northern Hardwood	0	0	0	0	18	0	0	0	43	527	190	0	44	0	0	0	0	41	863
Tamarack	0	0	0	0	10	0	0	0	0	29	0	0	0	0	0	0	0	0	38
Upland Mixed Forest	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	8
Upland Spruce/Fir	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Water	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
Total	300	179	19	131	731	99	149	67	83	556	1087	0	44	0	0	0	0	41	3484



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit Year of Entry: 2020

Acres of Harvest

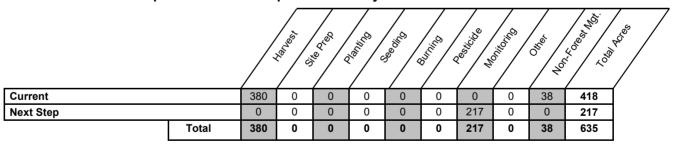
Compartment 68
Total Compartment Acres: 3,482

Commercial Harvest - 380 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method

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Aspen		96	0	0	0	0	0	0	0	93	189	
Lowland Deciduous		28	0	0	0	0	0	0	0	0	28	
Mixed Upland Deciduous		21	0	0	0	0	0	0	0	0	21	
Northern Hardwood		37	0	0	0	0	21	0	0	49	107	
Tamarack		29	0	0	0	0	0	0	0	0	29	
Upland Mixed Forest		7	0	0	0	0	0	0	0	0	7	
	Total	217	0	0	0	0	21	0	0	141	380	

Proposed and Next Step Treatments by Method



Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 68 s Year of Entry: 2020 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 12068017-Cut 4191 - Mixed 81-110 Clearcut with 413 - Aspen Draft Field 17 21 1 Sawtimber 64 Harvest Even-Aged **Upland Deciduous** Well Retention Boundary with Conifer **Habitat Cut: No Site Condition:** Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock, Pine, Oak if found for DWC considerations. Also leave some large diameter trees for Wildlife favoring Yellow Birch. Winter harvest, unless approved by FRD and WLD. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Aspen, Mixed Conifers, Mixed Decidous Regen: Other Comment: 10/1 /2019 **Proposed Start Date:** Draft Field 5.2 4110 - Sugar Maple Sawtimber 83 Crown Thinning 411 - Northern 12068018-Cut 111-Harvest Even-Aged 140 Hardwood Boundary Association **Habitat Cut: No Site Condition:** Prescription Thin targeting residual BA 80 sq ft. Leave Cedar, Hemlock, Oak, and Pine if found for DWC considerations. Specs: Next Step Treatments: Acceptable Regen: Other Comment: **Proposed Start Date:** 10/1 /2019 12068021-Cut 23.3 6119 - Mixed Poletimber 68 Unspec Harvest Clearcut with 6112 - Lowland Even-Aged Draft Field Lowland Deciduous Well ified Retention Aspen Boundary Forest **Habitat Cut: No Site Condition:** Prescription Final Harvest using 4" DBH spec. for DWC considerations. Leave Hemlock, Cedar, Oak, Pine if found. Also leave Ash less than 8" DBH. Retain some large diameter Yellow Birch for Wildlife trees. Unless locally approved by FRD and WLD, winter operations only. Specs: Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, Mixed Deciduous, Mixed Conifers

Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

12068027-Cut 28.5 6121 - Tamarack Poletimber 82 Unspec Clearcut with 6121 - Tamarack Even-Aged Draft Field Harvest Medium Boundary

ified Retention

Habitat Cut: No Site Condition: Prescription Final Harvest using 4" DBH spec. for DWC considerations. Leave Hemlock, Cedar, Oak, Pine if found. Also leave Ash less than 8" DBH.

Unless locally approved by FRD and WLD, winter operations only. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Tamarack, Mixed Deciduous, Mixed Conifers

Regen: Other

Comment:

Proposed Start Date: 10/1 /2019

Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 68 s Year of Entry: 2020 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age **Approval** n Objective Name CoverType Density Age Range Type Method Structure **Status** d Even-Aged 12068034-Cut 4113 - R.Maple, Sawtimber 88 81-110 Clearcut with 4319 - Mixed **Draft Field** 34 36.7 Harvest Conifer Medium Retention **Upland Forest** Boundary **Site Condition: Habitat Cut: No** Prescription Final Harvest using 4" DBH spec for DWC considerations. Leave Cedar, Hemlock, Pine, Oak if found. Treatment adjusted to connect Cedar Specs: stand to South Monitoring, Natural Regen (Re-Inventory) Next Step **Treatments:** Acceptable Aspen, Maple, Mixed Conifers, Mixed Deciduous Regen: Other Comment: **Proposed Start Date:** 10/1 /2019 12068038-Cut 18.8 4134 - Aspen, Sawtimber 56 111-Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Spruce/Fir Medium 140 Retention Boundary Site Condition: **Habitat Cut: No** Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock, Pine, Oak if found. Also leave some large diameter trees for Wildlife favoring Yellow Birch. 4" spec for DWC considerations. Buffer water features 100 feet Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Aspen, Mixed Conifers, Mixed Deciduous Regen: Other Comment: **Proposed Start Date:** 10/1 /2019 12068040-NF 15.8 3302 - Low Density Nonstocked Unspec NonForestMgt Draft Field 0 Other - Specify 3102 - Grass **Conifer Trees** Boundary **Habitat Cut: No Site Condition:** Prescription Opening maintenance-mechanical or burn. Specs: Next Step **Treatments:** <u>Acceptable</u>

Regen:

Other

Comment:

10/1 /2019 **Proposed Start Date:**

16.1 4110 - Sugar Maple Poletimber Draft Field 12068041-Cut 83 111-411 - Northern Even-Aged Harvest Low Thinning Association Well 140 Hardwood Boundary

Habitat Cut: No Site Condition:

Prescription Thin to target residual BA of 80 sq ft per acre. Leave Cedar, Hemlock, Oak, Pine if found for DWC considerations.

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 68 s Year of Entry: 2020 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 12068045-Cut 7.4 4319 - Mixed Sawtimber 81-110 Clearcut with 413 - Aspen **Draft Field** 45 72 Harvest Even-Aged **Upland Forest** Well Retention Boundary **Habitat Cut: No Site Condition:** Prescription Final Harvest using 4" DBH spec for DWC considerations. Leave Cedar, Hemlock, Pine, Oak if found. Treatment adjusted on West end to Specs: connect Cedar stand (#46) to Hemlock stand (#34). Monitoring, Natural Regen (Re-Inventory) Next Step **Treatments:** Acceptable Aspen, Mixed hardwoods, mixed conifers, Pine Regen: Other Comment: **Proposed Start Date:** 10/1 /2019 4130 - Aspen Unspec 12068049-Cut 77.3 Poletimber 55 Harvest Clearcut with 413 - Aspen Even-Aged Draft Field Well ified Retention Boundary **Habitat Cut: No Site Condition:** Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock, Pine, Oak if found for DWC considerations. Also leave some large diameter trees for Wildlife favoring Yellow Birch. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Aspen, Mixed Conifers, Mixed Deciduous Regen: Other Comment: **Proposed Start Date:** 10/1 /2019 12068050-NF Draft Field 42320 - Upland Sapling 12 Immatu NonForestMgt Other - Specify 3102 - Grass 6.6 Medium Boundary Spruce **Habitat Cut: No Site Condition:** Prescription Opening Maintenance-mechanical or burn. Specs: Next Step **Treatments:**

<u>Acceptable</u>

Regen:

Other Comment:

Proposed Start Date: 10/1 /2019

12068080-EA 4130 - Aspen 92.7 Poletimber 32 Immatu Other - Specify Even-Aged Completed -Harvest 413 - Aspen Well Pending Edits re

Habitat Cut: No Site Condition:

Prescription Harvest wind damaged trees only. Leave Cedar, Hemlock, Oak, Pine if found regardless of damage.

Specs:

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Proposed Start Date: 10/6 /2017

Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 68 s Year of Entry: 2020 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 Even-Aged 76 12068081-EA 12.8 4110 - Sugar Maple Poletimber 83 81-110 Other - Specify 411 - Northern Completed -Harvest Association Well Hardwood Pending Edits **Habitat Cut: No Site Condition:** Prescription Harvest wind damaged trees only. Leave Cedar, Hemlock, Oak, Pine if found regardless of damage. Specs: Next Step Treatments: Acceptable Regen: Other Comment: **Proposed Start Date:** 10/30/2017 12068083-NF 94 3102 - Grass Nonstocked Unspec NonForestMgt Other - Specify 3102 - Grass Draft Field ified Boundary **Habitat Cut: No Site Condition:** Prescription Opening Maintenance- Mechanical or Burn. Specs: Next Step **Treatments:** Acceptable Regen: Other Comment: **Proposed Start Date:** 10/1 /2019 12068084-EA 10.5 4110 - Sugar Maple Poletimber 83 411 - Northern Completed -51-80 Other - Specify Even-Aged Harvest Association Hardwood Pending Edits **Habitat Cut: No Site Condition:** Prescription Harvest wind damaged trees only. Leave Cedar, Hemlock, Oak, Pine if found regardless of damage. Specs: Next Step **Treatments:** <u>Acceptable</u> Regen: Other Comment: **Proposed Start Date:** 10/30/2017 12068084-NF Unspec NonForestMgt Other - Specify Draft Field 6.3 3103 - Rubus-Fern Nonstocked 3102 - Grass ified Boundary **Habitat Cut: No Site Condition:** Prescription Opening Maintenance-mechanical or burn. Specs: Next Step **Treatments:** <u>Acceptable</u> Regen:

10/1 /2019

Other Comment:

Proposed Start Date:

Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 68 s Year of Entry: 2020 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type Approval** Age n Method Objective d Name CoverType Density Age Range Type Structure **Status** 611 - Lowland 85 12068085-Cut 4.2 6115 - Lowland Ash Poletimber 45 Unspec Harvest Clearcut with Even-Aged Draft Field Well ified Retention Deciduous Boundary Forest **Habitat Cut: No Site Condition:** Prescription Final Harvest using 4" DBH spec. for DWC considerations. Leave Hemlock, Cedar, Oak, Pine if found. Also leave Ash less than 8" DBH. Unless locally approved by FRD and WLD, winter operations only. Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Ash, Mixed Deciduous, Mixed Conifers

Regen:
Other
Comment:

Proposed Start Date: 10/1 /2019

57 12068091-EA 25.2 4110 - Sugar Maple Poletimber 83 51-80 Harvest Other - Specify 411 - Northern Even-Aged Completed Association Well Hardwood Pending Edits

Habitat Cut: No Site Condition:

<u>Prescription</u> Harvest wind damaged trees only. Leave Cedar, Hemlock, Oak, Pine if found regardless of damage.

Specs:

Next Step

Treatments:

Acceptable

Regen:

<u>Other</u>

Comment:

Proposed Start Date: 10/30/2017

Total Treatment Acreage Proposed:

417.9

Crystal Falls Mgt. Unit

Andrew Church : Examiner

Compartment: 68
Year of Entry: 2020

Availa	ability for	Managemer	nt				
Total	Acres	Acres Avail	Acres		Domina	nt Site	Conditions
Acres	Available	With Condition	Not Available		3J	5E	
1197	1184	0	13	Aspen	8	6	
856	856	0	0	Cedar			
16	16	0	0	Herbaceous Openland			
16	16	0	0	Low-Density Trees			
59	19	0	40	Lowland Conifers	40		
63	59	0	4	Lowland Deciduous	4		
21	0	0	21	Lowland Mixed Forest	21		
223	223	0	0	Lowland Shrub			
11	0	0	11	Lowland Spruce/Fir	11		
49	49	0	0	Mixed Upland Deciduous			
863	861	0	1	Northern Hardwood	1		
39	39	0	0	Tamarack			
8	8	0	0	Upland Mixed Forest			
18	18	0	0	Upland Spruce/Fir			
45	45	0	0	Water			
3,482	3,391		91	Total Forested Acres	85	6	
	97%		3%	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)	21	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments: Stream through star	nd					
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	8	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Unavailable Comments:		8		Unspecified	Unspecified	Unspecified

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Compartment: 68 Year of Entry: 2020 **Andrew Church: Examiner**

3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	11	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	40	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Stream through sta	nd					
5	Unavailable	5E: Long-Term Retention	4	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments:						
9	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	4	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments: stream buffer						

12/17/2018 1:43:23 PM - Page 2 of 2 SWARTZN3 Mgt. Unit

Compartment: #Type! Year of Entry:

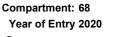


Report 5 - PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* 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
Year of Entry





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.

Conservation Area	on Type	Description	HCVA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Habitat Area	and Waterfowl Production Areas, deer wintering openings and savannas. Habitat areas are distin endangered or threatened species (such as Kirtle	and's warbler or piping plover areas) in that they are more th threatened or endangered species, and are not
SCA	Visual Management Area		naged to recognize and preserve a particular visual value. cenic or natural beauty roads, and lakeshore areas.

s t	Crystal Falls		Report 7	- Forested	Stands Compartment: 68 Year of Entry: 2020	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Poletimber Well	21.0	83	81-110	Thinned 2014
2	4130 - Aspen	Sapling Well	71.0	4	Immature	Harvested 2014. Submerchantable conifers, Cedar, Hemlock retained
3	6120 - Lowland Cedar	Poletimber Well	36.5	93	Unspecified	
4	6130 - Fir, Aspen, Maple	Sawtimber Poor	21.0	74	Unspecified	NE part of stand is not well stocked
5	4110 - Sugar Maple Association	Poletimber Well	7.9	83	51-80	Thinned 2014
6	4110 - Sugar Maple Association	Poletimber Well	21.7	83	81-110	Thinned 2014
7	42320 - Upland Spruce	Sapling Poor	9.5	18	Immature	
8	4110 - Sugar Maple Association	Poletimber Well	55.7	83	81-110	Thinned 2014
9	4130 - Aspen	Poletimber Medium	21.0	50	Unspecified	Not high quality or quantity. Understory of Mixed Hardwoods growing well, especially in canopy gaps. More Spruce/Fir along wetter edge. Due to access issues, recommend waiting to treat with neighboring stands.
11	6120 - Lowland Cedar	Poletimber Well	26.0	93	Unspecified	
12	6120 - Lowland Cedar	Poletimber Well	175.6	93	Unspecified	
13	4110 - Sugar Maple Association	Poletimber Well	22.4	90	51-80	Some red maple regen on far east along transition. Thinned 2012.
14	4119 - Mixed Northern Hardwoods	Sawtimber Well	30.9	83	81-110	Many low areas throughout holding Red Maple. Thinned 2013
15	4130 - Aspen	Sapling Well	8.8	27	Immature	Aspen harvested from Hardwood stand in 1992
16	4110 - Sugar Maple Association	Sawtimber Well	46.6	83	81-110	Thinned 2013
17	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	21.1	64	81-110	More Maple to West
18	4110 - Sugar Maple Association	Sawtimber Well	5.2	83	111-140	
20	4110 - Sugar Maple Association	Sawtimber Well	126.5	90	51-80	Harvested with Motherload sale 2012 (#12-011-10-01).

S	Crystal Falls	Crystal Falls Mgt. Unit			– Forested	Stands Compartment: 68 Year of Entry: 2020
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	26.9	68	Unspecified	Large drainage system. Small upland inclusion on Western side of stand.
22	4130 - Aspen	Sapling Well	14.7	6	Immature	Harvested 2012
23	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	31.5	56	Unspecified	
25	4134 - Aspen, Spruce/Fir	Poletimber Well	52.1	42	Unspecified	
26	4110 - Sugar Maple Association	Poletimber Well	28.5	83	51-80	Thinned 2012. North Dickinson School planted 700 hemlock seedling in this stand post harvest in April of 2012. Stand received much damage from windstorm in July 2017; stand was salvaged in winter 2018.
27	6121 - Tamarack	Poletimber Medium	28.5	82	Unspecified	Black Ash strip along edge of stand. Small hardwood inclusion located in SW corner.
28	6120 - Lowland Cedar	Poletimber Well	18.2	93	Unspecified	
29	6120 - Lowland Cedar	Poletimber Well	39.7	93	Unspecified	
30	4130 - Aspen	Sapling Well	15.1	27	Immature	Starting to reach pole size
31	4110 - Sugar Maple Association	Sawtimber Well	71.3	83	51-80	Thinned 2012
32	4130 - Aspen	Poletimber Well	160.8	38	Unspecified	Many low areas througout stand. Ages and densities of Aspen vary greatly.
33	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	18.9	68	Unspecified	
34	4113 - R.Maple, Conifer	Sawtimber Medium	41.0	88	81-110	Mix of upland and lowlands.
35	6120 - Lowland Cedar	Poletimber Well	83.4	93	Unspecified	
36	4130 - Aspen	Sapling Well	10.8	5	Immature	Harvested 2013
38	4134 - Aspen, Spruce/Fir	Sawtimber Medium	18.8	56	111-140	Many different species of trees within stand. More Maple/Birch along lowland areas.
39	6120 - Lowland Cedar	Poletimber Well	5.1	93	Unspecified	

S t	Crystal Falls	Crystal Falls Mgt. Unit			– Forested	Stands Compartment: 68 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	4110 - Sugar Maple Association	Poletimber Well	16.1	83	111-140	
42	4110 - Sugar Maple Association	Sawtimber Well	81.3	83	81-110	Thinned 2013
43	4130 - Aspen	Sapling Well	28.1	25	Immature	Red Maple regeneration in North. Much Cedar throughout
44	4130 - Aspen	Sapling Well	16.6	5	Immature	Harvested 2013 all Cedar unharvested
45	4319 - Mixed Upland Forest	Sawtimber Well	7.7	72	81-110	Health of trees in decline
46	6120 - Lowland Cedar	Poletimber Well	17.8	93	Unspecified	
47	6120 - Lowland Cedar	Sawtimber Medium	5.5	93	Unspecified	
48	4110 - Sugar Maple Association	Poletimber Well	17.3	78	51-80	Thinned 2013
49	4130 - Aspen	Poletimber Well	77.3	55	Unspecified	Mix of upland and lowland. Low lying areas holding BAM, Red Maple, Black Ash. Several different ages of Aspen.
50	42320 - Upland Spruce	Sapling Medium	6.6	12	Immature	Large grassy opening in center of stand. Conifers around edges
51	4130 - Aspen	Poletimber Well	75.3	35	Unspecified	Many different Aspen ages. Most mature along lowland types but also older on North side.
52	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Medium	40.4	93	Unspecified	Trees in declining health. Very wet ground. Not fully stocked due to mortality.
53	4130 - Aspen	Poletimber Well	134.1	30	Unspecified	Many records of cutting within this stand between the years of 1979 to 1987. Many different ages. Some areas saplings, some areas pole sized. Overall, Aspen is very healthy.
54	4110 - Sugar Maple Association	Poletimber Well	25.9	78	51-80	Thinned 2013
55	6120 - Lowland Cedar	Poletimber Well	150.4	93	Unspecified	
56	4199 - Other Mixed Upland Deciduous	Sapling Medium	27.5	20	Immature	Harvested 1998
57	4110 - Sugar Maple Association	Poletimber Well	26.1	83	51-80	Thinned 2014. Wind damaged trees salvaged from July 7, 2017 windstorm.

S t	Crystal Falls	Mgt. Unit		Report 7	- Forested	Stands Compartment: 68 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	4110 - Sugar Maple Association	Sawtimber Well	43.7	110	81-110	Thinned 2004. Large diameter trees. Maple and Ironwood growing in canopy gaps. Harvested windthrown trees 2018.
59	4130 - Aspen	Poletimber Well	240.4	32	Immature	Trees starting to reach pole size. Many small pockets of older trees mixed throughout stand. Much damage from 2017 windstorm. Drainages/seeps present.
60	6120 - Lowland Cedar	Poletimber Well	17.5	93	Unspecified	
61	4110 - Sugar Maple Association	Poletimber Well	12.8	83	51-80	Harvested 2014. Wind damaged trees salvaged from July 7, 2017 windstorm.
62	4110 - Sugar Maple Association	Sapling Medium	18.1	32	Immature	
63	4110 - Sugar Maple Association	Poletimber Well	11.7	83	51-80	Thinned 2014. Wind damaged trees salvaged from July 7, 2017 windstorm.
64	6120 - Lowland Cedar	Poletimber Well	54.5	93	Unspecified	
65	6121 - Tamarack	Sapling Well	10.2	31	Immature	
66	4130 - Aspen	Poletimber Well	42.9	46	Unspecified	Southern edge of stand not fully stocked. 4 acres in Southern part of stand cut 1993
67	42320 - Upland Spruce	Sapling Poor	2.2	11	Immature	
68	4130 - Aspen	Sapling Well	46.8	1	Immature	Stand salvaged due to windstorm on July 7, 2017. Buffer along creek installed.
69	4110 - Sugar Maple Association	Sawtimber Well	40.6	90	51-80	Thinned 2012. Stand received damage from windstorm on July 7, 2017.
70	4130 - Aspen	Sapling Well	57.1	34	Unspecified	Many low lying areas. Cedar pockets present within stand. Some Aspen starting to reach pole size
71	6120 - Lowland Cedar	Poletimber Well	12.6	93	Unspecified	
72	4110 - Sugar Maple Association	Sawtimber Well	71.5	89	51-80	Thinned 2012. Stand received damage from windstorm on July 7, 2017.
73	4130 - Aspen	Sapling Well	19.5	6	Immature	Harvested with Motherload sale 2012
74	6120 - Lowland Cedar	Poletimber Well	206.8	93	Unspecified	

s t	Crystal Falls Mgt. Unit			Report 7	- Forested	Stands Compartment: 68 Year of Entry: 2020
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
75	4130 - Aspen	Poletimber Medium	34.5	35	Unspecified	NE finger is not fully stocked. Hardwoods growing in open areas
76	4110 - Sugar Maple Association	Poletimber Well	18.9	83	81-110	
77	4130 - Aspen	Sapling Well	28.2	25	Unspecified	Small buffer of larger trees along Impoundment
78	6120 - Lowland Cedar	Poletimber Well	6.5	93	Unspecified	
81	6122 - Black Spruce	Poletimber Well	11.1	71	Unspecified	
82	4130 - Aspen	Sapling Well	22.9	25	Unspecified	Small buffer of larger trees along Impoundment

Unspecified

Poletimber Well

4.2

45

6115 - Lowland Ash

85

Compartment: 68 Year of Entry: 2020



Stand	Cover Type	Acres	Managed Site	General Comments:
10	622 - Lowland Shrub	30.7	No	
19	500 - Water	14.1	No	
24	622 - Lowland Shrub	119.7	No	
37	622 - Lowland Shrub	18.4	No	
40	3302 - Low Density Conifer Trees	15.8	No	
79	622 - Lowland Shrub	54.0	No	
80	500 - Water	30.5	No	
83	3102 - Grass	9.4	No	Western half of stand is sapling Spruce/Fir
84	3103 - Rubus-Fern	3.9	No	
86	3103 - Rubus-Fern	1.3	No	
87	3103 - Rubus-Fern	1.1	No	