

Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12172 Entry Year 2021 Acreage: 2,975

County Iron

Management Area: Peavy Moraine

Revision Date: 2019-08-04

Stand Examiner: Scott Sebero

Legal Description:

T41N, R31W, Sections 5, 6, 7, 8 and 17.

T41N, R32W, Sections 1 and 2.

T42N. R31W. Section 31.

T42N, R32W, Sections 24, 25, 35 and 36.

Identified Planning Goals:

Our management goals in this compartment are to develop age class distribution in the aspen type, to maintain health of conifer types and increase acreage where possible and to develop the quality while maintaining diversity in hardwood types. The State of Michigan will work to develop buffers on streams, to increase public access and to maintain and improve the road system.

Soil and topography:

Land is nearly level to hilly, excessively drained to well-drained, loamy and sandy soils on ground moraines, end moraines and outwash plains. Compartment is mostly uplands with small lowland swamps and drainages.

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

Ownership within this compartment consists of mostly State lands with some company lands a few private parcels. Lands within and around this compartment are used mainly for hunting and managed for forest products.

Unique Natural Features:

Natural feature within this compartment would include the Paint River, Horse Race Rapids and Peavy Pond.

Archeological, Historical, and Cultural Features:

None.

Special Management Designations or Considerations:

None.

Watershed and Fisheries Considerations:

This compartment contains Paint River (warm transitional large river), unnamed tributaries to the Paint River, small corners to Paint River Pond and Peavy Pond, unnamed ponds or wetland areas, and a portion of the Menominee River (warm large river). All of these waterbodies have a recommended 100' buffer, plus 5' per 1% increase in slope.

Wildlife Habitat Considerations:

This compartment falls within the Peavey End Moraine MA with woodcock, black bear, eastern bluebird, deer and wood duck as featured species. Currently considered conditional deeryard, this area contains the critical cover that encompassed the historic Little Bull Rapids Deeryard. Hemlock, cedar, pine, spruce and fir all help to provide thermal cover critical to deer survival in this area. The Brule Island Hunter Walking Trail provides and extensive system for hunters hunting grouse, woodcock, bears, deer and snowshoe hare. Riparian habitat is very important in this area.

Mineral Resource and Development Concerns and/or Restrictions

Active sand/gravel pits are located more than six miles away, but there appears to be good gravel potential within the compartment. Abandoned iron mines are located six miles to the northwest. There is no history of metallic mineral exploration or leasing in the compartment. There may be potential for metallic minerals within the compartment, but little information exists for the area. No known potential exists for economic hydrocarbon production in the UP. The state does not own all mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

Vehicle Access:

Vehicle access is from the North off Lake Mary Road and the Diversion Canal Road. The bridge over the Diversion Canal has a 14-ton limit on it, which prevents logging trucks from crossing. A ford across the Paint River was used to haul wood

off Island last entry.

Survey Needs:

None.

Recreational Facilities and Opportunities:

This area is used mainly for hunting. We-energies allows public hunting, trapping and fishing on its land holdings under FERC agreement, although ORV access is not allowed.

Fire Protection:

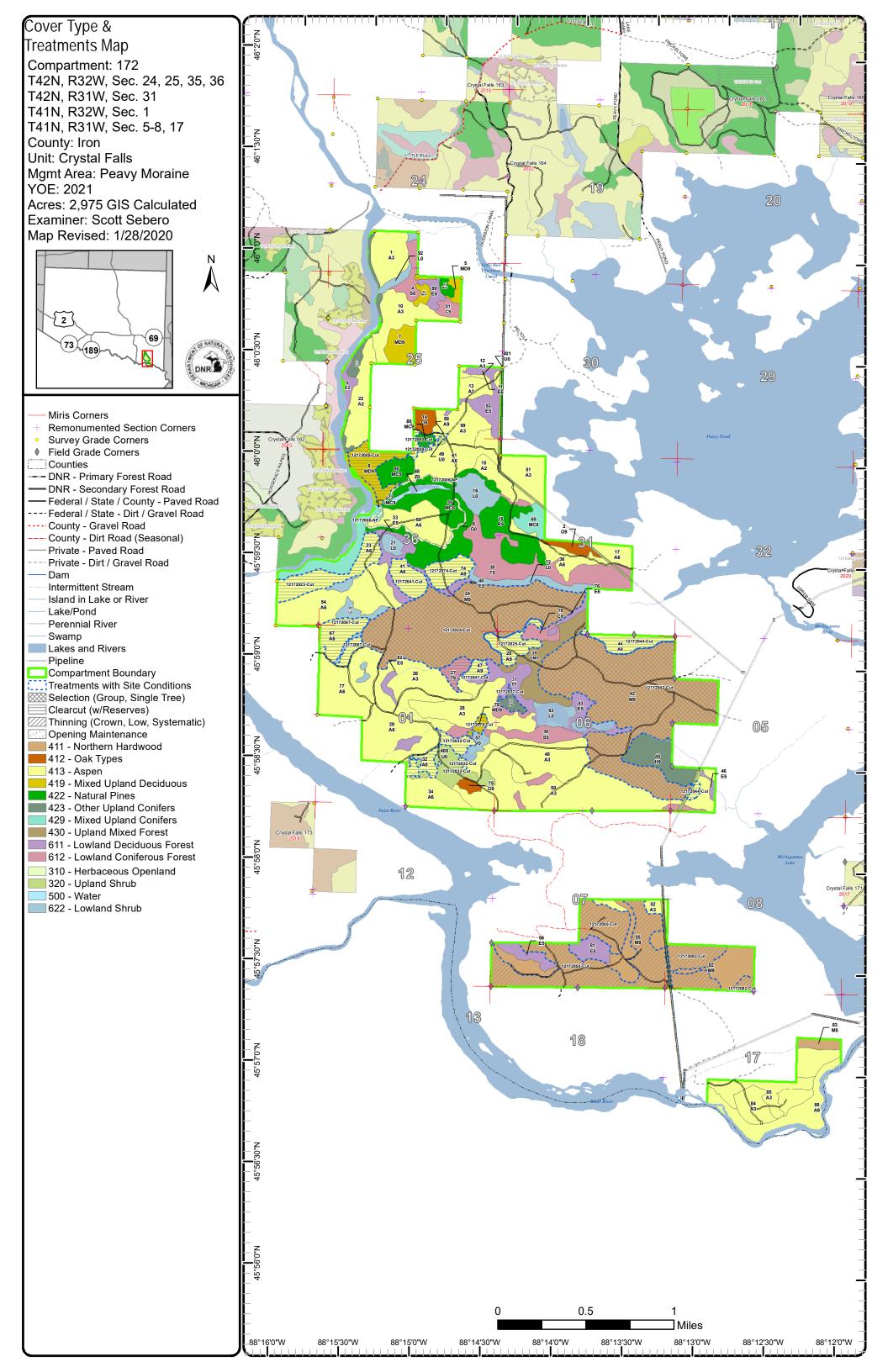
Additional Compartment Information:

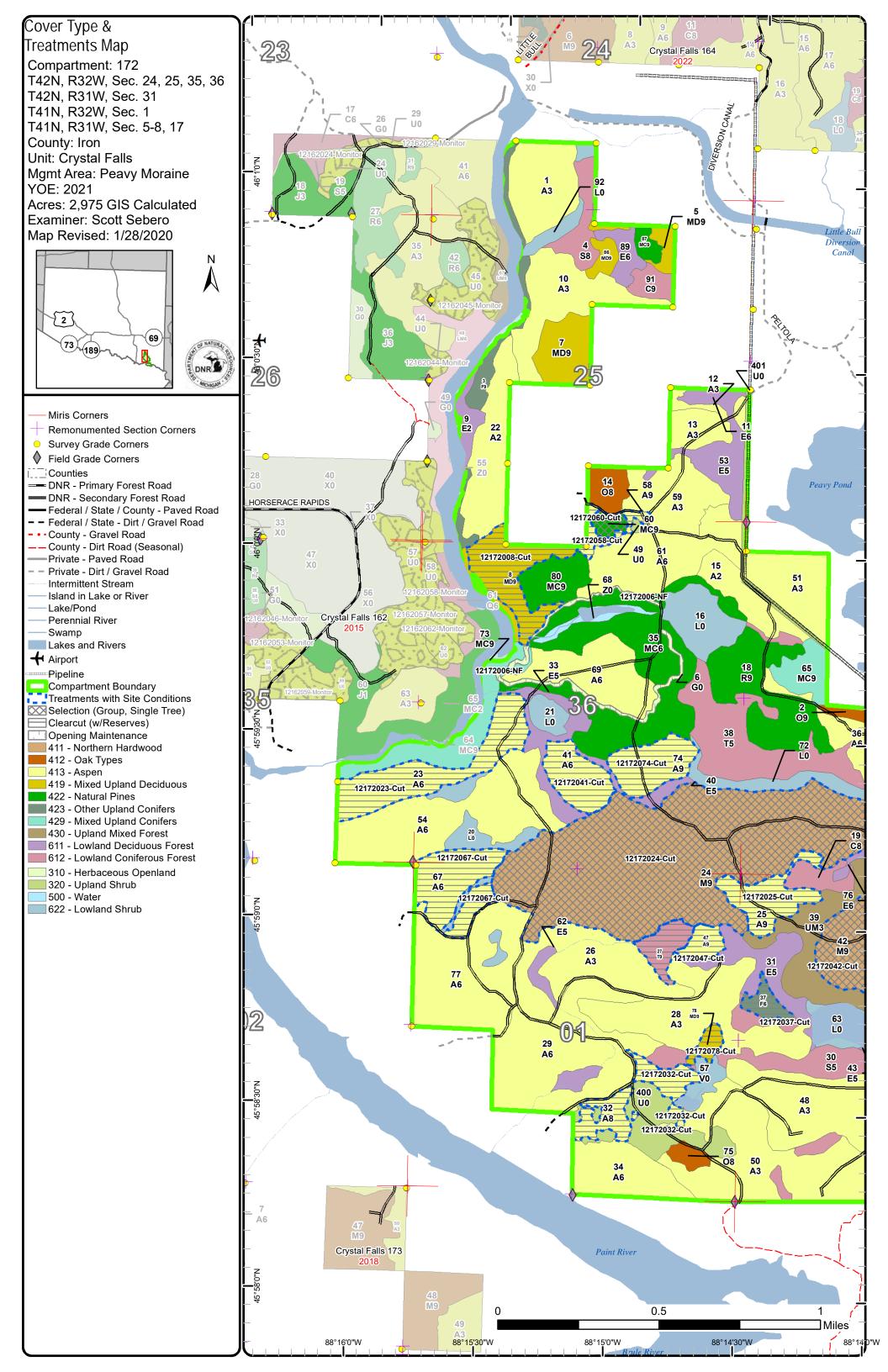
The following reports from the Inventory are attached:

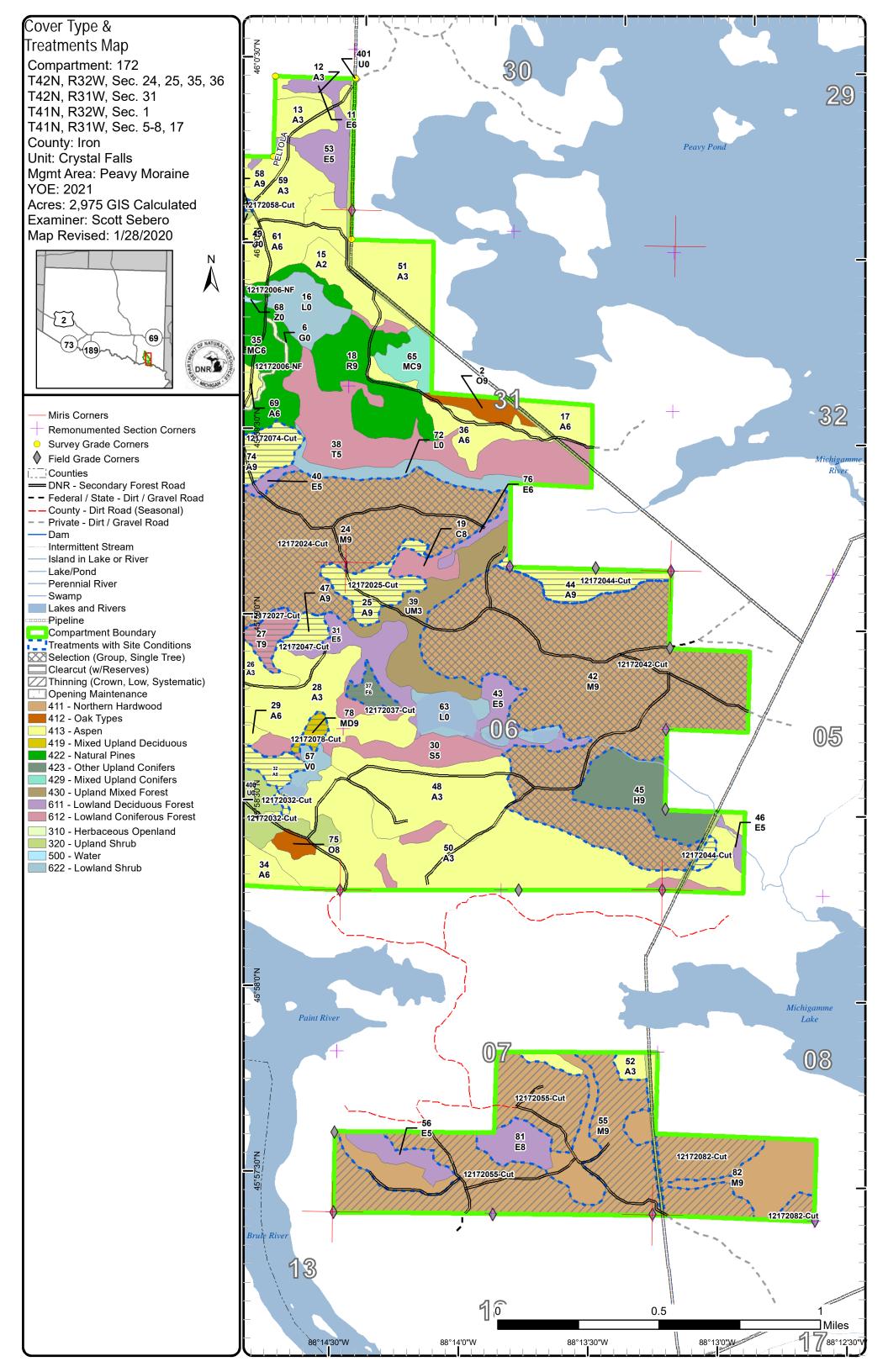
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

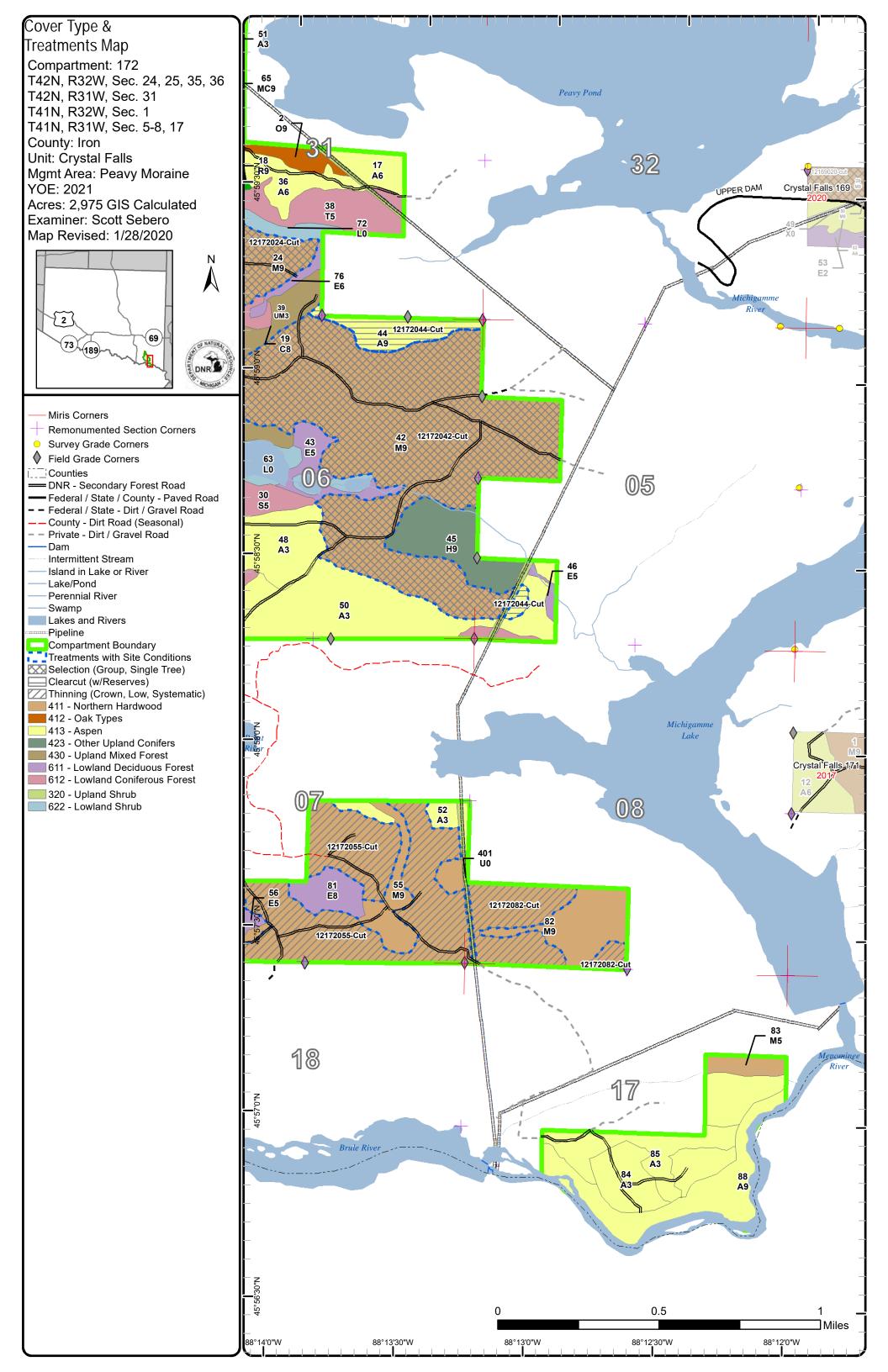
The following information is displayed, where pertinent, on the attached compartment maps:

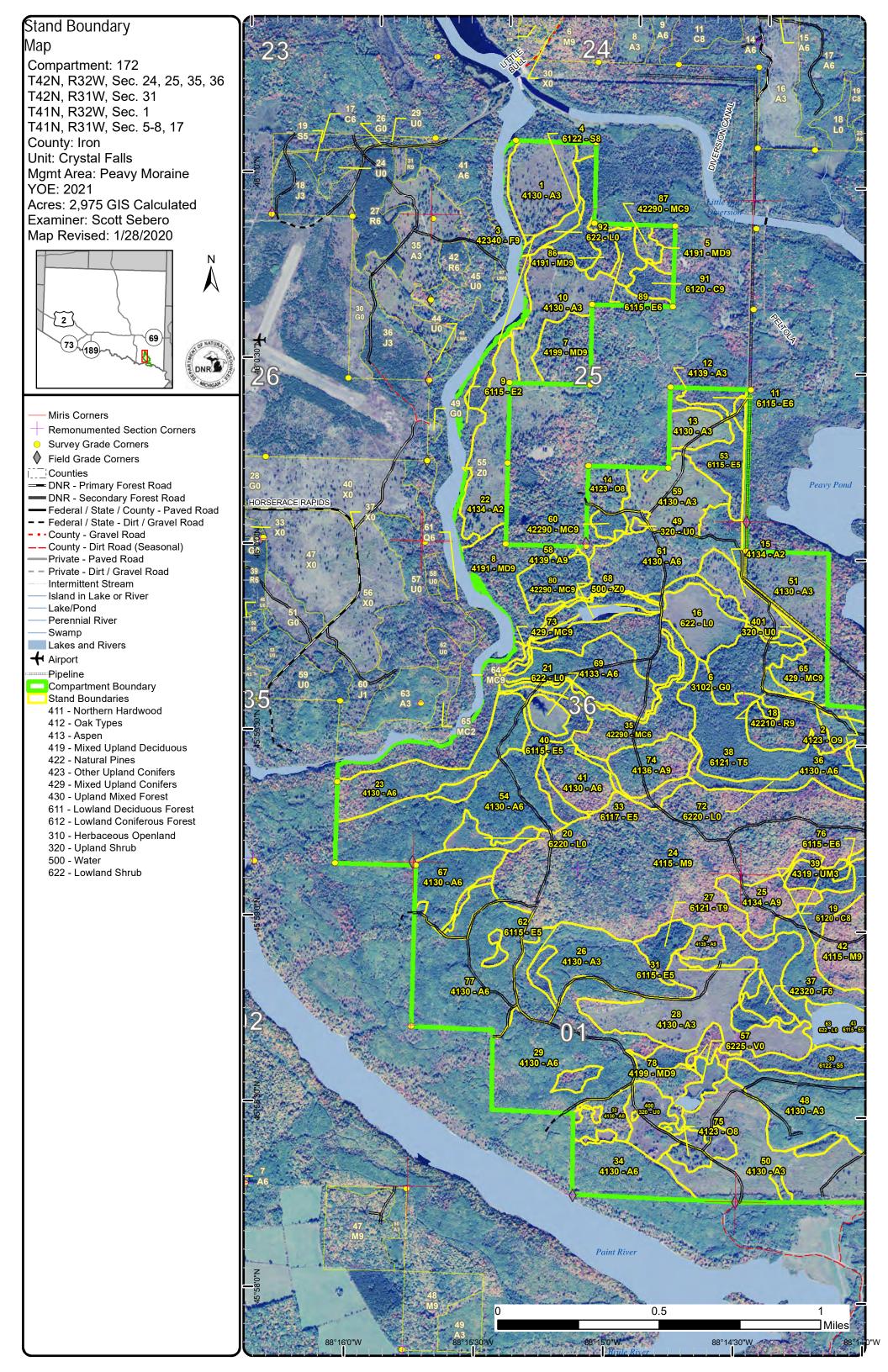
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

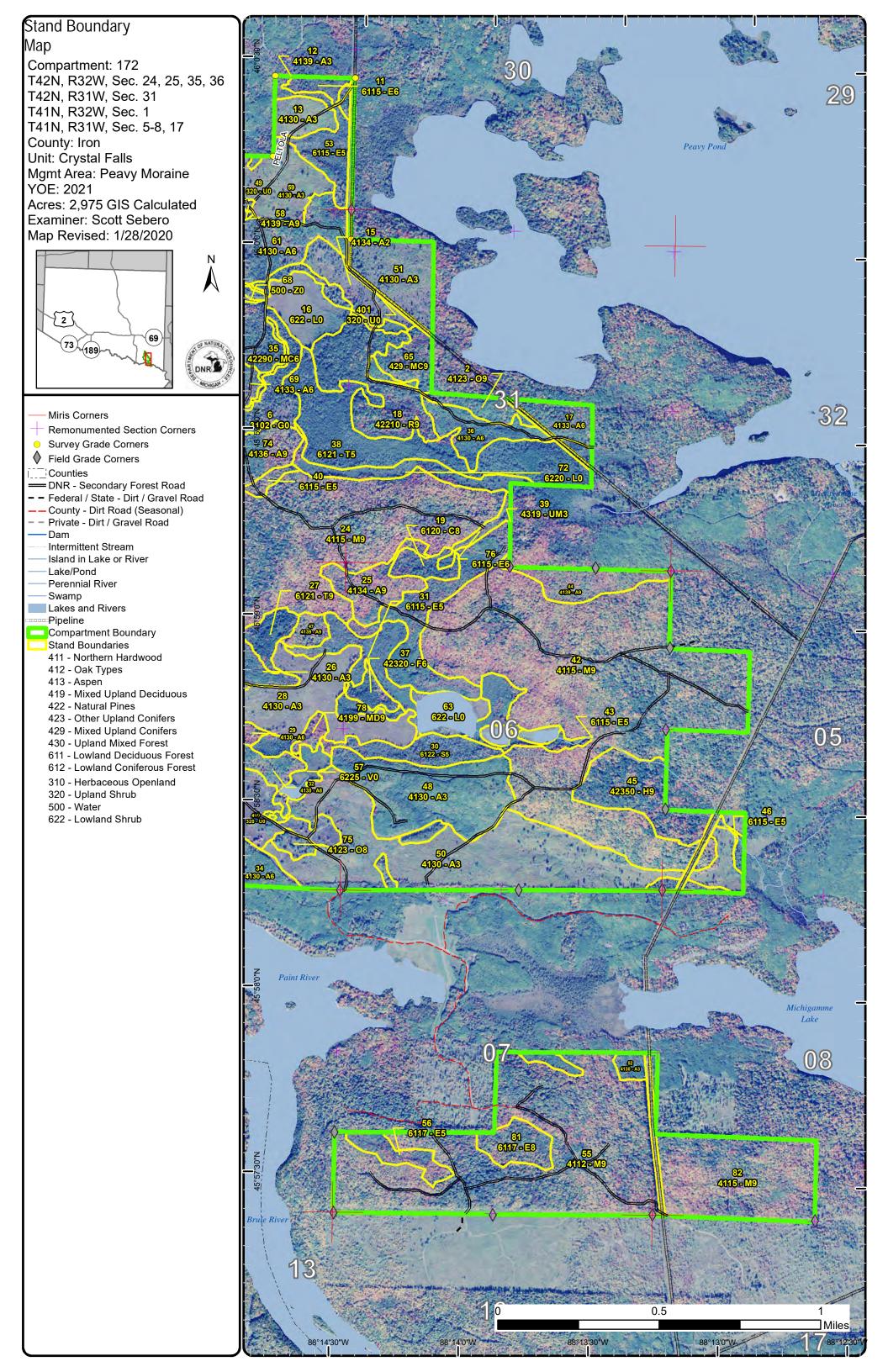


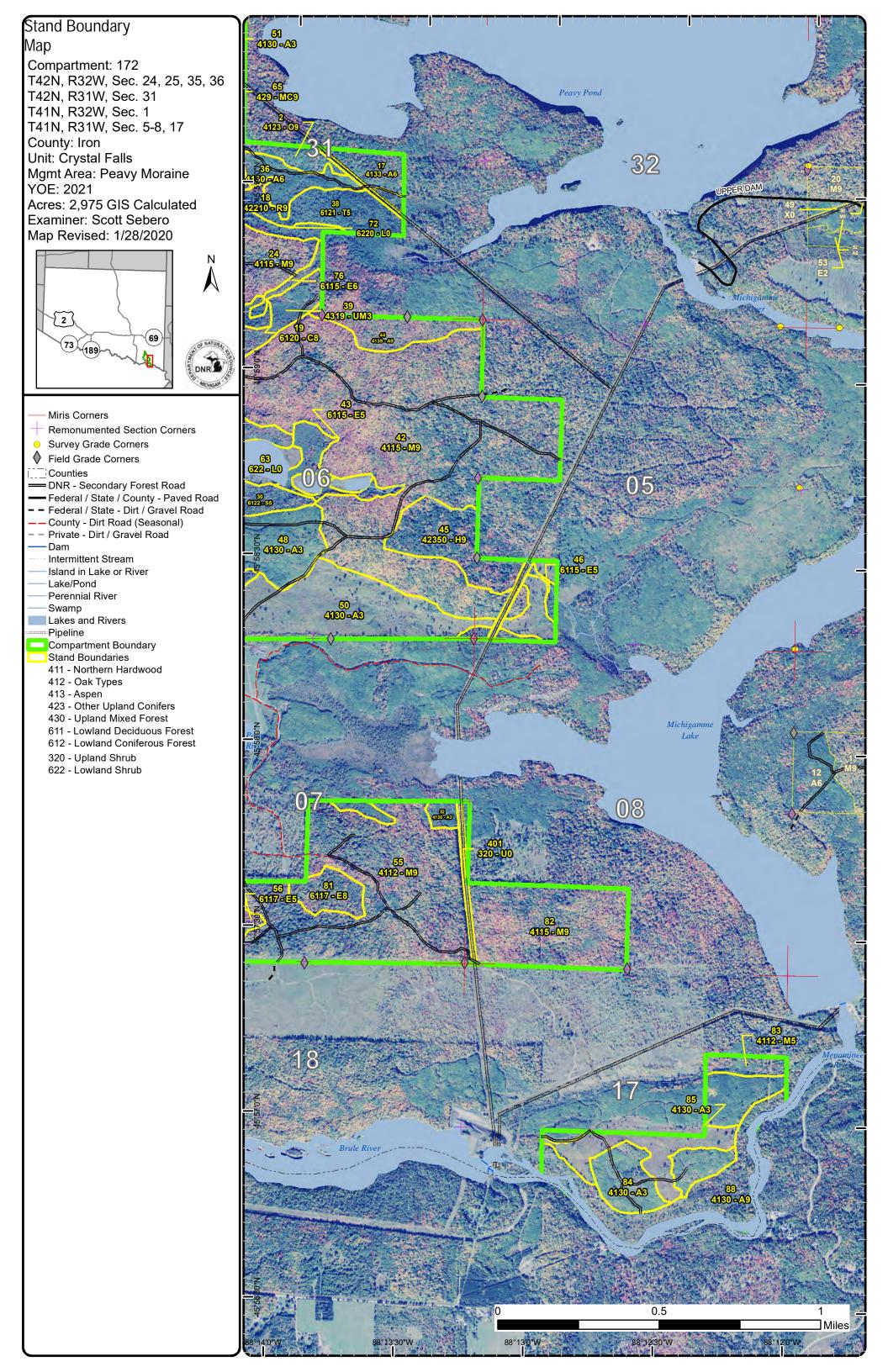


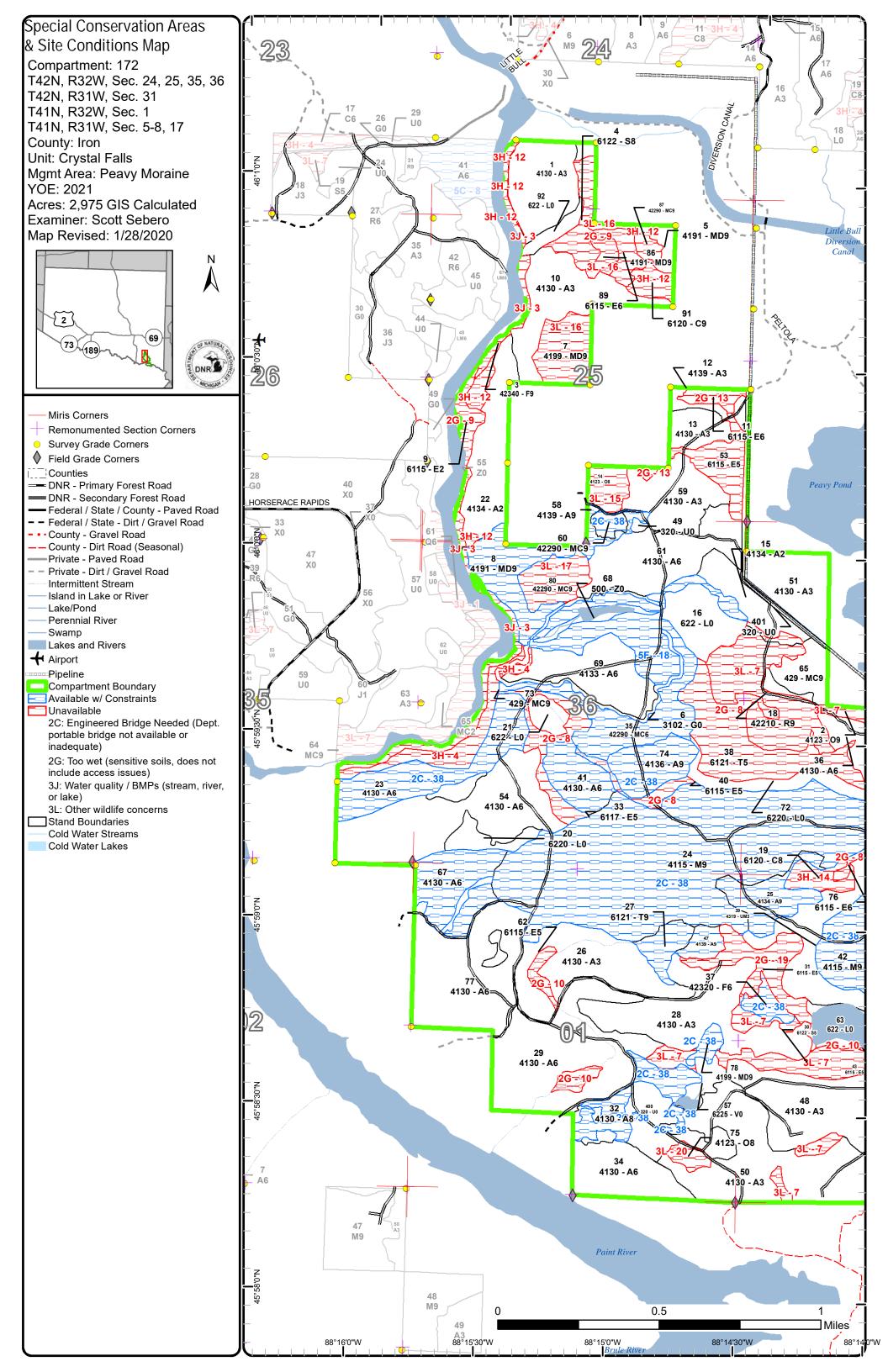


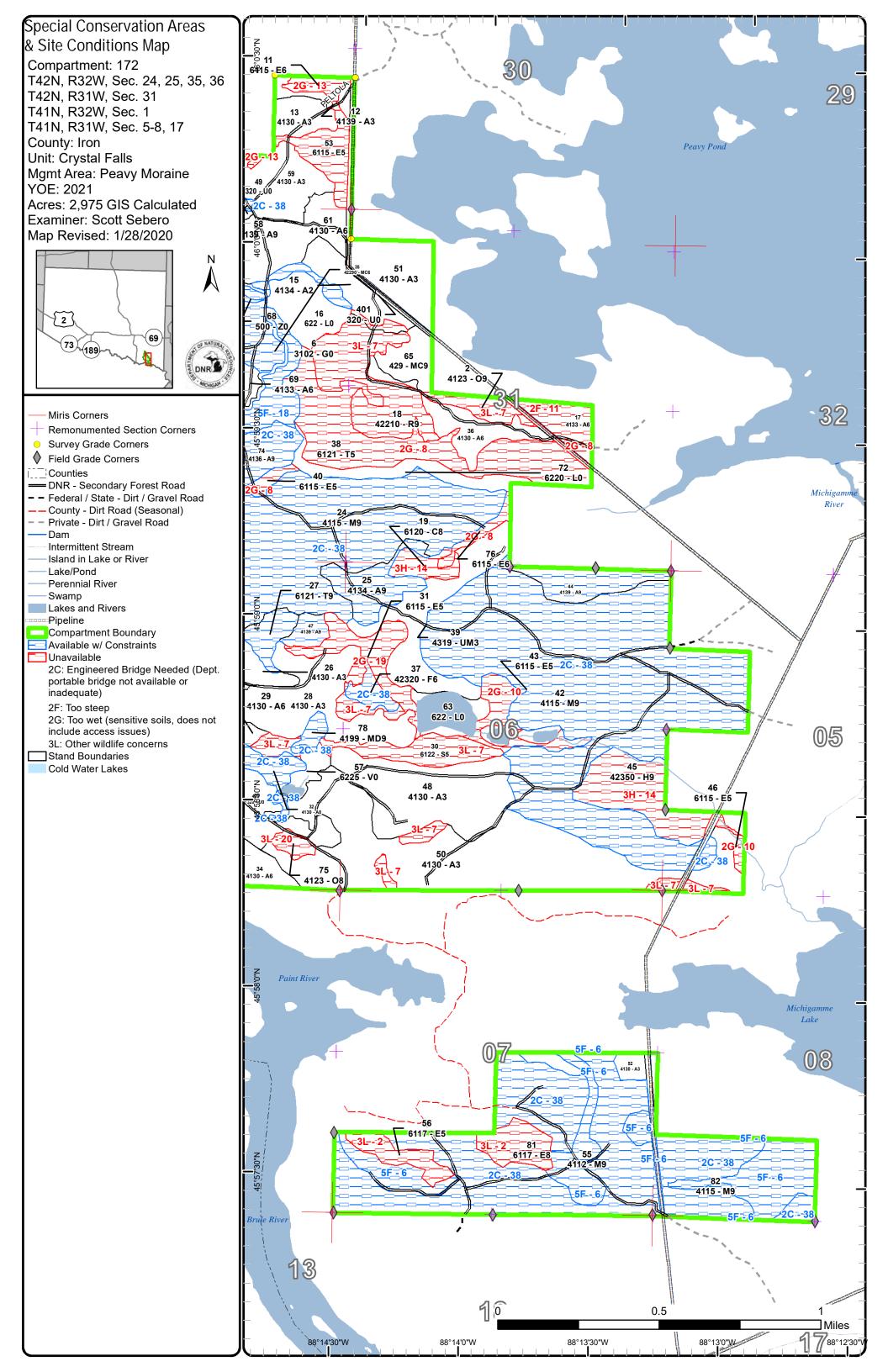


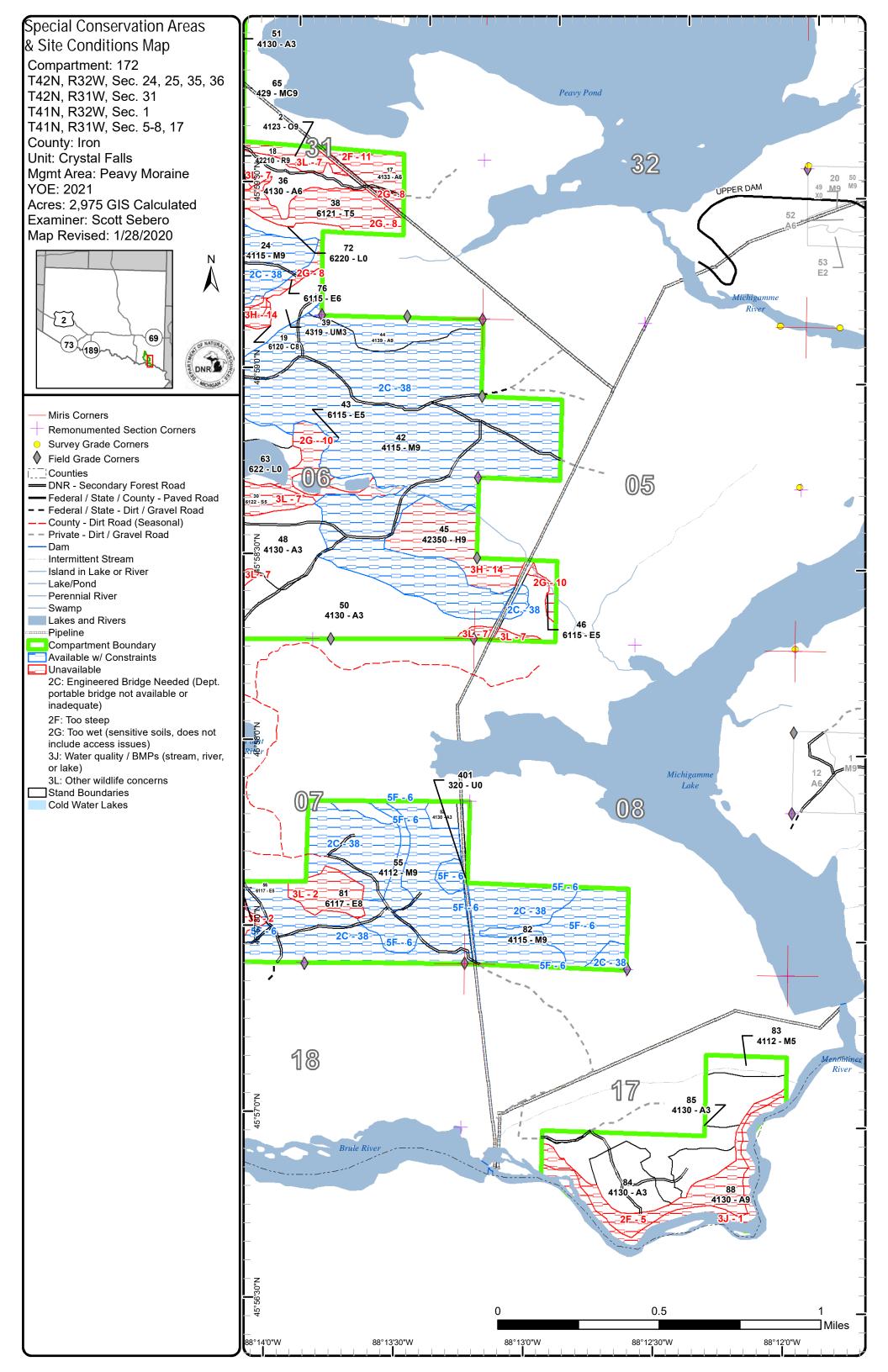












Compartment 172 Year of Entry 2021

Crystal Falls Mgt. Unit Scott Sebero : Examiner



Age Class

	Į gor	K CONTRACTOR OF THE PARTY OF TH	3/4	\$ 2		3 kg		8/8	\$ / R	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		8 /2	70,70		& / &	S. J. W.	No. of	J. J. J. G.	A TOP I
Aspen	0	452	55	130	0	462	58	0	0	0	119	0	0	0	0	0	0	0	1276
Bog	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Cedar	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	17
Hemlock	0	0	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	38
Herbaceous Openland	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Lowland Deciduous	0	0	0	0	9	17	27	0	0	0	97	0	0	0	0	0	0	0	150
Lowland Shrub	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	57	0	0	0	0	0	0	0	57
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	72
Natural Mixed Pines	0	0	0	0	0	0	0	79	0	0	5	0	0	22	0	0	0	0	105
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	285	535	0	0	0	0	0	0	820
Oak	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	25
Red Pine	0	0	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	0	46
Tamarack	0	0	0	0	0	0	0	0	0	0	89	0	0	0	0	0	0	0	89
Upland Conifers	0	0	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	0	43
Upland Mixed Forest	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Upland Shrub	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Upland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	26
Water	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	169	452	55	173	9	479	85	79	0	0	835	619	0	22	0	0	0	0	2975



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit Year of Entry: 2021

Acres of Harvest

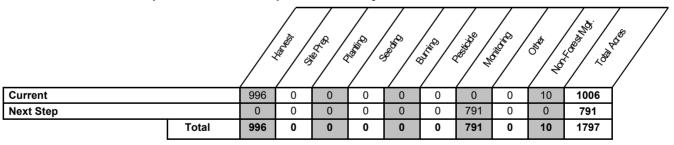
Compartment 172
Total Compartment Acres: 2,975

Commercial Harvest Harvests with Site Condition - 996
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

		/"					Some la	in Son	No. No. of the last of the las			£ /
Aspen		200	0	0	0	0	0	0	0	0	200	
Mixed Upland Deciduous		34	0	0	0	0	0	0	0	0	34	
Natural Mixed Pines		0	5	0	0	0	0	0	0	0	5	
Northern Hardwood		0	535	0	0	0	205	0	0	0	740	
Tamarack		11	0	0	0	0	0	0	0	0	11	
Upland Spruce/Fir		7	0	0	0	0	0	0	0	0	7	
	Total	252	539	0	0	0	205	0	0	0	996	

Proposed and Next Step Treatments by Method



Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 172 s Year of Entry: 2021 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment** Cover Type Age Habitat n Method Objective Name CoverType Density Age Range Type Structure Cut d

Proposed Treatments:

6 12172006-NF 9.9 3102 - Grass Nonstocked 0 Unspec NonForestMgt Herbaceous/Crop 3102 - Grass No ified /Grass Planting

Prescription Hunter walking trail opening maintenance

Specs:

Next Step Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2010

8 12172008-Cut 29.5 4191 - Mixed Sawtimber 90 81-110 Harvest Clearcut with 4319 - Mixed Even-Aged No Upland Deciduous Well Retention Upland Forest

with Conifer

Prescription Cut all aspen and maple 2" DBH or greater. Cut all paper birch, jack pine, spruce and balsam with two or more pulpwood stick. No red or

Specs: white pine or oak will be cut.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

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

Regen:

Other Buffer river at top of slope.

Comment:

Site Condition Engineered Bridge Needed

Proposed Start Date: 10/1 /2020

23 12172023-Cut 42.3 4130 - Aspen Poletimber 46 81-110 Harvest Clearcut with 4134 - Aspen, Even-Aged No Well Retention Spruce/Fir

Prescription Cut all aspen and mixed hardwood 2" DBH or greater, except no oak will be cut. Cut all spruce, balsam and tamarack with two or more

Specs: pulpwood sticks. No red or white pine, cedar or hemlock will be cut.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mix of aspen, spruce, balsam and maple.

Regen:

Other Mark out any black ash drains.

Comment:

Site Condition Engineered Bridge Needed

Proposed Start Date: 10/1 /2020

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а **Treatment** Stand Size Stand BA **Treatment Treatment** Cover Type Acres Age Habitat n Name CoverType Density Age Range Type Method Objective Structure Cut d 24 12172024-Cut 236.1 4115 - Y.Birch. Sawtimber 101 141-Harvest Sinale Tree 411 - Northern Even-Aged No Hemlock NH Well 170 Selection Hardwood Prescription Mark hardwood down to 80 BA. Mark large diameter red maple and white ash first. No spruce, red or white pine, hemlock or oak will be cut. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Mix of hardwood, pine and oak. Regen: **Other** Mark out ash drains. Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020 54 51-80 4134 - Aspen, Even-Aged 12172025-Cut 22 4 4134 - Aspen, Sawtimber Harvest Clearcut with Nο Spruce/Fir Retention Spruce/Fir Prescription Cut all aspen and mixed hardwood 2" DBH or greater, except oak. Cut all spruce, balsam and tamarack with two or more pulpwood stick. No red or white pine, cedar, hemlock or oak will be cut. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Mix of aspen, spruce, balsam and maple. Regen: Other Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020 27 12172027-Cut 10.9 6121 - Tamarack Sawtimber 111-Harvest Clearcut with 6121 - Tamarack Even-Aged No Well 140 Retention Prescription Cut all trees with one or more pulpwood sticks, except cut no cedar. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Mix of tamarack and black spruce. Regen: No cedar was seen during inventory. **Other** Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020 32 12172032-Cut 4130 - Aspen Sawtimber 51-80 Clearcut with 23.1 90 Harvest 4131 - Aspen, Even-Aged No Medium Retention Oak Prescription Cut all aspen and maple 2" DBH or greater. Cut all spruce and balsam with two or more pulpwood stick. No red or white pine or oak will be Specs: Monitoring, Natural Regen (Re-Inventory) Next Step Treatments: Acceptable Mix of aspen and oak. Regen: **Other** Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020

Compartment: 172

s Year of Entry: 2021 t а **Treatment** Stand Stand BA **Treatment Treatment** Cover Type Acres Size Age Habitat n Method Name CoverType Density Age Range Type Objective Structure Cut d 37 12172037-Cut 6.8 42320 - Upland Poletimber 90 81-110 Harvest Clearcut with 4319 - Mixed Even-Aged No Spruce Well Retention **Upland Forest** Prescription Cut all aspen and mixed hardwood, except oak. Cut all spruce, balsam and tamarack with two or more pulpwood sticks. No red or white Specs: pine, cedar, hemlock or oak will be cut. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Mix of spruce, aspen and maple. Regen: **Other** Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020 4130 - Aspen 46 81-110 4134 - Aspen, 12172041-Cut 20.2 Poletimber Harvest Clearcut with Even-Aged Nο Retention Spruce/Fir Prescription Cut all aspen and mixed hardwood 2" DBH or greater. Cut all spruce, balsam and tamarack with two or more pulpwood sticks. No red or white pine, cedar, hemlock or oak will be cut. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Mix of aspen, spruce, balsam and maple. Regen: Other Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020 42 12172042-Cut 298.7 4115 - Y.Birch, Sawtimber 101 141-Harvest Single Tree 411 - Northern Even-Aged No Hemlock NH Well 170 Selection Hardwood Prescription Mark to 80 BA. Mark large diameter red maple and white ash first. Favor yellow birch. No red or white pine, hemlock or oak will be cut. Mark out ash drains. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Mix of hardwood, pine and oak. Regen: **Other** Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020 12172044-Cut 23.7 4139 - Aspen, 90 81-110 Clearcut with Sawtimber Harvest 4134 - Aspen, Even-Aged No Mixed Deciduous Well Retention Spruce/Fir Prescription Cut all aspen and mixed hardwood 2"DBH or greater, except oak. Cut all spruce, balsam, tamarack and jack pine with two or more pulpwood stick. Mark one large aspen, cherry or birch per acre as wildlife leave trees when cruising stand. No red or white pine, cedar, Specs: hemlock or oak will be cut. Mark out ash drains. Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Mix of aspen, spruce and balsam. Regen: Other Comment:

Proposed Start Date: 10/1 /2020

Site Condition Engineered Bridge Needed

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t а **Treatment** Stand Size Stand BA **Treatment Treatment** Cover Type Acres Age Habitat n Method Name CoverType Density Age Range Type Objective Structure Cut d 47 12172047-Cut 6.9 4139 - Aspen. Sawtimber 90 81-110 Harvest Clearcut with 4134 - Aspen. Even-Aged No Mixed Deciduous Spruce/Fir Well Retention Prescription Cut all aspen and mixed hardwood 2" DBH or greater. Cut all spruce, balsam and tamarack with one or more pulpwood sticks. No red or Specs: white pine, cedar, hemlock or oak will be cut. Monitoring, Natural Regen (Re-Inventory) Next Step Treatments: Acceptable Mix of aspen, spruce, balsam and maple. Regen: **Other** Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020 91 12172055-Cut 159 9 4112 - Maple, Sawtimber 111-Harvest Crown Thinning 411 - Northern Even-Aged Nο Beech, Cherry Well 140 Hardwood Association Prescription Thin to 80 BA. No hemlock, cedar, pine or oak will be cut. Leave some large diameter trees for wildlife. Mark out ash drains and intermittent stream Specs: Next Step Treatments: Acceptable Regen: **Other** Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020 12172058-Cut 4139 - Aspen. Sawtimber 90 81-110 Clearcut with 4319 - Mixed No 6 1 Harvest Even-Aged Mixed Deciduous Well Retention **Upland Forest** Prescription Cut all aspen and maple 2" DBH or greater. Cut all paper birch, jack pine, spruce and balsam with two or more pulpwood stick. No red or white pine or oak will be cut. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Mix of aspen, oak and pine. Regen: Other Comment: Site Condition Engineered Bridge Needed Proposed Start Date: 10/1 /2020 42290 - Natural 12172060-Cut 4.5 Sawtimber 90 141-Harvest Single Tree 42250 - Pine, Even-Aged No Mixed Pine 170 Selection Oak Prescription Mark pine to 120 BA. Cut all aspen and maple with one or more pulpwood stick Cut all spruce, balsam and paper birch with two or more pulpwood sticks. No white pine or oak will be cut. Leave large over mature red pine. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) **Treatments:** Acceptable Mix of pine and oak. Regen: Other Comment: Site Condition Engineered Bridge Needed

Proposed Start Date: 10/1 /2020

Proposed Start Date: 10/1 /2020

82 12172082-Cut 45.3 4115 - Y.Birch, Sawtimber 91 111- Harvest Crown Thinning 411 - Northern Even-Aged No Hemlock NH Well 140 Hardwood

<u>Prescription</u> Thin to 80 BA. Leave some large diameter trees as wildlife trees. Leave spruce and balsam with less than two pulpwood sticks. No pine, <u>Specs:</u> cedar, hemlock or oak will be cut. Mark out ash drains.

Next Step

Treatments:

Acceptable Regen:

<u>Other</u>

Comment:

Site Condition Engineered Bridge Needed

Proposed Start Date: 10/1 /2020

Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 172 Year of Entry: 2021 Cover Type Objective Age Structure **Treatment** Acres Stand Size Stand ВА Treatment Treatment Habitat CoverType Density Age Method Name Range Type

Total Treatment Acreage Proposed: 1006.1

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Cut

Crystal Falls Mgt. Unit Scott Sebero : Examiner Compartment: 172 Year of Entry: 2021



Availability for Management

Total	Acres	Acres Avail	Acres		Domina	nt Site	Con	ditions	5		
Acres	Available	With Condition	Not Available		2C	5F	2F	2G	3H	3J	3L
1275	1003	200	73	Aspen	200		42			30	
8	8	0	0	Bog							
17	0	0	17	Cedar					17		
38	0	0	38	Hemlock					38		
10	10	0	0	Herbaceous Openland							
150	0	0	150	Lowland Deciduous				122			28
98	98	0	0	Lowland Shrub							
57	0	0	57	Lowland Spruce/Fir				14			42
72	5	34	33	Mixed Upland Deciduous	34					4	28
106	0	84	22	Natural Mixed Pines	4	79			5		17
820	9	811	0	Northern Hardwood	740	71					
25	0	0	25	Oak							25
46	0	0	46	Red Pine							46
89	0	11	78	Tamarack	11			78			
43	14	0	29	Upland Conifers					19	10	
43	43	0	0	Upland Mixed Forest							
46	46	0	0	Upland Shrub	0						
26	0	7	19	Upland Spruce/Fir	7				5	14	
6	6	0	0	Water							
2,975	1,243	1,146	586	Total Forested Acres	996	150	42	214	83	59	188
	42%	39%	20%	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 Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	30	2F: Too steep	Unspecified	Unspecified	Unspecified
	Comments:						

Crystal Falls Mgt. Unit

Scott Sebero : Examiner



2	Unavailable	3L: Other wildlife concerns	28	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	29	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	19	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2F: Too steep	29	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Available	5F: Evaluated for Forest Health Considerations	71	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	3L: Other wildlife concerns	99	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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8	11						
	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	107	Unspecified	Unspecified	Unspecified	Unspecified
Coi	mments:						
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	32	Unspecified	Unspecified	Unspecified	Unspecified
Coi	mments:						
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	27	Unspecified	Unspecified	Unspecified	Unspecified
Co	mments:						
11	Unavailable	2F: Too steep	13	Unspecified	Unspecified	Unspecified	Unspecified
	mments: arp rock outcrop	s. inoperable.					
12	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	18	Unspecified	Unspecified	Unspecified	Unspecified
Co	mments:						
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	Unspecified	Unspecified	Unspecified	Unspecified
Coi	mments:						

Crystal Falls Mgt. Unit

Compartment: 172 Year of Entry: 2021 **Scott Sebero : Examiner**



14	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	47	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
15	Unavailable	3L: Other wildlife concerns	10	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
16	Unavailable	3L: Other wildlife concerns	28	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
17	Unavailable	3L: Other wildlife concerns	17	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
18	Available	5F: Evaluated for Forest Health Considerations	79	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
	20 3:20:57 PM - Page						SWARTZ

Crystal Falls Mgt. Unit Scott Sebero : Examiner



20	Unavailable	3L: Other wildlife concerns	5	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
38	Available	2C: Engineered Bridge Needed (Dept. portable bridge not available or inadequate)	996	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

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: 172
Year of Entry 2021



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	Cold Water Lake	A coldwater lake has temperature and dissolved oxy stocked trout populations and those of other coldwat conditions for coldwater fishes may occur in Michiga groundwater inflows, or are located in colder (northe Director's action and designated as trout resources in	ter fish species to persist from year to year. Suitable in lakes if they are relatively deep, have substantial ern) areas of the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved of stocked trout populations and those of other coldward year to year. Coldwater streams in Michigan typically contributions of groundwater to their stream flows. Since designated as trout resources by Fisheries Order 21	ter fish species (e.g., slimy sculpin) to persist from y provide these conditions due to substantial such streams are established by Director's action and



Stan	d Level 4 C	over Type	;	Size De	nsity	Acres	Stand Age E	BA Range	Managed \$	Site	General Comments	M/CHIGAN
1	4130	- Aspen		Saplin	y Well	34.6	9	Immature	N/A		Island North t-sale (12-051-10) Scattered log sized pine.	
	Canopy Species	% Cover		DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	White Spruce	10	Sapling/Pole	3		Hazelnut	(American)	Low	5 - 10 feet	Tall Shrub		
	Quaking Aspen	85	Sapling	2	9							
2	4123 -	Red Oak	S	awtimb	er Well	10.0	90	81-110	N/A		Rough rocky ridge.	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Red Oak	70	Log/Pole/Sap	12	90	Whi	te Pine	Medium	Variable	Sapling		
	Red Pine	10	Log/Pole/Sap	12								
	White Pine	10	Log/Pole/Sap	12								
3	42340 - Upla	and Spruce	e/Fir S	awtimb	er Well	19.3	90	81-110	N/A		Buffer for Paint River.	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	White Pine	20	Log/Pole/Sap	14		Hazelnut	(American)	Low	5 - 10 feet	Tall Shrub		
	Red Maple	20	Log/Pole/Sap	10								
	Balsam Fir	10	Pole/Sap/Log	8								
	White Spruce	50	Log/Pole/Sap	10	90							
4	6122 - BI	ack Spruce	e Sa	wtimbe	Mediur	n 14.4	90	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Black Ash	10	Pole/Sap/Log			Tag	g Alder	Medium	5 - 10 feet	Tall Shrub		
	Balsam Fir	10	Pole/Sap/Log	8								
	Black Spruce	55	Log/Pole/Sap	10	90							
5	4191 - Mixed Upla Co	and Decidu onifer	ous with S	awtimb	er Well	5.3	90	81-110	N/A			
	Canopy Species	% Cover	Size Class		l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	White Pine	10	XLog/Log	18		Hazelnut	(American)	Low	5 - 10 feet	Tall Shrub		
	Balsam Fir	15	Pole/Sap/Log									
	Red Maple	30	Log/Pole/Sap	10	90							
	Quaking Aspen	35	Log/Pole	10	90							
6	3102	- Grass		Nonst	ocked	9.9	0 L	Inspecified	Managed O	pening	Hunter walking trail.	
7	4199 - Other Mixe	d Upland D	Deciduous S	awtimb	er Well	21.6	90	81-110	N/A			
	Canopy Species	% Cover	Size Class		l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Red Oak	50	Log/Pole/Sap	14	90	Quaki	ng Aspen	Medium	10 - 20 feet	Sapling		
	Red Maple	30	Log/Pole/Sap	12	90							



Stan	d Level 4 C	over Type	s	ize De	ensity	Acres	Stand Age	BA Range	Managed \$	Site	General Comments	CHIGAN .
8	4191 - Mixed Upla Co	and Decidu onifer	ous with Sa	awtimb	er Well	34.0	90	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Balsam Fir	10	Pole/Sap/Log	8		Hazelnı	ut (American)	Low	5 - 10 feet	Tall Shrub		
	Paper Birch	10	Log/Pole	10								
	White Pine	10	Log/Pole/Sap	16								
	Red Maple	30	Log/Pole/Sap	10	90							
	Quaking Aspen	35	Log/Pole/Sap	10	90							
9	6115 - Lo	owland Ash	Sa	apling	Medium	8.9	35	Immature	N/A		Buffer for Paint River.	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Black Ash	100	Sapling/Pole	4	35	Ta	ag Alder	Low	5 - 10 feet	Tall Shrub		
10	4130	- Aspen	;	Saplin	g Well	40.7	9	Immature	N/A		Scattered log sized white pine.	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	White Spruce	10	Sapling/Pole	3		Hazelnı	ut (American)	Low	5 - 10 feet	Tall Shrub		
	Balsam Poplar	10	Sapling	2	9							
	Quaking Aspen	75	Sapling	2	9							
11	6115 - Lo	owland Ash			er Well	6.1	90	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Black Ash	85	Pole/Sap/Log	8	90	Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub		
12	4139 - Aspen,	Mixed Deci	duous \$	Saplin	g Well	4.3	25	Immature	N/A		Sartori's Camp t-sale (12-020-91)	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size		
	Balsam Fir	10	Sapling/Pole	4		Ва	Isam Fir	Low	Variable	Sapling		
	Balsam Poplar	10	Sapling/Pole	4	25							
	Red Maple	20	Sapling/Pole	4	25							
	Quaking Aspen	55	Sapling/Pole	4	25							
13		- Aspen		Saplin		12.8	9	Immature	N/A		Island North t-sale (12-051-10)	
	Canopy Species		Size Class	DBH	l Age	Sub-Ca	nopy Species		Avg. Height	Size		
	Quaking Aspen	85	Sapling	1	9	Hazelnı	ut (American)	Low	5 - 10 feet	Tall Shrub		
14	4123 -	Red Oak	Saw		r Mediun		90	51-80	N/A		OPIC - FMD: Hold oak. OI Stand Year Origin was 1930	
	Canopy Species	% Cover	Size Class		l Age		nopy Species		Avg. Height	Size		
	Red Oak	80	Log/Pole/Sap	12	90		d Maple	High	>20 feet	Sapling		
	Red Maple	10	Log/Pole/Sap	12	90	Quak	ing Aspen	Low	10 - 20 feet	Sapling		
	Sugar Maple	10	Log/Pole/Sap	10	90							



Stan	d Level 4 C	over Type	\$	Size De	ensity	Acres	Stand Age E	BA Range	Managed S	ite	General Comments
15	4134 - Asp				Medium	18.7		Immature	N/A		
	Canopy Species		Size Class	DBH	l Age		nopy Species		Avg. Height	Size	
	Quaking Aspen	50	Sapling	1	9	Ва	lsam Fir	Medium	Variable	Sapling	
	Red Maple	10	Sapling	1	9						
	White Spruce	10	Sapling/Pole	2							
	Balsam Fir	30	Sapling/Pole	2							
16	622 - Lov	vland Shrub)	Nonst	ocked	22.9	ι	Jnspecified	No		OPIC - FMD: OI Stand Year Origin was
17	4133 - Aspe	en, Mixed P	ine P	oletimb	er Well	13.4	53	51-80	N/A		Very rough rock outcrops and drains.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	50	Pole/Log/Sap	8	53	Wh	nite Pine	Low	Variable	Sapling	
	Red Oak	10	Log/Pole/Sap	10						'	_
	Balsam Fir	10	Pole/Sapling	8							
	Red Maple	10	Pole/Sapling	8							
	White Pine	15	Log/Pole/Sap	12							
18	42210 - Na	tural Red Pi	ine S	awtimb	er Well	46.3	101	141-170	N/A		
	Canopy Species	% Cover	Size Class	DBH	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	20	Log/Pole/Sap	12	101	Whit	te Spruce	Medium	Variable	Sapling	
	Red Pine	70	Log/Pole/Sap	12	101					1	
19	6120 - Lo	wland Ceda	ar Sav	wtimbe	r Mediun	n 9.3	90	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
No	orthern White Cedar	50	Log/Pole	12	90	Та	ıg Alder	High	5 - 10 feet	Tall Shrub	
	Tamarack	20	Log/Pole/Sap	10	90						
	Black Ash	20	Log/Pole/Sap	10							
	Black Spruce	10	Pole/Sap/Log	8							
20	6220 - A	lder/willow		Nonst	ocked	18.2	0 ι	Jnspecified	No		OPIC - FMD: OI Stand Year Origin was 1974
21	622 - Lov	vland Shrub)	Nonst	ocked	7.2	l	Jnspecified	No		OPIC - FMD: Lowland with a small beaver pond.
22	4134 - Asp	en, Spruce/	Fir S	apling	Medium	38.0	9	Immature	N/A		Island North t-sale (12-051-10)
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Spruce	10	Sapling/Pole				Isam Fir	Medium	Variable	Sapling	
	Red Maple	10	Sapling	1						, , ,	1
	Balsam Fir	30	Sapling/Pole								
	Balsam Poplar	10	Sapling	1	9						
	Quaking Aspen	40	Sapling	1							



	4130 -											
		Aspen	Po	oletimb	er Well	42.3	46	81-110	N/A			
	anopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
Qı	uaking Aspen	90	Pole/Log/Sap	8	46	Hazelnut	(American)	High	5 - 10 feet	Tall Shrub		
24	4115 - Y.Birch	n, Hemlock	NH Sa	awtimb	er Well	236.1	101	141-170	N/A		OPIC - FMD: STAND THINNED IN 1999	
C	anopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Hemlock	20	Log/XLog	16		Whi	te Ash	Medium	10 - 20 feet	Sapling		
Y	Yellow Birch	10	Log/Pole	12	101							
S	Sugar Maple	25	Log/Pole/Sap	12	101							
	Red Maple	35	Log/Pole/Sap	14	101							
25	4134 - Aspe	n, Spruce/	Fir Sa	awtimb	er Well	22.4	54	51-80	N/A			
C	anopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
Qι	uaking Aspen	50	Log/Pole	10	54	Bals	am Fir	Full	Variable	Sapling		
1	Red Maple	30	Log/Pole/Sap	10	54							
В	Black Spruce	10	Log/Pole/Sap	10								
	Balsam Fir	10	Pole/Sap/Log	8								
26	4130 -	Aspen	5	Sapling	ı Well	49.8	25	Immature	N/A		Ducks Head t-sale (12-021-91)	
	anopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Red Maple	10	Sapling/Pole	4	25		(American)	Low	5 - 10 feet	Tall Shrub		
	Balsam Fir	10	Sapling/Pole	4			,					
Ba	alsam Poplar	10	Sapling/Pole	4	25							
	uaking Aspen	65	Sapling/Pole	4	25							
27	6121 - T	amarack	Sa	awtimb	er Well	10.9	90	111-140	N/A			
C	anopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	Stand fairly dry. Red maple saps along west side.	
	Tamarack	55	Log/Pole/Sap	12	90		Maple	Medium	10 - 20 feet	Sapling		
В	Black Spruce	45	Log/Pole/Sap	10	90							
28	4130 -	Aspen	5	Sapling	ı Well	62.6	9	Immature	N/A		Island South t-sale (12-052-10)	
C	anopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Red Maple	10	Sapling	1	9		(American)	Low	5 - 10 feet	Tall Shrub		
Ba	alsam Poplar	10	Sapling	1	9		·			1		
V	White Spruce	10	Sapling/Pole	2								
Qı	uaking Aspen	65	Sapling	1	9							
29	4130 -	Aspen	Po	oletimb	er Well	80.5	41	81-110	N/A		Cutting Report (16-73)	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Red Maple	10	Pole/Log/Sap	8			(American)	Medium	5 - 10 feet	Tall Shrub		
	uaking Aspen	90	Pole/Log/Sap	8	41		. ,			1		



Stand	l Level 4 C	over Type	s	ize De	ensity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments	DNR GNICHIGAN
30	6122 - Bl	lack Spruce	e Pole	timbe	r Medium	42.3	90	51-80	N/A			
	Canopy Species	-	Size Class	DBL	l Age	Sub Ca	nopy Species	Density	Avg. Height	Size		
	Black Spruce	90	Pole/Sap/Log	8	90		ag Alder	Medium	5 - 10 feet	Tall Shrub		
31	6115 - Lo	owland Ash	n Pole	timbe	r Medium	24.1	90	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Tamarack	10	Pole/Sap/Log	8	3		ag Alder	Medium	5 - 10 feet	Tall Shrub		
	Black Spruce	20	Pole/Sap/Log	6								
	Black Ash	70	Pole/Sap/Log	8	90							
32	4130	- Aspen	Saw	timbe	Medium	23.2	90	51-80	N/A		No oak or pine to be cut.	
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Maple	15	Log/Pole/Sap	12		Hazelnı	ut (American)	Medium	5 - 10 feet	Tall Shrub		
	Quaking Aspen	85	Log/Pole/Sap	10	90							
33	6117 - Lowland Con	Deciduous iferous	, Mixed Pole	timbe	r Medium	17.4	46	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Black Ash	50	Pole/Sap/Log	8	46	Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub		
	Balsam Poplar	15	Pole/Log/Sap	8	46			'		,	•	
	Quaking Aspen	15	Pole/Log/Sap	8	46							
	Black Spruce	15	Pole/Sap/Log	8								
34	4130	- Aspen	Po	letimb	er Well	31.5	41	81-110	N/A		Cutting Report (16-73)	
	Canopy Species	% Cover	Size Class	DBH	I Age							
	Red Maple	10	Pole/Log/Sap	8								
	Quaking Aspen	90	Pole/Log/Sap	8	41							
35	42290 - Natu	ural Mixed f	Pine Po	letimb	er Well	79.1	61	111-140	N/A			
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	White Pine	45	Pole/Sap/Log	8	61	WI	hite Pine	Medium	Variable	Sapling		
	Red Pine	30	Log/Pole/Sap	10								
	Quaking Aspen	10	Pole/Sap/Log	6								
36	4130	- Aspen			er Well	22.8	43	81-110	N/A		10-67-A cutting report.	
	Canopy Species	% Cover	Size Class	DBH	l Age		nopy Species	Density	Avg. Height	Size		
	Balsam Fir	10	Pole/Sap/Log	8		Ва	ılsam Fir	Medium	Variable	Sapling		
	Quaking Aspen	80	Pole/Log/Sap	8	43							
37	42320 - U _l	pland Sprud	ce Po	letimb	er Well	6.8	90	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Black Spruce	85	Pole/Log/Sap	8	90	Blad	ck Spruce	Low	Variable	Sapling		



Canopy Species Cover Size Class DBH Age Black Spruce Tall Sp	Stand	d Level 4 C	over Type	S	ize De	ensity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
Black Spruce 10 Pole/SappLog 8 90 Black Ash Low S - 10 feet Sapling	38											
Tamarack 90 Pole/Sap/Log 8 90 Tag Alder High 5 - 10 feet Tall Strub									Density			
39		<u> </u>										
Canopy Species		Tamarack	90	Pole/Sap/Log	8	90	Ta	ag Alder	High	5 - 10 feet	Tall Shrub	
White Spruce	39	4319 - Mixed	l Upland Fo	orest	Saplin	g Well	43.0	25	Immature	N/A		OPIC - FMD: Pockets of nice spruce regen.
Clusking Aspen		Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
Red Maple		White Spruce	50	Sapling/Pole	4	25	Ta	amarack	Low	Variable	Sapling	
Mathematical Compton Mathematical Compton		Quaking Aspen	40	Sapling/Pole	4	25						
Canopy Species Magne 10 Pole/Sap/Log 8 Black Ash 80 Pole/Sap/Log 8 Black Ash 80		Red Maple	10	Sapling/Pole	4	25						
Black Spruce	40	6115 - Lo	owland Ash	Pol	etimbe	r Medium	n 6.3	90	51-80	N/A		
Red Maple		Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
Red Maple		Black Spruce	10	Pole/Sap/Log	8		BI	ack Ash	Medium	Variable	Sapling	
A		Red Maple	10	Log/Pole/Sap	10						1	
Canopy Species % Cover Size Class DBH Age Balsam Fir 10 Pole/Sap/Log 8 Red Maple Hazelnut (American) Medium 10 - 20 feet Sapling		Black Ash	80	Pole/Sap/Log	8	90						
Balsam Fir 10 Pole/Sap/Log 8 46 Biglooth Aspen 10 Pole/Sap/Log 8 46 Red Maple 20 Pole/Sap/Log 8 46 Hazelnut (American) Medium 5 - 10 feet Tall Shrub	41	4130	- Aspen	P	oletimb	er Well	20.2	46	81-110	N/A		
Bigtooth Aspen		Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
Red Maple		Balsam Fir	10	Pole/Sap/Log	8		Re	ed Maple	Medium	10 - 20 feet	Sapling	
Quaking Aspen 50 Pole/Log/Sap 8 46		Bigtooth Aspen	10	Pole/Sap/Log	8	46	Hazelnı	ut (American)	Medium	5 - 10 feet	Tall Shrub	
A		Red Maple	20	Pole/Sap/Log	8							
Canopy Species % Cover Size Class DBH Age Hemlock 20 Log/XLog 16 White Ash High 10 - 20 feet Sapling		Quaking Aspen	50	Pole/Log/Sap	8	46						
Canopy Species % Cover Size Class DBH Age Hemlock 20	42	4115 - Y.Biro	h, Hemlock	NH S	awtimb	er Well	298.7	101	141-170	N/A		
Yellow Birch 10 Log/Pole 14 101 Sugar Maple 20 Log/Pole/Sap 12 101 Red Maple 40 Log/Pole/Sap 14 101 43 6115 - Lowland Ash Poletimber Medium 15.6 90 51-80 N/A Canopy Species % Cover Size Class DBH Age Sub-Canopy Species Density Avg. Height Size Black Spruce 10 Pole/Sap/Log 6 90 Tag Alder Medium 5 - 10 feet Tall Shrub 44 4139 - Aspen, Mixed Deciduous Sawtimber Well 23.7 90 81-110 N/A Canopy Species % Cover Size Class DBH Age Sub-Canopy Species Density Avg. Height Size Quaking Aspen 55 Log/Pole 10 90 Black Ash Medium 10 - 20 feet Sapling Red Maple 30 Log/Pole/Sap 10 90 Balsam Fir Medium Variable Sapling		Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	1996
Sugar Maple 20 Log/Pole/Sap 12 101 Red Maple 40 Log/Pole/Sap 14 101 43 6115 - Lowland Ash Poletimber Medium 15.6 90 51-80 N/A Canopy Species % Cover Size Class DBH Age Sub-Canopy Species Density Avg. Height Size Black Spruce 10 Pole/Sap/Log 6 90 Tag Alder Medium 5 - 10 feet Tall Shrub Black Ash 90 Pole/Sap/Log 6 90 81-110 N/A Canopy Species % Cover Size Class DBH Age Sub-Canopy Species Density Avg. Height Size Quaking Aspen 55 Log/Pole 10 90 Black Ash Medium 10 - 20 feet Sapling Red Maple 30 Log/Pole/Sap 10 90 Balsam Fir Medium Variable Sapling		Hemlock	20	Log/XLog	16		W	hite Ash	High	10 - 20 feet	Sapling	
Red Maple		Yellow Birch	10	Log/Pole	14	101						•
43 6115 - Lowland Ash Poletimber Medium 15.6 90 51-80 N/A Canopy Species % Cover Size Class DBH Age Black Spruce 10 Pole/Sap/Log 6 Tag Alder Medium 5 - 10 feet Tall Shrub Black Ash 90 Pole/Sap/Log 6 90 44 4139 - Aspen, Mixed Deciduous Sawtimber Well 23.7 90 81-110 N/A Canopy Species % Cover Size Class DBH Age Quaking Aspen 55 Log/Pole 10 90 Black Ash Medium 10 - 20 feet Sapling Red Maple 30 Log/Pole/Sap 10 90 Balsam Fir Medium Variable Sapling		Sugar Maple	20	Log/Pole/Sap	12	101						
Canopy Species % Cover Size Class DBH Age Black Spruce 10 Pole/Sap/Log 6 Tag Alder Medium 5 - 10 feet Tall Shrub Black Ash 90 Pole/Sap/Log 6 90 44 4139 - Aspen, Mixed Deciduous Sawtimber Well 23.7 90 81-110 N/A Canopy Species % Cover Size Class DBH Age Quaking Aspen 55 Log/Pole 10 90 Black Ash Medium 10 - 20 feet Sapling Red Maple 30 Log/Pole/Sap 10 90 Balsam Fir Medium Variable Sapling		Red Maple	40	Log/Pole/Sap	14	101						
Black Spruce 10 Pole/Sap/Log 6 90 Tag Alder Medium 5 - 10 feet Tall Shrub Black Ash 90 Pole/Sap/Log 6 90 44 4139 - Aspen, Mixed Deciduous Sawtimber Well 23.7 90 81-110 N/A Canopy Species % Cover Size Class DBH Age Quaking Aspen 55 Log/Pole 10 90 Black Ash Medium 10 - 20 feet Sapling Red Maple 30 Log/Pole/Sap 10 90 Balsam Fir Medium Variable Sapling	43	6115 - Lo	owland Ash	ı Pol	etimbe	r Medium	15.6	90	51-80	N/A		
Black Spruce 10 Pole/Sap/Log 6 90 44 4139 - Aspen, Mixed Deciduous Sawtimber Well 23.7 90 81-110 N/A Canopy Species % Cover Size Class DBH Age Quaking Aspen 55 Log/Pole 10 90 Black Ash Medium 10 - 20 feet Sapling Red Maple 30 Log/Pole/Sap 10 90 Balsam Fir Medium Variable Sapling		Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
44 4139 - Aspen, Mixed Deciduous Sawtimber Well 23.7 90 81-110 N/A Canopy Species % Cover Size Class DBH Age Quaking Aspen 55 Log/Pole 10 90 Black Ash Medium 10 - 20 feet Sapling Red Maple 30 Log/Pole/Sap 10 90 Balsam Fir Medium Variable Sapling		Black Spruce	10	Pole/Sap/Log	6		Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub	
Canopy Species % Cover Size Class DBH Age Quaking Aspen 55 Log/Pole 10 90 Black Ash Medium 10 - 20 feet Sapling Red Maple 30 Log/Pole/Sap 10 90 Balsam Fir Medium Variable Sapling		Black Ash	90	Pole/Sap/Log	6	90						
Quaking Aspen55Log/Pole1090Black AshMedium10 - 20 feetSaplingRed Maple30Log/Pole/Sap1090Balsam FirMediumVariableSapling	44	4139 - Aspen,	Mixed Deci	duous S	awtimb	er Well	23.7	90	81-110	N/A		
Quaking Aspen55Log/Pole1090Black AshMedium10 - 20 feetSaplingRed Maple30Log/Pole/Sap1090Balsam FirMediumVariableSapling		Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
Red Maple 30 Log/Pole/Sap 10 90 Balsam Fir Medium Variable Sapling												
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Stand	d Level 4 Co	over Type	S	Size De	nsity	Acres	Stand Age I	BA Range	Managed S	Site	General Comments	MICHIGAN .
45	42350 - Upl	land Hemlo	ck Sa	awtimb	er Well	37.6	101	141-170	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Hemlock	90	Log/Pole	14	101	Red	Maple	Low	Variable	Sapling		
46	6115 - Lo	owland Ash	Pole	etimbe	Medium	1 2.8	90	1-50	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Black Ash	90	Pole/Sapling	5	90	Tag	Alder	Medium	5 - 10 feet	Tall Shrub		
	Black Spruce	10	Pole/Sapling	5								
47	4139 - Aspen,	Mixed Deci	duous Sa	awtimb	er Well	6.9	90	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Quaking Aspen	45	Log/Pole	10	90	Bals	am Fir	Low	Variable	Sapling		
	Red Maple	40	Log/Pole/Sap	10	90							
	Balsam Fir	10	Log/Pole/Sap	10								
48	4130	- Aspen	;	Sapling	y Well	65.6	25	Immature	N/A		Aspen on a Rock t-sale (12-022-91)	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Red Maple	10	Sapling/Pole	4	25	Bals	am Fir	Low	Variable	Sapling		
	Balsam Poplar	10	Sapling/Pole	4	25							
	White Spruce	10	Sapling/Pole	4								
	Quaking Aspen	70	Sapling/Pole	4	25							
49	320 - Up	land Shrub		Nonsto	ocked	1.0	0 ι	Jnspecified	No		OPIC - FMD: Very nice white pine regen.	
50	4130	- Aspen	;	Sapling	ı Well	152.1	8	Immature	N/A		Island South t-sale. (12-52-10)	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Quaking Aspen	100	Sapling	2	8	Hazelnut	(American)	Medium	5 - 10 feet	Tall Shrub		
51	4130	- Aspen	;	Sapling	j Well	31.0	9	Immature	N/A		Stand Year Origin was 2011	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Quaking Aspen	100	Sapling	2	9	Bals	am Fir	Low	5 - 10 feet	Sapling		
52	4130	- Aspen	;	Sapling	j Well	10.7	22	Immature	N/A		East Bull Hardwoods. (2-96-01)	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Quaking Aspen	100	Sapling/Pole	4	22	Red	Maple	Low	10 - 20 feet	Sapling		
53	6115 - Lo	owland Ash	Pole	etimbe	Medium	18.0	54	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Black Spruce	10	Pole/Sap/Log	8		Bals	am Fir	Medium	10 - 20 feet	Sapling		
	Black Ash	80	Pole/Sap/Log	6	54	Tag	Alder	High	5 - 10 feet	Tall Shrub		



Stand	d Level 4 Co	over Type	S	Size De	nsity	Acres S	Stand Age E	BA Range	Managed	Site	General Comments
54	4130	- Aspen	Po	oletimb	er Well	75.6	46	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cand	opy Species	Density	Avg. Height	Size	
	Quaking Aspen	90	Pole/Log/Sap	8	46	Hazelnut	(American)	High	5 - 10 feet	Tall Shrub	
55	4112 - Maple, Asso	Beech, Ch	nerry Sa	awtimb	er Well	198.9	91	111-140	N/A		OPIC - FMD: STAND THINNED 1998. Some areas with low BA. Thin only areas where BA is high enough that release is needed.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cand	opy Species	Density	Avg. Height	Size	
	Yellow Birch	10	Log/Pole	10		Quakir	ng Aspen	Medium	10 - 20 feet	Sapling	
	Sugar Maple	35	Log/Pole/Sap	10	91					<u> </u>	
	Red Maple	50	Log/Pole/Sap	10	91						
56	6117 - Lowland Coni	Deciduous iferous	, Mixed Pole	etimber	Mediun	n 12.3	91	51-80	N/A		Wet.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Red Maple	25	Pole/Log/Sap	8	91	Tag	Alder	High	5 - 10 feet	Tall Shrub	
	Yellow Birch	10	Pole/Log	8	91					'	•
	Black Spruce	10	Pole/Sap/Log	8							
	Tamarack	10	Pole/Sap/Log	8							
	Black Ash	45	Pole/Sap/Log	8	91						
57	6225	5 - Bog		Nonsto	cked	7.8	l	Jnspecified	No		OPIC - FMD: OI Stand Year Origin was
58	4139 - Aspen,	Mixed Deci	iduous Sa	awtimb	er Well	6.1	90	81-110	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Red Oak	10	Log/Pole/Sap	14	90	Hazelnut	(American)	Medium	5 - 10 feet	Tall Shrub	
	Quaking Aspen	50	Log/Pole	10	90						•
	Red Maple	30	Log/Pole/Sap	10	90						
59	4130	- Aspen	;	Sapling	Well	32.0	9	Immature	N/A		Island North t-sale (12-051-10)
	Canopy Species	% Cover		DBH	Age	Sub-Cand	opy Species	Density	Avg. Height	Size	
	Red Maple	10	Sapling	1	9	Hazelnut	(American)	Medium	5 - 10 feet	Tall Shrub	
	Quaking Aspen	80	Sapling	1	9						
60	42290 - Natu	ıral Mixed F	Pine S	awtimb	er Well	4.5	90	141-170	N/A		
	Canopy Species	% Cover		DBH	Age	Sub-Cand	opy Species	Density	Avg. Height	Size	
	Red Oak	10	Log/Pole/Sap	12		Hazelnut	(American)	Medium	5 - 10 feet	Tall Shrub	
	Red Pine	45	Log/Pole/Sap		90						
	White Pine	35	Log/Pole/Sap	16	90						



Stand	d Level 4 C	over Type	;	Size Densit	у	Acres	Stand Age	BA Range	Managed \$	Site	General Comments	MICHIGAN
61	4130	- Aspen	Р	oletimber W	/ell	49.2	46	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH Ag	е	Sub-Car	nopy Specie	s Density	Avg. Height	Size		
	Red Maple	10	Pole/Sap/Log	8		Wh	nite Pine	Medium	10 - 20 feet	Sapling		
	Balsam Fir	10	Pole/Sapling	6								
	Quaking Aspen	75	Pole/Log/Sap	8 46	3							
62	6115 - Lo	owland Ash	Po	etimber Me	dium	8.9	90	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH Ag	е	Sub-Car	nopy Specie	s Density	Avg. Height	Size		
	Black Ash	60	Pole/Sap/Log	8 90)	Ta	g Alder	Medium	5 - 10 feet	Tall Shrub		
	Black Spruce	35	Pole/Sap/Log	8 90)							
63	622 - Lov	wland Shrub)	Nonstocke	d	23.1	0	Unspecified	No		OPIC - FMD: Pokets of dead black ash.	
65	429 - Mixed l	Upland Con	ifers S	awtimber W	/ell	14.0	91	81-110	N/A		Rough rocky ground.	
	Canopy Species	% Cover	Size Class	DBH Ag	е	Sub-Car	nopy Specie	s Density	Avg. Height	Size		
	Red Pine	30	Log/Pole/Sap	12 91		Quak	ing Aspen	Low	10 - 20 feet	Sapling		
	White Pine	20	Log/Pole/Sap	12 91		Wh	nite Pine	Low	Variable	Sapling		
	Red Oak	20	Log/Pole/Sap	10 91								
	Red Maple	15	Log/Pole/Sap	10								
	Balsam Fir	10	Pole/Sapling	6								
67	4130	- Aspen	Р	oletimber W	/ell	33.1	46	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH Ag	е	Sub-Car	nopy Specie	s Density	Avg. Height	Size		
	Red Maple	10	Log/Pole/Sap	10 46	3	Hazelnu	ıt (American)	High	5 - 10 feet	Tall Shrub		
	Quaking Aspen	90	Pole/Sap/Log	8 46	3							
68	500	- Water		Nonstocke	d	6.5		Unspecified	No		Beaver pond.	
69	4133 - Aspe	en, Mixed P	ine P	oletimber W	/ell	36.6	46	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH Ag	е	Sub-Car	nopy Specie	s Density	Avg. Height	Size		
	Quaking Aspen	70	Pole/Sap/Log	8 46	3	Hazelnu	ıt (American)	Medium	5 - 10 feet	Tall Shrub		
	White Pine	20	Pole/Sap/Log	8		Wh	nite Pine	High	Variable	Sapling		
	Red Maple	10	Pole/Sap/Log	8								
72	6220 - A	Alder/willow		Nonstocke	d	18.8	0	Unspecified	No		OPIC - FMD: OI Stand Year Origin was 1930	



Stand	I Level 4 C	over Type	S	ize D	ensity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments	MICHIGAN .
73	429 - Mixed l	Jpland Cor	nifers S	awtiml	oer Well	29.1	90	81-110	N/A		Buffer for Paint River.	
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	anopy Species	Density	Avg. Height	Size		
	Quaking Aspen	20	Pole/Log/Sap	8	90	Ва	alsam Fir	Medium	Variable	Sapling		
	White Pine	20	Log/Pole/Sap	14	90							
	Red Maple	20	Log/Pole/Sap	10	90							
	Balsam Fir	10	Pole/Sap/Log	8								
	White Spruce	30	Log/Pole/Sap	10	90							
74	4136 - Asper	n, Mixed Co	onifer S	awtiml	oer Well	22.1	54	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	anopy Species	Density	Avg. Height	Size		
	Quaking Aspen	55	Log/Pole	10	54	W	hite Pine	Medium	Variable	Sapling		
	Red Maple	15	Log/Pole/Sap	10								
	Paper Birch	10	Log/Pole/Sap	10								
	White Spruce	10	Pole/Sap/Log	8								
	White Pine	10	Log/Pole/Sap	10								
75	4123 -	Red Oak	Sav	vtimbe	r Mediur	m 4.9	91	51-80	N/A		Island South t-sale. (12-52-10)	
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	anopy Species	Density	Avg. Height	Size		
	Red Oak	100	Log/Pole/Sap	14	91	Hazeln	ut (American)	Medium	5 - 10 feet	Tall Shrub		
						Qua	king Aspen	Medium	10 - 20 feet	Sapling		
76	6115 - Lo	owland Ash	n P	oletiml	oer Well	5.3	90	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	anopy Species	Density	Avg. Height	Size		
	Black Spruce	10	Pole/Sap/Log	8	90	T	ag Alder	Medium	5 - 10 feet	Tall Shrub		
	Black Ash	90	Pole/Sap/Log	8	90			'				
77	4130	- Aspen	P	oletiml	per Well	70.2	46	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	anopy Species	Density	Avg. Height	Size		
	Red Maple	10	Log/Pole/Sap	10	46	Hazeln	ut (American)	High	5 - 10 feet	Tall Shrub		
	Quaking Aspen	90	Pole/Sap/Log	8	46						1	
78	4199 - Other Mixe	d Upland D	Deciduous S	awtiml	oer Well	4.6	90	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	anopy Species	Density	Avg. Height	Size		
	Red Maple	55	Log/Pole/Sap	10	90	Wh	ite Spruce	Low	Variable	Sapling		
	Quaking Aspen	35	Log/Pole/Sap	10	90							
80	42290 - Natu	ural Mixed F	Pine S	awtimb	oer Well	17.4	120	141-170	N/A			
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	anopy Species	Density	Avg. Height	Size		
	Quaking Aspen	10	Pole/Log/Sap	8		W	hite Pine	Medium	10 - 20 feet	Sapling		
	Red Pine	35	Log/Pole/Sap	12		Ва	alsam Fir	Medium	10 - 20 feet	Sapling		
	White Pine	50	Log/Pole/Sap	16	120						•	



Stand	Level 4 Co	over Type	S	ize De	nsity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
81	6117 - Lowland I Coni	Deciduous, ferous	, Mixed Saw	/timber	Medium	n 16.0	91	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
No	orthern White Cedar	15	Log/Pole	12		Ta	g Alder	Low	5 - 10 feet	Tall Shrub	
	Black Spruce	10	Log/Pole/Sap	10							
	Red Maple	20	Log/Pole/Sap	10	91						
	Yellow Birch	10	Log/Pole	10	91						
	Black Ash	40	Pole/Sap/Log	8	91						
82	4115 - Y.Bircl	h, Hemlock	NH Sa	awtimb	er Well	77.5	91	111-140	N/A		OPIC - FMD: STAND THINNED 1998. Areas of saplings where BA is too low to thin. Thin only areas where thinning will release merchantable
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	trees.
	Hemlock	10	Log/Pole	16		Quak	ing Aspen	Medium	10 - 20 feet	Sapling	
	Yellow Birch	10	Log/Pole	10	91						
	Sugar Maple	35	Log/Pole/Sap	10	91						
	Red Maple	40	Log/Pole/Sap	10	91						
83	4112 - Maple, Asso	Beech, Ch	nerry Pole	etimbei	Medium	n 9.3	90	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	30	Pole/Log/Sap	8		Pap	oer Birch	Medium	10 - 20 feet	Sapling	
	Sugar Maple	70	Pole/Log/Sap	8	90						
84	4130 -	- Aspen	S	Sapling	y Well	54.6	19	Immature	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	100	Sapling/Pole	4	19	Iro	nwood	Low	Variable	Sapling	
85		- Aspen	S	Sapling		29.2	9	Immature	N/A		Island South t-sale (52-10-01)
	Canopy Species		Size Class	_	Age		nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	100	Sapling	1	9	Re	d Maple	Low	Variable	Sapling	
86	4191 - Mixed Upla Co	and Decidu nifer	ous with Sa	awtimb	er Well	6.6	90	51-80	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	15	Log/Pole/Sap	16		Hazelnı	ıt (American)	Medium	5 - 10 feet	Tall Shrub	
	White Spruce	20	Log/Pole/Sap	12	90						
	Red Maple	30	Log/Pole/Sap	12	90						
	Quaking Aspen	35	Log/Pole/Sap	12	90						



Stand	Level 4 Co	over Type	S	ize De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments	MICHIGAN .
87	42290 - Natu	ıral Mixed I	Pine Sa	awtimb	er Well	4.5	120	141-170	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Maple	10	Log/Pole/Sap	10		Whit	te Spruce	Low	Variable	Sapling		
	Red Pine	40	Log/XLog/Pole	16	120							
	White Pine	45	XLog/Log/Pole	18	120							
88	4130	- Aspen	Sa	awtimb	er Well	59.2	90	51-80	N/A		Steep buffer along Brule River.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Red Maple	20	Log/Pole/Sap	10		Hazelnı	ıt (American)	Medium	5 - 10 feet	Tall Shrub		
	Quaking Aspen	80	Log/Pole/Sap	10	90							
89	6115 - Lo	owland Ash	n Po		er Well	8.6	54	51-80	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Black Ash	85	Pole/Sap/Log	8	54	Та	ig Alder	Medium	5 - 10 feet	Tall Shrub		
91	6120 - Lov	wland Ceda	ar Sa		er Well	7.5	90	81-110	N/A			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size		
	Black Spruce	10	Pole/Sapling	6	L	Та	ıg Alder	Medium	5 - 10 feet	Tall Shrub		
	Black Ash	20	Pole/Sapling	6								
No	rthern White Cedar	65	Log/Pole	12	90							
92	622 - Low	vland Shrul	b	Nonsto	cked	7.7	U	nspecified	No		OPIC - FMD: Lowland draining to Paint River.	
400	320 - Up	land Shrub)	Nonsto	cked	27.1	U	nspecified	No		OPIC - FMD: Grass opening.	
401	320 - Up	land Shrub)	Nonsto	cked	17.8	U	nspecified	No		Power line.	