

Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12191 Entry Year 2023 Acreage: 1,394 County Iron

Management Area: Michigamme Reservoir

Revision Date: 2021-07-21

Stand Examiner: Legal Description:

T45N R31W sec 27-29, 32, 34

Identified Planning Goals:

Optimize sustainable timber production while enhancing and protecting wildlife habitat. Continue to sustainably balance the aspen age class acres. Move the northern hardwood stands towards regulation. Protect the riparian areas and transition zones during management activity.

Soil and topography:

This compartment consists of silt loams, fine sandy loams, with black muck depressions and swamp. The topography varies, generally consisting of rolling hills with fairly flat areas and steep slopes areas.

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

The compartment is fairly contiguous but in separated blocks. Industrial forest landowners and private hunt camps are in and around the compartment.

Unique Natural Features:

None identified

Archeological, Historical, and Cultural Features:

None identified

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

The Fence River and tributaries are within this compartment. The Fence River is a designated Type 1 trout stream. However, recent surveys revealed unsuitable trout habitat (warmer temps) in the lower portions of the watershed. Consequently, a 100 ft. buffer is recommended for this portion of the Fence River.

Wildlife Habitat Considerations:

This compartment includes core portions of the Deerfoot Lodge Deeryard. Lowland and upland conifer types are critical to the integrity of this complex and should be protected and enhanced. Riparian zones along the rivers and wetlands, in this compartment, provide mature forest characteristics for those wildlife species that have this life requisite and support a wide variety of wildlife species. Over 96% of the aspen in this compartment is around 40 years old. This area is most popular for the hunting opportunities that it offers for deer, bear, grouse and woodcock.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. There is insufficient data to determine the glacial drift thickness. The Precambrian Michigamme and Hemlock Formations, Randville Dolomite and Archean granite/gneiss subcrop below the glacial drift. The Porter and Warner abandoned iron mines are located nine miles to the west. The nearest gravel pit is located four miles to the north. Gravel potential may be limited in the compartment. There is no economic oil and gas production in the UP.

Vehicle Access:

Good to poor. The Deerfoot Lodge Road is the main improved road into the compartment. Multiple offshoot, woods roads are present, most are in poor condition.

Survey Needs:

NE1/16, E 1/16, Center 1/4 sec 28 W1/16 sec 28,33,

Recreational Facilities and Opportunities:

None

Fire Protection:

There is low fire potential in this compartment due to the fuel types. Access is fair to good. Multiple water sources are present.

Additional Compartment Information:

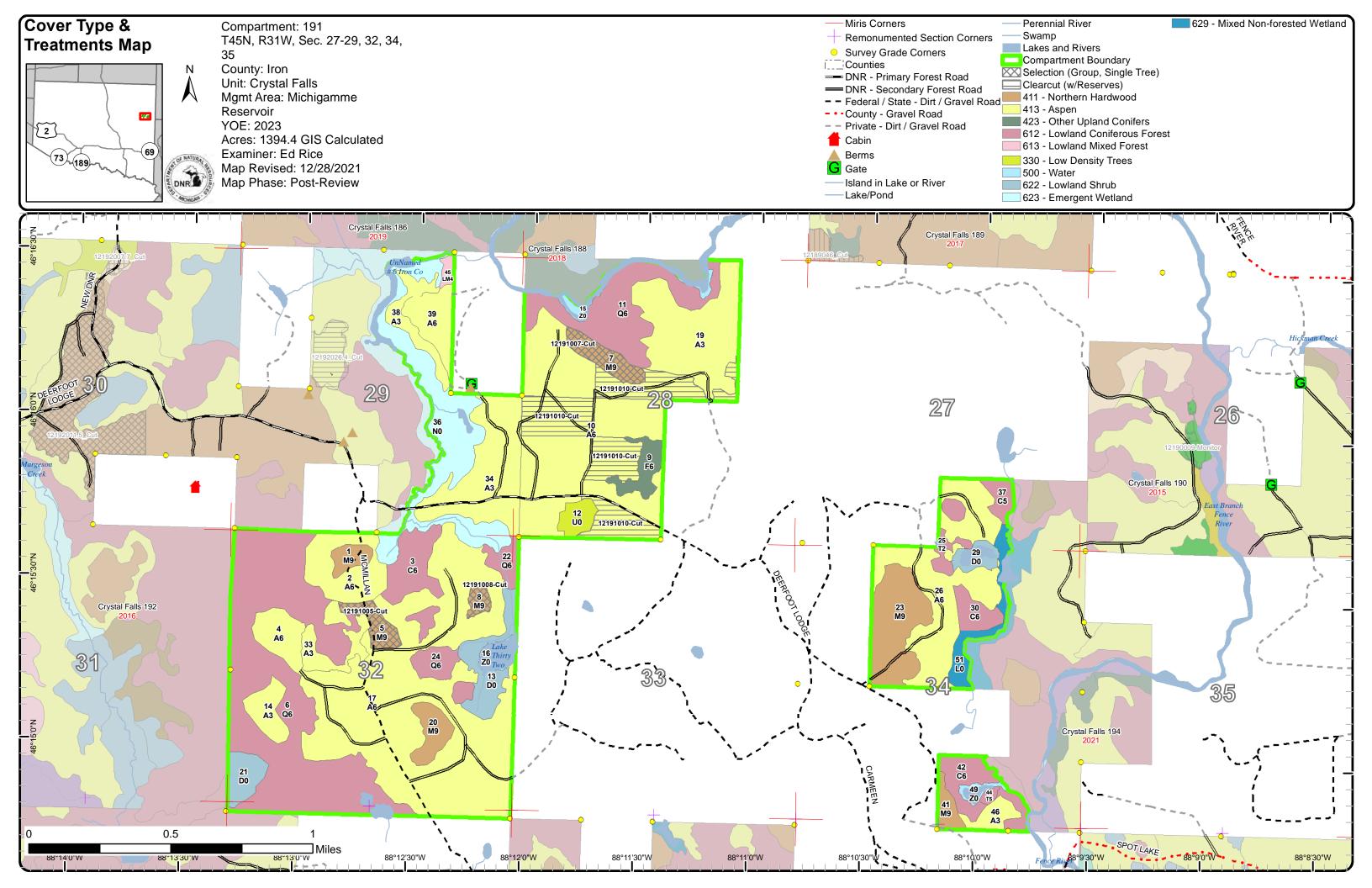
The following reports from the Inventory are attached:

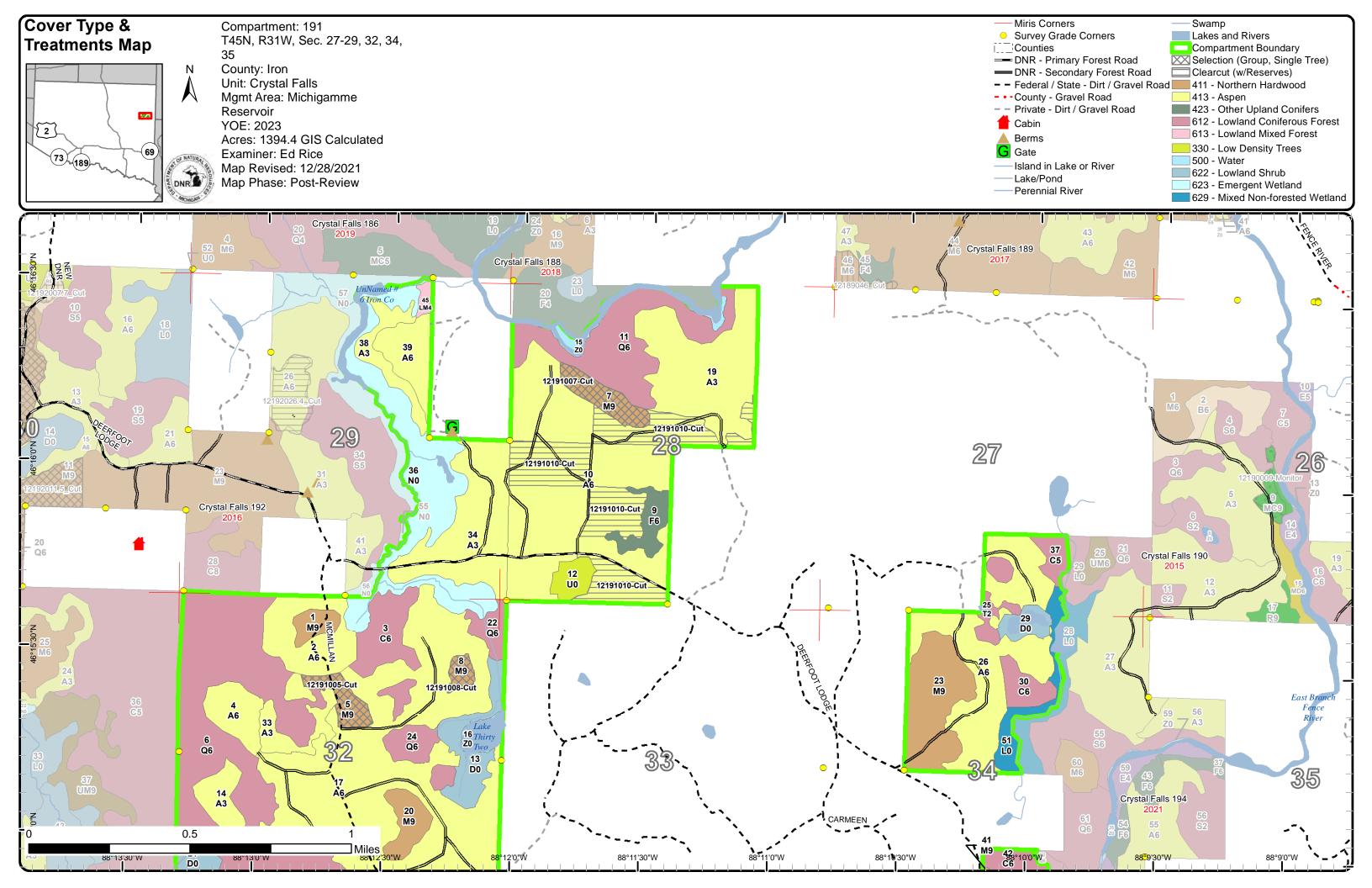
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

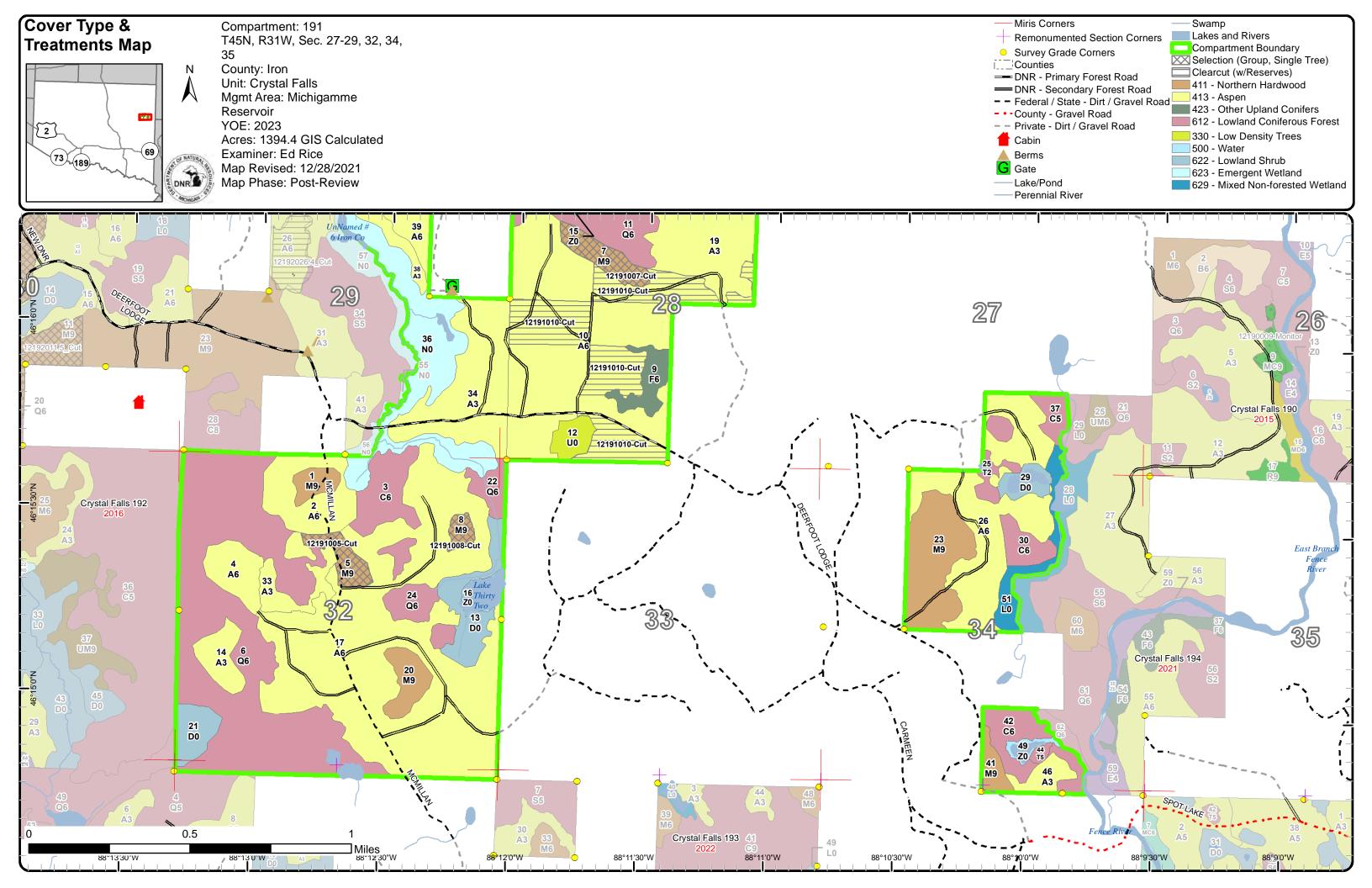
The following information is displayed, where pertinent, on the attached compartment maps:

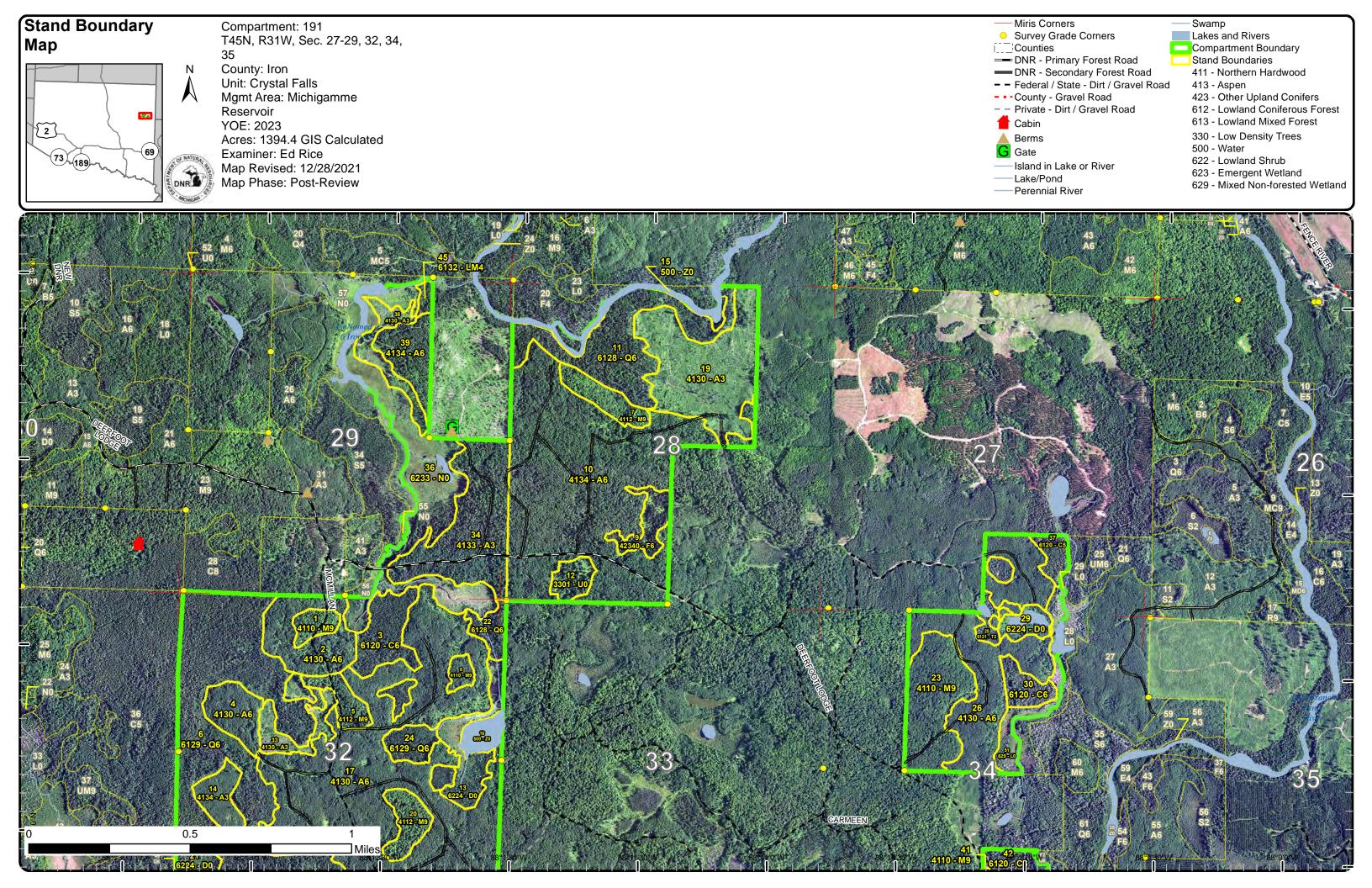
Base feature information, stand boundaries, cover types, and numbers Proposed treatments Site condition boundaries

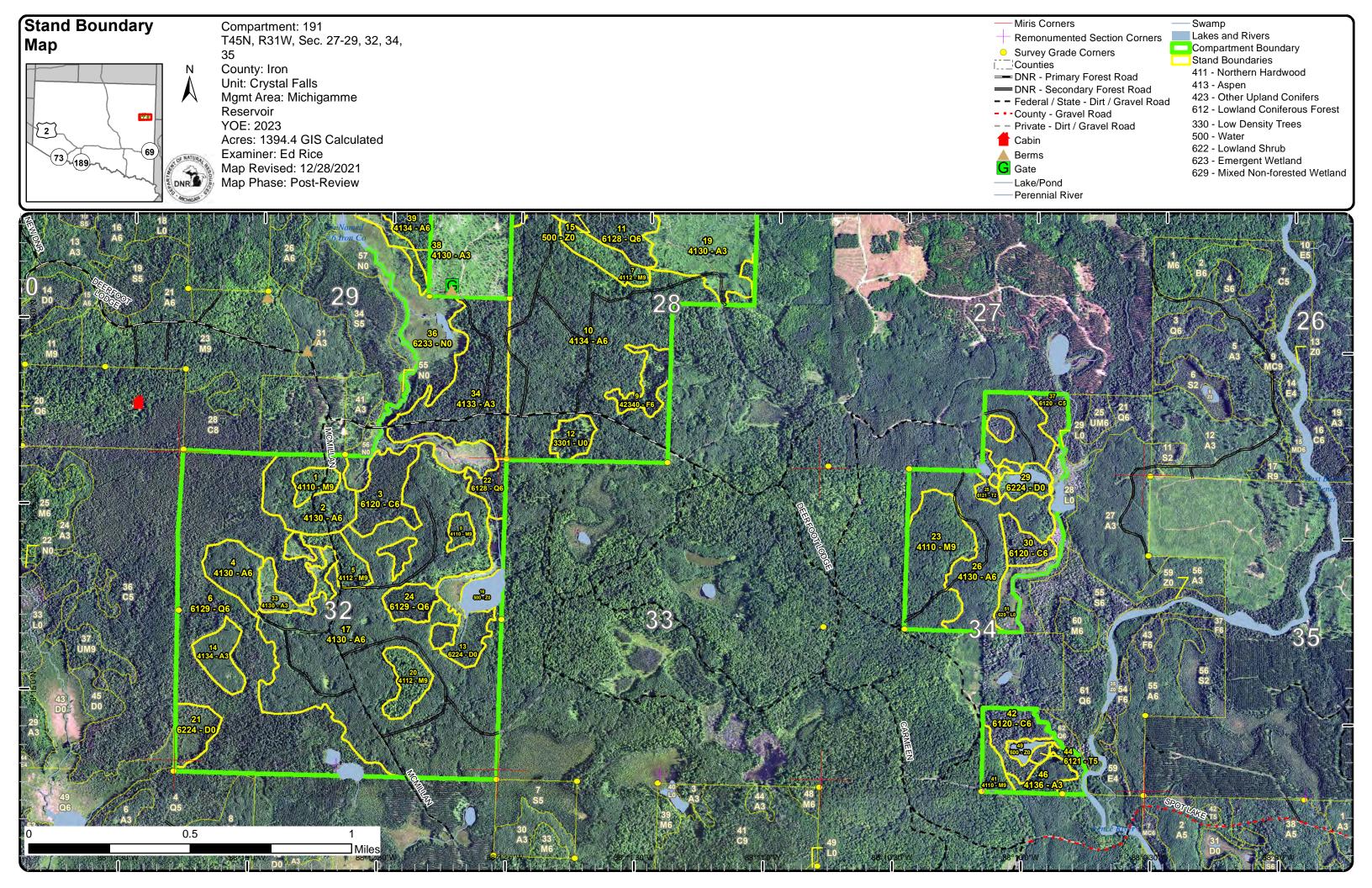
Details on the road access system

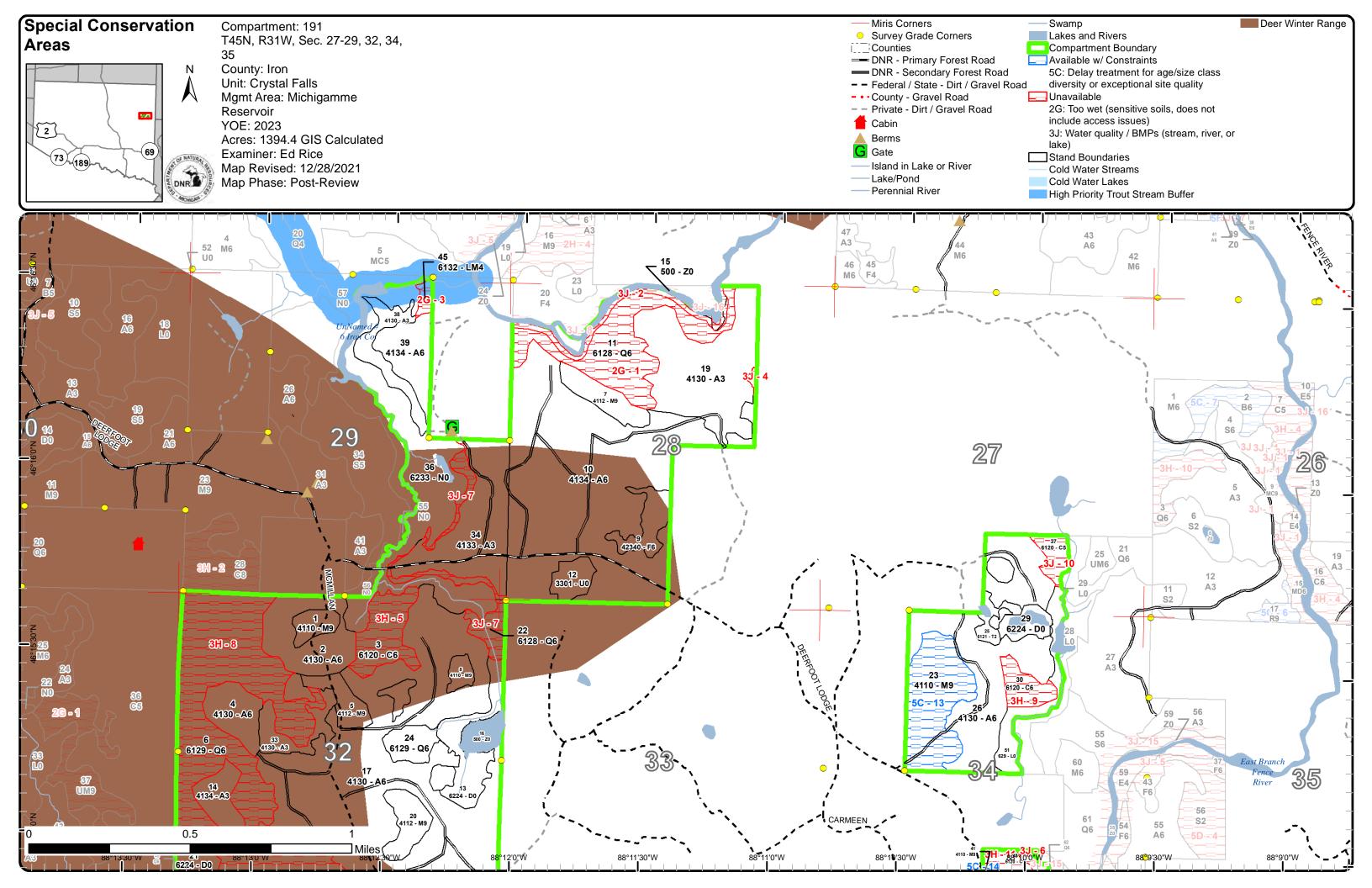


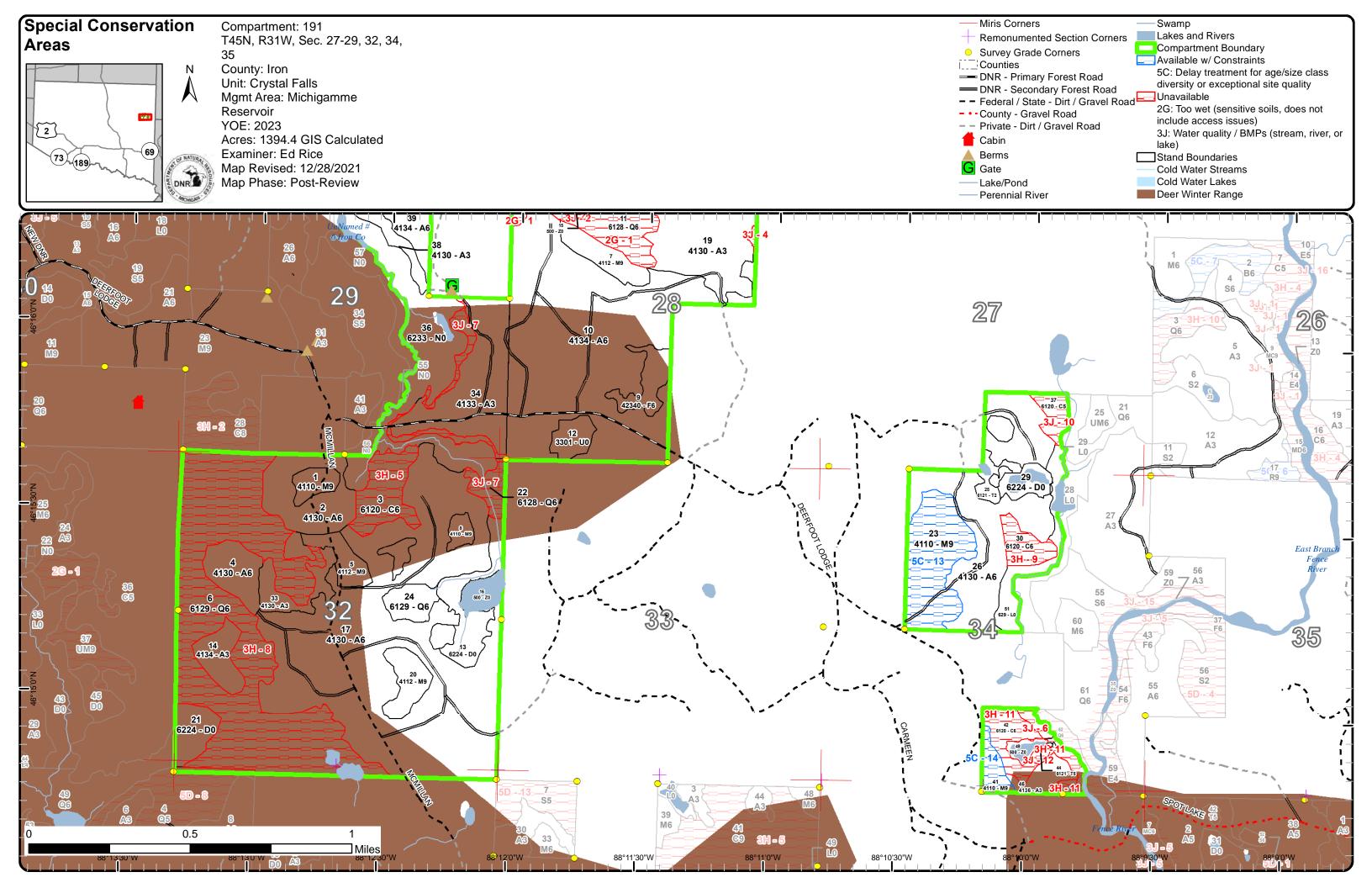












Report 1 – Total Acres by Cover Type and Age Class

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Compartment 191 Year of Entry 2023



Age Class

	* Age		3° / 2	Ø / &	A A	§ /&	\$ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	% %	\$ / R	R / 8			70,70				Real of	St Jugar	1.00°
Aspen	0	146	13	9	378	218	0	0	0	0	0	0	0	0	0	0	0	16	780
Cedar	0	0	0	0	0	0	0	0	0	0	22	39	0	0	0	0	0	0	61
Low-Density Trees	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Conifers	0	0	0	0	17	9	0	0	0	0	0	56	0	0	0	0	0	180	262
Lowland Mixed Forest	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Shrub	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Marsh	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	99
Tamarack	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Treed Bog	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Upland Spruce/Fir	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Water	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Total	169	146	13	9	418	230	0	0	0	0	22	95	0	0	0	0	0	295	1397



Report 2 – Treatment Summary

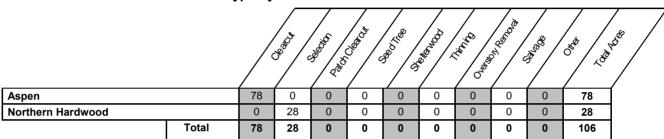
Crystal Falls Mgt. Unit Year of Entry: 2023

Acres of Harvest

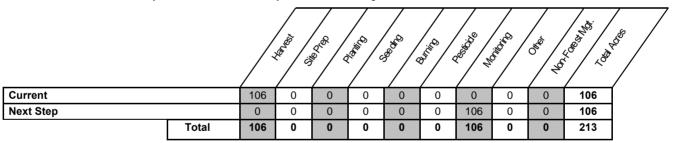
Compartment 191
Total Compartment Acres: 1,394

Commercial Harvest - 106 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Compartment: 191 Year of Entry: 2023

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Treatment Name

Acres Stand CoverType

Stand Size Density Age

BA Range **Treatment** Type

Treatment Method

Cover Type Objective

Age Structure Habitat Cut

Approved Treatments:

12191005-Cut 10.5 4112 - Maple, Sawtimber 75 111-Harvest Single Tree 411 - Northern Uneven-No Beech, Cherry Well 140 Selection Hardwood Aged Association

Specs:

Prescription Thin to 80 BA. Concentrate removals on in order of priority: high risk trees, trees that will decrease in value before the next cutting cycle (20 yrs) and if needed thin from below. Keep all species and size classes represented in residual stand. Do not cut minor species: basswood, y birch, or other species that may be found to be a minor component. Do not cut oak, hemlock or w pine, protect as much as possible through marking, pockets of advanced maple regeneration. If vernal areas are found during marking, buffer these by a tree length by not marking timber in that buffer.

Treatments:

Next Step Monitoring, Natural Regen (Re-Inventory)

Acceptable N hardwood

Regen:

Other R maple 11-16"dbh. good h maple regeneration in pockets. 120 BA

Comment:

Site Condition

Proposed Start Date: 10/1 /2022

70 12191007-Cut 13.3 4112 - Maple, Sawtimber 111-Harvest Single Tree 411 - Northern Uneven-No Beech, Cherry Well 140 Selection Hardwood Aged Association

Specs:

Prescription Thin to 80 BA. Concentrate removals on in order of priority: high risk trees, trees that will decrease in value before the next cutting cycle (20 yrs) and if needed thin from below. Try to capture the value on r maple and cherry sawtimber, while keeping these a component of the stand. Keep all species and size classes represented in residual stand. Do not cut minor species: basswood, y birch, or other species that may be found to be a minor component. Do not cut oak, hemlock, cedar or w pine. protect as much as possible through marking, pockets of advanced maple regeneration. If vernal areas are found during marking, buffer these by a tree length by not marking timber in that buffer.

Next Step

Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable N hardwood

Regen:

eutypella fairly prevalent. stand lies mainly on slope/rolling hills down to adjacent swamp. 120 BA Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2022

12191008-Cut 4.5 4110 - Sugar Maple Sawtimber 111-Harvest 411 - Northern Uneven-No Single Tree Association Well 140 Selection Hardwood Aged

Specs:

Prescription Thin to 80 BA. Concentrate removals on in order of priority: high risk trees, trees that will decrease in value before the next cutting cycle (20 yrs) and if needed thin from below. Try to capture the value on r maple and cherry sawtimber, while keeping these a component of the stand. Keep all species and size classes represented in residual stand. Do not cut minor species: basswood, y birch, or other species that may be found to be a minor component. Do not cut oak, hemlock or w pine, protect as much as possible through marking, pockets of advanced maple regeneration. If vernal areas are found during marking, buffer these by a tree length by not marking timber in that buffer.

Next Step

Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable N Hardwood

Regen:

Other Comment: very little understory. blacknot prevalent on cherry. 150BA Will need a skid trail through adjacent A6 to the road

Site Condition

Proposed Start Date: 10/1 /2022

Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 191 S Year of Entry: 2023 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n Method Objective Density Age Name CoverType Range Type Structure Cut d 4134 - Aspen, 10 12191010-Cut 78.1 Poletimber 45 Unspec Harvest Clearcut with 4319 - Mixed Even-Aged No Spruce/Fir Well ified Retention **Upland Forest** Prescription remove merchantable aspen, balm, spruce, fir, cherry. where available leave 1 cherry per cruise point. do not cut elm, cedar, w birch, w pine, r pine. buffer any vernal areas found during sale set up Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable mix upland. aspen, spruce, fir Regen: Other component of aspen 10-12" dbh. balm present in small amounts. very scattered w pine/r pine 16-20" dbh. Areas higher stocked with aspen with associated highly stocked spruce/fir. very widely scattered upland cedar and elm Comment:

Total Treatment Acreage Proposed: 106.4

Proposed Start Date: 10/1 /2022

Site Condition

Crystal Falls Mgt. Unit

Ed Rice : Examiner

Availa	ability for	Managemer	nt						
Total	Acres	Acres Avail	Acres	ı	Dominai	nt Site	e Cond	ditions	S
Acres	Available	With Condition	Not Available		5C	2G	3H	3J	5D
779	768	0	11	Aspen				11	
62	0	0	62	Cedar			48	14	
9	9	0	0	Low-Density Trees					
261	17	0	244	Lowland Conifers		48	177	17	2
3	0	0	3	Lowland Mixed Forest		3			
17	17	0	0	Lowland Shrub					
79	79	0	0	Marsh					
99	48	51	0	Northern Hardwood	51				
11	9	0	2	Tamarack				2	
43	43	0	0	Treed Bog					
12	12	0	0	Upland Spruce/Fir					
21	19	0	2	Water				2	
1,394	1,020	51	323	Total Forested Acres	51	51	225	45	2
·	73%	4%	23%	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.

1 Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: Stand is fairly open in areas heavy to tag alder, wet 2 Unavailable 3J: Water quality / BMPs 9 Unspecified Unspecified (stream, river, or lake)	Unspecified	Unspecified
Stand is fairly open in areas heavy to tag alder, wet 2 Unavailable 3J: Water quality / BMPs 9 Unspecified Unspecified		
	Unspecified	Unspecified
Comments: RMZ reduced to 100ft per Fish Div		

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments: vernal/low ground a	area					
5	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	22	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	19	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	178	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 4 – Site Conditions

Crystal Falls Mgt. Unit

Ed Rice : Examiner

9	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
10	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
11	Unavailable	3H: Deer Wintering Area - habitat is incompatible with harvest at this time	15	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
12	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	43	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: delay treatment to	balance N Hdwd managment					
14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: hold to balance N I	Hdwd managment					

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: 191
Year of Entry 2023



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 conditions stocked trout populations and those of other coldwater fish spec 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	ies to persist from year to year. Suitable ey are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish spec year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	ies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildland Waterfowl Production Areas, deer wintering complexes in lo 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 o covered by species recovery plans that are developed in cooper	wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more rendangered species, and are not
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effe as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian cts on water quality and quantity, as well



Stand	d Level 4 Co	over Type	:	Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
1	4110 - Sugar M			Sawtimb		7.3	75	81-110	N/A		component of h maple 20-24" dbh. very scattered basswood. 90 BA
	Canopy Species	% Cover	Size Class		l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	80	Log/Pole	11	75	Sug	gar Maple	High	5 - 10 feet	Sapling	
	Red Maple	10	Pole/Log	9							
	Yellow Birch	5	Log/Pole	10							
	Black Cherry	5	Pole	8							
2	4130	- Aspen	F	Poletimb	er Well	31.4	30	Jnspecified	N/A		scattered elm
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	70	Pole/Sapling	6	30	Haze	lnut (Spp.)	Medium	5 - 10 feet	Tall Shrub	
	Paper Birch	5	Sapling/Pole	3							
	Black Cherry	10	Pole/Sapling	5							
	Balsam Fir	10	Sapling/Pole	4							
	Red Maple	5	Pole/Sapling	5							
3	6120 - Lov	vland Ced	ar F	oletimb	er Well	22.4	95	Jnspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Black Spruce	10	Pole	7		Ta	ag Alder	Low	5 - 10 feet	Tall Shrub	
No	orthern White Cedar	90	Log/Pole	10	95						
4	4130	- Aspen	F	oletimb	er Well	17.2	30	Immature	N/A		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	70	Pole/Sapling	5	30	Bla	ck Cherry	Medium	5 - 10 feet	Sapling	
	Balsam Fir	5	Sapling/Pole	4							
	Black Cherry	10	Sapling	3							
	White Spruce	5	Sapling/Pole	3							
	Red Maple	10	Sapling	2							
5	4112 - Maple, Beec	h, Cherry /	Association S	Sawtimb	er Well	10.5	75	111-140	N/A		R maple 11-16"dbh. good h maple regeneration in pockets. 120 BA
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	45	Log/Pole	11		Sug	gar Maple	Medium	5 - 10 feet	Sapling	
	Red Maple	50	Log/Pole	11	75	Re	ed Maple	Medium	5 - 10 feet	Sapling	
	Paper Birch	5	Log/Pole	10							-
6	6129 - Mixed Conife	erous Lowl	and Forest F	oletimb	er Well	179.6	101	Jnspecified	N/A		areas poorly stocked heavy to tag alderwinter deer use
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Balsam Poplar	5	Log/Pole	12		Ta	ag Alder	Low	5 - 10 feet	Tall Shrub	
	Balsam Fir	20	Pole	6	60	Ва	Isam Fir	Medium	10 - 20 feet	Sapling	
	Black Spruce	20	Pole/Sapling	7							-
No	orthern White Cedar	45	Log/Pole	10	101						
	Tamarack	10	Pole	8							

Crystal Falls Mgt. Unit



Stand	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age E	BA Range	Managed S	Site	General Comments
7	4112 - Maple, Beec	h, Cherry A	Association	Sawtimb		13.3	70	111-140	N/A		eutypella fairly prevalent. stand lies mainly on slope/rolling hills down to adjacent swamp. 120 BA
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Can	opy Species	Density	Avg. Height	Size	adjacent swamp. 120 bA
	Sugar Maple	55	Log/Pole	10	70	Suga	ar Maple	Low	10 - 20 feet	Sapling	
	Red Maple	30	Log/Pole	12							
	Quaking Aspen	10	Log	14							
	Yellow Birch	5	Log	12							
8	4110 - Sugar N	laple Asso	ciation	Sawtimb	er Well	4.5	72	111-140	N/A		very little understory. blacknot prevalent on cherry. 150BA
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Car	opy Species	Density	Avg. Height	Size	
	Sugar Maple	90	Log/Pole	12	72	Suga	ar Maple	Low	>20 feet	Pole	
	Red Maple	5	Log/Pole	12						-	
	Black Cherry	5	Log	12							
9	42340 - Upla	and Spruce	:/Fir	Poletim	er Well	12.4	35 L	Inspecified	N/A		highly stocked spruce fir growing in among small openings.
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Can	opy Species	Density	Avg. Height	Size	
	Quaking Aspen	15	Pole	7	45	Bal	sam Fir	High	10 - 20 feet	Sapling	
	Balsam Fir	35	Pole/Sapling	g 6	35						-
	White Spruce	30	Pole/Sapling	g 6							
	Black Cherry	15	Pole	8							
	Paper Birch	5	Pole/Sapling	g 6							
10	4134 - Aspe			Poletimb		197.4		Inspecified	N/A		component of aspen 10-12" dbh. balm present in small amounts. very scattered w pine/r pine 16-20" dbh. Areas higher stocked with aspen with
	Canopy Species		Size Class		l Age		opy Species		Avg. Height	Size	associated highly stocked spruce/fir. very widely scattered upland cedar
	Black Cherry	5	Pole	8			sam Fir	High	10 - 20 feet	Sapling	and elm
	Quaking Aspen	65	Pole	7	45	Red	d Maple	Medium	10 - 20 feet	Sapling	
	Balsam Fir	15	Pole/Sapling								
	White Spruce	10	Pole/Sapling	0							
	Paper Birch	5	Pole/Sapling	g 6							
11	6128 - Lowland Dec	Coniferous iduous	, Mixed	Poletim	er Well	55.9	101 L	Inspecified	N/A		scattered y birch. very wet
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Car	opy Species	Density	Avg. Height	Size	
	Balsam Fir	10	Pole/Sapling	g 6		Ta	g Alder	High	5 - 10 feet	Tall Shrub	
	Black Ash	15	Pole/Sapling	g 6				'		•	-
No	orthern White Cedar	35	Log/Pole	11	101						
	Balsam Poplar	5	Log/Pole	11							
	Black Spruce	35	Pole	6							



Stand	d Level 4 C	over Type	•	Size De	ensity	Acres	Stand Age	BA Range	Managed S	ite	General Comments
12	3301 - Low Densi	ity Deciduo	us Trees	Nonst	ocked	8.8		Unspecified	No		semi open with hazel and conifer
						Sub-Ca	nopy Specie	es Density	Avg. Height	Size	
						Ва	lsam Fir	Medium	10 - 20 feet	Sapling	
						Qual	king Aspen	Low	10 - 20 feet	Sapling	
						Whi	te Spruce	Medium	10 - 20 feet	Sapling	
13	6224	Treed Bog		Nonst	ocked	21.5	0	Unspecified	No		areas with stunted tamarack, b spruce. creek, old beaver flowages
14	4134 - Aspe	en, Spruce/	/Fir	Saplin	g Well	13.4	16	Unspecified	N/A		higher ground island in conifer swamp
	Canopy Species	% Cover	Size Class	DBI	H Age						
	Red Maple	5	Sapling	1							
	Quaking Aspen	65	Sapling	2	16						
	Balsam Fir	15	Sapling	1							
	White Spruce	15	Sapling	1							
15	500 -	- Water		Nonst	ocked	9.0	0	Unspecified	No		Fence River
16	500 -	- Water		Nonst	ocked	7.5		Unspecified	No		Lake 32
17	4130	- Aspen	P	oletimb	oer Well	248.7	30	Immature	N/A		large stand cut at one time. slight variations but overall diameters hold to
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	7" dbh with scattered 10" dbh trees. scattered elm saplings. small pockets of spruce/fir. scattered opening inclusions.
	Quaking Aspen	70	Pole	7	30	Bla	ck Cherry	Medium	10 - 20 feet	Sapling	position of options/included opening includes its
	Balsam Fir	5	Pole	5		Ва	llsam Fir	Low	10 - 20 feet	Sapling	
	White Spruce	5	Pole/Sapling	7							
	Black Cherry	10	Pole/Sapling	5							
	Paper Birch	5	Pole/Sapling	6							
	Red Maple	5	Sapling/Pole	4							
19	4130	- Aspen		Saplin	g Well	69.9	6	Unspecified	N/A		
	Canopy Species	% Cover	Size Class	DBI	H Age						
	Quaking Aspen	80	Sapling	1	6						
	Balsam Fir	5	Sapling/Pole	3							
	White Pine	5	XLog	18							
	Black Cherry	5	Pole	8							
	Paper Birch	5	Sapling								



Stanc	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	Site	General Comments
20	4112 - Maple, Beec	h, Cherry A	Association	Sawtimb	er Well	12.8	72	81-110	N/A		S 1/2 of stand has higher stocked ironwood saplings - lower stocking of n
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	hardwoods. h maple 8-22" dbh 100 BA
	Sugar Maple	65	Log/Pole	10	72	Ir	onwood	Medium	10 - 20 feet	Sapling	100 5,1
	Red Maple	20	Log/Pole	12		Whi	te Spruce	Low	10 - 20 feet	Sapling	
	Yellow Birch	5	Log/Pole	12		Suç	gar Maple	Low	10 - 20 feet	Sapling	
	Black Cherry	5	Log	11							•
	Basswood	5	Log	12							
21	6224 - 7	Treed Bog		Nonsto	cked	12.8	U	nspecified	No		leatherleaf with stunted b spruce
						Sub-Ca	nopy Species	Density	Avg. Height	Size	
						Ва	ılsam Fir	Trace		Seeding	
						Blad	ck Spruce	Trace		Seeding	
						Ta	amarack	Trace		Seeding	
22	6128 - Lowland Dec	Coniferous iduous	, Mixed	Poletimb	er Well	8.7	40 U	nspecified	N/A		lowland conifer stand adjacent to creek
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Balsam Fir	10	Pole	5		Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub	
	Black Spruce	30	Pole/Saplin	ng 6	40						•
No	orthern White Cedar	20	Log/Pole	10							
	Tamarack	20	Pole	5							
	Black Ash	10	Pole/Saplin	ng 6							
	Balsam Poplar	10	Log/Pole	10							
23	4110 - Sugar M	laple Asso	ciation	Sawtimb	er Well	43.2	72	111-140	N/A		eutypella prevalent. 130BA
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Sugar Maple	70	Log/Pole	10	72	Ir	onwood	Medium	10 - 20 feet	Sapling	
	Red Maple	5	Pole	8		Suç	gar Maple	Medium	>20 feet	Pole	
	Black Cherry	5	Log	12							
	Basswood	20	Pole	8							
24	6129 - Mixed Conife	erous Lowl	and Forest	Poletimb	er Well	17.0	32 I	mmature	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Balsam Fir	10	Sapling/Po	le 3		Ta	ag Alder	Medium	5 - 10 feet	Tall Shrub	
	Black Spruce	35	Sapling	2							
No	orthern White Cedar	10	Log/Pole	10							
	Tamarack	45	Sapling/Po	le 3	32						



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
25		Tamarack	S	Sapling M		8.8		Unspecified	N/A		bog ground, small pond associated. edge transitional areas hold larger diameter b spruce
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	diameter b spruce
	Black Spruce	5	Sapling	3		Ta	g Alder	Medium	5 - 10 feet	Tall Shrub	
	Tamarack	85	Sapling/Pole	4	35						
	Balsam Fir	10	Sapling	3							
26	4130	- Aspen	F	Poletimbe	er Well	80.4	32	Unspecified	N/A		scattered w birch 5-6" dbh. rolling hills. widely scattered large w pine
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Quaking Aspen	75	Pole/Sapling	6	32	Sug	ar Maple	Medium	10 - 20 feet	Sapling	
	Red Maple	15	Pole/Sapling	5		Blac	k Cherry	Low	10 - 20 feet	Sapling	
	White Spruce	10	Sapling/Pole	4							•
29	6224 - 7	Treed Bog		Nonsto	cked	8.5		Unspecified	No		bog and pond edged with stunted tamarack saplings and small poletimbe
						Sub-Car	nopy Species	s Density	Avg. Height	Size	
						Ва	Isam Fir	Trace		Seeding	
						Ta	marack	Trace		Seeding	
						Blac	k Spruce	Trace		Seeding	
30	6120 - Lov	wland Ceda	ar F	Poletimbe	er Well	10.4	101	Unspecified	N/A		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	s Density	Avg. Height	Size	
	Paper Birch	5	Pole/Sapling			Ta	marack	Medium	5 - 10 feet	Sapling	
	Black Spruce	10	Pole	6							
No	rthern White Cedar	75	Log/Pole	11	101						
	Tamarack	10	Pole	6							
33	4130	- Aspen		Sapling	Well	16.1	6	Immature	N/A		aspen 10-15' tall. areas heavily stocked to r maple saplings.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Quaking Aspen	80	Sapling	1	6						
	Red Maple	20	Sapling	1							
34	4133 - Aspe	en, Mixed P	ine	Sapling		61.1	2	Immature	N/A		areas of high stocking to large diameter w pine, notably in N end.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	s Density	Avg. Height	Size	
	Paper Birch	5	Log	12		Ва	Isam Fir	Low	10 - 20 feet	Sapling	
	Quaking Aspen	70	Sapling	1	2	Blac	k Cherry	Low	10 - 20 feet	Sapling	
	Balsam Fir	5	Sapling	3		Hazeln	ut (Beaked)	Medium	< 5 feet	Tall Shrub	
	White Pine	20	XLog	24							
36	6233 - W	et Meadow	ı	Nonsto	cked	78.6		Unspecified	No		open bog/marsh. leatherleaf and dead snags, creek/floodings throughout. N 3/4 burned in Rock Dam Fire 2009



Stand	d Level 4 C	Level 4 Cover Type Size Density				Acres Stand Age BA Range			Managed Site		General Comments	
37	6120 - Lowland Ced		ar Po	letimber Medium		7.4	102 l	Inspecified	N/A		areas heavy to tag alder. stand is just about pure cedar	
	Canopy Species	% Cover	r Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Black Spruce	5	Pole	6		Bal	sam Fir	Low	Variable	Seeding		
No	orthern White Cedar	90	Log/Pole	11	102							
	Balsam Fir	5	Pole	6								
38	4130		Sapling Well			14.7 7 Immat		e N/A		Rock Dam Fire area from 2009 - aspen has delayed regeneration but has now come in well.		
	Canopy Species	% Cover	r Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	cherry saplings/hazel throughout.	
	Quaking Aspen	70	Sapling	1	7	Hazel	nut (Spp.)	High	< 5 feet	Tall Shrub		
	Paper Birch	20	Sapling	1								
	Red Maple	10	Sapling	1								
39	4134 - Asp	e/Fir f	r Poletimber Well			20.1 40 Unspecified		N/A		only older age class in adjacent area, between two younger stands.		
	Canopy Species	% Cover	r Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size	upland b spruce adjacent to swamp edge. In mid to S end of the stand, higher stocking of r maple saplings 10-120' tall	
	Red Maple	10	Pole	7		Red	d Maple	High	10 - 20 feet	Sapling	The state of the s	
	White Spruce	10	Pole/Sapling	9 6		Bal	sam Fir	Medium	10 - 20 feet	Sapling		
	Quaking Aspen	70	Pole	9	40	Hazelnı	ut (Beaked)	Medium	< 5 feet	Tall Shrub		
	Balsam Fir	10	Pole	6								
41	4110 - Sugar Maple Association			n Sawtimber Well			7.4 72 111		N/A		120 BA	
	Canopy Species	% Cover	r Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size		
	Sugar Maple	70	Log/Pole	11	72	Suga	ar Maple	High	10 - 20 feet	Sapling		
	Red Maple	20	Log/Pole	10		Iro	nwood	High	10 - 20 feet	Sapling		
	Basswood	10	Log	12								
42	2 6120 - Lowland Cedar Polet				r Well	21.4 102 Un		Jnspecified	N/A		adjacent to bog	
	Canopy Species	% Cover	r Size Class	DBH	Age	Sub-Can	opy Species	Density	Avg. Height	Size		
	Balsam Fir	15	Pole/Sapling	9 6		Bal	sam Fir	Medium	10 - 20 feet	Sapling		
	Black Spruce	15	Pole/Sapling	9 6	42	Tag	g Alder	Medium	5 - 10 feet	Tall Shrub		
No	orthern White Cedar	50	Log/Pole	11	102						-	
	Tamarack	20	Pole	7								
44	6121 - Tamarack Poletimber Medium				1.8	35 l	Jnspecified	N/A		stand adjancet to pond, creek		
	Canopy Species	% Cover	r Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size		
	Tamarack	100	Sapling/Pole	9 4	35	Tag	g Alder	Low	Variable	Tall Shrub		



Stand	d Level 4 Cover Type			Size Density		Acres Stand Age E		BA Range	Managed Site		General Comments	
45	6132 - Mixed Lowla	with Cedar Po	edar Poletimber Po		2.8	43	Unspecified	N/A		b ash/cedar with small higher ground inclusion. windthrow area		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	regenerating to A3M3. overall very wet stand - water	
	Balsam Poplar	10	Log	12		Re	ed Maple	High	5 - 10 feet	Sapling		
	Balsam Fir 10 Sapling/Po			3		Quaking Aspen		Medium	5 - 10 feet	Sapling		
No	rthern White Cedar	40	Log	12		Hazelr	nut (Beaked)	High	< 5 feet	Tall Shrub		
	Black Ash	40	Pole	6	43					'	•	
46	4136 - Aspen	, Mixed Cor % Cover		Sapling DB H	y Well I Age	8.8	24	Unspecified	N/A		scattered large w pine. mix of trees just moving into poletimber siz	e class
	Quaking Aspen	85	Sapling/Pole	3	24							
	Black Cherry	10	Sapling/Pole	4								
	Paper Birch	5	Sapling	2								
49	500 - Water			Nonstocked		4.2	0	Unspecified	No		bog pond	
51	629 - Mixed non	vetland	Nonstocked		16.6		Unspecified	No		lowlands adjacent to creek		