

Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12079 Entry Year: 2027 Acreage: 2,206

Management Area: Cassidy Creek

County: Dickinson

Stand Examiner: Rich Goupell

Legal Description:

T41N R29W Sections 22-24

Identified Planning Goals:

Optimize sustainable timber production while enhancing and protecting wildlife habitat. Protect riparian areas during management activity implementing the Best Management Practices guidelines.

Soil and topography:

Soils are a mixture of Cathro mucks, fine sandy loams, and rock outcroppings. Terrain is also variable from lowlands to small rolling hills to steep rock outcroppings.

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

Most of this compartment is contiguous State of Michigan ownership with a few private landowners within the boundary. Hunting, trapping, camping, fishing, and cross country skiing are the main recreational use patterns.

Unique Natural Features:

Mitchell Creek and West Branch of Sturgeon River. Granite Bedrock Glade ERA.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural features known.

Special Management Designations or Considerations:

Number of high quality natural communities in or near compartment. Granite Bedrock Glade ERA just s. of section 22. Portions of granite bedrock glade occur in southwestern portion of compartment. Granite cliff just s of section 22, drymesic northern forest to s of section 22; poor fen to s, submergent marsh just s of section 22; northern wet meadow to s in section 34; granite bedrock glade to sw and n; northern hardwoods swamp; granite cliff - section 10.

Watershed and Fisheries Considerations:

Mitchell Creek runs through this compartment and is a Type I Trout Stream. 300 foot buffers should be implemented. The West Branch of the Sturgeon River also runs through this compartment and should have 100 foot buffer. Streams, regardless of their size or frequency of flow, are connected to downstream waters and strongly influence their function. Additionally, wetlands and open waters in riparian areas and floodplains are physically, chemically, and biologically integrated with rivers via functions that improve downstream water quality. These systems act as effective buffers to protect downstream waters from pollution and are essential components of river food webs. BMP's should be implemented to control sediment sources from adjacent uplands. Fine sediments such as silt and sand negatively affect natural reproduction of fish, decrease the diversity of aquatic invertebrate and fish taxa, and result in lower overall fish populations.

Wildlife Habitat Considerations:

This compartment fall within the historic Sturgeon River Deer Wintering Complex. White-tailed deer was selected as a featured species to manage for critical habitat conditions which include important conifers, primarily hemlock, cedar and white pine, for winter cover, travel corridors and upland dispersal for forage. Forest openings will also be managed to provide important spring and summer forage. Black bear manage for refuge trees, forest openings and mast producing trees and shrubs. Maximizing age class diversity, decreasing stand size and maintaining the conifer component in aspen stands will provide grouse and woodcock. Maintaining mature forest conditions will provide critical habitat for northern goshawk and Blackburnian warbler. Wood duck critical habitat call for mature forest conditions to provide for nesting cavities and open water foraging in riparian corridors, lowland hardwoods, lowland conifers, vernal ponds and drainages.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and minor amounts of medium-textured till. There is insufficient data to determine the glacial drift thickness. The Precambrian Michigamme Formation and Archean granite/gneiss underlie the glacial drift. There is not a current economic use for these rocks, but the

granite/gneiss may have building/dimension stone potential. The Groveland Mine is located approximately three miles to the northwest. This compartment was previously leased for metallic mineral exploration and potential may still exist. Gravel pits are not located in the area, but there may be some potential. A former (inactive) State pit is located in Section 20. There is no economic oil and gas production in the UP.

Vehicle Access:

Access is excellent. Many poor forest roads are present within this compartment. The Merriman East Rd., Calumet Mine Rd., and Lyons Lake road are all gravel county roads.

Survey Needs:

Some.

Recreational Facilities and Opportunities:

Merriman Cross Country Ski Trail on Western side of compartment.

Fire Protection:

Fire response will be from the Norway or Crystal Fall DNR stations.

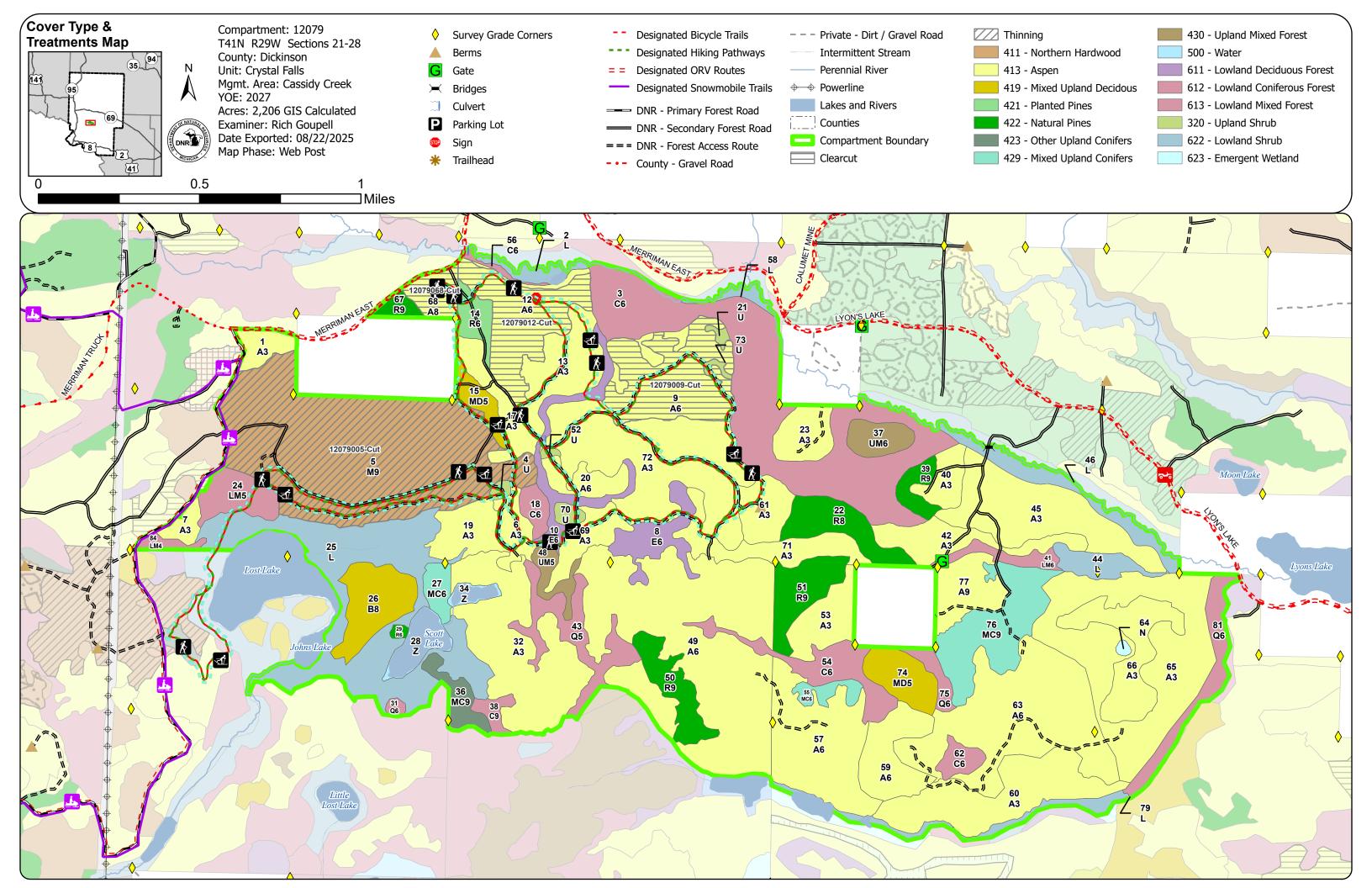
Additional Compartment Information:

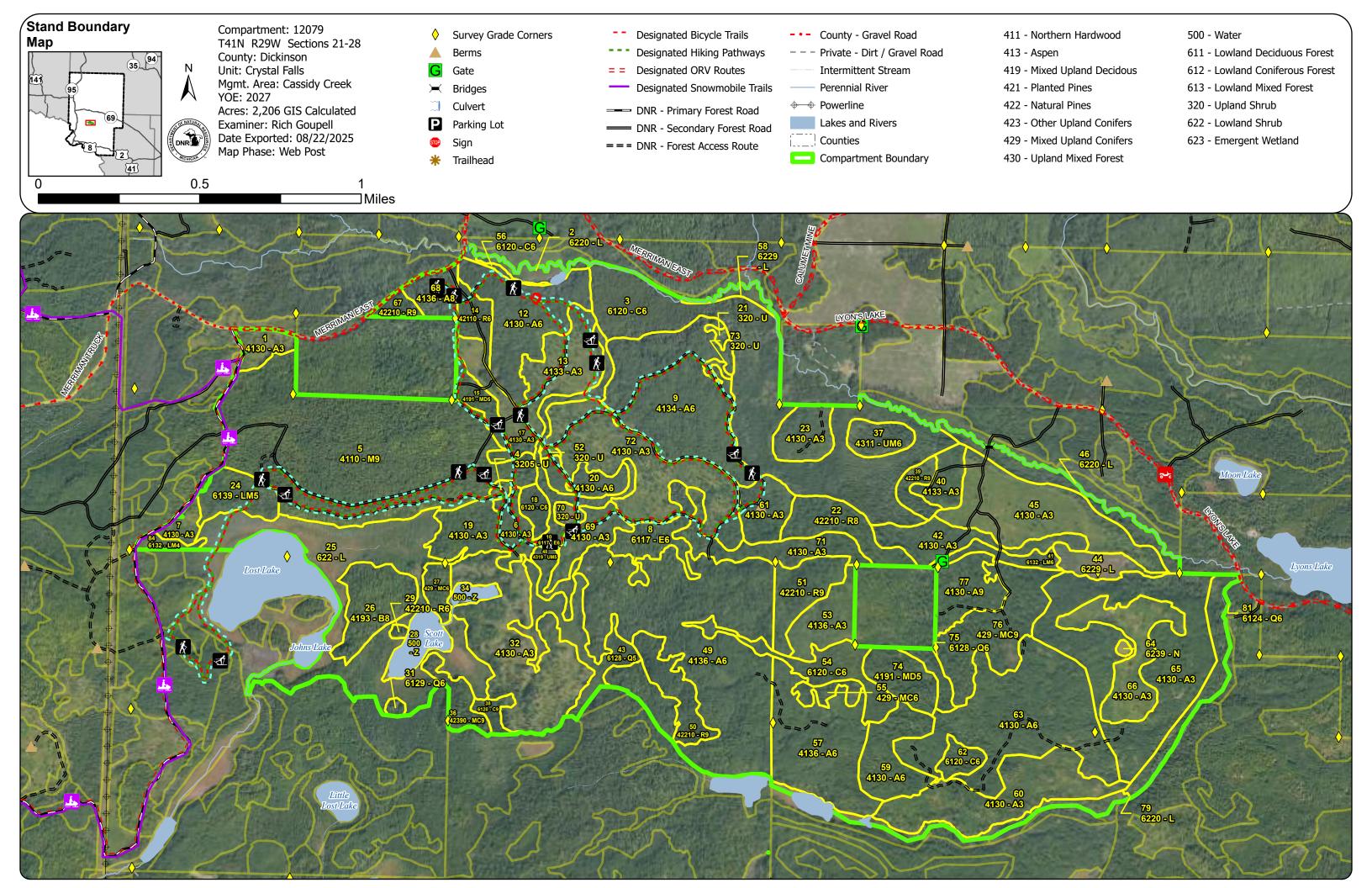
The following reports from the Inventory are attached:

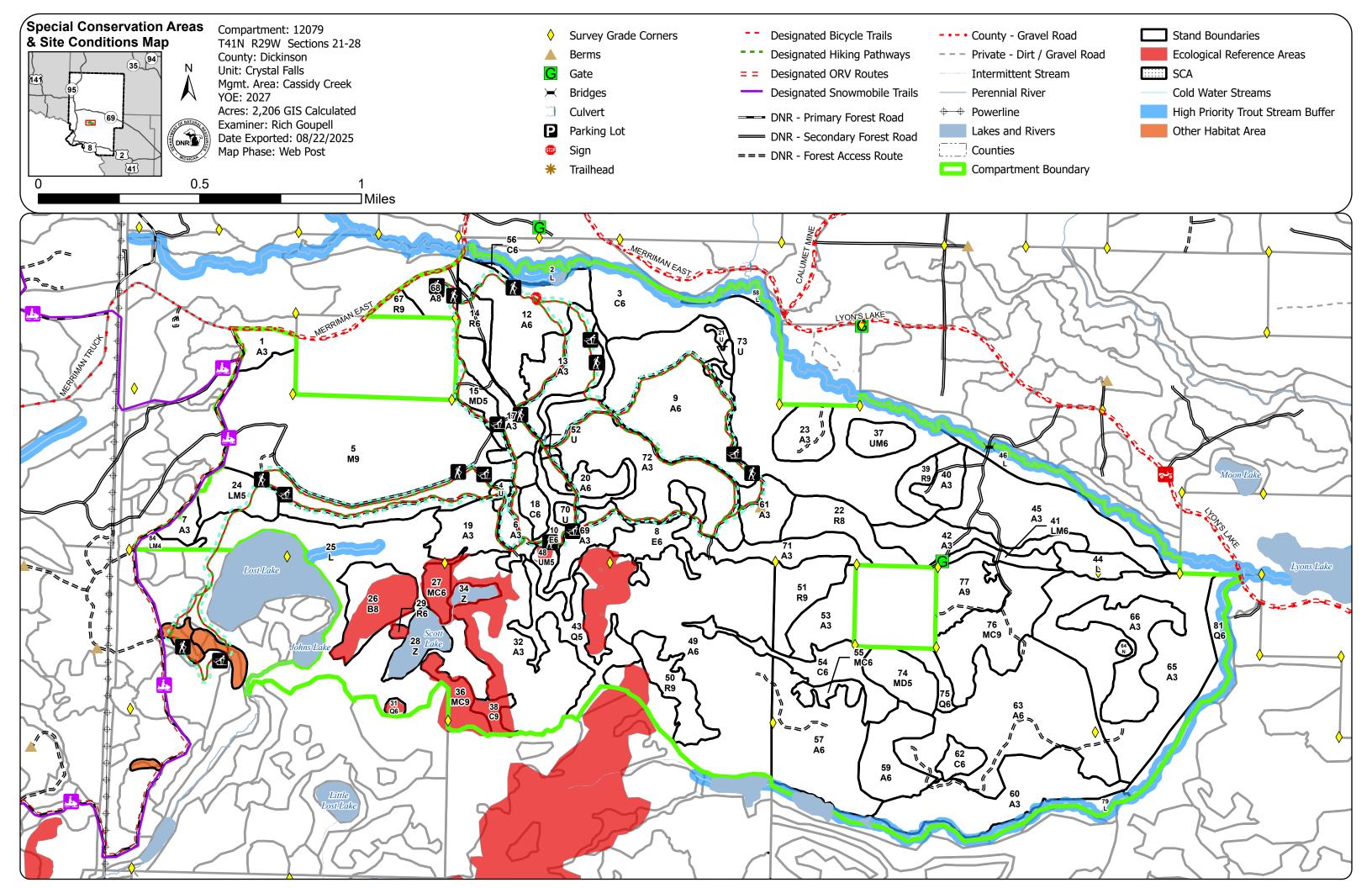
Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas Site Condition Details

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 79 Year of Entry 2027

Rich Goupell: Examiner

Crystal Falls Mgt. Unit



Age Class

	₹ gr		3/4	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					* / *	R. / &			70,7				St. St.	\$ Jugar	No.
Aspen	0	376	88	48	386	169	144	13	0	0	0	0	0	0	0	0	0	0	1224
Cedar	0	0	0	0	0	0	0	0	0	7	155	0	31	0	0	0	0	0	193
Lowland Conifers	0	0	0	0	0	0	0	0	0	36	2	0	22	0	0	0	0	0	60
Lowland Deciduous	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	41
Lowland Mixed Forest	0	0	0	0	0	9	0	4	0	0	0	0	0	19	0	0	0	0	32
Lowland Shrub	177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	177
Marsh	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	19	10	0	0	0	0	0	0	0	29
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201	201
Paper Birch	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	29
Red Pine	0	0	0	0	0	0	0	11	5	0	25	29	23	0	0	0	0	0	93
Upland Conifers	0	0	0	0	0	0	0	0	0	15	0	0	47	12	0	0	0	0	74
Upland Mixed Forest	0	0	0	0	0	12	0	0	9	0	0	0	0	0	0	0	0	0	21
Upland Shrub	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Water	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Total	207	376	88	48	386	190	144	69	14	106	192	29	123	31	0	0	0	201	2204



Report 2 – Treatment Summary

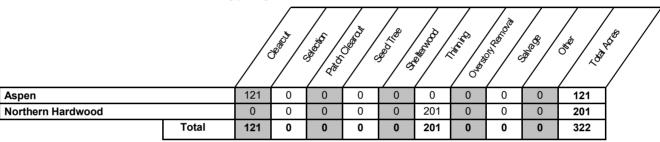
Crystal Falls Mgt. Unit Year of Entry: 2027

Acres of Harvest

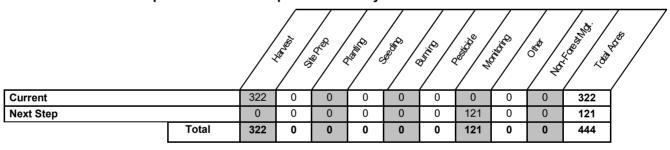
Compartment 79
Total Compartment Acres: 2,206

Commercial Harvest - 443 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: 12079

Year of Entry: 2027

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Treatment Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat Density Method Age Objective Structure Name CoverType Range Type Cut

Proposed Treatments:

12079005-Cut 200.9 4110 - Sugar Maple 9 150 81-110 Harvest Thinning 411 - Northern Current No Association Hardwood

Prescription Thin to 80 BA following Complete Marker. Remove all Ash, leave all other species represented. Green tree 1-2 ash per acre for soft snags. If

pockets of desirable advanced regeneration are found, establish gaps if desired. BA may vary depending on density Specs:

Next Step **Treatments:**

Acceptable Regen:

Removing Ash due to EAB risk within the stand. Trail protection throughout stand. Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

12079009-Cut Clearcut 59.1 4134 - Aspen, Unspeci Harvest 413 - Aspen **Planting** No Record Spruce/Fir fied

Prescription Final harvest following a 3-inch spec. Leave pine, oak, cedar, and hemlock if present.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, maple, birch, spruce, fir, pine.

Regen:

Other Acreage may change based on the line work on southern side and along retention pockets. If applicable, the southern line can and follow the

Comment: smaller, better-quality aspen.

Site Condition:

Proposed Start Date: 10/01/2026

12079012-Cut 49.3 4130 - Aspen 6 59 Harvest Clearcut 413 - Aspen **Planting** No Record

Prescription Final Harvest. 3-inch spec. Leaving Pine, Hemlock, Oak, and Cedar if present. Green tree maple, cherry, and birch opportunistically to represent

Specs: the stand.

Monitoring, Natural Regen (Re-Inventory) Next Step

Treatments:

Acceptable Aspen, Maple, Pine

Regen:

Other 100 ft buffer on north side of stand along Mitchell Creek

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

12079068-Cut 13.0 4136 - Aspen, Mixed 8 51-80 Harvest Clearcut 4136 - Aspen, **Planting** No 67 Conifer Mixed Conifer Record

Prescription Final Harvest. 3-inch spec. Leaving Pine, Hemlock, Oak, and Cedar if present. Green tree maple, cherry, and birch opportunistically to represent

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, spruce, fir, birch, maple, pine.

Regen:

Other No retention due to small size of stand. Merriman ski trail head parking present in stand.

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

	(Crystal Falls	Mgt. Unit		Repor	t 3	Treatments		Compartme	nt: 12079	OF NATURAL PROPERTY OF THE PRO
S									Year of Ent	ry: 2027	DNR
a											M/CHIGAN .
n d	Treatment Name	Acres	Stand CoverType	Size Densitv	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Obiective	Age Structure	Habitat Cut

Total Treatment Acreage Proposed: 322.3

Crystal Falls Mgt. Unit

Rich Goupell: Examiner



Compartment: 79

Year of Entry: 2027

Availa	ability for	Managemer	nt											
Total	Acres	Acres Avail	Acres		Domina	nt Site	e Con	dition	s					
Acres	Available	With Condition	Not Available		5B	5C	2F	2G	2H	3A	3J	3L	5A	5E
952	915	0	37	Aspen							15			22
192	8	0	184	Cedar				31					153	
60	36	0	24	Lowland Conifers						2	22			
41	41	0	0	Lowland Deciduous										
32	23	0	9	Lowland Mixed Forest							9			
159	153	0	6	Lowland Shrub							5		1	
1	1	0	0	Marsh										
26	19	7	0	Mixed Upland Deciduous		7								
201	201	0	0	Northern Hardwood										
29	0	0	29	Paper Birch						29				
80	16	47	16	Red Pine	47				12			4		
65	54	0	11	Upland Conifers						11				
21	12	0	9	Upland Mixed Forest			9							
10	10	0	0	Upland Shrub										
19	19	0	0	Water										
1,888	1,509	54	325	Total Forested Acres	47	7	9	31	12	42	50	4	154	22
	80%	3%	17%	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	5E: Long-Term Retention	12	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: No cut buffer to Mito	hell Creek.					
2	Unavailable	2F: Too steep	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
<u>"</u>							

Crystal Falls Mgt. Unit
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3	Unavailable	3A: Conservation values incompatible with harvest at this time	29	2F: Too steep	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified
	Comments: Rocky ground, with	n wetland to cross to get there.	It is pa	art of the new DHA.			
	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	9	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments: Stream through mi	ddle of stand. No-cut buffer alo	ng No	rth side of stand.			
	Unavailable	5A: Not able to obtain desirable regeneration	144	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	15	5E: Long-Term Retention	2F: Too steep	2G: Too wet (sensitive soils, does not include access issues)	Unspecified
	Comments:						
	Available	5B: Maintain for regeneration purposes	24	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: This stand should l understory this YO	be managed for the Pine/Aspen E.	ı advaı	nced regeneration in the un	derstory. The timing is no	t right to remove overstory a	nd release the
	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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9	Unavailable	3L: Other wildlife concerns	4	1C: Other Dept. or Div. process	Unspecified	Unspecified	Unspecified
С	Comments:						
		ondition favorable to WLD					
10	Unavailable	5A: Not able to obtain desirable regeneration	7	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
11	Unavailable	5E: Long-Term Retention	9	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified	Unspecified
C	Comments:						
13	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	167	2F: Too steep	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
	comments:	rock ledges and swamp with sta	ınding v	water			
14	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Retention chucks fo	or wildlife corridors into stand 3					
15	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

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16	Unavailable	5E: Long-Term Retention	5	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
C	comments:						
Ν	lo cut buffer to Mit	chell Creek.					
17	Unavailable	5A: Not able to obtain desirable regeneration	0	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
18	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	11	Unspecified	Unspecified	Unspecified	Unspecified
	comments: mall acreage stan	d surrounded by A3.					
19	Unavailable	5E: Long-Term Retention	1	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	comments: Mucho Pine Timbe	r Sale (12-027-17) retention.					
20	Available	5B: Maintain for regeneration purposes	23	Unspecified	Unspecified	Unspecified	Unspecified
	comments: This stand was cut	10 years ago and needs to let	the re	gen grow.			
21	Unavailable	5A: Not able to obtain desirable regeneration	2	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						

Crystal Falls Mgt. Unit
Rich Goupell: Examiner



23	Unavailable	3A: Conservation values incompatible with harvest at this time	8	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
24	Unavailable	3A: Conservation values incompatible with harvest at this time	2	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
25	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	26	Unspecified	Unspecified	Unspecified	Unspecified
C	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				



Stan	d Level 4 Co	over Type		Size De	ensity	Acres	Stand Age	BA Range	Managed S	Site	General Comments
1	4130 Canopy Species Quaking Aspen	- Aspen **Cover** 100	Size Class	Sapling DBF	l Age	10.7	9	Immature	N/A	A	This stand was cut during the spring/summer of 2017 part of sale#020-16-01. Scattered Pine and Hemlock left from cut
2		lder/Willow		Noi		7.8			No)	
3	6120 - Lov	wland Ceda	r	Poletimb	er Well	144.9	94	111-140	N/A	4	Mostly Cedar with pockets of pure Tamarack and Spruce scattered within stand. At least one small area of spruce blow down observed.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	within stand. At least one small area of spruce blow down observed.
N	orthern White Cedar	60		11	94	Ta	ag Alder	Mediur	n 5 - 10 feet	5 - 10 feet	
	Tamarack	20	Seedling	8		Northerr	n White Ceda	r Low	Variable	Variable	
	Black Spruce	20	Seedling	7		Blad	ck Spruce	Mediur	n Variable	Variable	
						Ва	alsam Fir	Mediur	n Variable	Variable	
4	3205 - Mixed	l Upland Sh	rub	Noi	ne	2.0			No)	Stand origin 1990. Some younger pine and spruce present.
5	4110 - Sugar M	1aple Assoc	iation	Sawtimb	er Well	200.9	150	81-110	N/A	4	Stand cut 2005, Gun Barrels. Large overall DBH distribution. White ash
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	log trees should be considered for removal when harvested next. Some white pine overstory and understory present on the south edge of the
	White Ash	15		18		W	hite Ash	Low	5 - 10 feet	5 - 10 feet	stand along the lowland.
	Sugar Maple	50		14	150	Sug	gar Maple	Low	10 - 20 feet	10 - 20 feet	
	Basswood	35		14		Iro	onwood	Mediur	n 10 - 20 feet	10 - 20 feet	
						Ва	alsam Fir	Low	5 - 10 feet	5 - 10 feet	
6	4130	- Aspen		Sapling	g Well	12.4	15	Immature	N/A	4	Many different species in supercanopy left unharvested from last
	Canopy Species Quaking Aspen	% Cover 100	Size Class Log	DB F	1 Age						treatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water. Harvested 2010.
7	4130 Canopy Species	- Aspen	Size Class		g Well I Age	6.8	12	Immature	N/A	A	Some balsam fir and cedar left on the southern side from previous harvest. Balsam poplar, paper birch, and balsam fir on the eastern edge. Harvested 2013, Bits and Pieces Sale (Sale # 12-055-11-01).
	Quaking Aspen	100	Log	3	12						,
8	6117 - Lowland Coni	Deciduous, iferous	Mixed	Poletimb	er Well	20.0	61	81-110	N/A	A	Scattered paper birch, red maple, and aspen that could be considered merchantable. Cedar, spruce, and fir scattered in wetter areas. Large
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	amounts of dead standing ash.
N	orthern White Cedar	5		10		BI	ack Ash	Low	5 - 10 feet	5 - 10 feet	
	Black Ash	5	Log	4		Ta	ag Alder	Low	5 - 10 feet	5 - 10 feet	
	Paper Birch	20	Seedling	7		Ва	alsam Fir	Low	5 - 10 feet	5 - 10 feet	
	Balsam Fir	10	Sapling	7							_
	Black Spruce	10	Sapling	6							
	Balsam Poplar	35		10	61						
	Red Maple	15	Seedling	7							



Stan	d Level 4 C	over Type		Size Der	nsity	Acres	Stand Age I	BA Range	Managed Site		General Comments				
9	4134 - Asp	en, Spruce/	Fir	Poletimbe	er Well	91.7	50 l	Unspecified N/A		4	Some budworm damage observed on understory fir. Aspen is varying				
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	densities.Apparent wet area / drainage on western side of stand butting up to stand 10. Some of the wet area could be reserved. A little				
	Balsam Fir	20	Sapling	5		Pa	per Birch	Trace	5 - 10 feet	5 - 10 feet	more pine on eastern side. Seems to be slightly smaller Aspen on that				
	Quaking Aspen	80		7	50	W	hite Pine	Trace	5 - 10 feet	5 - 10 feet	side as well.				
						Ва	ılsam Fir	High	Variable	Variable					
						R	ed Pine	Trace	10 - 20 feet	10 - 20 feet					
10	6117 - Lowland Con	Deciduous, iferous	Mixed	Poletimbe	er Well	21.0	61	81-110	N/A	A	Merchantable balsam poplar present. Cedar, spruce, and fir scattered wetter areas. large amounts of dead standing ash.				
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size					
	Balsam Poplar	35		9	61	Ta	ag Alder	Low	5 - 10 feet	5 - 10 feet					
	Black Ash	5	Log	4		BI	ack Ash	Low	5 - 10 feet	5 - 10 feet					
N	orthern White Cedar	10		10		Ba	ılsam Fir	Low	5 - 10 feet	5 - 10 feet					
	Balsam Fir	15	Seedling	7				, , , , , , , , , , , , , , , , , , ,			_				
	Paper Birch	15		9											
	Black Spruce	10	Sapling	6											
	Red Maple	10		9											
12	4130	- Aspen		Poletimbe	er Well	52.3	59		N/A	4	Scattered supercanopy Pines found throughout stand. Strip of older ¬Aspen near creek within buffer.				
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Aspertiteal Greek within builer.				
	White Pine	5		14		W	hite Pine	Medium	Variable	Variable					
	Quaking Aspen	85	Seedling	6	59	Ba	ılsam Fir	Medium	Variable	Variable					
	Red Pine	5		14		Hazelr	nut (Beaked)	Medium	5 - 10 feet	5 - 10 feet					
	Red Maple	5		8		Re	ed Maple	Low	Variable	Variable					
						R	ed Pine	Low	>20 feet	>20 feet					
						Whi	te Spruce	Medium	Variable	Variable					
13	4133 - Aspe	en, Mixed P	ine	Sapling	Well	33.4	7	1-50	N/A	4	Part of Little Paw sale cut fall 2018/spring2019. A few scattered white pine				
	Canopy Species	% Cover	Size Class	DBH	Age						Pille				
	Red Pine	20		14	101										
	Quaking Aspen	80	Log	1	7										
14	42110 - Pla	inted Red P	ine	Poletimbe		10.8	65	111-140	N/A	١	Cut 2018 part of Little Paw Sale. Aspen was removed and third row thinning. A few aspen were left				
		0/ 0	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	umming. A lew aspen were left				
	Canopy Species	% Cover	Oize Oiass	00	9 -										
	Canopy Species Red Pine	% Cover	Seedling	8	65		ed Maple	Low	5 - 10 feet	5 - 10 feet					
						Re		Low Low	5 - 10 feet Variable	5 - 10 feet Variable					

Crystal Falls Mgt. Unit



Stand	Level 4 C	over Type		Size Density	Acres	Stand Age E	BA Range	Managed Site		General Comments
15	4191 - Mixed Upl Co	and Decidu	ous with P	oletimber Medium	10.2	94	51-80	N/A	1	Harvested 2000. Many trees left unharvested when last treated. Aspen in understory is not fully stocked.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Paper Birch	15	Sapling	6	Qua	king Aspen	Medium	10 - 20 feet	10 - 20 feet	
	White Spruce	15	Sapling	6	Ва	alsam Fir	Low	Variable	Variable	
	Red Maple	50		12 94	Ir	onwood	Low	Variable	Variable	
	Balsam Fir	20	Sapling	6						
17	4130	- Aspen		Sapling Well	18.4	7	Immature	N/A	١	Part of Little Paw sale cut fall 2018. Scattered super canopy white pine.
	Canopy Species	% Cover	Size Class	DBH Age						
	Quaking Aspen	100	Log	1 7						
18	6120 - Lo	wland Ceda	ır	Poletimber Well	7.0	86	111-140	N/A	1	Cedar stand still doing well. Standing dead ash scattered.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
No	rthern White Cedar	80	Seedling	9 86	T	ag Alder	Low	5 - 10 feet	5 - 10 feet	
	White Spruce	10		10	Ва	alsam Fir	Low	Variable	Variable	
	Balsam Poplar	10		10						
19	4130	- Aspen		Sapling Well	20.2	35		N/A	\	Many trees in overstory left unharvested from last cut. Small wet Black
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Ash drainage along South side of stand.
	Balsam Fir	10	Sapling	6	Ir	onwood	Low	5 - 10 feet	5 - 10 feet	
	Red Maple	5	Seedling	9	Ва	alsam Fir	Low	10 - 20 feet	10 - 20 feet	
	Quaking Aspen	75	Sapling	6 35						
	White Pine	5		16						
	Sugar Maple	5	Seedling	8						
20	4130	- Aspen		Poletimber Well	12.9	47 L	Inspecified	N/A	١	Healthy aspen. Super canopy white pine present. Hold until next cycle to
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	harvest.
	Red Maple	10	Seedling	8	Ва	alsam Fir	Low	10 - 20 feet	10 - 20 feet	
	White Spruce	5	Sapling	7	Ir	onwood	Low	5 - 10 feet	5 - 10 feet	
	Balsam Fir	10	Sapling	6						
	Quaking Aspen	75	Seedling	9 47						
21	320 - Up	oland Shrub		None	1.6			No		Still consist of opening. If stand 9 were to be harvested, this stand would be enveloped into it. SOME Aspen coming up around the edge 1-4 dbh with spruce and white pine mixed in.

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Stanc	Level 4 Co	over Type		Size Density Acres Stand Age BA Range Managed Site		Site	General Comments			
22	42210 - Nat	ural Red Pi	ne Sa	awtimber Medium	24.2	99	51-80	N/A	4	Large diameter Pine stand where other species were removed in 1999. Birch, Cedar, Hemlock and Maple within stand are inaccessible and
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	growing amongst the rocks. Rock wall on South side of stand. Small
	Red Pine	70		15 99	Pa	per Birch	Low	>20 feet	>20 feet	drainages exist. Wetter to the East. Understory of White Pine, Aspen,
	White Pine	15		13	Qual	king Aspen	High	Variable	Variable	and red pine is growing well and should be released when the time is
	Red Oak	5		12	W	hite Pine	Medium	Variable	Variable	right.
	Red Maple	10		9	Hazelr	nut (Beaked)	Low	5 - 10 feet	5 - 10 feet	
					Re	ed Maple	Low	>20 feet	>20 feet	
					R	ed Pine	Medium	5 - 10 feet	5 - 10 feet	
23	4130 - Aspen			Sapling Well	17.4	26	Immature	N/A		Large supercanopy Pines found throughout stand. Cut in 1999 part of
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Calumet South Aspen.
	Quaking Aspen	100	Sapling	5 26	Ва	ılsam Fir	Medium	Variable	Variable	
					Bra	cken Fern	Medium	Not Applicable	Not Applicable	
24	6139 - Mixed	Lowland Fo	prest Po	oletimber Medium	18.9	121	81-110	N/A	4	Some dead ash very scattered. Large mix of species. Consider next
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	cycle for harvest.
	Yellow Birch	20		11 121	Ba	ılsam Fir	Medium	10 - 20 feet	10 - 20 feet	
	Balsam Fir	20	Seedling	6	Blad	ck Spruce	Medium	10 - 20 feet	10 - 20 feet	
	Paper Birch	10	Seedling	7						•
	Quaking Aspen	20		7 39						
	Hemlock	5	Seedling	8						
No	orthern White Cedar	10	Seedling	9						
	Black Spruce	15	Sapling	6						
25	622 - Lov	land Shrub	ı	None	114.6			No)	Dead trees (ash) still in canopy. Tag elder understory. Scattered
					Sub-Ca	nopy Species	Density	Avg. Height	Size	tamarack in southeastern area.
					Ta	ag Alder	High	5 - 10 feet	5 - 10 feet	
26	4193 - Bi	rch, Aspen	Sa	awtimber Medium	29.4	88	51-80	N/A	4	Mos of this stand is in the Dry Mesic Northern forest ERA.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	15		10	Suç	gar Maple	Low	Variable	Variable	
	Paper Birch	55		12 88	Re	ed Maple	Low	Variable	Variable	
	Quaking Aspen	15		10			1			
	Balsam Fir	5		8						
	White Pine	5		18						
	Bigtooth Aspen	5		10						



Stand	d Level 4 C	Level 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		ite	General Comments					
27	429 - Mixed I	Jpland Con	ifers	Poletimber Well	8.2	81	81-110	N/A		Very rocky with ridges. Cedar lowland in center of stand. Red pine in southern area of stand on higher ground.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	southern area of stand off higher ground.
	Quaking Aspen	25	Seedling	7 46	Whi	te Spruce	Low	10 - 20 feet	10 - 20 feet	
	Red Pine	35		10 81	Ва	llsam Fir	Medium	10 - 20 feet	10 - 20 feet	
No	orthern White Cedar	10	Seedling	8 91						
	White Spruce	15	Sapling	6						
	Balsam Fir	15	Sapling	6						
28	500	- Water		None	14.3			No		
29	42210 - Na	tural Red Pi	ne	Poletimber Well	1.3	91	81-110	N/A		Stand is in the Dry Mesic Northern Forest Era.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	White Pine	20		10	WI	hite Pine	Low	Variable	Variable	
	Red Pine	80		10 91	R	ed Pine	Low	Variable	Variable	
31	6129 - Mixed Conif	erous Lowla	and Forest	Poletimber Well	1.8	96		N/A		The stand is in the Dry Mesic Northern Forest
32	4130	- Aspen		Sapling Well	81.4	5	Immature	N/A	,	Stand cut with Jurassic Aspen Mix T-sale #12-007-18. Finished cutting
	Canopy Species	% Cover	Size Class	e Class DBH Age Sub-Canopy Spec	nopy Species	Density	Avg. Height	Size	stand January 2020. Stand retention around small lake (Stand 6). Pine left on rock ridges. Cedar ridge present on north side of stand. Maple	
	Red Maple	10	Log	1	Haze	elnut (Spp.)	Low	5 - 10 feet	5 - 10 feet	stump sprouts spread throughout. Pine left throughout western ridge line.
	Quaking Aspen	90	Log	1 5						
34	500	- Water		None	5.1			No		offshoot of Scott Lake
36	42390 - Mixed Non	-Pine Uplan	d Conifers	Sawtimber Well	11.9	129	81-110	N/A	ı	mixed upland cedar and hemlock on rock knobs. very little understory in most areas. rock ledge throughout. extremely poor to no access. Some
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	blow over from bud worm damage. Stand is in the Dry Mesic Northern
	Paper Birch	15		13		nut (Beaked)	Low	5 - 10 feet	5 - 10 feet	Forest ERA.
	Hemlock	30		12	Ва	ılsam Fir	Low	10 - 20 feet	10 - 20 feet	
	Red Maple	10		12						
No	orthern White Cedar	35		14 129						
	Balsam Fir	10	Seedling	8						
37	4311 - Pin	e, Aspen M	ix	Poletimber Well	12.3	48	81-110	N/A	1	Some very large diameter Pines in supercanopy. Relatively poor access. Aspen could be monitored for harvest.
	Canopy Species		Size Class			nopy Species		Avg. Height	Size	
	Balsam Fir	10	Sapling	6		ılsam Fir	Medium	Variable	Variable	
	Red Pine	35		16	Blad	ck Spruce	Medium	Variable	Variable	
	Quaking Aspen	50	Seedling	8 48						
	Black Spruce	5	Sapling	6						



Stand	d Level 4 C	over Type		Size De	nsity	Acres Star	nd Age BA	A Range	Managed Site		General Comments
38	6120 - Lo	wland Ceda	ar S	Sawtimb	er Well	5.4 1	111 1	111-140	N/A	A	Center of stand heavier to tamarack/b spruce. very wet sections of the stand. Red pine ridge runs on east side of stand. Lowland cedar still
	Canopy Species	% Cover	Size Class		l Age	Sub-Canopy	Species	Density	Avg. Height	Size	doing well.
N	orthern White Cedar	50		13	111	Tag Ald	der	High	5 - 10 feet	5 - 10 feet	
	Black Ash	5	Seedling	7		Balsam	Fir	Medium	10 - 20 feet	10 - 20 feet	
	Black Spruce	20	Sapling	7							
	Balsam Fir	5	Sapling	6							
	Tamarack	20	Seedling	9							
39	42210 - Na	tural Red P	ine S	Sawtimber Well		8.9 105		51-80	N/A	4	Large diameter Pine stand. Cut 2019 part of Hazelnut Soup. All Pine
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy	Species	s Density	Avg. Height	Size	reserved. Aspen coming up well.
	Red Pine	100		16	105	Bracken I	Fern	High	Not Applicable	Not Applicable	
l .				'	·	Quaking A	spen	High	5 - 10 feet	5 - 10 feet	
40	4133 - Aspe	en, Mixed P	ine	Sapling	j Well	12.4	24 Ir	mmature	N/A	A	The regenerating Aspen stand is almost as tall at the planted 55 year old Red Pine. Stand should be managed as Aspen. Cut in 2001.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy	Species	Density	Avg. Height	Size	Red Pine. Stand should be managed as Aspen. Cut in 2001.
	Red Pine	25	Seedling	8		Hazelnut (B	eaked)	Medium	5 - 10 feet	5 - 10 feet	
	Quaking Aspen	75	Log	3	24						
41	6132 - Mixed Lowla	2 - Mixed Lowland Forest with Cedar Po		Poletimb	er Well	9.0	48	81-110	N/A	4	Trace amounts of Sugar Maple and Pine. Stream through middle of stand. Standing dead black ash, mostly on east side. Balsam poplar
	Camanu Casalas										
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy	Species	Density	Avg. Height	Size	
	White Spruce	% Cover	Size Class	DB F	I Age	Sub-Canopy Balsam	•	Density Low	Avg. Height Variable	Size Variable	getting to merchantable size.
No			Size Class		I Age		Fir				
Ne	White Spruce	10	Size Class Sapling	12	I Age	Balsam	Fir Ash	Low	Variable	Variable	
No	White Spruce	10 20		12 14	Age 48	Balsam Black A	Fir Ash der	Low	Variable Variable	Variable Variable	
No	White Spruce orthern White Cedar Balsam Fir	10 20 10	Sapling	12 14 6		Balsam Black A Tag Ald	Fir Ash der	Low Low	Variable Variable 5 - 10 feet	Variable Variable 5 - 10 feet	
No	White Spruce orthern White Cedar Balsam Fir Balsam Poplar	10 20 10 40	Sapling Seedling	12 14 6 8		Balsam Black A Tag Ald	Fir Ash der	Low Low	Variable Variable 5 - 10 feet	Variable Variable 5 - 10 feet	
Ne	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash	10 20 10 40 5	Sapling Seedling Log	12 14 6 8 4		Balsam Black A Tag Ald	Fir Ash der	Low Low	Variable Variable 5 - 10 feet	Variable Variable 5 - 10 feet	
42	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash Black Spruce Quaking Aspen	10 20 10 40 5	Sapling Seedling Log Sapling	12 14 6 8 4 7 8	48 48 Well	Balsam Black A Tag Ald White Sp	Fir Ash der Iruce	Low Low	Variable Variable 5 - 10 feet	Variable Variable 5 - 10 feet Variable	getting to merchantable size. Harvested 2010. Many different species in super canopy left
	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash Black Spruce Quaking Aspen	10 20 10 40 5 5	Sapling Seedling Log Sapling Seedling	12 14 6 8 4 7 8	48	Balsam Black A Tag Ald White Sp	Fir Ash der Aruce	Low Low Low	Variable Variable 5 - 10 feet Variable	Variable Variable 5 - 10 feet Variable	getting to merchantable size.
	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash Black Spruce Quaking Aspen	10 20 10 40 5 5 10 10 - Aspen	Sapling Seedling Log Sapling Seedling	12 14 6 8 4 7 8	48 48 Well	Balsam Black A Tag Ald White Sp	Fir Ash der ruce 15 Ir Species	Low Low Low Low Low	Variable Variable 5 - 10 feet Variable	Variable Variable 5 - 10 feet Variable Size	Harvested 2010. Many different species in super canopy left unharvested from last treatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water.
	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash Black Spruce Quaking Aspen 4130 Canopy Species Quaking Aspen 6128 - Lowland	10 20 10 40 5 5 10 - Aspen 100	Sapling Seedling Log Sapling Seedling Seedling	12 14 6 8 4 7 8 Sapling	48 48 Well 1 Age 15	Balsam Black A Tag Ald White Sp 25.8 Sub-Canopy Bracken I	Fir Ash der ruce 15 Ir Species	Low Low Low Low Density	Variable Variable 5 - 10 feet Variable N/A	Variable Variable 5 - 10 feet Variable Size Not Applicable	Harvested 2010. Many different species in super canopy left unharvested from last treatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water. Extremely wet - standing water. South end is heavier to black ash saplings. Most overstory ash has died. There is a conifer and cedar
42	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash Black Spruce Quaking Aspen 4130 Canopy Species Quaking Aspen 6128 - Lowland	10 20 10 40 5 5 10 - Aspen Cover 100 Coniferous,	Sapling Seedling Log Sapling Seedling Size Class Log Mixed Po	12 14 6 8 4 7 8 Sapling DBH 3	48 48 Well 1 Age 15	Balsam Black A Tag Ald White Sp 25.8 Sub-Canopy Bracken I	Fir Ash Jer Aruce 15 Ir Species Fern 81	Low Low Low Low Dommature Density Medium	Variable Variable 5 - 10 feet Variable N/A Avg. Height Not Applicable	Variable Variable 5 - 10 feet Variable Size Not Applicable	Harvested 2010. Many different species in super canopy left unharvested from last treatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water. Extremely wet - standing water. South end is heavier to black ash
42	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash Black Spruce Quaking Aspen 4130 Canopy Species Quaking Aspen 6128 - Lowland Dec	10 20 10 40 5 5 10 10 - Aspen 7 100 Coniferous, iduous	Sapling Seedling Log Sapling Seedling Size Class Log Mixed Po	12 14 6 8 4 7 8 Sapling DBH 3	48 J Well I Age 15 Mediur	Balsam Black A Tag Ald White Sp 25.8 Sub-Canopy Bracken I	Fir Ash der ruce 15 Ir Species Fern 81	Low Low Low Low Density Medium	Variable Variable 5 - 10 feet Variable N/A Avg. Height Not Applicable	Variable Variable 5 - 10 feet Variable Size Not Applicable	Harvested 2010. Many different species in super canopy left unharvested from last treatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water. Extremely wet - standing water. South end is heavier to black ash saplings. Most overstory ash has died. There is a conifer and cedar
42	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash Black Spruce Quaking Aspen 4130 Canopy Species Quaking Aspen 6128 - Lowland Dec	10 20 10 40 5 5 10 10 - Aspen % Cover 100 Coniferous, iduous % Cover	Sapling Seedling Log Sapling Seedling Size Class Log Mixed Po	12 14 6 8 4 7 8 Sapling DBH 3	48 J Well I Age 15 Mediur	Balsam Black A Tag Ald White Sp 25.8 Sub-Canopy Bracken I	Fir Ash der ruce 15 Ir Species Fern 81	Low Low Low Low Density Medium 51-80	Variable Variable 5 - 10 feet Variable N/A Avg. Height Avg. Height	Variable Variable 5 - 10 feet Variable Size Not Applicable	Harvested 2010. Many different species in super canopy left unharvested from last treatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water. Extremely wet - standing water. South end is heavier to black ash saplings. Most overstory ash has died. There is a conifer and cedar
42	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash Black Spruce Quaking Aspen 4130 Canopy Species Quaking Aspen 6128 - Lowland Dec Canopy Species Balsam Poplar	10 20 10 40 5 5 10 - Aspen 100 Coniferous, iduous % Cover 15	Sapling Seedling Log Sapling Seedling Size Class Log Mixed Pc Size Class Sapling	12 14 6 8 4 7 8 Sapling DBH 3	48 J Well I Age 15 Mediur	Balsam Black A Tag Ald White Sp 25.8 Sub-Canopy Bracken I	Fir Ash der ruce 15 Ir Species Fern 81	Low Low Low Low Density Medium 51-80	Variable Variable 5 - 10 feet Variable N/A Avg. Height Avg. Height	Variable Variable 5 - 10 feet Variable Size Not Applicable	Harvested 2010. Many different species in super canopy left unharvested from last treatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water. Extremely wet - standing water. South end is heavier to black ash saplings. Most overstory ash has died. There is a conifer and cedar
42	White Spruce orthern White Cedar Balsam Fir Balsam Poplar Black Ash Black Spruce Quaking Aspen 4130 Canopy Species Quaking Aspen 6128 - Lowland Dec Canopy Species Balsam Poplar Balsam Fir	10 20 10 40 5 5 10 - Aspen 70 Cover 100 Coniferous, iduous 75 15 15	Sapling Seedling Log Sapling Seedling Size Class Log Mixed Po Size Class Sapling Sapling Sapling	12 14 6 8 4 7 8 Sapling DBH 3 DBH 6 6	48 Well Age 15 Mediur	Balsam Black A Tag Ald White Sp 25.8 Sub-Canopy Bracken I	Fir Ash der ruce 15 Ir Species Fern 81	Low Low Low Low Density Medium 51-80	Variable Variable 5 - 10 feet Variable N/A Avg. Height Avg. Height	Variable Variable 5 - 10 feet Variable Size Not Applicable	Harvested 2010. Many different species in super canopy left unharvested from last treatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water. Extremely wet - standing water. South end is heavier to black ash saplings. Most overstory ash has died. There is a conifer and cedar

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Stand	nd Level 4 Cover Type			Size Density	Acres	Stand Age E	BA Range	Managed S	ite	General Comments
44	6229 - Mixed	Lowland S	hrub	None	12.3			No		Some red maple and balsam poplar saplings scattered on the edges. ¬ Some larger dead standing balsam poplar on edges as well.
					Sub-Ca	nopy Species	Density	Avg. Height	Size	Some larger dead standing balsam popial on edges as well.
					Ва	lsam Fir	Low	5 - 10 feet	5 - 10 feet	
					Re	d Maple	Low	5 - 10 feet	5 - 10 feet	
					Ta	g Alder	Medium	5 - 10 feet	5 - 10 feet	
					Balsa	am Poplar	Low	5 - 10 feet	5 - 10 feet	
					Black Spruce		Low	5 - 10 feet	5 - 10 feet	
45	4130 - Aspen			Sapling Well	63.3	6	Immature	N/A		Cut Fall of 2019 part of Hazelnut Soup. Some pine left in the overstory.
	Canopy Species	% Cover	Size Class	DBH Age						Buffered mitchell creek 300 feet. Long term retention along north side bordering water.
(Quaking Aspen	100	Log	2 6						bordening water.
46	6220 - Alder/Willow			None	21.6			No		Borders Mitchell Creek.
					Sub-Ca	nopy Species	Density	Avg. Height	Size	
					Та	g Alder	Medium	5 - 10 feet	5 - 10 feet	
48	4319 - Mixed Upland Forest		rest Po	oletimber Medium	n 8.6	76	51-80	N/A		Wet area running through it from stand 10 to 43. Rock ridge could
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	impact harvestability. Pine in dominant overstory.
	Red Pine	15		12	Ва	lsam Fir	Low	5 - 10 feet	5 - 10 feet	
	Paper Birch	40		10 76			,			_
	White Pine	10		13						
	Balsam Fir	20	Sapling	6						
	Red Maple	5	Seedling	9						
	White Spruce	10	Sapling	7						
49	4136 - Asper	, Mixed Co	nifer I	Poletimber Well	174.9 37		111-140	N/A		Aspen is healthy. Scattered drainages and other wet areas within the
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	stand. Standing dead black ash, cedar, and tag alder present within the wet areas. Red and White Pine very scattered on the north side. Rock
	Red Pine	5		11	Ва	lsam Fir	Low	5 - 10 feet	5 - 10 feet	outcrops present throughout the stand as well that could impact
	White Spruce	5	Seedling	6	Whit	e Spruce	Low	5 - 10 feet	5 - 10 feet	harvestability. *Consider breaking up and harvesting portion next cycle.
Nor	rthern White Cedar	10		9			,			_
	Paper Birch	5		9						
I	Bigtooth Aspen	5	Seedling	7						
(Quaking Aspen	55	Seedling	6 37						
	Red Maple	5		8						
	Balsam Fir	5	Sapling	5						
	White Pine	5		12						
50	42210 - Na	ural Red P	ine :	Sawtimber Well	20.4	105	111-140	N/A		r pine on rock top. good form. A few scattered White Pine.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Maple	5	Seedling	8	Pap	er Birch	Medium	>20 feet	>20 feet	
	Red Pine	95		12 105	Ва	lsam Fir	Medium	10 - 20 feet	10 - 20 feet	

Crystal Falls Mgt. Unit

Report 7 - Stands



Stan	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed Site		General Comments
51	42210 - Na	tural Red Pi	ne	Sawtimber Well		23.0	116	51-80	N/A	\	Red pine throughout stand. Has a wet area running through it. Has
	Canopy Species % Cover Size Cla		Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	aspen and red maple coming up in the understory but could be considered for pine management.
	Balsam Fir	10	Seedling	8		Ва	Isam Fir	Low	5 - 10 feet	5 - 10 feet	considered for pine management.
	Quaking Aspen	15	Seedling	6	16					1	_
	Red Pine	60		14	116						
	Red Maple	15	Seedling	6							
52	320 - Up	oland Shrub		Non	е	1.2			No		Origin 1972. A few Aspen coming up because of stand 72 (6 years old). Some spruce and pine present.
53	4136 - Asper	n, Mixed Cor	nifer	Sapling	Well	21.9	32		N/A	\	Mix of trees left in overstory. Some wet ground in the middle of the stand
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	80	Seedling	8	32	Whi	te Spruce	Low	5 - 10 feet	5 - 10 feet	
	White Spruce	5	Seedling	6		Ва	lsam Fir	Low	10 - 20 feet	10 - 20 feet	
	Red Pine	10		10							
	Balsam Fir	5	Seedling	6							
54	6120 - Lo	6120 - Lowland Cedar		Poletimber Well		25.8	111	111-140	N/A		Black Ash has died due to EAB. Wet area continues to move into stand 49.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	49.
	Black Spruce	10	Seedling	5		Bla	ack Ash	High	< 5 feet	< 5 feet	
	Balsam Fir	5	Sapling	5							
N	orthern White Cedar	85		8	111						
55	429 - Mixed l	Jpland Coni	fers	Poletimbe	er Well	6.8	85	81-110	N/A	\	Slopes down in to stand 54. A very mixed stand. Cedar scattered
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	throughout stand.
	Paper Birch	5		8		Hazelr	ut (Beaked)	Low	5 - 10 feet	5 - 10 feet	
	Quaking Aspen	15	Seedling	6							•
	Sugar Maple	5	Seedling	7							
	Balsam Fir	10	Sapling	6							
	Red Maple	10	Seedling	8							
N	orthern White Cedar	25	Seedling	7	85						
	White Spruce	10	Sapling	6							
	Red Pine	20		11							
56	6120 - Lo	wland Ceda	r	Poletimbe	er Well	2.4	94 L	Inspecified	N/A	1	Mostly Cedar with pockets of pure Tamarack and Spruce scattered
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	within stant.
N	orthern White Cedar	60	Sapling	6	94		ıg Alder	Medium	5 - 10 feet	5 - 10 feet	
	Tamarack	20	Sapling	7		Blac	k Spruce	Medium	Variable	Variable	
	Black Spruce	20	Sapling	6		Ва	lsam Fir	Medium	Variable	Variable	

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Stand	Level 4 Co	Level 4 Cover Type			Acres	Stand Age E	BA Range	Managed S	ite	General Comments
57	4136 - Asper	-		Poletimber Well	63.7	37		N/A		Wet areas scattered throughout. Large bigtooth throughout stand. Healthy stand throughout. Some smaller red pine present that could be
	Canopy Species		Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	preserved for regeneration.
	Bigtooth Aspen	5		9	R	ed Pine	Low	10 - 20 feet	10 - 20 feet	
	Red Pine	10	Seedling	7		te Spruce	Low	5 - 10 feet	5 - 10 feet	
	White Spruce	5	Sapling	6	Ва	ılsam Fir	Low	5 - 10 feet	5 - 10 feet	
	Quaking Aspen	70	Seedling	7 37						
	Balsam Fir	10	Sapling	6						
58	6229 - Mixed	Lowland S	hrub	None	4.6			No		Borders Mitchell Creek
59	4130 - Aspen			Poletimber Well	28.6	47		N/A		Large rock outcrops scattered. Wet area in southern part of stand.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Consider for harvest next cycle.
	Quaking Aspen	55	Seedling	7 47		ılsam Fir	Low	10 - 20 feet	10 - 20 feet	
	Bigtooth Aspen	25	Seedling	7						1
	Red Maple	5	Seedling	9						
	Balsam Fir	5	Sapling	7						
	White Spruce	5	Sapling	6						
	Red Pine	5	Seedling	9						
60	4130 - Aspen			Sapling Well	59.3	9	Immature	N/A		Cut 2016 Comp 85 Contract TS. Good aspen regen. Some super
	Canopy Species	% Cover	Size Class	DBH Age						canopy pine left. Buffer along Whiskey Creek was left.
	Quaking Aspen	100	Log	2 9						
61	4130	- Aspen		Sapling Well	17.8	26	Immature	N/A		Harvested 1999. Mix of many different species in super canopy left
01	Canopy Species	% Cover	Size Class	DBH Age		nopy Species		Avg. Height	Size	unharvested from last treatment. Aspen is very healthy. Super canopy is
	Quaking Aspen	80	Log	4 26		Isam Fir	Low	Variable	Variable	mixed with large red pine and some white pine residual. There are a few
	White Spruce	5	Seedling	7		nut (Beaked)	Medium	5 - 10 feet	5 - 10 feet	cedar on the northern edge as you get in to stand 3.
	Balsam Fir	5	Seedling	5	Hazen	idi (Dealted)	McGiairi	3 - 10 leet	3 - 10 1001	
	Red Maple	5	Seedling	8						
	Red Pine	5	occumig	11						
62		wland Ceda	ır	Poletimber Well	7.6	98	111-140	N/A		Ash is mostly dead. Some tamarack present. Stand Drains east into
- J_	Canopy Species		Size Class	DBH Age		nopy Species		Avg. Height	Size	stand 63.
	Black Spruce	5	Sapling	5 5		ack Ash	Medium	< 5 feet	< 5 feet	
No	orthern White Cedar	85		9 98	511		5414111	3 1001	0 1000	
	Tamarack	10		7						
63	4130	- Aspen		Poletimber Well	104.3	47		N/A		Rock ledges need to be considered for operability. Pine and some large
	Canopy Species			DBH Age						spruce dominant canopy. Wet close to stand 62. Consider for harvest
	- anopy opoolog		una	and if so, breaking up stand.						
	Quaking Aspen	90	Seedling	7 47						
	Quaking Aspen Balsam Fir	90	Seedling Sapling	7 47						



Stand	•		Level 4 Cover Type		Size Density	Acres	Stand Age E	BA Range	Managed Si	te	General Comments
64	6239 - Mixed E	mergent W	etland	None	1.1			No			
65	4130	- Aspen		Sapling Well	105.3	30		N/A		Dominant overstory red and white pine left. Areas of heavier spruce and	
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species		Density	Avg. Height	Size	fir present. North and northwest edge of stand has some slope down to wetter areas. There was some that was not harvested from before.	
	Quaking Aspen	90	Sapling	5 30		lsam Fir	Low	5 - 10 feet	5 - 10 feet	Maple regen is coming up underneath the dying aspen in mentioned	
	Balsam Fir	5	Sapling	5	WI	nite Pine	Trace	5 - 10 feet	5 - 10 feet	wetter area.	
	White Spruce	5	Sapling	5	Whi	te Spruce	Low	5 - 10 feet	5 - 10 feet		
				, , , , , , , , , , , , , , , , , , , ,	R	ed Pine	Trace	5 - 10 feet	5 - 10 feet		
66	4130	- Aspen		Sapling Well	36.9	8	Immature	N/A		Contract cut 2017. Some pine left in the dominant overstory. Wet area	
	Canopy Species	% Cover	Size Class	DBH Age						present on northwest part of stand.	
	Quaking Aspen	100	Log	2 8							
67	42210 - Nat	ural Red Pi	ine	Sawtimber Well	5.4	71	111-140	N/A		Hilly area near ski trail parking. Consider for thinning as red pine is doing	
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	well.	
	Red Pine	85		10 71	Whi	te Spruce	Medium	5 - 10 feet	5 - 10 feet		
	Quaking Aspen	10	Seedling	9	Ва	lsam Fir	Low	5 - 10 feet	5 - 10 feet		
	White Spruce	5	Sapling	7	R	ed Pine	Low	10 - 20 feet	10 - 20 feet		
68	4136 - Aspen			awtimber Mediun	n 13.0	67	51-80	N/A	N/A	Area includes ski trail parking lot. Scattered red maple, red pine, white	
	Canopy Species	% Cover	Size Class	DBH Age						pine, and balsam fir. Small swale putting up to stand 67. Budworm damage within the stand. Could be considered for cutting to restart	
	Quaking Aspen	80		9 67						stand.	
	Red Pine	5		10							
	White Pine	5		10							
	White Spruce	5	Sapling	5							
	Balsam Fir	5	Sapling	6							
69	4130	- Aspen		Sapling Well	16.2	15	Immature	N/A		Small rock outcroppings throughout. A couple inaccessible areas due to	
	Canopy Species	% Cover	Size Class	DBH Age						rock and water. Harvested 2010. Aspen coming up well. there are a few wet areas that did not fill in. super canopy red pine, white pine, red	
	Quaking Aspen	100	Log	4 15						maple left.	
70	320 - Up	land Shrub		None	3.4			No		Some aspen crept into stand from stand 69. White spruce and white	
					Sub-Ca	nopy Species	Density	Avg. Height	Size	pine scattered throughout opening.	
					Whi	te Spruce	Low	5 - 10 feet	5 - 10 feet		
71	4130	- Aspen		Sapling Well	26.8	15	Immature	N/A		Many different species in supercanopy left unharvested from last	
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	reatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water. Harvested 2010. Wet area running	
	Quaking Aspen	70	Log	4 15	Brad	cken Fern	Medium	Not Applicable	Not Applicabl	through the middle. Some pine coming up in the understory.	
	White Pine	5	Seedling	8			'	1		-	
	Red Maple	15	Sapling	6							
	Red Pine	5	Seedling	8							
	White Spruce	5	Sapling	5							



Stan	d Level 4 Co	over Type		Size Densit		Acres	Stand Age B	A Range	Managed S	Site	General Comments
72	4130	4130 - Aspen		Sapling	Well	73.0	7	Immature	N/A	A	Part of Little Paw sale cut fall 2018. Red pine left in dominant overstory
	Canopy Species	% Cover	Size Class	DBH	Age						with more white pine left on eastern finger. Aspen coming back well besides southeast part.
	Quaking Aspen	100	Log	2	7					boolage coathoast part.	
73	320 - Up	land Shrub		Nor	ne	1.8			No)	Opening in stand 9. Could be included into stand 9 when harvested.
						Sub-Ca	nopy Species	Density	Avg. Height	Size	
						WI	hite Pine	Low	10 - 20 feet	10 - 20 feet	
						Asp	pen (spp.)	Low	10 - 20 feet	10 - 20 feet	
						Bra	cken Fern	High	Not Applicable	Not Applicable	
74 4191 - Mixed Upla		and Decidud nifer	ous with Po	oletimber	Medium	า 19.4 88	88	51-80	N/A	4	On top of hill. Steep area. Accessible from the south, but it is still wet. Species evenly distributed throughout. Could be considered for thinning
	Canopy Species	% Cover	Size Class	DBH	Age						to prompt some regeneration, as regen is sparse in areas.
	Red Pine	30		10	88						
	Paper Birch	20		9							
	Red Maple	15		9							
	Bigtooth Aspen	25		8							
	Quaking Aspen	10	Seedling	7							
75	6128 - Lowland (Deci	Coniferous, iduous	Mixed I	Poletimb	er Well	6.8	85	111-140	N/A	A	Cedar and tag alder corridor. Some red pine creeping in. Standing dead black ash.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
N	orthern White Cedar	45	Seedling	8	85	BI	ack Ash	Medium	< 5 feet	< 5 feet	
	Paper Birch	15		9		Ta	ag Alder	High	5 - 10 feet	5 - 10 feet	
	White Spruce	15	Sapling	6							
	Balsam Fir	10	Sapling	6							
	Quaking Aspen	5	Seedling	6							
	Red Pine	10	Seedling	8							
76	429 - Mixed L	Jpland Coni	fers :	Sawtimb	er Well	47.1	111	111-140	N/A	4	Dominant red pine and some white pine in the overstory. Very similar to
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	neighboring stand 77 in terms of other species present. Aspen holding up well.
	Red Pine	45		10	111	Ва	alsam Fir	Low	< 5 feet	< 5 feet	+ ale
	Paper Birch	5		10		Qual	king Aspen	Low	< 5 feet	< 5 feet	
	Quaking Aspen	20	Seedling	8	47						1
	Red Oak	10		11	111						
	White Spruce	15	Seedling	9							
	White Pine	5		12							



Stand	Level 4 C		Size De	nsity	Acres Stand Age B	A Range	Managed S	Site	General Comments		
77	4130 - Aspen S				er Well	23.1 47		N/A		A few scattered oak. North side follows slope down to wetter area.	
	Canopy Species	% Cover	Size Class	s DBH Age		Sub-Canopy Species	Density	Avg. Height	Size	Aspen holding up well.	
	Quaking Aspen	50	Seedling	8	47	Balsam Fir	Low	< 5 feet	< 5 feet		
	Bigtooth Aspen	20		10	47	White Spruce	Low	< 5 feet	< 5 feet		
	Paper Birch	5	Seedling	7						-	
	Red Maple	10	Seedling	7							
	Red Pine	15		18							
79	6220 - A	y None			16.0		No)	Whiskey creek and tag alder		
81	6124 - Lowla	and Spruce	-Fir	Poletimber Well		21.9 111		N/A		Whiskey Creek runs on east side of stand. Stand has a little bit of blow	
	Canopy Species % Cover Size C		Size Class	s DBH Age		Sub-Canopy Species	Density	Avg. Height	Size	over from bud worm damage. Held for buffer. Some larger standing dead aspen.	
			10		Tag Alder	Low	5 - 10 feet	5 - 10 feet	<u>'</u>		
	Balsam Fir	25	Seedling	7		Balsam Fir	Low	Variable	Variable		
	White Spruce	35		10	111	White Spruce	Low	Variable	Variable		
	Paper Birch	20		9	111					-	
84	6132 - Mixed Lowla	and Forest	with Cedar	Poletimb	er Poor	4.3 61	81-110	N/A	4	Chunks of dead standing ash, some paper birch coming up within ash. Ton edges there are species mentioned. Could hold for wildlife	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	considerations (thermal cover, winter food source) and water quality.	
	Quaking Aspen	10	Seedling	7		Balsam Fir	Low	5 - 10 feet	5 - 10 feet		
No	orthern White Cedar	35	Seedling	8	61	Black Ash	Low	5 - 10 feet	5 - 10 feet		
	Red Maple	10	Sapling	5							
	Balsam Fir	5	Sapling	5							
	Black Spruce	5	Sapling	5							
	Tamarack	5	Seedling	7							
	Black Ash	5	Sapling	7							
	Paper Birch	25	Seedling	7							