

Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12171 Entry Year: 2027 Acreage: 945

Management Area: Brule River

County: Iron

Stand Examiner: Eric Brolin

Legal Description:

T41N-R31W sections 3, 4, 9 and 10

Identified Planning Goals:

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

Soil and topography:

Sarona fine sandy loam. Rolling areas on ground moraines and end morains. Rolling hills with some swamp and drainages.

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

State lands mixed with company lands and private parcels. Land mainly used for hunting and fishing, but some year round residences and camps are present.

Unique Natural Features:

Michigamme Lake. The Menominee River is just to the south of the compartment..

Archeological, Historical, and Cultural Features:

None.

Special Management Designations or Considerations:

None.

Watershed and Fisheries Considerations:

Minimum buffers should be implemented. 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:

The primary featured species managed for in this compartment include bear and deer. This compartment is greater than 90% aspen and northern hardwood. It has 3 small drainages that provide critical habitat for bears, deer, amphibians and reptile and migrating songbirds. This compartment is part of the historical Camp 5 Deer Wintering Complex. The hemlock, cedar, pine and spruce/fire components of the are are critical to provide winter cover and enable deer to travel along transition zones through the uplands to obtain forage.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of an end moraine of coarse-textured till. The glacial drift thickness varies between 50 and 100 feet. The Proterozoic Michigamme Formation and Archean volcanic and sedimentary rocks subcrop below the glacial drift. There is not a current economic use for these rocks. Abandoned iron mines at Crystal Falls are located ten miles to the northwest. Land near this compartment was previously leased for metallic mineral exploration. There are no visibly active gravel pits in the area, but there is potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Camp 5 Road, Lower Dam Road, Upper Dam Road and woods roads.

Survey Needs:

None.

Recreational Facilities and Opportunities:

Hunting.

Fire Protection:

Additional Compartment Information:

None.

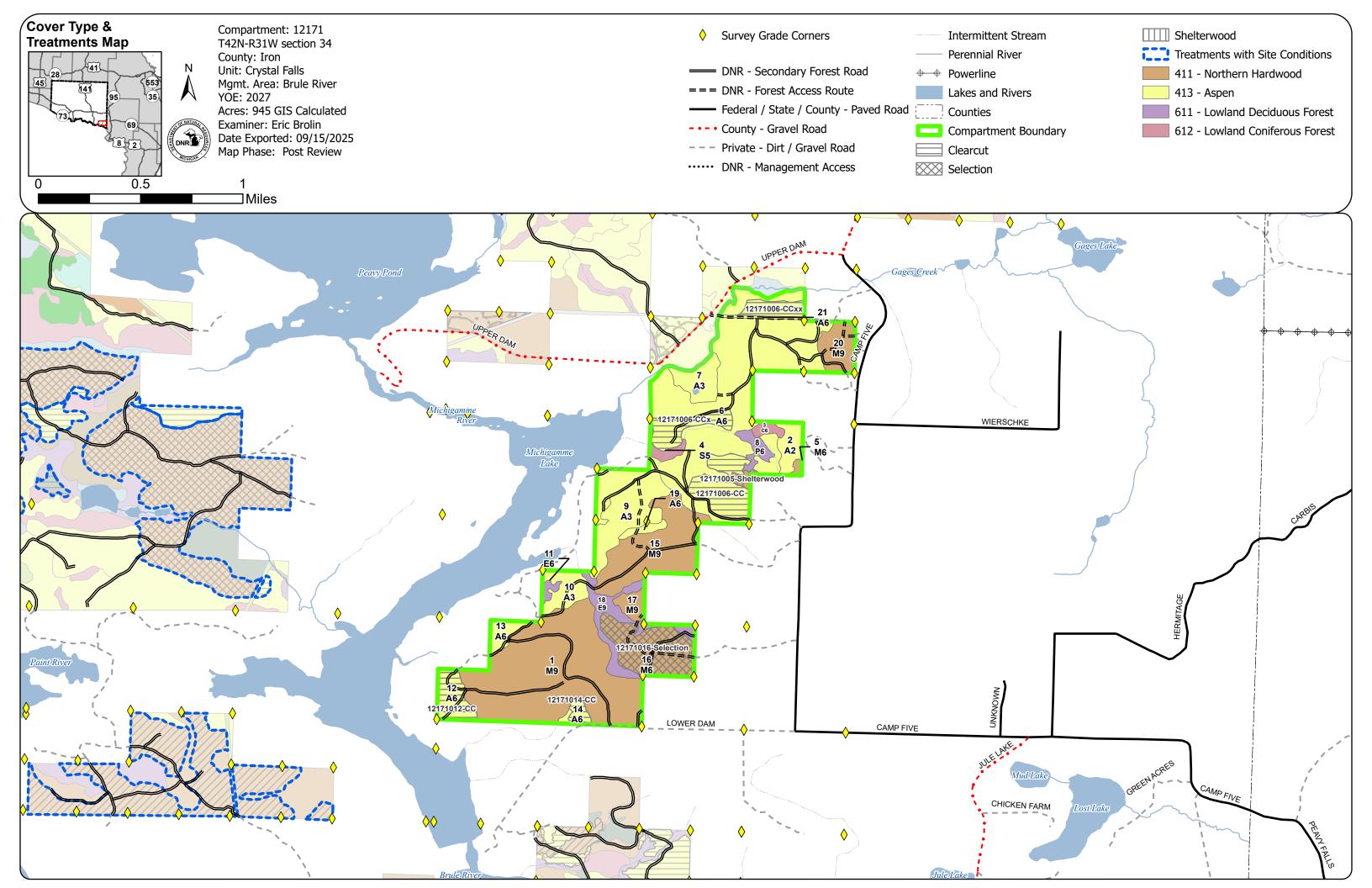
The following reports from the Inventory are attached:

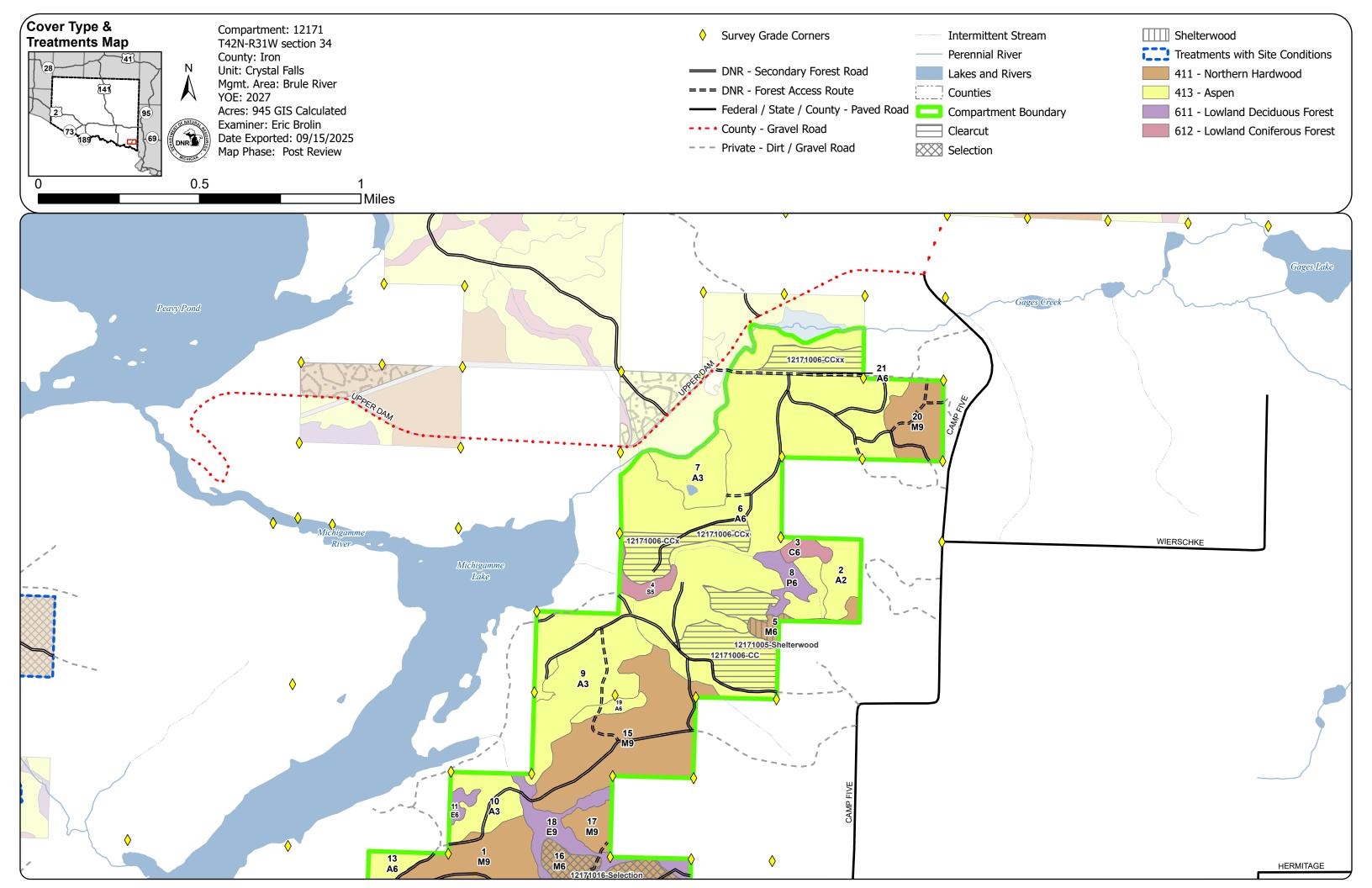
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas

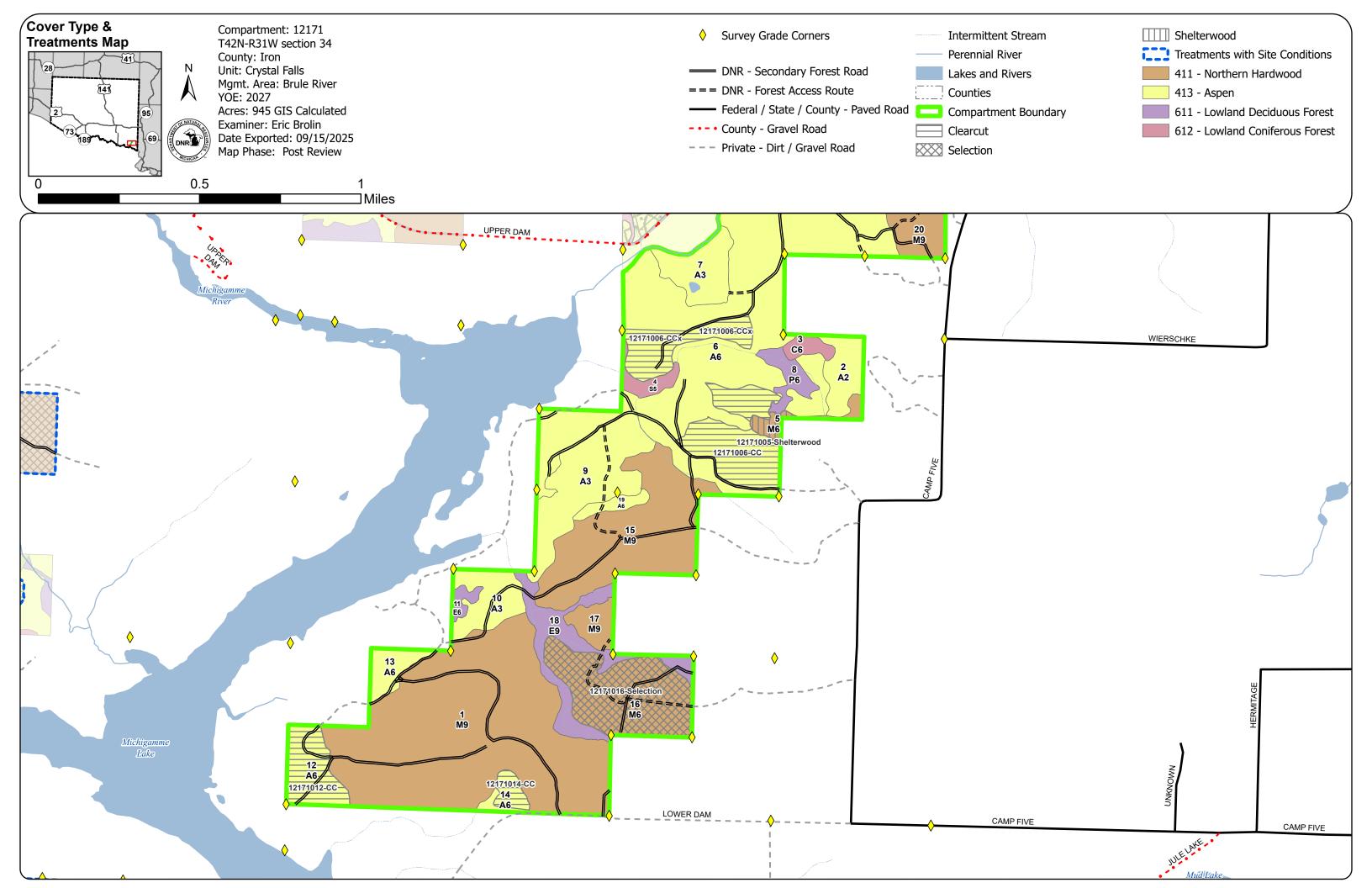
The following information is displayed, where pertinent, on the attached compartment maps:

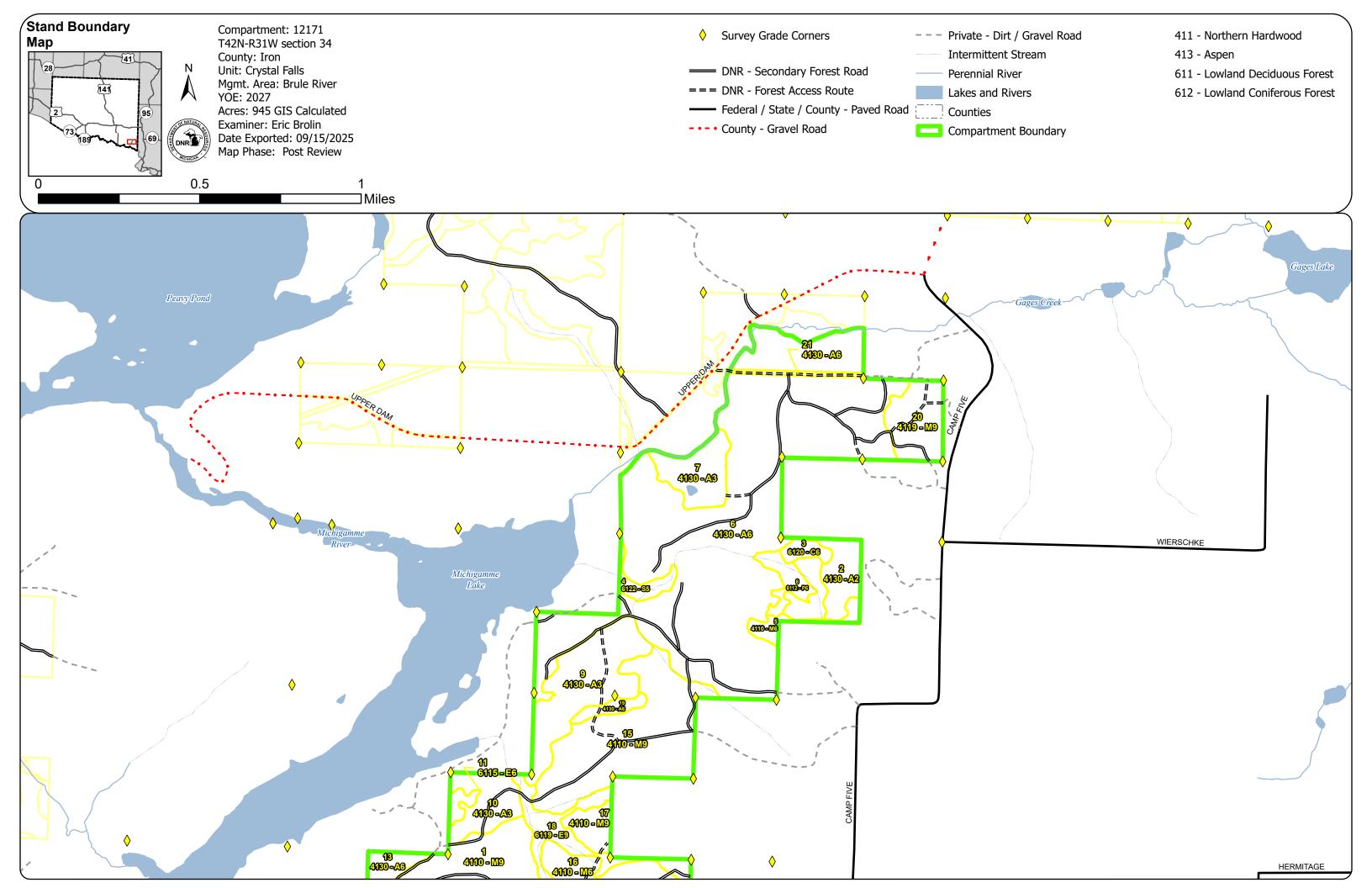
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

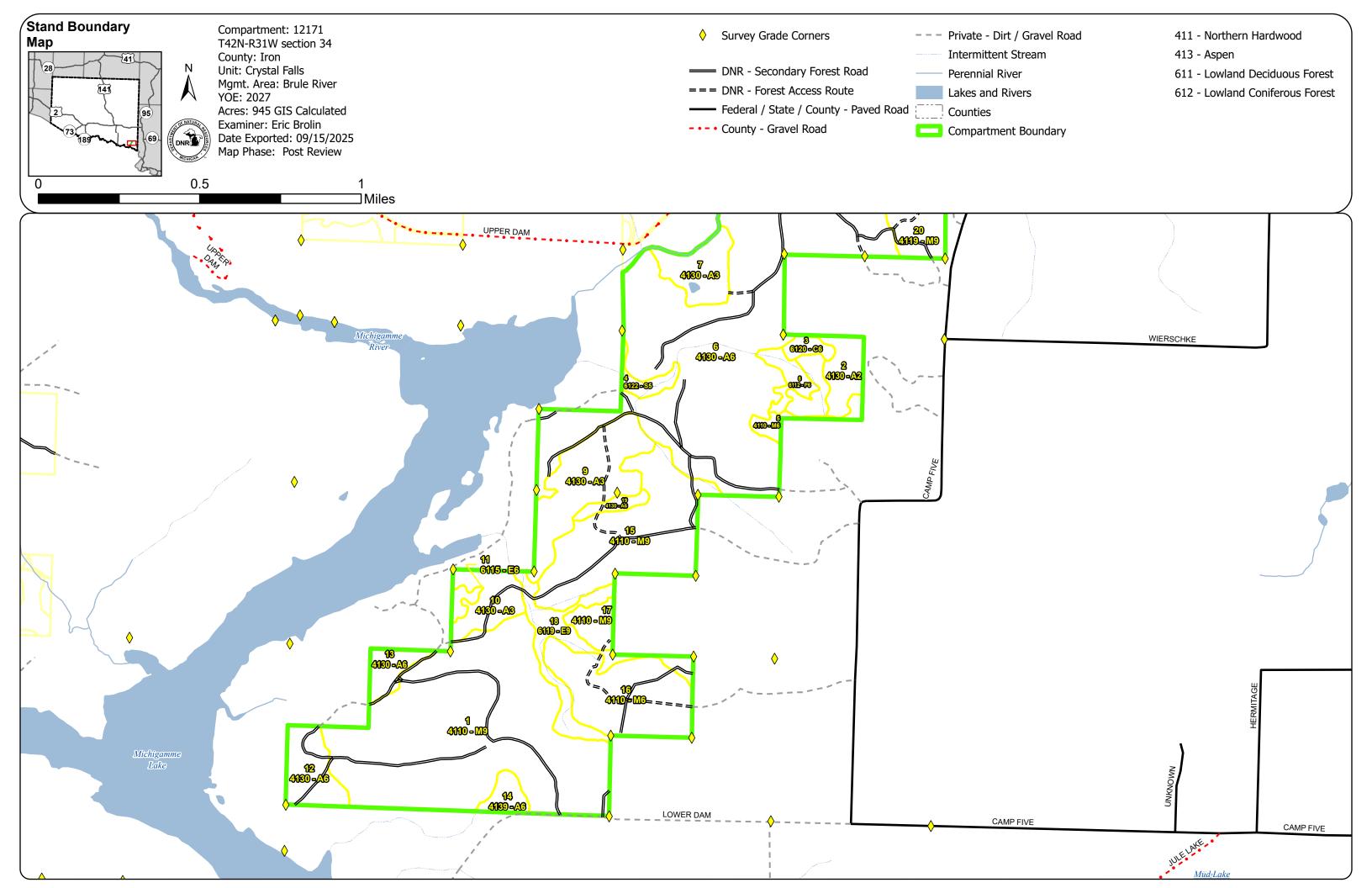
Site Condition Details

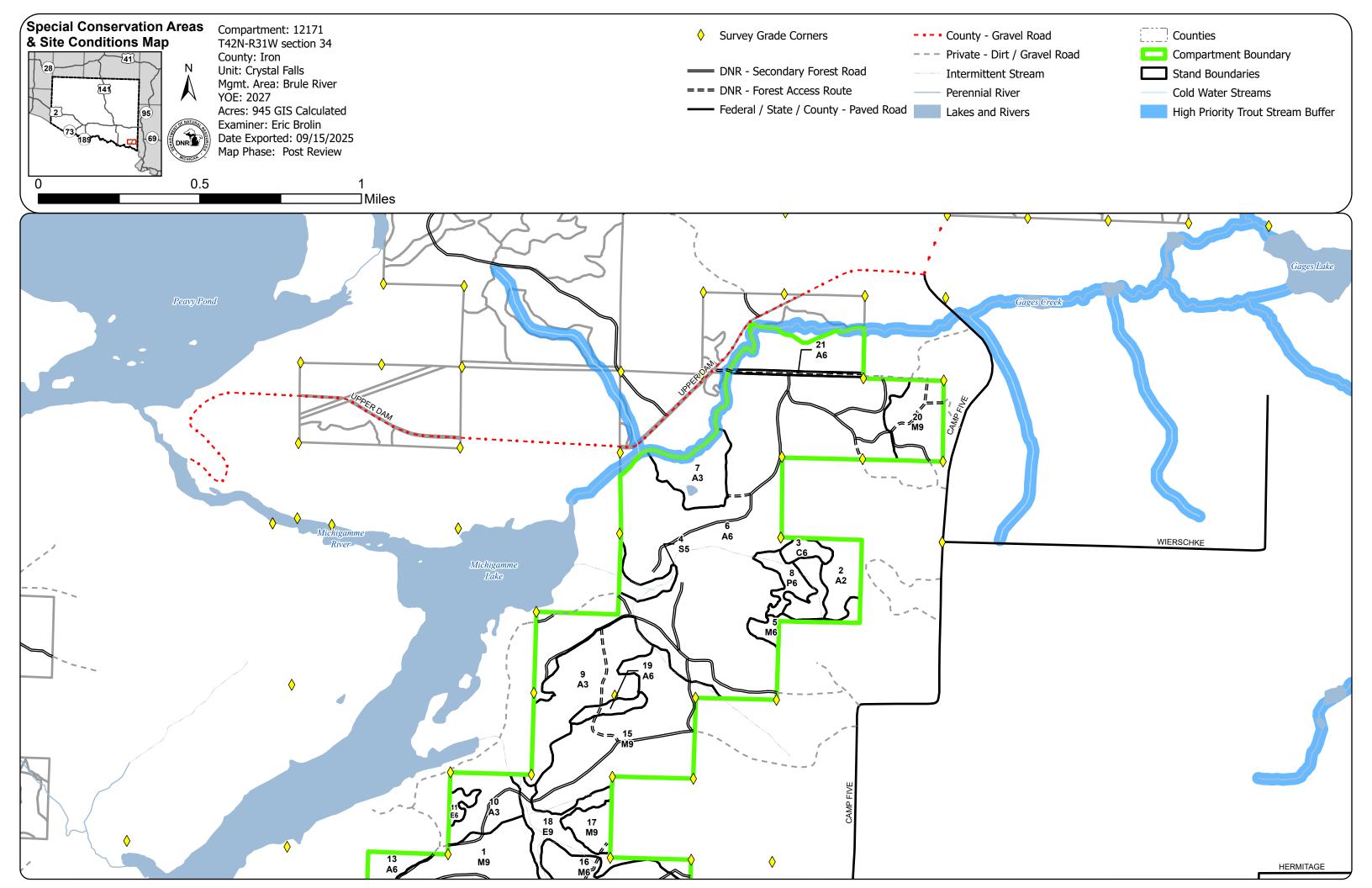


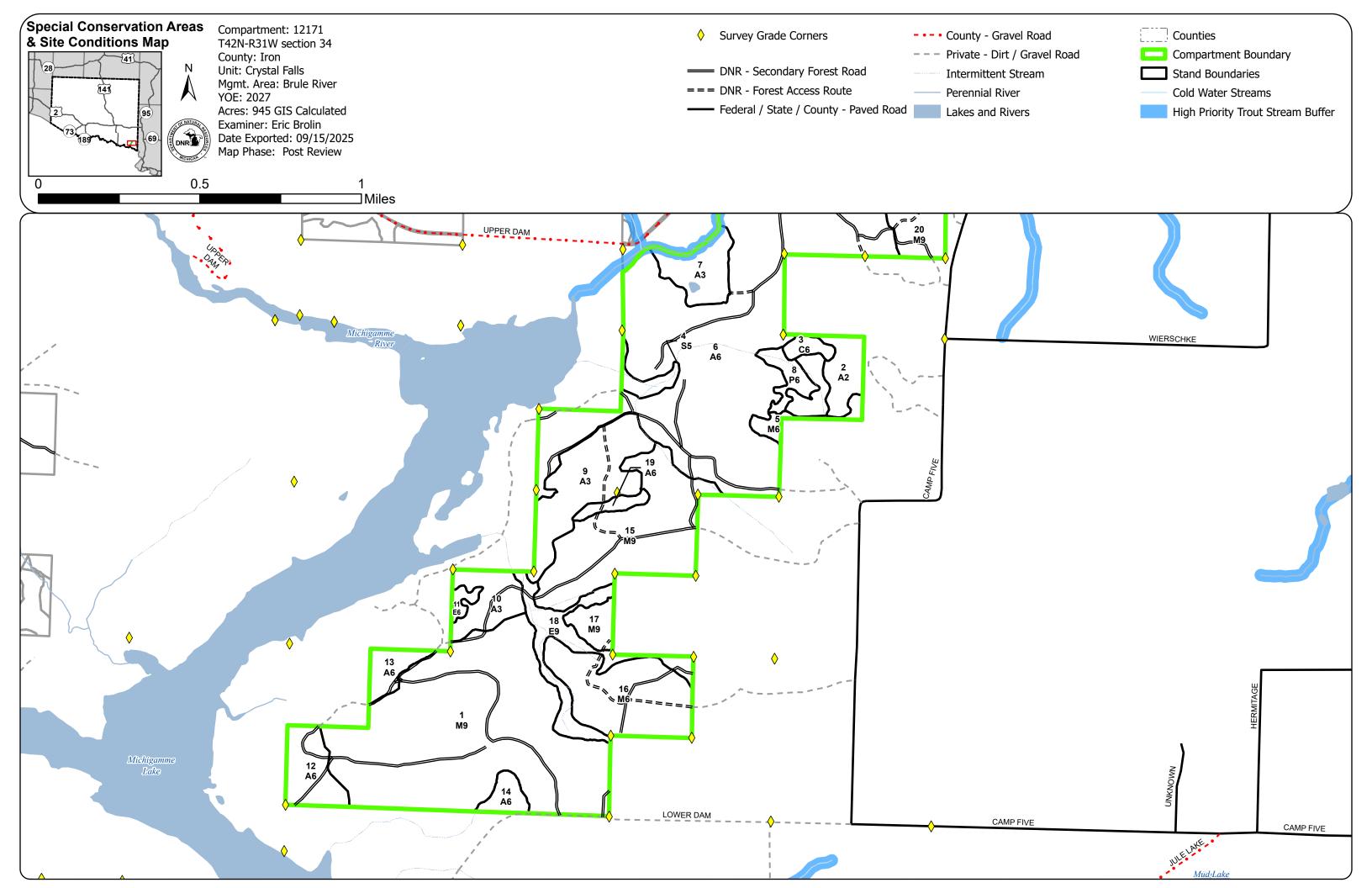












Crystal Falls Mgt. Unit

Eric Brolin: Examiner

Compartment 171 Year of Entry 2027



Age Class

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Aspen	0	50	60	0	333	42	0	0	0	0	0	0	0	0	0	0	0	0	485	I
Cedar	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5	I
Lowland Aspen/Balsam Poplar	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	I
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	35	I
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7	İ
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	403	0	0	0	0	0	0	0	403	Ì
Total	0	50	60	0	342	42	0	0	0	0	450	0	0	0	0	0	0	0	944	l



Report 2 – Treatment Summary

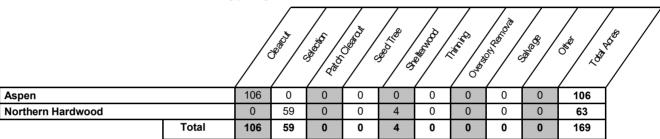
Crystal Falls Mgt. Unit Year of Entry: 2027

Acres of Harvest

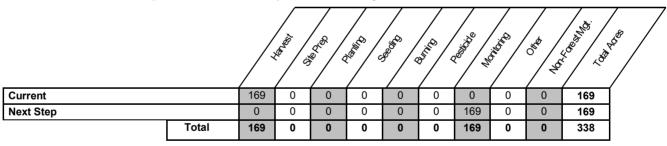
Compartment 171
Total Compartment Acres: 945

Commercial Harvest - 338 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Age

Structure

s t а

d

Treatment Acres Stand Size Stand BA **Treatment Treatment Cover Type** n Density Method Objective Name CoverType Age Range Type

Habitat

Cut

Approved Treatments:

12171005-4.4 4110 - Sugar Maple 95 111-Harvest Shelterwood 4199 - Other Cutting No Shelterwood Association 140 Mixed Upland Record Deciduous

Harvest to a 2" spec to promote mixed regeneration. Leave all conifer and oak. In combination with leave species, green mark a diverse mix of Prescription healthy, wind firm trees to leave while maintaining a residual cover of 40 - 50 BA average across the stand. Als Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any combination of the current overstory species.

Regen:

This shelterwood is to encourage more shade intolerant species regeneration (oak, birch, basswood, cherry). Due to size, terrain, and access, **Other** this stand will not be managed on timely, regular intervals. It will be left until the adjacent stand is managed Comment:

Site Condition:

Proposed Start Date: 10/01/2026

4130 - Aspen 12171006-CC 39.7 6 81-110 Harvest Clearcut Planting No 37 413 - Aspen Record

Prescription Harvest all merchantable aspen to promote aspen regeneration and species diversity. Retention should include large diameter, forked crown Specs:

aspen, and a diverse mix of species. Leave all conifer and hardwood trees unless needed for operability. Also, leave

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Other Best access to this area is from the SE through private. Exclude lowland drainages with a 100' buffer, these will also satisfy long term retention. Comment:

Site Condition:

Proposed Start Date: 10/01/2026

12171006-CCx 22.9 4130 - Aspen 37 81-110 Harvest Clearcut 413 - Aspen **Planting** Nο Record

Prescription Harvest all merchantable aspen to promote aspen regeneration and species diversity. Retention should include large diameter, forked crown

Specs: aspen, and a diverse mix of species. Leave all conifer and hardwood trees unless needed for operability.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Any combination of the current overstory species. <u>Acceptable</u>

Regen: Other

Buffer the lowland drainage along the south edge 100', this will also satisfy long term retention for the stand. Best access will be from the far

E/NE, through stand 20, to avoid stream crossings and/or private access. Comment:

Site Condition:

Proposed Start Date: 10/01/2026

n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
6	12171006- CCxx	14.3	4130 - Aspen	6	37	81-110	Harvest	Clearcut	413 - Aspen	Planting Record	No

<u>Prescription</u> Specs: Harvest all merchantable aspen to promote aspen regeneration and species diversity. Retention should include large diameter, forked crown aspen, and a diverse mix of species. Leave all conifer and hardwood trees unless needed for operability.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Other Buffer the trout stream along the north 300'. Excluded area will be used for long term retention. The best access is from the SE, through stand 20, to avoid stream crossings and/or private access.

Site Condition:

Proposed Start Date: 10/01/2019

 12
 12171012-CC
 22.7
 4130 - Aspen
 6
 44
 111 Harvest
 Clearcut
 413 - Aspen
 Planting
 No

 140
 Record

<u>Prescription</u> Harvest all merchantable trees to promote aspen regeneration and diversity. Retention should include large diameter, forked crown aspen, and a <u>Specs:</u> diverse mix of species. Leave all conifer and oak if present. Leave all hardwood species unless marked with oran

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

<u>Acceptable</u> Any combination of the current overstory species.

Regen:

Other South 1/3 of the stand contains a fair amount of hardwood mixed in with a dense understory of large saplings. Use extra caution to avoid damage to areas with dense hardwood saplings. Some hardwood may be marked to cut during sale prep for operability.

Site Condition:

Proposed Start Date: 10/01/2026

1412171014-CC5.9 4139 - Aspen, Mixed64481-110HarvestClearcut4139 - Aspen, PlantingNoDeciduousDeciduousMixed DeciduousRecord

<u>Prescription</u> Harvest all merchantable trees to promote aspen regeneration and diversity. Leave all conifer, oak, and yellow birch if present.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Other Retention will include the S/SW area where the ground becomes too saturated for operability.

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

 16
 12171016 58.9 4110 - Sugar Maple
 6
 95
 81-110
 Harvest
 Selection
 411 - Northern
 Current
 No

 Selection
 Association
 Hardwood

<u>Prescription</u> Mark stand to 60 - 80 BA. Focus on improving quality and creating canopy gaps to release and/or encourage hardwood regeneration. Remove a <u>Specs:</u> merchantable aspen. Leave some large future snag trees for wildlife. Leave all conifers. Favor species diversity wh

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

Crystal Falls Mgt. Unit Report 3 -- Treatments Compartment: 12171 s Year of Entry: 2027 t а **Treatment** Acres Stand Size Stand ВА **Treatment Treatment Cover Type** Age Habitat n Name CoverType Density Age Range Type Method Objective Structure Cut

Total Treatment 168.8 Acreage Proposed:

Report 4 - Site Conditions

Crystal Falls Mgt. Unit Eric Brolin: Examiner

0

122

15%

Compartment: 171
Year of Entry: 2027



Availability for Management

399

830

396

522

63%

3

185

22%

Total	Acres	Acres Avail	Acres	Do	minai	nt Site	Conc	litions
Acres	Available	With Condition	Not Available		5C	2G	3J	
374	127	182	66	Aspen	182	2	63	
5	0	0	5	Cedar		5		
9	0	0	9	Lowland Aspen/Balsam Poplar		9		
35	0	0	35	Lowland Deciduous		35		
7	0	0	7	Lowland Spruce/Fir		7		

Northern Hardwood

Total Forested Acres

Relative Percent

59

63

3

185

Site No	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5B: Maintain for regeneration purposes	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Narrow, young strip	along the south edge of the	road. Ho	ld and merge with adjacent	harvest north of the road	for future management.	
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: Webs of flowing wat	ter across the entire area with	h mucky	soil which does not freeze ເ	up with constant flowing s	eeps.	
3	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	28	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments: Web of lowland drai	nage areas. Mucky soil with	flowing v	vater, both seasonal and se	ep/spring drainage. 100'	buffer for all adjacent aspo	en types.

^{*}Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Report 4 – Site Conditions

Crystal Falls Mgt. Unit
Eric Brolin: Examiner



4	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	36	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: 300' trout stream bu	uffer for all adjacent aspen typ	es alon	ng the south edge of Gages Ci	reek.		
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: A few trees along the	ne edge may be managed with	ı adjace	ent stand in the future. Otherw	rise, too wet with mucky	black ash soils.	
6	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	6	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments: 100' buffer for drain	nage area. Long term retention	l .				
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	32	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: Lowland flat web wi	ith seasonal water flow. This lo	ow flat	should be avoided from any fu	iture operations to avoid	d resource damage and BN	∕IP issues.
8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
	Comments: Area becomes too	wet for operations. Can be use	ed as Ic	ong term retention for Stand 14	4.		
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
	Comments: Lowland conifer are	ea. Wet ground and dense to c	edar a	cross most of the stand.			

Report 4 – Site Conditions

Crystal Falls Mgt. Unit
Eric Brolin: Examiner

Compartment: 171
Year of Entry: 2027



10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified	Unspecified
	Comments: Very wet, flooded I	owland conifer flat. Sparse stoc	king of l	black spruce and tamarack,	declining, with an under	story of alder and mixed sa	aplings.
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Small patch of hare	dwoods will be managed in the f	uture w	ith adjacent stand due to sm	all size and access.		
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	82	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Harvest in YOE 20	47, extended aspen rotation, to	break a	nge class on large even age	d aspen stand.		
14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	101	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Harvest in YOE 20	37 to break age class on large o	even ag	ed aspen stand.			

09/16/2025 2:36:58 PM - Page 3 of 3

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				

Report 7 - Stands

Stand	Level 4 C	over Type		Size De	nsity	Acres	Acres Stand Age BA Range Managed Site		ite	General Comments		
1	4110 - Sugar N	Maple Assoc	ciation S	Sawtimb		216.6		81-110	N/A		Thinned in 2018. Good quality hardwood stand. Abundant regen across the area with some sugar maple, ironwood, and a heavy mix of ash. SW	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	area has denser canopy with much less regen in the understory.	
	Basswood	10		14	95	Suga	ar Maple	Low	Variable	Variable	,,	
	Sugar Maple	80		14	95	Iro	nwood	Low	Variable	Variable		
	Red Maple	3		12	95	Ash	n (spp.)	Medium	Variable	Variable		
	Yellow Birch	5		10								
	Hemlock	2		22								
2	4130	- Aspen	S	Sapling N	/ledium	16.1	15 li	mmature	N/A		Aspen sapling stand. Heavy to bigtooth on any elevation rises. Large	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size	area in the center did not regenerate and is growing in with cherry and conifer saplings. Accessed from the east trough company land.	
	Balsam Fir	5	Log	1		Iro	nwood	Low	5 - 10 feet	5 - 10 feet	oomer capmigor recessed nem and capt a cagn company tands	
	Black Cherry	10	Log	2							-	
	Red Maple	10	Log	1								
	Bigtooth Aspen	50	Log	3	15							
	Quaking Aspen	20	Log	3	15							
	White Spruce	5	Log	1								
3	6120 - Lo	wland Ceda	r F	Poletimb	er Well	5.3	95	111-140	N/A		Dense cedar patch transitioning to aspen/black spruce along the edges.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	Density	Avg. Height	Size		
	Paper Birch	5	Seedling	8		Black	k Spruce	Low	Variable	Variable		
	i apei biion	3	Seeding	0		Diaci		LOW	Variable	variable		
	Balsam Fir	5	Sapling	7			g Alder	Low	5 - 10 feet	5 - 10 feet		
	<u>'</u>				95		'					
	Balsam Fir	5		7	95 95		'					
No	Balsam Fir Quaking Aspen	5	Sapling	7 10			'					
1 No	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar	5 5 15	Sapling Seedling	7 10 8 8	95	Ta	'			5 - 10 feet	Sparsely stocked lowland conifer area. Flooded with open patches and	
	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar	5 5 15 70 ack Spruce	Sapling Seedling	7 10 8 8 8 oletimber	95 95	Ta <u>(</u> 1 6.7	g Alder	Low	5 - 10 feet	5 - 10 feet	Sparsely stocked lowland conifer area. Flooded with open patches and alder.	
	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar	5 5 15 70 ack Spruce	Sapling Seedling	7 10 8 8	95 95 Medium	Tag n 6.7 Sub-Car	g Alder	Low 51-80	5 - 10 feet N/A	5 - 10 feet	, ,	
	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar 6122 - Bl Canopy Species	5 5 15 70 ack Spruce	Sapling Seedling	7 10 8 8 8 oletimber	95 95 Medium	Tag n 6.7 Sub-Car Tag	g Alder 95 hopy Species	Low 51-80 Density	5 - 10 feet N/A Avg. Height	5 - 10 feet Size	, ,	
4	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar 6122 - Bl Canopy Species Tamarack	5 5 15 70 ack Spruce % Cover	Sapling Seedling Po	7 10 8 8 8 eletimber DBH	95 95 • Medium • Age 95	Tag n 6.7 Sub-Car Tag	g Alder 95 nopy Species g Alder	51-80 Density Medium	5 - 10 feet N/A Avg. Height 5 - 10 feet	5 - 10 feet Size 5 - 10 feet	, ,	
4	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar 6122 - Bl Canopy Species Tamarack Black Spruce	5 5 15 70 ack Spruce % Cover 10 85 5	Sapling Seedling Po Size Class Sapling Seedling	7 10 8 8 8 eletimber DBH 10 7	95 95 Medium 1 Age 95 95 95	Tag n 6.7 Sub-Car Tag	95 nopy Species g Alder k Spruce	51-80 Density Medium	5 - 10 feet N/A Avg. Height 5 - 10 feet	Size 5 - 10 feet Variable	Hardwood stand with dense stocking. W/E areas can not be connected	
4	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar 6122 - Bl Canopy Species Tamarack Black Spruce orthern White Cedar	5 5 15 70 ack Spruce % Cover 10 85 5 Maple Assoc	Sapling Seedling Po Size Class Sapling Seedling	7 10 8 8 8 Poletimber 7 8 Poletimb	95 95 Medium Age 95 95 95 95	Tag 1 6.7 Sub-Car Tag Black 7.3	95 nopy Species g Alder k Spruce	51-80 Density Medium Low	N/A Avg. Height 5 - 10 feet Variable	Size 5 - 10 feet Variable	alder.	
4	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar 6122 - Bl Canopy Species Tamarack Black Spruce orthern White Cedar	5 5 15 70 ack Spruce **Cover 10 85 5	Sapling Seedling Po Size Class Sapling Seedling Seintion F	7 10 8 8 8 Poletimber 7 8 Poletimb	95 95 Medium Age 95 95 95 95 1 Age 95	Tag n 6.7 Sub-Car Tag Black 7.3 Sub-Car	95 nopy Species g Alder k Spruce	51-80 Density Medium Low	N/A Avg. Height 5 - 10 feet Variable	Size 5 - 10 feet Variable	Hardwood stand with dense stocking. W/E areas can not be connected	
4	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar 6122 - Bl Canopy Species Tamarack Black Spruce orthern White Cedar 4110 - Sugar M Canopy Species	5 5 15 70 ack Spruce % Cover 10 85 5 Maple Assoc	Sapling Seedling Po Size Class Sapling Seedling Seintion F	7 10 8 8 8 Poletimber 7 8 Poletimb	95 95 Medium Age 95 95 95 95	Tag n 6.7 Sub-Car Tag Black 7.3 Sub-Car	95 nopy Species g Alder k Spruce 95 nopy Species	51-80 Density Medium Low 111-140 Density	N/A Avg. Height 5 - 10 feet Variable N/A Avg. Height	Size 5 - 10 feet Variable Size	Hardwood stand with dense stocking. W/E areas can not be connected	
4	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar 6122 - Bl Canopy Species Tamarack Black Spruce orthern White Cedar 4110 - Sugar N Canopy Species Basswood	5 5 15 70 ack Spruce % Cover 10 85 5 Maple Assoc	Sapling Seedling Po Size Class Sapling Seedling Seintion F	7 10 8 8 8 Poletimber DBH 10 7 8 Poletimb	95 95 Medium Age 95 95 95 95 1 Age 95	Tag n 6.7 Sub-Car Tag Black 7.3 Sub-Car	95 nopy Species g Alder k Spruce 95 nopy Species	51-80 Density Medium Low 111-140 Density	N/A Avg. Height 5 - 10 feet Variable N/A Avg. Height	Size 5 - 10 feet Variable Size	Hardwood stand with dense stocking. W/E areas can not be connected	
4	Balsam Fir Quaking Aspen Black Spruce orthern White Cedar 6122 - Bl Canopy Species Tamarack Black Spruce orthern White Cedar 4110 - Sugar N Canopy Species Basswood Sugar Maple	5 5 15 70 ack Spruce % Cover 10 85 5 Maple Assoc % Cover 30 55	Sapling Seedling Po Size Class Sapling Seedling Seintion F	7 10 8 8 8 DBH 10 7 8 Poletimber DBH 16 11	95 95 Medium Age 95 95 95 95 1 Age 95	Tag n 6.7 Sub-Car Tag Black 7.3 Sub-Car	95 nopy Species g Alder k Spruce 95 nopy Species	51-80 Density Medium Low 111-140 Density	N/A Avg. Height 5 - 10 feet Variable N/A Avg. Height	Size 5 - 10 feet Variable Size	Hardwood stand with dense stocking. W/E areas can not be connected	



Stan	d Level 4 C	over Type		Size Density	Acres	Stand Age	BA Range	Managed S	ite	General Comments
6	4130	- Aspen		Poletimber Well	323.8	37	81-110	N/A	\	Very large area of aspen at the same age. Multiple drainageways and road/trail systems across the entire stand. Aspen has good site index
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	quality in most areas with larger than average diameters. Very little
	White Pine	2		22	Re	d Maple	Low	Variable	Variable	conifer component consists of mainly upland black spruce / white spruce
	Balsam Fir	1	Sapling	5	Whi	te Spruce	Low	Variable	Variable	mix, sapling to small pole size trees. Management over the next few YOE's should focus on creating more age class diversity across the area
	Quaking Aspen	68	Seedling	7 37	Blad	ck Spruce	Low	Variable	Variable	and conifer/diversity retention.
	Red Oak	1		8						,
	White Spruce	4		7						
	Black Spruce	3	Sapling	6						
	Red Maple	2	Sapling	6						
	Paper Birch	2	Sapling	7						
	Bigtooth Aspen	17		8						
7	4130	- Aspen		Sapling Well	22.6	10	Immature	N/A	\	Aspen saplings with some scattered white pine. Small lowland conifer patch excluded form recent harvest located in the SW area.
	Canopy Species	% Cover	Size Class	DBH Age						patch excluded form recent harvest located in the SVV area.
	Balsam Fir	2	Log	2						
	White Pine	2		22						
	Quaking Aspen	72	Log	2 10						
	Red Maple	5	Log	2						
	Paper Birch	5	Log	2						
	Bigtooth Aspen	10	Log	2 10						
	Red Oak	1		10						
	Black Spruce	3	Sapling	6						
8	6112 - Lo	wland Aspe	n	Poletimber Well	9.4	37	1-50	N/A	\	Drainage holding flat from surrounding terrain. Multiple webs of flowing
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	runoff and groundwater seeps. Water drainage areas do not freeze with constant flow and contain very mucky material.
	Quaking Aspen	64	Seedling	7 37	Ca	ttail spp.	Low	Not Applicable	Not Applicable	
	Balsam Fir	5	Sapling	5		Alder	Medium	5 - 10 feet	5 - 10 feet	
	Red Maple	5	Sapling	6	Whi	te Spruce	Low	Variable	Variable	
	Bigtooth Aspen	10		8	Blad	ck Spruce	Low	Variable	Variable	
	Red Oak	1		8	Re	d Maple	Low	Variable	Variable	
	White Spruce	5		7			,			•
	Black Spruce	10	Sapling	6						
9	4130	- Aspen		Sapling Well	50.1	7		N/A	1	Mix of aspen saplings with some red maple. Some area are patchy but
	Canopy Species	% Cover	Size Class	DBH Age						should grow in well with more time. Pockets of saturated ground within hold alder and/or cattails.Cut in 2018.
	Red Maple	15	Log	1						
	Quaking Aspen	85	Log	1 7						

t 7 – Stands Compartment: 171
Year of Entry: 2027

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Stand	Level 4 Co	evel 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		ite	Year of Entry: 2027 General Comments				
10	4130	- Aspen		Sapling Well	21.0 16	1-50	N/A		Very dense, nearly pure aspen stand with black ash seedlings present ¬ a lot of the understory. Heavier ground may be poorly drained and soft
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	during non-frozen periods.
	Red Maple	5	Log	2	Ironwood	Low	Variable	Variable	
	Quaking Aspen	90	Log	3 16	Sugar Maple	Low	Variable	Variable	
	Red Oak	1		18	Black Ash	Medium	Variable	Variable	
	White Spruce	3	Log	3					
	Hemlock	1		22					
11	6115 - Lo	wland Ash	P	oletimber Well	3.7 96	81-110	N/A		Flooded lowland flat. Mainly black ash with some conifer and aspen
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	mixed in along the edges.
	Black Ash	70		8 96	Tag Alder	Low	5 - 10 feet	5 - 10 feet	
	Quaking Aspen	10		9	Ash (spp.)	High	Variable	Variable	
	Red Maple	5		8					_
	White Pine	5		22					
	Black Spruce	5	Seedling	7					
No	orthern White Cedar	5		8					
12	4130	- Aspen	P	oletimber Well	22.7 44	111-140	N/A		Nice quality aspen stand. Sugar maple saplings can dominate the
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	understory in areas, mainly in the south 1/3. More of a hardwood component mixed in the south 1/3 of the stand ranging from large
	Balsam Fir	1	Sapling	6	Ironwood	Low	Variable	Variable	sapling to small pole sized maple.
	Yellow Birch	1	Seedling	7	White Spruce	Low	Variable	Variable	
	Quaking Aspen	77		8 44	Sugar Maple	Medium	Variable	Variable	
	White Spruce	3	Sapling	6					-
	Sugar Maple	5	Sapling	5					
	Paper Birch	3	Seedling	7					
	Bigtooth Aspen	10		10					
13	4130	- Aspen	P	oletimber Well	11.2 44	111-140	N/A		Good quality aspen. Some lower swales within could contain softer
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species	Density	Avg. Height	Size	ground with some black ash mixed in which may need to be excluded from future management for operability.
	Sugar Maple	5	Sapling	5	Black Ash	Low	Variable	Variable	
	Red Maple	3	Sapling	6	Balsam Fir	Low	Variable	Variable	
	Paper Birch	2	Seedling	7	Sugar Maple	Medium	Variable	Variable	
	Yellow Birch	1	Sapling	5		1			

White Spruce

Northern White Cedar

3

1

Sapling

5

10

t 7 – Stands Compartment: 171 Year of Entry: 2027 DNR MICHIGAN

Stand	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed Site		General Comments
14	4139 - Aspen,	Mixed Deci	duous	Poletimb	er Well	8.3	44	81-110	N/A		Mainly nice aspen poles in the south half. North half has mixed
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	deciduous trees with some aspen speckled in. The S/SW area becomes too low and saturated for management and is heavy to black ash with
	Basswood	5		10		Ва	alsam Fir	Low	Variable	Variable	some lowland conifers mixed in.
	White Ash	5		10		Su	gar Maple	Low	Variable	Variable	
	Black Ash	20		8	95	Qual	king Aspen	Low	Variable	Variable	
	Red Maple	14		8	95	As	sh (spp.)	High	Variable	Variable	
	Bigtooth Aspen	5		9							
	Yellow Birch	10		12	95						
	Quaking Aspen	36		8	44						
	White Spruce	4		12							
	Hemlock	1		15							
15	4110 - Sugar N	/laple Assoc	ciation	Sawtimb	er Well	85.1	95	81-110	N/A		Hardwood log stand thinned recently. Rolling terrain in areas.Thinned ¬ in 2018.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	1112010.
	Hemlock	3		18		Ir	onwood	Medium	Variable	Variable	
	Basswood	20		14	95	Wh	ite Spruce	Trace	Variable	Variable	
	Yellow Birch	5		10	95						
	Sugar Maple	65		12	95						
	Red Maple	5		10	95						
	Paper Birch	2		11							
16	4110 - Sugar N	/laple Assoc	ciation	Poletimb	er Well	58.9	95	81-110	N/A		Moderate quality hardwood stand. A lot of large diameter trees and suppressed poles. Understory is dense with saplings, mostly ash, but
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	maple mixed in and more abundant in some areas. Small aspen patches
	Yellow Birch	3		12	95	Suç	gar Maple	Medium	Variable	Variable	along the north edge may be managed. 140 140 130 Average of 135
	Hemlock	10		20		In	onwood	Medium	Variable	Variable	BA.
	Sugar Maple	68		12	95	As	sh (spp.)	High	Variable	Variable	
	Basswood	12		12	95			,			<u>-</u>
	White Ash	7		15							
17	4110 - Sugar N	/laple Assoc	ciation	Sawtimb	er Well	10.5	95	81-110	N/A		Harwood log stand. Access would be from the NW or SE, both cross
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	narrow lowland drainages.Thinned in 2018.
	Sugar Maple	80		11	95	Lea	atherwood	Low	5 - 10 feet	5 - 10 feet	
	Basswood	15		13	95	Wh	ite Spruce	Low	5 - 10 feet	5 - 10 feet	
	Yellow Birch	3		11		Re	ed Maple	Low	Variable	Variable	
	Hemlock	2		16		Ir	onwood	Medium	10 - 20 feet	10 - 20 feet	
-				-							-

Report 7 – Stands



Stan	Level 4 C	Level 4 Cover Type			ensity	Acres Stand Age BA Range		e Manageo	d Site	General Comments	
18	6119 - Mixed Lowland Deciduous Forest			Sawtimber Well		31.7 95 111-140		١	N/A	Diverse mix of species and sizes within a lowland/upland web. Low drainage that receives any runoff from surrounding upland stands.	
	Canopy Species % Cover Size C		Size Class	ss DBH Age		Sub-Canopy Spe	cies Densi	ty Avg. Heigh	t Size	Seasonal flow of water north. Large rocks make up most of the lowland	
	Yellow Birch	10		12		Tag Alder	Lov	5 - 10 feet	5 - 10 feet	bed, especially north as seasonal flow increases.	
	Quaking Aspen	5		8							
	Sugar Maple	5		8							
	Red Maple	25		12	95						
	White Spruce	5		8	95						
N	orthern White Cedar	2		12	95						
	Hemlock	12		16	95						
	Basswood	5		12	95						
	Black Ash	31		8	95						
19	4130 - Aspen			Poletimber Well		5.4 36 51-80		1	N/A	Small patch of good quality, mixed aspen poles.	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Canopy Spe	cies Densi	ty Avg. Heigh	t Size		
	Quaking Aspen	80	Seedling	7	36	Hazelnut (Americ	an) Lov	v 5 - 10 feet	5 - 10 feet		
	Red Maple	5	Sapling	5	36	Ironwood	Lov	v 10 - 20 feet	10 - 20 feet		
	Bigtooth Aspen	15	Seedling	7						_	
20	y 4119 - Mixed Northern Hardwoods Sawtimber V			er Well	24.8 90 81-110		N/A		Hardwood stand with a heavier component of yellow birch and scattered		
	Canopy Species	% Cover	Size Class	ss DBH Age		Sub-Canopy Species De		ty Avg. Heigh	t Size	 large diameter oak. Stand was thinned in 2007 and 2022. Access from the SE corner. Vernal areas need to be exclude from future operations 	
	Yellow Birch	12		12		Sugar Maple	Lov	v Variable	Variable	in the SE/central/NW areas.	
	Red Oak	6		20		Balsam Fir	Lov	v Variable	Variable		
	Hemlock	1		10		Ironwood	Lov	v Variable	Variable		
	Sugar Maple	73		11	90					_	
	Red Maple	5		10							
	Paper Birch	3		12							
21	4130 - Aspen		Poletimber Well		3.4 37 81-110		١	N/A	Very large area of aspen at the same age. Multiple drainageways and		
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canopy Spe	cies Densi	ty Avg. Heigh	t Size	road/trail systems across the entire stand. Aspen has good site index quality in most areas with larger than average diameters. Very little	
	Quaking Aspen	68	Seedling	7	37	Red Maple	Lov	v Variable	Variable	conifer component consists of mainly upland black spruce / white spruce	
	Balsam Fir	1	Sapling	5		White Spruce	Lov	v Variable	Variable	mix, sapling to small pole size trees. Management over the next few	
	White Pine	2		22		Black Spruce	Lov	v Variable	Variable	YOE's should focus on creating more age class diversity across the are and conifer/diversity retention.	
	Red Oak	1		8			'	·	·	and conmondiversity retention.	
	White Spruce	4		7							
	Black Spruce	3	Sapling	6							
	Red Maple	2	Sapling	6							
	Red Maple Paper Birch	2 2	Sapling Sapling	6							