



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12079

Entry Year: 2027

Acreage: 2,206

County: Dickinson

Management Area: Cassidy Creek

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, dry-mesic 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**

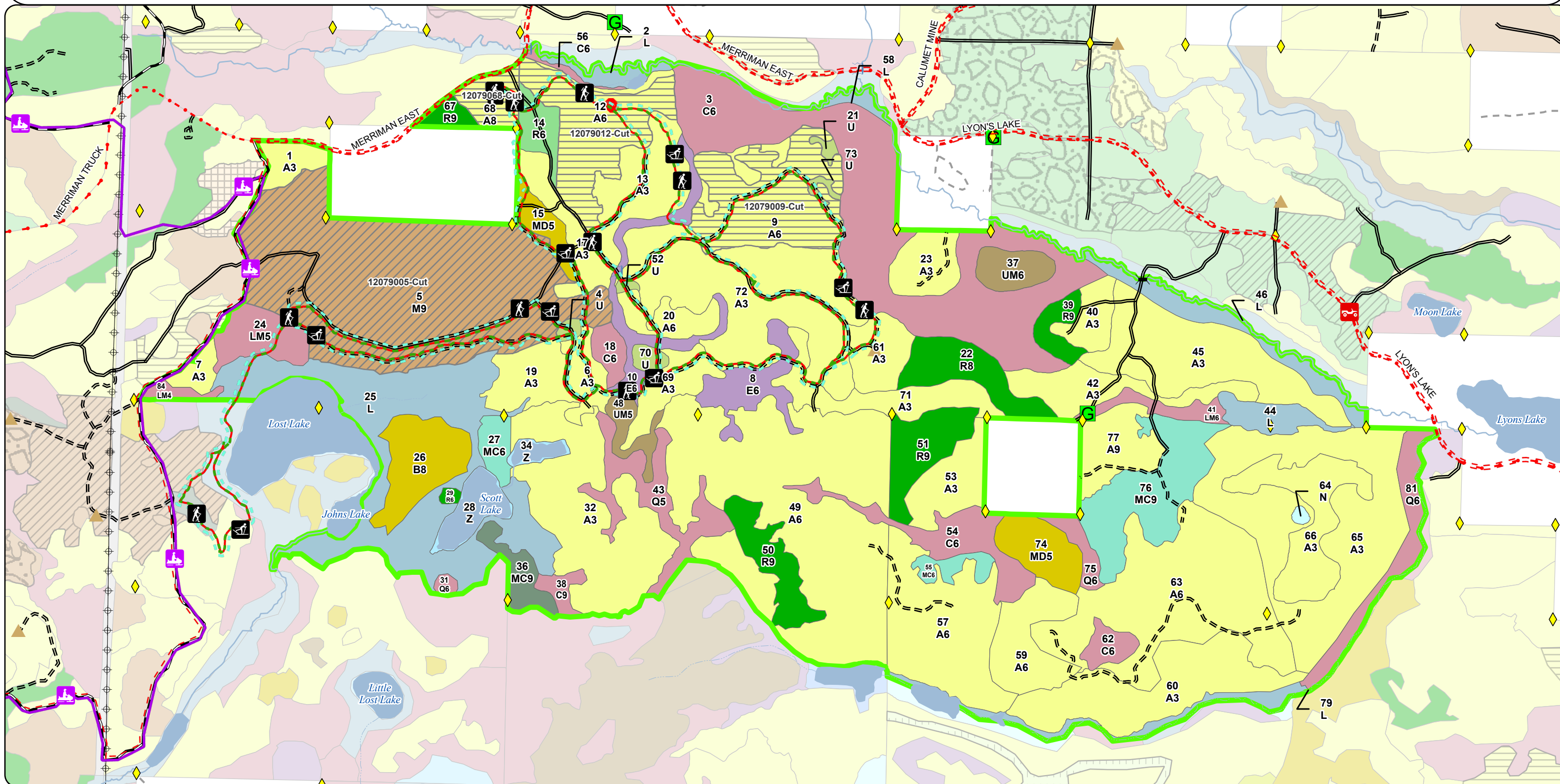
Cover Type & Treatments Map

Compartment: 12079
T41N R29W Sections 21-28
County: Dickinson
Unit: Crystal Falls
Mgmt. Area: Cassidy Creek
YOE: 2027
Acres: 2,206 GIS Calculated
Examiner: Rich Goupell
Date Exported: 08/22/2025
Map Phase: Web Post



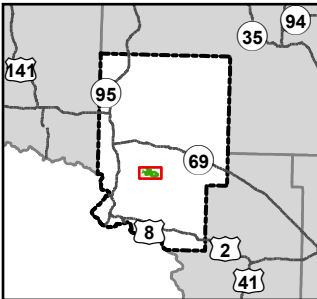
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|--|--|--|---|---|
| <ul style="list-style-type: none">Survey Grade CornersBermsGateBridgesCulvertParking LotSignTrailhead | <ul style="list-style-type: none">Designated Bicycle TrailsDesignated Hiking PathwaysDesignated ORV RoutesDesignated Snowmobile TrailsDNR - Primary Forest RoadDNR - Secondary Forest RoadDNR - Forest Access RouteCounty - Gravel Road | <ul style="list-style-type: none">Private - Dirt / Gravel RoadIntermittent StreamPerennial RiverPowerlineLakes and RiversCountiesCompartment BoundaryClearcut | <ul style="list-style-type: none">Thinning411 - Northern Hardwood413 - Aspen419 - Mixed Upland Deciduous421 - Planted Pines422 - Natural Pines423 - Other Upland Conifers429 - Mixed Upland Conifers | <ul style="list-style-type: none">430 - Upland Mixed Forest500 - Water611 - Lowland Deciduous Forest612 - Lowland Coniferous Forest613 - Lowland Mixed Forest320 - Upland Shrub622 - Lowland Shrub623 - Emergent Wetland |
|--|--|--|---|---|



Stand Boundary Map

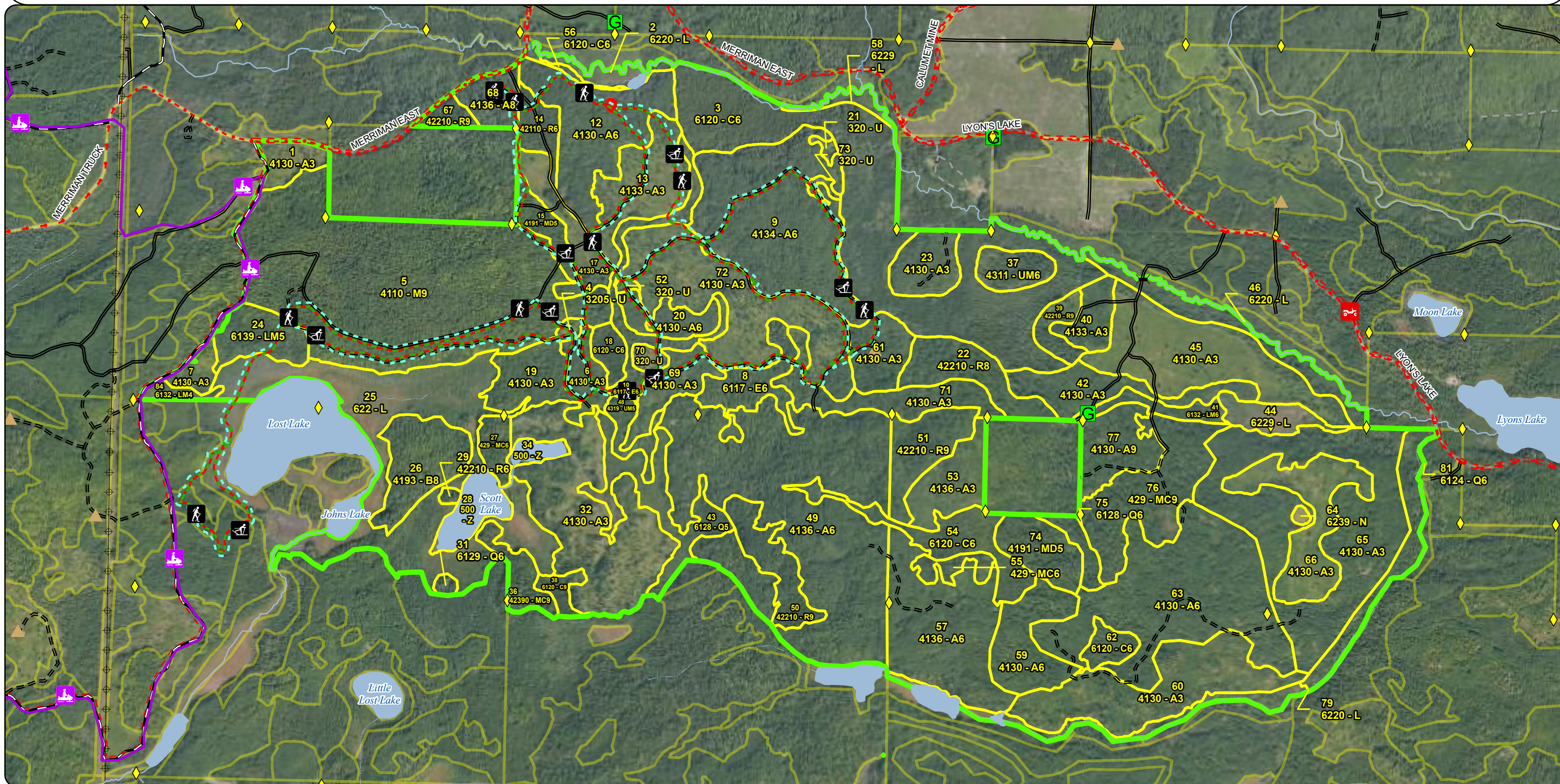
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0 0.5 1 Miles

- Survey Grade Corners
- Berms
- Gate
- Bridges
- Culvert
- Parking Lot
- Sign
- Trailhead
- Designated Bicycle Trails
- Designated Hiking Pathways
- Designated ORV Routes
- Designated Snowmobile Trails
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- Private - Dirt / Gravel Road
- Intermittent Stream
- Perennial River
- Powerline
- Lakes and Rivers
- Counties
- Compartment Boundary

- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 500 - Water
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 320 - Upland Shrub
- 622 - Lowland Shrub
- 623 - Emergent Wetland



Special Conservation Areas & Site Conditions Map

Compartment: 12079
T41N R29W Sections 21-28
County: Dickinson
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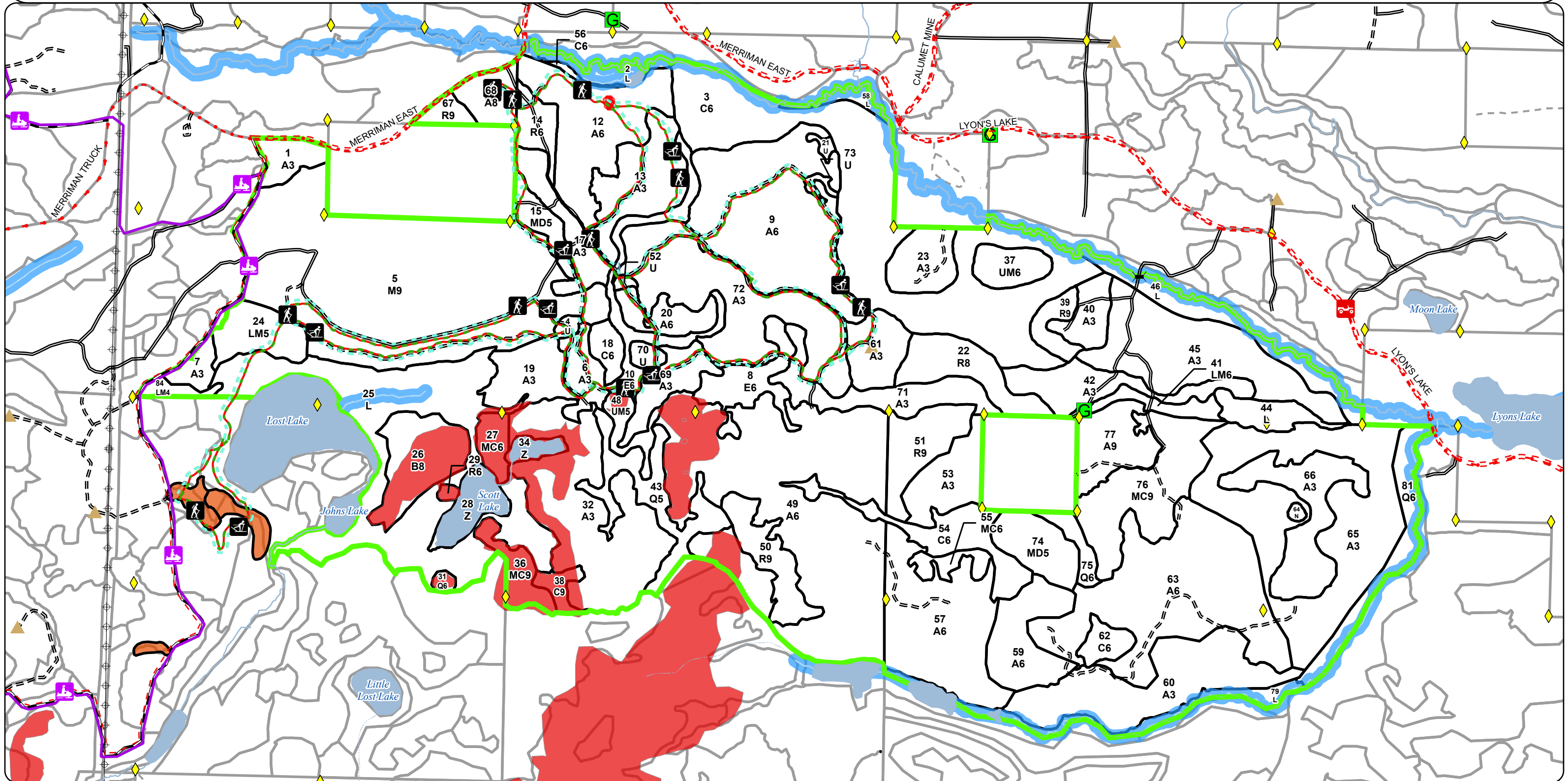
0 0.5 1 Miles

- Survey Grade Corners
- Berms
- Gate
- Bridges
- Culvert
- Parking Lot
- Sign
- Trailhead

- Designated Bicycle Trails
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- Private - Dirt / Gravel Road
- Intermittent Stream
- Perennial River
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- Lakes and Rivers
- Counties
- Compartment Boundary

- Stand Boundaries
- Ecological Reference Areas
- SCA
- Cold Water Streams
- High Priority Trout Stream Buffer
- Other Habitat Area



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	NonForest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
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

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	121	0	0	0	0	0	0	0	0	121
Northern Hardwood	0	0	0	0	0	201	0	0	0	201
Total	121	0	0	0	0	201	0	0	0	322

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	322	0	0	0	0	0	0	0	0	322
Next Step	0	0	0	0	0	0	121	0	0	121
Total	322	0	0	0	0	0	121	0	0	444



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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Proposed Treatments:

5	12079005-Cut	200.9	4110 - Sugar Maple Association	9	150	81-110	Harvest	Thinning	411 - Northern Hardwood	Current	No
<u>Prescription</u> 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 <u>Specs:</u> pockets of desirable advanced regeneration are found, establish gaps if desired. BA may vary depending on density <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> Removing Ash due to EAB risk within the stand. Trail protection throughout stand. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
9	12079009-Cut	59.1	4134 - Aspen, Spruce/Fir	6	50	Unspecifed	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Final harvest following a 3-inch spec. Leave pine, oak, cedar, and hemlock if present. <u>Specs:</u> <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> Aspen, maple, birch, spruce, fir, pine. <u>Regen:</u> <u>Other</u> Acreage may change based on the line work on southern side and along retention pockets. If applicable, the southern line can and follow the <u>Comment:</u> smaller, better-quality aspen. <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
12	12079012-Cut	49.3	4130 - Aspen	6	59		Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Final Harvest. 3-inch spec. Leaving Pine, Hemlock, Oak, and Cedar if present. Green tree maple, cherry, and birch opportunistically to represent <u>Specs:</u> the stand. <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> Aspen, Maple, Pine <u>Regen:</u> <u>Other</u> 100 ft buffer on north side of stand along Mitchell Creek <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
68	12079068-Cut	13.0	4136 - Aspen, Mixed Conifer	8	67	51-80	Harvest	Clearcut	4136 - Aspen, Mixed Conifer	Planting Record	No
<u>Prescription</u> Final Harvest. 3-inch spec. Leaving Pine, Hemlock, Oak, and Cedar if present. Green tree maple, cherry, and birch opportunistically to represent <u>Specs:</u> the stand. <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> Aspen, spruce, fir, birch, maple, pine. <u>Regen:</u> <u>Other</u> No retention due to small size of stand. Merriman ski trail head parking present in stand. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											



S t a n d									Year of Entry: 2027		
	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	
											Habitat Cut

Total Treatment
Acreage Proposed: 322.3



Availability for Management

Total	Acres	Acres Avail	Acres
Acres	Available	With Condition	Not Available

Dominant Site Conditions

5B	5C	2F	2G	2H	3A	3J	3L	5A	5E
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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	Dominant Site 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	Unspecified
Comments: No cut buffer to Mitchell Creek.								
2	Unavailable	2F: Too steep	9	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Comments:								

Report 4 – Site Conditions



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 wetland to cross to get there. It is part of the new DHA.							
4	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	9	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments: Stream through middle of stand. No-cut buffer along North side of stand.							
5	Unavailable	5A: Not able to obtain desirable regeneration	144	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	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:							
7	Available	5B: Maintain for regeneration purposes	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This stand should be managed for the Pine/Aspen advanced regeneration in the understory. The timing is not right to remove overstory and release the understory this YOE.							
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							



9	Unavailable	3L: Other wildlife concerns	4	1C: Other Dept. or Div. process	Unspecified	Unspecified	Unspecified
Comments: Old growth stand condition favorable to WLD							
10	Unavailable	5A: Not able to obtain desirable regeneration	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	5E: Long-Term Retention	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified	Unspecified
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: bounded by steep rock ledges and swamp with standing water							
14	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retention chunks for wildlife corridors into stand 3.							
15	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions



16	Unavailable	5E: Long-Term Retention	5	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: No cut buffer to Mitchell Creek.							
17	Unavailable	5A: Not able to obtain desirable regeneration	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
18	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments: small acreage stand surrounded by A3.							
19	Unavailable	5E: Long-Term Retention	1	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Mucho Pine Timber 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 regen grow.							
21	Unavailable	5A: Not able to obtain desirable regeneration	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							



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

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				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
1	4130 - Aspen	Sapling Well	10.7	9	Immature	N/A	This stand was cut during the spring/summer of 2017 part of sale#020-16-01. Scattered Pine and Hemlock left from cut			
Canopy Species		% Cover	Size Class	DBH	Age					
Quaking Aspen		100	Log	1	9					
2	6220 - Alder/Willow	None	7.8			No				
3	6120 - Lowland Cedar	Poletimber Well	144.9	94	111-140	N/A	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	Age	Sub-Canopy Species		Density	Avg. Height	Size
Northern White Cedar		60		11	94	Tag Alder		Medium	5 - 10 feet	5 - 10 feet
Tamarack		20	Seedling	8		Northern White Cedar		Low	Variable	Variable
Black Spruce		20	Seedling	7		Black Spruce		Medium	Variable	Variable
						Balsam Fir		Medium	Variable	Variable
4	3205 - Mixed Upland Shrub	None	2.0			No	Stand origin 1990. Some younger pine and spruce present.			
5	4110 - Sugar Maple Association	Sawtimber Well	200.9	150	81-110	N/A	Stand cut 2005, Gun Barrels. Large overall DBH distribution. White ash log trees should be considered for removal when harvested next. Some white pine overstory and understory present on the south edge of the stand along the lowland.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
White Ash		15		18		White Ash		Low	5 - 10 feet	5 - 10 feet
Sugar Maple		50		14	150	Sugar Maple		Low	10 - 20 feet	10 - 20 feet
Basswood		35		14		Ironwood		Medium	10 - 20 feet	10 - 20 feet
						Balsam Fir		Low	5 - 10 feet	5 - 10 feet
6	4130 - Aspen	Sapling Well	12.4	15	Immature	N/A	Many different species in supercanopy left unharvested from last treatment. Small rock outcroppings throughout. A couple inaccessible areas due to rock and water. Harvested 2010.			
Canopy Species		% Cover	Size Class	DBH	Age					
Quaking Aspen		100	Log	3	15					
7	4130 - Aspen	Sapling Well	6.8	12	Immature	N/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).			
Canopy Species		% Cover	Size Class	DBH	Age					
Quaking Aspen		100	Log	3	12					
8	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	20.0	61	81-110	N/A	Scattered paper birch, red maple, and aspen that could be considered merchantable. Cedar, spruce, and fir scattered in wetter areas. Large amounts of dead standing ash.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Northern White Cedar		5		10		Black Ash		Low	5 - 10 feet	5 - 10 feet
Black Ash		5	Log	4		Tag Alder		Low	5 - 10 feet	5 - 10 feet
Paper Birch		20	Seedling	7		Balsam 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						





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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
27	429 - Mixed Upland Conifers	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-Canopy Species		Density	Avg. Height	Size
Quaking Aspen		25	Seedling	7	46	White Spruce		Low	10 - 20 feet	
Red Pine		35		10	81	Balsam Fir		Medium	10 - 20 feet	
Northern 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 - Natural Red Pine	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-Canopy Species	Density	Avg. Height	Size	
White Pine		20		10		White Pine		Low	Variable	
Red Pine		80		10	91	Red Pine		Low	Variable	
31	6129 - Mixed Coniferous Lowland 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 stand January 2020. Stand retention around small lake (Stand 6). Pine left on rock ridges. Cedar ridge present on north side of stand. Maple stump sprouts spread throughout. Pine left throughout western ridge line.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Maple		10	Log	1		Hazelnut (Spp.)		Low	5 - 10 feet	
Quaking Aspen		90	Log	1	5					
34	500 - Water	None	5.1			No	offshoot of Scott Lake			
36	42390 - Mixed Non-Pine Upland Conifers	Sawtimber Well	11.9	129	81-110	N/A	mixed upland cedar and hemlock on rock knobs. very little understory in most areas. rock ledge throughout. extremely poor to no access. Some blow over from bud worm damage. Stand is in the Dry Mesic Northern Forest ERA.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Paper Birch		15		13		Hazelnut (Beaked)		Low	5 - 10 feet	
Hemlock		30		12		Balsam Fir		Low	10 - 20 feet	
Red Maple		10		12						
Northern White Cedar		35		14	129					
Balsam Fir		10	Seedling	8						
37	4311 - Pine, Aspen Mix	Poletimber Well	12.3	48	81-110	N/A	Some very large diameter Pines in supercanopy. Relatively poor access. Aspen could be monitored for harvest.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Balsam Fir		10	Sapling	6		Balsam Fir		Medium	Variable	
Red Pine		35		16		Black Spruce		Medium	Variable	
Quaking Aspen		50	Seedling	8	48					
Black Spruce		5	Sapling	6						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
38	6120 - Lowland Cedar	Sawtimber Well	5.4	111	111-140	N/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 doing well.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Northern White Cedar	50		13	111	Tag Alder	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 - Natural Red Pine	Sawtimber Well	8.9	105	51-80	N/A	Large diameter Pine stand. Cut 2019 part of Hazelnut Soup. All Pine reserved. Aspen coming up well.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	100		16	105	Bracken Fern	High		Not Applicable	Not Applicable
					Quaking Aspen	High		5 - 10 feet	5 - 10 feet
40	4133 - Aspen, Mixed Pine	Sapling Well	12.4	24	Immature	N/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	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	25	Seedling	8		Hazelnut (Beaked)	Medium		5 - 10 feet	5 - 10 feet
Quaking Aspen	75	Log	3	24					
41	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	9.0	48	81-110	N/A	Trace amounts of Sugar Maple and Pine. Stream through middle of stand. Standing dead black ash, mostly on east side. Balsam poplar getting to merchantable size.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Spruce	10		12		Balsam Fir	Low		Variable	Variable
Northern White Cedar	20		14		Black Ash	Low		Variable	Variable
Balsam Fir	10	Sapling	6		Tag Alder	Low		5 - 10 feet	5 - 10 feet
Balsam Poplar	40	Seedling	8	48	White Spruce	Low		Variable	Variable
Black Ash	5	Log	4						
Black Spruce	5	Sapling	7						
Quaking Aspen	10	Seedling	8	48					
42	4130 - Aspen	Sapling Well	25.8	15	Immature	N/A	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.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Quaking Aspen	100	Log	3	15	Bracken Fern	Medium		Not Applicable	Not Applicable
43	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	29.4	81	51-80	N/A	Extremely wet - standing water. South end is heavier to black ash saplings. Most overstory ash has died. There is a conifer and cedar pocket on east end of stand.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Balsam Poplar	15	Sapling	6		Black Ash	Medium		5 - 10 feet	5 - 10 feet
Balsam Fir	15	Sapling	6						
Northern White Cedar	40	Seedling	8	81					
Black Spruce	15	Sapling	6						
Black Ash	15	Sapling	6	51					



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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
44	6229 - Mixed Lowland Shrub	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.			
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. Buffered mitchell creek 300 feet. Long term retention along north side bordering water.			
Canopy Species		% Cover	Size Class	DBH	Age					
Quaking Aspen		100	Log	2	6					
46	6220 - Alder/Willow	None	21.6			No	Borders Mitchell Creek.			
48	4319 - Mixed Upland Forest	Poletimber Medium	8.6	76	51-80	N/A	Wet area running through it from stand 10 to 43. Rock ridge could impact harvestability. Pine in dominant overstory.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Pine		15		12		Balsam 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 - Aspen, Mixed Conifer	Poletimber Well	174.9	37	111-140	N/A	Aspen is healthy. Scattered drainages and other wet areas within the 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 outcrops present throughout the stand as well that could impact harvestability. *Consider breaking up and harvesting portion next cycle.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Pine		5		11		Balsam Fir		Low	5 - 10 feet	5 - 10 feet
White Spruce		5	Seedling	6		White Spruce		Low	5 - 10 feet	5 - 10 feet
Northern White Cedar		10		9						
Paper Birch		5		9						
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 - Natural Red Pine	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-Canopy Species	Density		Avg. Height	Size
Red Maple		5	Seedling	8		Paper Birch	Medium		>20 feet	>20 feet
Red Pine		95		12	105	Balsam Fir	Medium		10 - 20 feet	10 - 20 feet





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