



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12019

Entry Year 2027

Acreage: 2,514

County: Dickinson

Management Area: Ralph Moraine

Stand Examiner: Deb Goupell

Legal Description:

T44N R27W Sec 5-7

T44N R28W Sec1-3, 11, 12

Identified Planning Goals:

Manage all forested cover types on a sustainable yield. Develop an age class distribution within aspen cover type as directed by SFMP management plan, prescribing for harvest by age 50. Encourage diversity and conifers where possible.

Soil and topography:

The majority of the soils are fine sandy loams with 6-18% slope. There is relatively little lowland areas in this compartment.

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

Entirely State owned land; some private ownership on the west side.

Unique Natural Features:

Archeological, Historical, and Cultural Features:

None noted

Special Management Designations or Considerations:

Cold water streams on far west end.

Watershed and Fisheries Considerations:

This compartment contains Wild West Creek and Flat Rock Creek. Wild West Creek and Flat Rock Creek are designated Type 1 trout streams less than 50 feet wide and have predicted mean July water temperatures of 62.2 and 63.7°F (cold streams), respectively. A 300' buffer is recommended for Wild West Creek and Flat Rock Creek in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, a minimum 100 feet, plus 5 feet per 1% increase in slope, riparian management zone is recommended to protect riparian areas in accordance with Best Management Practices.

Wildlife Habitat Considerations:

This compartment is made up of relatively rich soils for the Ralph Ground Moraine Management Area. Much of the hardwood stands have a heavy oak component which is highly desirable by deer, bear, wild turkeys, and grouse. Thus, much of this area should be managed with acorn production in mind. Upland and lowland conifers that provide year round cover for many wildlife species is lacking in this compartment. Maintaining and enhancing the conifer component will provide cover and travel corridors from compartments to the south and north.

Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial oil & gas production in this part of the state. No active sand & gravel operations are known to exist in the area, but there is good potential for development of sand & gravel in the compartment on the upland drumlins. The compartment, however, might be too far from populated areas (commercial markets) for any aggregate resources present to have much value beyond use by the county road commission or DNR for local road maintenance. Some sparse ground-based exploration for metallic minerals has occurred in this area, but no known prospects have been identified, and potential for any economic development of metallic minerals within/beneath the compartment is considered low at this time. The nearest current leasing activity involving State-owned mineral rights is several miles west. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, the surface owner must provide the owner of the mineral rights reasonable access to the surface for mineral exploration and development.

Vehicle Access:

Simpson Road (poor dirt road) and Tower Road (county gravel road) are the primary arteries of this compartment. Various two-track roads and trails cut through the interior.

Survey Needs:

None at this time

Recreational Facilities and Opportunities:

No facilities within the compartment; snowmobile trail is located a half mile southeast of the compartment boundary. This area heavily used by hunters, trappers, ATV riders, fishermen.

Fire Protection:**Additional Compartment Information:**

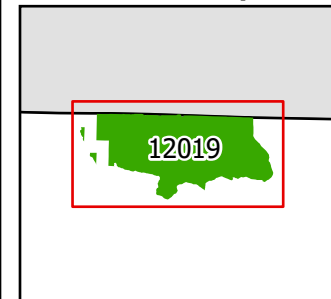
The following reports from the Inventory are attached:

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

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

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

Cover Type & Treatments Map



Compartment: 12019
T44N R27W Sec 5-8
County: Dickinson
Unit: Crystal Falls
Mgmt. Area: Ralph Moraine
YOE: 2027
Acres: 2,514 GIS Calculated
Examiner: Deb Goupell
Date Exported: 11/13/2025
Map Phase: Post Review

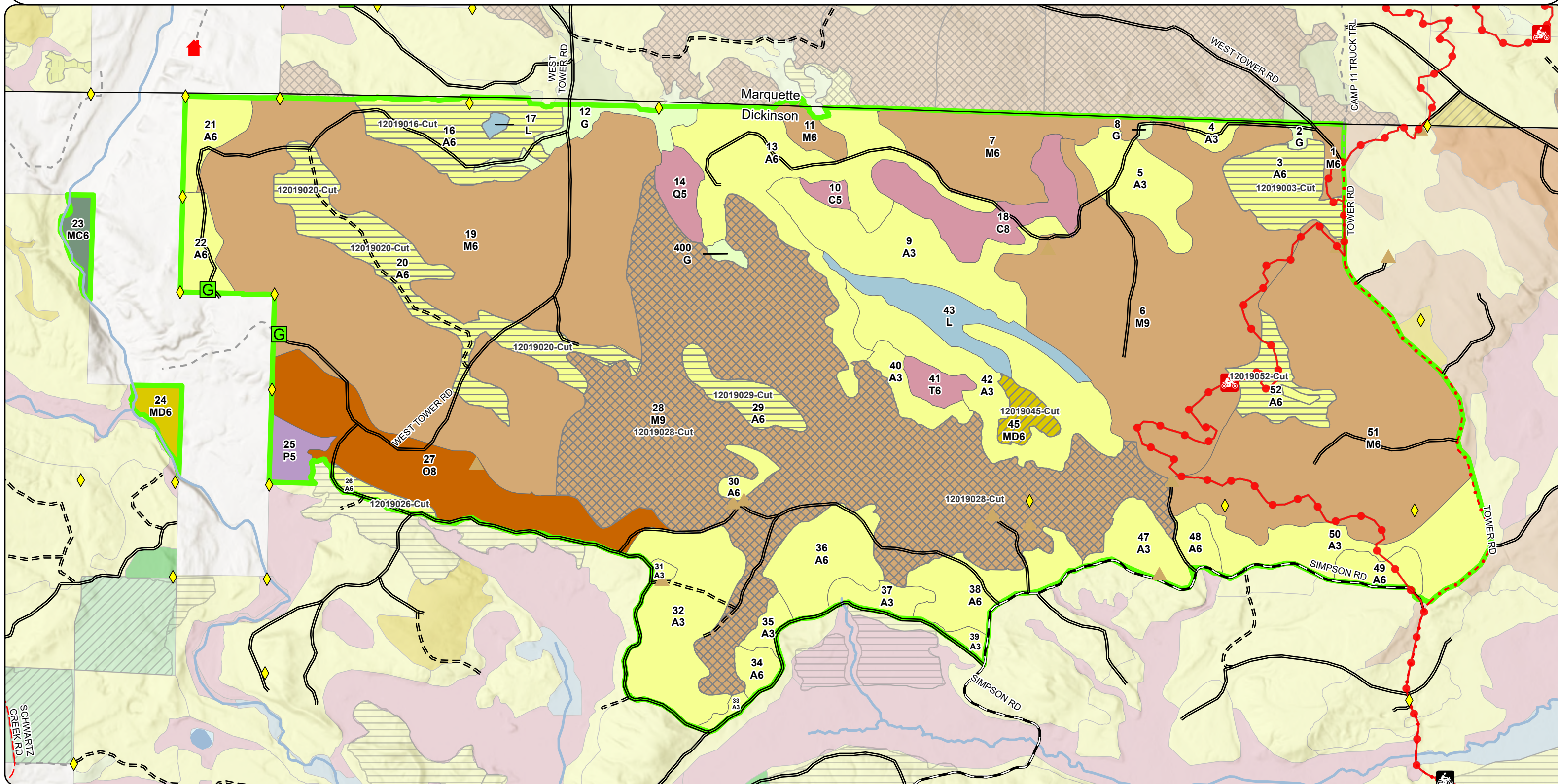
0 0.5 1 Miles

- Survey Grade Corners
- Berm
- Gate
- Designated Motorcycle Trails
- Designated Snowmobile

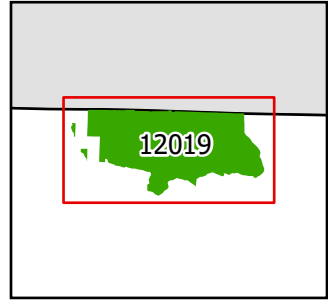
- DNR - Primary Forest Road
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Streams

- Lakes and Rivers
- Compartment Boundary
- Clearcut
- Selection
- Thinning
- 411 - Northern Hardwood
- 412 - Oak Types

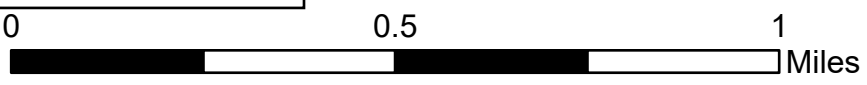
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 622 - Lowland Shrub



Stand Boundary Map

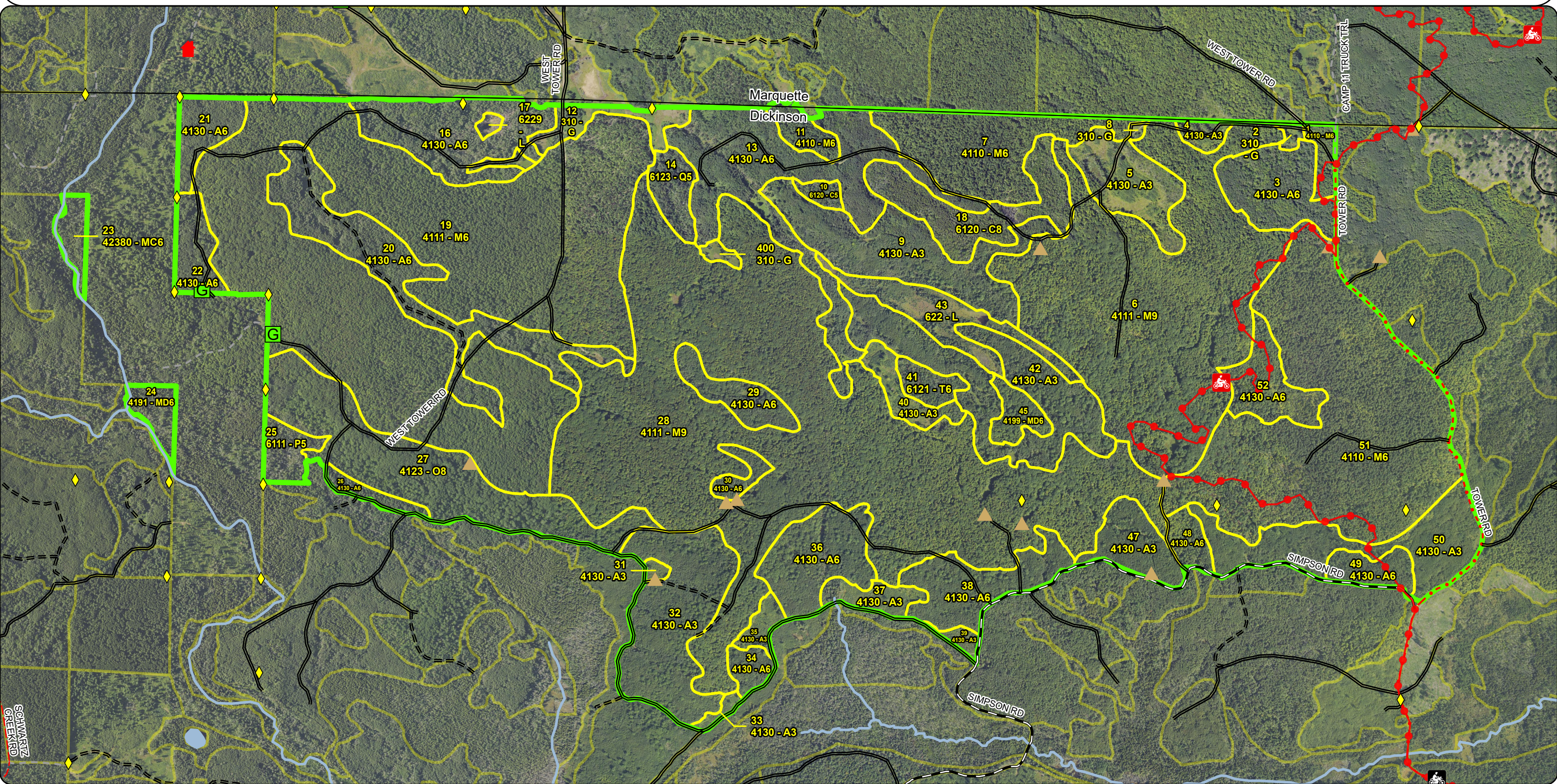


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|------------------------------|-------------------------------|-------------------------|
| Survey Grade Corners | DNR - Primary Forest Road | Streams |
| Berm | DNR - Secondary Forest Road | Lakes and Rivers |
| Gate | DNR - Forest Access Route | Compartment Boundary |
| Designated Motorcycle Trails | County - Gravel Road | 411 - Northern Hardwood |
| Designated Snowmobile | County - Dirt Road (Seasonal) | 412 - Oak Types |
| | Private - Dirt / Gravel Road | 413 - Aspen |

- 419 - Mixed Upland Deciduous
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**Special Conservation Areas
& Site Conditions Map**

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0 0.5 1 Miles

Survey Grade Corners



Berm



Gate



Designated Motorcycle Trails



Designated Snowmobile



DNR - Primary Forest Road



DNR - Secondary Forest Road



DNR - Forest Access Route



County - Gravel Road



County - Dirt Road (Seasonal)



Private - Dirt / Gravel Road



Streams



Lakes and Rivers



Compartment Boundary



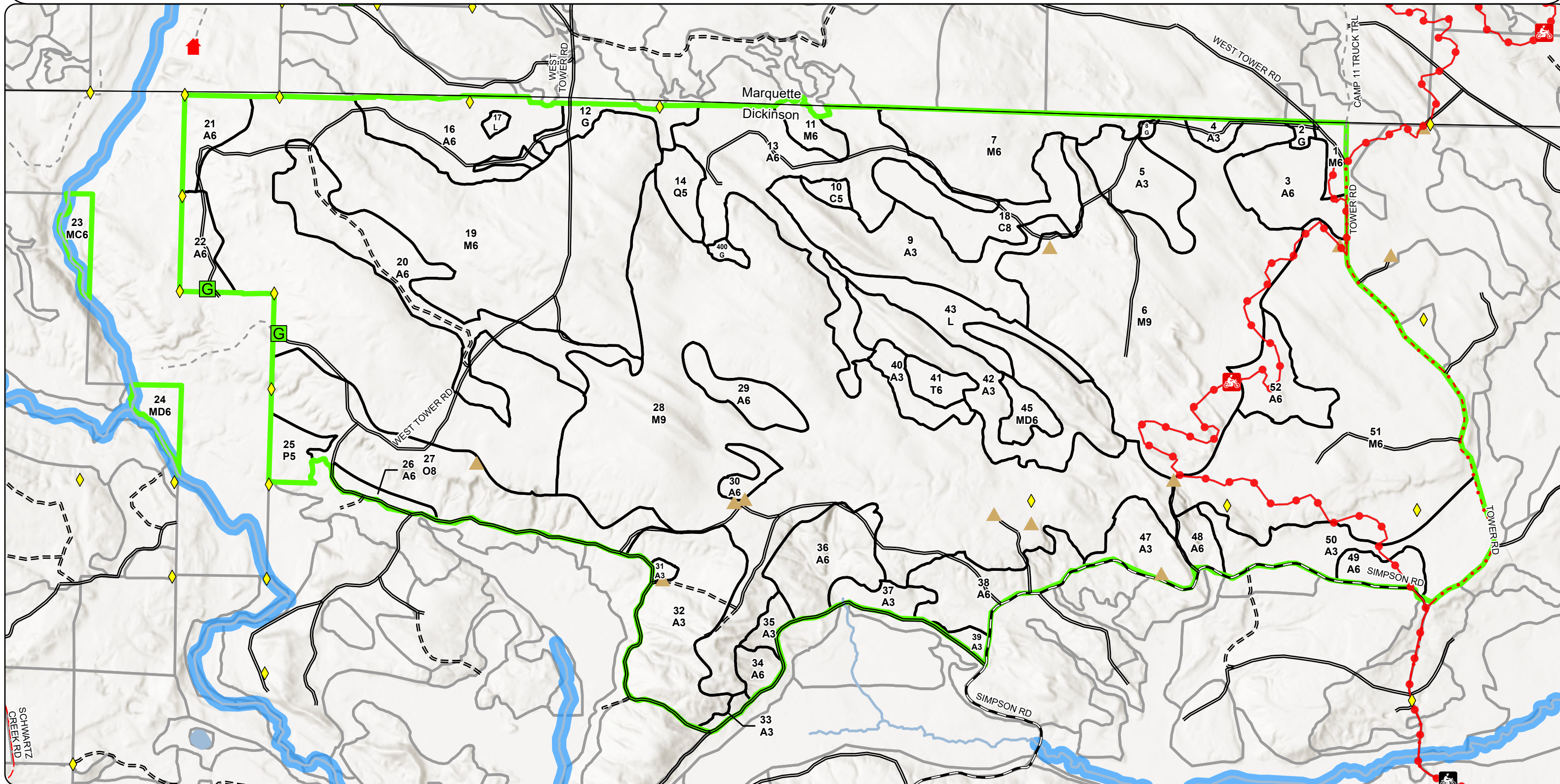
Stand Boundaries



Cold Water Streams



High Priority Trout Stream Buffer



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	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	79	54	22	302	193	124	24	0	9	0	0	0	0	0	0	0	0	806
Cedar	0	0	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	0	46
Herbaceous Openland	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12
Lowland Conifers	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14
Lowland Shrub	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	10	11	0	0	0	0	0	0	21
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	1446	0	0	0	0	0	0	1446
Oak	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	95	95
Tamarack	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
Upland Conifers	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
Total	55	79	54	22	302	207	124	24	0	9	40	1503	0	0	0	0	0	95	2513



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2027

Acres of Harvest

Compartment 19
Total Compartment Acres: 2,514

Commercial Harvest - 1373
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	206	0	0	0	0	0	0	0	0	206
Mixed Upland Deciduous	0	0	0	0	11	0	0	0	0	11
Northern Hardwood	0	475	0	0	0	0	0	0	0	475
Total	206	475	0	0	11	0	0	0	0	692

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	692	0	0	0	0	0	0	0	0	692
Next Step	0	0	0	0	0	681	0	0	0	681
Total	692	0	0	0	0	681	0	0	0	1373



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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Approved Treatments:

3	12019003-Cut	34.6	4130 - Aspen	6	57	Unspec ified	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Final harvest all stems 3" dbh and greater except oak and cedar. Leave submerchantable conifer, preferably in clumps scattered throughout <u>Specs:</u> stand as available. Also leave some representation of maple/basswood overstory trees for diversity (green tree during <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> aspen, mixed hardwood, mixed softwood <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
16	12019016-Cut	51.8	4130 - Aspen	6	55	Unspec ified	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Final harvest all stems 3" and greater at dbh except white pine, red pine, cedar, oak (if found). Scattered live clumps of submerchantable <u>Specs:</u> conifer will be left as available. Retention will be focused around pond for conifer retainment, as requested by WLD <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> aspen, mixed hardwood, mixed softwood <u>Regen:</u> <u>Other</u> At comp review, it was suggested that this stand would go with the Gwinn sale to the north <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
20	12019020-Cut	71.4	4130 - Aspen	6	48	Unspec ified	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Final harvest all stems 3"dbh and greater except oak, white pine, red pine, cedar. Retention will be focused around heavier areas of conifer, <u>Specs:</u> generally the northwest/north central, per WLD request. <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> aspen, mixed hardwood, mixed softwood <u>Regen:</u> <u>Other</u> At comp review, it was suggested by District Mgr that this stand + stand 16 go with Gwinn sale to the north <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
26 12019026-Cut	6.8	4130 - Aspen	6	41	Unspec ified	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Final harvest all stems 2" dbh and greater except oak & white pine. No other retention. <u>Specs:</u> <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> aspen, mixed softwood, mixed hardwood <u>Regen:</u> <u>Other</u> This stand has lost much volume due to SBW <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026										
28 12019028-Cut	475.4	4111 - S.Maple, Hard Mast Association	9	105	111- 140	Harvest	Selection	411 - Northern Hardwood	Planting Record	No
<u>Prescription</u> Thin to BA 60, focusing on removal of high risk trees likely to not make to next marking cycle, following Compleat Marker. Larger basswood trees and all ash should be concentrated on for removal. Green tree some ash in better condition. Keep minor specie <u>Specs:</u> <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> oak, mixed hardwood, aspen, mixed softwood. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026										
29 12019029-Cut	18.0	4130 - Aspen	6	50	Unspec ified	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Final harvest all stems 3" dbh and greater except oak, red pine, white pine. Also retain submerchantable conifer. <u>Specs:</u> <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> aspen,mixed hardwood, mixed softwood <u>Regen:</u> <u>Other</u> Very little conifer in here <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026										
45 12019045-Cut	10.7	4199 - Other Mixed Upland Deciduous	6	105	111- 140	Harvest	Thinning	411 - Northern Hardwood	Planting Record	No
<u>Prescription</u> Thin to BA 70, focusing on removal of poorer formed trees that will not survive to next marking entry, following Compleat Marker. Oak may be <u>Specs:</u> marked but favor leaving over other species for mast. <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026										



Standard

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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52	12019052-Cut	23.0	4130 - Aspen	6	60	81-110	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Planting Record	No
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Prescription Final harvest all stems 3" dbh and greater except oak and cedar. Retention is reflected in treatment, excluding low area from harvest.
Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable aspen, maple, mixed softwood

Regen:

Other May consider marking better quality sugar maple trees to leave

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

Total Treatment 691.7
Acreage Proposed:



Availability for Management

Total Acres	Acres Available	Acres Avail With Condition	Acres Not Available	Dominant Site Conditions			
				5C	2G	3J	5E
777	747	7	23	Aspen	7		23
46	46	0	0	Cedar			
23	23	0	0	Herbaceous Openland			
11	0	0	11	Lowland Aspen/Balsam Poplar		11	
14	14	0	0	Lowland Conifers			
32	32	0	0	Lowland Shrub			
21	11	0	10	Mixed Upland Deciduous		10	
1446	1446	0	0	Northern Hardwood			
95	95	0	0	Oak			
9	9	0	0	Tamarack			
9	0	0	9	Upland Conifers		9	
2,483	2,422	7	54	Total Forested Acres	7	11	20
	98%	0%	2%	Relative Percent			23

*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		3J: Water quality/BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:								
2	Unavailable		3J: Water quality/BMPs (stream, river, or lake)	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:								

Report 4 – Site Conditions



3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: holding for "tail" aspen age class							
5	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: there is a bed and bank that cuts this stand in half							
8	Unavailable	5E: Long-Term Retention	2	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	5E: Long-Term Retention	13	2G: Too wet (sensitive soils, does not include access issues)	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				





Conifer is thick, dbhs range from 1-7" with a couple 12" white spruce. Water table very near to the surface. Little merchantable wood at this time.



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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
48	4130 - Aspen	Poletimber Well	9.3	85	Unspecified	N/A	Intermittent drainage with bed/bank through this stand. Most of this stand is retention/buffers from previous harvests.			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
	Red Maple	10	Log/Pole	11		Balsam Fir		Medium	Variable	Variable
	Quaking Aspen	80	Pole	9	85	White Spruce		Low	Variable	Variable
	White Pine	10	Log	14		Tag Alder		Low	5 - 10 feet	5 - 10 feet
						Hazelnut (Spp.)		Medium	5 - 10 feet	5 - 10 feet
49	4130 - Aspen	Poletimber Well	12.9	53	Unspecified	N/A	Trace red pine logs; red maple saps 4-5" dbh; bigtooth is larger and in scattered pockets + along road. This stand will hold.			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
	Red Maple	20	Sapling/Pole	4		Balsam Fir		Medium	Variable	Variable
	Quaking Aspen	60	Pole	8	53	White Pine		Low	Variable	Variable
	Bigtooth Aspen	10	Log	11		Hazelnut (Spp.)		High	5 - 10 feet	5 - 10 feet
	White Spruce	5	Log/Pole	12		Red Maple		Medium	>20 feet	>20 feet
	White Pine	5	Log	14		White Spruce		Low	Variable	Variable
50	4130 - Aspen	Sapling Well	54.1	16	Immature	N/A	Febrile Aspen TS cut 2009			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
	Red Maple	15	Sapling	1		White Pine		Low	< 5 feet	< 5 feet
	Red Oak	1	Pole	9		Balsam Fir		Low	Variable	Variable
	Quaking Aspen	80	Sapling	3	16	Red Oak		Low	< 5 feet	< 5 feet
	White Pine	4	Log/XLog	16						
51	4110 - Sugar Maple Association	Poletimber Well	218.7	105	81-110	N/A	ONeill TS cut 1991-92. Lower BAs, heavier ironwood saplings along Tower Rd. Lots of basswood clumps. There is a wet conifer/ash swale in southwest lobe of this stand to protect. Hipster Hwd TS cut 2020-2022.			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
	Sugar Maple	55	Log/Pole	10	105	Leatherwood		Low	5 - 10 feet	5 - 10 feet
	Basswood	30	Log	14		White Spruce		Low	Variable	Variable
	White Ash	1	Pole/Log	9		Ironwood		Medium	10 - 20 feet	10 - 20 feet
	Red Oak	13	Log	14						
52	4130 - Aspen	Poletimber Well	24.4	60	81-110	N/A	There are hardwood knobs in here which are low quality (cracks, defect, broken limbs); low spot in east finger will serve retention. Keep all oak (only a few)			
	Canopy Species	% Cover	Size Class	DBH	Age					
	Sugar Maple	25	Log/Pole	10						
	Basswood	10	Log	12						
	Quaking Aspen	65	Pole	8	60					
400	310 - Herbaceous Openland	None	2.8			No	OPIC - FMD: Site Index is from previous OI data.			