



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12021

Entry Year 2020

Acreage: 2,796

County Dickinson

Management Area: Ralph Ground Moraine

Revision Date: 2018-08-16

Stand Examiner: Andrew Church

Legal Description:

T44N R27W Sections 3-6, 8-11, 14 and 15

Identified Planning Goals:

Optimize sustainable timber production, enhance wildlife habitat and protect riparian areas.

Soil and topography:

Uplands are dominated by Zimmerman fine sand. Other minor upland soils include Pemene & Karlin loamy fine sands. Lowland types are primarily Cathro mucks and Kinross fine sand. Topography is gently rolling hills.

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

Private ownership is located in the Southwest portion of this compartment. The land is used heavily by hunters, fishermen, campers, and trappers.

Unique Natural Features:

Archeological, Historical, and Cultural Features:

none

Special Management Designations or Considerations:

none

Watershed and Fisheries Considerations:

The eastern region of this compartment borders Big Brook. Little Brook, which borders the southern region of this compartment, serves as a tributary to Big Brook. Big Brook is a designated Type 1 trout stream less than 50' width. A 300' buffer is recommended for Big Brook in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, 100' plus 5' per 1% increase in slope; buffers are recommended to protect these areas in accordance with Best Management Practices. Little Brook is a designated Type 1 trout stream less than 50' width. A 300' buffer is recommended for Little Brook in riparian areas susceptible to Aspen regeneration. For areas not susceptible to Aspen regeneration, 100' plus 5' per 1% increase in slope; buffers are recommended to protect these areas in accordance with Best Management Practices.

Wildlife Habitat Considerations:

The featured species for this MA include deer, bear, grouse, woodcock, and northern goshawk. This compartment includes wildlife purchased lands. The important habitat features in this compartment include mast production and riparian habitat for white-tailed deer, bear, fisher and marten. Habitat features important for bear include the lowland conifer habitat, oak mast production and available refuge trees, primarily white pine.

Mineral Resource and Development Concerns and/or Restrictions

Sand/gravel pits are not located in the area, but there may be some sand & gravel potential on the uplands within the compartment. There is no history of metallic mineral mining in this area, though there was previous leasing activity. Metallic mineral potential appears to be low at this time. There is no economic oil and gas production in the UP.

Vehicle Access:

Tower Road serves as primary access along west side of the compartment; majority of upland within the compartment is accessible by a network of poor dirt roads and trails. Access into the east is off Kate's Grade through gated private property.

Survey Needs:

Several corners needed.

Recreational Facilities and Opportunities:

Hunting, camping, fishing, trapping, hiking, canoeing.

Fire Protection:

Felch protection area. Access to most upland stands is fair, access to swamp types would be difficult.

Additional Compartment Information:

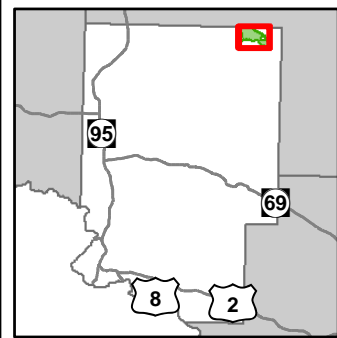
The following reports from the Inventory are attached:

- 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:

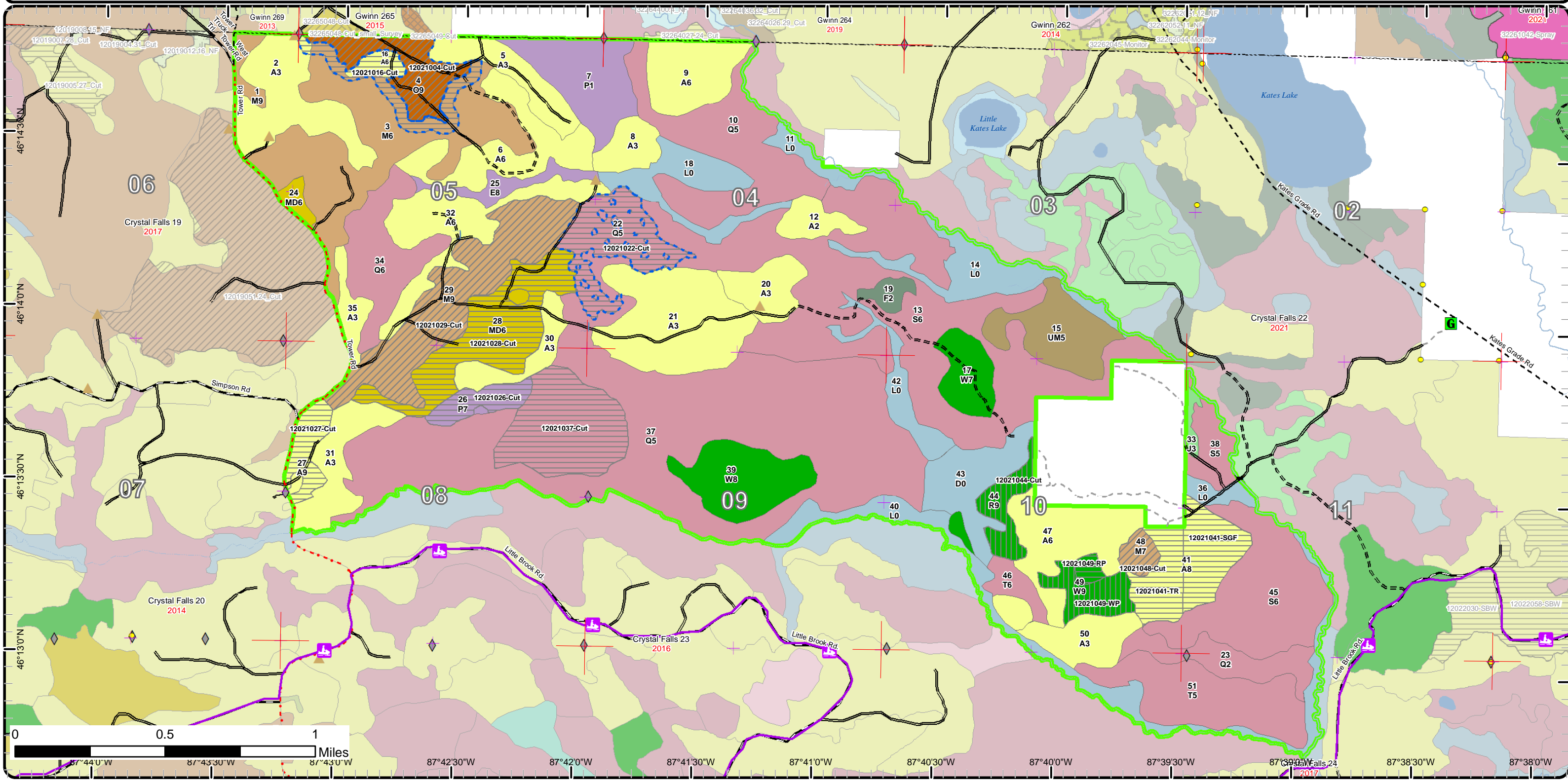
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map



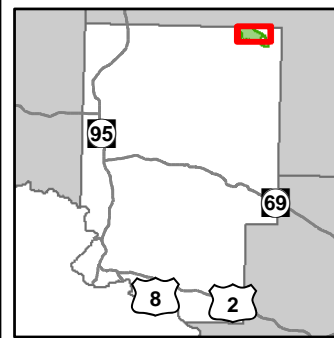
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 Map Phase: Post-Review

- Miris Corners
- + Remonumented Section Corners
- Survey Grade Corners
- ◆ Field Grade Corners
- Counties
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- 🚙 Designated Snowmobile Trails
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- Lakes and Rivers All
- 🟩 Compartment Boundary
- 🟩 Treatments with Site Conditions
- 🟩 Clearcut (w/Reserves)
- 🟩 Thinning (Crown, Low, Systematic)
- 🟩 Shelter Wood (w/Reserves)
- 🟩 411 - Northern Hardwood
- 🟩 412 - Oak Types
- 🟩 413 - Aspen
- 🟩 419 - Mixed Upland Deciduous
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- 🟩 422 - Natural Pines
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- 🟩 Lakes

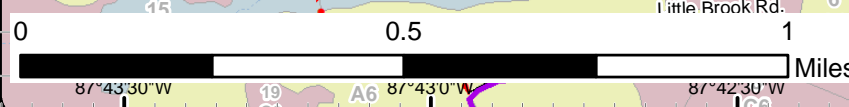
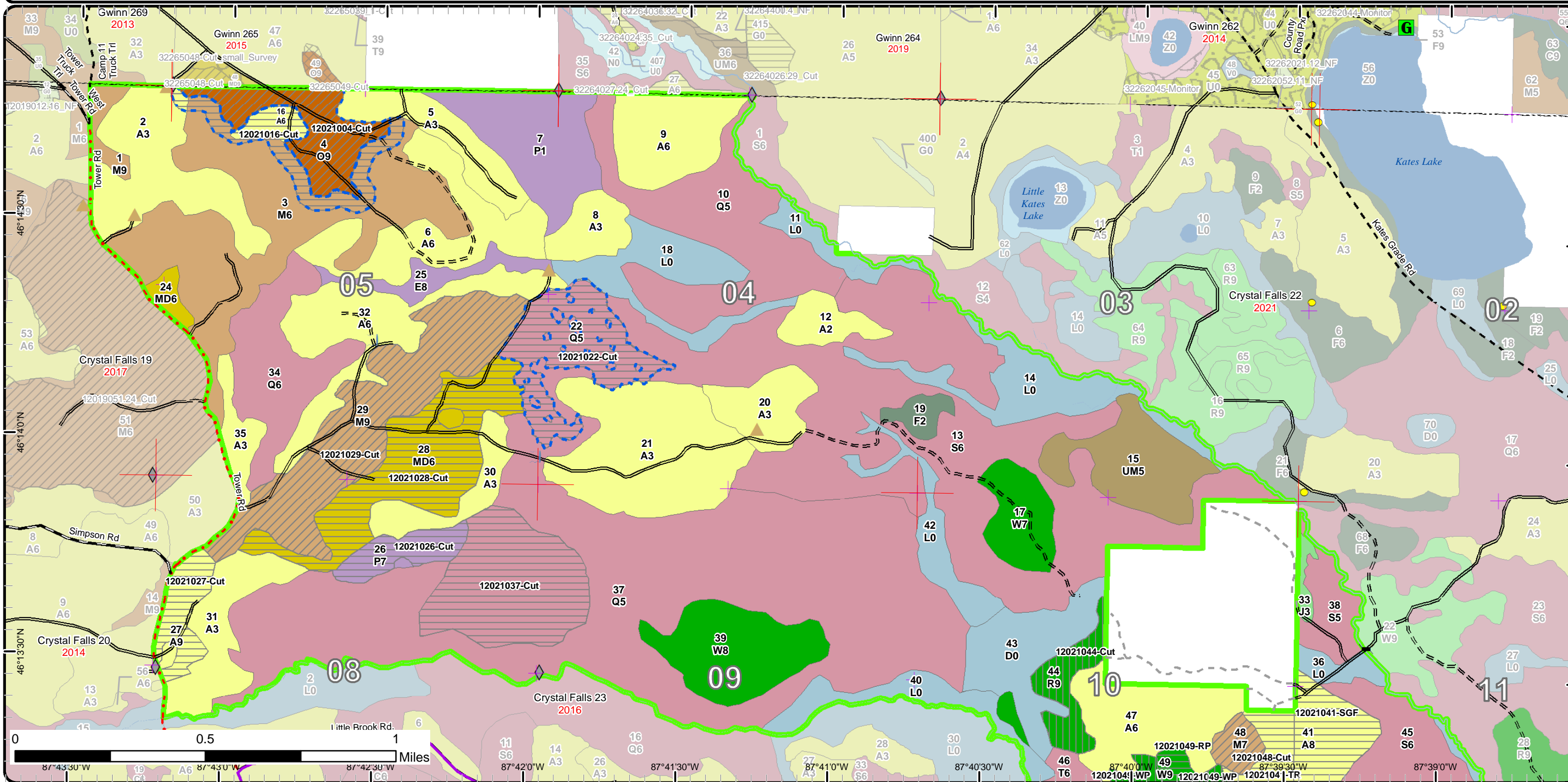


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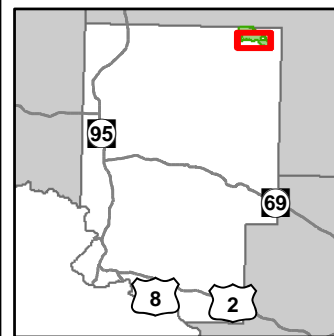


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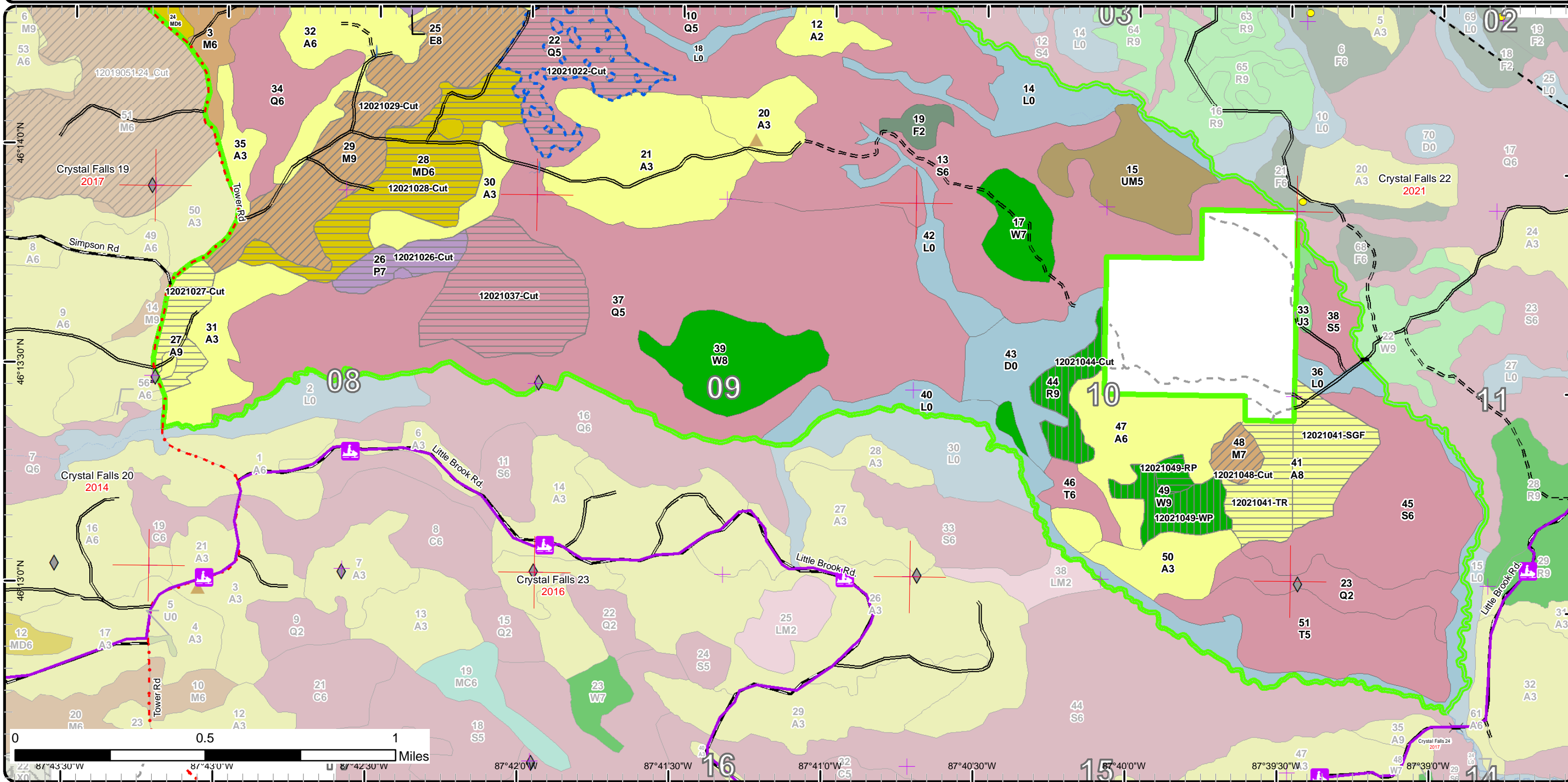


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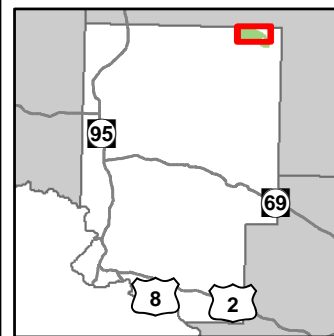


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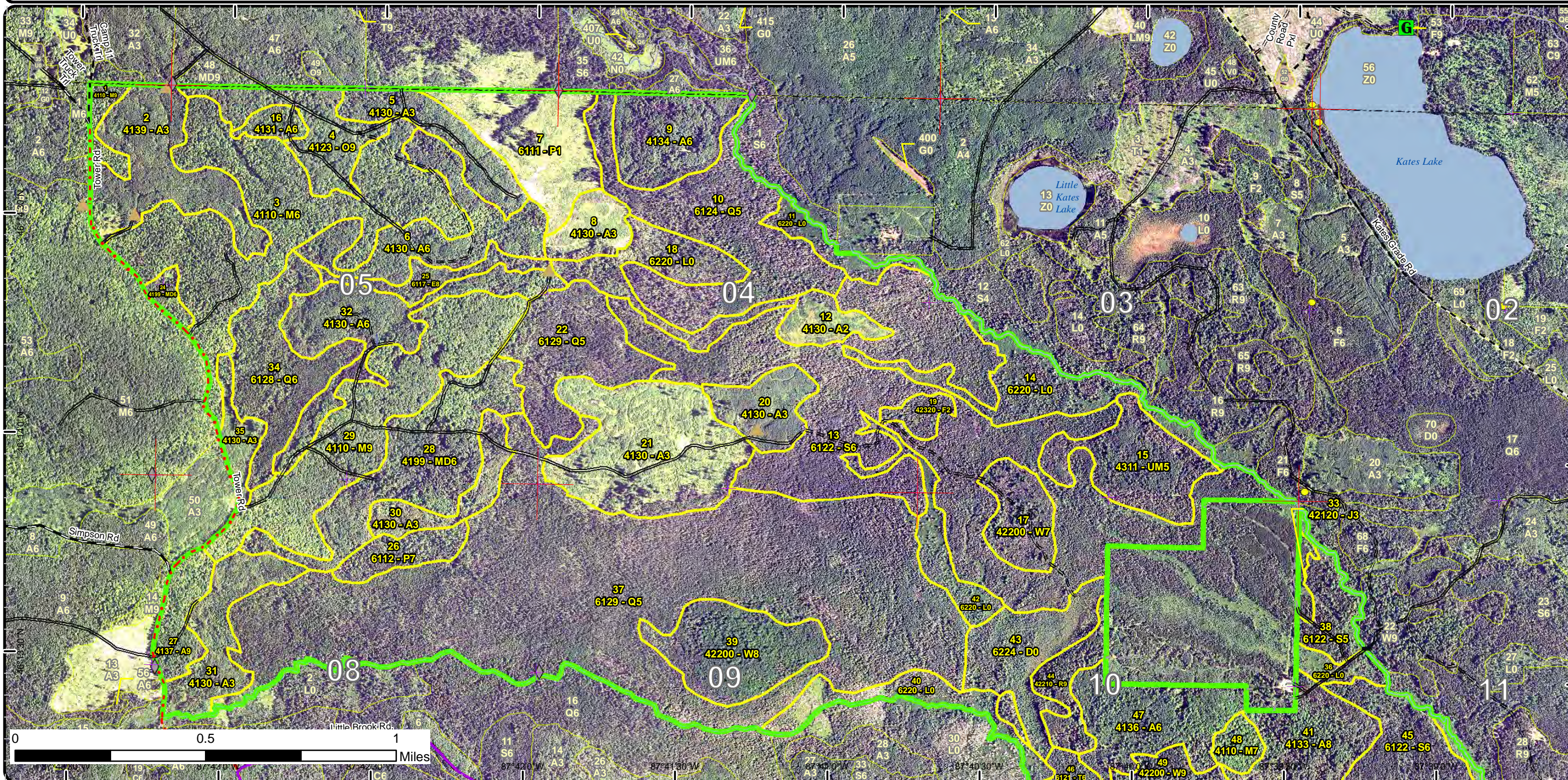


Stand Boundary Map

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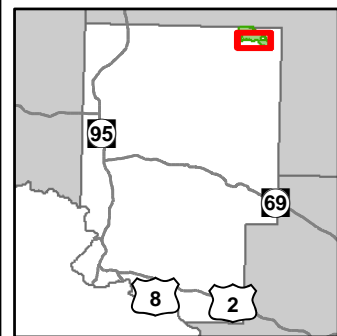


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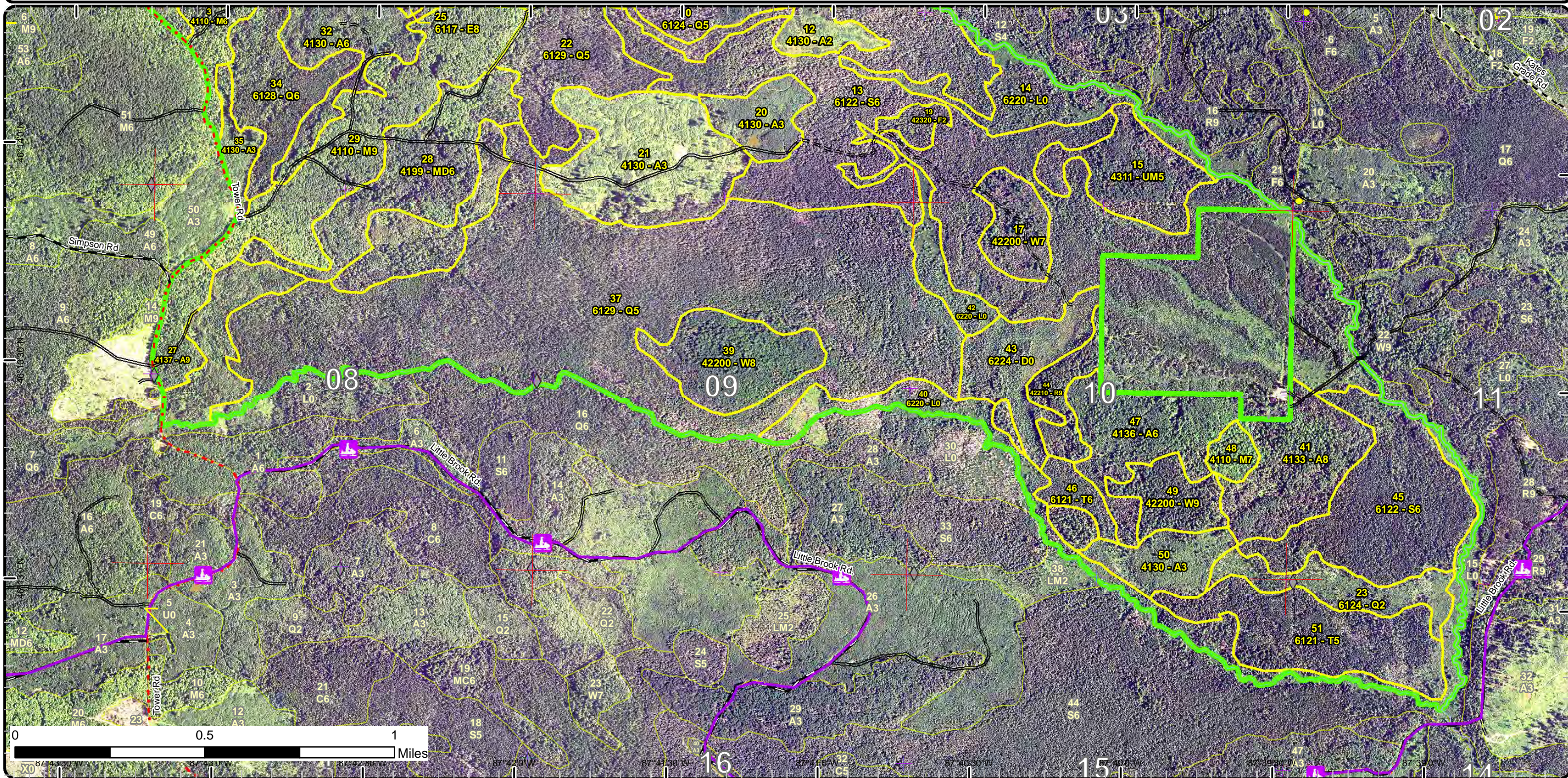


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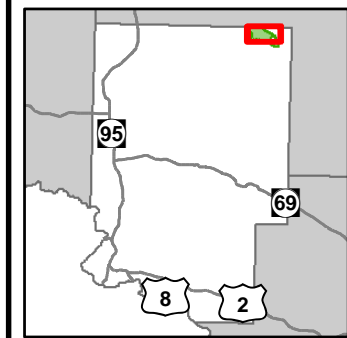


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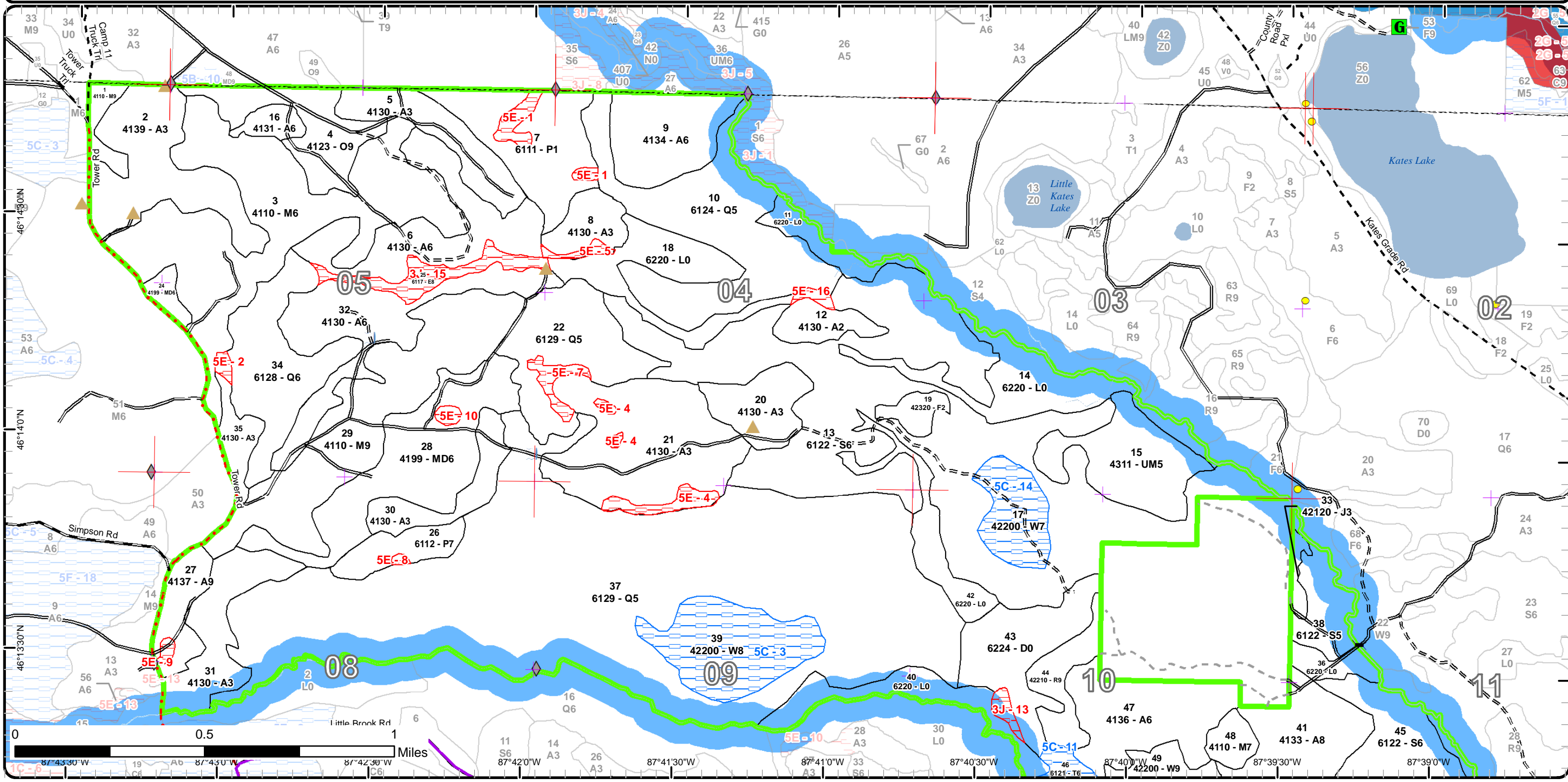


Special Conservation Areas & Site Conditions Map

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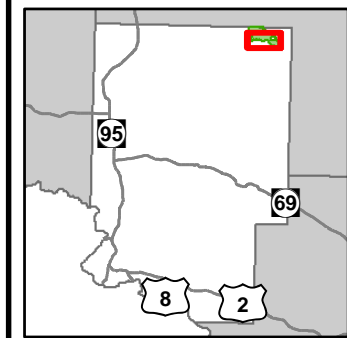


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- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Ecological Reference Areas
- Cold Water Streams
- High Priority Trout Stream Buffer
- Habitat Corridor

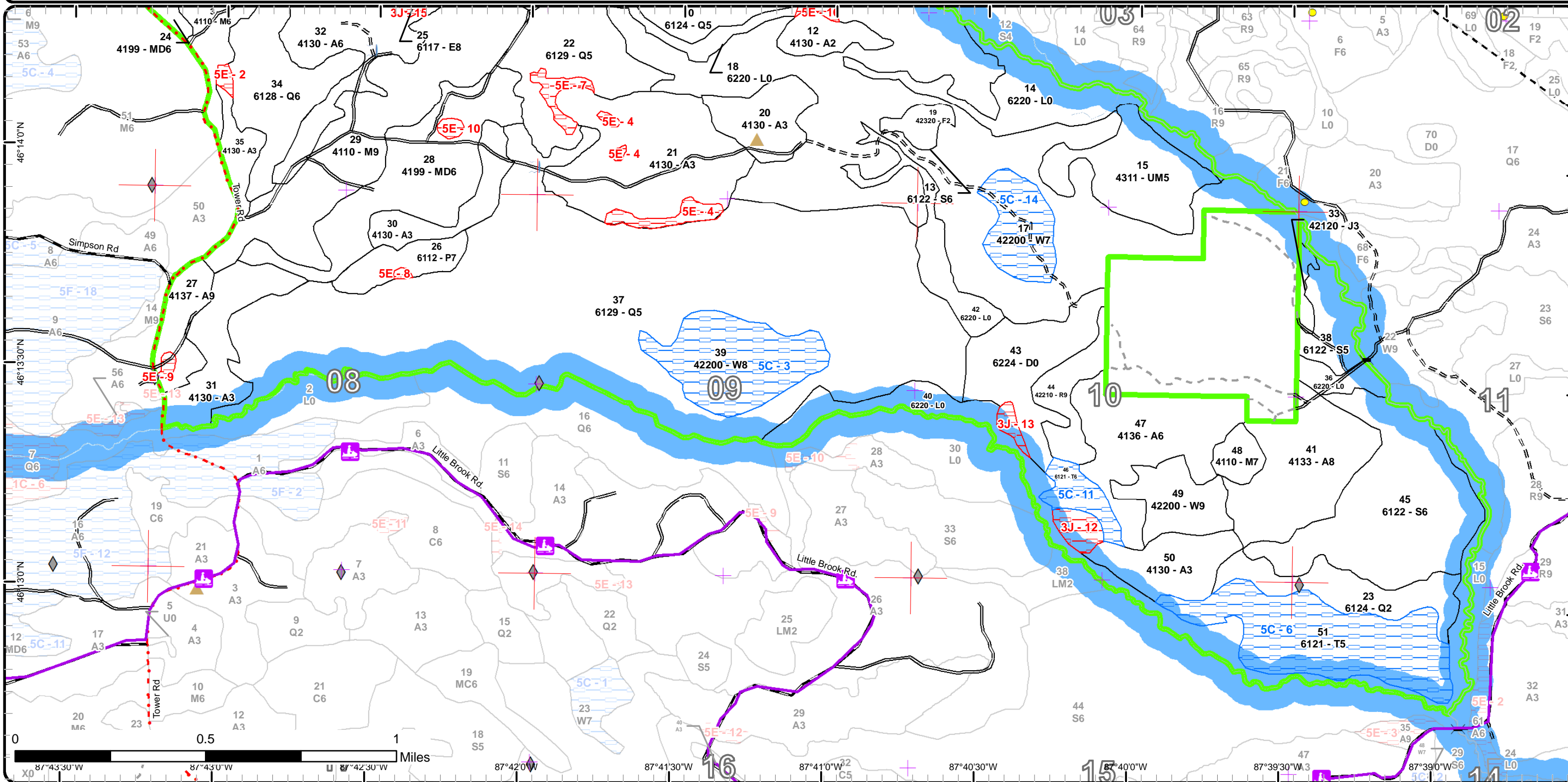


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- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 3J: Water quality / BMPs (stream, river, or lake)
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams
- High Priority Trout Stream Buffer



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	140	56	95	293	0	0	82	0	0	0	0	0	0	0	0	0	0	666
Jack Pine	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Lowland Aspen/Balsam Poplar	0	56	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	74
Lowland Conifers	0	0	35	0	97	0	0	0	0	59	461	0	0	0	0	0	0	56	708
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
Lowland Shrub	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	202
Lowland Spruce/Fir	0	0	0	0	0	0	286	122	0	0	0	0	0	0	0	0	0	0	408
Mixed Upland Deciduous	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	78	84
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	270	0	0	0	0	0	0	0	270
Oak	0	0	0	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	38
Red Pine	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	24
Tamarack	0	0	0	0	0	0	0	78	13	0	0	0	0	0	0	0	0	0	91
Treed Bog	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Upland Mixed Forest	0	0	0	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0	48
Upland Spruce/Fir	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
White Pine	0	0	0	0	0	0	0	0	0	0	0	108	0	0	0	0	0	0	108
Total	248	196	91	100	405	48	286	282	13	78	731	170	0	0	0	0	0	150	2797



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2020

Acres of Harvest

Compartment 21
Total Compartment Acres: 2,796

Commercial Harvest - 406
Harvests with Site Condition - 88
Next Step Harvest - 0
Habitat Cut - 29

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	81	0	0	0	0	0	0	0	0	81
Lowland Aspen/Balsam Poplar	18	0	0	0	0	0	0	0	0	18
Lowland Conifers	73	0	0	0	0	0	0	0	0	73
Lowland Spruce/Fir	50	0	0	0	0	0	0	0	0	50
Mixed Upland Deciduous	76	0	0	0	0	0	0	0	0	76
Northern Hardwood	29	0	0	0	0	111	0	0	0	141
Oak	0	0	0	0	0	38	0	0	0	38
Red Pine	0	0	0	0	21	0	0	0	0	21
White Pine	5	0	0	0	22	0	0	0	0	27
Total	332	0	0	0	43	149	0	0	0	524

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	524	0	0	0	0	0	0	0	0	524
Next Step	0	29	0	0	0	0	422	0	0	451
Total	524	29	0	0	0	0	422	0	0	975



Stand Name	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
4	12021004-Cut	38.0	4123 - Red Oak	Sawtimber Well	106	81-110	Harvest	Low Thinning	412 - Oak Types	Even-Aged	Draft Field Boundary
Habitat Cut: No			Site Condition: Shelterwood/Seed Source								
<u>Prescription</u> Harvest all species of trees using 2" DBH spec. EXCEPT Oak and Pine. This treatment will reduce competition when trying to establish Oak adjacent to stand.											
<u>Specs:</u>											
<u>Next Step</u>											
<u>Treatments:</u>											
<u>Acceptable Regen:</u>											
<u>Other Comment:</u> Residual Oak will serve as seed source for adjacent harvest. Removing other tree species will reduce competition. Work to be done by local staff.											
<u>Proposed Start Date:</u> 10/1 /2019											
3	12021016-Cut	29.3	4110 - Sugar Maple Association	Poletimber Well	93	81-110	Harvest	Clearcut with Retention	4123 - Red Oak	Even-Aged	Draft Field Boundary
Habitat Cut: Yes			Site Condition: Shelterwood/Seed Source								
<u>Prescription</u> Final Harvest using 2" DBH spec. Leave Oak and Pine. Protect areas of advanced Oak regen from harvest and post harvest operations.											
<u>Specs:</u>											
<u>Next Step</u> SitePrep, Scarification											
<u>Treatments:</u>											
<u>Acceptable Regen:</u> Oak, Mixed Hardwoods											
<u>Other Comment:</u> Scarify post harvest. 3 chain harvest along Oak type to create canopy openings without harvesting Oak. Other species removed to reduce Oak competition. Unit staff will setup and carry out all pre and post sale work.											
<u>Proposed Start Date:</u> 10/1 /2019											
13	12021022-Cut	50.1	6122 - Black Spruce	Poletimber Well	57	Unspecified	Harvest	Clearcut with Retention	612 - Lowland Coniferous Forest	Even-Aged	Field Boundary
Habitat Cut: No			Site Condition: BMPs								
<u>Prescription</u> Clearcut all stems 2" dbh and greater. Retain small patches of spruce spaced no more than 4 chains for seed. Retain cedar, birch, hemlock, elm, white and red pine, and oak if found. Exclude pockets dominated by cedar to reduce disturbance to those areas, most are too wet anyways											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable Regen:</u> Aspen, Pine, Mixed conifers, Mixed Hardwoods, Tamarack											
<u>Other Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2015											
26	12021026-Cut	17.8	6112 - Lowland Aspen	Sawtimber Poor	82	Unspecified	Harvest	Clearcut with Retention	6112 - Lowland Aspen	Even-Aged	Draft Field Boundary
Habitat Cut: No			Site Condition:								
<u>Prescription</u> Final harvest using 4" DBH spec. Leave Cedar, Hemlock, Oak and Pine if found.											
<u>Specs:</u>											
<u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)											
<u>Treatments:</u>											
<u>Acceptable Regen:</u> Mixed Deciduous, Mixed Conifers											
<u>Other Comment:</u>											
<u>Proposed Start Date:</u> 10/1 /2019											



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	Approval Status
27	12021027-Cut	19.4	4137 - Aspen, Birch	Sawtimber Well	64	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock, Oak and Pine if found.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mixed Deciduous, Mixed Conifers

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

28	12021028-Cut	75.7	4199 - Other Mixed Upland Deciduous	Poletimber Well	64	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock, Oak and Pine if found.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mixed Deciduous, Mixed Conifers

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

29	12021029-Cut	101.8	4110 - Sugar Maple Association	Sawtimber Well	91	111- 140	Harvest	Crown Thinning	411 - Northern Hardwood	Uneven- Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Thin targeting 80 sq ft of residual BA. Leave Pine, Oak, Hemlock and Cedar.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

37	12021037-Cut	73.3	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	96	Unspec ified	Harvest	Clearcut with Retention	612 - Lowland Coniferous Forest	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock, Oak and Pine if found. Buffer Little Brook creek 300 feet.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Mixed Conifers, Mixed Deciduous

Regen:

Other

Buffer to act as stream protection and wildlife corridor.

Comment:

Proposed Start Date: 10/1 /2019



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	Approval Status
41	12021041-SGF	34.2	4133 - Aspen, Mixed Pine	Sawtimber Medium	64	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock, Oak and White Pine if found. Also leave legacy trees greater than 26" DBH.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory); Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, Mixed Conifers, Mixed Deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

41	12021041-TR	27.2	4133 - Aspen, Mixed Pine	Sawtimber Medium	64	Unspecified	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock and Oak if found. Also leave White Pine greater than 24" DBH.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Aspen, Mixed Conifers, Mixed Deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

44	12021044-Cut	20.5	42210 - Natural Red Pine	Sawtimber Well	108	111-140	Harvest	Shelterwood	42260 - Natural Pine, Mixed Deciduous	Two-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock, Oak and White Pine if found. Also leave legacy trees greater than 26" DBH. Within

Specs: 100 feet of Western edge, cut only Red Pine and Jack Pine for Wildlife corridor. Resulting treatment will resemble a shelterwood harvest.

Next Step Monitoring, Natural Regen (Re-Inventory); Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Pine, Mixed Deciduous, Mixed Conifers

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

48	12021048-Cut	9.4	4110 - Sugar Maple Association	Sawtimber Poor	93	51-80	Harvest	Crown Thinning	411 - Northern Hardwood	Uneven-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Thin targeting 80 sq ft of residual BA. Leave Pine and Cedar. Also leave some large diameter trees for Wildlife considerations.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
49 12021049-RP	4.7	42200 - Natural White Pine	Sawtimber Well	100	141-170	Harvest	Clearcut with Retention	42260 - Natural Pine, Mixed Deciduous	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription Final harvest using 4" DBH spec. Leave Cedar, Hemlock and Oak if found. Also leave legacy trees greater than 26" DBH.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Pine, Mixed Conifers, Mixed Deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

49 12021049-WP	22.1	42200 - Natural White Pine	Sawtimber Well	100	141-170	Harvest	Shelterwood	42201 - Natural White Pine, Mixed Deciduous	Two-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Target 40 sq. ft. of redual BA favoring White Pine. Leave Cedar, Hemlock, Oak if found. Harvest all other trees using 4" DBH spec. Also leave

Specs: legacy trees greater than 26" DBH.

Next Step Monitoring, Natural Regen (Re-Inventory); Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Pine, Mixed Conifers, Mixed Deciduous

Regen:

Other

Comment:

Proposed Start Date: 10/1 /2019

**Total Treatment
Acreage Proposed: 523.5**

Report 4 – Site Conditions

Crystal Falls Mgt. Unit
Andrew Church : Examiner

Compartment: 21
Year of Entry: 2020

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	Dominant Site Conditions			
		With Condition	Not Available		5B	5C	3J	5E
667	543	71	53	Aspen	71		7	46
5	5	0	0	Jack Pine				
75	67	0	7	Lowland Aspen/Balsam Poplar				7
708	220	0	489	Lowland Conifers				489
16	0	0	16	Lowland Deciduous			16	
202	183	0	18	Lowland Shrub				18
409	409	0	0	Lowland Spruce/Fir				
84	82	0	2	Mixed Upland Deciduous				2
270	120	150	0	Northern Hardwood	150			
38	0	38	0	Oak	38			
24	20	0	3	Red Pine			3	
91	0	91	0	Tamarack		91		
46	46	0	0	Treed Bog				
48	48	0	0	Upland Mixed Forest				
9	9	0	0	Upland Spruce/Fir				
108	27	81	0	White Pine		81		
2,796	1,778	430	588	Total Forested Acres	259	171	26	563
	64%	15%	21%	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	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit
Andrew Church : Examiner

Compartment: 21
Year of Entry: 2020

3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	54	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Look for opportunities next entry when harvesting adjacent lowlands.							
4	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	78	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Treat when entering adjacent lowlands.							
7	Unavailable	5E: Long-Term Retention	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	5E: Long-Term Retention	1	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit
Andrew Church : Examiner

Compartment: 21
Year of Entry: 2020

9	Unavailable	5E: Long-Term Retention	2	3J: Water quality / BMPs (stream, river, or lake)	3L: Other wildlife concerns	Unspecified	Unspecified
Comments: Vernal pond protection							
10	Unavailable	5E: Long-Term Retention	2	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Vernal Pond protection							
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Access through wet area, and private lands. Treat when entering adjacent lowlands.							
12	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments:							
13	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	3	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments:							
14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	27	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Crystal Falls Mgt. Unit
Andrew Church : Examiner

Compartment: 21
Year of Entry: 2020

15	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	5E: Long-Term Retention	2	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
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Comments



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area
 HCVA = High Conservation Value Area
 SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



Stand	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 21 Year of Entry: 2020
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Sawtimber Well	8.8	93	51-80	Thinned 2015
2	4139 - Aspen, Mixed Deciduous	Sapling Well	62.8	27	Immature	Trees starting to reach pole size. Many low areas.
3	4110 - Sugar Maple Association	Poletimber Well	149.9	93	81-110	Thinned 2015
4	4123 - Red Oak	Sawtimber Well	38.0	106	81-110	Stand last harvested in 1980 leaving all Oak. Large diameter trees.
5	4130 - Aspen	Sapling Well	32.1	27	Immature	Harvested 1991. Trees starting to reach pole size.
6	4130 - Aspen	Poletimber Well	56.0	36	Unspecified	Scattered pockets of older Aspen mixed throughout. Wetter areas to far East. Trace amount of Oak present.
7	6111 - Lowland Balsam Poplar	Sapling Poor	56.3	4	Immature	Cut in 2014 DiMarco Line TS
8	4130 - Aspen	Sapling Well	18.8	4	Immature	Dimarco Line TS cut 2014
9	4134 - Aspen, Spruce/Fir	Poletimber Well	42.9	38	Unspecified	Harvested 1980. However, it was not a clean cut. Resulting stand has highly variable diameters and stocking levels. Thick conifer understory.
10	6124 - Lowland Spruce-Fir	Poletimber Medium	97.2	38	1-50	When last harvested, many areas within stand left uncut.
12	4130 - Aspen	Sapling Medium	16.3	8	Immature	
13	6122 - Black Spruce	Poletimber Well	286.4	57	Unspecified	Healthy, young stand. Cut in the 1950s. Trees starting to reach pole sized with scattered pockets of older trees.
15	4311 - Pine, Aspen Mix	Poletimber Medium	47.6	41	51-80	Scattered large White Pine. Spruce/Fir in understory of stand. SBW damaged majority of conifers. Aspen not mature yet. Several wet areas. Stocking very low.
16	4131 - Aspen, Oak	Poletimber Well	8.0	38	81-110	Large diameter scattered Oaks in supercanopy. Pole stand with Aspen, Maple, Oak, Ironwood. Harvested 1980.
17	42200 - Natural White Pine	Sawtimber Poor	27.2	104	1-50	Thick Spruce/Fir understory of a large diameter White Pine stand
19	42320 - Upland Spruce	Sapling Medium	8.7	34	Immature	White spruce, balsam, blueberry brush.
20	4130 - Aspen	Sapling Well	26.4	17	Immature	Harvested 2001. Many low areas.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	4130 - Aspen	Sapling Well	91.4	8	Immature	Harvested 2010. Scattered Pines in supercanopy.
22	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	58.6	87	Unspecified	
23	6124 - Lowland Spruce-Fir	Sapling Medium	34.9	18	Immature	Cady Creek tornado 2000
24	4199 - Other Mixed Upland Deciduous	Poletimber Well	6.4	36	51-80	
25	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	15.5	81	51-80	
26	6112 - Lowland Aspen	Sawtimber Poor	18.5	82	Unspecified	Low stocking density. Trees in declining health.
27	4137 - Aspen, Birch	Sawtimber Well	20.9	64	81-110	Trace amount of Oak. Several different Aspen ages. More Maple/Birch to North. Almost pure Aspen to South. Birch is in declining health.
28	4199 - Other Mixed Upland Deciduous	Poletimber Well	77.6	64	81-110	Varying ages, densities and tree composition within stand. Small openings scattered throughout.
29	4110 - Sugar Maple Association	Sawtimber Well	101.9	91	111-140	Small pockets of fir within stand.
30	4130 - Aspen	Sapling Well	22.0	30	Immature	Many wet areas
31	4130 - Aspen	Sapling Well	38.3	30	Immature	Many wet areas
32	4130 - Aspen	Poletimber Well	59.0	38	Unspecified	Spruce/Maple/Fir understory well represented. Older Aspen along Northern finger near stream.
33	42120 - Planted Jack Pine	Sapling Well	4.6	25	Immature	Many stems per acre. Very healthy stand.
34	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	56.4	87	Unspecified	OPIC - FMD: OI Stand Year Origin was 1931
35	4130 - Aspen	Sapling Well	13.8	8	Immature	Harvested 2010. Many low areas.
37	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	461.3	96	Unspecified	Diverse stand. Many different ages and stocking densities.
38	6122 - Black Spruce	Poletimber Medium	22.3	65	Unspecified	



Stand	Crystal Falls Mgt. Unit		Report 7 – Forested Stands			Compartment: 21 Year of Entry: 2020
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
39	42200 - Natural White Pine	Sawtimber Medium	53.5	100	1-50	Large diameter White Pine stand with Aspen/Maple/Fir/Spruce pole stand in understory. Look for opportunities next entry when harvesting adjacent lowlands.
41	4133 - Aspen, Mixed Pine	Sawtimber Medium	61.3	64	Unspecified	Much variability of species composition and stocking levels. Spruce/Fir is mostly dead due to SBW. Many supercanopy Pines.
44	42210 - Natural Red Pine	Sawtimber Well	23.6	108	111-140	Large diameter Pines with pole stand of Aspen/Spruce/Fir underneath.
45	6122 - Black Spruce	Poletimber Well	99.8	64	Unspecified	Small upland Pine inclusion along creek.
46	6121 - Tamarack	Poletimber Well	13.0	74	Unspecified	Low site index. Wet soils. Tamarack healthy.
47	4136 - Aspen, Mixed Conifer	Poletimber Well	67.0	37	Unspecified	Trees starting to reach pole size. Many supercanopy Pines throughout. More Maple understory near Hardwood stand.
48	4110 - Sugar Maple Association	Sawtimber Poor	9.4	93	51-80	Large diameter poor quality stand. Pole stand of Maple growing in canopy gaps of large diameter trees. 50-70 BA of overstory trees, 120 BA of merchantable trees.
49	42200 - Natural White Pine	Sawtimber Well	26.9	100	141-170	Large diameter Pines. Thick understory of Aspen, Mixed Conifers.
50	4130 - Aspen	Sapling Well	29.9	18	Immature	Stand created from 2000 Cady Creek blowdown
51	6121 - Tamarack	Poletimber Medium	77.7	64	Unspecified	Small upland inclusion along creek.



Stand	Cover Type	Acres	Managed Site	General Comments:
11	6220 - Alder/willow	13.8	No	
14	6220 - Alder/willow	45.4	No	
18	6220 - Alder/willow	40.1	No	
36	6220 - Alder/willow	9.9	No	
40	6220 - Alder/willow	68.8	No	
42	6220 - Alder/willow	23.7	No	
43	6224 - Treed Bog	45.7	No	stunted tamarack and black spruce