



Compartment Review Presentation

Crystal Falls Forest Management Unit

Compartment 12173

Entry Year: 2027

Acreage: 1,963

County: Iron

Management Area: Brule River

Stand Examiner: Eric Brolin

Legal Description:

T41N R32W sections 2-4, 8-12, 14,15 & 17

Identified Planning Goals:

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

Soil and topography:

Soils are sandy loam to loamy sand, rolling hills to wet lowlands.

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

Private and corporate lands scattered throughout compartment. Highly used for recreation.

Unique Natural Features:

Brule River and Paint River Pond.

Archeological, Historical, and Cultural Features:

None

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

This compartment is in the Peavy End Moraine Management Area which has the following featured species: American woodcock, black bear, wood duck, eastern bluebird, and white-tailed deer. This area is one of the most important oak areas in entire Crystal Falls Forest Area. This area provides excellent bear, deer and wood duck habitat due to the presence of mast producing oak trees. Maintaining and increasing this mast crop is the desired management. Balancing the age classes of aspen to provide early successional habitat through mature aspen forest is a goal in this compartment. Lowland conifers and lowland hardwood types provide winter and summer cover and are essential for travel corridors for many species of wildlife and provide essential habitat for riparian species, such as wood duck. Deer find critical winter cover in the lowland conifer stands and natural pine stands. Mesic conifer in the uplands is promoted to provide structural diversity within stands which increases habitat value, as cover for wildlife. This also enables deer to access forage in the uplands during deep snow conditions. Mast production, such as oak, cherry and raspberry are encouraged to provide valuable forage for bear, deer, grouse and turkey.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 50 and 100 feet. The Precambrian Michigamme and Dunn Creek Formations and the Badwater Greenstone subcrops below the glacial drift. There is not a current economic use for these rocks. Abandoned iron mines at Crystal Falls are located seven miles to the north. This Compartment was not previously leased for metallic exploration, but could have potential. A gravel pit is located in Section 9 and there is potential. There is no economic oil and gas production in the UP.

Vehicle Access:

Very good throughout most of compartment. Some two tracks accessible by four wheel drive.

Survey Needs:

Recreational Facilities and Opportunities:

Hunting and fishing. Snowmobile trail UP2 runs through the west side of compartment.

Fire Protection:**Additional Compartment Information:**

This compartment has had the presence of oak wilt confirmed and has had these areas treated. If other areas of oak wilt are detected, they will be treated.

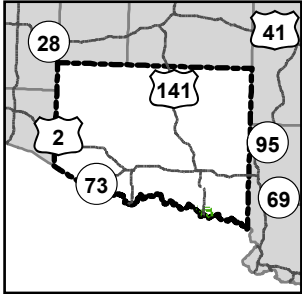
The following reports from the Inventory are attached:







































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

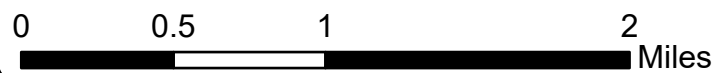
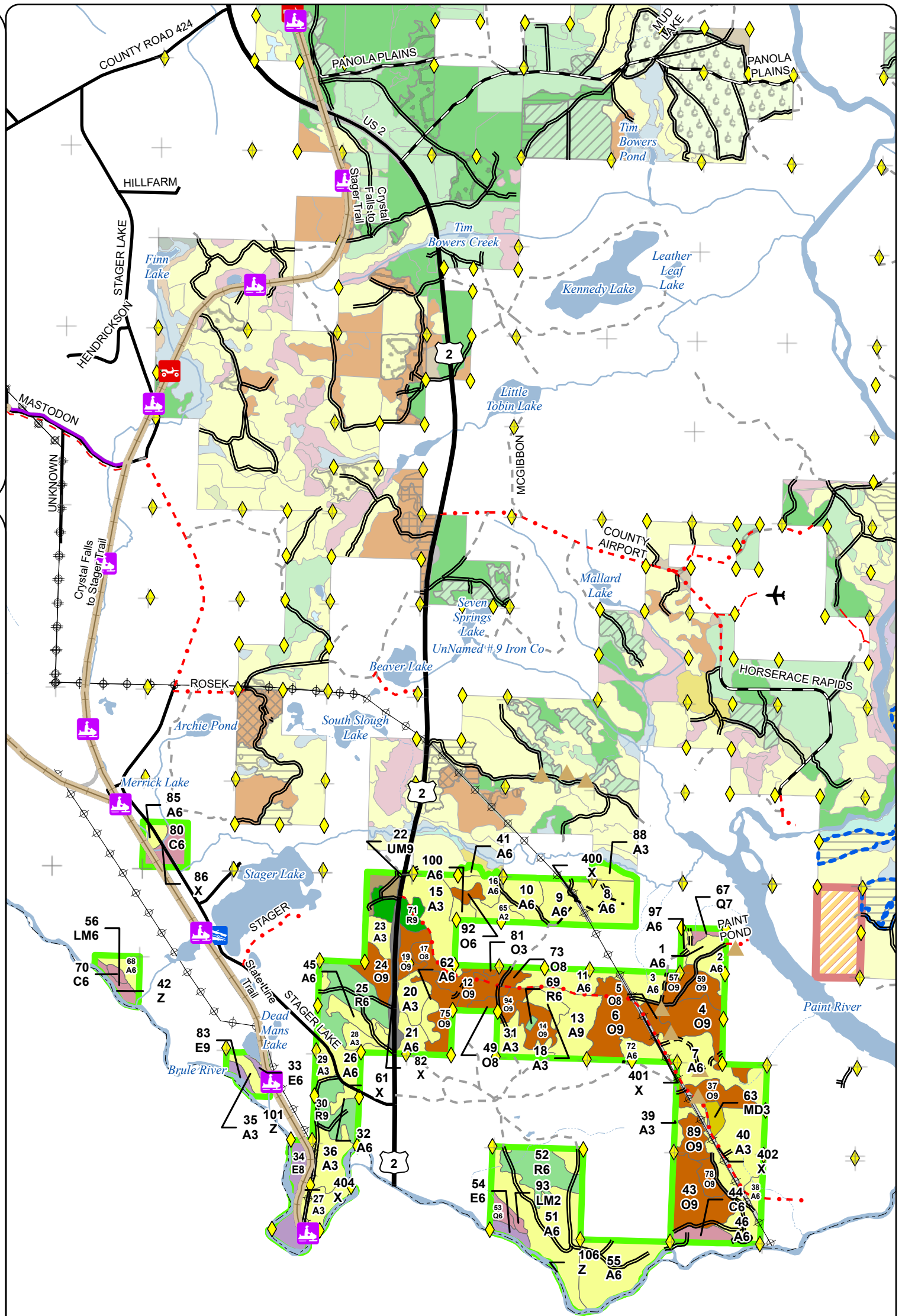
The following information is displayed, where pertinent, on the attached compartment maps:

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

Compartment: 12173
T41N, R32W sec, 2-6, 8-12, 15-17
County: Iron
Unit: Crystal Falls
Mgmt. Area: Brule River
YOE: 2027
Acres: 1,963.15 GIS Calculated
Examiner: Eric Brodin
Date Exported: 05/13/2025
Map Phase: Web Post

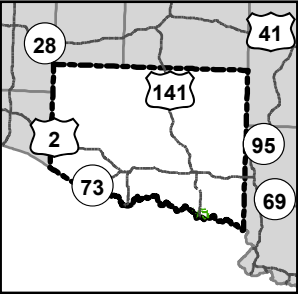


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|---|---------------------------------------|
|  | Remonumented Section Corners |
|  | Survey Grade Corners |
|  | Airport |
|  | Berms |
|  | Boating Access Site |
|  | Designated ORV Routes |
|  | DNR - Primary Forest Road |
|  | DNR - Secondary Forest Road |
|  | DNR - Forest Access Route |
|  | Federal / State Highway |
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|  | Federal / State - Dirt / Gravel Road |
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|  | Private - Dirt / Gravel Road |
|  | Powerline |
|  | Intermittent Stream |
|  | Perennial River |
|  | Lakes and Rivers |
|  | Counties |
|  | Compartment Boundary |
|  | Treatments with Site Conditions |
|  | Clearcut |
|  | Selection |
|  | Seed Tree |
|  | Thinning |
|  | Site Prep |
|  | Prescribed Burn |
|  | Monitoring - Regeneration |
|  | 412 - Oak Types |
|  | 413 - Aspen |
|  | 419 - Mixed Upland Deciduous |
|  | 421 - Planted Pines |
|  | 422 - Natural Pines |
|  | 430 - Upland Mixed Forest |
|  | 500 - Water |
|  | 611 - Lowland Deciduous Forest |
|  | 612 - Lowland Coniferous Forest |
|  | 613 - Lowland Mixed Forest |
|  | 110 - Low Intensity Urban |
|  | 122 - Road/Parking Lot |

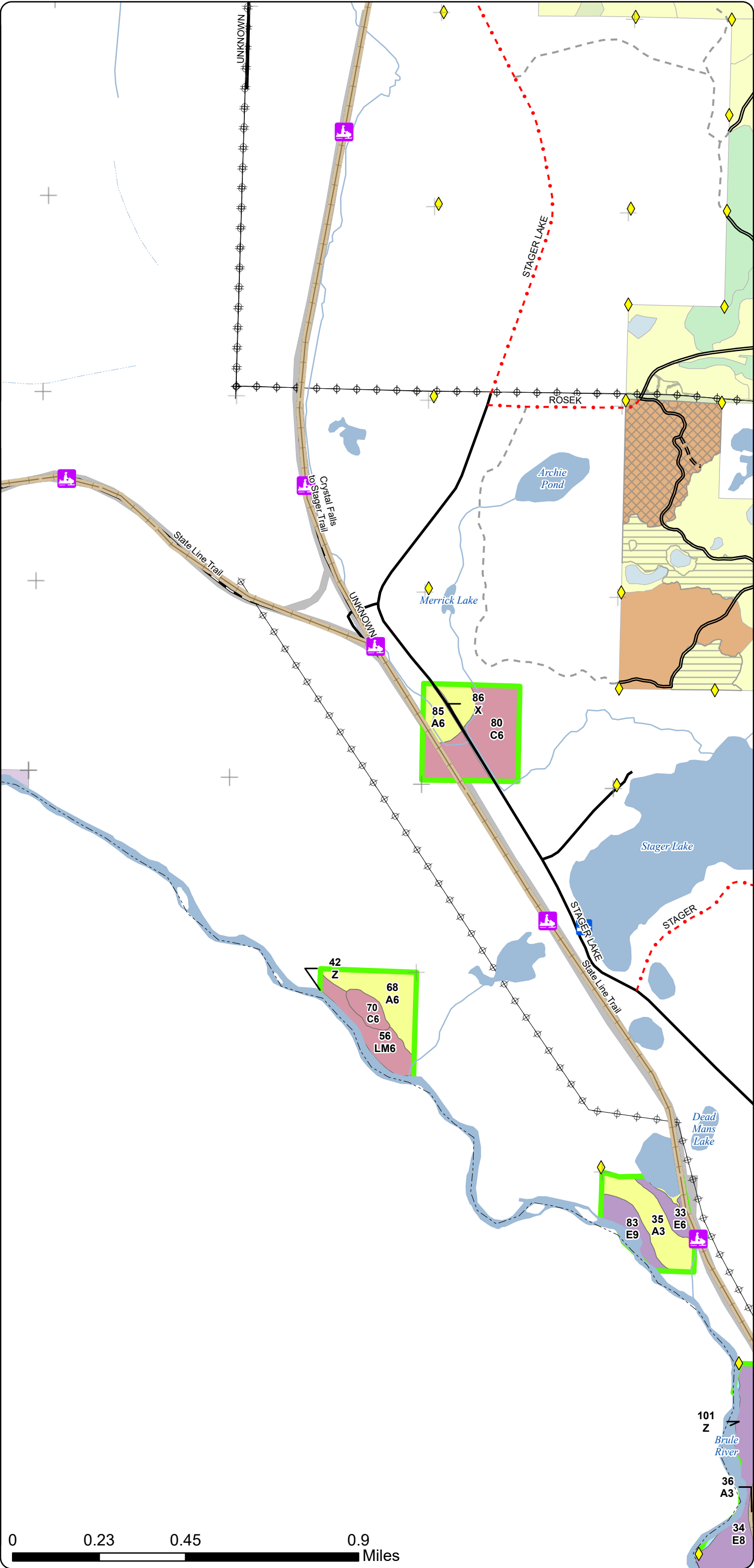


Cover Type & Treatments Map

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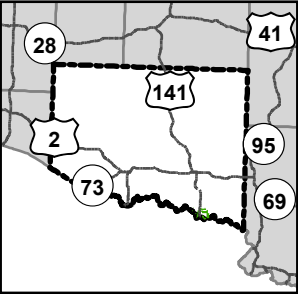


- Remonumented Section Corners
- Survey Grade Corners
- Boating Access Site
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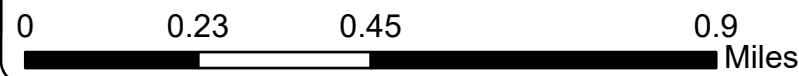
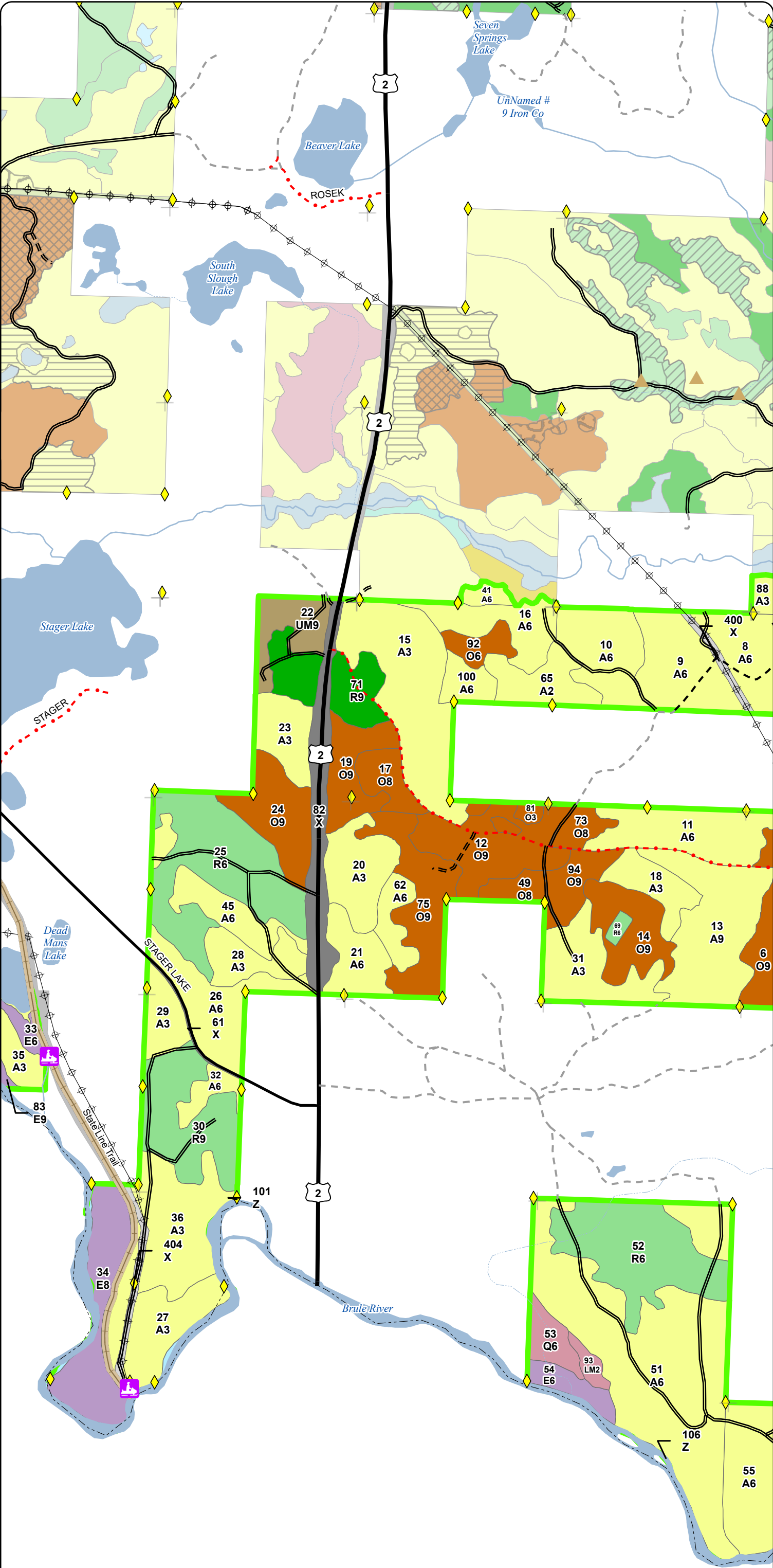


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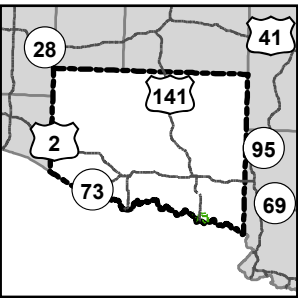


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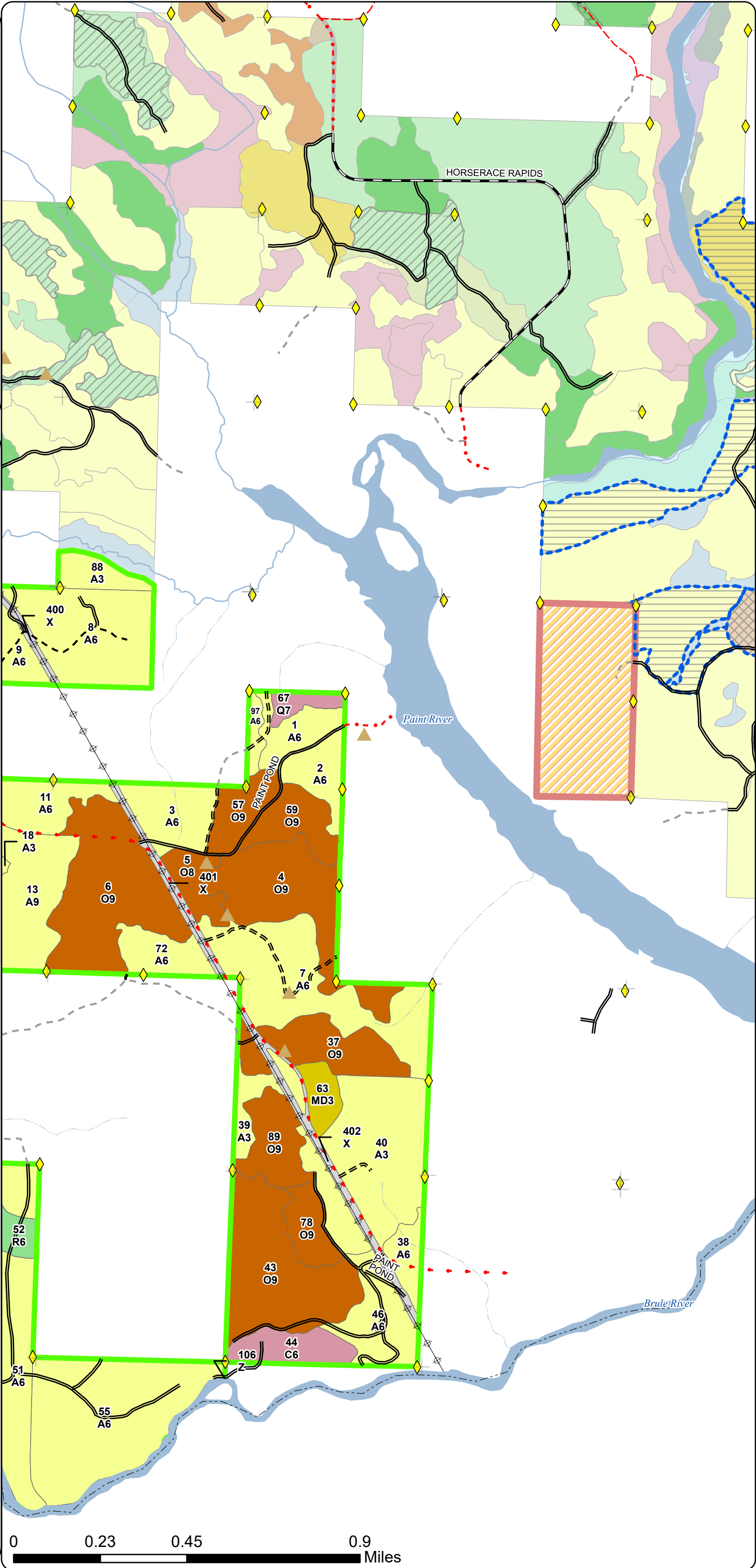


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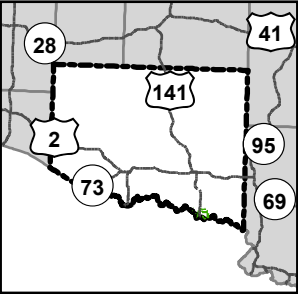


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Stand Boundary
Map

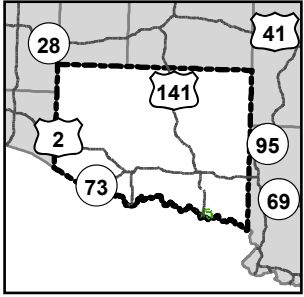
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














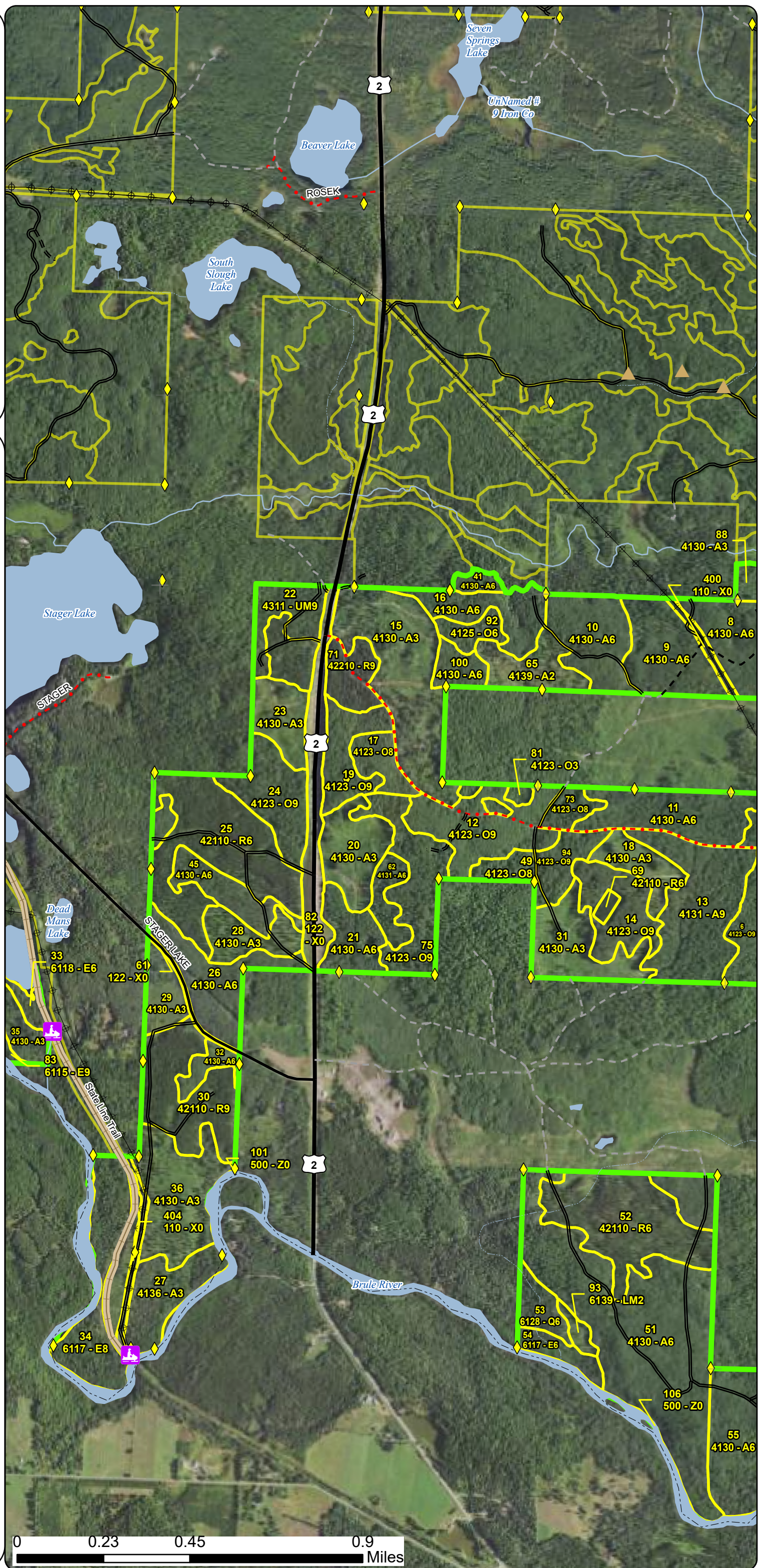
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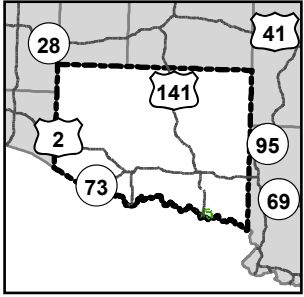
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














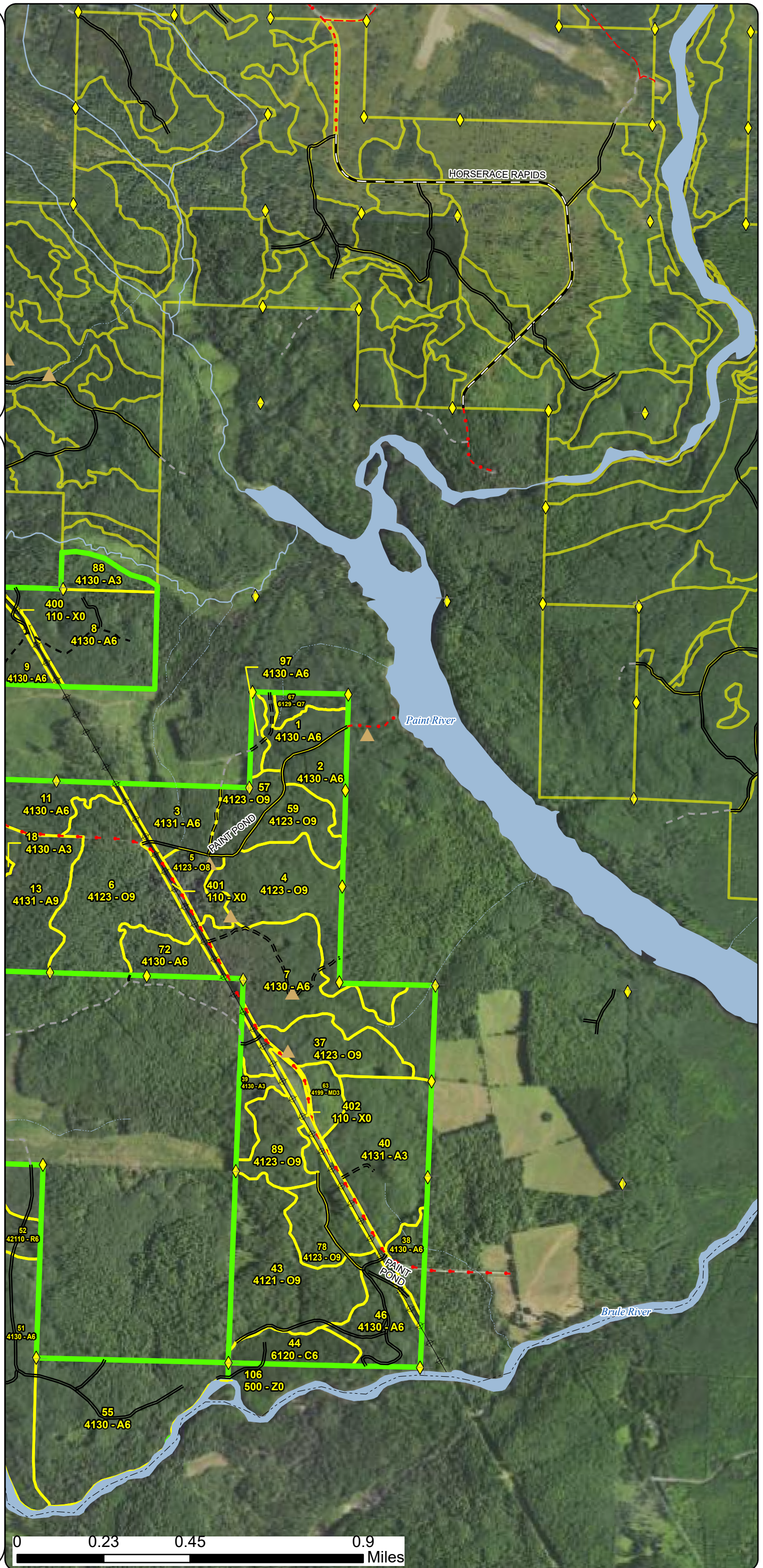
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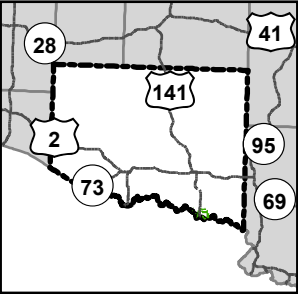


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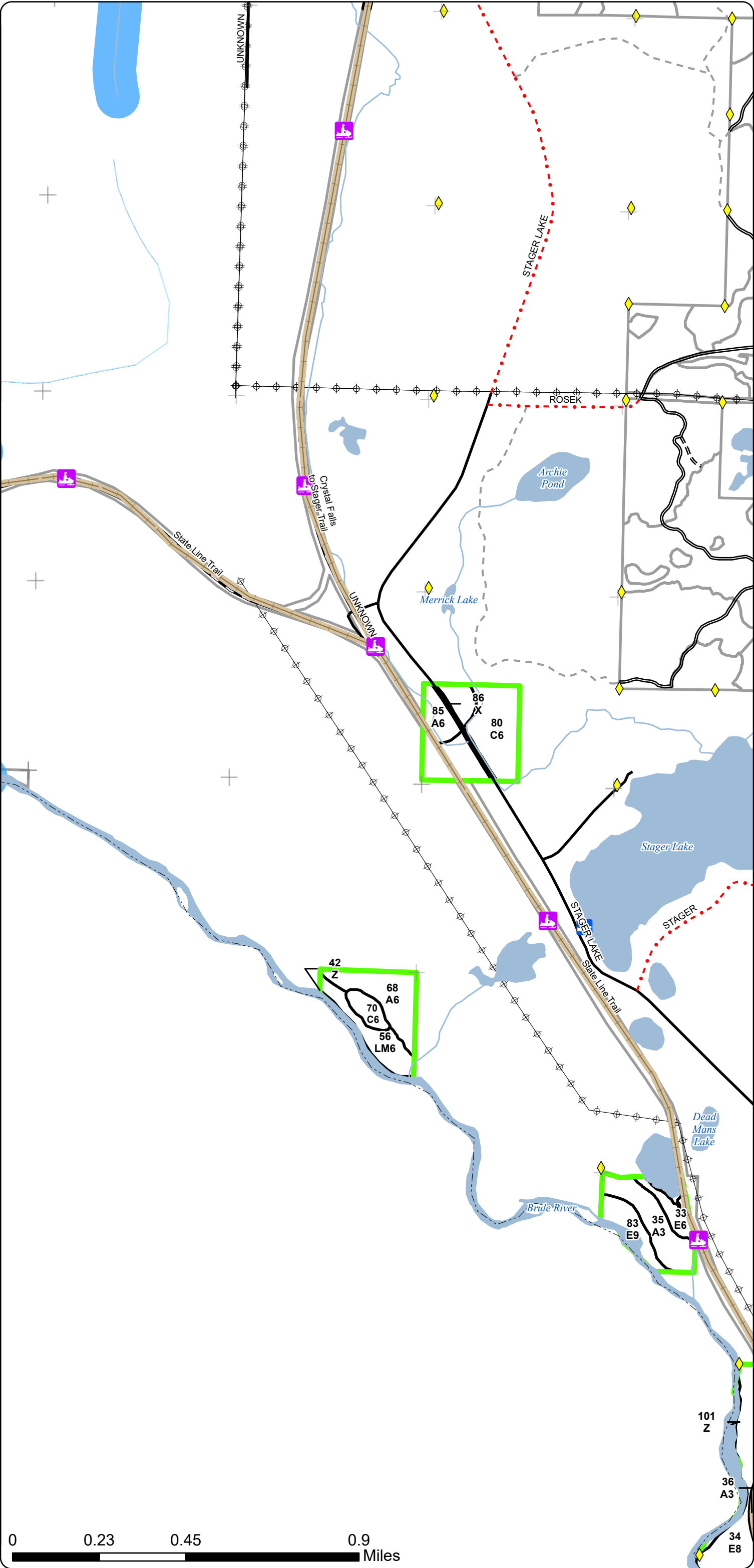


Special Conservation Areas
& Site Conditions Map

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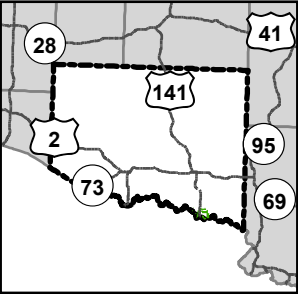


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- Lakes and Rivers
- Counties
- Compartment Boundary
- Stand Boundaries
- SCA
- Cold Water Streams
- High Priority Trout Stream Buffer
- Trail - Trail Corridor

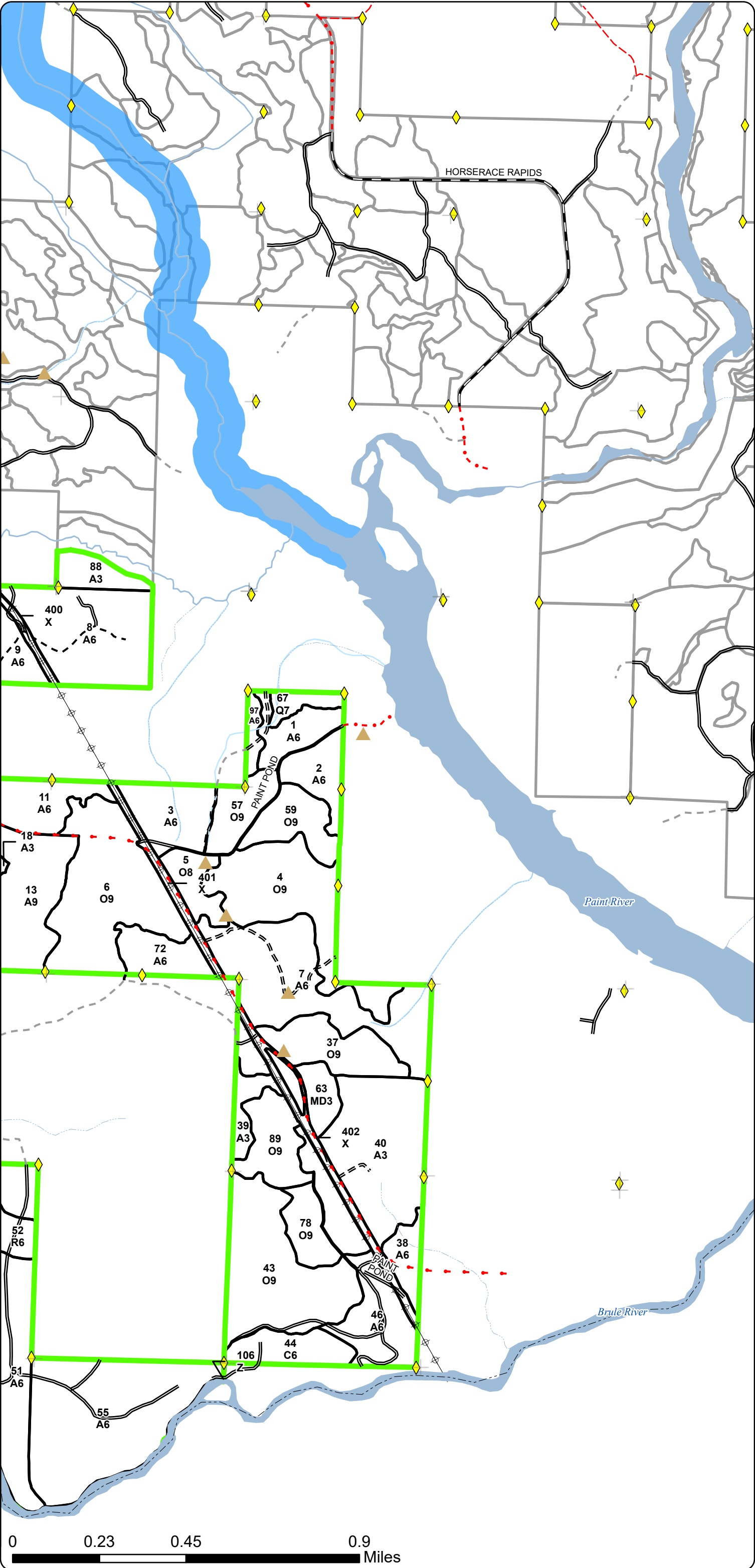


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Report 1 – Total Acres by Cover Type and Age Class



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	246	107	104	175	422	10	15	0	0	0	0	0	0	0	0	0	0	1079
Cedar	0	0	0	0	0	0	0	0	0	4	17	28	0	0	0	0	0	0	49
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	23	34	0	0	0	0	0	0	57
Lowland Mixed Forest	0	4	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	14
Mixed Upland Deciduous	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Oak	0	0	5	0	0	0	0	0	0	0	461	0	0	0	0	0	0	0	466
Red Pine	0	0	0	0	0	2	0	149	0	0	25	0	0	0	0	0	0	0	175
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	0	0	0	17
Urban	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Water	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total	82	250	121	104	175	424	10	164	0	14	559	63	0	0	0	0	0	0	1964



Report 2 – Treatment Summary

Crystal Falls Mgt. Unit
Year of Entry: 2027

Acres of Harvest

Compartment 173
Total Compartment Acres: 1,963

Commercial Harvest - 424
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

		Clearecut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen		219	0	0	0	0	0	0	0	0	219
Oak		109	21	0	8	8	0	0	0	0	144
Red Pine		0	0	0	0	0	61	0	0	0	61
Total		328	21	0	8	8	61	0	0	0	424

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		424	0	0	0	0	0	0	0	0	424
Total		424	0	0	0	0	0	0	0	0	424



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:

94	12173094-Cut	1.5	4123 - Red Oak	9	99	111-140	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Planting Record	No
<u>Prescription</u> Harvest all merchantable trees except conifers. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> Create a natural buffer of young mixed regeneration, heavy to aspen, to slow and/or stop spread of adjacent underground oak wilt infection. No interior retention will be left. Include all applicable oak wilt specs. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
12	12173012-CC	2.5	4123 - Red Oak	9	99	171-200	Harvest	Clearcut	4319 - Mixed Upland Forest	Planting Record	No
<u>Prescription</u> Harvest all merchantable trees except conifers. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> See site conditions for small long term retention area. The west 2/3 of the stand will be retained containing healthy mature oak. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											
3	12173003-Cut	21.3	4131 - Aspen, Oak	6	46	111-140	Harvest	Clearcut	4131 - Aspen, Oak	Planting Record	No
<u>Prescription</u> Harvest all merchantable deciduous trees. Leave all conifers. Exclude patches interior for long term retention containing mature oak. This will retain mature mast producing oak while creating a vigorous diverse mix of young regeneration. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> Patches identified interior are surrounded by dense aspen stocking. A couple of ravines may need to be excluded along the north edge, this will add to long term stand retention. Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2031											



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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17 12173017-OW	3.8	4123 - Red Oak	8	99	111-140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
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Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting.

Specs:

Next Step

Treatments:

Acceptable Mixed 50% red/50% white pine with white oak mix option if available during or after initial planting.

Regen:

Other Alternate tree boxes while planting to create a red pine / white pine mix. Plant white oak within, possibly in open patches, when funding and source is available.

Site Condition:

Proposed Start Date: 10/01/2025

17 12173014-OW	16.9	4123 - Red Oak	8	99	111-140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
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Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting.

Specs:

Next Step

Treatments:

Acceptable Mixed 50% red/50% white pine with white oak mix option if available during or after initial planting.

Regen:

Other Alternate tree boxes while planting to create a red pine / white pine mix. Plant white oak within, possibly in open patches, when funding and source is available.

Site Condition:

Proposed Start Date: 10/01/2025

17 12173012-OW	14.6	4123 - Red Oak	8	99	111-140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
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Prescription Harvest to a 2" spec to prep site for mixed pine planting.

Specs:

Next Step

Treatments:

Acceptable Mixed pine with white oak mix option if available during or after initial planting.

Regen:

Other Alternate tree boxes while planting to create a red pine / white pine mix. Plant white oak within, possibly in open patches, when funding and source is available.

Site Condition:

Proposed Start Date: 10/01/2025

17 12173005-OW	8.4	4123 - Red Oak	8	99	111-140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
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Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting.

Specs:

Next Step

Treatments:

Acceptable Mixed pine with white oak mix option if available during or after initial planting.

Regen:

Other Alternate tree boxes while planting to create a red pine / white pine mix. Plant white oak within, possibly in open patches, when funding and source is available.

Site Condition:

Proposed Start Date: 10/01/2025



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
17	12173049-OW	5.0	4123 - Red Oak	8	99	111-140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
<u>Prescription</u> Harvest all trees 2" DBH and larger to prep site for mixed pine planting. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Mixed 50% red pine/50% white with white oak mix option if available during or after initial planting. <u>Regen:</u> <u>Other</u> Alternate tree boxes while planting to create a red pine / white pine mix. Plant white oak within, possibly in open patches, when funding and <u>Comment:</u> source is available. <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											
13	12173013-OW	5.3	4131 - Aspen, Oak	9	34	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Planting Record	No
<u>Prescription</u> Harvest all trees 2" DBH and larger to prep site for red pine planting. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Red pine <u>Regen:</u> <u>Other</u> No retention due to forest health concerns. Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											
17	12173059-OW	9.3	4123 - Red Oak	8	99	111-140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
<u>Prescription</u> Harvest all trees 2" DBH and larger to prep site for mixed pine planting. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Mixed 50% red pine/50% white with white oak mix option if available during or after initial planting. <u>Regen:</u> <u>Other</u> Alternate tree boxes while planting to create a red pine / white pine mix. Plant white oak within, possibly in open patches, when funding and <u>Comment:</u> source is available. <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											
10	12173010-CC	27.8	4130 - Aspen	6	48	111-140	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Harvest all merchantable trees except conifers and oak to promote aspen regeneration. Retention should include large diameter, forked crown <u>Specs:</u> aspen, and a diverse mix of species. <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2031											



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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8	12173008-CC	18.7	4130 - Aspen	6	48	111-140	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Harvest all merchantable trees except red pine, white pine and oak to promote aspen regeneration. Retention should include large diameter, forked crown aspen, and a diverse mix of species.

Next Step
Treatments:

Acceptable Any combination of the current overstory species.
Regen:

Other Slope / BMP exclusions are estimates based off of field observations. These areas could change if determined during timber sale prep. Include all applicable oak wilt specs for timber sale.
Comment:

Site Condition:

Proposed Start Date: 10/01/2031

7	12173007-CC	28.5	4130 - Aspen	6	47	111-140	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Harvest all merchantable trees except conifers and oak to promote aspen regeneration. Retention should include large diameter, forked crown aspen, and a diverse mix of species.

Next Step
Treatments:

Acceptable Any combination of the current overstory species.
Regen:

Other Include all applicable oak wilt specs for timber sale.
Comment:

Site Condition:

Proposed Start Date: 10/01/2025

6	12173006-OW	5.4	4123 - Red Oak	9	99	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Planting Record	No
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Prescription Harvest all trees 2" DBH and larger to prep site for red pine planting.
Specs:

Next Step
Treatments:

Acceptable Red pine
Regen:

Other No retention due to forest health concerns. Include all applicable oak wilt specs for timber sale.
Comment:

Site Condition:

Proposed Start Date: 10/01/2025

6	12173006-Cut	20.5	4123 - Red Oak	9	99	111-140	Harvest	Selection	4121 - Oak, Aspen	Cutting Record	No
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Prescription Mark red oak to approximately 80 BA average across the stand. Focus on removing suppressed and/or weakened trees while creating more canopy light to release advanced regeneration. Improve quality and mark to retain healthier, stout branched trees that will be more resistant to future damage. Create approximately five, 1/2 acres gaps (1 per 10 acres) to plant with white oak and white pine to increase diversity and more resilience to future forest health concerns. No other species should be marked unless needed for operability. Leave all conifers.

Next Step
Treatments:

Acceptable Any combination of the current overstory species, including aspen and maple.
Regen:

Other Exclude areas where advanced regeneration is more dense due to lighter canopy stocking. Treatment has been updated to reflect some of these areas but may change if determined during timber sale prep. Include all applicable oak wilt specs for timber sale.
Comment:

Site Condition:

Proposed Start Date: 10/01/2025



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
4	12173004-CC	10.3	4123 - Red Oak	9	99	171- 200	Harvest	Clearcut	4121 - Oak, Aspen	Cutting Record	No
<u>Prescription</u> Harvest all merchantable deciduous trees. Leave all conifers. Exclude patch along the south containing mature oak for long term retention. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											
17	12173004-OW	2.3	4123 - Red Oak	8	99	111- 140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
<u>Prescription</u> Harvest all trees 2" DBH and larger to prep site for white pine planting. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> White pine with white oak mix option if available during or after initial planting. <u>Regen:</u> <u>Other</u> Plant white pine. Plant white oak within, possibly in open patches, when funding and source is available. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											
45	12173045-CC	19.9	4130 - Aspen	6	48	111- 140	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Harvest all merchantable trees except red pine, white pine and oak to promote aspen regeneration. Retention should include large diameter, forked crown aspen, and a diverse mix of species. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> Recommend sale prep during leaf off. Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
92	12173092-Cut	7.7	4125 - Black, N. Pin Oak	6	99	111- 140	Harvest	Shelterwood	4319 - Mixed Upland Forest	Cutting Record	No
<u>Prescription</u> Harvest all merchantable trees except pine species to promote oak and pine regeneration and release current desirable advanced regeneration. <u>Specs:</u> Leave no interior oak or long term retention for regeneration and forest health concerns. <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> Use caution to not damage current saplings during timber sale operations. Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											



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
89	12173089-Cut	13.5	4123 - Red Oak	9	99	141-170	Harvest	Clearcut	4121 - Oak, Aspen	Planting Record	No
<u>Prescription</u> Harvest all merchantable trees except conifers. This treatment will include the south 1/2 to 2/3 of this stand where more aspen and mixed <u>Specs:</u> hardwood are present to create a more diverse mixed stand. The north portion dominated by oak will be retained. <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any Combination of the current overstory species. <u>Regen:</u> <u>Other</u> Treatment layer is an estimate and may change. Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											
75	12173075-Cut	7.5	4123 - Red Oak	9	99	111-140	Harvest	Seed Tree	4319 - Mixed Upland Forest	Cutting Record	No
<u>Prescription</u> Harvest all merchantable trees except conifers. Do not leave any interior oak trees or retention. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> No long-term retention due to interior and/or adjacent forest health concerns. Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
72	12173072-CC	15.4	4130 - Aspen	6	47	111-140	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Harvest all merchantable trees except conifers and oak to promote aspen regeneration. Retention should include large diameter, forked crown <u>Specs:</u> aspen, and a diverse mix of species. <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											
17	12173037-OW	5.7	4123 - Red Oak	8	99	111-140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
<u>Prescription</u> Harvest all trees 2" DBH and larger to prep site for mixed pine planting. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Mixed 50% red pine/50% white with white oak mix option if available during or after initial planting. <u>Regen:</u> <u>Other</u> Alternate tree boxes while planting to create a red pine / white pine mix. Plant white oak within, possibly in open patches, when funding and <u>Comment:</u> source is available. <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											



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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51	12173051-CC	57.9	4130 - Aspen	6	44	111-140	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Harvest all merchantable trees except conifers and oak to promote aspen regeneration. Retention should include large diameter, forked crown aspen, and a diverse mix of species. Mark to leave one mature hardwood tree per acre while cruising if present where leave trees are not found.

Next Step
Treatments:

Acceptable Any combination of the current overstory species.
Regen:

Other Exclusion along the Brule River is an estimate from steep slope top and may change if determined during timber sale prep but will still hold the
Comment: 100' river buffer. Include all applicable oak wilt specs for timber sale.

Site Condition:

Proposed Start Date: 10/01/2026

97	12173097-CC	4.8	4130 - Aspen	6	46	111-140	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Harvest all merchantable trees except conifers and oak to promote aspen regeneration.
Specs:

Next Step
Treatments:

Acceptable Any combination of the current overstory species.
Regen:

Other No long term retention due to small and narrow stand size.
Comment:

Site Condition:

Proposed Start Date: 10/01/2031

41	12173041-CC	3.9	4130 - Aspen	6	48	111-140	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Harvest all merchantable trees except conifers and oak to promote aspen regeneration.
Specs:

Next Step
Treatments:

Acceptable Any combination of the current overstory species.
Regen:

Other No long term retention due to small stand size.
Comment:

Site Condition:

Proposed Start Date: 10/01/2025

38	12173038-CC	8.4	4130 - Aspen	6	47	111-140	Harvest	Clearcut	413 - Aspen	Planting Record	No
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Prescription Harvest all merchantable trees except conifers and oak to promote aspen regeneration.
Specs:

Next Step
Treatments:

Acceptable Any combination of the current overstory species.
Regen:

Other No long-term retention due to small size. Include all applicable oak wilt specs for timber sale.
Comment:

Site Condition:

Proposed Start Date: 10/01/2025



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
32	12173032-CC	6.9	4130 - Aspen	6	48	111-140	Harvest	Clearcut	413 - Aspen	Planting Record	No
<u>Prescription</u> Harvest all merchantable trees except conifers and oak to promote aspen regeneration. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Any combination of the current overstory species. <u>Regen:</u> <u>Other</u> No retention due to small size. Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
25	12173025- Selection	59.0	42110 - Planted Red Pine	6	62	141-170	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<u>Prescription</u> Mark stand to average 120 BA. Focus on improving quality and removing suppressed trees. Exclude more open areas that contain dense aspen <u>Specs:</u> saplings from past harvest. Leave all oak and white pine. <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Red pine <u>Regen:</u> <u>Other</u> Some areas are not dense enough to be thinned at this time. Either exclude less dense areas if on an edge, avoid marking in, or lightly thin if <u>Comment:</u> needed. Include all applicable oak wilt specs for timber sale. <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026											
17	12173078-OW	2.7	4123 - Red Oak	8	99	111-140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
<u>Prescription</u> Harvest all trees 2" DBH and larger to prep site for mixed pine planting. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Mixed 50% red pine/50% white with white oak mix option if available during or after initial planting. <u>Regen:</u> <u>Other</u> Plant white pine. Plant white oak within, possibly in open patches, when funding and source is available. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											
17	12173075-OW	6.8	4123 - Red Oak	8	99	111-140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
<u>Prescription</u> Harvest all trees 2" DBH and larger to prep site for mixed pine planting. If available, exclude patches with pure aspen saplings to retain for <u>Specs:</u> diversity. <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Mixed 50% red pine/50% white with white oak mix option if available during or after initial planting. <u>Regen:</u> <u>Other</u> Alternate tree boxes while planting to create a red pine / white pine mix. Plant white oak within, possibly in open patches, when funding and <u>Comment:</u> source is available. <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											



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
69	12173069- RowThin	2.0	42110 - Planted Red Pine	6	42	171- 200	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<u>Prescription</u> Mark red pine to harvest approximately 1/3 of the stand creating rows as needed for operability. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Red pine <u>Regen:</u> <u>Other</u> Rows may be narrow or non-existent. Mark rows for operability. Include all applicable oak wilt specs for timber sale. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2025											

Total Treatment 0
Acreage Proposed:



Availability for Management

Total Acres Acres Available Acres With Condition Acres Not Available

Dominant Site Conditions

5C 2F 2G 3J 3L 5E

736	658	0	78	Aspen		36	1	37		3
49	49	0	0	Cedar						
16	0	0	16	Lowland Conifers			16			
57	14	0	43	Lowland Deciduous			9	34		
14	14	0	0	Lowland Mixed Forest						
9	9	0	0	Mixed Upland Deciduous						
320	257	50	13	Oak	50				7	6
176	151	25	0	Red Pine	25					
17	1	17	0	Upland Mixed Forest	17					
62	62	0	0	Urban						
20	20	0	0	Water						
1,475	1,234	91	150	Total Forested Acres	91	36	26	71	7	9
	84%	6%	10%	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		2G: Too wet (sensitive soils, does not include access issues)	1	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments: Flooded drainage with black ash and alder. Long term retention for Stand 38.								
2	Unavailable		5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention patch for Stand 12.								
3	Unavailable		2F: Too steep	13	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Long steep inoperable slopes and/or low, poorly drained ground at the bottom of the slopes.								

Report 4 – Site Conditions



4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Allow younger age class to grow larger.							
5	Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention for Stand 15. Patches seem healthy yet except the far north bubble which is riddled with dead oak.							
6	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention for Stand 40. Pockets contain patches of dead oak.							
7	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention for Stand 23. Contains 3 mature oak pockets. All are healthy except for one dead oak tree in the NE bubble.							
8	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention for Stand 4. Contains dense advanced regen with some scattered mature oak.							
9	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	6	2G: Too wet (sensitive soils, does not include access issues)	5E: Long-Term Retention	Unspecified	Unspecified
Comments: 100' river buffer for Brule River, poorly drained ground, and long term retention for stand 36.							
10	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	5	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments: 100' river buffer and long term retention for Stand 27.							

Report 4 – Site Conditions



11	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	4	5E: Long-Term Retention	Unspecified	Unspecified	Unspecified
Comments: Low drainage ravine with poorly drained ground. Long term retention for Stand 9.							
12	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	12	2F: Too steep	5E: Long-Term Retention	Unspecified	Unspecified
Comments: Steep slope in areas along the Brule River and 100' river buffer. Long term retention for Stand 51.							
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand was thinned in 2020.							
14	Unavailable	2F: Too steep	24	3J: Water quality/BMPs (stream, river, or lake)	5E: Long-Term Retention	Unspecified	Unspecified
Comments: Estimated exclusion for 100' river buffer and inoperable slopes. Long term retention for Stand 55. This may change during future management but will hold at least a 100' river buffer.							
15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Allow younger aspen age class to grow to a more merchantable size.							
16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Consider harvest next YOE. Aspen will be more merchantable size.							

Report 4 – Site Conditions



17	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Healthy oak on a high elevation hump. Part of long term retention for Stand 75.							
18	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention for Stand 3 containing mature oak and surrounded by dense aspen stocking.							
19	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention for Stand 4. Patch that recently had all species thinned out except for oak.							
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Areas that will be excluded from thinning this YOE. Contains sparser oak canopy with better growing conditions for advanced regeneration.							
21	Unavailable	3L: Other wildlife concerns	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retain mature oak on the landscape for wildlife.							
22	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Hemlock slope left as long term retention and hemlock protection for Stand 59.							
26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
Comments: Flooded ground with denser cedar across most areas.							



27	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Flat floodplain with saturated ground and black ash bordering the Brule River.							
28	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	34	2G: Too wet (sensitive soils, does not include access issues)	2F: Too steep	Unspecified	Unspecified
Comments: Mostly saturated floodplain flats with black ash and cedar along the Brule River. Steep, long slope along RR grade trail to the stand with no good access.							
29	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Very saturated ground with cedar and sparse, declining stocking of conifer and alder.							
30	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: After a 300' trout stream buffer, there is approximately 1/2 acre in the center that can be managed.							
32	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention for Stand 40. Pockets contain patches of dead oak.							

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	Poletimber Well	14.4	25	1-50	N/A	Dense aspen stand transitioning to pole sized trees with some mature oak speckled within. More bigtooth in the south half and quaking in the north half.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Oak		5		13	99	White Pine		Low	Variable	Variable
White Pine		1		18		White Spruce		Low	Variable	Variable
Paper Birch		1	Pole	3		Red Maple		High	Variable	Variable
Bigtooth Aspen		63	Sapling	5	25					
Quaking Aspen		30	Pole	4	25					
2	4130 - Aspen	Poletimber Well	15.2	33	Immature	N/A	Dense aspen, small pole sized trees. Oak and a few mature pine are scattered within.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Quaking Aspen		15	Sapling	6	33	White Spruce		Low	Variable	Variable
White Pine		1		18		Red Maple		Medium	Variable	Variable
Red Maple		3	Sapling	5	33					
Paper Birch		2	Sapling	6						
Bigtooth Aspen		73	Sapling	7	33					
Red Oak		5		13	99					
White Spruce		1	Seedling	8						
3	4131 - Aspen, Oak	Poletimber Well	22.4	46	111-140	N/A	Aspen pole stand. There is a fair amount of mature oak scattered across the stand. Oak is scattered enough to not have continuous spread from oak wilt in most areas. There are a couple of spreading dead oak patches in the SE corner and the NW corner. The SE patch has oak density to continue spreading. The NW patch has less oak density and should slow/stop with more species diversity. A couple of drainage ravines run N/S across the stand and will probably need to be excluded from future management.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
White Pine		2		22		Red Maple		Low	Variable	Variable
Red Oak		25		14	99	Balsam Fir		Low	Variable	Variable
Quaking Aspen		30	Seedling	7	46	White Pine		Low	Variable	Variable
Red Maple		3	Sapling	7	46					
Paper Birch		2		8						
Bigtooth Aspen		38	Seedling	8	46					
4	4123 - Red Oak	Sawtimber Well	49.4	99	171-200	N/A	Very dense oak stand over 200 BA in a lot of areas. Average small log size trees with natural mortality occurring due to being severely suppressed. A few small visible dead oak patches were investigated in the field and appear to be natural mortality with no spread occurring. More aspen mixed in the west 1/3 turning to nearly solid oak in the east 2/3. Very small areas were harvested in 2021 in the SW corner and the far east edge that contain some young regen but also denser oak canopies. Moderate rolling terrain in areas.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Oak		85		13	99	White Pine		Low	Variable	Variable
Red Maple		3	Seedling	8		Red Maple		Low	Variable	Variable
Paper Birch		1	Seedling	8		Red Maple		Medium	Variable	Variable
Bigtooth Aspen		9		12	99					
White Pine		2		20						
5	4123 - Red Oak	Sawtimber Medium	12.1	99	81-110	N/A	Dense oak patches with some small young aspen areas mixed in. Numerous, aggressive spreading dead oak patches within stand.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Oak		100		12	99	Red Maple		Medium	Variable	Variable
						Bigtooth Aspen		Low	Variable	Variable
						Quaking Aspen		High	Variable	Variable





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
10	4130 - Aspen	Poletimber Well	27.8	48	111-140	N/A	Good quality aspen pole stand with mainly quaking aspen. Fairly open understory across most of the area. Some oak is mixed in, mainly in the west. Very few scattered conifer within.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	1		18		Red Maple	Low		Variable	Variable
White Pine	1		15	99	Red Oak	Trace		Variable	Variable
Bigtooth Aspen	7	Seedling	9	48	White Spruce	Trace		Variable	Variable
Red Oak	6		13	99					
Quaking Aspen	85	Seedling	8	48					
11	4130 - Aspen	Poletimber Well	35.0	23	Immature	N/A	Dense aspen stand transitioning to pole sized trees. Scattered mature oak and white pine within.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Pine	2		22		Red Maple	Medium		Variable	Variable
Red Maple	7	Pole	3		Red Oak	Trace		Variable	Variable
Bigtooth Aspen	64	Sapling	5	23					
Red Oak	12		14	99					
Quaking Aspen	15	Sapling	5	23					
12	4123 - Red Oak	Sawtimber Well	34.8	99	171-200	N/A	Good quality oak but extremely suppressed averaging smaller diameter, larger pole to small sawlog range. Most areas are reaching up to 200BA for stocking. Some small clones of large, very mature aspen is mixed in as well as some red maple and birch poles. Significant amount of spreading dead oak patches along the SE edge from past adjacent timber sale. Area north of the road also has numerous spreading dead oak patches. Adjacent private landowner along the south edge clearcut during peak oak wilt season up to the state land border. Significant new mortality and spread along the line is anticipated in the coming years. Oak stocking is dense enough for continuous spread across the entire stand.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Oak	80		10	99	Red Maple	Medium		Variable	Variable
Red Pine	2		17		Paper Birch	Low		Variable	Variable
Quaking Aspen	3		11						
Red Maple	3	Sapling	7						
Paper Birch	7	Seedling	8						
Bigtooth Aspen	5		12						
13	4131 - Aspen, Oak	Sawtimber Well	48.8	34	81-110	N/A	Areas dense to younger aspen poles, otherwise oak log canopy. Spreading dead oak along the south private line from adjacent past harvest. Adjacent private landowner along the south edge clearcut during peak oak wilt season up to the state land border. Significant new mortality and spread along the line is anticipated in the coming years. Oak stocking is dense enough for continuous spread across the entire stand.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	1		22		Red Maple	High		Variable	Variable
White Pine	1		22		Bigtooth Aspen	Low		Variable	Variable
Red Oak	50		14	99					
Red Maple	3	Sapling	5						
Paper Birch	2	Sapling	5						
Bigtooth Aspen	25	Seedling	6	34					
Quaking Aspen	18	Sapling	6	34					
14	4123 - Red Oak	Sawtimber Well	23.0	99	141-170	N/A	Cut in 2021. Everything except oak was removed leaving a solid canopy of red oak which is still very dense. Aspen regen present in some of the understory will not succeed with current canopy conditions. Stand is absolutely obliterated with aggressive spreading dead oak patches.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	3		18		Red Maple	Medium		Variable	Variable
White Pine	2		18		Bigtooth Aspen	Low		Variable	Variable
Red Oak	95		13	99					









MICHIGAN

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
30	42110 - Planted Red Pine	Sawtimber Well	38.1	61	81-110	N/A	Thinned in 2020. Red pine stand with small saw log to large pole sized trees. Scattered patches have denser stocking but overall the crowns have room to grow across the stand yet.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Pine		99		12	61	White Pine		Low	5 - 10 feet	5 - 10 feet
White Pine		1		25		Black Cherry		Low	Variable	Variable
						White Spruce		Low	5 - 10 feet	5 - 10 feet
31	4130 - Aspen	Sapling Well	27.1	4	Immature	N/A	Cut in 2021. Dense aspen saplings, mainly quaking, transitioning to more bigtooth with higher elevation.			
Canopy Species		% Cover	Size Class	DBH	Age					
White Pine		2	Seedling	8						
Red Pine		3		14						
Red Maple		5	Log	1						
Bigtooth Aspen		35	Log	1	4					
Quaking Aspen		50	Log	1	4					
Red Oak		5	Log	1						
32	4130 - Aspen	Poletimber Well	6.9	48	111-140	N/A	Nice stand of quaking aspen poles. Averages large pole to small sawlog sized trees although some areas average a slightly smaller diameter. Large pine mixed in patches and scattered across the area. Dense hazel understory in areas.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
White Pine		5		15		White Pine		Low	Variable	Variable
Black Cherry		1	Sapling	7		Black Cherry		Low	Variable	Variable
Red Pine		4		14		Northern Pin Oak		Low	Variable	Variable
Paper Birch		1	Seedling	7		Red Pine		Low	Variable	Variable
Bigtooth Aspen		20	Seedling	8		White Spruce		Low	Variable	Variable
Quaking Aspen		68		9	48					
Red Oak		2		13						
White Spruce		1		11						
33	6118 - Lowland Deciduous with Cedar	Poletimber Well	5.1	99	81-110	N/A	INCLUDES OUTLET FROM DEADMANS LAKE. Also includes buffer along Deadman's Lake, which is mostly upland.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Black Ash		35	Sapling	7	99	Black Ash		Medium	Variable	Variable
Red Maple		25		10		Black Spruce		Low	Variable	Variable
Paper Birch		10		10	99					
Northern White Cedar		20		9	99					
Quaking Aspen		10		10						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																															
34	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	34.2	100	81-110	N/A	Large diameter declining trees. Steep long bank across most of the stand makes it inaccessible. Poorly drained ground with areas of cedar and black ash. A small 3 acre patch in the north containing sugar maple and white pine may be manageable in the future.																																																															
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>White Pine</td><td>5</td><td></td><td>20</td><td>100</td></tr><tr><td>American Elm</td><td>5</td><td>Seedling</td><td>8</td><td></td></tr><tr><td>Balsam Fir</td><td>5</td><td>Sapling</td><td>7</td><td></td></tr><tr><td>Sugar Maple</td><td>5</td><td></td><td>9</td><td></td></tr><tr><td>Red Maple</td><td>10</td><td>Sapling</td><td>7</td><td></td></tr><tr><td>Paper Birch</td><td>5</td><td></td><td>10</td><td></td></tr><tr><td>Black Ash</td><td>22</td><td></td><td>7</td><td></td></tr><tr><td>White Spruce</td><td>3</td><td></td><td>10</td><td></td></tr><tr><td>Northern White Cedar</td><td>15</td><td></td><td>9</td><td>100</td></tr></table>		Canopy Species	% Cover	Size Class	DBH	Age		White Pine	5		20	100	American Elm	5	Seedling	8		Balsam Fir	5	Sapling	7		Sugar Maple	5		9		Red Maple	10	Sapling	7		Paper Birch	5		10		Black Ash	22		7		White Spruce	3		10		Northern White Cedar	15		9	100	<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>Black Cherry</td><td>Medium</td><td>Variable</td><td>Variable</td></tr><tr><td>Black Ash</td><td>Medium</td><td>Variable</td><td>Variable</td></tr><tr><td>Black Spruce</td><td>Low</td><td>Variable</td><td>Variable</td></tr></table>		Sub-Canopy Species	Density	Avg. Height	Size	Black Cherry	Medium	Variable	Variable	Black Ash	Medium	Variable	Variable	Black Spruce	Low	Variable	Variable
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35	4130 - Aspen	Sapling Well	16.9	13	Immature	N/A	Cut in 2012 dense mix of brush and saplings																																																															
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36	4130 - Aspen	Sapling Well	49.1	6	Immature	N/A	Aspen saplings with some hardwood mixed in and residual scattered pine and oak.																																																															
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37	4123 - Red Oak	Sawtimber Well	28.9	99	111-140	N/A	Solid oak log stand. Large patch of spreading dead oak in the center areas and some along the south edge. Section west of the powerline ROW also contains multiple spreading dead oak patches. Private bordering the far west edge have new lines in for harvest and do have spreading dead oak patches within.																																																															
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OPIC - FMD: ASPEN CUT OUT IN 1976 (1996)																																																																						







Stand

Level 4 Cover Type

Size Density

Acres

Stand Age

BA Range

Managed Site

General Comments

49

4123 - Red Oak

Sawtimber Medium

7.9

99

81-110

N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	1		16	
White Pine	1		16	
Red Oak	96		13	99
Paper Birch	2	Sapling	6	

Sub-Canopy Species	Density	Avg. Height	Size
Red Oak	Trace	Variable	Variable
Red Maple	High	Variable	Variable
Bigtooth Aspen	Medium	Variable	Variable
Quaking Aspen	Low	Variable	Variable

Cut in 2009. Dense oak canopy with some open sapling sized patches of mixed aspen and maple. Numerous spreading dead oak patches across the stand south of Paint Pond Road, north of the road is healthy yet and has some larger canopy gaps. Adjacent private landowner along the south edge clearcut during peak oak wilt season up to the state land border. Significant new mortality and spread along the line is anticipated in the coming years. Oak stocking is dense enough for continuous spread across the entire stand.

51

4130 - Aspen

Poletimber Well

125.6

44

111-140

N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	1		14	
Quaking Aspen	65	Seedling	8	44
Red Oak	7		15	
Sugar Maple	1		9	
Red Maple	10		9	
Paper Birch	1	Seedling	6	
Bigtooth Aspen	12	Seedling	9	
Red Pine	3		14	

Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	Trace	Variable	Variable
Red Maple	Low	Variable	Variable
Red Maple	Medium	Variable	Variable
Paper Birch	Trace	Variable	Variable

Nice aspen poles with good diameter. Stand is heavy to quaking aspen with some bigtooth clones mixed in, mainly on elevation rises. More diverse mix in the NW area with a bit more pine and hardwood mixed in. Unmanaged areas along the south due to slope and BMP's. Half of this stand will be held until next YOE to create aspen age class diversity in the area. Aspen is healthy and will hold up well. Edges of the adjacent red pine stand were avoided for the proposed harvest due to dense saplings along edges from 2021 harvest to allow the edge to become more established.

52

42110 - Planted Red Pine

Poletimber Well

51.4

62

81-110

N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	1		12	
Red Pine	99		8	62

Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	Full	10 - 20 feet	10 - 20 feet
White Spruce	Low	Variable	Variable
Red Maple	Low	Variable	Variable

Cut in 2021. Large pole to small sawlog sized red pine stand. A lot of areas have a very light canopy of red pine and dense aspen sapling regeneration from past harvest. A lot of aspen saplings will have enough light to succeed into the future.

53

6128 - Lowland Coniferous, Mixed Deciduous

Poletimber Well

9.8

99

51-80

N/A

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	20		12	
White Pine	10		14	
Black Spruce	35		8	99
Northern White Cedar	35		9	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Medium	Variable	Variable
Tag Alder	Medium	5 - 10 feet	5 - 10 feet

Spruce/fir is dead and/or declining. Wet flooded ground except a small patch along the W/NW.

54

6117 - Lowland Deciduous, Mixed Coniferous

Poletimber Well

8.7

99

81-110

N/A

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	3		14	99
Black Ash	45	Sapling	7	99
Balsam Fir	10		8	
Quaking Aspen	12		12	99
Red Maple	15		10	
White Spruce	5		9	99
Black Spruce	10	Sapling	7	


Sub-Canopy Species	Density	Avg. Height	Size
Tag Alder	Medium	5 - 10 feet	5 - 10 feet
Balsam Fir	Medium	Variable	Variable

Floodplain along the Brule River with saturated soil. Dead and dying black ash along the river. Conifer and aspen are falling apart.

</







Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
63	4199 - Other Mixed Upland Deciduous	Sapling Well	9.2	12	Immature	N/A	Harvested 2013 due to Oak wilt. Mixed aspen and hardwood regeneration. There is a good component of healthy oak sapling scattered in areas.																																													
<table> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> <tr> <td>Red Maple</td> <td>25</td> <td>Log</td> <td>1</td> <td>12</td> </tr> <tr> <td>Paper Birch</td> <td>5</td> <td>Log</td> <td>2</td> <td></td> </tr> <tr> <td>Bigtooth Aspen</td> <td>30</td> <td>Log</td> <td>2</td> <td>12</td> </tr> <tr> <td>Red Oak</td> <td>35</td> <td>Log</td> <td>2</td> <td>12</td> </tr> <tr> <td>Quaking Aspen</td> <td>5</td> <td>Log</td> <td>2</td> <td>12</td> </tr> </table>								Canopy Species	% Cover	Size Class	DBH	Age	Red Maple	25	Log	1	12	Paper Birch	5	Log	2		Bigtooth Aspen	30	Log	2	12	Red Oak	35	Log	2	12	Quaking Aspen	5	Log	2	12															
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65	4139 - Aspen, Mixed Deciduous	Sapling Medium	17.8	5	1-50	N/A	Aspen saplings with mature oak and pine scattered across the stand. Saplings range from fully stocked to areas with more open patches. Any open patches should fill in more with time.																																													
<table> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> <tr> <td>Red Oak</td> <td>13</td> <td></td> <td>12</td> <td>99</td> </tr> <tr> <td>Quaking Aspen</td> <td>10</td> <td>Log</td> <td>1</td> <td></td> </tr> <tr> <td>White Pine</td> <td>10</td> <td></td> <td>9</td> <td></td> </tr> <tr> <td>Red Maple</td> <td>15</td> <td>Log</td> <td>1</td> <td></td> </tr> <tr> <td>Bigtooth Aspen</td> <td>40</td> <td>Log</td> <td>1</td> <td>5</td> </tr> <tr> <td>Northern Pin Oak</td> <td>3</td> <td></td> <td>11</td> <td></td> </tr> <tr> <td>Northern Pin Oak</td> <td>5</td> <td>Log</td> <td>1</td> <td></td> </tr> <tr> <td>Red Pine</td> <td>4</td> <td></td> <td>14</td> <td></td> </tr> </table>								Canopy Species	% Cover	Size Class	DBH	Age	Red Oak	13		12	99	Quaking Aspen	10	Log	1		White Pine	10		9		Red Maple	15	Log	1		Bigtooth Aspen	40	Log	1	5	Northern Pin Oak	3		11		Northern Pin Oak	5	Log	1		Red Pine	4		14	
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Red Pine	4		14																																																	
67	6129 - Mixed Coniferous Lowland Forest	Sawtimber Poor	6.4	99	51-80	N/A	Low flooded mix of dead and/or declining trees. Large healthy pine scattered within.																																													
<table> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> <tr> <td>Balsam Fir</td> <td>5</td> <td>Sapling</td> <td>6</td> <td></td> </tr> <tr> <td>Balsam Poplar</td> <td>5</td> <td></td> <td>10</td> <td></td> </tr> <tr> <td>White Pine</td> <td>45</td> <td></td> <td>16</td> <td>99</td> </tr> <tr> <td>Black Spruce</td> <td>10</td> <td>Sapling</td> <td>7</td> <td>99</td> </tr> <tr> <td>Northern White Cedar</td> <td>30</td> <td></td> <td>12</td> <td>99</td> </tr> <tr> <td>Red Maple</td> <td>5</td> <td></td> <td>8</td> <td></td> </tr> </table>								Canopy Species	% Cover	Size Class	DBH	Age	Balsam Fir	5	Sapling	6		Balsam Poplar	5		10		White Pine	45		16	99	Black Spruce	10	Sapling	7	99	Northern White Cedar	30		12	99	Red Maple	5		8											
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68	413 - Aspen	Poletimber Well	14.6	69	81-110	N/A	Aspen with some conifer mixed in. No access due to private.																																													
69	42110 - Planted Red Pine	Poletimber Well	2.0	42	171-200	N/A	Dense red pine poles.																																													
<table> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> <tr> <td>Red Pine</td> <td>100</td> <td>Seedling</td> <td>7</td> <td>42</td> </tr> </table>							Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	100	Seedling	7	42	OPIC - FMD: Red pine plantation, part of old ELF study area. (2006)																																			
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70	6120 - Lowland Cedar	Poletimber Well	4.3	89	111-140	N/A	Dense cedar patch. No access due to private.																																													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
71	42210 - Natural Red Pine	Sawtimber Well	25.0	99	81-110	N/A	Thinned in 2020. Most merchantable species were removed. Scattered mature oak across the stand. Some mixed understory saplings and areas with good oak seedlings.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		10		12		White Pine		Low	Variable	Variable	
Red Oak		7		12		Red Pine		Low	Variable	Variable	
Red Maple		5	Sapling	6		Red Maple		Medium	Variable	Variable	
Red Pine		78		12	99	Bigtooth Aspen		Low	Variable	Variable	
						Red Oak		Medium	Variable	Variable	
						Red Oak		Medium	< 5 feet	< 5 feet	
72	4130 - Aspen	Poletimber Well	15.4	47	111-140	N/A	Nice aspen pole stand with pure quaking aspen. Some pine and oak scattered within. Understory is fairly open.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		5		14		White Spruce		Low	Variable	Variable	
Red Maple		1	Sapling	6	47	Balsam Fir		Low	Variable	Variable	
Red Pine		2		11		White Pine		Low	Variable	Variable	
Quaking Aspen		90	Seedling	8	47	Black Cherry		Low	Variable	Variable	
Red Oak		2		11	99						
73	4123 - Red Oak	Sawtimber Medium	7.1	99	81-110	N/A		Cut in 2009. Dense oak canopy with some open sapling sized patches of mixed aspen and maple. Numerous spreading dead oak patches across the stand south of Paint Pond Road, north of the road is healthy yet and has some larger canopy gaps. Adjacent private landowner along the south edge clearcut during peak oak wilt season up to the state land border. Significant new mortality and spread along the line is anticipated in the coming years. Oak stocking is dense enough for continuous spread across the entire stand.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size	
White Pine		1		16		Red Oak	Trace		Variable	Variable	
Red Oak		96		13	99	Quaking Aspen	Low		Variable	Variable	
Paper Birch		2	Sapling	6		Red Maple	High		Variable	Variable	
Red Pine		1		16		Bigtooth Aspen	Medium		Variable	Variable	
75	4123 - Red Oak	Sawtimber Well	32.9	99	111-140	N/A	Cut in 2009. This stand was delineated out from the adjacent stand due to the closed, dense oak canopy. Spreading dead oak patches across the entire stand, most abundant in the south half. Adjacent private landowner along the east edge clearcut during peak oak wilt season up to the state land border. Significant new mortality and spread along the line is anticipated in the coming years. Oak stocking is dense enough for continuous spread across the entire stand.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
White Pine		2		17		Red Maple		Medium	Variable	Variable	
Red Pine		2		15		Bigtooth Aspen		Medium	Variable	Variable	
Red Oak		96		12	99	Quaking Aspen		Low	Variable	Variable	
78	4123 - Red Oak	Sawtimber Well	13.2	99	141-170	N/A		Dense oak log stand. Majority of understory is very dense to red maple saplings. Dead oak patches in the center and north half showing spread.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Red Oak		95		13	99	Red Maple			High	Variable	Variable
Red Maple		2	Sapling	7		Bigtooth Aspen	Low		Variable	Variable	
Bigtooth Aspen		3	Sapling	6	36						





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																			
88	4130 - Aspen	Sapling Well	10.9	10	Immature	N/A	Aspen sapling stand.																																																			
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89	4123 - Red Oak	Sawtimber Well	20.6	99	141-170	N/A	Dense canopy heavy to oak. Similar to adjacent oak stands but contains a heavier component of large mature aspen, mainly in the south half. Dead oak patches scattered across entire stand are showing signs of aggressive, continued spread.																																																			
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92	4125 - Black, N. Pin Oak	Poletimber Well	7.7	99	111-140	N/A	Mixed oak stand that is heavy to northern pin oak. Red oak and pine are healthy but northern pin oak is older and showing some decline. A fair amount of oak seedlings/saplings are found in the understory.																																																			
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93	6139 - Mixed Lowland Forest	Sapling Medium	3.7	4	Immature	N/A	Cut in 2021. Patchy aspen and mixed hardwood regeneration present. There is a good amount of shorth black spruce regeneration. Thick alder in a lot of areas. This stand is not fully stock but more time should allow conifers to become established.																																																			
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Quaking Aspen</td><td>40</td><td>Log</td><td>1</td><td>4</td></tr><tr><td>Black Cherry</td><td>10</td><td>Log</td><td>1</td><td>4</td></tr><tr><td>Black Spruce</td><td>50</td><td>Log</td><td>1</td><td>4</td></tr></table>			Canopy Species	% Cover	Size Class	DBH	Age	Quaking Aspen	40	Log	1	4	Black Cherry	10	Log	1	4	Black Spruce	50	Log	1	4	<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>Tag Alder</td><td>Medium</td><td>5 - 10 feet</td><td>5 - 10 feet</td></tr><tr><td>Black Spruce</td><td>Medium</td><td>< 5 feet</td><td>< 5 feet</td></tr></table>				Sub-Canopy Species	Density	Avg. Height	Size	Tag Alder	Medium	5 - 10 feet	5 - 10 feet	Black Spruce	Medium	< 5 feet	< 5 feet																				
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94	4123 - Red Oak	Sawtimber Well	12.1	99	111-140	N/A	Mainly denser red oak canopy. Areas of younger dense aspen poles in the center. Spreading dead oak patches in the NW corner and along the east edge.																																																			
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																											
97	4130 - Aspen	Poletimber Well	4.8	46	111-140	N/A	Good quality aspen with some oak mixed in. Stand was left from past harvest due to an old trespass case.																																											
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100	4130 - Aspen	Poletimber Well	8.5	36	111-140	N/A	Very good quality aspen pole stand. Heavy to bigtooth with elevation hump across most of the stand. A few scattered mature oak and pine scattered across the stand.																																											
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Red Oak</td><td>8</td><td></td><td>14</td><td>99</td></tr><tr><td>White Pine</td><td>4</td><td></td><td>13</td><td>99</td></tr><tr><td>Red Maple</td><td>2</td><td>Sapling</td><td>5</td><td></td></tr><tr><td>Bigtooth Aspen</td><td>83</td><td>Sapling</td><td>6</td><td>36</td></tr><tr><td>Red Pine</td><td>3</td><td></td><td>13</td><td>99</td></tr></table>		Canopy Species	% Cover	Size Class	DBH	Age		Red Oak	8		14	99	White Pine	4		13	99	Red Maple	2	Sapling	5		Bigtooth Aspen	83	Sapling	6	36	Red Pine	3		13	99	<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>White Pine</td><td>Trace</td><td>Variable</td><td>Variable</td></tr><tr><td>Red Maple</td><td>Medium</td><td>Variable</td><td>Variable</td></tr><tr><td>Bigtooth Aspen</td><td>Medium</td><td>>20 feet</td><td>>20 feet</td></tr></table>		Sub-Canopy Species	Density	Avg. Height	Size	White Pine	Trace	Variable	Variable	Red Maple	Medium	Variable	Variable	Bigtooth Aspen	Medium	>20 feet	>20 feet
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101	500 - Water	Unspecified	9.9	0		No	Brule River																																											
106	500 - Water	Unspecified	8.0	0		No	Brule River																																											
400	110 - Low Intensity Urban	Unspecified	3.6			No	Power line																																											
401	110 - Low Intensity Urban	Unspecified	7.5			No	Power line																																											
402	110 - Low Intensity Urban	Unspecified	12.8			No	Power line																																											
404	110 - Low Intensity Urban	Unspecified	5.6			No	Power line ROW.																																											