

# **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 Morraine 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 a 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:**

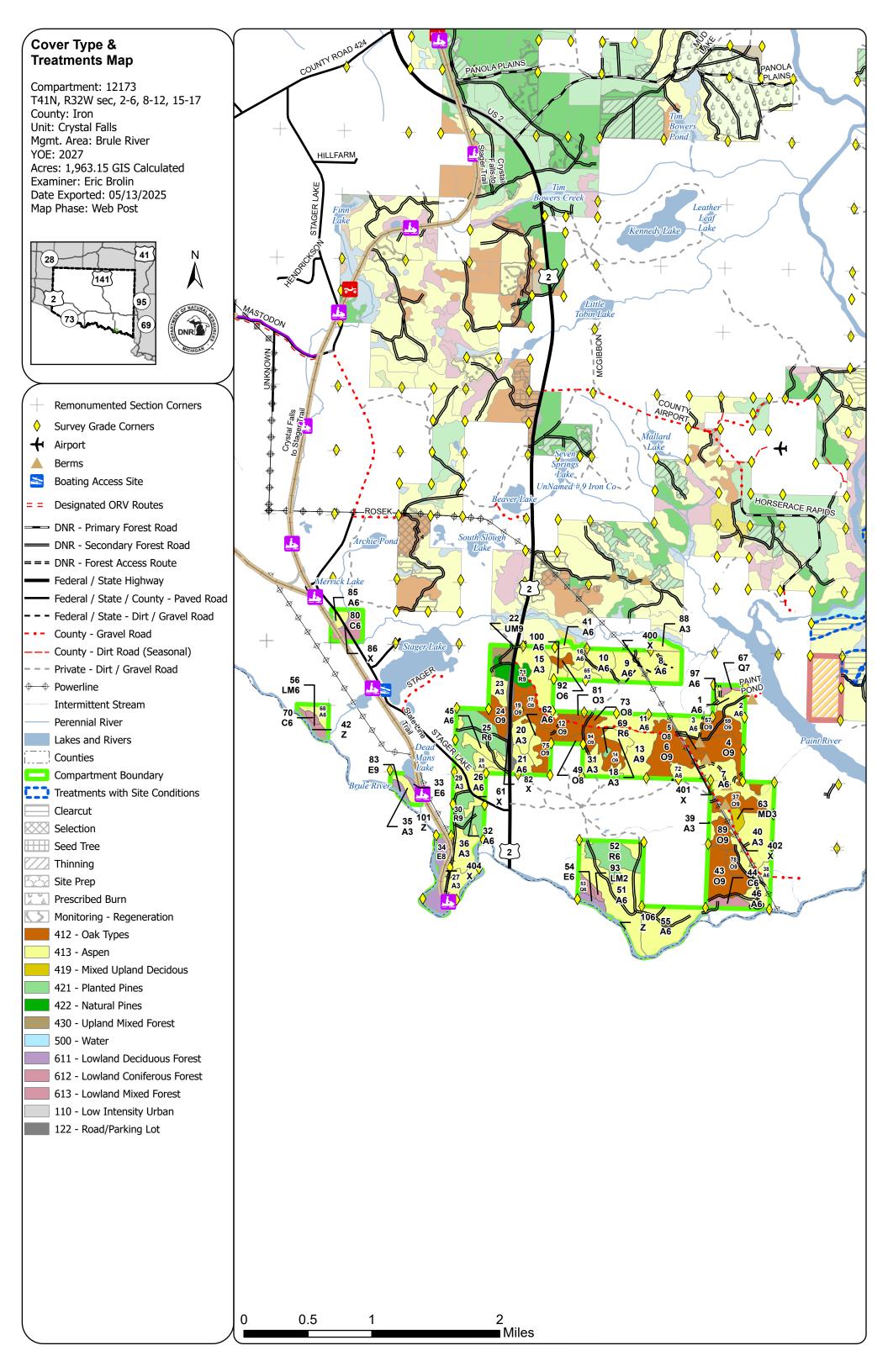
This compartment has had the presence of oak wilt confirmed and has had these areas treated. If other areas of oak wilt are detected, they will be treated.

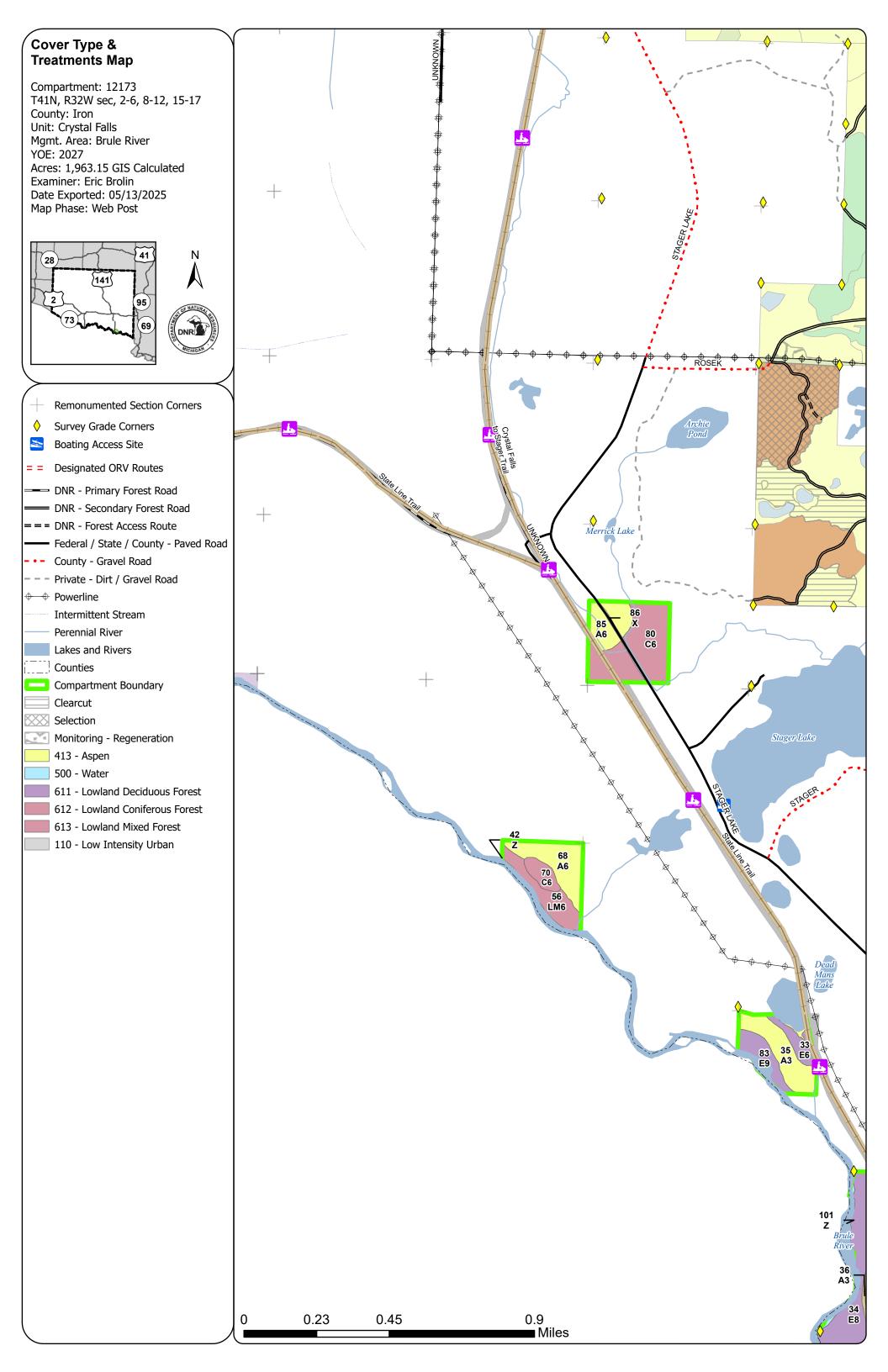
## The following reports from the Inventory are attached:

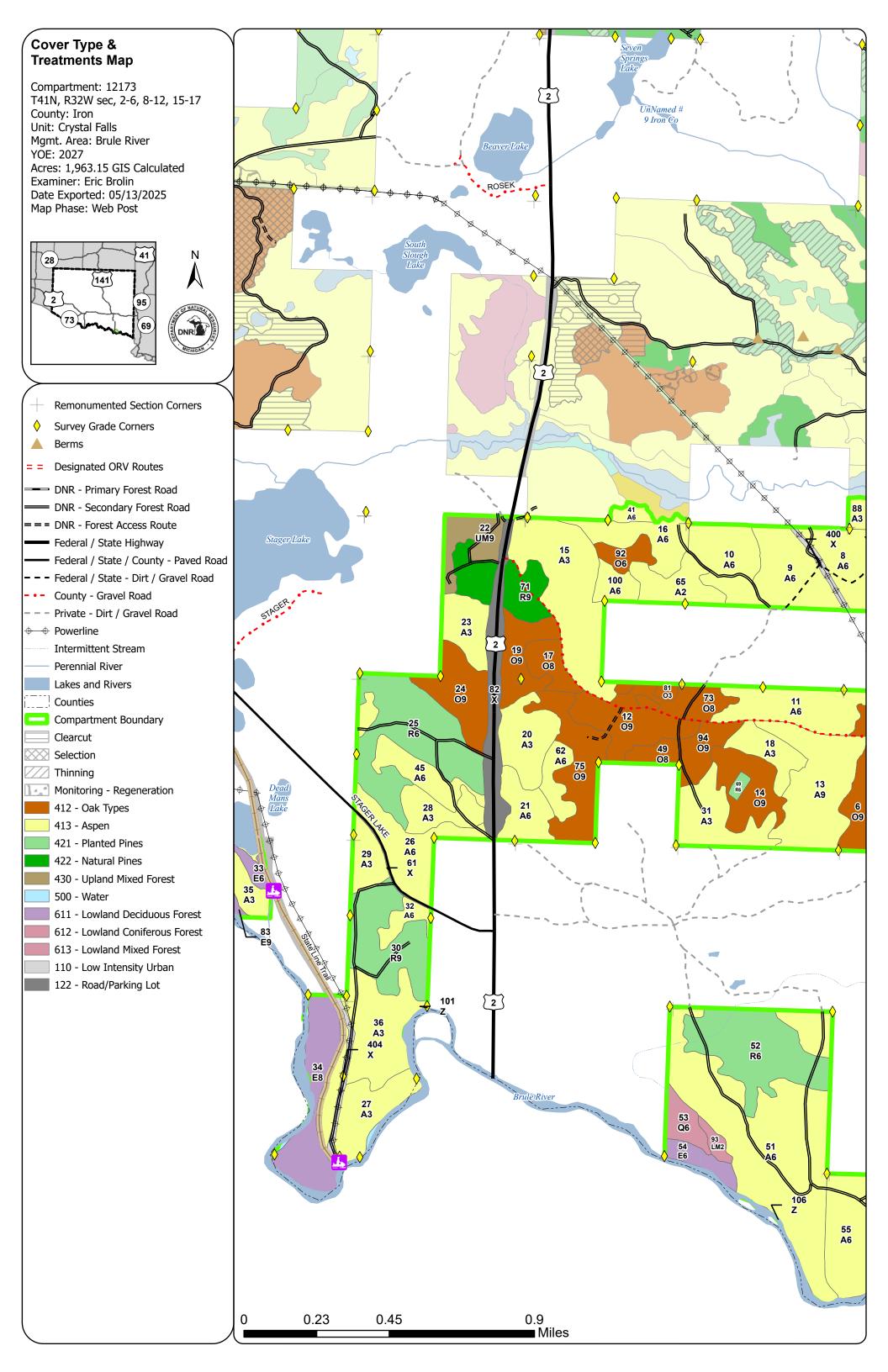
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

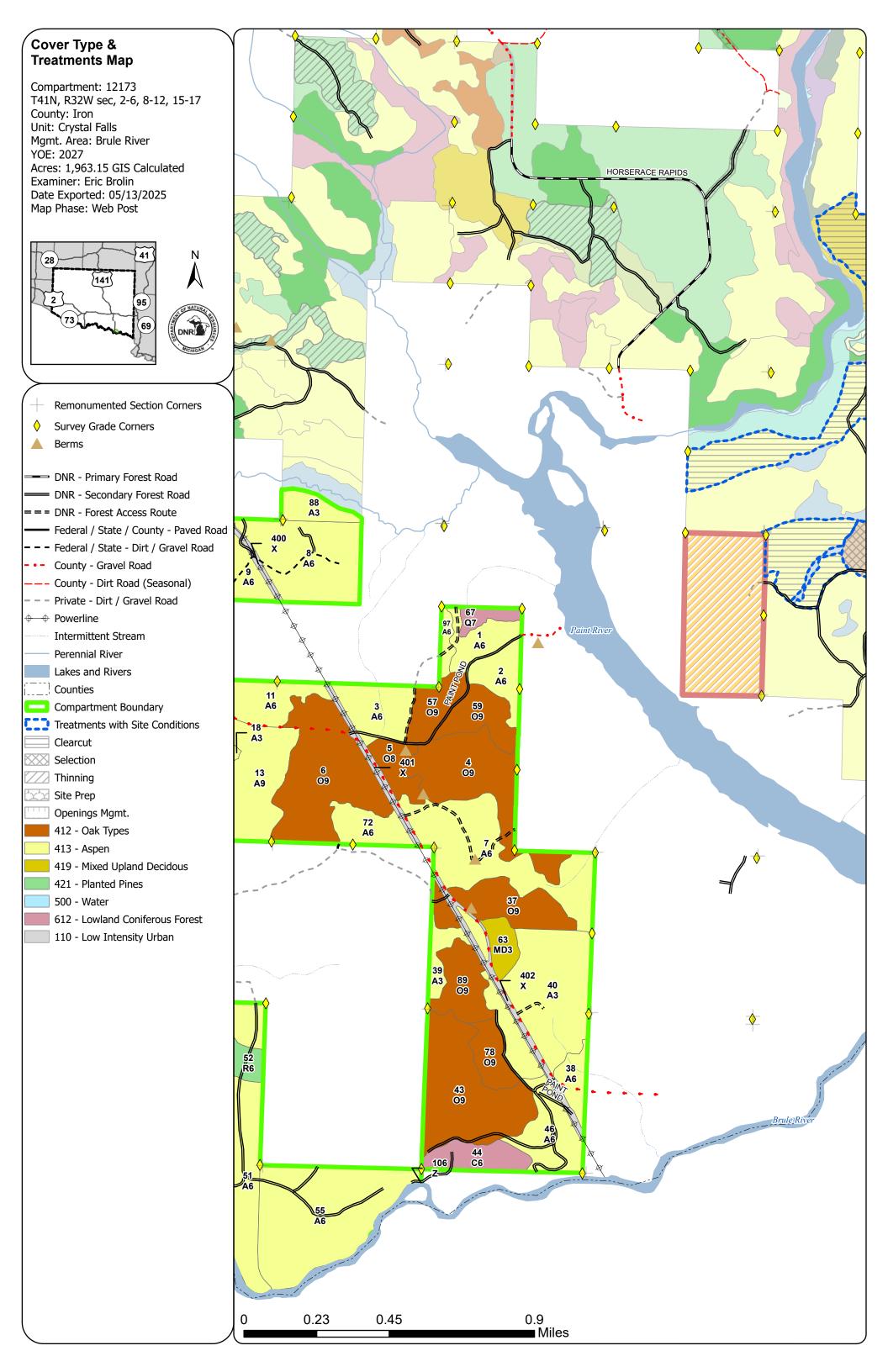
The following information is displayed, where pertinent, on the attached compartment maps:

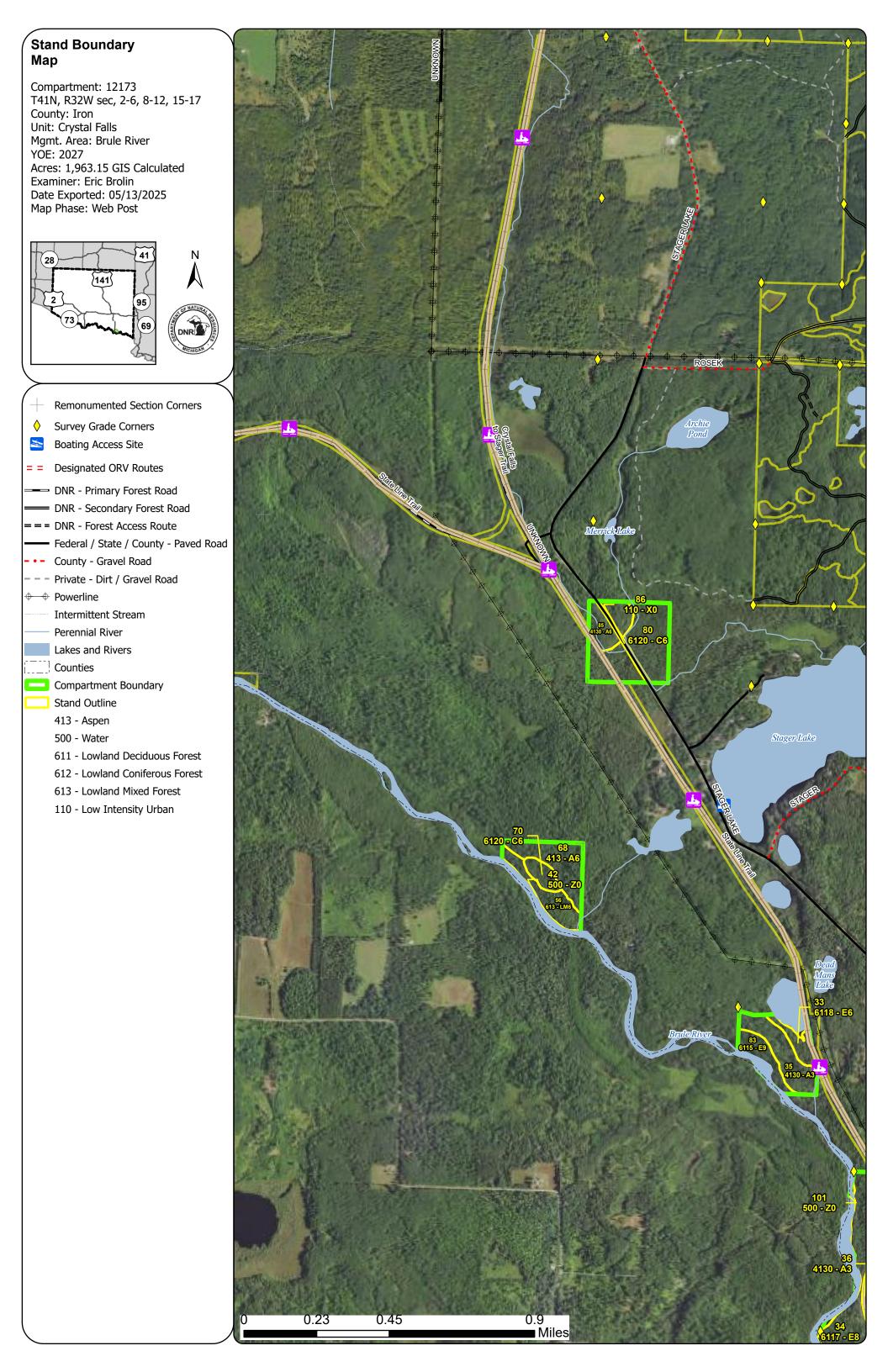
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

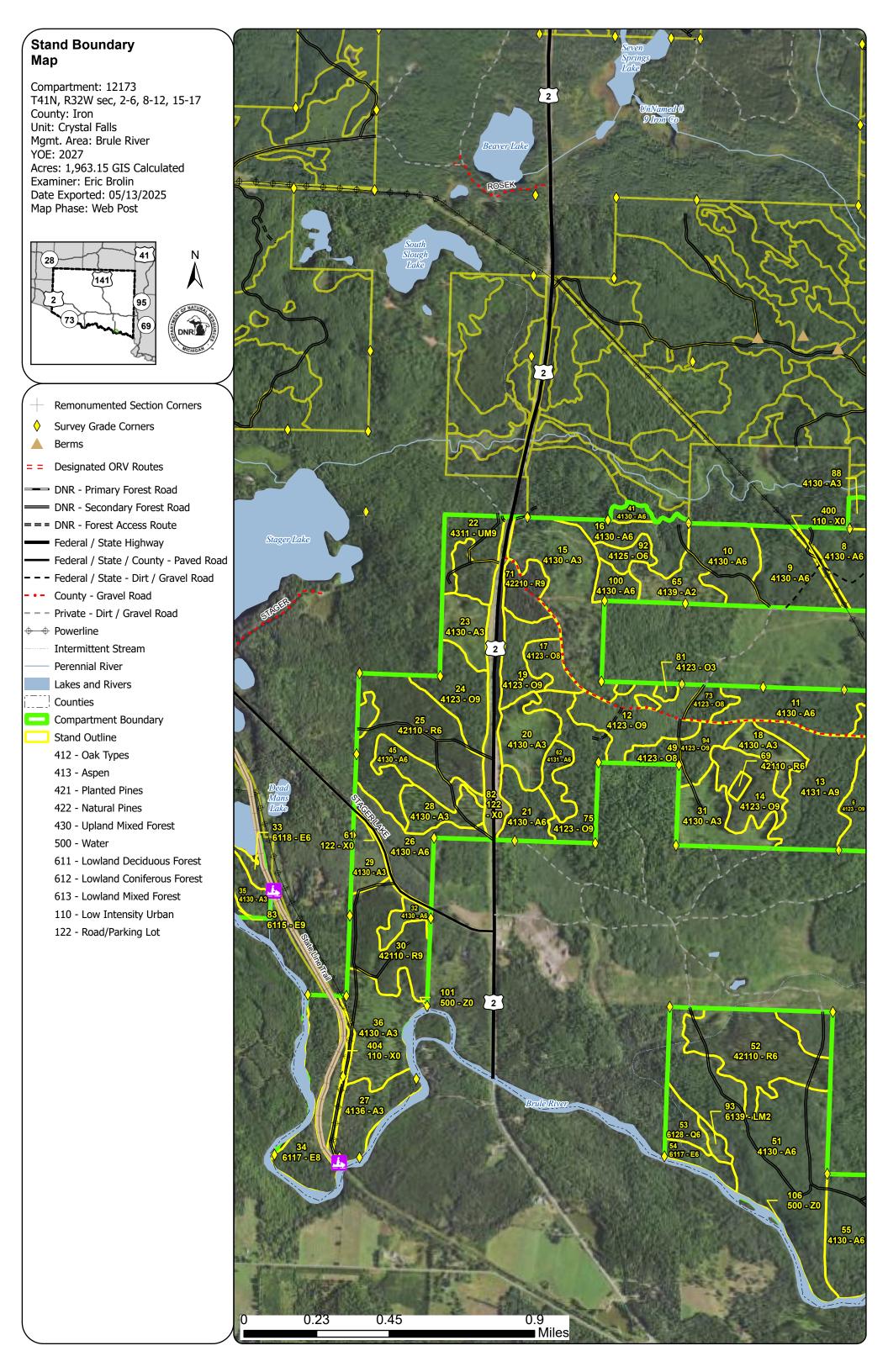


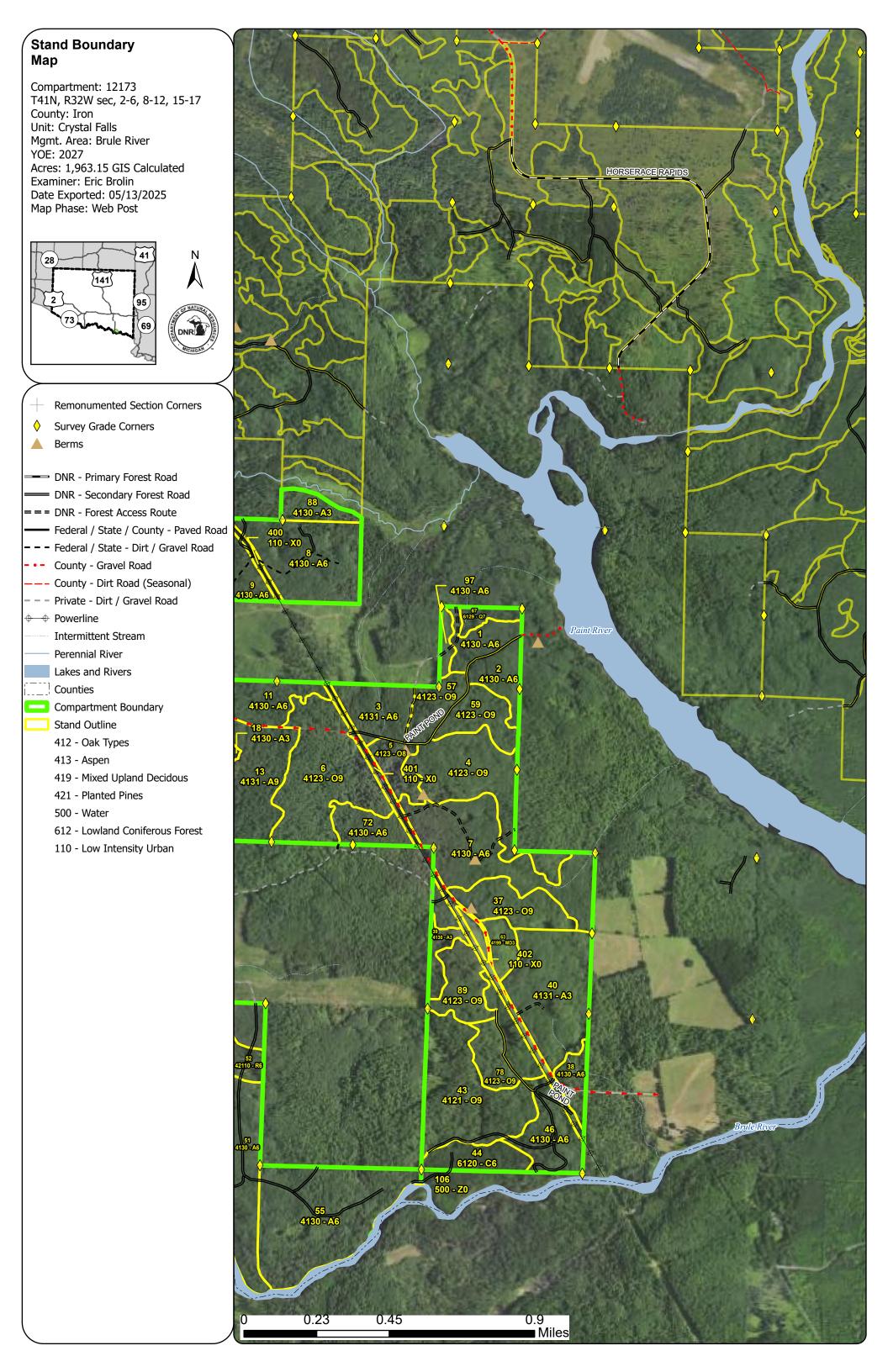


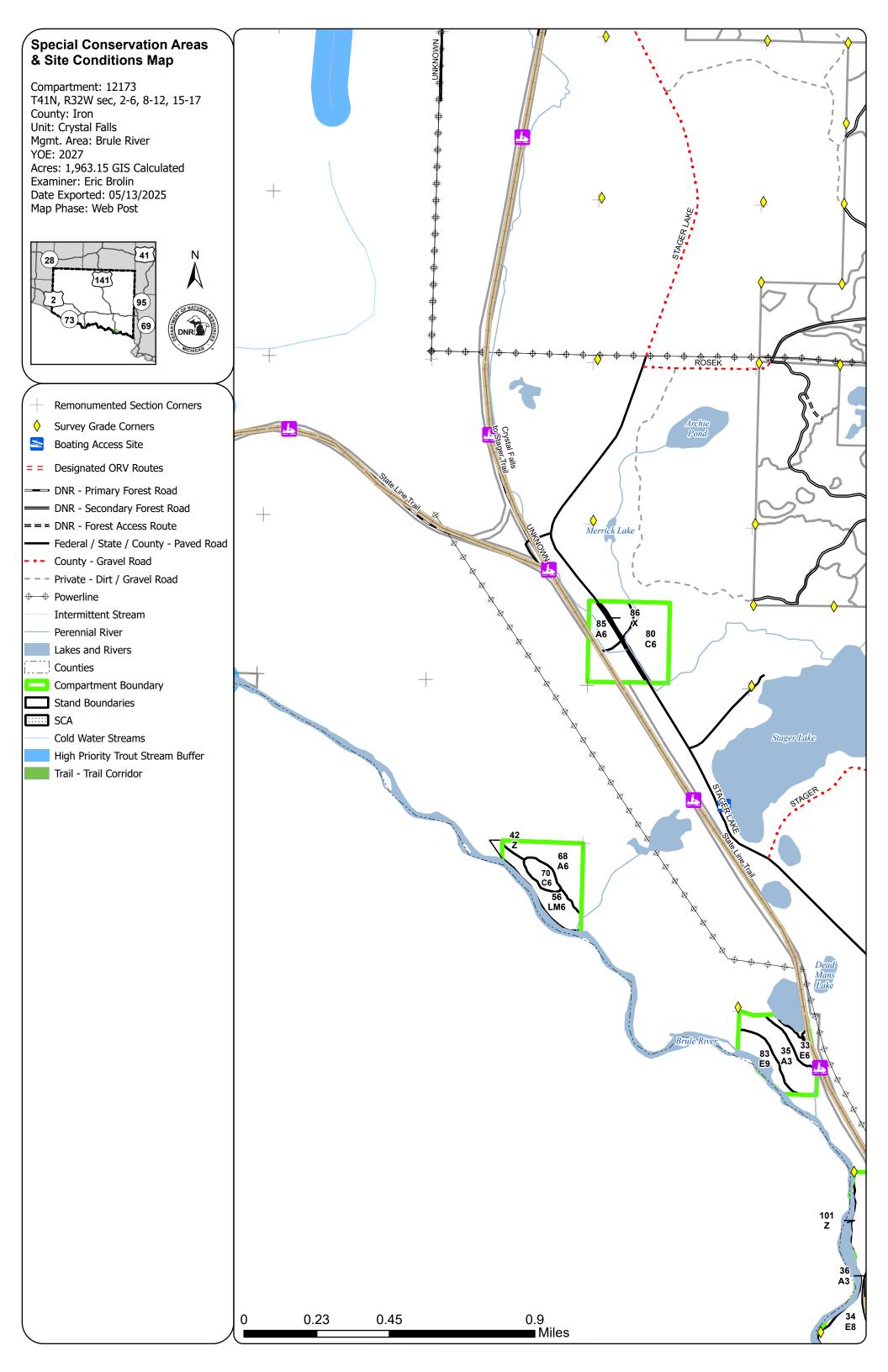


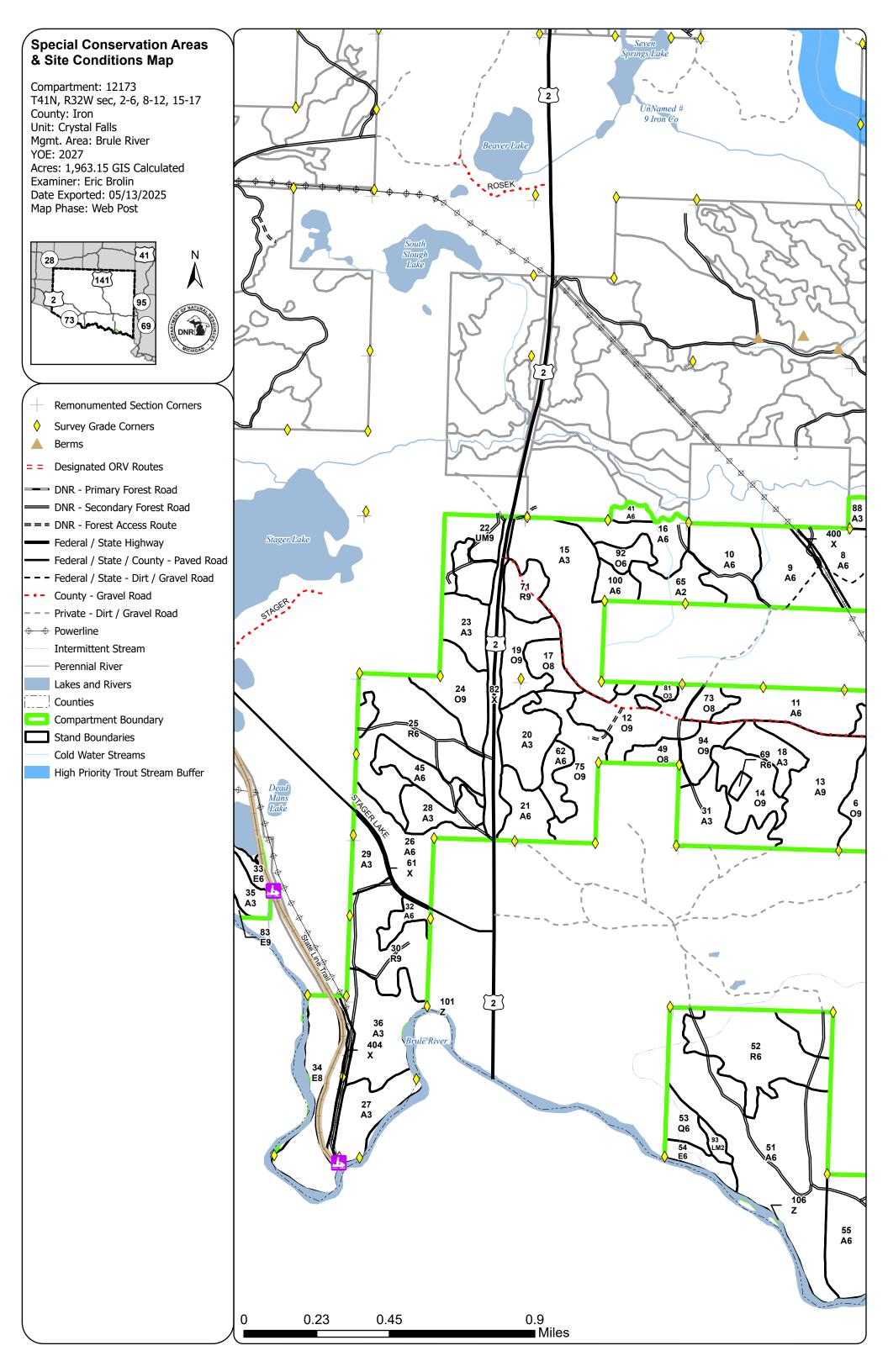


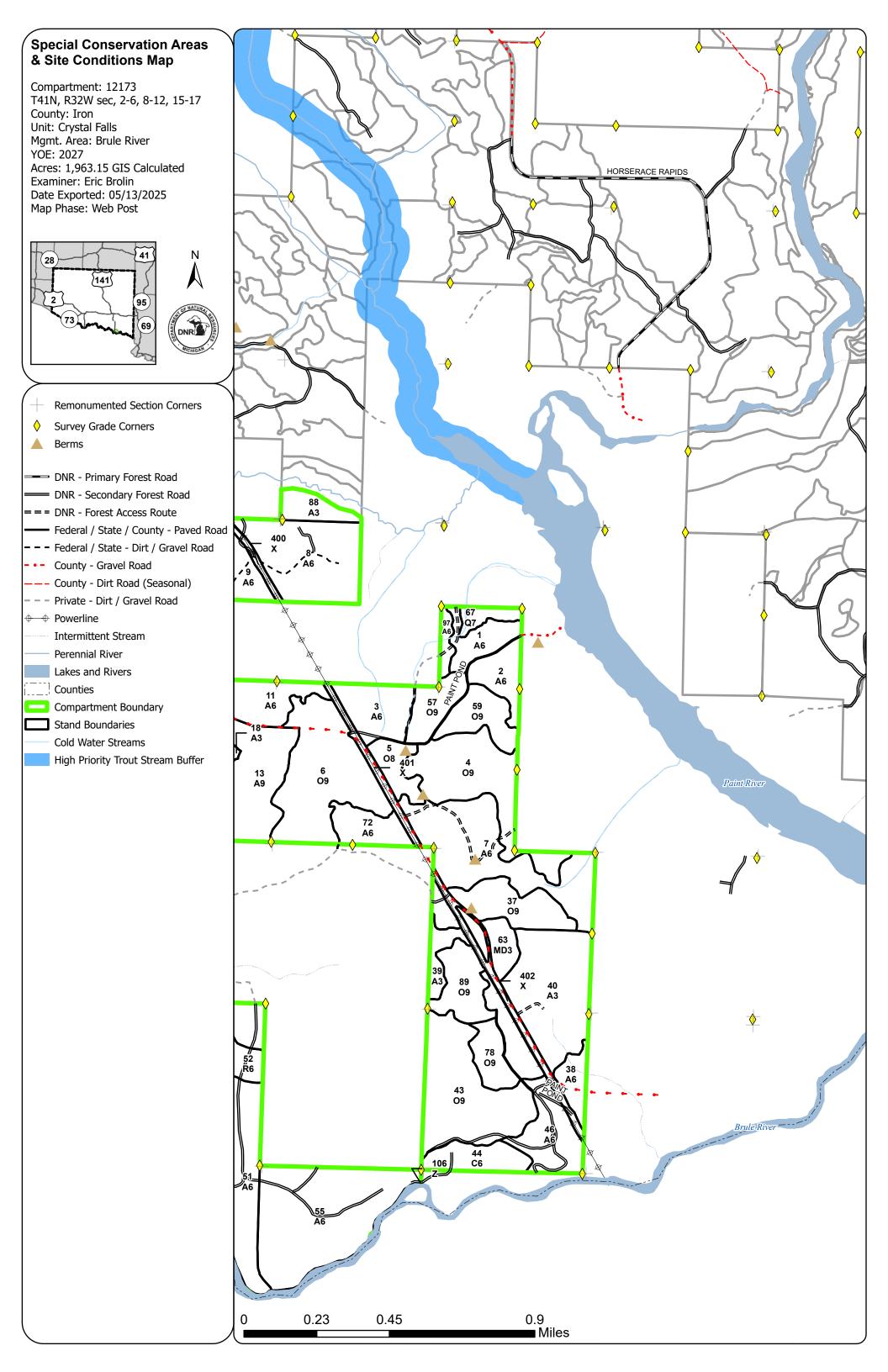












**Crystal Falls Mgt. Unit** 

Compartment 173 Year of Entry 2027

Eric Brolin: Examiner



## Age Class

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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**

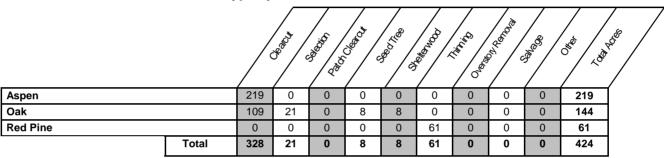
Crystal Falls Mgt. Unit Year of Entry: 2027

#### **Acres of Harvest**

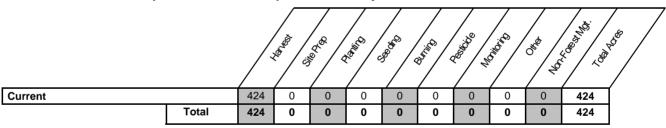
Compartment 173
Total Compartment Acres: 1,963

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

## **Cover Type by Harvest Method**



# **Proposed and Next Step Treatments by Method**



Crystal Falls Mgt. Unit

Acres

Report 3 -- Treatments

BA

Range

Compartment: 173 Year of Entry: 2027

Structure

**Cover Type** 

Objective

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Age Habitat

Cut

<b>Proposed Treatments:</b>
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**Treatment** 

Name

12173094-Cut 4123 - Red Oak 9 99 111-Harvest Clearcut 4199 - Other **Planting** No 140 Mixed Upland Record Deciduous

**Treatment** 

Type

**Treatment** 

Method

Prescription Harvest all merchantable trees except conifers.

Specs:

Next Step Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Create a natural buffer of young mixed regeneration, heavy to aspen, to slow and/or stop spread of adjacent underground oak wilt infection. Other

No interior retention will be left. Include all applicable oak wilt specs. Comment:

Stand

CoverType

Size

Density

Stand

Age

Site Condition:

Proposed Start Date: 10/01/2026

12173012-CC 4123 - Red Oak 9 99 171-Harvest Clearcut 4319 - Mixed Planting Nο 12 200 **Upland Forest** Record

Prescription Harvest all merchantable trees except conifers.

Specs:

Next Step Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Other See site conditions for small long term retention area. The west 2/3 of the stand will be retained containing healthy mature oak.

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

12173003-Cut 4131 - Aspen, **Planting** 4131 - Aspen, Oak 46 111-Harvest Clearcut Nο Record 140 Oak

Prescription 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. Specs:

Next Step

Treatments:

Acceptable Any combination of the current overstory species.

Regen: **Other** 

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.

Site Condition:

Comment:

Compartment: 173

Year of Entry: 2027

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	12173017-OW		4123 - Red Oak	8	99	111-	Harvest	Clearcut	4310 - Pine,	Planting	No
						140			Oak Mix	Record	

Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting.

Specs:

S

Next Step **Treatments:** 

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

Regen:

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>Other</u>

Comment: source is available.

Site Condition:

Proposed Start Date: 10/01/2025

17 12173014-OW 4123 - Red Oak 99 111-Harvest Clearcut 4310 - Pine. **Planting** No 140 Oak Mix Record

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. Comment:

Site Condition:

Proposed Start Date: 10/01/2025

17 12173012-OW 4123 - Red Oak 4310 - Pine, **Planting** 99 111-Harvest Clearcut No 140 Oak Mix Record

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:

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

Comment: source is available.

Site Condition:

Proposed Start Date: 10/01/2025

17 12173005-OW 4123 - Red Oak 8 99 Clearcut 4310 - Pine, **Planting** 111-Harvest No Record Oak Mix

Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting.

Specs:

Next Step Treatments:

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

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

Comment: source is available.

Site Condition:

n d	Name	Acres	Stand CoverType	Density	Age	Range	Type	Method	Objective	Age Structure	Habitat Cut
17	12173049-OW		4123 - Red Oak	8	99	111- 140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No

Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting.

Specs:

Next Step **Treatments:** 

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

Regen:

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>Other</u>

Comment: source is available.

Site Condition:

Proposed Start Date: 10/01/2025

13 12173013-OW 4131 - Aspen, Oak 9 34 81-110 Harvest Clearcut 4211 - Planted **Planting** No Red Pine Record

Prescription Harvest all trees 2" DBH and larger to prep site for red pine planting.

Specs:

Next Step Treatments:

Acceptable Red pine

Regen:

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

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

17 12173059-OW 4123 - Red Oak 4310 - Pine, **Planting** 99 111-Harvest Clearcut No 140 Oak Mix Record

Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting.

Specs:

Next Step **Treatments:** 

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

Regen:

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

Comment: source is available.

Site Condition:

Proposed Start Date: 10/01/2025

12173010-CC 4130 - Aspen 6 **Planting** 48 111-Harvest Clearcut 413 - Aspen No Record

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. Specs:

Next Step Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Other Comment:

Site Condition:

Compartment: 173

Year of Entry: 2027

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
8	12173008-CC		4130 - Aspen	6	48	111- 140	Harvest	Clearcut	413 - Aspen	Planting	No
						140				Record	

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. Specs:

Next Step **Treatments:** 

Acceptable Any combination of the current overstory species.

Regen:

S

Slope / BMP exclusions are estimates based off of field observations. These areas could change if determined during timber sale prep. <u>Other</u>

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

Site Condition:

Proposed Start Date: 10/01/2031

12173007-CC 4130 - Aspen 111-Harvest Clearcut 413 - Aspen **Planting** No 140 Record

Prescription Harvest all merchantable trees except conifers and oak to promote aspen regeneration. Retention should include large diameter, forked Specs: 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

4211 - Planted 12173006-OW 4123 - Red Oak **Planting** 111-Harvest Clearcut No 99 Red Pine Record 140

Prescription Harvest all trees 2" DBH and larger to prep site for red pine planting.

Specs:

Next Step **Treatments:** 

Acceptable Red pine

Regen:

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

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

12173006-Cut 4123 - Red Oak 4121 - Oak, 9 99 Harvest Selection 111-Cutting No 140 Aspen Record

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 Specs: 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:

Compartment: 173

Year of Entry: 2027

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		4123 - Red Oak	9	99	171-	Harvest	Clearcut	4121 - Oak,	Cutting	No
						200			Acnon	Pocord	

Prescription Harvest all merchantable deciduous trees. Leave all conifers. Exclude patch along the south containing mature oak for long term retention. Specs:

Next Step **Treatments:** 

Acceptable Any combination of the current overstory species.

Regen:

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Include all applicable oak wilt specs for timber sale. <u>Other</u>

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

12173004-OW 4123 - Red Oak 99 111-Harvest Clearcut 4310 - Pine. **Planting** Nο 140 Oak Mix Record

Prescription Harvest all trees 2" DBH and larger to prep site for white pine planting.

Specs:

Next Step Treatments:

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

Regen:

**Other** Plant white pine. Plant white oak within, possibly in open patches, when funding and source is available.

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

12173045-CC 4130 - Aspen **Planting** 6 111-Harvest Clearcut 413 - Aspen No 48 140 Record

Prescription Harvest all merchantable trees except red pine, white pine and oak to promote aspen regeneration. Retention should include large diameter,

Specs:

forked crown aspen, and a diverse mix of species.

Next Step **Treatments:** 

Acceptable Any combination of the current overstory species.

Regen:

Recommend sale prep during leaf off. Include all applicable oak wilt specs for timber sale. Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

12173092-Cut 4125 - Black, N. Pin 99 Harvest 111-Shelterwood 4319 - Mixed Cutting No Oak 140 **Upland Forest** Record

Prescription Harvest all merchantable trees except pine species to promote oak and pine regeneration and release current desirable advanced

regeneration. Leave no interior oak or long term retention for regeneration and forest health concerns. Specs:

Next Step Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Other Use caution to not damage current saplings during timber sale operations. Include all applicable oak wilt specs for timber sale.

Comment:

Site Condition:

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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		4123 - Red Oak	9	99	141- 170	Harvest	Clearcut	4121 - Oak, Aspen	Planting Record	No

Prescription 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 hardwood are present to create a more diverse mixed stand. The north portion dominated by oak will be retained. Specs:

Next Step **Treatments:** 

Acceptable Any Combination of the current overstory species.

Regen:

Treatment layer is an estimate and may change. Include all applicable oak wilt specs for timber sale. <u>Other</u>

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

75 12173075-Cut 4123 - Red Oak 99 111-Harvest Seed Tree 4319 - Mixed Cutting No 140 **Upland Forest** Record

Prescription Harvest all merchantable trees except conifers. Do not leave any interior oak trees or retention.

Specs:

Next Step Treatments:

Acceptable Any combination of the current overstory species.

Regen:

**Other** No long-term retention due to interior and/or adjacent forest health concerns. Include all applicable oak wilt specs for timber sale.

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

72 12173072-CC 4130 - Aspen **Planting** 6 47 111-Harvest Clearcut 413 - Aspen No 140 Record

Prescription Harvest all merchantable trees except conifers and oak to promote aspen regeneration. Retention should include large diameter, forked Specs: crown aspen, and a diverse mix of species.

Next Step **Treatments:** 

Acceptable Any combination of the current overstory species.

Regen:

Include all applicable oak wilt specs for timber sale. Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

17 12173037-OW 4123 - Red Oak 8 99 4310 - Pine, **Planting** 111-Harvest Clearcut No Record Oak Mix

Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting.

Specs:

Next Step Treatments:

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

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

Comment: source is available.

Site Condition:

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n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
51	12173051-CC		4130 - Aspen	6	44	111- 140	Harvest	Clearcut	413 - Aspen	Planting Record	No

Specs:

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:

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 Other the 100' river buffer. Include all applicable oak wilt specs for timber sale. Comment:

Site Condition:

Proposed Start Date: 10/01/2026

12173097-CC 4130 - Aspen Harvest Planting 6 46 111-Clearcut Nο 413 - Aspen 140 Record

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

12173041-CC 4130 - Aspen 111-413 - Aspen **Planting** 48 Harvest Clearcut No 140 Record

<u>Prescription</u> 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

12173038-CC 4130 - Aspen 6 111-Harvest Clearcut 413 - Aspen **Planting** No 140 Record

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:

Compartment: 173

Year of Entry: 2027

а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n Method Name CoverType Density Age Range Type Objective Structure Cut d 32 12173032-CC 4130 - Aspen 111-Harvest Clearcut 413 - Aspen **Planting** Nο 140 Record

Prescription Harvest all merchantable trees except conifers and oak to promote aspen regeneration.

Specs:

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Next Step **Treatments:** 

Acceptable Any combination of the current overstory species.

Regen:

No retention due to small size. Include all applicable oak wilt specs for timber sale. <u>Other</u>

Comment:

Site Condition:

Proposed Start Date: 10/01/2026

Planting 25 12173025-42110 - Planted 6 62 141-Harvest **Thinning** 4211 - Planted No Selection Red Pine 170 Red Pine Record

Prescription Mark stand to average 120 BA. Focus on improving quality and removing suppressed trees. Exclude more open areas that contain dense

Specs: aspen saplings from past harvest. Leave all oak and white pine.

Next Step Treatments:

Acceptable Red pine

Regen:

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 **Other** Comment:

needed. Include all applicable oak wilt specs for timber sale.

Site Condition:

Proposed Start Date: 10/01/2026

17 12173078-OW 4123 - Red Oak 4310 - Pine, **Planting** 99 111-Harvest Clearcut No 140 Oak Mix Record

Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting.

Specs:

Next Step **Treatments:** 

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

Regen:

Other Plant white pine. Plant white oak within, possibly in open patches, when funding and source is available.

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

8 4310 - Pine, 4123 - Red Oak 99 **Planting** 12173075-OW 111-Harvest Clearcut No 140 Oak Mix Record

Prescription 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

diversity. Specs:

Next Step Treatments:

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

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

Comment: source is available.

Site Condition:

Crystal Falls Mgt. Unit

Report 3 -- Treatments

Compartment: 173	(ŝ
Year of Entry: 2027	DEPARTMEN

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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		42110 - Planted Red Pine	6	42	171- 200	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No

Prescription Mark red pine to harvest approximately 1/3 of the stand creating rows as needed for operability.

Specs:

S

Next Step Treatments:

Acceptable Red pine

Regen:

<u>Other</u> Rows may be narrow or non-existent. Mark rows for operability. Include all applicable oak wilt specs for timber sale.

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

Total Treatment 0 Acreage Proposed:

Crystal Falls Mgt. Unit

Compartment: 173 Year of Entry: 2027 Eric Brolin: Examiner



Availa	ability for	Managemer	nt							
Total	Acres	Acres Avail	Acres		Domina	nt Sit	e Con	dition	s	
Acres	Available	With Condition	Not Available		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						

<sup>\*</sup>Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
Unavailable	2F: Too steep	13	3J: Water quality/BMPs (stream, river, or lake)		Unspecified	Unspecified
Comments: Long steep inoperab	ole slopes and/or low, poorly d	Irained g	round at the bottom of the s	slopes.		
Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified		Unspecified	Unspecified
Comments: Allow younger age c	lass to grow larger.					
Unavailable	5E: Long-Term Retention	3	Unspecified		Unspecified	Unspecified
Comments: Long term retention	for Stand 15. Patches seem h	nealthy y	et except the far north bubb	ole which is riddled with de	ead oak.	
	Cond Availability Unavailable Comments: Long steep inoperate Available Comments: Allow younger age of Unavailable Comments:	Cond Availability Dominant Site Condition  Unavailable 2F: Too steep  Comments: Long steep inoperable slopes and/or low, poorly of age/size class diversity or exceptional site quality  Comments: Allow younger age class to grow larger.  Unavailable 5E: Long-Term Retention  Comments:	Comments:  Available  Available  Available  SC: Delay treatment for age/size class diversity or exceptional site quality  Comments:  Allow younger age class to grow larger.  Unavailable  5E: Long-Term Retention  3  Comments:	Cond Availability       Dominant Site Condition       Acres       Other Site Condition         Unavailable       2F: Too steep       13       3J: Water quality/BMPs (stream, river, or lake)         Comments:       Long steep inoperable slopes and/or low, poorly drained ground at the bottom of the stream age/size class diversity or exceptional site quality       17       Unspecified         Comments:       Allow younger age class to grow larger.         Unavailable       5E: Long-Term Retention       3       Unspecified         Comments:	Cond Availability       Dominant Site Condition       Acres       Other Site Condition       Other Site Condition         Unavailable       2F: Too steep       13       3J: Water quality/BMPs (stream, river, or lake)         Comments:       Long steep inoperable slopes and/or low, poorly drained ground at the bottom of the slopes.         Available       5C: Delay treatment for age/size class diversity or exceptional site quality       17       Unspecified         Comments:         Allow younger age class to grow larger.         Unavailable       5E: Long-Term Retention       3       Unspecified         Comments:	Cond Availability       Dominant Site Condition       Acres       Other Site Condition       Other Site Condition       Other Site Condition         Unavailable       2F: Too steep       13       3J: Water quality/BMPs (stream, river, or lake)       Unspecified         Comments:         Long steep inoperable slopes and/or low, poorly drained ground at the bottom of the slopes.         Available       5C: Delay treatment for age/size class diversity or exceptional site quality       17       Unspecified         Comments:       Allow younger age class to grow larger.       Unspecified       Unspecified         Unavailable       5E: Long-Term Retention       3       Unspecified

Crystal Falls Mgt. Unit

Compartment: 173
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6	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified
	Comments: Long term retention	for Stand 40. Pockets contain	patche	es of dead oak.		
7	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified
	Comments: Long term retention	n for Stand 23. Contains 3 matu	re 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
	Comments: Long term retention	n for Stand 4. Contains dense a	dvance	ed 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)	Unspecified	Unspecified
	Comments: 100' river buffer for	Brule River, poorly drained gro	und, aı	nd long term retention for stand 36.		
10	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	5	5E: Long-Term Retention	Unspecified	Unspecified
	Comments: 100' river buffer and	d long term retention for Stand 2	27.			
11	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	4	5E: Long-Term Retention	Unspecified	Unspecified
	Comments: Low drainage ravine	e with poorly drained ground. Lo	ong ter	m retention for Stand 9.		
12	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	12	2F: Too steep	Unspecified	Unspecified
	Comments: Steep slope in area	s along the Brule River and 100	)' river	buffer. Long term retention for Stand 51.		

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13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	Unspecified		Unspecified	Unspecified
	Comments: Stand was thinned	in 2020.					
14	Unavailable	2F: Too steep	24	3J: Water quality/BMPs (stream, river, or lake)		Unspecified	Unspecified
	Comments: Estimated exclusional 100' river buffer.	on for 100' river buffer and inope	rable sl	opes. Long term retention	for Stand 55. This may ch	ange during future managem	nent but will hold at least
15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	Unspecified		Unspecified	Unspecified
	Comments: Allow younger aspe	en age class to grow to a more r	nercha	ntable size.			
16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified		Unspecified	Unspecified
	Comments: Consider harvest n	next YOE. Aspen will be more m	erchant	table size.			
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified		Unspecified	Unspecified
	Comments: Areas that will be e	excluded from thinning this YOE.	Conta	ins sparser oak canopy wit	h better growing condition	s for advanced regeneration.	
22	Unavailable	5E: Long-Term Retention	1	Unspecified		Unspecified	Unspecified
	Comments: Hemlock slope left	as long term retention and hem	lock pr	otection for Stand 59.			

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26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	3L: Other wildlife concerns	Unspecified	Unspecified
	Comments: Flooded ground wit	h denser cedar across most are	as.			
27	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified
	Comments: Flat floodplain with	saturated ground and black ash	borde	ring the Brule River.		
28	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	34	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
	Comments: Mostly saturated flo	oodplain flats with black ash and	cedar	along the Brule River. Steep, long slope a	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
	Comments: Very saturated grou	und with cedar and sparse, decl	ining st	ocking of conifer and alder.		
30	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified
	Comments: After a 300' trout st	ream buffer, there is approxima	tely 1/2	acre in the center that can be managed.		
32	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified
	Comments: Long term retention	n for Stand 40. Pockets contain	patche	s of dead oak.		

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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	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
1	4130	- Aspen		Poletimb	er Well	14.4	25	1-50	N/A	1	Dense aspen stand transitioning to pole sized trees with some mature oak speckled within. More bigtooth in the south half and quaking in the
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	north half.
	Quaking Aspen	30	Pole	4	25	Whit	e Spruce	Low	Variable	Variable	
	Red Oak	5		13	99	Wh	ite Pine	Low	Variable	Variable	
	Paper Birch	1	Pole	3		Re	d Maple	High	Variable	Variable	
	Bigtooth Aspen	63	Sapling	5	25						
	White Pine	1		18							
2	4130	- Aspen		Poletimb	er Well	15.2	33 I	mmature	N/A	1	Dense aspen, small pole sized trees. Oak and a few mature pine are
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	scattered within.
	Quaking Aspen	15	Sapling	6	33		d Maple	Medium	Variable	Variable	
	Red Oak	5		13	99	Whit	e Spruce	Low	Variable	Variable	
	White Spruce	1	Seedling	8							-
	Red Maple	3	Sapling	5	33						
	Paper Birch	2	Sapling	6							
	Bigtooth Aspen	73	Sapling	7	33						
	White Pine	1		18							
3	4131 - <i>F</i>	4131 - Aspen, Oak Poletimber		er Well	22.4	46	111-140	N/A		Aspen pole stand. There is a fair amount of mature oak scattered	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	across the stand. Oak is scattered enough to not have continuous spread from oak wilt in most areas. There are a couple of spreading
	Quaking Aspen	30	Seedling	7	46	Re	d Maple	Low	Variable	Variable	dead oak patches in the SE corner and the NW corner. The SE patch
	Red Oak	25		14	99	Ва	sam Fir	Low	Variable	Variable	has oak density to continue spreading. The NW patch has less oak density and should slow/stop with more species diversity. A couple of
	White Pine	2		22		Wh	ite Pine	Low	Variable	Variable	drainage ravines run N/S across the stand and will probably need to
	Red Maple	3	Sapling	7	46						be excluded from future management.
	Paper Birch	2		8							
	Bigtooth Aspen	38	Seedling	8	46						
4	4123 -	Red Oak		Sawtimb	er Well	49.4	99	171-200	N/A	1	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
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	suppressed. A few small visible dead oak patches were investigated
	Red Oak	85		13	99	Wh	ite Pine	Low	Variable	Variable	in the field and appear to be natural mortality with no spread
	Red Maple	3	Seedling	8		Re	d Maple	Low	Variable	Variable	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
	Paper Birch	1	Seedling	8		Re	d Maple	Medium	Variable	Variable	SW corner and the far east edge that contain some young regen but
	Bigtooth Aspen	9		12	99						also denser oak canopies. Moderate rolling terrain in areas.
	White Pine	2		20							
5	4123 -	Red Oak	S	awtimber	Mediun	n 12.1	99	81-110	N/A	\	Dense oak patches with some small young aspen areas mixed in.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Numerous, aggressive spreading dead oak patches within stand.
	Red Oak	100		12	99	Quak	ing Aspen	High	Variable	Variable	
						Re	d Maple	Medium	Variable	Variable	
						Rigto	oth Aspen	Low	Variable	Variable	

Stand	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age B	BA Range	Managed Si	te	General Comments
6	4123 -	Red Oak		Sawtimbe	er Well	63.7	99	111-140	N/A		This is the healthiest oak stand in this Compartment. Stand has been
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	managed in the past with oak being thinned. Oak is healthier with more stout branches and larger diameter trees compared to other
	Bigtooth Aspen	1		15			ing Aspen	Low	Variable	Variable	unmanaged stands. Oak canopy is closed across a majority of the
	White Pine	3		20		Re	d Maple	High	Variable	Variable	stand averaging 110-120 BA+ across oak areas. Understory has
	Red Oak	94		13	99	Bigto	oth Aspen	Medium	Variable	Variable	maple and aspen saplings from last harvest. Aspen is doing well with smaller gaps across the stand but is barely holding on with the limited
	Hemlock	1		13			•		1		sunlight. No signs of dead oak except along the south edge.
	Red Pine	1		20							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.  OPIC - FMD: Shelterwood cut to 50' BA oak retention. Summer cut for scarification (after July 15). (2006) Shelterwood cut in 2010. Everything removed but oak and pine. (2010)
7		4130 - Aspen		Poletimber Wel		63.6 47		111-140	N/A		Good quality aspen pole stand. Mature scattered oak and pine mixed in, mainly in the NW half of the stand. More fir and hazel in the
	Canopy Species		Size Class	DBH			nopy Species		Avg. Height	Size	understory in the north half. Some open patches and edges show
	Quaking Aspen	70	Seedling	8	47		nite Pine	Low	Variable	Variable	good natural pine regeneration. Lower patch of ground in the NE may
	Red Maple	5	Sapling	7	47		lsam Fir	Low	Variable	Variable	have to be excluded from future management. Retain the W/NW half of the stand to create more aspen age class diversity in the area.
	Paper Birch	2	Sapling	7		Whi	te Spruce	Low	Variable	Variable	di the stand to disalle more appenings slace arrolotty in the area.
	Bigtooth Aspen	10	Seedling	9	47						
	Red Oak	7		13	99						
	White Pine	6		18							
8	4130	- Aspen		Poletimbe	er Well	50.9	48	111-140	N/A		Good quality mixed aspen poles. Scattered mature oak and pine
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	found across the stand. Fingers and areas along the north have steep slopes down to low ground flats. A fair amount may need to be
	White Pine	5		14		Re	d Maple	Low	Variable	Variable	excluded from future management for operations and BMP's. Some
	Red Pine	3		14		WI	nite Pine	Low	< 5 feet	< 5 feet	areas have beefy oak and pine seedlings present.
	Red Oak	5		14	99	R	ed Oak	Low	< 5 feet	< 5 feet	
	Red Maple	5	Sapling	7		Ва	lsam Fir	Low	Variable	Variable	
	Bigtooth Aspen	30	Seedling	8	48			1			<del>-</del>
	Quaking Aspen	52	Seedling	8	48						
9	4130	- Aspen		Poletimbe	er Well	30.5	25	1-50	N/A		Young mixed aspen stand transitioning to pole sized trees. Stand is
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	heavy to bigtooth with scattered oak and some pine mixed in. A lower ravine along the NW should be excluded from future management. A
	Quaking Aspen	8	Pole	4	25	Re	d Maple	Medium	Variable	Variable	large rock outcrop in the north was excluded during the last harvest
	Red Oak	8		13	99	R	ed Oak	Low	Variable	Variable	but some of this may be included in future management.
	Red Pine	2		15							_
	White Pine	5		15							
	Red Maple	2	Pole	3							

75

Sapling

5 25

Bigtooth Aspen



10	Level 4 Cove	Cover Type		Size Density						Stand Age B	A Range	Managed Sit	te	General Comments
	4130 - As	spen		Poletimb	er 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			
	•	Cover	Size Class		Age		nopy Species	Density	Avg. Height	Size	the west. Very few scattered conifer within.			
	ng Aspen	85	Seedling	8	48		ed Oak	Trace	Variable	Variable				
	th Aspen	7	Seedling	9	48		e Spruce	Trace	Variable	Variable				
	e Pine	1		15	99	Re	d Maple	Low	Variable	Variable				
	d Pine	1		18										
Red	d Oak	6		13	99									
11	4130 - As	spen		Poletimb	er Well	35.0	23 l	mmature	N/A		Dense aspen stand transitioning to pole sized trees. Scattered mature			
Canop	oy Species %	Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	oak and white pine within.			
White	e Pine	2		22		Re	d Maple	Medium	Variable	Variable				
Red	Maple	7	Pole	3		R	ed Oak	Trace	Variable	Variable				
Bigtoot	th Aspen	64	Sapling	5	23						-			
Quakin	ng Aspen	15	Sapling	5	23									
Red	d Oak	12		14	99									
12	4123 - Red	d Oak		Sawtimb	er Well	34.8	99	171-200	N/A		Good quality oak but extremely suppressed averaging smaller			
Canop	oy Species %	Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	diamaeter, larger pole to small sawlog range. Most areas are reaching up to 200BA for stocking. Some small clones of large, very mature			
Red	d Oak	80		10	99	Re	d Maple	Medium	Variable	Variable	aspen is mixed in as well as some red maple and birch poles.			
Red	Maple	3	Sapling	7		Pap	er Birch	Low	Variable	Variable	Significant amount of spreading dead oak patches along the SE edge			
Pape	er Birch	7	Seedling	8							from past adjacent timber sale. Area north of the road also has numerous spreading dead oak patches. Adjacent private landowner			
Bigtoot	th Aspen	5		12							along the south edge clearcut during peak oak wilt season up to the			
Red	d Pine	2		17							state land border. Significant new mortality and spread along the line			
Quaking	ng Aspen	3		11							is anticipated in the coming years. Oak stocking is dense enough for continuous spread across the entire stand.			
13	4131 - Aspe	en, Oak		Sawtimb	er Well	48.8	34	81-110	N/A		Areas dense to younger aspen poles, otherwise oak log canopy.			
Canop	oy Species %	Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Spreading dead oak along the south private line from adjacent past harvest. Adjacent private landowner along the south edge clearcut			
Quakin	ng Aspen	18	Sapling	6	34	Re	d Maple	High	Variable	Variable	during peak oak wilt season up to the state land border. Significant			
Red	d Pine	1		22		Bigto	oth Aspen	Low	Variable	Variable	new mortality and spread along the line is anticipated in the coming			
White	e Pine	1		22							<sup>1</sup> years. Oak stocking is dense enough for continuous spread across the entire stand.			
Red	Maple	3	Sapling	5							the orthogotalia.			
Pape	er Birch	2	Sapling	5										
Bigtoot	th Aspen	25	Seedling	6	34									
	d Oak	50		14	99									
Red							99	141-170	N/A					
14	4123 - Red	d Oak		Sawtimb	er Well	23.0	99	141-170	IN/A		Cut in 2021. Everything except oak was removed leaving a solid			
14			Size Class		er Well Age		nopy Species	Density	Avg. Height	Size	anopy of red oak which is still very dense. Aspen regen present in			
14 Canop						Sub-Ca				<b>Size</b> Variable	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			
14 Canop	oy Species %	Cover		DBH		Sub-Car Re	nopy Species	Density	Avg. Height		canopy of red oak which is still very dense. Aspen regen present in some of the understory will not succeed with current canopy			



Stand	Level 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		General Comments							
15	4130	- Aspen		Sapling	Well	58.4 5	Immature	N/A		Dense aspen saplings solid to bigtooth. Scattered mixed pine, mature oak found in the south 1/3, and scattered retention patches. Retention
	Canopy Species	% Cover	Size Class		Age	Sub-Canopy Species	Density	Avg. Height	Size	patches are all healthy except for the far NW one which has
	White Pine	3		8		Red Maple	Medium	Variable	Variable	numerous dead oak spreading.
	Red Oak	8		12		White Pine	Low	Variable	Variable	
	Red Pine	4		8		Red Oak	Medium	< 5 feet	< 5 feet	
	Red Maple	4	Log	1						
	Bigtooth Aspen	81	Log	1	5					
16	4130	- Aspen	F	Poletimb	er Well	21.4 36	51-80	N/A		Aspen and maple mix with scattered mature oak and pine within.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	Aspen is heavy to quaking with more of the bigtooth in the east half.  Mix of red maple is good quality, tall and straight but just under
	Quaking Aspen	45	Sapling	5	36	Red Maple	High	Variable	Variable	merchantable size yet.
	Red Oak	5		13	99	White Pine	Low	Variable	Variable	
	Northern Pin Oak	3		9		Red Oak	Low	Variable	Variable	
	Red Pine	2		10	99					_
	White Pine	3		10						
	Red Maple	10	Sapling	6						
	Paper Birch	2	Sapling	7						
	Bigtooth Aspen	30	Sapling	6	36					
17	4123 -	Red Oak	Sa	wtimber	Mediur	n 10.9 99	111-140	N/A		red oak logs, patches of alien pipes that succeeded with gaps, dead
							-			cale notabning acadings not your dance but bealthy and acattered
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size	oak patchpine seedlings not very dense but healthy and scattered across entire underskirt
	Canopy Species Red Pine	% Cover	Size Class	<b>DBH</b>	Age 99	Sub-Canopy Species Red Pine	<b>Density</b> Low	Avg. Height < 5 feet		
	.,		Size Class						Size	
	Red Pine	2	Size Class	16		Red Pine	Low	< 5 feet	Size < 5 feet	
	Red Pine White Pine	2	Size Class	16 20	99	Red Pine White Pine	Low	< 5 feet < 5 feet	Size < 5 feet < 5 feet	
18	Red Pine White Pine Red Oak Bigtooth Aspen	2 1 80		16 20 13	99 99 37	Red Pine White Pine Red Maple Bigtooth Aspen	Low Low High	< 5 feet < 5 feet Variable	Size < 5 feet < 5 feet Variable >20 feet	across entire underskirt  Cut in 2021. Dense aspen saplings with a couple of interior retention
18	Red Pine White Pine Red Oak Bigtooth Aspen	2 1 80 17 - Aspen		16 20 13 4 Sapling	99 99 37	Red Pine White Pine Red Maple Bigtooth Aspen	Low Low High Low	< 5 feet < 5 feet Variable >20 feet	Size < 5 feet < 5 feet Variable >20 feet	across entire underskirt
18	Red Pine White Pine Red Oak Bigtooth Aspen 4130	2 1 80 17 - Aspen	Pole	16 20 13 4 Sapling	99 99 37 Well	Red Pine White Pine Red Maple Bigtooth Aspen	Low Low High Low	< 5 feet < 5 feet Variable >20 feet	Size < 5 feet < 5 feet Variable >20 feet	across entire underskirt  Cut in 2021. Dense aspen saplings with a couple of interior retention
18	Red Pine White Pine Red Oak Bigtooth Aspen  4130  Canopy Species	2 1 80 17 - Aspen % Cover	Pole Size Class	16 20 13 4 Sapling	99 99 37 Well	Red Pine White Pine Red Maple Bigtooth Aspen	Low Low High Low	< 5 feet < 5 feet Variable >20 feet	Size < 5 feet < 5 feet Variable >20 feet	across entire underskirt  Cut in 2021. Dense aspen saplings with a couple of interior retention
18	Red Pine White Pine Red Oak Bigtooth Aspen  4130  Canopy Species Quaking Aspen	2 1 80 17 - Aspen % Cover 10	Pole Size Class Log	16 20 13 4 Sapling	99 99 37 Well	Red Pine White Pine Red Maple Bigtooth Aspen	Low Low High Low	< 5 feet < 5 feet Variable >20 feet	Size < 5 feet < 5 feet Variable >20 feet	across entire underskirt  Cut in 2021. Dense aspen saplings with a couple of interior retention
18	Red Pine White Pine Red Oak Bigtooth Aspen  4130  Canopy Species Quaking Aspen Red Oak	2 1 80 17 - Aspen **Cover 10 10	Pole Size Class Log Log	16 20 13 4 Sapling DBH	99 99 37 Well	Red Pine White Pine Red Maple Bigtooth Aspen	Low Low High Low	< 5 feet < 5 feet Variable >20 feet	Size < 5 feet < 5 feet Variable >20 feet	across entire underskirt  Cut in 2021. Dense aspen saplings with a couple of interior retention
18	Red Pine White Pine Red Oak Bigtooth Aspen  4130  Canopy Species Quaking Aspen Red Oak Red Maple Bigtooth Aspen	2 1 80 17 - Aspen 10 10 5	Pole  Size Class  Log  Log  Log  Log  Log	16 20 13 4 Sapling DBH 1 1	99 99 37 Well <b>Age</b> 4	Red Pine White Pine Red Maple Bigtooth Aspen	Low Low High Low	< 5 feet < 5 feet Variable >20 feet	Size < 5 feet < 5 feet Variable >20 feet	Cut in 2021. Dense aspen saplings with a couple of interior retention patches.  Red oak log canopy with patchy dense areas of aspen. Dense red
	Red Pine White Pine Red Oak Bigtooth Aspen  4130  Canopy Species Quaking Aspen Red Oak Red Maple Bigtooth Aspen	2 1 80 17 - Aspen % Cover 10 10 5 75	Pole  Size Class  Log  Log  Log  Log	16 20 13 4 Sapling  DBH 1 1 1 1 1 Sawtimb	99 99 37 Well <b>Age</b> 4	Red Pine White Pine Red Maple Bigtooth Aspen	Low Low High Low Immature	< 5 feet < 5 feet Variable >20 feet N/A	Size < 5 feet < 5 feet Variable >20 feet	across entire underskirt  Cut in 2021. Dense aspen saplings with a couple of interior retention patches.
	Red Pine White Pine Red Oak Bigtooth Aspen  4130 Canopy Species Quaking Aspen Red Oak Red Maple Bigtooth Aspen	2 1 80 17 - Aspen % Cover 10 10 5 75 Red Oak	Pole  Size Class  Log  Log  Log  Log	16 20 13 4 Sapling  DBH 1 1 1 1 1 Sawtimb	99 99 37 Well Age 4	Red Pine White Pine Red Maple Bigtooth Aspen  14.4 4	Low Low High Low Immature	< 5 feet < 5 feet Variable >20 feet  N/A	Size < 5 feet < 5 feet Variable >20 feet	Cut in 2021. Dense aspen saplings with a couple of interior retention patches.  Red oak log canopy with patchy dense areas of aspen. Dense red maple sapling understory across much of the stand. One dead oak patch found in the SW was inspected, it appears to have stopped spreading with a light enough oak canopy and more diverse mix of
	Red Pine White Pine Red Oak Bigtooth Aspen  4130 Canopy Species Quaking Aspen Red Oak Red Maple Bigtooth Aspen  4123 - Canopy Species	2 1 80 17 - Aspen % Cover 10 10 5 75 Red Oak	Pole  Size Class  Log  Log  Log  Log	16 20 13 4 Sapling  DBH 1 1 1 1 Sawtimb	99 99 37 Well Age 4 er Well	Red Pine White Pine Red Maple Bigtooth Aspen  14.4 4  19.0 99  Sub-Canopy Species	Low Low High Low Immature  111-140 Density	< 5 feet < 5 feet Variable >20 feet  N/A  N/A  Avg. Height	Size < 5 feet < 5 feet Variable >20 feet	Cut in 2021. Dense aspen saplings with a couple of interior retention patches.  Red oak log canopy with patchy dense areas of aspen. Dense red maple sapling understory across much of the stand. One dead oak patch found in the SW was inspected, it appears to have stopped
	Red Pine White Pine Red Oak Bigtooth Aspen  4130  Canopy Species Quaking Aspen Red Oak Red Maple Bigtooth Aspen  4123 - Canopy Species Red Pine	2 1 80 17 - Aspen % Cover 10 10 5 75 Red Oak % Cover 2	Pole  Size Class  Log  Log  Log  Log	16 20 13 4 Sapling  DBH 1 1 1 1 Sawtimb  DBH 16	99 99 37 Well Age 4 4 er Well Age 99	Red Pine White Pine Red Maple Bigtooth Aspen  14.4 4  19.0 99  Sub-Canopy Species Red Pine	Low Low High Low Immature  111-140 Density Low	< 5 feet < 5 feet Variable >20 feet  N/A  Avg. Height < 5 feet	Size < 5 feet < 5 feet Variable >20 feet	Cut in 2021. Dense aspen saplings with a couple of interior retention patches.  Red oak log canopy with patchy dense areas of aspen. Dense red maple sapling understory across much of the stand. One dead oak patch found in the SW was inspected, it appears to have stopped spreading with a light enough oak canopy and more diverse mix of



Stan	nd Level 4 Cover Type			Size Density			Stand Age E	A Range	Managed S	iite	General Comments
20	4130	- Aspen		Sapling	g Well	23.4	5	Immature	N/A	<b>\</b>	Dense aspen saplings. A few mature oak patches were left for retention. Patches of retention look to be healthy at this time.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	retention. I atches of retention look to be healthy at this time.
	Quaking Aspen	15	Log	1		R	ed Pine	Low	5 - 10 feet	5 - 10 feet	
	Red Maple	5	Log	1							
	Bigtooth Aspen	70	Log	1	5						
	Red Oak	10	Log	1							
21	4130	- Aspen	1	Poletimb	er Well	17.0	48	111-140	N/A	<b>\</b>	Quaking aspen pole stand with mix of mature red oak and pine. More
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	oak in the north half.
	Quaking Aspen	80	Seedling	8	48	Re	ed Maple	Low	Variable	Variable	
	Red Maple	3	Sapling	5		R	ed Pine	Low	Variable	Variable	
	Red Pine	5		13		Bla	ck Cherry	Low	Variable	Variable	
	Red Oak	12		12							
22	4311 - Pir	e, Aspen M	lix	Sawtimb	er Well	16.5	99	81-110	N/A	١	Good diverse mixed stand of hardwood, aspen, and pine. Understory
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	is flushed full of mixed regen of all species ranging from seedlings to well established saplings and poles. Leave another rotation to allow
	Red Oak	18		12	99	R	ed Pine	Low	Variable	Variable	saplings to become better established. Consider management next
	Quaking Aspen	7	Sapling	5		W	nite Pine	Low	< 5 feet	< 5 feet	YOE to release advanced regen and take some dominant canopy out.
	Red Pine	33		12	99	W	nite Pine	Low	Variable	Variable	
	White Pine	10		11	99	Re	ed Maple	Medium	< 5 feet	< 5 feet	
	Red Maple	2	Sapling	7		Re	ed Maple	High	Variable	Variable	
	Bigtooth Aspen	30	Sapling	5	32	R	ed Oak	Low	Variable	Variable	
						R	ed Oak	Medium	< 5 feet	< 5 feet	
23	4130	- Aspen		Sapling	g Well	16.4	5	Immature	N/A	١	Aspen sapling stand with mainly bigtooth. A few retention patches of
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	mature oak within.
	Quaking Aspen	15	Log	1	5	R	ed Pine	Low	Variable	Variable	
	Red Oak	5	Log	1		W	nite Pine	Low	Variable	Variable	
	Red Pine	2		10							-
	White Pine	3	Sapling	7							
	Red Maple	7	Log	1							
	Bigtooth Aspen	68	Log	1	5						
24	4123 -	Red Oak	,	Sawtimb	er Well	25.8	99	81-110	N/A	\	Scattered mature oak and pine mix with areas dense to aspen poles.
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Understory is abundant with healthy oak pine and hardwood ranging from seedlings to well established saplings. Very dense red pine
	Quaking Aspen	10	Sapling	5	32	R	ed Pine	Medium	Variable	Variable	saplings in the south half. Most mature pine is in the north half.
	Red Pine	7		12	99	Re	ed Maple	Medium	Variable	Variable	
	Red Oak	60		13	99	Bigto	oth Aspen	Low	Variable	Variable	
	White Pine	5		12	99	W	nite Pine	Trace	Variable	Variable	
	Red Maple	3		8		W	nite Pine	Medium	Variable	Variable	
	Bigtooth Aspen	15	Sapling	6	32	R	ed Oak	Low	Variable	Variable	
						Qual	king Aspen	Low	Variable	Variable	



Stand	Level 4 C	Level 4 Cover Type Size Density Acres Stand Age BA Range Managed Site		ite	General Comments						
25	42110 - Pla	nted Red P	ine I	Poletimbe	er Well	59.0	62	141-170	N/A		Thinned in 2020. Red pine, large pole to small sawlog sized stand.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cai	nopy Species	Density	Avg. Height	Size	Stocking ranges from very dense to lighter in areas across the stand.  Average of 150 BA across entire stand ranging from 80 BA to 200 BA.
	Red Oak	2		12		Quak	ing Aspen	Low	Variable	Variable	Oak and red maple saplings are dense in certain areas within the
	White Pine	3		12		Re	d Maple	Medium	Variable	Variable	stand. 160 150 200 190 80 120 150 150 160 Average 150 BA.
	Northern Pin Oak	1		10		Northe	ern Pin Oak	Low	Variable	Variable	
	Red Pine	94		9	62	Re	ed Oak	Medium	Variable	Variable	
						Whit	te Spruce	Low	Variable	Variable	
26	4130	- Aspen	1	Poletimbe	er Well	29.0	48	111-140	N/A		Nice stand of quaking aspen poles. Averages large pole to small
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cai	nopy Species	Density	Avg. Height	Size	sawlog sized trees although some areas average a slightly smaller diameter. Large pine mixed in patches and scattered across the area.
	Paper Birch	1	Seedling	7		Whit	te Spruce	Low	Variable	Variable	Dense hazel understory in areas.
	Quaking Aspen	88		9	48	Northe	ern Pin Oak	Low	Variable	Variable	
	Red Pine	4		14		Re	ed Pine	Low	Variable	Variable	
	White Spruce	1		11		Wh	nite Pine	Low	Variable	Variable	
	White Pine	5		15		Blac	k Cherry	Low	Variable	Variable	
	Black Cherry	1	Sapling	7				-	1	1	_
27	4136 - Aspen	, Mixed Co	nifer	Sapling	Well	23.7	24	1-50	N/A		Patches of declining fir with aspen and mixed hardwood saplings
	Canopy Species	% Cover	Size Class	DBH	Age						filling in. Any salvage of declining fir will damage better regen on site.  Unmanaged patch in the far NE corner should be included with future
	White Pine	5		10							management.
	Balsam Fir	15	Sapling	7	74						Aspen was cut out and other species retained before state acquired
	Quaking Aspen	60	Log	2	24						parcel.
	Red Maple	20		8	74						F-11-2-11
28	4130	- Aspen		Sapling	Well	15.6	6	1-50	N/A	1	Aspen sapling stand with large seed tree pine left. Some small
	Canopy Species	% Cover	Size Class	DBH	Age						patches are more sparse but overall fully stocked and should fill in with time.
	Red Maple	5	Log	1							Will till 5.
	White Pine	7		14	99						
	Quaking Aspen	85	Log	1	6						
	Red Pine	3		14	99						
29	4130	- Aspen		Sapling	Well	12.1	6	Immature	N/A		Dense aspen saplings with some scattered mature pine. Pine is
	Canopy Species	% Cover	Size Class	DBH	Age						mainly found in the north half.
	Quaking Aspen	87	Log	1	6						
	Red Maple	7	Log	1							
	Red Pine	1		20							



Stand	Level 4 Co	over Type		Size De	nsity	Acres	Stand Age E	BA Range	Managed S	ite	General Comments
30	42110 - Plar	nted Red P	ine	Sawtimb	er Well	38.1	61	81-110	N/A	<b>A</b>	Thinned in 2020. Red pine stand with small saw log to large pole
Ca	nopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	sized trees. Scattered patches have denser stocking but overall the crowns have room to grow across the stand yet.
F	Red Pine	99		12	61	Whi	te Spruce	Low	5 - 10 feet	5 - 10 feet	grow dollars found to grow dollars and stand you
V	Vhite Pine	1		25		Wh	nite Pine	Low	5 - 10 feet	5 - 10 feet	
						Blad	ck Cherry	Low	Variable	Variable	
31	4130	- Aspen		Sapling	Well	27.1	4	Immature	N/A	١	Cut in 2021. Dense aspen saplings, mainly quaking, transitioning to
Ca	nopy Species	% Cover	Size Class	DBH	Age						more bigtooth with higher elevation.
Qua	aking Aspen	50	Log	1	4						
ı	Red Pine	3		14							
-	Red Oak	5	Log	1							
V	Vhite Pine	2	Seedling	8							
R	Red Maple	5	Log	1							
Big	tooth Aspen	35	Log	1	4						
32	4130	- Aspen		Poletimb	er Well	6.9	48	111-140	N/A	١	Nice stand of quaking aspen poles. Averages large pole to small
Ca	nopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	sawlog sized trees although some areas average a slightly smaller diameter. Large pine mixed in patches and scattered across the area.
F	Red Pine	4		14		Wh	nite Pine	Low	Variable	Variable	Dense hazel understory in areas.
Qua	aking Aspen	68		9	48	Blac	ck Cherry	Low	Variable	Variable	,
P	aper Birch	1	Seedling	7		Northe	ern Pin Oak	Low	Variable	Variable	
Big	tooth Aspen	20	Seedling	8		Re	ed Pine	Low	Variable	Variable	
	Red Oak	2		13		Whi	te Spruce	Low	Variable	Variable	
WI	hite Spruce	1		11							-
V	Vhite Pine	5		15							
Bla	ack Cherry	1	Sapling	7							
<b>33</b> 6	118 - Lowland De	eciduous w	ith Cedar	Poletimb	er Well	5.1	99	81-110	N/A	١	INCLUDES OUTLET FROM DEADMANS LAKE. Also includes buffel
Ca	nopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	along Deadman's Lake, which is mostly upland.
Qua	aking Aspen	10		10		Blac	k Spruce	Low	Variable	Variable	
Е	Black Ash	35	Sapling	7	99	Bla	ack Ash	Medium	Variable	Variable	
Northe	rn White Cedar	20		9	99						_
R	Red Maple	25		10							
P	aper Birch	10		10	99						

Report 7 - Stands



Stand	Level 4 C	over Type		Size Density		Acres	Acres Stand Age Ba		Managed S	ite	General Comments
34	6117 - Lowland Cor	Deciduous iferous	, Mixed Sa	wtimbei	· 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
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	cedar and black ash. A small 3 acre patch in the north containing sugar maple and white pine may be manageable in the future.
	Quaking Aspen	25		14	100	Blac	ck Spruce	Low	Variable	Variable	- Sugar maple and write pine may be manageable in the ruture.
	Black Ash	22		7		Bla	ack Ash	Medium	Variable	Variable	
	Sugar Maple	5		9		Blac	ck Cherry	Medium	Variable	Variable	
	Red Maple	10	Sapling	7							-
	Paper Birch	5		10							
	White Pine	5		20	100						
	American Elm	5	Seedling	8							
	Balsam Fir	5	Sapling	7							
	White Spruce	3		10							
35	4130	- Aspen		Sapling	y Well	16.9	13	Immature	N/A		Cut in 2012 dense mix of brush and saplings
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	60	Log	1	13	Ва	lsam Fir	Medium	Variable	Variable	
	Red Pine	3		18		Wh	nite Pine	Low	Variable	Variable	
	Balsam Poplar	10	Log	2		Quak	king Aspen	Medium	Variable	Variable	
	White Pine	15		14		Re	ed Pine	Low	Variable	Variable	
	Black Cherry	12	Log	1							_
36	4130	- Aspen		Sapling	y Well	49.1	6	Immature	N/A		Aspen saplings with some hardwood mixed in and residual scattered
	Canopy Species	% Cover	Size Class	DBH	l Age						pine and oak.
	Quaking Aspen	70	Log	1	6						
	Red Maple	5	Log	1							
	Bigtooth Aspen	8	Log	1							
	Red Oak	1		14							
	White Spruce	2	Log	2							
	White Pine	3		14							
	Black Cherry	4	Pole	3							
	Northern Pin Oak	2		12							
	Red Pine	5		14							
37	4123 -	Red Oak	5	Sawtimb	er Well	28.9	99	111-140	N/A		Solid oak log stand. Large patch of spreading dead oak in the center
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	areas and some along the south edge. Section west of the powerline ROW also contains multiple spreading dead oak patches. Private
	Quaking Aspen	3	Seedling	7		Re	ed Maple	Medium	Variable	Variable	bordering the far west edge have new lines in for harvest and do have
	Red Oak	90		13	99			,	1		spreading dead oak patches within.
	Red Maple	2	Seedling	6	49						OPIC - FMD: ASPEN CUT OUT IN 1976 (1996)
	Paper Birch	2	Sapling	5							01 10 1 MB. 701 EN 001 001 HV 1070 (1000)
	Bigtooth Aspen	3	Seedling	8							

Report 7 - Stands



Stand	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Si	te	General Comments
38	4130	- Aspen		Poletimb		9.7	47	111-140	N/A		Good quality aspen stand. Some mature oak mixed in.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	opy Species	s Density	Avg. Height	Size	
	Quaking Aspen	71	Seedling	8	47		d Maple	Low	Variable	Variable	
	Balsam Fir	1	Sapling	7		White	e Spruce	Low	Variable	Variable	
	Red Oak	6		13		Bal	sam Fir	Low	Variable	Variable	
	White Spruce	1	Sapling	7			ite Pine	Trace	Variable	Variable	
	White Pine	2		14		Blac	k Cherry	Low	Variable	Variable	
	Black Cherry	2	Sapling	7							
	Sugar Maple	1	Seedling	8							
	Paper Birch	2	Sapling	7							
	Bigtooth Aspen	14	Seedling	9							
39	4130	- Aspen		Sapling	Well	11.3	5	Immature	N/A		Aspen saplings with residual oak.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	s Density	Avg. Height	Size	
	Red Oak	10	Log	1		Wito	ch Hazel	Medium	5 - 10 feet	5 - 10 feet	
	Red Maple	5	Log	1							-
	Bigtooth Aspen	85	Log	1	5						
40	4131 - A	spen, Oak		Sapling	Well	68.9	15	Immature	N/A		Cut in 2010. Stand ranges from dense aspen saplings to large areas
	Canopy Species	% Cover	Size Class	DBH	Age						with a more diverse mix. Areas with oak and hardwood saplings are growing excellent and competing with the young aspen. A fair amount
	Quaking Aspen	15	Log	2	15						of oak saplings are mixed in from both seed and stump sprouting.
	Balsam Poplar	2	Log	2							Long term retention patches left from the past harvest contain
	Red Oak	25	Log	2	15						spreading dead oak patches. Overall, this is a vigorous, diverse, young mixed stand.
	Red Maple	8	Log	2	15						young minor otens.
	Paper Birch	12	Log	2							
	Bigtooth Aspen	38	Log	3	15						
41	4130	- Aspen		Poletimb	er Well	3.9	48	111-140	N/A		Small elevation hump stand with excellent quality bigtooth aspen.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	s Density	Avg. Height	Size	
	Bigtooth Aspen	83	Sapling	6	48	Red	d Maple	Medium	Variable	Variable	
	Red Oak	4		13	99						
	Quaking Aspen	10	Sapling	6	48						
	White Pine	3		14	99						
42	500 -	- Water		Unspe	cifed	2.1	0		No		Brule River
43	4121 - C	Oak, Aspen		Sawtimb	er Well	58.6	99	111-140	N/A		Rolling terrain across stand. Ranges from denser oak log patches to
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	s Density	Avg. Height	Size	dense aspen pole areas. Aspen is heavy to bigtooth transitioning to quaking on the lower elevations. Aspen on higher elevations has
	Quaking Aspen	10	Sapling	6	36	Red	d Maple	Medium	Variable	Variable	larger diameter. Dead oak clumps scattered in the north and a larger
	Red Oak	60		13	99	Red	d Maple	Low	Variable	Variable	vein containing numerous pockets zigzags across the SW area.
	Red Maple	5	Seedling	7		Bigtod	oth Aspen	Low	Variable	Variable	
	Bigtooth Aspen	25	Sapling	7	36	Bigtoo	oth Aspen	Medium	Variable	Variable	

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Bigtooth Aspen



Compartment: 173

Year of Entry: 2027

Stand		over Type		Size De	ensity	Acres	Stand Age B	A Range	Managed S	ite	General Comments
44	6120 - Lo	wland Ceda	ar	Poletim	oer Well	16.6	99	141-170	N/A		Very dense cedar across a majority of the stand. Patch in the far east
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	has some more mixed conifer and aspen mixed in. Low, flooded ground.
	Quaking Aspen	4		10			ag Alder	Low	5 - 10 feet	5 - 10 feet	ground.
	White Pine	4		15		Ва	lsam Fir	Low	Variable	Variable	
	Black Spruce	5	Sapling	7							_
Nor	thern White Cedar	87		9	99						
45	4130	- Aspen		Poletim	oer Well	19.9	48	111-140	N/A		Nice stand of quaking aspen poles. Averages large pole to small
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	sawlog sized trees although some areas average a slightly smaller diameter. Large pine mixed in patches and scattered across the area
	Quaking Aspen	88		9	48	Whi	te Spruce	Low	Variable	Variable	Dense hazel understory in areas.
	Paper Birch	1	Seedling	7		North	ern Pin Oak	Low	Variable	Variable	,
	White Pine	5		15		R	ed Pine	Low	Variable	Variable	
	Black Cherry	1	Sapling	7		WI	nite Pine	Low	Variable	Variable	
	Red Pine	4		14		Bla	ck Cherry	Low	Variable	Variable	
	White Spruce	1		11				'			_
46	4130	- Aspen		Poletim	oer Well	25.5	47	111-140	N/A		Good quality aspen stand. Some mature oak mixed in. A low swale
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	runs along the east edge and may have to be excluded from future management.
	Balsam Fir	1	Sapling	7		WI	nite Pine	Trace	Variable	Variable	management.
	Quaking Aspen	74	Seedling	8	47	Bla	ck Cherry	Low	Variable	Variable	
	Paper Birch	2	Sapling	7		Re	ed Maple	Low	Variable	Variable	
	Bigtooth Aspen	10	Seedling	9		Whi	te Spruce	Low	Variable	Variable	
	Black Ash	2	Sapling	7		Ва	lsam Fir	Low	Variable	Variable	
	Black Cherry	3	Seedling	7							_
	Red Oak	7		13							
	White Spruce	1	Sapling	7							
47	4319 - Mixed	l Upland Fo	rest			0.6	100	111-140	N/A		
49	4123 -	Red Oak	S	Sawtimbe		m 7.9	99	81-110	N/A		Cut in 2009. Dense oak canopy with some open sapling sized patched of mixed aspen and maple. Numerous spreading dead oak patches
	Canopy Species	% Cover	Size Class		H Age		nopy Species	Density	Avg. Height	Size	across the stand south of Paint Pond Road, north of the road is
	Paper Birch	2	Sapling	6			king Aspen	Low	Variable	Variable	healthy yet and has some larger canopy gaps. Adjacent private
	Red Oak	96		13	99		ed Oak	Trace	Variable	Variable	landowner along the south edge clearcut during peak oak wilt seasor up to the state land border. Significant new mortality and spread alor
	Red Pine	1		16		Re	ed Maple	High	Variable	Variable	the line is anticipated in the coming years. Oak stocking is dense
	White Pine	1		16		Biato	oth Aspen	Medium	Variable	Variable	onough for continuous aproad across the entire stand

Medium

Variable

Variable

White Pine

1

enough for continuous spread across the entire stand.

Stand	Level 4 Cover Type		;	Size Density		Acres		BA Range			General Comments	
51	4130	- Aspen	Р	oletimb	er Well	125.6	44	111-140	N/A	<u>.</u>	Nice aspen poles with good diameter. Stand is heavy to quaking	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	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	
	Quaking Aspen	65	Seedling	8	44	Re	d Maple	Medium	Variable	Variable	mixed in. Unmanaged areas along the south due to slope and BMP's.	
	Red Oak	7		15		Re	d Maple	Low	Variable	Variable	Half of this stand will be held until next YOE to create aspen age class	
	Red Pine	3		14		Pa	per Birch	Trace	Variable	Variable	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	
	Sugar Maple	1		9		Whi	te Spruce	Trace	Variable	Variable	due to dense saplings along edges from 2021 harvest to allow the	
	Red Maple	10		9							edge to become more established.	
	Paper Birch	1	Seedling	6								
	Bigtooth Aspen	12	Seedling	9								
	White Pine	1		14								
52	42110 - Pla	nted Red P	ine P	oletimb	er Well	51.4	62	81-110	N/A		Cut in 2021. Large pole to small sawlog sized red pine stand. A lot of a reas have a very light canopy of red pine and dense aspen sapling	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	regeneration from past harvest. A lot of aspen saplings will have	
	White Pine	1		12		Whi	te Spruce	Low	Variable	Variable	enough light to succeed into the future.	
	Red Pine	99		8	62	Re	d Maple	Low	Variable	Variable		
				'		Quak	ring Aspen	Full	10 - 20 feet	10 - 20 feet		
						σ, α, α,	ang 7 topon	i dii	10 201000	10 - 20 1661	$oldsymbol{\perp}$	
53	6128 - Lowland Dec	Coniferous,	Mixed P	oletimb	er Well	9.8	99	51-80	N/A		Spruce/fir is dead and/or declining. Wet flooded ground except a small patch along the W/NW.	
53		iduous	Mixed P		er Well	9.8		51-80				
	Dec	iduous				9.8 Sub-Ca	99	51-80	N/A			
	Dec Canopy Species	iduous % Cover		DBH		9.8 <b>Sub-Ca</b>	99 nopy Species	51-80  Density	N/A Avg. Height	Size		
	Dec Canopy Species Quaking Aspen	% Cover		<b>DB</b> I 12	I Age	9.8 <b>Sub-Ca</b>	99 nopy Species	51-80  Density  Medium	N/A  Avg. Height 5 - 10 feet	<b>Size</b> 5 - 10 feet		
	Canopy Species Quaking Aspen Black Spruce	% Cover 20 35		<b>DBI</b> 12 8	I Age	9.8 <b>Sub-Ca</b>	99 nopy Species	51-80  Density  Medium	N/A  Avg. Height 5 - 10 feet	<b>Size</b> 5 - 10 feet		
	Canopy Species Quaking Aspen Black Spruce thern White Cedar White Pine 6117 - Lowland	Cover   20   35   35   10	Size Class	DBH 12 8 9 14	I Age	9.8 <b>Sub-Ca</b>	99 nopy Species	51-80  Density  Medium	N/A  Avg. Height 5 - 10 feet	Size 5 - 10 feet Variable		
Noi	Canopy Species Quaking Aspen Black Spruce thern White Cedar White Pine 6117 - Lowland	% Cover 20 35 35 10  Deciduous, iferous	Size Class	DBH	99	9.8  Sub-Ca  Ta  Ba  8.7	99  nopy Species ag Alder Isam Fir	51-80  Density  Medium  Medium  81-110	N/A  Avg. Height 5 - 10 feet  Variable	Size 5 - 10 feet Variable	patch along the W/NW.  Floodplain along the Brule River with saturated soil. Dead and dying	
Noi	Canopy Species Quaking Aspen Black Spruce thern White Cedar White Pine 6117 - Lowland Con	% Cover 20 35 35 10  Deciduous, iferous	Size Class  Mixed P	DBH	99 eer Well	9.8  Sub-Ca  Ta  Ba  8.7  Sub-Ca	99 nopy Species ag Alder Isam Fir	51-80  Density  Medium  Medium  81-110	N/A  Avg. Height 5 - 10 feet  Variable	Size 5 - 10 feet Variable	patch along the W/NW.  Floodplain along the Brule River with saturated soil. Dead and dying	
No.	Canopy Species Quaking Aspen Black Spruce thern White Cedar White Pine 6117 - Lowland Con Canopy Species	% Cover 20 35 35 10  Deciduous, iferous % Cover	Size Class  Mixed P	DBH 12 8 9 14 Poletimb	99 eer Well	9.8  Sub-Ca  Ba  8.7  Sub-Ca	99 nopy Species ag Alder Isam Fir  99	51-80  Density  Medium  Medium  81-110  Density	N/A  Avg. Height 5 - 10 feet  Variable  N/A  Avg. Height	Size 5 - 10 feet Variable Size	patch along the W/NW.  Floodplain along the Brule River with saturated soil. Dead and dying	
No.	Canopy Species Quaking Aspen Black Spruce thern White Cedar White Pine 6117 - Lowland Con Canopy Species Red Maple	Cover   20   35   35   10	Size Class  Mixed P	DBH 12 8 9 14 Poletimb	99 per Well	9.8  Sub-Ca  Ba  8.7  Sub-Ca	99 nopy Species ag Alder Isam Fir  99 nopy Species ag Alder	51-80  Density  Medium  Medium  81-110  Density  Medium	N/A  Avg. Height 5 - 10 feet  Variable  N/A  Avg. Height 5 - 10 feet	Size 5 - 10 feet Variable  Size 5 - 10 feet	patch along the W/NW.  Floodplain along the Brule River with saturated soil. Dead and dying	
No.	Canopy Species Quaking Aspen Black Spruce thern White Cedar White Pine 6117 - Lowland Con Canopy Species Red Maple Quaking Aspen	Cover   20   35   35   10	Size Class  Mixed P	DBH 12 8 9 14 Poletimb 10 12	99 per Well	9.8  Sub-Ca  Ba  8.7  Sub-Ca	99 nopy Species ag Alder Isam Fir  99 nopy Species ag Alder	51-80  Density  Medium  Medium  81-110  Density  Medium	N/A  Avg. Height 5 - 10 feet  Variable  N/A  Avg. Height 5 - 10 feet	Size 5 - 10 feet Variable  Size 5 - 10 feet	patch along the W/NW.  Floodplain along the Brule River with saturated soil. Dead and dying	
No.	Canopy Species Quaking Aspen Black Spruce thern White Cedar White Pine 6117 - Lowland Con Canopy Species Red Maple Quaking Aspen Balsam Fir	Cover   20   35   35   10	Size Class  Mixed P	DBH 12 8 9 14 Poletimb 10 12 8	99 99 Per Well	9.8  Sub-Ca  Ba  8.7  Sub-Ca	99 nopy Species ag Alder Isam Fir  99 nopy Species ag Alder	51-80  Density  Medium  Medium  81-110  Density  Medium	N/A  Avg. Height 5 - 10 feet  Variable  N/A  Avg. Height 5 - 10 feet	Size 5 - 10 feet Variable  Size 5 - 10 feet	patch along the W/NW.  Floodplain along the Brule River with saturated soil. Dead and dying	
No.	Canopy Species Quaking Aspen Black Spruce thern White Cedar White Pine 6117 - Lowland Con Canopy Species Red Maple Quaking Aspen Balsam Fir Black Ash	Cover   20   35   35   10	Size Class  Mixed P	DBH 12 8 9 14 Poletimb 10 12 8 7	99 Ser Well 99 99	9.8  Sub-Ca  Ba  8.7  Sub-Ca	99 nopy Species ag Alder Isam Fir  99 nopy Species ag Alder	51-80  Density  Medium  Medium  81-110  Density  Medium	N/A  Avg. Height 5 - 10 feet  Variable  N/A  Avg. Height 5 - 10 feet	Size 5 - 10 feet Variable  Size 5 - 10 feet	patch along the W/NW.  Floodplain along the Brule River with saturated soil. Dead and dying	



Stand		over Type		Size De	ensity	Acres	Stand Age B	BA Range	Managed Sit	е	General Comments
55	4130	- Aspen		Poletimb	oer Well	81.3	36	81-110	N/A		Mixed aspen poles with some oak and pine mixed in. Exceptional diameter on the bigtooth in the west half of the stand for its age.
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Diameter in the E/SE reflects more of what the age is. Unmanaged
	Quaking Aspen	46	Seedling	8	36	Blac	ck Cherry	Low	Variable	Variable	areas along the south due to slope and BMP's. Open area in SW
	Red Oak	7		16		Re	d Maple	Medium	Variable	Variable	corner that is growing in with mixed hardwood, conifer, and oak
	White Pine	2		18		R	ed Oak	Trace	Variable	Variable	saplings/poles.
	Black Cherry	1	Sapling	7		Whi	te Spruce	Low	Variable	Variable	
	Red Maple	3	Sapling	6							
	Paper Birch	1	Seedling	8							
	Bigtooth Aspen	40	Seedling	9							
56	613 - Lowlan	d Mixed Fo	rest	Poletimb	oer Well	10.2	80	51-80	N/A		Black ash/conifer floodplain flat along river. No access due to private property.
57	4123 -	Red Oak		Sawtimb	er Well	15.2	99	141-170	N/A		Cut in 2020. Cut all except oak and pine. Canopy is still very dense
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	with oak logs. Any aspen saplings will not succeed with current canopy conditions in most areas. Some sparser canopies but overall
	Red Oak	98		12	99	Yell	ow Birch	Trace	Variable	Variable	closed mature oak canopy. 180 140 140 180 Average of 160 BA in
	Hemlock	1		12		Re	d Maple	Medium	Variable	Variable	oak areas.
	White Pine	1		22		Bigto	oth Aspen	Low	Variable	Variable	
						Wh	nite Pine	Low	Variable	Variable	
59	4123 -	Red Oak		Sawtimb	er Well	18.5	99	111-140	N/A		Oak log stand with a few very small veins of aspen from past harvest.
	Canopy Species	% Cover	Size Class	DBI	H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Some spreading dead oak along the road running E/W in the north half and a large patches spreading in the far SE corner. Small hillside
	Quaking Aspen	3	Seedling	7		Re	d Maple	High	Variable	Variable	hemlock patch in the SW center area.
	Red Oak	89		13	99	Ва	lsam Fir	Low	Variable	Variable	1
	Hemlock	2		14					<u> </u>		☐ OPIC - FMD: ASPEN HARVESTED(1992)
	Paper Birch	1	Sapling	7							
	Bigtooth Aspen	5	Seedling	8	33						
61	122 - Road	d/Parking L	ot	Unspe	ecifed	1.9	0		No		Stager Lake Road
62	4131 - A	spen, Oak		Poletimb		9.9	16	1-50	N/A		Cut in 2009. Dense mixed aspen saplings. Scattered mature oak across stand. Some dead oak along edges should stop/slow spread
	Canopy Species	% Cover	Size Class		H Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	with more diverse mix across this stand.
	White Pine	1		17		Re	d Maple	Medium	Variable	Variable	
	Red Pine	1		15		Bigto	oth Aspen	Medium	Variable	Variable	
	Bigtooth Aspen	33	Log	2	16	Quak	ing Aspen	Medium	Variable	Variable	
	Quaking Aspen	30	Log	2	16						
	Red Oak	35		12	99						



Stand	d Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Sit	е	General Comments
63	4199 - Other Mixe	d Upland D	eciduous	Sapling	Well	9.2	12	Immature	N/A		Harvested 2013 due to Oak wilt. Mixed aspen and hardwood
	Canopy Species	% Cover	Size Class	DBH	Age						regeneration. There is a good component of healthy oak sapling scattered in areas.
	Quaking Aspen	5	Log	2	12						Scattered in areas.
	Red Oak	35	Log	2	12						
	Red Maple	25	Log	1	12						
	Paper Birch	5	Log	2							
	Bigtooth Aspen	30	Log	2	12						
65	4139 - Aspen,	Mixed Decid	duous	Sapling N	/ledium	17.8	5	1-50	N/A		Aspen saplings with mature oak and pine scattered across the stand.
	Canopy Species	% Cover	Size Class	DBH	Age						Saplings range from fully stocked to areas with more open patches.  Any open patches should fill in more with time.
	Quaking Aspen	10	Log	1							7 my opon paterios chodia im in more man ame.
	White Pine	10		9							
1	Northern Pin Oak	5	Log	1							
1	Northern Pin Oak	3		11							
	Red Pine	4		14							
	Red Oak	13		12	99						
	Red Maple	15	Log	1							
	Bigtooth Aspen	40	Log	1	5						
67	6129 - Mixed Conife			Sawtimb		6.4	99	51-80	N/A		Low flooded mix of dead and/or declining trees. Large healthy pine scattered within.
	Canopy Species		Size Class		Age		nopy Species		Avg. Height	Size	004.0100
	Red Maple	5		8		Ta	ng Alder	Medium	5 - 10 feet	5 - 10 feet	
	Balsam Fir	5	Sapling	6							
	Black Spruce	10	Sapling	7	99						
No	orthern White Cedar	30		12	99						
	Balsam Poplar	5		10							
	White Pine	45		16	99						
68	413 -	Aspen		Poletimb	er Well	14.6	69	81-110	N/A		Aspen with some conifer mixed in. No access due to private.
69	42110 - Plai	nted Red Pi	ine	Poletimb	er Well	2.0	42	171-200	N/A		Dense red pine poles.
	Canopy Species Red Pine	<b>% Cover</b> 100	Size Class Seedling		<b>Age</b> 42						OPIC - FMD: Red pine plantation, part of old ELF study area. (2006)
70	6120 - Lov	wland Ceda	ır	Poletimb	er Well	4.3	89	111-140	N/A		Dense cedar patch. No access due to private.



	d Level 4 Co	over Type		Size De	nsity	Acres Stand Age	BA Range	Managed Si	te	General Comments
71	42210 - Nat	ural Red P	ine S	awtimb	er Well	25.0 99	81-110	N/A		Thinned in 2020. Most merchantable species were removed.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Speci	es Density	Avg. Height	Size	Scattered mature oak across the stand. Some mixed understory saplings and areas with good oak seedlings.
	White Pine	10		12		Red Pine	Low	Variable	Variable	ger and an area and ger a can account ger
	Red Pine	78		12	99	White Pine	Low	Variable	Variable	
	Red Oak	7		12		Red Oak	Medium	< 5 feet	< 5 feet	
	Red Maple	5	Sapling	6		Red Oak	Medium	Variable	Variable	
						Red Maple	Medium	Variable	Variable	
						Bigtooth Aspen	Low	Variable	Variable	
72	4130	- Aspen	Р	oletimb	er Well	15.4 47	111-140	N/A		Nice aspen pole stand with pure quaking aspen. Some pine and oak
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Speci	es Density	Avg. Height	Size	scattered within. Understory is fairly open.
	Quaking Aspen	90	Seedling	8	47	Balsam Fir	Low	Variable	Variable	
	Red Maple	1	Sapling	6	47	White Spruce	Low	Variable	Variable	
	Red Pine	2		11		White Pine	Low	Variable	Variable	
	Red Oak	2		11	99	Black Cherry	Low	Variable	Variable	
	White Pine	5		14			1			_
73	4123 -	Red Oak	Sav	wtimber	Mediun	n 7.1 99	81-110	N/A		Cut in 2009. Dense oak canopy with some open sapling sized patches
	Canopy Species	0/ Carrar	0: 0!				aa Danaitu		0'	¬ of mixed aspen and maple. Numerous spreading dead oak patches
		% Cover	Size Class	DRH	Age	Sub-Canopy Speci	es Density	Avg. Height	Size	across the stand south of Paint Pond Road, north of the road is
	Paper Birch	2	Size Class Sapling	6 0BH	Age	Sub-Canopy Speci Quaking Aspen	Low	Avg. Height  Variable	Variable	across the stand south of Paint Pond Road, north of the road is healthy yet and has some larger canopy gaps. Adjacent private
					Age					healthy yet and has some larger canopy gaps. Adjacent private landowner along the south edge clearcut during peak oak wilt season
	Paper Birch	2		6	<b>Age</b> 99	Quaking Aspen	Low	Variable	Variable	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
	Paper Birch White Pine	2		6 16		Quaking Aspen Red Oak	Low Trace	Variable Variable	Variable Variable	healthy yet and has some larger canopy gaps. Adjacent private landowner along the south edge clearcut during peak oak wilt season
75	Paper Birch White Pine Red Oak Red Pine	2 1 96	Sapling	6 16 13 16		Quaking Aspen Red Oak Red Maple	Low Trace High	Variable Variable Variable	Variable Variable Variable	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.  Cut in 2009. This stand was delineated out from the adjacent stand
75	Paper Birch White Pine Red Oak Red Pine	2 1 96 1 Red Oak	Sapling	6 16 13 16 awtimb	99	Quaking Aspen Red Oak Red Maple Bigtooth Aspen	Low Trace High Medium	Variable Variable Variable Variable	Variable Variable Variable	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.  Cut in 2009. This stand was delineated out from the adjacent stand due to the closed, dense oak canopy. Spreading dead oak patches
75	Paper Birch White Pine Red Oak Red Pine 4123 -	2 1 96 1 Red Oak	Sapling	6 16 13 16 awtimb	99 er Well	Quaking Aspen Red Oak Red Maple Bigtooth Aspen 32.9 99	Low Trace High Medium	Variable Variable Variable Variable Variable N/A	Variable Variable Variable Variable	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.  Cut in 2009. This stand was delineated out from the adjacent stand
75	Paper Birch White Pine Red Oak Red Pine  4123 -  Canopy Species	2 1 96 1 Red Oak	Sapling	6 16 13 16 awtimb	99 er Well	Quaking Aspen Red Oak Red Maple Bigtooth Aspen  32.9 99  Sub-Canopy Species	Low Trace High Medium  111-140 es Density	Variable Variable Variable Variable Variable N/A Avg. Height	Variable Variable Variable Variable	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.  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
75	Paper Birch White Pine Red Oak Red Pine  4123 -  Canopy Species White Pine	2 1 96 1 Red Oak	Sapling	6 16 13 16 awtimb DBH	99 er Well	Quaking Aspen Red Oak Red Maple Bigtooth Aspen  32.9 99  Sub-Canopy Speci	Low Trace High Medium  111-140 es Density Low	Variable Variable Variable Variable Variable  N/A  Avg. Height Variable	Variable Variable Variable Variable Variable	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.  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
75	Paper Birch White Pine Red Oak Red Pine  4123 -  Canopy Species White Pine Red Pine Red Pine Red Oak	2 1 96 1 Red Oak ** Cover 2 2	Sapling  Size Class	6 16 13 16 awtimb DBH 17 15 12	99 er Well	Quaking Aspen Red Oak Red Maple Bigtooth Aspen  32.9 99  Sub-Canopy Speci Quaking Aspen Red Maple	Low Trace High Medium  111-140  es Density Low Medium	Variable Variable Variable Variable Variable  N/A  Avg. Height Variable  Variable	Variable Variable Variable Variable Variable Variable Variable	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.  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.  Dense oak log stand. Majority of understory is very dense to red
	Paper Birch White Pine Red Oak Red Pine  4123 -  Canopy Species White Pine Red Pine Red Pine Red Oak	2 1 96 1 Red Oak ** Cover 2 2 96	Sapling  Size Class	6	99 er Well Age	Quaking Aspen Red Oak Red Maple Bigtooth Aspen  32.9 99  Sub-Canopy Speci Quaking Aspen Red Maple Bigtooth Aspen	Low Trace High Medium  111-140 es Density Low Medium Medium  141-170	Variable Variable Variable Variable Variable  N/A  Avg. Height Variable Variable Variable Variable	Variable Variable Variable Variable Variable Variable Variable	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.  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.  Dense oak log stand. Majority of understory is very dense to red maple saplings. Dead oak patches in the center and north half
	Paper Birch White Pine Red Oak Red Pine  4123 -  Canopy Species White Pine Red Pine Red Oak  4123 -	2 1 96 1 Red Oak ** Cover 2 2 96	Sapling  Size Class	6	99 er Well  Age  99  er Well	Quaking Aspen Red Oak Red Maple Bigtooth Aspen  32.9 99  Sub-Canopy Speci Quaking Aspen Red Maple Bigtooth Aspen  13.2 99	Low Trace High Medium  111-140 es Density Low Medium Medium  141-170	Variable Variable Variable Variable  N/A  Avg. Height Variable  Variable  Variable  Variable  N/A	Variable Variable Variable Variable Variable Variable Variable Variable Variable	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.  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.  Dense oak log stand. Majority of understory is very dense to red
	Paper Birch White Pine Red Oak Red Pine  4123 -  Canopy Species White Pine Red Pine Red Oak  4123 -  Canopy Species	2 1 96 1 Red Oak ** Cover 2 2 96 Red Oak	Sapling  Size Class	6	99 er Well  Age  99  er Well	Quaking Aspen Red Oak Red Maple Bigtooth Aspen  32.9 99  Sub-Canopy Speci Quaking Aspen Red Maple Bigtooth Aspen  13.2 99  Sub-Canopy Speci	Low Trace High Medium  111-140 es Density Low Medium Medium  141-170 es Density	Variable Variable Variable Variable Variable  N/A  Avg. Height Variable Variable Variable Variable Variable	Variable Variable Variable Variable Variable Variable Variable Variable Variable	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.  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.  Dense oak log stand. Majority of understory is very dense to red maple saplings. Dead oak patches in the center and north half



Stand	Level 4 C	over Type		Size De	nsity	Acres S	tand Age E	A Range	Managed Si	te	General Comments
80	6120 - Lo	wland Ceda	ar	Poletimb	er Well	27.8	100	141-170	N/A		Dense cedar stand with some lowland species mixed in. Flooded
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano	py Species	Density	Avg. Height	Size	ground with multiple trout stream segments interior.
	Black Spruce	8	Seedling	8		Balsa	m Fir	Medium	Variable	Variable	
No	rthern White Cedar	75		9	100	Alc	der	Medium	5 - 10 feet	5 - 10 feet	
	Balsam Poplar	7		8							_
	Balsam Fir	5	Sapling	7							
	Tamarack	5		10							
81	4123 -	Red Oak		Sapling	Well	4.6	16	Immature	N/A		Dense stocking of red maple and red oak saplings, mainly stump
	Canopy Species	% Cover	Size Class	DBH	Age						sprouts.
	Red Maple	40	Log	2	16						
	Red Oak	60	Log	2	16						
82	122 - Road	d/Parking L	ot	Unspe	cifed	28.2	0		No		US 2 and cleared ROW.
83	6115 - Lo	owland Ash		Sawtimb	er Well	8.8	99	111-140	N/A		Lowland black ash flat along river transitioning up to aspen edge.
	Canopy Species	% Cover	Size Class	DBH	Age						
	Red Maple	5		10							
	White Pine	5		16							
	Black Ash	65	Sapling	7	99						
	Balsam Fir	4		8							
	Black Spruce	3	Seedling	8							
	Quaking Aspen	18		12	99						
85	4130	- Aspen		Poletimb	er Well	10.2	51	111-140	N/A		Aspen pole stand. A low swale and trout stream cuts across the west
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cano	py Species	Density	Avg. Height	Size	edge. The trout stream loops around the E/S/W perimeter of the stan
	Quaking Aspen	80	Seedling	8	51	Balsa	m Fir	Low	Variable	Variable	
	Red Oak	2		12					<u> </u>		_
	White Spruce	2	Seedling	7							
	Red Maple	3	Sapling	6							
	Paper Birch	2	Seedling	8							
	Black Ash	5	Sapling	7							
	Balsam Fir	2	Sapling	7							
	White Pine	2		9							
	Black Cherry	2	Sapling	6							
86	110 - Low Ir	ntensity Urb	pan	Unspe	cifed	1.9			No		STAGER LAKE ROAD



Stand	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age E	BA Range	Managed Si	ite	General Comments
88	4130	- Aspen		Sapling	g Well	10.9	10	Immature	N/A		Aspen sapling stand.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	70	Log	2	10	Ва	ılsam Fir	Medium	Variable	Variable	
	Balsam Poplar	20	Log	2	10						
	White Pine	5		14							
	Balsam Fir	5	Pole	2							
89	4123 -	Red Oak	;	Sawtimb	er Well	20.6	99	141-170	N/A		Dense canopy heavy to oak. Similar to adjacent oak stands but
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	contains a heavier component of large mature aspen, mainly in the south half. Dead oak patches scattered across entire stand are
	Red Oak	72		13	99	Re	ed Maple	Low	Variable	Variable	showing signs of aggressive, continued spread.
	Red Maple	3		8		Re	ed Maple	Low	Variable	Variable	
	Bigtooth Aspen	25		11	99			,			-
92	4125 - Blad	ck, N. Pin C	Dak I	Poletimb	er Well	7.7	99	111-140	N/A		Mixed oak stand that is heavy to northern pin oak. Red oak and pine
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	are healthy but norhtern pin oak is older and showing some decline. A fair amount of oak seedlings/saplings are found in the understory.
	Red Oak	15		12	99	W	hite Pine	Medium	< 5 feet	< 5 feet	Tall amount of oak securings/saprings are found in the understory.
	White Pine	7		10	99	R	ed Oak	Low	< 5 feet	< 5 feet	
	Northern Pin Oak	75		9	99	Re	ed Maple	High	Variable	Variable	
	Red Pine	3		12		Re	ed Maple	Medium	Variable	Variable	
93	6139 - Mixed	Lowland F	orest S	Sapling l	Medium	3.7	4	Immature	N/A		Cut in 2021. Patchy aspen and mixed hardwood regeneration present.
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	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
	Black Cherry	10	Log	1	4	Ta	ag Alder	Medium	5 - 10 feet	5 - 10 feet	should allow conifers to become established.
	Black Spruce	50	Log	1	4	Bla	ck Spruce	Medium	< 5 feet	< 5 feet	
	Quaking Aspen	40	Log	1	4			,			-
94	4123 -	Red Oak	;	Sawtimb	er Well	12.1	99	111-140	N/A		Mainly denser red oak canopy. Areas of younger dense aspen poles
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	in the center. Spreading dead oak patches in the NW corner and along the east edge.
	Quaking Aspen	5	Sapling	6	34	Re	ed Maple	High	Variable	Variable	diong the cast eage.
	Red Oak	68		14	99	Bigto	ooth Aspen	Low	Variable	Variable	
	White Pine	1		22							-
	Red Pine	1		22							
	Red Maple	3	Sapling	5							
	Paper Birch	2	Sapling	5							
	Bigtooth Aspen	20	Seedling	7	34						

Crystal Falls Mgt. Unit



Stand		over Type		Size De	nsity	Acres	Stand Age B	A Range	Managed S	ite	General Comments		
97	4130	- Aspen		Poletimb	er Well	4.8	46	111-140	N/A		Good quality aspen with some oak mixed in. Stand was left from past		
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	harvest due to an old trespass case.		
(	Quaking Aspen	14	Seedling	8		Ва	lsam Fir	Low	Variable	Variable			
	Red Oak	3		13	99	R	ed Oak	Low	< 5 feet	< 5 feet			
	White Spruce	1		12		W	nite Pine	Low	Variable	Variable			
	Red Maple	2	Seedling	7				,		,	_		
Е	Bigtooth Aspen	80	Seedling	8	46								
100	4130	- Aspen		Poletimb	er Well	8.5	36	111-140	N/A	<u> </u>	Very good quality aspen pole stand. Heavy to bigtooth with elevation		
	· · · · · · · · · · · · · · · · · · ·		Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	hump across most of the stand. A few scattered mature oak and pine scattered across the stand.		
	White Pine	4		13	99	Re	ed Maple	Medium	Variable	Variable	osano, os acroso mo stanta.		
	Red Pine	3		13	99	Bigto	oth Aspen	Medium	>20 feet	>20 feet			
	Red Oak	8		14	99	W	nite Pine	Trace	Variable	Variable			
	Red Maple	2	Sapling	5							<del>-</del>		
E	Bigtooth Aspen	83	Sapling	6	36								
101	500	- Water		Unspe	cifed	9.9	0		No		Brule River		
106	500	- Water		Unspe	cifed	8.0	0		No		Brule River		
400	110 - Low li	ntensity Urb	oan	Unspe	cifed	3.6			No		Power line		
401	110 - Low I	ntensity Urb	oan	Unspe	cifed	7.5			No		Power line		
402	110 - Low li	ntensity Urb	oan	Unspe	cifed	12.8			No		Power line		
404	110 - Low I	ntensity Urb	oan	Unspe	cifed	5.6			No		Power line ROW.		