

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:

Details on the road access system

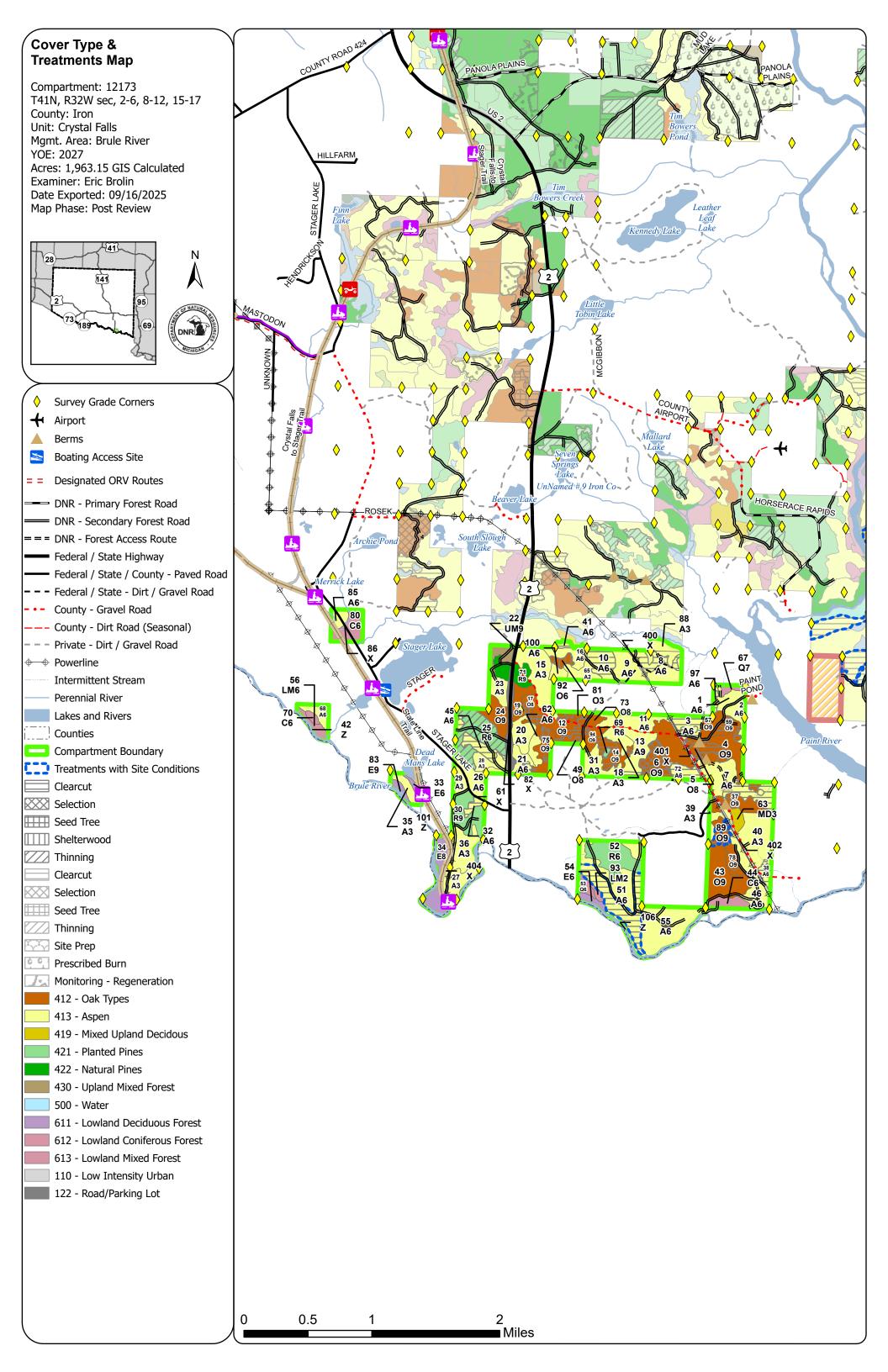
This compartment has had the presence of oak wilt confirmed and has had these areas treated. If other areas of oak wilt are detected, they will be treated.

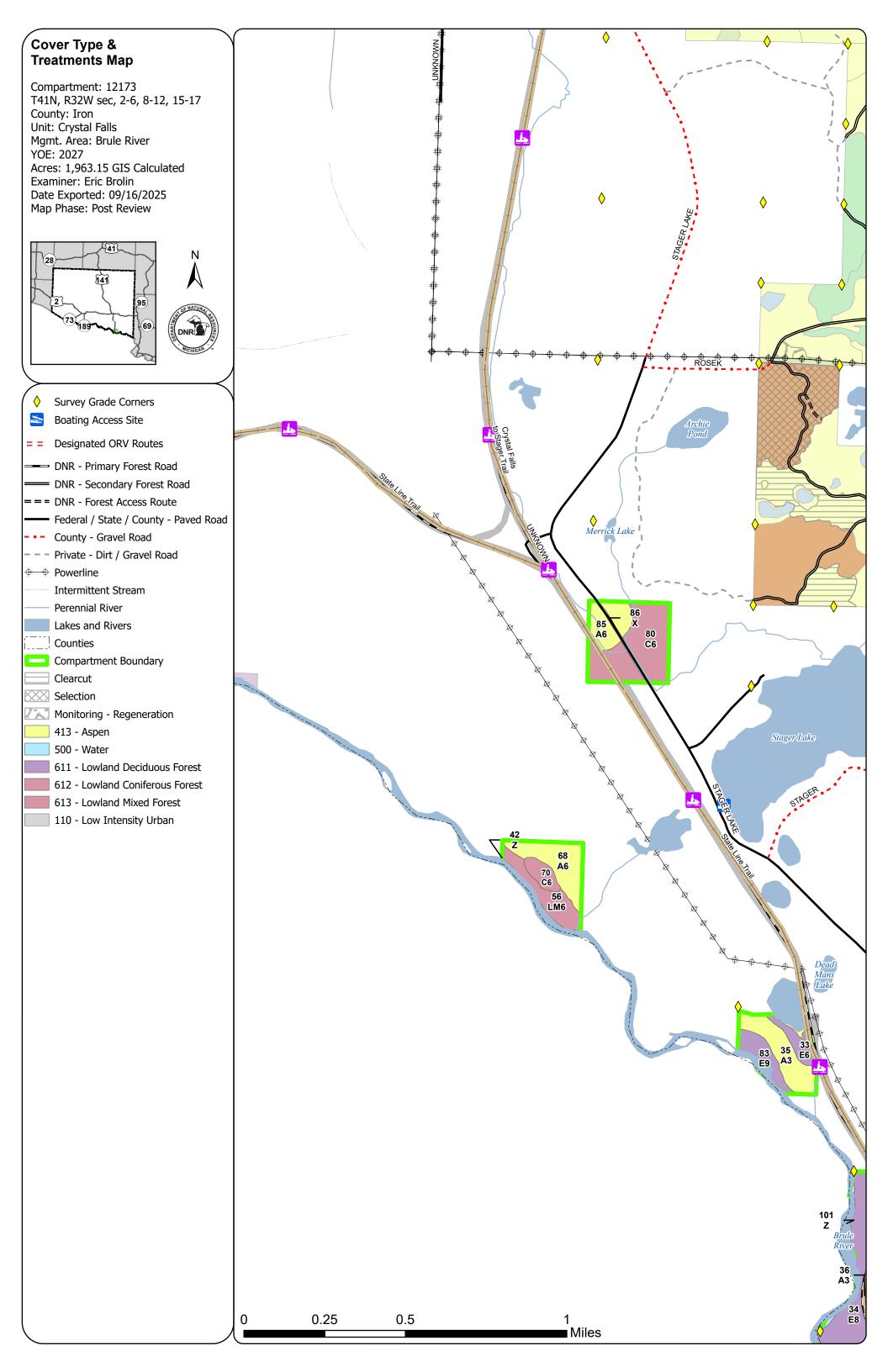
The following reports from the Inventory are attached:

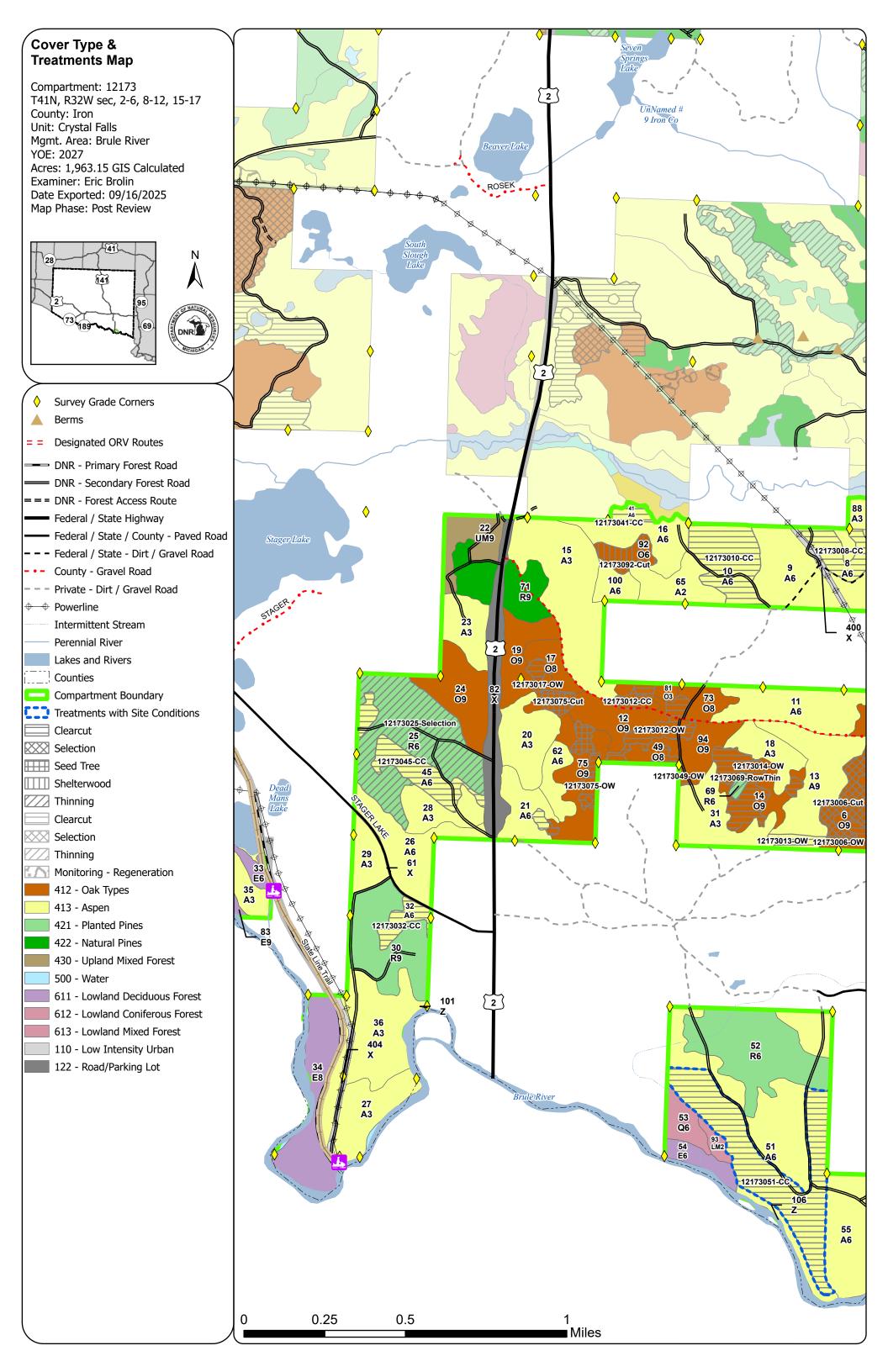
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

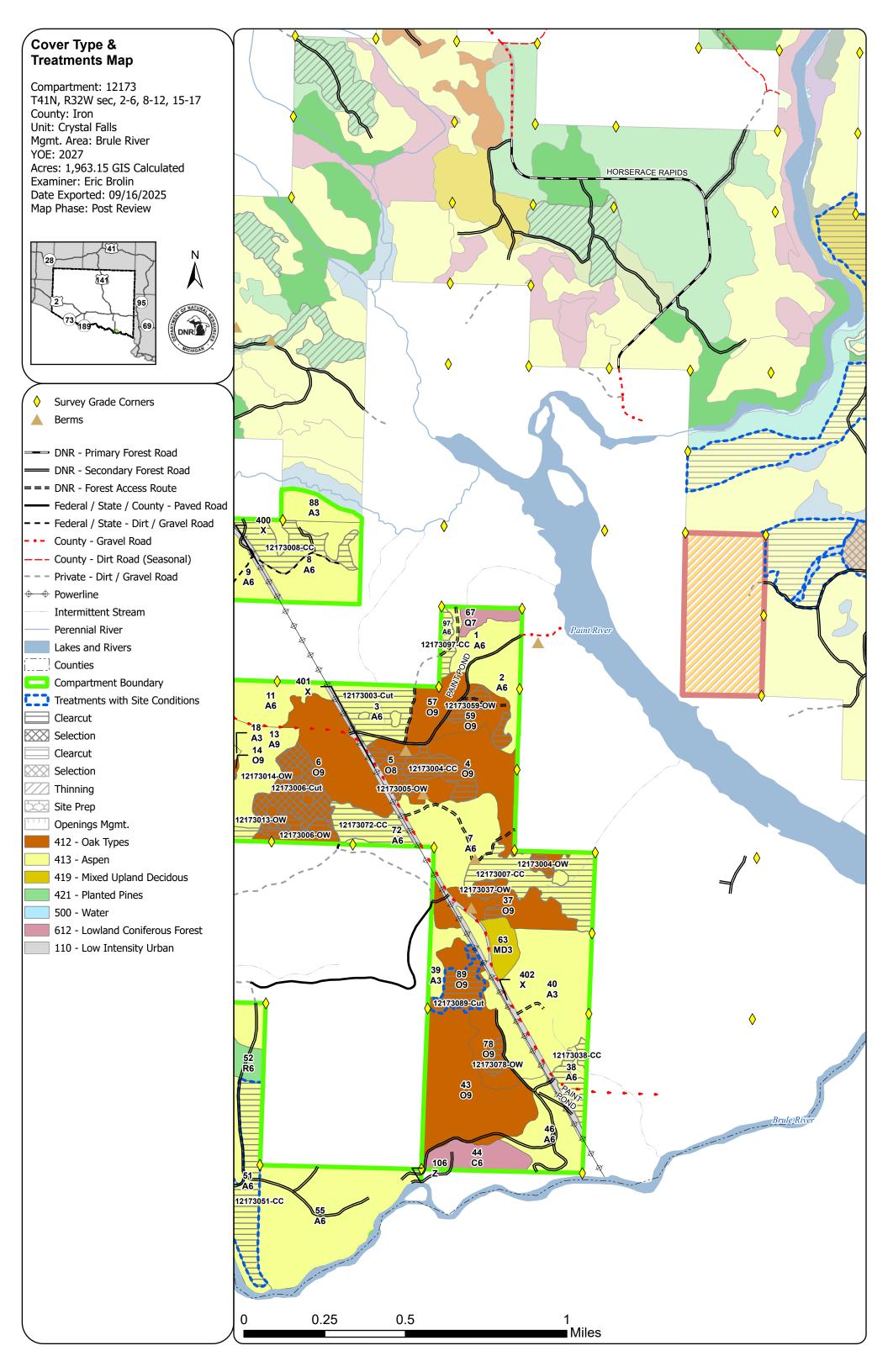
The following information is displayed, where pertinent, on the attached compartment maps:

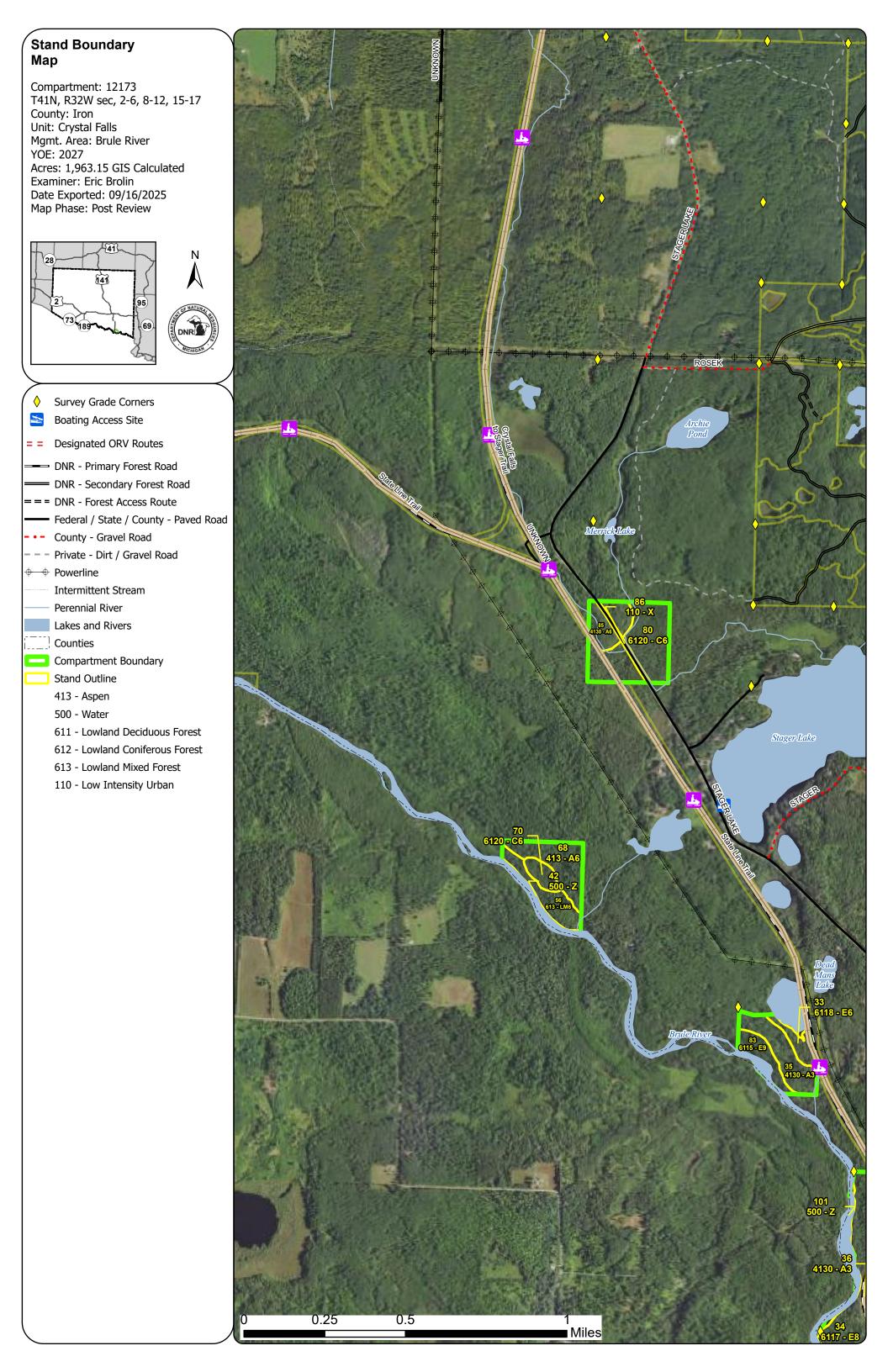
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries

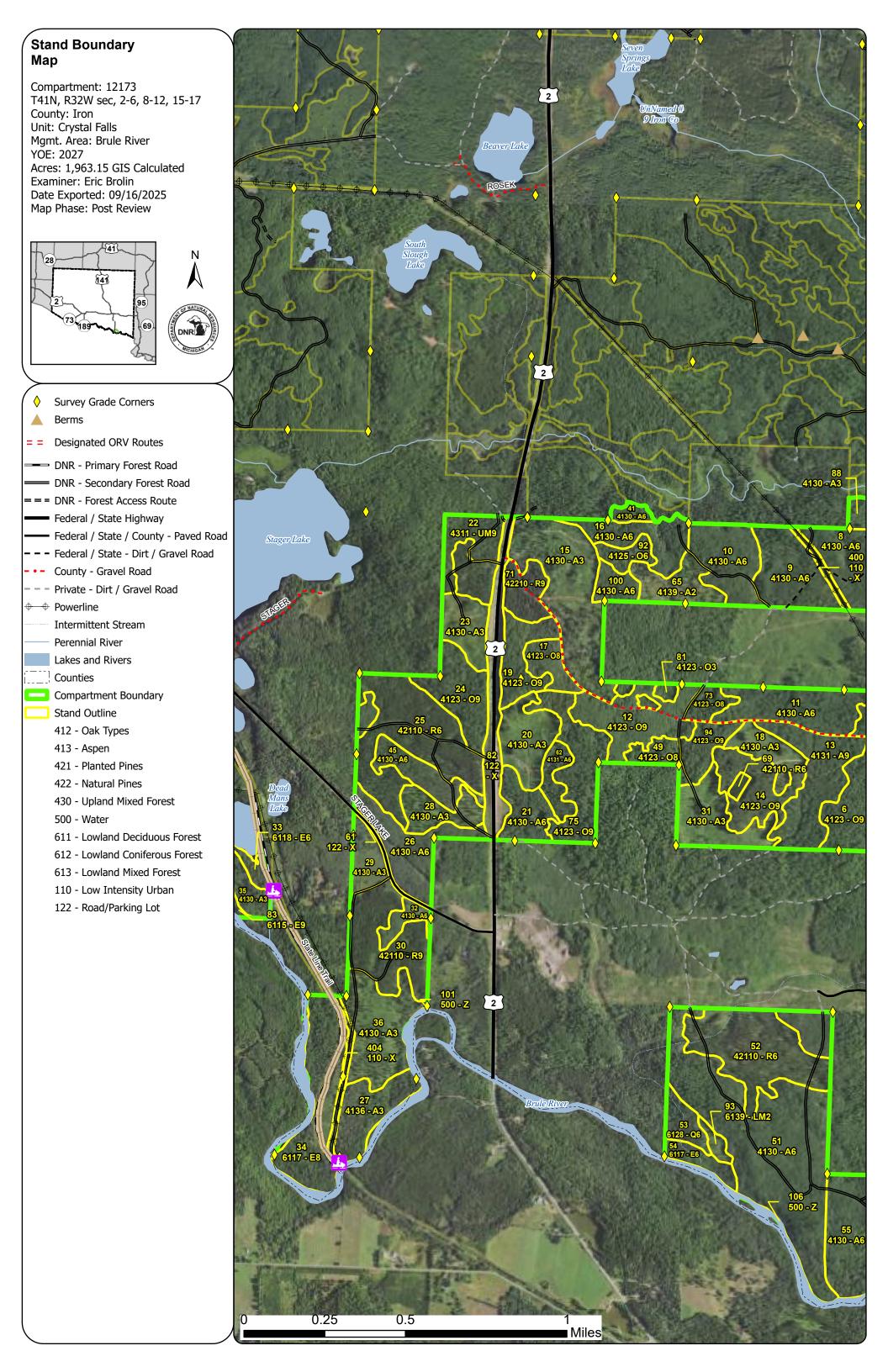


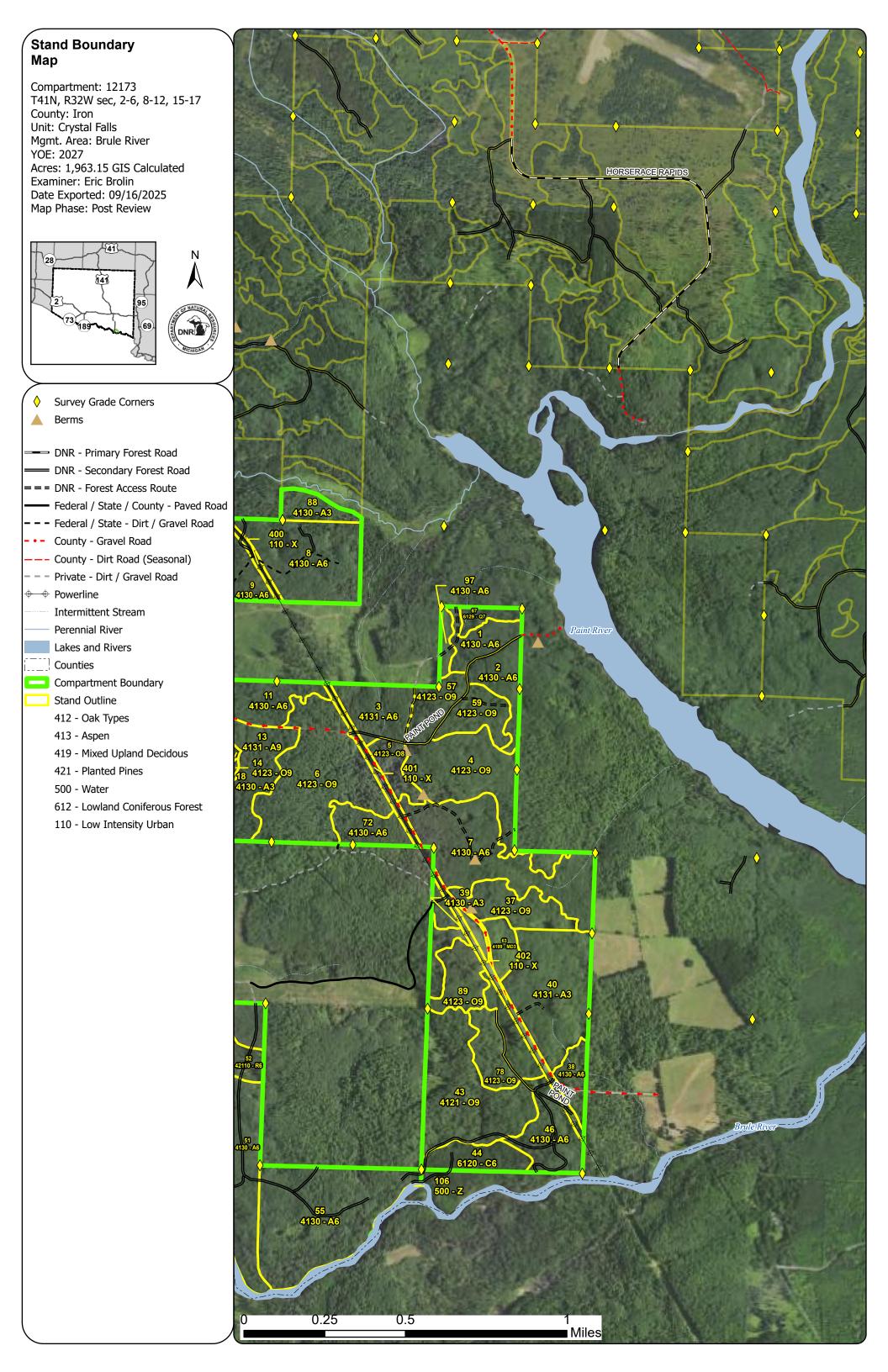


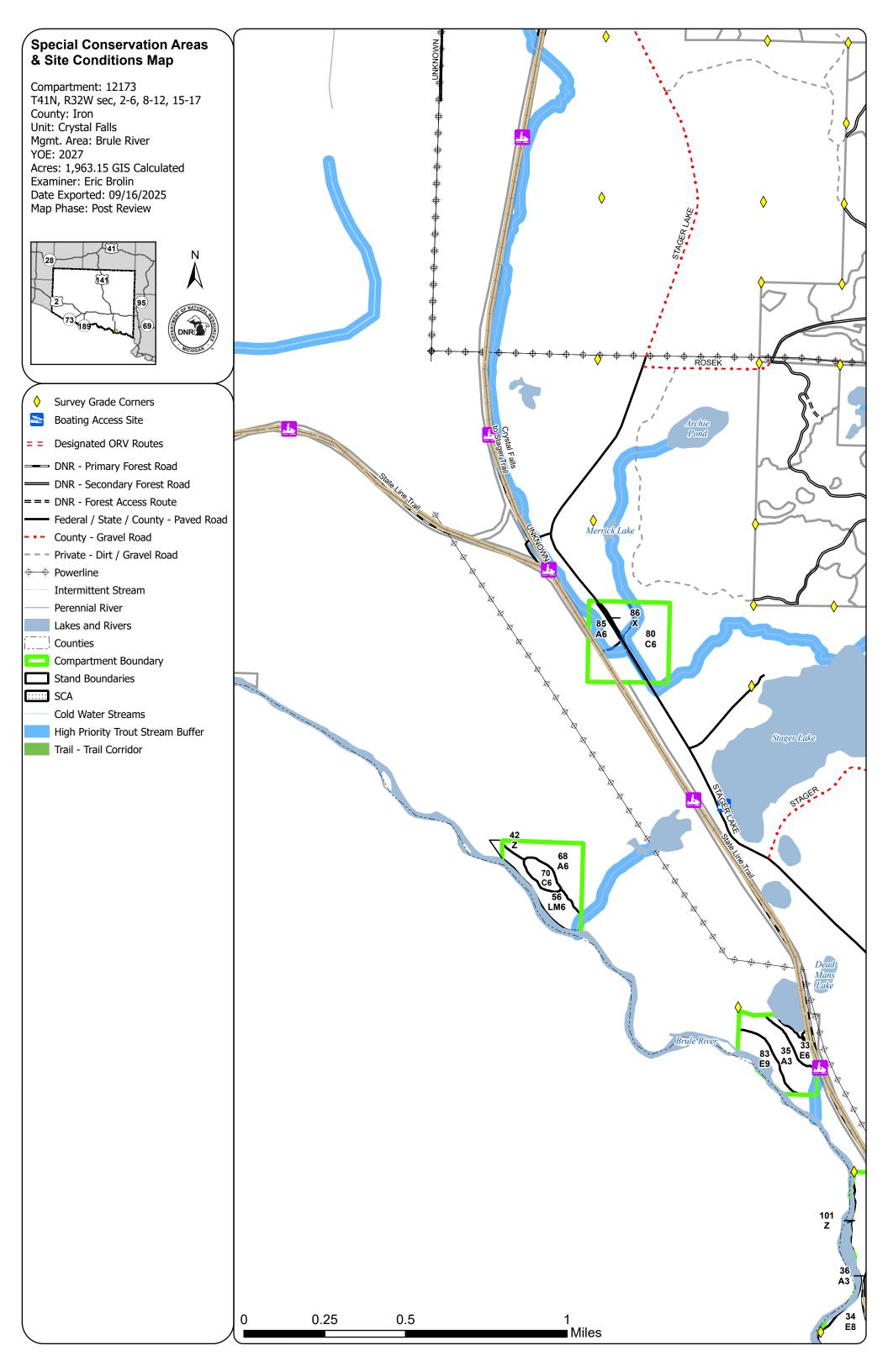


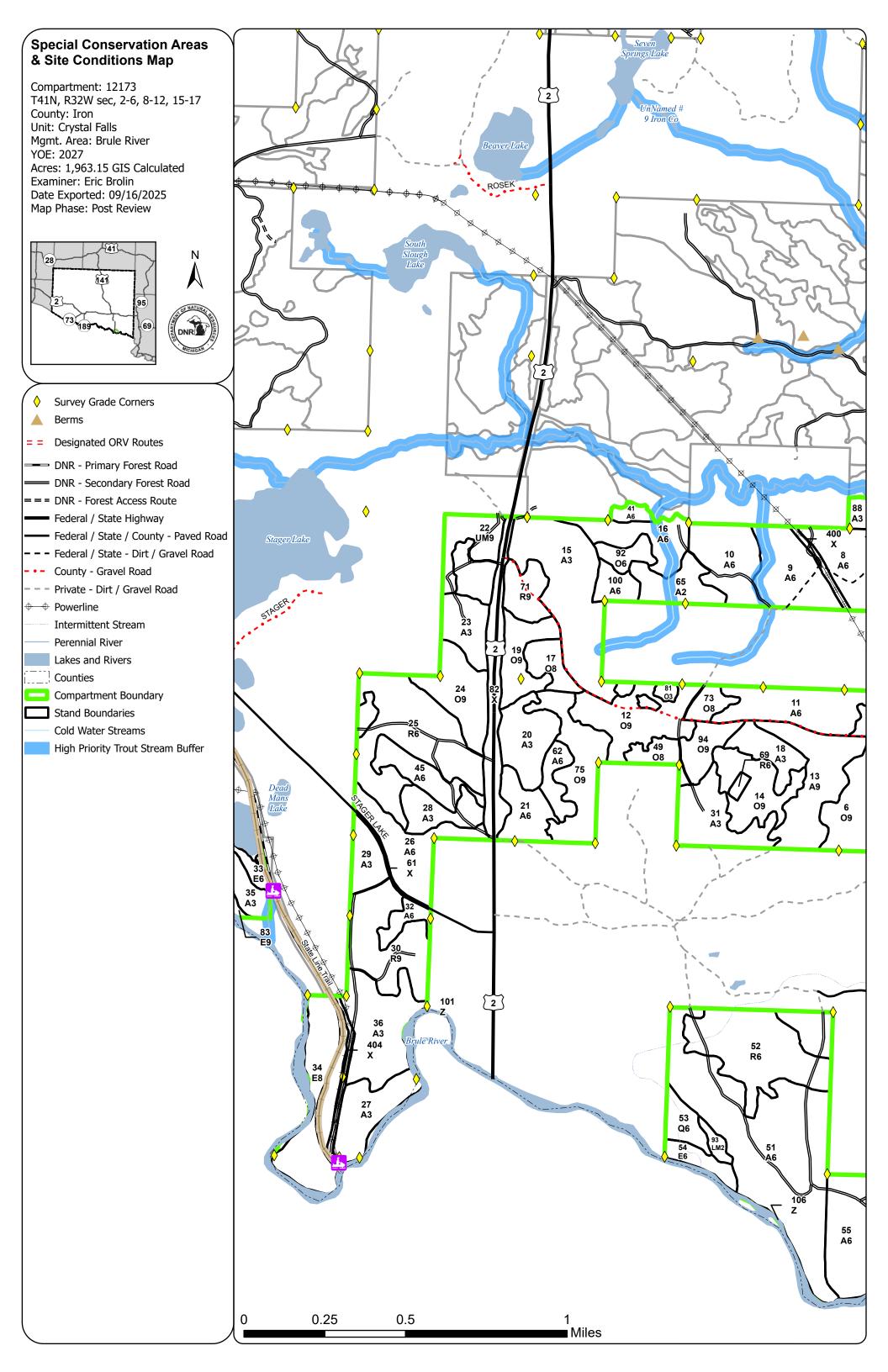


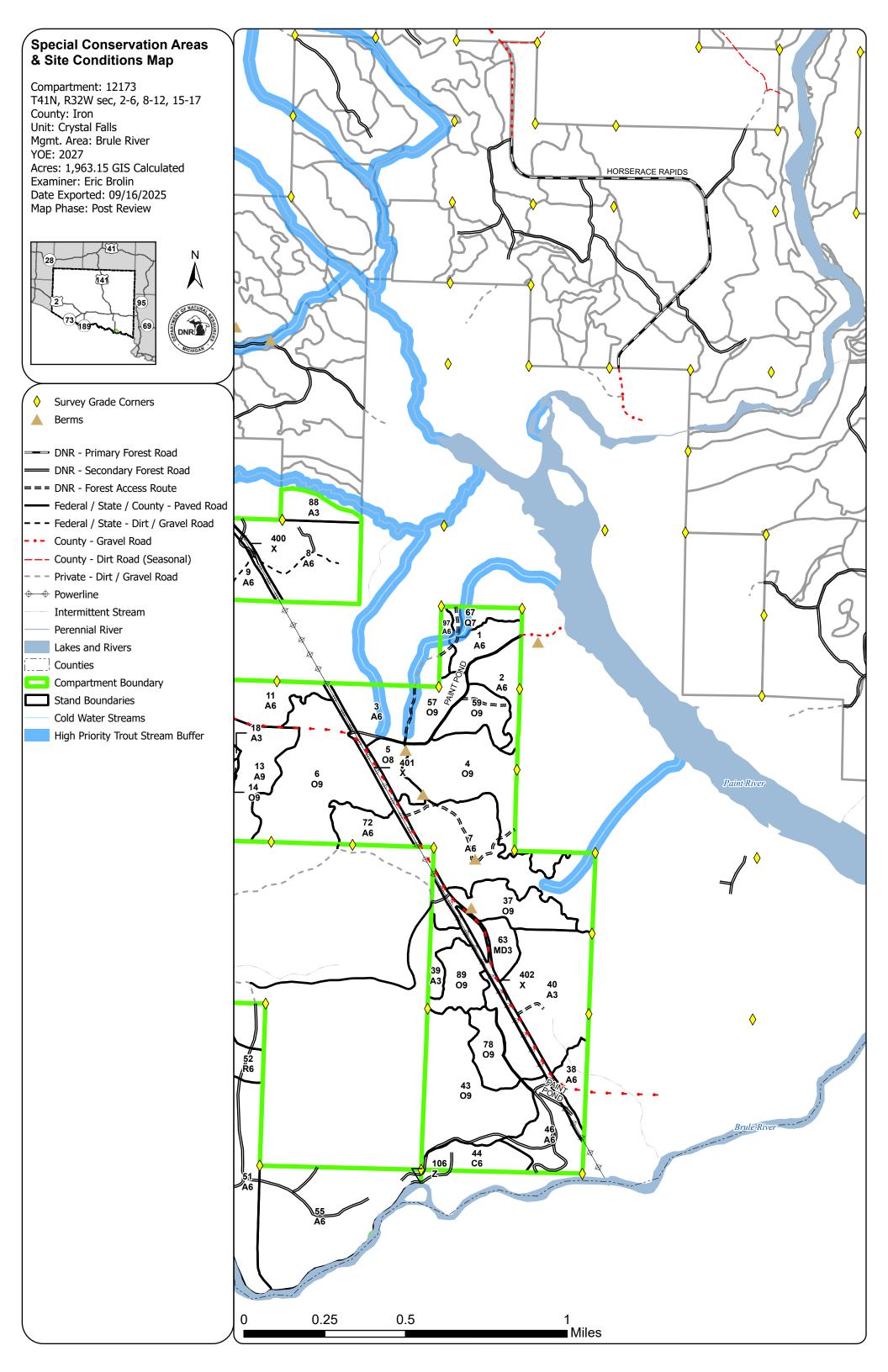












Crystal Falls Mgt. Unit

Eric Brolin: Examiner

Compartment 173 Year of Entry 2027



Age Class

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Aspen	0	245	106	104	166	426	10	15	0	0	0	0	0	0	0	0	0	0	1072
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	467	0	0	0	0	0	0	0	472
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	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
Water	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Total	81	249	120	104	166	428	10	164	0	14	565	63	0	0	0	0	0	0	1962



Report 2 – Treatment Summary

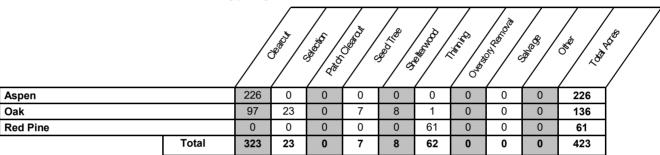
Crystal Falls Mgt. Unit Year of Entry: 2027

Acres of Harvest

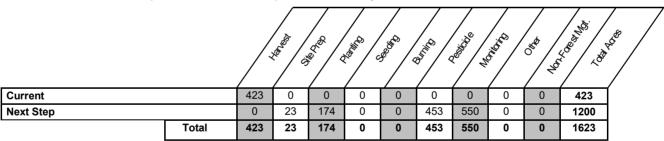
Compartment 173
Total Compartment Acres: 1,963

Commercial Harvest - 1446 Harvests with Site Condition - 176 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Compartment: 12173

Year of Entry: 2027

S t a

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

 6
 12173006 0.6
 4123 - Red Oak
 9
 99
 111 Harvest
 Selection
 4121 - Oak,
 Cutting
 No

 Cutxx
 140
 Aspen
 Record

<u>Prescription</u> Specs: Mark red oak to approximately 80-90 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

Next Step Treatments:

<u>Acceptable</u> 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.

Site Condition:

Proposed Start Date: 10/01/2026

 6
 12173006 0.6
 4123 - Red Oak
 9
 99
 111 Harvest
 Selection
 4121 - Oak,
 Cutting
 No

 Cutxxx
 140
 Aspen
 Record

<u>Prescription</u> Specs: Mark red oak to approximately 80-90 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

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 comment: areas but may change if determined during timber sale prep. Include all applicable oak wilt specs for timber sale.

Site Condition:

Proposed Start Date: 10/01/2026

6 12173006- 0.6 4123 - Red Oak 9 99 111- Harvest Selection 4121 - Oak, Cutting No Cutxxxx 140 Aspen Record

<u>Prescription</u> Mark red oak to approximately 80-90 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

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.

Site Condition:

Proposed Start Date: 10/01/2026

75 12173075-Cutx 0.6 4123 - Red Oak 9 99 111- Harvest Thinning 4123 - Red Oak Cutting No 140 Record

<u>Prescription</u>
Specs:
Thin to approximately 60-80 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

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Other Large seedling/sapling sized oak is well established across the forest floor. These will respond well to canopy gaps creating a second age class of red oak while maintaining mature mast producing trees.

Site Condition:

Compartment: 12173

Year of Entry: 2027

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

Approved Treatments:

s

t а n d

12173003-Cut 21.3 4131 - Aspen, Oak 111-Harvest Clearcut 4131 - Aspen, **Planting** Nο 140 Oak Record

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 Monitoring, Natural Regen (Re-Inventory)

Treatments:

<u>Acceptable</u> Any combination of the current overstory species.

Regen:

Other 1 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. Comment:

Site Condition:

Proposed Start Date: 10/01/2031

12173004-CC 12.4 4123 - Red Oak 171-Harvest Clearcut 4121 - Oak, Cutting No 200 Aspen Record

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

Next Step Monitoring, Natural Regen (Intermediate); Monitoring, Natural Regen (Intermediate); Monitoring, Natural Regen (Re-Inventory) **Treatments:**

Acceptable Any combination of the current overstory species.

Regen:

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

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

12173004-OW 4123 - Red Oak 8 99 111-Harvest Clearcut 4310 - Pine, Oak Planting No 2.1 Mix Record 140

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

Specs:

Pesticide, Skidder - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Pesticide, Aerial - Release; Monitoring, Artificial Regen; Next Step Planting, Interplant; Pesticide, Aerial - Site Prep; Pesticide, Drone - Site Prep; Pesticide, Ae Treatments:

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

17 12173005-OW 4123 - Red Oak 4310 - Pine. Oak 4 7 8 99 111-Harvest Clearcut Planting Nο Record 140 Mix

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

Specs:

Next Step Pesticide, Skidder - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Pesticide, Aerial - Release; Monitoring, Artificial Regen;

Planting, Interplant; Pesticide, Aerial - Site Prep; Pesticide, Drone - Site Prep; Pesticide, Ae Treatments:

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

Regen:

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

Comment: source is available.

Site Condition:

Compartment: 12173 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
6	12173006-Cut	22.8	4123 - Red Oak	9	99	111- 140	Harvest	Selection	4121 - Oak, Aspen	Cutting Record	No

Mark red oak to approximately 80-90 BA average across the stand. Focus on removing suppressed and/or weakened trees while creating more Prescription Specs: canopy light to release advanced regeneration. Improve quality and mark to retain healthier, stout branched trees that

Monitoring, Natural Regen (Re-Inventory); SitePrep, Scarification; Planting, Underplant Next Step **Treatments:**

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

Regen:

S

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

Site Condition:

Proposed Start Date: 10/01/2025

12173006-OW 8.5 4123 - Red Oak 99 111-Harvest Clearcut 4211 - Planted **Planting** No 140 Red Pine Record

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

Specs:

Pesticide, Skidder - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Pesticide, Aerial - Release; Monitoring, Artificial Regen; Next Step

Treatments: Planting, Interplant; Pesticide, Aerial - Site Prep; Pesticide, Drone - Site Prep; Pesticide, Ae

<u>Acceptable</u> Red pine

Regen:

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

Comment:

Site Condition:

Proposed Start Date: 10/01/2025

12173007-CC 30.6 4130 - Aspen 6 47 111-Harvest Clearcut Planting Nο 413 - Aspen Record 140

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

Next Step Monitoring, Natural Regen (Re-Inventory)

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

12173008-CC 18.7 4130 - Aspen 6 48 111-Harvest Clearcut Planting No 413 - Aspen 140

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

Specs: forked crown aspen, and a diverse mix of species.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

<u>Acceptable</u> Any combination of the current overstory species.

Regen:

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

Comment: all applicable oak wilt specs for timber sale.

Site Condition:

Compartment: 12173

s t	O.	ystai i aiis	s Mgt. Offit		керо	rt 3	reatments		Compartmer Year of Entr		DNR
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habit Cut
10	12173010-CC	27.8	4130 - Aspen	6	48	111- 140	Harvest	Clearcut	413 - Aspen	Planting Record	No
Preso Spec	•		antable trees exceprse mix of species.	t conifers a	and oak	to promot	e aspen regener	ration. Retention s	hould include large	diameter, for	ked crown
<u>Next</u> <u>Treat</u>	<u>Step</u> Monitor <u>ments:</u>	ing, Natura	al Regen (Re-Inven	tory)							
Rege	<u>n:</u>	mbination o	of the current overs	tory specie	S.						
Other Comi	<u>ment:</u>										
Site (Condition:										
Propo	osed Start Date:	10/01/20)31								
	12173012-CC	2.1	4123 - Red Oak	9	99	171- 200	Harvest	Clearcut	4319 - Mixed Upland Forest	Planting Record	No
Preso Spec		t all merch	antable trees excep	t conifers.							
<u>Next</u> <u>Treat</u>	<u>Step</u> Monitor <u>ments:</u>	ing, Natura	al Regen (Intermedi	ate); Mon	itoring, N	Natural Re	egen (Intermedia	ite); Monitoring, N	Natural Regen (Re-l	Inventory)	
Acce Rege		mbination o	of the current overs	tory specie	S.						
Other Com		e condition	s for small long terr	n retention	area. Th	ne west 2/	/3 of the stand w	ill be retained con	taining healthy matu	ıre oak.	
Propo	Condition: osed Start Date: 12173012-OW		025 4123 - Red Oak	8	99	111- 140	Harvest	Clearcut	4310 - Pine, Oak Mix	x Planting Record	N
Preso Spec		t to a 2" sp	ec to prep site for r	nixed pine	planting.				IVIIA	record	
<u>Next</u> <u>Treat</u>			r - Site Prep; Plant t; Pesticide, Aeria				0'' 0	—	ial - Release; Moni	itoring, Artific	ial Regen;
Acce Rege		oine with w	hite oak mix option	if available	during o	or after init	tial planting.				
Other Comi		te tree box is available		create a re	ed pine /	white pine	e mix. Plant whit	e oak within, poss	ibly in open patches	s, when fundii	ng and
Site (Condition:										
Propo	osed Start Date:	10/01/20)25								
13	12173013-OW	4.2	4131 - Aspen, Oak	9	34	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Planting Record	Ne
Preso Spec		t all trees 2	" DBH and larger to	o prep site	for red p	oine plantii	ng.				
Next Treat			r - Site Prep; Plant t; Pesticide, Aeria						ial - Release; Mon	itoring, Artific	ial Regen;
Acce Rege	<u>ptable</u> Red pir <u>n:</u>	ne									
Other Com	No rete	ntion due t	o forest health cond	cerns. Inclu	de all ap	oplicable o	oak wilt specs for	r timber sale.			
Site (Condition:										

Record

Compartment: 12173

Year of Entry: 2027

Mix

S t

а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Acres Age Habitat n Range Method Objective Structure Name CoverType Density Age Type Cut d 4123 - Red Oak 17 12173014-OW 17 6 111. Harvest Clearcut 4310 - Pine, Oak **Planting** Nο

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

Specs:

Next Step Pesticide, Skidder - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Pesticide, Aerial - Release; Monitoring, Artificial Regen;

140

Treatments: Planting, Interplant; Pesticide, Aerial - Site Prep; Pesticide, Drone - Site Prep; Pesticide, Ae

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

Comment: source is available.

Site Condition:

Proposed Start Date: 10/01/2025

 17
 12173017-OW
 2.9
 4123 - Red Oak
 8
 99
 111 Harvest
 Clearcut
 4310 - Pine, Oak
 Planting
 No

 140
 Mix
 Record

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

Specs:

Next Step Pesticide, Skidder - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Pesticide, Aerial - Release; Monitoring, Artificial Regen;

Treatments: Planting, Interplant; Pesticide, Aerial - Site Prep; Pesticide, Drone - Site Prep; Pesticide, Ae

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

Comment: source is available.

Site Condition:

Proposed Start Date: 10/01/2025

59.0 42110 - Planted Red 6 62 141-4211 - Planted Planting Nο 25 12173025-Harvest Thinning Red Pine Selection Pine 170 Record

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

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

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Red pine

Regen:

Other 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

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

Site Condition:

Proposed Start Date: 10/01/2026

32 12173032-CC 6.9 4130 - Aspen 6 48 111- Harvest Clearcut 413 - Aspen Planting No Record

<u>Prescription</u> Harvest all merchantable trees except conifers and oak to promote aspen regeneration.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any combination of the current overstory species.

Regen:

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

Comment:

Site Condition:

Compartment: 12173 s Year of Entry: 2027 t а **Treatment** Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n CoverType Density Range Method Objective Structure Name Age Type Cut d 17 12173037-OW 3.9 4123 - Red Oak 111. Harvest Clearcut 4310 - Pine, Oak **Planting** Nο Mix Record 140 Prescription Harvest all trees 2" DBH and larger to prep site for mixed pine planting. Specs: Pesticide, Skidder - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Pesticide, Aerial - Release; Monitoring, Artificial Regen; Next Step **Treatments:** Planting, Interplant; Pesticide, Aerial - Site Prep; Pesticide, Drone - Site Prep; Pesticide, Ae Mixed 50% red pine/50% white with white oak mix option if available during or after initial planting. <u>Acceptable</u> 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: Proposed Start Date: 10/01/2025 12173038-CC 90 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 Monitoring, Natural Regen (Re-Inventory) **Treatments:** <u>Acceptable</u> Any combination of the current overstory species. Regen: <u>Other</u> No long-term retention due to small size. Include all applicable oak wilt specs for timber sale. Comment: Site Condition: Proposed Start Date: 10/01/2025 12173041-CC 39 4130 - Aspen 6 48 111-Harvest Clearcut 413 - Aspen **Planting** Nο 140 Record Prescription Harvest all merchantable trees except conifers and oak to promote aspen regeneration. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) 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 12173045-CC **Planting** 19.9 4130 - Aspen 6 48 111-Harvest Clearcut No 413 - Aspen 140 Harvest all merchantable trees except red pine, white pine and oak to promote aspen regeneration. Retention should include large diameter, <u>Prescription</u> Specs: forked crown aspen, and a diverse mix of species. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments:

<u>Acceptable</u> Any combination of the current overstory species.

Regen: Other

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

Comment:

Site Condition:

Compartment: 12173 Year of Entry: 2027

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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
17	12173049-OW	3.0	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:

 $\underline{\text{Next Step}} \qquad \text{Pesticide, Skidder - Site Prep;} \quad \text{Planting, Unfurrowed;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Skidder - Site Prep;} \quad \text{Planting, Unfurrowed;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Skidder - Site Prep;} \quad \text{Planting, Unfurrowed;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Artificial Regen;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Monitoring, Aerial - Release;} \quad \text{Pesticide, Aerial - Release;} \quad \text{Pesticide,$

Treatments: Planting, Interplant; Pesticide, Aerial - Site Prep; Pesticide, Drone - Site Prep; Pesticide, Ae

Acceptable Mixed 50% red pine/50% white 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

Comment: source is available.

Site Condition:

Proposed Start Date: 10/01/2025

51 12173051-CC 64.3 4130 - Aspen 6 44 111- Harvest Clearcut 413 - Aspen Planting No

<u>Prescription</u> 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 wher

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Any combination of the current overstory species.

Regen:

Other Exclusion along the Brule River is an estimate from steep slope top and may change if determined during timber sale prep but will still hold the

Comment: 100' river buffer. Follow Wood Turtle guidance for the Brule River buffer (660' from 3/15 - 9/30, and/or 100'

Site Condition: Minor Change in Acreage

Proposed Start Date: 10/01/2026

 17
 12173059-OW
 7.0
 4123 - Red Oak
 8
 99
 111 Harvest
 Clearcut
 4310 - Pine, Oak
 Planting
 No

 140
 Mix
 Record

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

Specs:

Next Step Pesticide, Skidder - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Pesticide, Aerial - Release; Monitoring, Artificial Regen;

Treatments: Planting, Interplant; Pesticide, Aerial - Site Prep; Pesticide, Drone - Site Prep; Pesticide, Ae

Acceptable Mixed 50% red pine/50% white 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

Comment: source is available.

Site Condition:

Proposed Start Date: 10/01/2025

 69
 12173069 1.9 42110 - Planted Red
 6
 42
 171 Harvest
 Thinning
 4211 - Planted
 Planting
 No

 RowThin
 Pine
 200
 Red Pine
 Record

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

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Red pine

Regen:

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

Comment:

Site Condition:



S t		,	s iligi. Ollic				rreatments		Year of Entry		DNR
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habit Cut
72	12173072-CC	14.7	4130 - Aspen	6	47	111- 140	Harvest	Clearcut	413 - Aspen	Planting Record	No
Presc Specs	s: aspen,	and a dive	antable trees exceprse mix of species. Al Regen (Re-Inven		and oak t	to promot	e aspen regenera	ation. Retention sl	nould include large o	diameter, fork	ed crown
	ments:		of the current overs	-,	s.						
Rege Other Comr	 Include	all applica	ble oak wilt specs f	or timber sa	ale.						
Site C	Condition: osed Start Date:	10/01/20	025								
75	12173075-Cut	7.3	4123 - Red Oak	9	99	111- 140	Harvest	Seed Tree	4319 - Mixed Upland Forest	Cutting Record	No
Preso		all merch	antable trees excep	ot conifers.	Do not le	eave any i	nterior oak trees	or retention.			
Next S	<u>Step</u> Monitor <u>ments:</u>	ing, Natura	al Regen (Re-Inven	tory)							
Accer Rege		nbination o	of the current overs	tory species	S.						
Other Comr		-term rete	ntion due to interior	and/or adja	acent for	rest health	concerns. Includ	de all applicable o	ak wilt specs for tim	nber sale.	
Site C	Condition:										
Propo	sed Start Date:	10/01/20)26								
17	12173075-OW	6.3	4123 - Red Oak	8	99	111- 140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
Presc Specs			" DBH and larger to	o prep site	for mixed	d pine pla	nting. If available	, exclude patches	with pure aspen sa	plings to retai	in for
Next S Treat	<u>Step</u> Pesticio <u>ments:</u> Plantino	le, Skidder j, Interplan	- Site Prep; Plant t; Pesticide, Aeria	ting, Unfurr I - Site Preլ	owed; I p; Pesti	Monitoring icide, Dro	յ, Artificial Reger ne - Site Prep; I	n; Pesticide, Aeri Pesticide, Ae	al - Release; Moni	toring, Artifici	al Regen;
Accer Rege		0% red pir	ne/50% white with v	white oak m	nix optior	n if availat	ole during or after	r initial planting.			
Other Comr		e tree box is available		create a re	ed pine /	white pine	e mix. Plant white	e oak within, possi	bly in open patches	, when fundin	g and
Site C	Condition:										
Propo	sed Start Date:	10/01/20)25								
17	12173078-OW	3.3	4123 - Red Oak	8	99	111- 140	Harvest	Clearcut	4310 - Pine, Oak Mix	Planting Record	No
Preso Specs		all trees 2	" DBH and larger to	o prep site	for mixe	d pine pla	nting.				
Next S Treat			- Site Prep; Plan t; Pesticide, Aeria						al - Release; Moni	toring, Artifici	al Regen;
Accer Rege		0% red pir	ne/50% white with v	white oak m	nix optior	n if availat	ole during or after	r initial planting.			
Other Comr		hite pine. F	Plant white oak with	nin, possibly	in open	patches,	when funding an	d source is availal	ble.		
Site C	Condition:										
<u> </u>											

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Report 3 -- Treatments

Compartment: 12173 Year of Entry: 2027

s t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Habitat n Method Objective Structure Name CoverType Density Age Range Type Cut d 89 12173089-Cut 11.5 4123 - Red Oak 141-Harvest Clearcut 4121 - Oak. **Planting** Nο Record 170 Aspen 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 Prescription hardwood are present to create a more diverse mixed stand. The north portion dominated by oak will be retained. Specs: Next Step Monitoring, Natural Regen (Re-Inventory); Monitoring, Natural Regen (Intermediate); Monitoring, Natural Regen (Intermediate) **Treatments:** Acceptable Any Combination of the current overstory species. Regen: Other Treatment layer is an estimate and may change. Include all applicable oak wilt specs for timber sale. Comment: Site Condition: Wildlife Concerns Proposed Start Date: 10/01/2025 12173092-Cut 7.7 4125 - Black, N. Pin 99 111-Harvest Shelterwood 4319 - Mixed Cutting No Oak 140 **Upland Forest** Record Harvest all merchantable trees except pine species to promote oak and pine regeneration and release current desirable advanced regeneration. **Prescription** Specs: Leave no interior oak or long term retention for regeneration and forest health concerns. Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: <u>Acceptable</u> Any combination of the current overstory species. Regen: <u>Other</u> Use caution to not damage current saplings during timber sale operations. Include all applicable oak wilt specs for timber sale. Comment: Site Condition: Proposed Start Date: 10/01/2025 12173097-CC Planting 4.8 4130 - Aspen 6 46 111-Harvest Clearcut 413 - Aspen

No 140 Record

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

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

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

Total Treatment 424.5 Acreage Proposed:

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Year of Entry: 2027



Availability for Management

Total	Acres	Acres Avail	Acres		Domina	nt Site	e Con	dition	S				
Acres	Available	With Condition	Not Available		5B	5C	5F	MC	2F	2G	3J	3L	5E
720	584	63	72	Aspen		35		29	36		32		4
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									
311	108	197	6	Oak	16	52	129					5	1
175	150	25	0	Red Pine		25							
17	1	17	0	Upland Mixed Forest		17							
61	61	0	0	Urban									
20	20	0	0	Water									
1,450	1,010	302	138	Total Forested Acres	16	128	129	29	36	25	66	5	5
	70%	21%	10%	Relative Percent									

^{*}Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5F: Evaluated for Forest Health Considerations	19	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
	Comments: Area of Stand 12 wi	th no current oak wilt infectio	ns. Matu	re oak including areas with	a good component of ma	ture aspen mixed in.	
2	Available	5F: Evaluated for Forest	9	5B: Maintain for	Unspecified	Unspecified	Unspecified
_		Health Considerations		regeneration purposes			Orispecified

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	2F: Too steep	13	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Long steep inopera	ble slopes and/or low, poorly d	rained	ground at the bottom of th	e slopes.		
Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Allow younger age	class to grow larger.					
Unavailable	5E: Long-Term Retention	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention	for Stand 15. Patches seem h	ealthy	yet except the far north bu	bble which is riddled with de	ad oak.	
Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention	ı for Stand 40. Pockets contain	patche	es of dead oak.			
Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention	ı for Stand 23. Contains 3 matu	re oak	pockets. All are healthy e	xcept for one dead oak tree	n the NE bubble.	
Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Long term retention	consisting of patchy oak with s	sapling	s, and a steeper hillside w	vith mature oak.		
Unavailable	3J: Water quality/BMPs (stream, river, or lake)	6	2G: Too wet (sensitive soils, does not include access issues)	5E: Long-Term Retention	Unspecified	Unspecified
Comments: 100' river buffer for	Brule River, poorly drained gro	und, a	nd long term retention for	stand 36.		
	Available Comments: Allow younger age Unavailable Comments: Long term retention Unavailable Comments: Comments: Comments:	Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments: Allow younger age class to grow larger. Unavailable 5E: Long-Term Retention Comments: Long term retention for Stand 15. Patches seem her Unavailable 5E: Long-Term Retention Comments: Long term retention for Stand 40. Pockets contain Unavailable 5E: Long-Term Retention Comments: Long term retention for Stand 23. Contains 3 matu Unavailable 5E: Long-Term Retention Comments: Long term retention for Stand 23. Contains 3 matu Unavailable 5E: Long-Term Retention Comments: Long term retention consisting of patchy oak with second term r	Available 5C: 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: Long term retention for Stand 15. Patches seem healthy: Unavailable 5E: Long-Term Retention 2 Comments: Long term retention for Stand 40. Pockets contain patched unavailable 5E: Long-Term Retention 2 Comments: Long term retention for Stand 23. Contains 3 mature oak Unavailable 5E: Long-Term Retention 1 Comments: Long term retention consisting of patchy oak with sapling unavailable 3J: Water quality/BMPs 6 (stream, river, or lake)	Long steep inoperable slopes and/or low, poorly drained ground at the bottom of the Available 5C: 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 Unspecified Comments: Long term retention for Stand 15. Patches seem healthy yet except the far north buton unavailable 5E: Long-Term Retention 2 Unspecified Comments: Long term retention for Stand 40. Pockets contain patches of dead oak. Unavailable 5E: Long-Term Retention 2 Unspecified Comments: Long term retention for Stand 23. Contains 3 mature oak pockets. All are healthy eulavailable 5E: Long-Term Retention 1 Unspecified Comments: Long term retention consisting of patchy oak with saplings, and a steeper hillside word (stream, river, or lake) Unavailable 3J: Water quality/BMPs 6 2G: Too wet (sensitive soils, does not include access issues)	Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments: Allow younger age class to grow larger. Unavailable 5E: Long-Term Retention 2 Unspecified Unspecified Comments: Long term retention for Stand 15. Patches seem healthy yet except the far north bubble which is riddled with de Unavailable 5E: Long-Term Retention 2 Unspecified Unspecified Comments: Long term retention for Stand 40. Pockets contain patches of dead oak. Unavailable 5E: Long-Term Retention 2 Unspecified Unspecified Comments: Long term retention for Stand 40. Pockets contain patches of dead oak. Unavailable 5E: Long-Term Retention 2 Unspecified Unspecified Comments: Long term retention for Stand 23. Contains 3 mature oak pockets. All are healthy except for one dead oak tree in Unavailable 5E: Long-Term Retention 1 Unspecified Unspecified Comments: Long term retention consisting of patchy oak with saplings, and a steeper hillside with mature oak. Unavailable 3J: Water quality/BMPs 6 2G: Too wet (sensitive soils, does not include access issues)	Long steep inoperable slopes and/or low, poorly drained ground at the bottom of the slopes. Available SC: Delay treatment for age/size class diversity or exceptional site quality Comments: Allow younger age class to grow larger. Unavailable SE: Long-Term Retention 3 Unspecified Unspecified Unspecified Unspecified Comments: Long term retention for Stand 15. Patches seem healthy yet except the far north bubble which is riddled with dead oak. Unavailable SE: Long-Term Retention 2 Unspecified Unspecified Unspecified Comments: Long term retention for Stand 40. Pockets contain patches of dead oak. Unavailable SE: Long-Term Retention 2 Unspecified Unspecified Unspecified Comments: Long term retention for Stand 23. Contains 3 mature oak pockets. All are healthy except for one dead oak tree in the NE bubble. Unavailable SE: Long-Term Retention 1 Unspecified Unspecified Unspecified Comments: Long term retention consisting of patchy oak with saplings, and a steeper hillside with mature oak. Unavailable 3J: Water quality/BMPs (5 2G: Too wet (sensitive size) SE: Long-Term Retention Unspecified Comments: Unavailable 3J: Water quality/BMPs (stream, river, or lake) 6 2G: Too wet (sensitive size) SE: Long-Term Retention Unspecified Comments:

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Unavailable	3J: Water quality/BMPs (stream, river, or lake)	5	5E: Long-Term Retention	n Unspecified	Unspecified	Unspecified
Comments: 100' river buffer an	d long term retention for Stand	27.				
Unavailable	3J: Water quality/BMPs (stream, river, or lake)	4	5E: Long-Term Retention	n Unspecified	Unspecified	Unspecified
Comments: Low drainage ravir	ne with poorly drained ground. L	ong te	rm retention for Stand 9.			
Available	Minor Change in Acreage	29	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 660' Wood Turtle b	ouffer needed for operations from	m 3/15	- 9/30.			
Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand was thinned	in 2020.					
Unavailable	2F: Too steep	24	3J: Water quality/BMPs (stream, river, or lake)	5E: Long-Term Retention	Unspecified	Unspecified
		rable s	slopes. Long term retention	n for Stand 55. This may ch	nange during future manag	gement but will hold at
Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Allow younger asp	en age class to grow to a more	mercha	antable size. No current oa	ık wilt infections and a lot r	more diversity transitioning	to pole sized trees.
	Comments: 100' river buffer an Unavailable Comments: Low drainage ravir Available Comments: 660' Wood Turtle b Available Unavailable Unavailable Comments: Estimated exclusion least a 100' river b Available Comments:	(stream, river, or lake) Comments: 100' river buffer and long term retention for Stand Unavailable 3J: Water quality/BMPs (stream, river, or lake) Comments: Low drainage ravine with poorly drained ground. L Available Minor Change in Acreage Comments: 660' Wood Turtle buffer needed for operations from age/size class diversity or exceptional site quality Comments: Stand was thinned in 2020. Unavailable 2F: Too steep Comments: Estimated exclusion for 100' river buffer and inopedeast a 100' river buffer. Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments: Comments:	(stream, river, or lake) Comments: 100' river buffer and long term retention for Stand 27. Unavailable 3J: Water quality/BMPs 4 (stream, river, or lake) Comments: Low drainage ravine with poorly drained ground. Long te Available Minor Change in Acreage 29 Comments: 660' Wood Turtle buffer needed for operations from 3/15 Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments: Stand was thinned in 2020. Unavailable 2F: Too steep 24 Comments: Estimated exclusion for 100' river buffer and inoperable steast a 100' river buffer. Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:	(stream, river, or lake) Comments: 100' river buffer and long term retention for Stand 27. Unavailable 3J: Water quality/BMPs 4 5E: Long-Term Retentior (stream, river, or lake) Comments: Low drainage ravine with poorly drained ground. Long term retention for Stand 9. Available Minor Change in Acreage 29 Unspecified Comments: 660' Wood Turtle buffer needed for operations from 3/15 - 9/30. Available 5C: Delay treatment for 25 Unspecified age/size class diversity or exceptional site quality Comments: Stand was thinned in 2020. Unavailable 2F: Too steep 24 3J: Water quality/BMPs (stream, river, or lake) Comments: Estimated exclusion for 100' river buffer and inoperable slopes. Long term retentior least a 100' river buffer. Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:	Comments: 100' river buffer and long term retention for Stand 27. Unavailable 3J: Water quality/BMPs (stream, river, or lake) Comments: Low drainage ravine with poorly drained ground. Long term retention for Stand 9. Available Minor Change in Acreage 29 Unspecified Unspecified Comments: 660' Wood Turtle buffer needed for operations from 3/15 - 9/30. Available 5C: Delay treatment for 25 Unspecified Unspecified Unspecified Comments: Stand was thinned in 2020. Unavailable 2F: Too steep 24 3J: Water quality/BMPs 5E: Long-Term Retention (stream, river, or lake) Comments: Estimated exclusion for 100' river buffer and inoperable slopes. Long term retention for Stand 55. This may create a 100' river buffer. Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments: Estimated exclusion for 100' river buffer and inoperable slopes. Long term retention for Stand 55. This may create a 100' river buffer. Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:	Comments: Unavailable 3J: Water quality/BMPs (stream, river, or lake) Comments: Low drainage ravine with poorly drained ground. Long term retention for Stand 9. Available Minor Change in Acreage 29 Unspecified Unspecif

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16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Consider harvest r	next YOE. Aspen will be more m	erchanta	able size.			
17	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Healthy oak on a h	nigh elevation hump. Part of long	j term re	etention for Stand 75.			
18	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Long term retention	n for Stand 3 containing mature	oak and	I surrounded by dense as	pen stocking.		
19	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Long term retention	n for Stand 72. Mix of mature as	pen and	l some oak.			
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Areas that will be e	excluded from thinning this YOE	. Contai	ns sparser oak canopy wi	th better growing condition	ns for advanced regenerati	on.
21	Unavailable	3L: Other wildlife concerns	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Retain mature oak	on the landscape for wildlife.					

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22	Available	5C: Delay treatment for	35	Unspecified	Unspecified	Unspecified	Unspecified
		age/size class diversity or exceptional site quality					
	Comments:	C. COLUMIA T. Combald to bosolo			. L		
,	Approximately hall	f of Stand 7 being held to break	up a la	irger stand to create more	age class diversity in the ar	ea.	
23	Available	5F: Evaluated for Forest Health Considerations	20	5C: Delay treatment for age/size class diversity or exceptional site quality		Unspecified	Unspecified
,		with either no current oak wilt in ered mature oak to limit significa			h very little spread potential	. A majority of the stand h	as dense aspen
24	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	7	2F: Too steep	5E: Long-Term Retention	Unspecified	Unspecified
	Comments: Steep slope in area	eas along the Brule River and 10)0' rive	r buffer. Long term retentio	n for Stand 51.		
25	Available	5F: Evaluated for Forest Health Considerations	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Areas of mature oa	ak left, currently no oak wilt with	in or e	ffecting the area left.			
26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	3L: Other wildlife concerns	Unspecified	Unspecified	Unspecified
	Comments: Flooded ground wi	ith denser cedar across most ar	reas.				
27	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: Flat floodplain with	n saturated ground and black as	sh bord	ering the Brule River.			

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28	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	34	2G: Too wet (sensitive soils, does not include access issues)	2F: Too steep	Unspecified	Unspecified
	Comments:	podplain flats with black ash ar	nd ceda	r along the Brule Diver Steer	o long slone along PP o	urade trail to the stand with	no good access
	wostry saturated no	ouplain liats with black asir ar	iu ceua	r along the brule River. Steep	o, long slope along KK g	rade trail to the stand with	Tho good access.
29	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
	Very saturated grou	und with cedar and sparse, dec	clining s	stocking of conifer and alder.			
30	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: After a 300' trout st	ream buffer, there is approxima	ately 1/	2 acre in the center that can b	oe managed.		
31	Available	5B: Maintain for regeneration purposes	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Areas of Stand 5 w	ith dense aspen saplings and	scattere	ed oak with minimal chance of	f OW spread.		
32	Available	5F: Evaluated for Forest Health Considerations	9	5B: Maintain for regeneration purposes	Unspecified	Unspecified	Unspecified
	Comments: Area of Stand 17 w	ith no current oak wilt infection	ıs. Matu	ıre, dense oak, consider thinr	ning in near future.		
33	Available	5B: Maintain for regeneration purposes	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Dense aspen saplir	ngs.					
	Delise aspell sabili	iyo.					

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34	Available	5B: Maintain for regeneration purposes	5	Unspecified	Unspecified	Unspecified	Unspecified
	comments: Recently harvested	l area leaving all oak. Sapling r	ecruitm	ent is doing well where en	ough sunlight is available.		
35	Available	5B: Maintain for regeneration purposes	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Area of Stand 49 w	rith dense saplings and scattere	ed oak v	with minimal chance for OV	V spread.		
36	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	comments: ong term retention	n containing a steeper hillside w	/ith mat	ture, healthy oak and heml	ock.		
37	Available	5F: Evaluated for Forest Health Considerations	19	5B: Maintain for regeneration purposes	Unspecified	Unspecified	Unspecified
	Comments: Area of Stand 37 w	rith no current oak wilt infections	S.				
38	Available	5F: Evaluated for Forest Health Considerations	5	5T: Contigency Treatment for Forest Health Concerns	Unspecified	Unspecified	Unspecified
A		nat contains scattered oak wilt in e future management.	nfectior	ns, mainly along the power	line ROW. Future spread r	may be limited with stand ເ	diversity. Monitor for
39	Available	5F: Evaluated for Forest Health Considerations	29	5B: Maintain for regeneration purposes	Unspecified	Unspecified	Unspecified
C	Comments:	h no current oak wilt infections.					

Crystal Falls Mgt. Unit

Eric Brolin: Examiner

Compartment: 173
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40	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Long term retention	n (3.5%) for the east half of Star	nd 7 in	cluding mature aspen and oa	k.		
41	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Long term retention	n of mature oak for Stand 89.					
42	Available	5F: Evaluated for Forest Health Considerations	12	5B: Maintain for regeneration purposes	Unspecified	Unspecified	Unspecified
	Comments: Area of Stand 73 w	vith pure oak and no current sign	ns of o	ak wilt.			
43	Unavailable	5E: Long-Term Retention	2	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
	Comments: Dense mature oak	patch and/or lowland alder/hard	lwood	exclusion. Long term retentio	n for Stand 38.		
45	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	0	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Small interior patcl	n with dense aspen saplings exc	cluded	from current treatment.			

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Mgt. Unit Compartment: #Type!
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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				

Report 7 - Stands



DNR DNR
MICHIGAN

Stan	d Level 4 C	over Type		Size Density	Acres St	tand Age B	A Range	Managed Site		General Comments		
1	4130	- Aspen		Poletimber Well	14.4	25	1-50	N/A		Dense aspen stand transitioning to pole sized trees with some mature oak speckled within. More bigtooth in the south half and quaking in the		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canop	py Species	Density	Avg. Height	Size	north half.		
	Quaking Aspen	30	Pole	4 25	White	Pine	Low	Variable	Variable			
	White Pine	1		18	Red N	/laple	High	Variable	Variable			
	Paper Birch	1	Pole	3	White S	Spruce	Low	Variable	Variable			
	Bigtooth Aspen	63	Sapling	5 25								
	Red Oak	5		13 99								
2	4130	- Aspen		Poletimber Well	16.9	33 I	mmature	N/A		Dense aspen, small pole sized trees. Oak and a few mature pine are		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canop	py Species	Density	Avg. Height	Size	scattered within.		
	White Pine	1		18	White S	Spruce	Low	Variable	Variable			
	Red Oak	5		13 99	Red N	/laple	Medium	Variable	Variable			
	White Spruce	1	Seedling	8				'		_		
	Quaking Aspen	15	Sapling	6 33								
	Red Maple	3	Sapling	5 33								
	Paper Birch	2	Sapling	6								
	Bigtooth Aspen	73	Sapling	7 33								
3	4131 - Aspen, Oak			Poletimber Well	22.4	46	111-140	N/A		Aspen pole stand. There is a fair amount of mature oak scattered		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canop	py 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		
	Red Oak	25		14 99	Balsa	m Fir	Low	Variable	Variable	dead oak patches in the SE corner and the NW corner. The SE patch		
	White Pine	2		22	Red N	/laple	Low	Variable	Variable	has oak density to continue spreading. The NW patch has less oak		
	Quaking Aspen	30	Seedling	7 46	White	Pine	Low	Variable	Variable	density and should slow/stop with more species diversity. A couple of drainage ravines run N/S across the stand and will probably need to be		
	Red Maple	3	Sapling	7 46						excluded from future management.		
	Paper Birch	2		8								
	Bigtooth Aspen	38	Seedling	8 46								
4	4123 -	Red Oak		Sawtimber Well	49.1	99	171-200	N/A		Very dense oak stand over 200 BA in a lot of areas. Average small log		
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canor	py Species	Density	Avg. Height	Size	size trees with natural mortality occurring due to being severely suppressed. A few small visible dead oak patches were investigated in		
	Red Oak	85		13 99	White	Pine	Low	Variable	Variable	the field and appear to be natural mortality with no spread occurring.		
	White Pine	2		20	Red N	Ларlе	Medium	Variable	Variable	More aspen mixed in the west 1/3 turning to nearly solid oak in the east		
	Red Maple	3	Seedling	8	Red N	Ларlе	Low	Variable	Variable	2/3. Very small areas were harvested in 2021 in the SW corner and the far east edge that contain some young regen but also denser oak		
	Paper Birch	1	Seedling	8						canopies. Moderate rolling terrain in areas.		
	Bigtooth Aspen	9		12 99								
	2.91001117100011											
		Red Oak	S	awtimber Mediun	n 10.8	99	81-110	N/A		Dense oak patches with some small young aspen areas mixed in.		
5	4123 -		Size Class				81-110 Density		Size	Dense oak patches with some small young aspen areas mixed in. Numerous, aggressive spreading dead oak patches within stand.		
5				DBH Age		py Species		N/A Avg. Height Variable				
5	4123 - Canopy Species	% Cover		DBH Age	Sub-Canop	py Species g Aspen	Density	Avg. Height	Size			

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Stand	d Level 4 Co	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Si	ite	Year of Entry: 2027 General Comments			
6	4123 -	:	Sawtimb	er Well	71.8	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 unmanaged			
	White Pine	3		20		Quak	king Aspen	Low	Variable	Variable	stands. Oak canopy is closed across a majority of the stand averaging 110-120 BA+ across oak areas. Understory has maple and aspen			
	Red Pine	1		20		Re	d Maple	High	Variable	Variable				
	Red Oak	94		13	99	Bigto	oth Aspen	Medium	Variable	Variable	saplings from last harvest. Aspen is doing well with smaller gaps across the stand but is barely holding on with the limited sunlight. No signs of			
	Hemlock	1		13							dead oak except along the south edge. Spreading dead oak along the			
	Bigtooth Aspen	1		15							south private line from adjacent past harvest. Adjacent private landowner along the south edge clearcut during peak oak wilt season uto 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		- Aspen		Poletimb		66.6	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 understory			
	Canopy Species	% Cover			Age		nopy Species		Avg. Height	Size	in the north half. Some open patches and edges show good natural pine			
	Red Maple	5	Sapling	7	47		Isam Fir	Low	Variable	Variable	regeneration. Lower patch of ground in the NE may have to be excluded from future management. Retain the W/NW half of the stand to create			
	Paper Birch	10	Sapling	7 9	47		nite Pine	Low	Variable Variable	Variable	more aspen age class diversity in the area.			
	Bigtooth Aspen Quaking Aspen	70	Seedling Seedling	8	47	VVIII	te Spruce	Low	variable	Variable				
	Red Oak	70	Seeding	13	99									
	White Pine	6		18	99									
_		- Aspen		Poletimb	or Wall	50.9	48	111-140	N/A		Good quality mixed aspen poles. Scattered mature oak and pine found			
8											¬ across the stand. Fingers and areas along the north have steep slopes			
	Canopy Species	% Cover	Size Class		Age		nopy Species		Avg. Height	Size	down to low ground flats. A fair amount may need to be excluded from			
	Red Pine	3	Coodling	14	48		nite Pine	Low	< 5 feet	< 5 feet	future management for operations and BMP's. Some areas have beefy oak and pine seedlings present.			
	Quaking Aspen	52 5	Seedling Sapling	8	46		lsam Fir ed Oak	Low	Variable < 5 feet	Variable < 5 feet	San and pilo occurring process.			
	Red Maple Bigtooth Aspen	30	Seedling	8	48		ed Oak ed Maple	Low	Variable	Variable				
	Red Oak	5	Seediling	14	99	Re	u Mapie	LOW	variable	variable	1			
	White Pine	5		14	99									
	Willie Fille	3		14										
9	4130	- Aspen		Poletimb		30.5	25	1-50	N/A		Young mixed aspen stand transitioning to pole sized trees. Stand is			
	Canopy Species	% Cover	Size Class		Age		nopy Species		Avg. Height	Size	ravine along the NW should be excluded from future management. A			
	White Pine	5		15			d Maple	Medium	Variable	Variable	large rock outcrop in the north was excluded during the last harvest but			
	Red Pine	2		15		R	ed Oak	Low	Variable	Variable	some of this may be included in future management.			
	Red Oak	8		13	99									

Red Maple

Bigtooth Aspen

Quaking Aspen

2

75

8

Pole

Sapling

Pole

3

5

4 25

25

18

Ort 7 - Stands Compartment: 173
Year of Entry: 2027

Stand	d Level 4 C	over Type		Size De	ensity	Acres	Stand Age E	BA Range	Managed Sit	e	General Comments
10	4130) - Aspen		Poletimb	er Well	27.8	48	111-140	N/A		Good quality aspen pole stand with mainly quaking aspen. Fairly open
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	understory across most of the area. Some oak is mixed in, mainly in the west. Very few scattered conifer within.
	Red Pine	1		18		Re	d Maple	Low	Variable	Variable	
	Red Oak	6		13	99	R	ed Oak	Trace	Variable	Variable	
	White Pine	1		15	99	Whi	te Spruce	Trace	Variable	Variable	
	Bigtooth Aspen	7	Seedling	9	48						
	Quaking Aspen	85	Seedling	8	48						
11	4130	- Aspen		Poletimb	er Well	35.0	23	Immature	N/A		Dense aspen stand transitioning to pole sized trees. Scattered mature
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	oak and white pine within.
	White Pine	2		22		Re	d Maple	Medium	Variable	Variable	
	Red Oak	12		14	99	R	ed Oak	Trace	Variable	Variable	
	Red Maple	7	Pole	3					1		
	Bigtooth Aspen	64	Sapling	5	23						
	Quaking Aspen	15	Sapling	5	23						
12	4123 -	- Red Oak		Sawtimb	er Well	33.5	99	171-200	N/A		Good quality oak but extremely suppressed averaging smaller diamaeter, larger pole to small sawlog range. Most areas are reaching
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	up to 200BA for stocking. Some small clones of large, very mature
	Red Pine	2		17		Re	d Maple	Medium	Variable	Variable	aspen is mixed in as well as some red maple and birch poles. Significan
	Quaking Aspen	3		11		Pa _l	per Birch	Low	Variable	Variable	amount of spreading dead oak patches along the SE edge from past adjacent timber sale. Area north of the road also has numerous
	Red Maple	3	Sapling	7							spreading dead oak patches. Adjacent private landowner along the
	Paper Birch	7	Seedling	8							south edge clearcut during peak oak wilt season up to the state land
	Bigtooth Aspen	5		12							border. Significant new mortality and spread along the line is anticipate in the coming years. Oak stocking is dense enough for continuous
	Red Oak	80		10	99						spread across the entire stand.
13	4131 - /	Aspen, Oak		Sawtimb	er Well	38.3	34	81-110	N/A		Areas dense to younger aspen poles, otherwise oak log canopy.
	Canopy Species	% Cover	Size Class	DBI	l 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
	Red Oak	50		14	99	Re	d Maple	High	Variable	Variable	during peak oak wilt season up to the state land border. Significant new
	Red Pine	1		22		Bigto	oth Aspen	Low	Variable	Variable	mortality and spread along the line is anticipated in the coming years.
	Red Maple	3	Sapling	5							Oak stocking is dense enough for continuous spread across the entire stand.
	Paper Birch	2	Sapling	5							stand.
	Bigtooth Aspen	25	Seedling	6	34						
	White Pine	1		22							
	Quaking Aspen	18	Sapling	6	34						
14	4123 -	- Red Oak		Sawtimb	er Well	25.5	99	141-170	N/A		Cut in 2021. Everything except oak was removed leaving a solid canop
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	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
	Red Oak	95		13	99	Re	d Maple	Medium	Variable	Variable	absolutely obliterated with aggressive spreading dead oak patches.
	Red Pine	3		18		Bigto	oth Aspen	Low	Variable	Variable	
	14/1/1/ D:	_		40							-

2

White Pine



Stand	d Level 4 Co	over Type		Size De	ensity	Acres Stand Age	BA Range	Managed Site		General Comments	
15	4130	- Aspen		Saplin	g Well	58.4 5	Immature	N/A		Dense aspen saplings solid to bigtooth. Scattered mixed pine, mature	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Canopy Species	Density	Avg. Height	Size	oak found in the south 1/3, and scattered retention patches. Retention patches are all healthy except for the far NW one which has numerous	
	Red Pine	4		8		Red Maple	Medium	Variable	Variable	dead oak spreading.	
	Red Maple	4	Log	1		Red Oak	Medium	< 5 feet	< 5 feet		
	Bigtooth Aspen	81	Log	1	5	White Pine	Low	Variable	Variable		
	White Pine	3		8						-	
	Red Oak	8		12							
16	4130	- Aspen	ī	Poletimb	er Well	21.4 36	51-80	N/A		Aspen and maple mix with scattered mature oak and pine within. Aspen	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Canopy Species	Density	Avg. Height	Size	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 merchantable size	
	Quaking Aspen	45	Sapling	5	36	Red Maple	High	Variable	Variable	yet.	
	White Pine	3		10		Red Oak	Low	Variable	Variable		
	Red Oak	5		13	99	White Pine	Low	Variable	Variable		
	Northern Pin Oak	3		9			-	1		-	
	Red Pine	2		10	99						
	Red Maple	10	Sapling	6							
	Paper Birch	2	Sapling	7							
	Bigtooth Aspen	30	Sapling	6	36						
17	4123 -	Red Oak	Sa	awtimbe	r Mediur	n 10.9 99	111-140	N/A		red oak logs. patches of alien pipes that succeeded with gaps. dead oak patchpine seedlings not very dense but healthy and scattered across	
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Canopy Species	Density	Avg. Height	Size	entire underskirt	
	White Pine	1		20		Red Pine	Low	< 5 feet	< 5 feet		
	Red Pine	2		16	99	Red Maple	High	Variable	Variable		
	Bigtooth Aspen	17	Pole	4	37	Bigtooth Aspen	Low	>20 feet	>20 feet		
	Red Oak	80		13	99	White Pine	Low	< 5 feet	< 5 feet		
18	4130	- Aspen		Saplin	g Well	14.4 4	Immature	N/A		Cut in 2021. Dense aspen saplings with a couple of interior retention	
	Canopy Species	% Cover	Size Class	DBI	l Age					patches.	
	Red Oak	10	Log	1							
	Quaking Aspen	10	Log	1	4						
	Dad Manla	5	Log	1							
	Red Maple			1 -							
	Bigtooth Aspen	75	Log	1	4						
19	Bigtooth Aspen					19.0 99	111-140	N/A		Red oak log canopy with patchy dense areas of aspen. Dense red	
19	Bigtooth Aspen	75 Red Oak		1 Sawtimb		19.0 99 Sub-Canopy Species		N/A Avg. Height	Size	□ maple sapling understory across much of the stand. One dead oak	
19	Bigtooth Aspen 4123 -	75 Red Oak	•	1 Sawtimb	er Well					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	
19	Bigtooth Aspen 4123 - Canopy Species	75 Red Oak % Cover	•	1 Sawtimb	er Well	Sub-Canopy Species	Density	Avg. Height	Size	maple sapling understory across much of the stand. One dead oak patch found in the SW was inspected, it appears to have stopped	
19	Bigtooth Aspen 4123 - Canopy Species White Pine	75 Red Oak **Cover** 1	•	Sawtimb DBI 20	er Well	Sub-Canopy Species White Pine	Density Low	Avg. Height < 5 feet	Size < 5 feet	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	

t 7 – Stands Compartment: 173 Year of Entry: 2027

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Stand	Level 4 C	Level 4 Cover Type				Acres St	Acres Stand Age BA Range			te	General Comments
20		- Aspen		Sapling	, ,	23.3		nmature	N/A		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			l Age	Sub-Canop	· ·	Density	Avg. Height	Size	,,,
	Red Oak	10	Log	1		Red F	Pine	Low	5 - 10 feet	5 - 10 feet	
	Red Maple	5	Log	1							
	Bigtooth Aspen	70	Log	1	5						
	Quaking Aspen	15	Log	1							
21	4130	- Aspen	1	Poletimb	er Well	16.9	48 1	11-140	N/A		Quaking aspen pole stand with mix of mature red oak and pine. More
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canop	y Species	Density	Avg. Height	Size	oak iii tile notti naii.
	Red Pine	5		13		Black C	Cherry	Low	Variable	Variable	
	Quaking Aspen	80	Seedling	8	48	Red F	Pine	Low	Variable	Variable	
	Red Oak	12		12		Red M	/laple	Low	Variable	Variable	
	Red Maple	3	Sapling	5							_
22	4311 - Pin	e, Aspen M	lix	Sawtimb	er Well	16.5	99	81-110	N/A		Good diverse mixed stand of hardwood, aspen, and pine. Understory is
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Canop	y Species	Density	Avg. Height	Size	If lushed full of mixed regen of all species ranging from seedlings to well established saplings and poles. Leave another rotation to allow saplings
	Red Pine	33		12	99	White	Pine	Low	< 5 feet	< 5 feet	to become better established. Consider management next YOE to
	Red Oak	18		12	99	White	Pine	Low	Variable	Variable	release advanced regen and take some dominant canopy out.
	Quaking Aspen	7	Sapling	5		Red F	Pine	Low	Variable	Variable	
	White Pine	10		11	99	Red (Oak	Medium	< 5 feet	< 5 feet	
	Red Maple	2	Sapling	7		Red (Oak	Low	Variable	Variable	
	Bigtooth Aspen	30	Sapling	5	32	Red M	1aple	Medium	< 5 feet	< 5 feet	
						Red M	1aple	High	Variable	Variable	
23	4130	- Aspen		Sapling	g Well	16.4	5 In	nmature	N/A		Aspen sapling stand with mainly bigtooth. A few retention patches of
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Canop	y Species	Density	Avg. Height	Size	mature oak within.
	White Pine	3	Sapling	7		White	Pine	Low	Variable	Variable	
	Red Pine	2		10		Red F	Pine	Low	Variable	Variable	
	Quaking Aspen	15	Log	1	5						
	Red Oak	5	Log	1							
	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	l Age	Sub-Canop	y 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	White	Pine	Medium	Variable	Variable	saplings in the south half. Most mature pine is in the north half.
	Red Pine	7		12	99	White	Pine	Trace	Variable	Variable	
	White Pine	5		12	99	Quaking	Aspen	Low	Variable	Variable	
	Red Oak	60		13	99	Red F	Pine	Medium	Variable	Variable	
	Red Maple	3		8		Red (Oak	Low	Variable	Variable	
	Bigtooth Aspen	15	Sapling	6	32	Red M	1aple	Medium	Variable	Variable	

Variable

Variable

Low

Bigtooth Aspen

Crystal Falls Mgt. Unit



Stand	l Level 4 C	over Type		Size Density	Acres	Stand Age B	A Range	Managed S	ite	General Comments
25	42110 - Pla	inted Red P	ine	Poletimber 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.
1	Northern Pin Oak	1		10	Northe	ern Pin Oak	Low	Variable	Variable	Oak and red maple saplings are dense in certain areas within the stand.
	Red Pine	94		9 62	Quak	ing Aspen	Low	Variable	Variable	160 150 200 190 80 120 150 150 160 Average 150 BA.
	Red Oak	2		12	Re	d Maple	Medium	Variable	Variable	
	White Pine	3		12	Re	ed Oak	Medium	Variable	Variable	
					Whit	e Spruce	Low	Variable	Variable	
26	4130	- Aspen		Poletimber Well	29.0	48	111-140	N/A	\	Nice stand of quaking aspen poles. Averages large pole to small sawlog
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Car	nopy Species	Density	Avg. Height	Size	sized trees although some areas average a slightly smaller diameter. Large pine mixed in patches and scattered across the area. Dense hazel
	White Spruce	1		11	Northe	ern Pin Oak	Low	Variable	Variable	understory in areas.
	Quaking Aspen	88		9 48	Re	ed Pine	Low	Variable	Variable	
	Red Pine	4		14	Whit	e Spruce	Low	Variable	Variable	
	Paper Birch	1	Seedling	7	Wh	nite Pine	Low	Variable	Variable	
	White Pine	5		15	Blac	k Cherry	Low	Variable	Variable	
	Black Cherry	1	Sapling	7						-
27	7 4136 - Aspe	n, Mixed Co	nifer	Sapling Well	23.7	24	1-50	N/A	١	Patches of declining fir with aspen and mixed hardwood saplings filling
	Canopy Species	% Cover	Size Class	DBH Age						in. Any salvage of declining fir will damage better regen on site. Unmanaged patch in the far NE corner should be included with future
	Balsam Fir	15	Sapling	7 74						management.
	Quaking Aspen	60	Log	2 24						A
	Red Maple	20		8 74						Aspen was cut out and other species retained before state acquired parcel.
	White Pine	5		10						Pa. 55.11
28	4130	- Aspen		Sapling Well	15.6	6	1-50	N/A		Aspen sapling stand with large seed tree pine left. Some small patches
	Canopy Species	% Cover	Size Class	DBH Age						are more sparse but overall fully stocked and should fill in with time.
	Red Maple	5	Log	1						
	Red Pine	3		14 99						
	Quaking Aspen	85	Log	1 6						
	White Pine	7		14 99						
29	4130	- Aspen		Sapling Well	12.1	6 I	mmature	N/A	١	Dense aspen saplings with some scattered mature pine. Pine is mainly
	Canopy Species	% Cover	Size Class	DBH Age						found in the north half.
	Red Pine	1		20						
	White Pine	5		10						
	Red Maple	7	Log	1						
	Quaking Aspen	87	Log	1 6						



Stand	Level 4 Cover Type			Size De	ensity	Acres	Stand Age E	BA Range	Managed S	ite	General Comments
30	42110 - Pla	nted Red P	ine	Sawtimb	er Well	38.1	61	81-110	N/A	Λ.	Thinned in 2020. Red pine stand with small saw log to large pole sized
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	trees. Scattered patches have denser stocking but overall the crowns have room to grow across the stand yet.
	Red Pine	99		12	61	Whit	e Spruce	Low	5 - 10 feet	5 - 10 feet	Thave room to grow dorose the stand yet.
	White Pine	1		25		Wh	ite Pine	Low	5 - 10 feet	5 - 10 feet	
						Blac	k Cherry	Low	Variable	Variable	
31	4130	- Aspen		Saplin	g Well	26.9	4	Immature	N/A	\	Cut in 2021. Dense aspen saplings, mainly quaking, transitioning to
	Canopy Species	% Cover	Size Class	DBI	l Age						more bigtooth with higher elevation.
	White Pine	2	Seedling	8							
	Red Pine	3		14							
	Quaking Aspen	50	Log	1	4						
	Red Oak	5	Log	1							
	Red Maple	5	Log	1							
	Bigtooth 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 sawlo
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	sized trees although some areas average a slightly smaller diameter. Large pine mixed in patches and scattered across the area. Dense haz
	White Pine	5		15		Wh	ite Pine	Low	Variable	Variable	understory in areas.
	Black Cherry	1	Sapling	7		Blac	k Cherry	Low	Variable	Variable	·
	Red Pine	4		14		Northe	rn Pin Oak	Low	Variable	Variable	
	Quaking Aspen	68		9	48	Re	ed Pine	Low	Variable	Variable	
	Red Oak	2		13		Whit	e Spruce	Low	Variable	Variable	
	White Spruce	1		11							_
	Paper Birch	1	Seedling	7							
	Bigtooth Aspen	20	Seedling	8							
33	6118 - Lowland D	eciduous w	ith Cedar	Poletimb	er Well	5.1	99	81-110	N/A	\	INCLUDES OUTLET FROM DEADMANS LAKE. Also includes buffer
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Car	nopy Species	Density	Avg. Height	Size	along Deadman's Lake, which is mostly upland.
	Black Ash	35	Sapling	7	99	Bla	ack Ash	Medium	Variable	Variable	
	Red Maple	25		10		Blac	k Spruce	Low	Variable	Variable	
	Paper Birch	10		10	99					1	_
No	orthern White Cedar	20		9	99						
	Quaking Aspen	10		10							

t 7 – Stands Compartment: 173 Year of Entry: 2027 DNR DNR

Stand	Level 4 Cover Type		Size De	nsity	Acres	Stand Age B	A Range	Managed Sit	е	General Comments	
34	6117 - Lowland Con	Deciduous, iferous	, Mixed Sa	awtimbei	Medium	34.2	100	81-110	N/A		Large diameter declining trees. Steep long bank across most of the stand makes it inaccessible. Poorly drained ground with areas of cedar
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	and black ash. A small 3 acre patch in the north containing sugar maple and white pine may be manageable in the future.
	White Pine	5		20	100	Bla	ck Spruce	Low	Variable	Variable	and write pine may be manageable in the ruture.
	American Elm	5	Seedling	8		ВІ	ack Ash	Medium	Variable	Variable	
	Balsam Fir	5	Sapling	7		Bla	ck Cherry	Medium	Variable	Variable	
	Quaking Aspen	25		14	100						_
	Sugar Maple	5		9							
	Red Maple	10	Sapling	7							
	Paper Birch	5		10							
	Black Ash	22		7							
	White Spruce	3		10							
35	4130	- Aspen		Sapling	Well	16.9	13	mmature	N/A		Cut in 2012 dense mix of brush and saplings
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	60	Log	1	13	R	ed Pine	Low	Variable	Variable	
	Balsam Poplar	10	Log	2		W	hite Pine	Low	Variable	Variable	
	White Pine	15		14		Ba	ılsam Fir	Medium	Variable	Variable	
	Black Cherry	12	Log	1		Qual	king Aspen	Medium	Variable	Variable	
	Red Pine	3		18							
36	4130	- Aspen		Sapling	ı Well	49.1	6 1	mmature	N/A		Aspen saplings with some hardwood mixed in and residual scattered pine and oak.
	Canopy Species	% Cover	Size Class	DBH	Age						pine and oak.
	Red Maple	5	Log	1							
	Bigtooth Aspen	8	Log	1							
	Red Oak	1		14							
	White Spruce	2	Log	2							
N	lorthern Pin Oak	2		12							
	Red Pine	5		14							
	White Pine	3		14							
	Black Cherry	4	Pole	3							
	Quaking Aspen	70	Log	1	6						
37	4123 -	Red Oak	S	Sawtimb	er Well	27.5	99	111-140	N/A		Solid oak log stand. Large patch of spreading dead oak in the center
	Canopy Species	% Cover	Size Class	DBH	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				,		spreading dead oak patches within.
	Red Maple	2	Seedling	6	49						OPIC - FMD: ASPEN CUT OUT IN 1976 (1996)
	Paper Birch	2	Sapling	5							5. 15 . IIIB. 161 ER 551 551 IR 1010 (1000)
	Bigtooth Aspen	3	Seedling	8							

Report 7 - Stands



Stan	d Level 4 C	over Type		Size Density	Acres	Stand Age E	BA Range	Managed Si	te	General Comments
38	4130	- Aspen		Poletimber Well	10.6	47	111-140	N/A		Good quality aspen stand. Some mature oak mixed in.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Quaking Aspen	71	Seedling	8 47	W	hite Pine	Trace	Variable	Variable	
	Balsam Fir	1	Sapling	7	Bla	ck Cherry	Low	Variable	Variable	
	Sugar Maple	1	Seedling	8	Ва	alsam Fir	Low	Variable	Variable	
	Paper Birch	2	Sapling	7	Wh	ite Spruce	Low	Variable	Variable	
	Bigtooth Aspen	14	Seedling	9	Re	ed Maple	Low	Variable	Variable	
	Red Oak	6		13						
	White Spruce	1	Sapling	7						
	White Pine	2		14						
	Black Cherry	2	Sapling	7						
39	4130	- Aspen		Sapling Well	11.2	5	Immature	N/A		Aspen saplings with residual oak.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Red Oak	10	Log	1	Wi	tch Hazel	Medium	5 - 10 feet	5 - 10 feet	
	Red Maple	5	Log	1			<u> </u>			-
	Bigtooth Aspen	85	Log	1 5						
40	4131 - A	Aspen, Oak		Sapling Well	68.0	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 of
	Balsam Poplar	2	Log	2						oak saplings are mixed in from both seed and stump sprouting. Long
	Red Oak	25	Log	2 15						term retention patches left from the past harvest contain spreading dead
	Quaking Aspen	15	Log	2 15						oak patches. Overall, this is a vigorous, diverse, young mixed stand.
	Red Maple	8	Log	2 15						
	Paper Birch	12	Log	2						
	Bigtooth Aspen	38	Log	3 15						
41		- Aspen		3 15 Poletimber Well	3.9	48	111-140	N/A		Small elevation hump stand with excellent quality bigtooth aspen.
41						48 nopy Species		N/A Avg. Height	Size	Small elevation hump stand with excellent quality bigtooth aspen.
41	4130	- Aspen		Poletimber Well	Sub-Ca					Small elevation hump stand with excellent quality bigtooth aspen.
41	4130 Canopy Species	- Aspen	Size Class	Poletimber Well DBH Age 6 48 14 99	Sub-Ca	nopy Species	Density	Avg. Height	Size	Small elevation hump stand with excellent quality bigtooth aspen.
41	4130 Canopy Species Bigtooth Aspen	- Aspen **Cover** 83	Size Class	Poletimber Well DBH Age 6 48	Sub-Ca	nopy Species	Density	Avg. Height	Size	Small elevation hump stand with excellent quality bigtooth aspen.
41	4130 Canopy Species Bigtooth Aspen White Pine	- Aspen **Cover 83 3	Size Class	Poletimber Well DBH Age 6 48 14 99	Sub-Ca	nopy Species	Density	Avg. Height	Size	Small elevation hump stand with excellent quality bigtooth aspen.

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Stand	Level 4 Co		Size Density			Acres Stand Age BA Range Manage				General Comments	
43	4121 - C	ak, Aspen	:	Sawtimb	er Well	60.1	99	111-140	N/A		Rolling terrain across stand. Ranges from denser oak log patches to
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	dense aspen pole areas. Aspen is heavy to bigtooth transitioning to guaking on the lower elevations. Aspen on higher elevations has large
	Red Oak	60		13	99	Re	d Maple	Low	Variable	Variable	diameter. Dead oak clumps scattered in the north and a larger vein
	Red Maple	5	Seedling	7		Re	d Maple	Medium	Variable	Variable	containing numerous pockets zigzags across the SW area.
	Bigtooth Aspen	25	Sapling	7	36	Bigto	oth Aspen	Medium	Variable	Variable	
	Quaking Aspen	10	Sapling	6	36	Bigto	oth Aspen	Low	Variable	Variable	
44	6120 - Lov	wland Ceda	r	Poletimb	er Well	16.6	99	141-170	N/A		Very dense cedar across a majority of the stand. Patch in the far eas
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	has some more mixed conifer and aspen mixed in. Low, flooded grou
	White Pine	4		15		Ва	lsam Fir	Low	Variable	Variable	
	Quaking Aspen	4		10		Та	g Alder	Low	5 - 10 feet	5 - 10 feet	
	Black Spruce	5	Sapling	7							1
No	orthern White Cedar	87		9	99						
45	4130	- Aspen		Poletimb	er Well	19.9	48	111-140	N/A		Nice stand of quaking aspen poles. Averages large pole to small saw
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Cai	nopy Species	Density	Avg. Height	Size	sized trees although some areas average a slightly smaller diameter. Large pine mixed in patches and scattered across the area. Dense h
	Red Pine	4		14			nite Pine	Low	Variable	Variable	understory in areas.
	Paper Birch	1	Seedling	7		Blac	k Cherry	Low	Variable	Variable	·
	White Pine	5		15		Northe	ern Pin Oak	Low	Variable	Variable	
	Black Cherry	1	Sapling	7		Re	ed Pine	Low	Variable	Variable	
	Quaking Aspen	88		9	48	Whit	e Spruce	Low	Variable	Variable	
	White Spruce	1		11							
46	4130	- Aspen		Poletimb	er Well	25.5	47	111-140	N/A		Good quality aspen stand. Some mature oak mixed in. A low swale re
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	along the east edge and may have to be excluded from future management.
	Black Cherry	3	Seedling	7		Ва	lsam Fir	Low	Variable	Variable	
	Quaking Aspen	74	Seedling	8	47	Re	d Maple	Low	Variable	Variable	
	Balsam Fir	1	Sapling	7		Whit	e Spruce	Low	Variable	Variable	
	Black Ash	2	Sapling	7		Wh	nite Pine	Trace	Variable	Variable	
	Paper Birch	2	Sapling	7		Blac	k Cherry	Low	Variable	Variable	
	Bigtooth Aspen	10	Seedling	9							
	Red Oak	7		13							
	White Spruce	1	Sapling	7							
47	4319 - Mixed	Unland Fo	rest	Sawtimb	er Well	0.6	100	111-140	N/A		

Report 7 – Stands

Compartment: 173

Year of Entry: 2027

Stand	d Level 4 Cover Type			Size De	nsity	Acres Stand Ag	Managed	Site	General Comments	
49	4123 -	Red Oak	Sa	wtimbe	Medium	8.3 99	81-110	N/	/A	Cut in 2009. Dense oak canopy with some open sapling sized patches of mixed aspen and maple. Numerous spreading dead oak patches
	Canopy Species	% Cover			Age	Sub-Canopy Spec		Avg. Height	Size	across the stand south of Paint Pond Road, north of the road is healthy
	Paper Birch	2	Sapling	6		Quaking Aspen		Variable	Variable	yet and has some larger canopy gaps. Adjacent private landowner along
	Red Oak	96		13	99	Red Maple	High	Variable	Variable	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
	White Pine	1		16		Bigtooth Aspen	Medium	Variable	Variable	in the coming years. Oak stocking is dense enough for continuous
	Red Pine	1		16		Red Oak	Trace	Variable	Variable	spread across the entire stand.
51	4130	- Aspen	F	Poletimb	er Well	125.6 44	111-140	N/	'A	Nice aspen poles with good diameter. Stand is heavy to quaking aspen
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Spec	cies Density	Avg. Height	Size	with some bigtooth clones mixed in, mainly on elevation rises. More diverse mix in the NW area with a bit more pine and hardwood mixed in.
	Red Oak	7		15		White Spruce	Trace	Variable	Variable	Unmanaged areas along the south due to slope and BMP's. Half of this
	Sugar Maple	1		9		Red Maple	Low	Variable	Variable	stand will be held until next YOE to create aspen age class diversity in
	Red Maple	10		9		Red Maple	Medium	Variable	Variable	the area. Aspen is healthy and will hold up well. Edges of the adjacent red pine stand were avoided for the proposed harvest due to dense
	Paper Birch	1	Seedling	6		Paper Birch	Trace	Variable	Variable	saplings along edges from 2021 harvest to allow the edge to become
	Bigtooth Aspen	12	Seedling	9				I	_	more established.
	Red Pine	3	-	14						
	Quaking Aspen	65	Seedling	8	44					
	White Pine	1		14						
52	42110 - Pla	nted Red P	ine F	Poletimb	er Well	51.4 62	81-110	N/	/A	Cut in 2021. Large pole to small sawlog sized red pine stand. A lot of
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Spec	cies Density	Avg. Height	Size	areas have a very light canopy of red pine and dense aspen sapling regeneration from past harvest. A lot of aspen saplings will have enough
	White Pine	1		12		White Spruce	Low	Variable	Variable	light to succeed into the future.
	Red Pine	99		8	62	Quaking Aspen	Full	10 - 20 feet	10 - 20 feet	
						Red Maple	Low	Variable	Variable	
53	6128 - Lowland Dec	Coniferous iduous	Mixed F	Poletimb	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.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Spec	cies Density	Avg. Height	Size	
	Quaking Aspen	20		12		Balsam Fir	Medium	Variable	Variable	
	Black Spruce	35		8	99	Tag Alder	Medium	5 - 10 feet	5 - 10 feet	
No	orthern White Cedar	35		9						•
	White Pine	10		14						
54	6117 - Lowland Con	Deciduous, iferous	Mixed F		er Well	8.7 99	81-110	N/	'A	Floodplain along the Brule River with saturated soil. Dead and dying black ash along the river. Conifer and aspen are falling apart.
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Spec	cies Density	Avg. Height	Size	
	Balsam Fir	10		8		Balsam Fir	Medium	Variable	Variable	
	White Spruce	5		9	99	Tag Alder	Medium	5 - 10 feet	5 - 10 feet	
	Black Spruce	10	Sapling	7		<u> </u>				
	White Pine	3		14	99					
	White Pine Red Maple	3 15		14 10	99					
			Sapling		99					

Compartment: 173

l Level 4 C	over Type		Size De	nsity	Acres Stand Age BA Range			Managed Si	te	Year of Entry: 2027 General Comments	
4130	- Aspen		Poletimb	er 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	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	Diameter in the E/SE reflects more of what the age is. Unmanaged	
Red Maple	3	Sapling	6		Red	d Maple	Medium	Variable	Variable	areas along the south due to slope and BMP's. Open area in SW corner	
Paper Birch	1	Seedling	8		Blac	k Cherry	Low	Variable	Variable	that is growing in with mixed hardwood, conifer, and oak saplings/poles.	
Bigtooth Aspen	40	Seedling	9		Re	ed Oak	Trace	Variable	Variable		
Red Oak	7		16		Whit	e Spruce	Low	Variable	Variable		
Quaking Aspen	46	Seedling	8	36				·		<u>-</u>	
White Pine	2		18								
Black Cherry	1	Sapling	7								
613 - Lowlar	nd Mixed Fo	rest	Poletimb	er Well	10.2	80	51-80	N/A		Black ash/conifer floodplain flat along river. No access due to private property.	
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 with	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	oak logs. Any aspen saplings will not succeed with current canopy conditions in most areas. Some sparser canopies but overall closed	
White Pine	1		22		Red	d Maple	Medium	Variable	Variable	mature oak canopy. 180 140 140 180 Average of 160 BA in oak areas.	
Red Oak	98		12	99	Bigto	oth Aspen	Low	Variable	Variable		
Hemlock	1		12		Yello	ow Birch	Trace	Variable	Variable		
	,		,		Wh	nite Pine	Low	Variable	Variable		
4123 -	Red Oak		Sawtimb	er Well	16.8	99	111-140	N/A		Oak log stand with a few very small veins of aspen from past harvest.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	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		Bal	lsam Fir	Low	Variable	Variable	hemlock patch in the SW center area.	
Paper Birch	1	Sapling	7		Red	d Maple	High	Variable	Variable	ODIC FAID, ACDENIHADVECTED/4000)	
Bigtooth Aspen	5	Seedling	8	33						☐ OPIC - FMD: ASPEN HARVESTED(1992)	
Red Oak	89		13	99							
Hemlock	2		14								
122 - Roa	d/Parking Lo	ot	Nor	ne	1.9	0		No		Stager Lake Road	
4131 - <i>A</i>	Aspen, Oak		Poletimb	er Well	9.7	16	1-50	N/A		Cut in 2009. Dense mixed aspen saplings. Scattered mature oak across	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	stand. Some dead oak along edges should stop/slow spread with more diverse mix across this stand.	
White Pine	1		17		Red	d Maple	Medium	Variable	Variable		
Red Oak	35		12	99	Bigto	oth Aspen	Medium	Variable	Variable		
Red Pine	1		15		Quak	ing Aspen	Medium	Variable	Variable		
	Canopy Species Red Maple Paper Birch Bigtooth Aspen Red Oak Quaking Aspen White Pine Black Cherry 613 - Lowlar Canopy Species White Pine Red Oak Hemlock 4123 - Canopy Species Quaking Aspen Paper Birch Bigtooth Aspen Red Oak Hemlock 122 - Roa 4131 - A Canopy Species White Pine Red Oak Hemlock	### Add Canopy Species	A130 - Aspen Canopy Species	Canopy Species % Cover Size Class DBH Paper Birch Paper Birch 1 Seedling 8 Bigtooth Aspen 40 Seedling 9 Red Oak 7 16 Quaking Aspen 46 Seedling 8 White Pine 2 18 Black Cherry 1 Sapling 7 613 - Lowland Mixed Forest Poletimb Canopy Species % Cover Size Class DBH White Pine 1 22 Red Oak 98 12 Hemlock 1 12 4123 - Red Oak Sawtimb Canopy Species % Cover Size Class DBH Quaking Aspen 3 Seedling 7 Paper Birch 1 Sapling 7 Bigtooth Aspen 5 Seedling 8 Red Oak 89 13 Hemlock 2 14 122 - Road/Parking Lot Nor Canopy Species	Canopy Species % Cover Size Class DBH Age	At 30 - Aspen Poletimber Well St.3	Aligned Poletimber Well St.3 36	A130 - Aspen	At 130 - Aspen	Add Aspen Poletimber Well St.3 36 St.110 N/A	

Bigtooth Aspen

Quaking Aspen

33

30

Log

Log

2 16

2 16



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Si	te	General Comments	
63	4199 - Other Mixe	4199 - Other Mixed Upland Deciduous		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						ocatoroa in aroao.	
	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 Deci	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.	
	Red Oak	13		12	99						open pateries should his in more with time.	
	Quaking Aspen	10	Log	1								
	Red Maple	15	Log	1								
	Bigtooth Aspen	40	Log	1	5							
ı	Northern Pin Oak	3		11								
ı	Northern Pin Oak	5	Log	1								
	Red Pine	4		14								
	White Pine	10		9								
67	6129 - Mixed Conif	erous Lowla	and Forest	Sawtimb		6.4	99	51-80	N/A		Low flooded mix of dead and/or declining trees. Large healthy pine scattered within.	
	Canopy Species	% Cover	Size Class		Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	Countries within.	
	Balsam Fir	5	Sapling	6		Ta	ag Alder	Medium	5 - 10 feet	5 - 10 feet		
	Balsam Poplar	5		10								
	White Pine	45		16	99							
	Red Maple	5		8								
	Black Spruce	10	Sapling	7	99							
No	orthern White Cedar	30		12	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 - Pla	nted Red P	ine	Poletimb	er Well	1.9	42	171-200	N/A		Dense red pine poles.	
	Canopy Species Red Pine	% Cover	Size Class Seedling	DBH	Age 42						OPIC - FMD: Red pine plantation, part of old ELF study area. (2006)	
70	6120 - Lo	wland Ceda	ar	Poletimb	er Well	4.3	89	111-140	N/A		Dense cedar patch. No access due to private.	



Stan	d Level 4 C	Level 4 Cover Type			ensity	Acres	s Stand Age BA Range		Managed Sit	te	General Comments
71	42210 - Na	tural Red Pi	ne	Sawtimb	er Well	25.0	99	81-110	N/A		Thinned in 2020. Most merchantable species were removed. Scattered
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	mature oak across the stand. Some mixed understory saplings and areas with good oak seedlings.
	Red Pine	78		12	99	WI	hite Pine	Low	Variable	Variable	areas mangeed san essamings.
	Red Maple	5	Sapling	6		R	ed Pine	Low	Variable	Variable	
	Red Oak	7		12		Re	ed Maple	Medium	Variable	Variable	
	White Pine	10		12		Bigto	ooth Aspen	Low	Variable	Variable	
						R	ed Oak	Medium	Variable	Variable	
						R	ed Oak	Medium	< 5 feet	< 5 feet	
72	4130	- Aspen		Poletimb	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	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	scattered within. Understory is fairly open.
	Red Pine	2		11		WI	hite Pine	Low	Variable	Variable	
	Quaking Aspen	90	Seedling	8	47	Bla	ck Cherry	Low	Variable	Variable	
	Red Oak	2		11	99	Whi	te Spruce	Low	Variable	Variable	
	Red Maple	1	Sapling	6	47	Ва	llsam Fir	Low	Variable	Variable	
	White Pine	5		14							
73	4123 -	Red Oak	S	awtimbe	r Medium	n 7.1	99	81-110	N/A		Cut in 2009. Dense oak canopy with some open sapling sized patches of mixed aspen and maple. Numerous spreading dead oak patches
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	across the stand south of Paint Pond Road, north of the road is healthy
	Paper Birch	2	Sapling	6		Qual	king Aspen	Low	Variable	Variable	yet and has some larger canopy gaps. Adjacent private landowner along
	White Pine	1		16		R	ed Oak	Trace	Variable	Variable	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
	Red Pine	1		16		Re	ed Maple	High	Variable	Variable	in the coming years. Oak stocking is dense enough for continuous
	Red Oak	96		13	99	Bigto	ooth Aspen	Medium	Variable	Variable	spread across the entire stand.
75	4123 -	Red Oak		Sawtimb	er Well	33.5	99	111-140	N/A		Cut in 2009. This stand was delineated out from the adjacent stand due
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	to the closed, dense oak canopy. Spreading dead oak patches across the entire stand, most abundant in the south half. Adjacent private
	White Pine	2		17		Qual	king Aspen	Low	Variable	Variable	landowner along the east edge clearcut during peak oak wilt season up
	Red Oak	96		12	99	Re	ed Maple	Medium	Variable	Variable	to the state land border. Significant new mortality and spread along the
	Red Pine	2		15		Bigto	oth Aspen	Medium	Variable	Variable	line is anticipated in the coming years. Oak stocking is dense enough for continuous spread across the entire stand.
78	4123 -	Red Oak		Sawtimb	er Well	15.3	99	141-170	N/A		Dense oak log stand. Majority of understory is very dense to red maple
	Canopy Species	% Cover	Size Class	DBI	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	saplings. Dead oak patches in the center and north half showing spread.
	Red Oak	95		13	99	Re	ed Maple	High	Variable	Variable	
	Red Maple	2	Sapling	7		Rigto	oth Aspen	Low	Variable	Variable	
	ixed iviaple		Capinig	- /		Digit	oui Aspen	LOW	Variable	Variable	1



Stand	Level 4 Co	over Type	r Type Size Density Acres Stand Age BA Range Managed Site		te	General Comments				
80	6120 - Lowland Cedar		Poletimber Well	27.8	100	141-170	N/A		Dense cedar stand with some lowland species mixed in. Flooded ground	
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	with multiple trout stream segments interior.
	Balsam Poplar	7		8	Ва	alsam Fir	Medium	Variable	Variable	
	Balsam Fir	5	Sapling	7		Alder	Medium	5 - 10 feet	5 - 10 feet	
	Tamarack	5		10						
	Black Spruce	8	Seedling	8						
No	orthern White Cedar	75		9 100						
81	4123 - Red Oak		Sapling Well	4.9	16	Immature	N/A		Dense stocking of red maple and red oak saplings, mainly stump	
	Canopy Species % Cover		Size Class	DBH Age						sprouts.
	Red Oak	60	Log	2 16						
	Red Maple	40	Log	2 16						
82	122 - Road	d/Parking Lo	ot	None	28.2	0		No		US 2 and cleared ROW.
83	6115 - Lo	owland Ash		Sawtimber 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						
	White Pine	5		16						
	Black Ash	65	Sapling	7 99						
	Red Maple	5		10						
	Balsam Fir	4		8						
	Quaking Aspen	18		12 99						
	Black Spruce	3	Seedling	8						
85	4130	- Aspen		Poletimber 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-Ca	nopy Species	Density	Avg. Height	Size	edge. The trout stream loops around the E/S/W perimeter of the stand.
	Red Oak	2		12	Ва	alsam Fir	Low	Variable	Variable	
	White Spruce	2	Seedling	7				·		-
	Red Maple	3	Sapling	6						
	Paper Birch	2	Seedling	8						
	Quaking Aspen	80	Seedling	8 51						
	White Pine	2		9						
	Black Cherry	2	Sapling	6						
	Black Ash	5	Sapling	7						
	Balsam Fir	2	Sapling	7						
86	110 - Low Ir	ntensity Urb	an	None	1.9			No		STAGER LAKE ROAD

Crystal Falls Mgt. Unit



Stand	d Level 4 C		Size Density	Acres Stand Age BA Range			Managed Site		General Comments	
88	4130 - Aspen			Sapling Well	10.9	10	Immature	N/A		Aspen sapling stand.
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	
	Balsam Fir	5	Pole	2	Ва	alsam Fir	Medium	Variable	Variable	
	Balsam Poplar	20	Log	2 10						
	White Pine	5		14						
	Quaking Aspen	70	Log	2 10						
89	4123 - Red Oak			Sawtimber Well	17.2 99 1		141-170	N/A		Dense canopy heavy to oak. Similar to adjacent oak stands but contains
	Canopy Species % Co		Size Class	DBH Age	Sub-Canopy Species		Density	Avg. Height Siz		a heavier component of large mature aspen, mainly in the south half. Dead oak patches scattered across entire stand are showing signs of
	Red Oak	72		13 99	Re	ed Maple	Low	Variable	Variable	aggressive, continued spread.
	Red Maple	3		8	Re	ed Maple	Low	Variable	Variable	
	Bigtooth Aspen	25		11 99						_
92	4125 - Black, N. Pin Oak		ak	Poletimber Well	7.7	99	111-140	N/A	1	Mixed oak stand that is heavy to northern pin oak. Red oak and pine are
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Canopy Species		Density	Avg. Height	Size	healthy but norhtern pin oak is older and showing some decline. A fair amount of oak seedlings/saplings are found in the understory.
	Northern Pin Oak	75		9 99	R	Red Oak		< 5 feet	< 5 feet	amount of our securings, suprings are round in the understory.
	Red Pine	3		12	W	White Pine		< 5 feet	< 5 feet	
	White Pine	7		10 99	Re	ed Maple	Medium	Variable	Variable	
	Red Oak	15		12 99	Re	ed Maple	High	Variable	Variable	
93	6139 - Mixed Lowland Forest			Sapling Medium	3.7 4		Immature	N/A		Cut in 2021. Patchy aspen and mixed hardwood regeneration present.
	Canopy Species	% Cover	Size Class	DBH 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 should allow
	Black Spruce	50	Log	1 4	Ta	ag Alder	Medium	5 - 10 feet	5 - 10 feet	conifers to become established.
	Black Cherry	10	Log	1 4	Bla	ck Spruce	Medium	< 5 feet	< 5 feet	
	Quaking Aspen	40	Log	1 4						_
94	4123 - Red Oak			Sawtimber Well	12.6	99	111-140	N/A	1	Mainly denser red oak canopy. Areas of younger dense aspen poles in
	Canopy Species	% Cover	Size Class	DBH Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	the center. Spreading dead oak patches in the NW corner and along the east edge.
	Red Oak	68		14 99	Re	ed Maple	High	Variable	Variable	- cast saget
	Red Pine	1		22	Bigto	ooth Aspen	Low	Variable	Variable	
	Red Maple	3	Sapling	5						_
	Paper Birch	2	Sapling	5						
	Bigtooth Aspen	20	Seedling	7 34						
	White Pine	1		22						
	Quaking Aspen	5	Sapling	6 34						



Stand			;	Size De	ensity	Acres Stand Age BA Range			Managed Site		General Comments Good quality aspen with some oak mixed in. Stand was left from past
97			Poletimber Well		4.8	46	111-140				
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Species	Density	Avg. Height	Size	harvest due to an old trespass case.
	Quaking Aspen	14	Seedling	8		WI	nite Pine	Low	Variable	Variable	
	Red Maple	2	Seedling	7		Ва	lsam Fir	Low	Variable	Variable	
	Bigtooth Aspen	80	Seedling	8	46	R	ed Oak	Low	< 5 feet	< 5 feet	
	Red Oak	3		13	99			,		,	-
	White Spruce	1		12							
100	0 4130 - Aspen		Poletimber Well		8.5	36	111-140	N/A		Very good quality aspen pole stand. Heavy to bigtooth with elevation	
	Canopy Species	% Cover	Size Class	Class DBH Age		Sub-Ca	nopy Species	ies Density	Avg. Height	Size	hump across most of the stand. A few scattered mature oak and pine scattered across the stand.
	Red Oak	8		14	99	WI	nite Pine	Trace	Variable	Variable	
	Red Pine	3		13	99	Re	d Maple	Medium	Variable	Variable	
	White Pine	4		13	99	Bigto	oth Aspen	Medium	>20 feet	>20 feet	
	Red Maple	2	Sapling	5				,		,	-
	Bigtooth Aspen	83	Sapling	6	36						
101	500	- Water		No	ne	9.9	0		No		Brule River
106	500	- Water		No	ne	8.0	0		No		Brule River
400	0 110 - Low Intensity Urban			No	ne	3.6			No		Power line
401	1 110 - Low Intensity Urban			None		7.5			No		Power line
402	110 - Low Intensity Urban			None		12.7			No		Power line
404	110 - Low I	ntensity Urb	pan	No	ne	5.6			No		Power line ROW.