

Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72167 Entry Year 2022 Acreage: 1,033

County Crawford

Management Area: Grayling Outwash

Revision Date: 2020-08-31

Stand Examiner: Joan Charlebois

Legal Description:

T27N R4W

Sections 25, 26, 27

Identified Planning Goals:

To maintain riparian and forest health, structural and species diversity, and overall productivity while sustainably providing for multiple uses and visual management.

Soil and topography:

The west half of the compartment occupies predominantly Grayling sands on shallow to rolling terrain. Moving east toward the river, the terrain levels out. Soils along the river corridor and east toward the railroad tracks are a mosaic of saturated lowlands and often seasonal high water table uplands. Typical soils there include Tawas-Lupton and Leafriver mucks, Croswell-AuGres and Kinross-AuGres complexes, and Croswell sands.

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

The Maghielse Tract was acquired in 2019 through a Michigan Natural Resources Trust Fund grant. Its acquisition connects state lands to the north (MacAurthur Tract) and the south (Williams Tract). There is a half-mile of private interface on the west side where the primary development is seasonal recreational cabins. The south edge east of the river also borders private ownership. The primary use there is full time residential.

Unique Natural Features:

The mainstream of the AuSable, a designated Natural River, bisects the compartment. There is the potential for rare bird and reptile species to occur along the riparian corridor.

Archeological, Historical, and Cultural Features:

This recently-acquired tract has not been formally surveyed. The tract's long history of use as a recreational property is evident in the existing cabin, associated outbuildings, and dispersed hunting blinds.

Special Management Designations or Considerations:

The AuSable River is a High Conservation Value Area (HCVA). There is the potential for the AuSable Pines dry-mesic northern forest Ecological Reference Area (ERA) in Compartment 168 to be extended into this compartment.

Watershed and Fisheries Considerations:

The mainstream of the AuSable is a designated Natural River and high quality cold water trout stream. Several small streams flow into it from the swamps on the east side of the river.

Wildlife Habitat Considerations:

The compartment's upland oak, pine and aspen cover types, riparian corridor, and extensive swamps provide habitat for a variety of game and non-game wildlife species. Deer hunting was popular within the compartment, as evidenced by the numerous ground blinds. Hare sign, including some snowshoe hare, was common east of the river. Regenerating oak and increasing the aspen cover will provide additional wildlife habitat.

Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial metallic mineral production in this part of the state. The closest active sand/gravel pit is nearly five miles away. Sand & gravel potential appears to be good in the west half of the compartment. The compartment is south of the Antrim Shale gas play and north of the general region of central basin hydrocarbon reservoirs. There is no known hydrocarbon potential from other formations beneath the compartment, no test wells have been drilled in the area, and there is no current mineral leasing activity in the vicinity. Oil & gas potential in the compartment is considered low at this time. The state does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

Vehicle Access:

The Maghielse Tract was fenced and gated while in private ownership, and current public access is limited to non-motorized recreation. The main north-south access road has spurs to the west and east, including one that crosses the AuSable River by way of an engineered bridge.

Survey Needs:

None needed.

Recreational Facilities and Opportunities:

Being recently acquired, the compartment has no developed recreational facilities. It has been used for dispersed recreation such as hunting, fishing, hiking, cross country skiing, and snowshoeing.

Fire Protection:

The compartment's uplands are oak-pine dominated. Access west of the river is good. Access east of the river will be limited by the bridge (weight limit unknown) and railroad grade. The Ausable River has several potential water points, the closest being at the Maghiesle Bridge, the Williams Tract sand trap, and Pollack Bridge.

Additional Compartment Information:

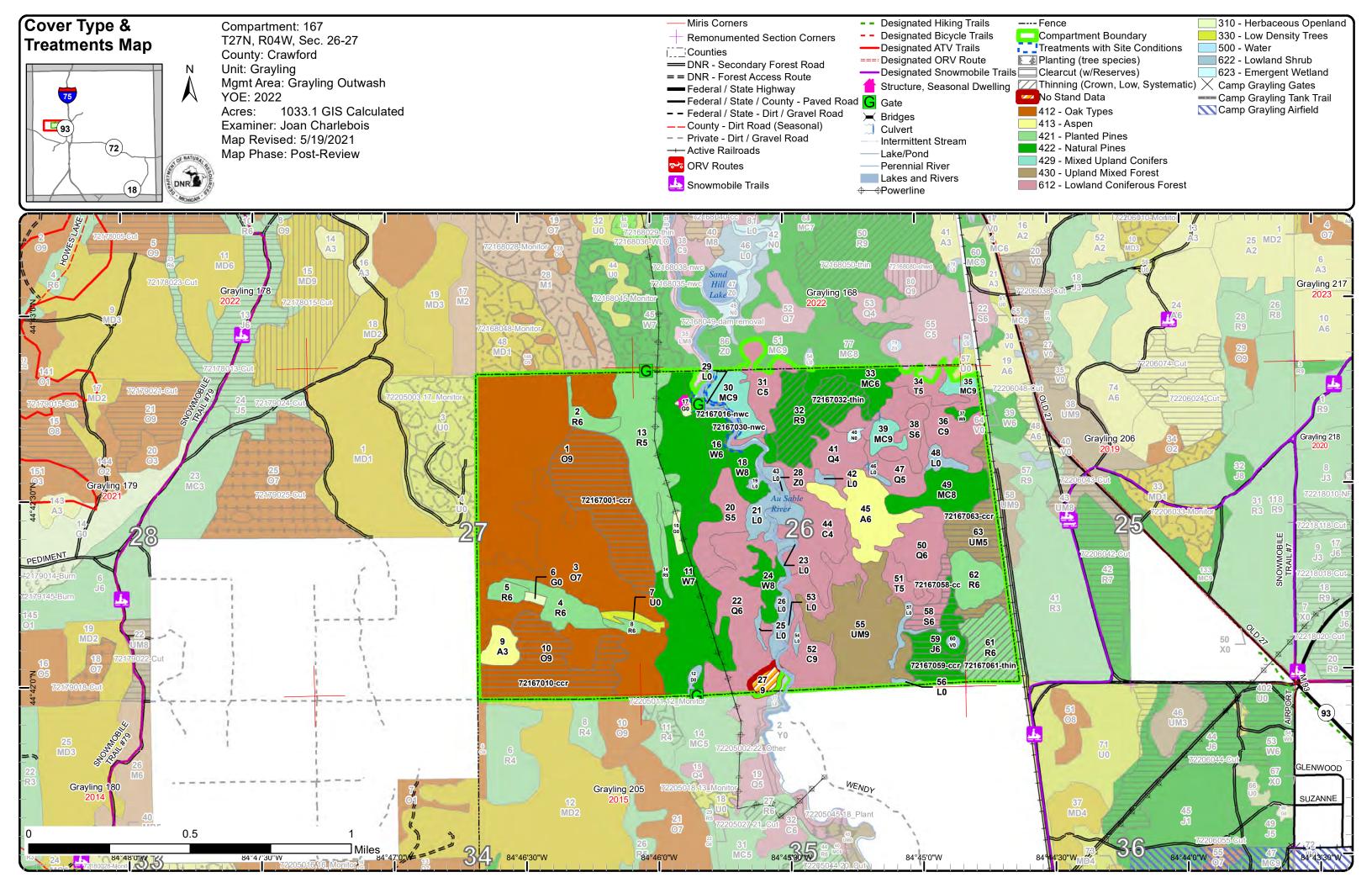
The following reports from the Inventory are attached:

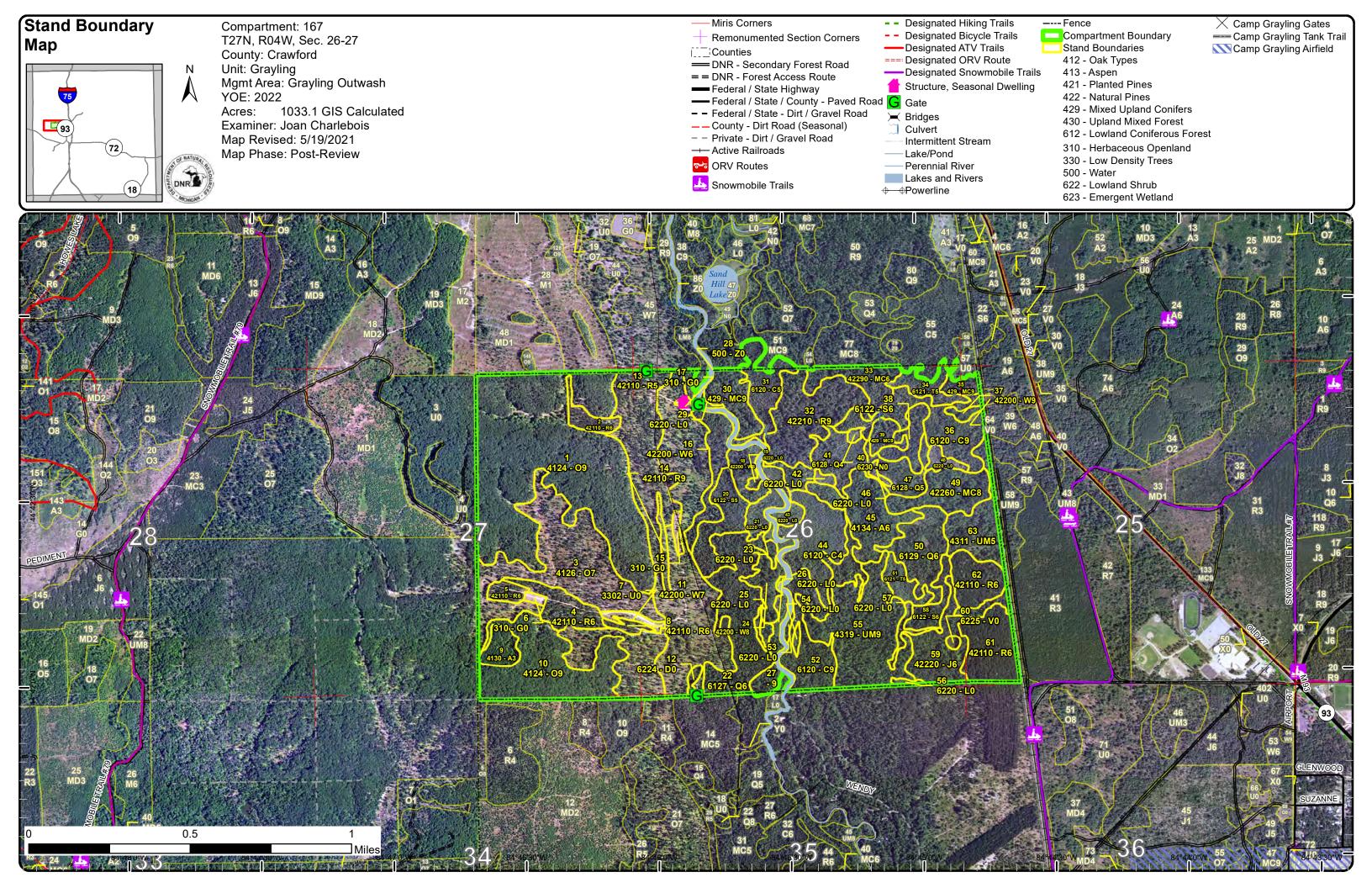
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

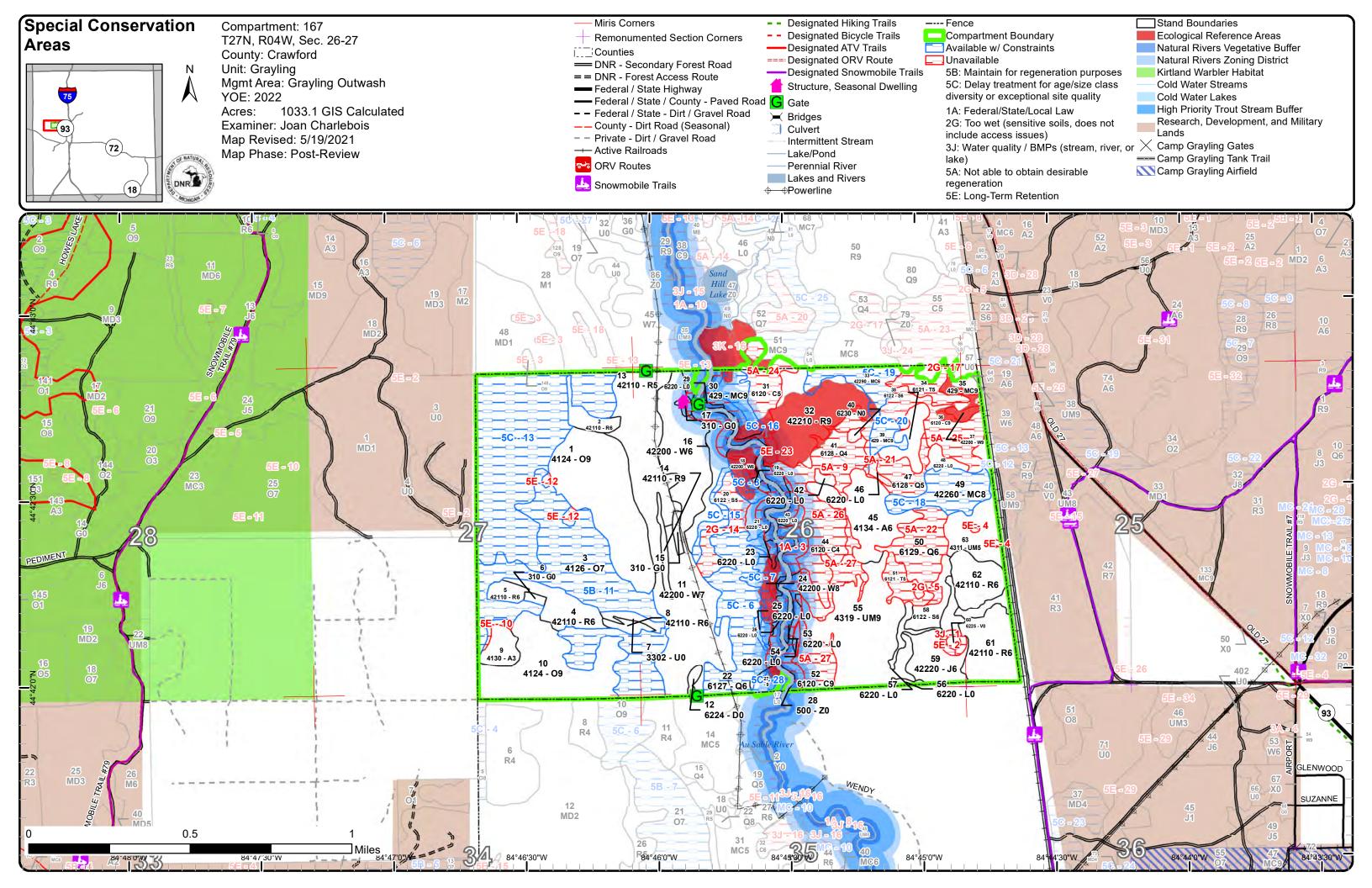
The following information is displayed, where pertinent, on the attached compartment maps:

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

Details on the road access system







Compartment 167 Year of Entry 2022

Joan Charlebois: Examiner

Grayling Mgt. Unit



Age Class

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	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
Aspen	0	0	0	7	0	26	0	0	0	0	0	0	0	0	0	0	0	0	33
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	54	30	0	16	0	0	100
Herbaceous Openland	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Jack Pine	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	20
Low-Density Trees	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Conifers	0	0	0	0	0	0	42	0	0	0	0	0	29	21	0	0	0	0	92
Lowland Shrub	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	0	34
Marsh	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Natural Mixed Pines	0	0	0	0	0	13	0	0	0	0	0	0	19	0	0	0	0	0	32
Oak	0	0	0	0	0	0	0	0	0	0	0	293	0	0	0	0	0	0	293
Red Pine	0	0	0	0	69	0	38	0	0	0	0	0	35	0	0	0	0	0	142
Tamarack	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16
Treed Bog	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Upland Conifers	0	0	0	0	0	0	0	4	0	0	0	0	5	13	0	0	0	0	22
Upland Mixed Forest	0	0	0	0	0	23	51	0	0	0	0	0	0	0	0	0	0	0	74
Water	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
White Pine	0	0	0	0	0	93	0	0	0	0	0	0	0	18	2	0	0	0	113
Total	57	0	0	7	69	155	151	4	17	0	0	314	158	82	2	16	0	0	1032



Report 2 – Treatment Summary

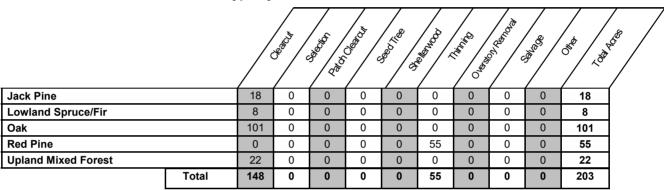
Grayling Mgt. Unit Year of Entry: 2022

Acres of Harvest

Compartment 167
Total Compartment Acres: 1,033

Commercial Harvest - 203 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method

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		/.					Sin /			10 / 20 / 20 / 20 / 20 / 20 / 20 / 20 /	No. 1	**************************************
Current		203	0	3	0	0	0	0	0	0	206	
Next Step		0	0	0	0	0	0	151	0	0	151	
	Total	203	0	3	0	0	0	151	0	0	358]

Grayling Mgt. Unit

Joan Charlebois: Examiner

Compartment: 167
Year of Entry: 2022

Availability for Management

Total Acres Acres Avail Acres

Acres Available With Condition Not Available

Dominant Site Conditions

	NOL Available		Available	Acies
Aspen	0	0	0	
Bog	0	0	0	
Cedar	0	0	0	
Herbaceous Openland	0	0	0	
Jack Pine	0	0	0	
Low-Density Trees	0	0	0	
Lowland Conifers	0	0	0	
Lowland Shrub	0	0	0	
Lowland Spruce/Fir	0	0	0	
Marsh	0	0	0	
Natural Mixed Pines	0	0	0	
Oak	0	0	0	
Red Pine	0	0	0	
Tamarack	0	0	0	
Treed Bog	0	0	0	
Upland Conifers	0	0	0	
Upland Mixed Forest	0	0	0	
Water	0	0	0	
White Pine	0	0	0	
Total Forested Acres				
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.

1 Unavailable 3J: Water quality / BMPs 2 Unspecified Unspecified Unspecified Unspecified	Unspecified
(Stream, fiver, or lake)	•
Comments: Bog buffer. Road brushing acceptable along the existing mapped road.	

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2	Unavailable	5E: Long-Term Retention	1	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: Bog buffer; this por	tion contributes toward long-terr	m rete	ntion for stand 55.			
3	Unavailable	1A: Federal/State/Local Law	63	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: AuSable River's 15	0-foot Natural Rivers restricted	cutting	zone.			
4	Unavailable	5E: Long-Term Retention	1	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments: Proposed retention	for stand 37 focused around po	ocket v	/etlands.			
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Unfrozen surface w	vater mid-winter.					
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	41	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: WP & spruce grow	ing well on intermediate to low g	round				
7	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Super-canopy statu	ure pine on PArVCo ground. Sig	gnifica	nt windthrow hazard if the can	opy were opened up.		
					_	_	_

Grayling Mgt. Unit

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8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Super-canopy stat	ure pine on PArVCo ground. Si໌ເ	gnificant	windthrow hazard if the c	anopy were opened up.		
9	Unavailable	5A: Not able to obtain desirable regeneration	18	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: The cedar compor	nent flagged this stand. The imn	nature fir	and balsam poplar comp	onents continue to fill in.		
10	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Proposed retention	n for stand 10's draft treatment.	Location	may be shifted during ha	arvest prep.		
11	Available	5B: Maintain for regeneration purposes	93	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Recently harvested	d. Most of the high-risk species	were ren	noved or are now dead.	Residual WO is maintainin	g.	
12	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Proposed retention	n for draft treatment in stand 1.					
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	96	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Proposing to reger	nerate the SE third of the stand i	n the 202	22 YOE.			

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14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	Unspecified	Unspecified	Unspecified	Unspecified
	omments: ore of stand satu	rated. NWC stressed by higher	water lev	els.			
15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
	omments: onsider treating the	ne operable transition ground ec	lge concu	ırrent with adjacent stand	d 16 in the future.		
16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
	omments: lixed stand heavy	to xlog stems.					
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
	omments: Infrozen surface w	vater mid-winter.					
18	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19	Unspecified	Unspecified	Unspecified	Unspecified
	omments: all xlog pine on gr	ound close to the water table. V	Vindthrov	v hazard if open up the c	anopy.		

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19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Second age class	of xlog pine may have flagged th	ne stand	l. Majority younger pole o	over is not ready for treatme	nt.	
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	Unspecified	Unspecified	Unspecified	Unspecified
(Comments: Consider harvestin significantly increas	g the spruce within this stand w se windthrow hazard for the xlog	hen the j super-	adjacent stand 38 is read canopy pine.	y for treatment. Would be a	partial removal from the	lower canopy and not
21	Unavailable	5A: Not able to obtain desirable regeneration	11	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
-		rack components flagged this sta				nd. The immature fir and	l balsam poplar
22	Unavailable	5A: Not able to obtain desirable regeneration	21	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Cutting the stand w	vould accelerate conversion fron	n cedar	to fir. Portions of the star	nd are also too wet.		
23	Unavailable	5E: Long-Term Retention	2	1A: Federal/State/Local Law	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified
	Comments: Proposed retention	n for stand 32's draft treatment.	Most of	it is within the 150' Natura	al Rivers restricted cutting zo	ne. Part is within stand (31's outflow stream RMZ.
24	Unavailable	5A: Not able to obtain desirable regeneration	15	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
	Comments: Cedar swamp with	unfrozen surface water mid-win	ter. Ad	jacent to ERA.			

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25	Unavailable	5A: Not able to obtain desirable regeneration	28	Unspecified	Unspecified	Unspecified	Unspecified		
	Comments: Cedar swamp								
26	Unavailable	5A: Not able to obtain desirable regeneration	21	2F: Too steep	Unspecified	Unspecified	Unspecified		
_	Comments: Cedar on saturated	l ground.							
27	Unavailable	5A: Not able to obtain desirable regeneration	24	Unspecified	Unspecified	Unspecified	Unspecified		
	Comments: Cedar swamp								
28	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3	Unspecified	Unspecified	Unspecified	Unspecified		
	Comments: Manage in future concurrent with stand 22. Younger component of this stand was part of the same regen event as stand 22's.								

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Mgt. Unit

Compartment: #Type!
Year of Entry:



Report 5 - PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Grayling Mgt. Unit Compartment: 167





Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

Conservation Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions stocked trout populations and those of other coldwater fish spectronditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	cies to persist from year to year. Suitable ey are relatively deep, have substantial f the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions and those of other coldwater fish spectyear to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	cies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for include the 5,847 acre Forest Fire Experiment Station, the 12,00 Area, the Beaver Islands Archipelago Wildlife Research Area (the High and Hog Islands, all state owned land on Beaver, South For Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Resources, and over 144,000 acres of Military Lands.	00 acre Houghton Lake Wildlife Research hat includes most of Garden Island, all of ox and North Fox Islands), the Cusino
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems i influences the aquatic ecosystem and vice-versa. Because of th streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effeas aesthetics, habitat, bank stability, timber production, and their	ne unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian ects on water quality and quantity, as well
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spapproved distance from the river centerlines. The Natural River most Natural Rivers. The Vegetative Buffer ranges from 25 to 1 and Vegetative Buffers for each Natural River see the table located folder.	s Zoning District is a 400 foot buffer for 00 feet. To view specific Zoning Districts
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Nature context of their natural community classification system. Element (Excellent) or B (Good) and a Global (G) or State (S) element (rethreatened (2), or rare (3) serve as an initial base of ERAs. They the State. The system is comprised of individual or associations managed for restoration and maintenance of natural ecological submit recommendations for lands as ERAs using the DNR Corrections.	ral Features Inventory (MNFI) within the not occurrences with viability ranks of A arity) ranking of endangered (1), y may be located upon any ownership in of natural community types that are processes and values. The public may