

Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72175 Entry Year 2023 Acreage: 3,211

County Crawford

Management Area: Kirtland's Warbler

Revision Date: 2021-06-14

Stand Examiner: Derek Nellis

Legal Description:

T27N, R04W, Sections 5, 6, 7, 8, 18 and 19

Identified Planning Goals:

To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while managing for the Kirtland's Warbler and the heavy recreational use that occurs in this area.

Soil and topography:

Soil types within this compartment consists mostly of Grayling sands and Graycalm-Grayling sands with the exception of the Manistee river corridor. Topography of the compartment is flat outwash plains along both sides of the Manistee River corridor with some gently rolling terrain in the northeast portion of the compartment which is made up of ridges and valleys.

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

The majority of this compartment is made up of state ownership. There are some private parcels throughout the compartment. These private parcels are used for both year round residences as well as seasonal residences.

Unique Natural Features:

There is excellent potential for Kirtland's warbler, prairie warbler, and grasshopper sparrow. There is some potential for secretive locust in jack pine or bogs, and for dusted skipper, grizzled skipper, and red-legged spittlebug in grassy openings and young jack pine. There is potential for red-shouldered hawk, goshawk, eagle, osprey, and great blue heron rookeries. There is excellent potential for massasauga and massasaugas have been found in this compartment. There is potential for wood turtle and Blanding's turtle along the river. There is an intermittent wetland to southeast of the compartment and a wet-mesic sand prairie to south. Hill's thistle is found throughout area to south and Alleghany plum is found to the east. Hill's pondweed, Vasey's rush and northern prostrate clubmoss are associated with an intermittent wetlands around the compartment.

Archeological, Historical, and Cultural Features:

There are occurrences of Archaeological and Historical significance in the compartment.

Special Management Designations or Considerations:

The compartment contains designated Kirtland's Warbler habitat, the endangered species Dendroica kirtlandii. The Manistee River is a Natural River and an HCVA. The compartment contains several access sites along the river as well as Goose Creek State Forest Campground.

Watershed and Fisheries Considerations:

The Manistee River and Goose Creek pass through this compartment. These are both designated trout streams. The Manistee River is also considered a Natural River.

Wildlife Habitat Considerations:

This is an actively managed Kirtland Warbler area.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Coldwater Shale. There is not an economic use for the Coldwater Shale. The nearest gravel pit is two miles to the north and potential is thought to be good, especially the upland areas. Tall of the state lands are leased for oil and gas development. The township to the north has been developed for Antrim Shale gas. The Antrim Shale appears to be losing potential, due to the thickness of overburden, and has not been developed in this area.

Vehicle Access:

Vehicle access in this compartment is very good. There is a large system of forest trail roads, recreational trails and county

roads throughout the entire compartment.

Survey Needs:

The potential for future surveys exists.

Recreational Facilities and Opportunities:

Designated recreation sites in this compartment include Upper Manistee and Goose Creek rustic campgrounds, Shore-to-Shore hiking and equine riding trail, Frederic 50" ORV Trail and snowmobile trail 9 and loggers landing river access site. The landscape and roads offers opportunities for dispersed hunting, gathering and wildlife viewing. The Manistee River and tributaries offer fishing, kayaking, floating and trapping opportunities.

Fire Protection:

The cover type for this area is made up mostly of Jack Pine. It has a high potential for active fire. The Howe's Lake fire occurred in 2011 and burned an area just directly south of this compartment. There are multiple private residences established along the river, creating a hazardous interface with the fuel types found in the area. The terrain and access for fire suppression is very accessible and the Manistee River could serve as a convenient water source for suppression activities.

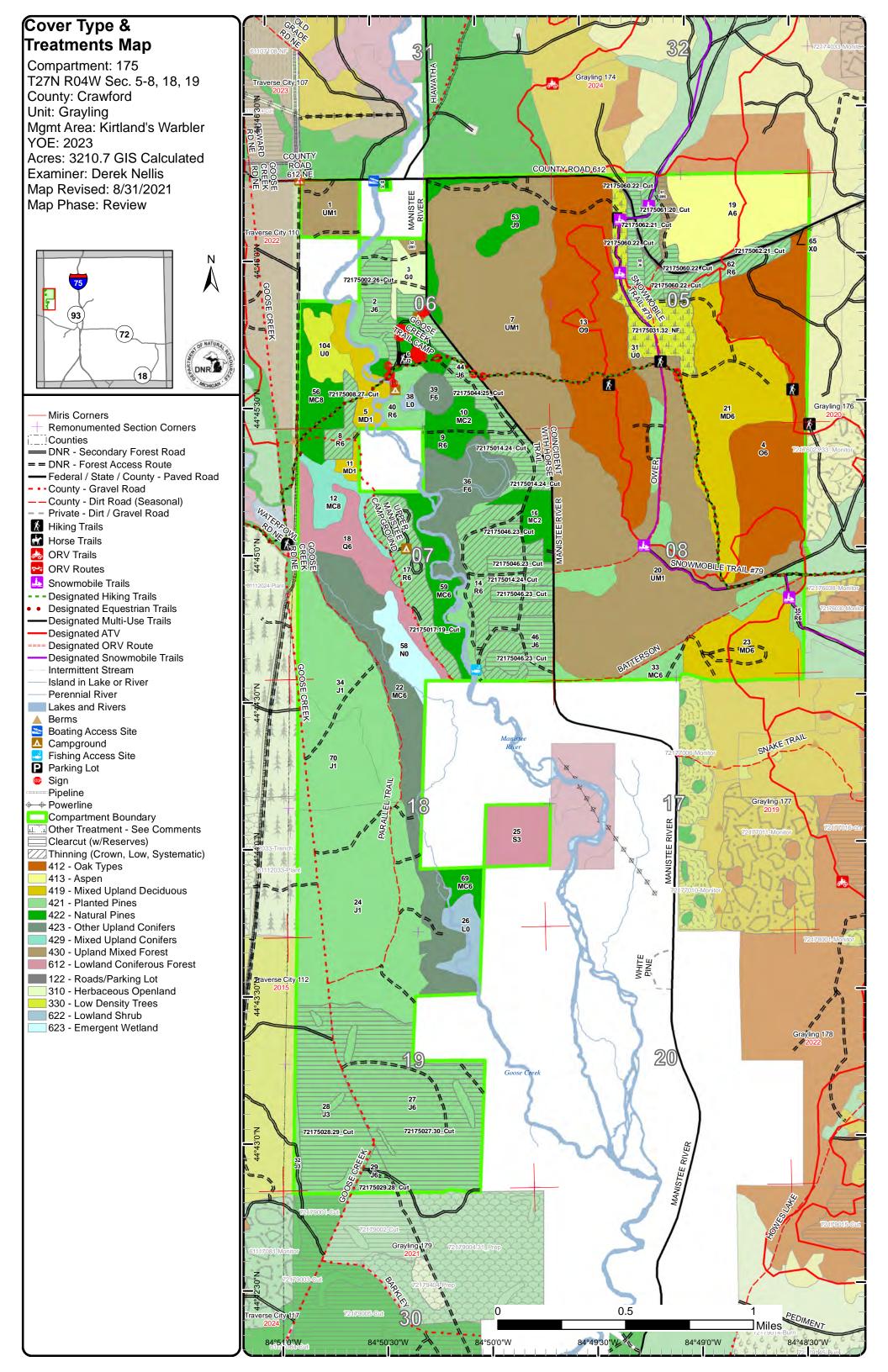
Additional Compartment Information:

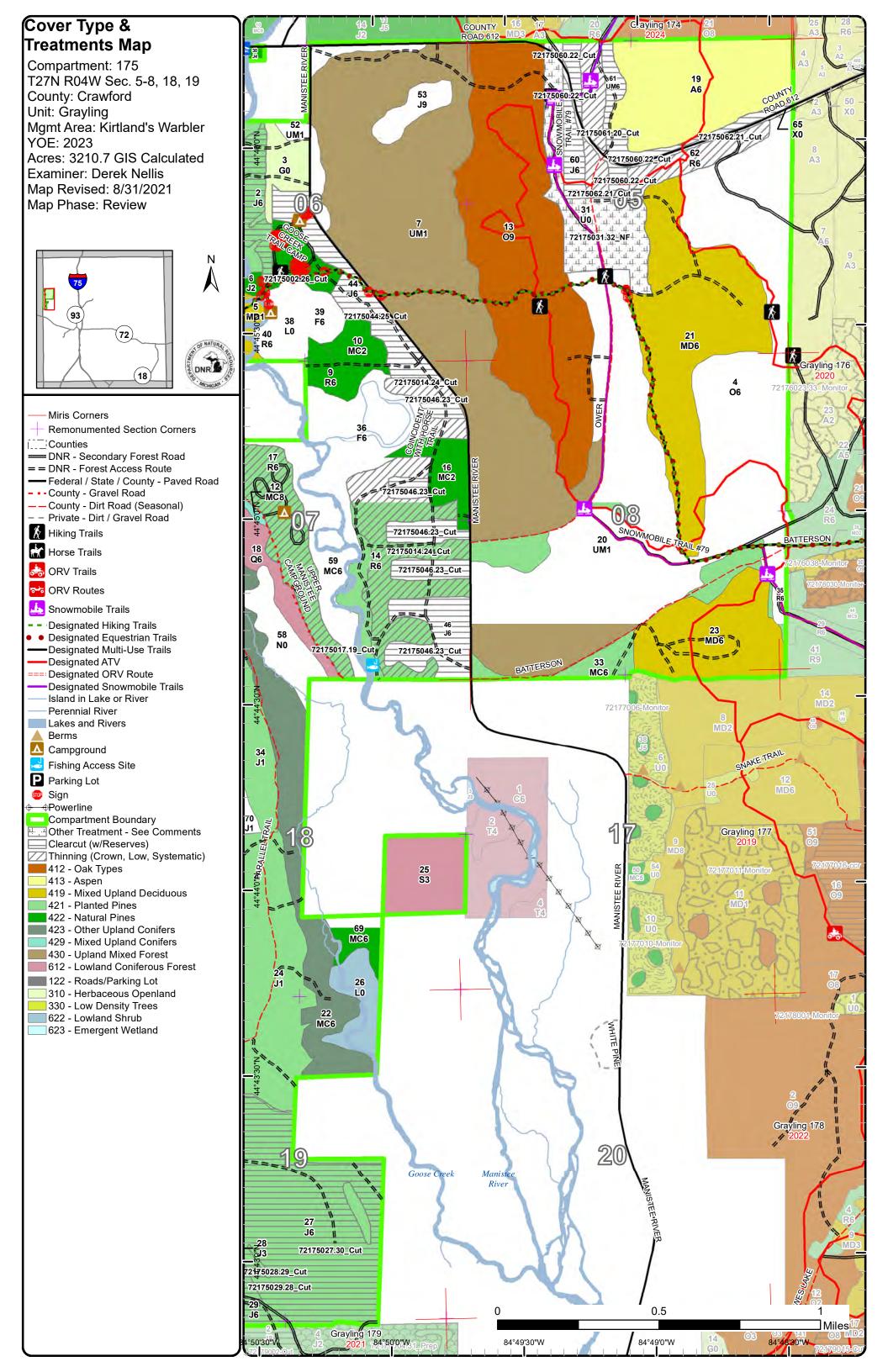
The following reports from the Inventory are attached:

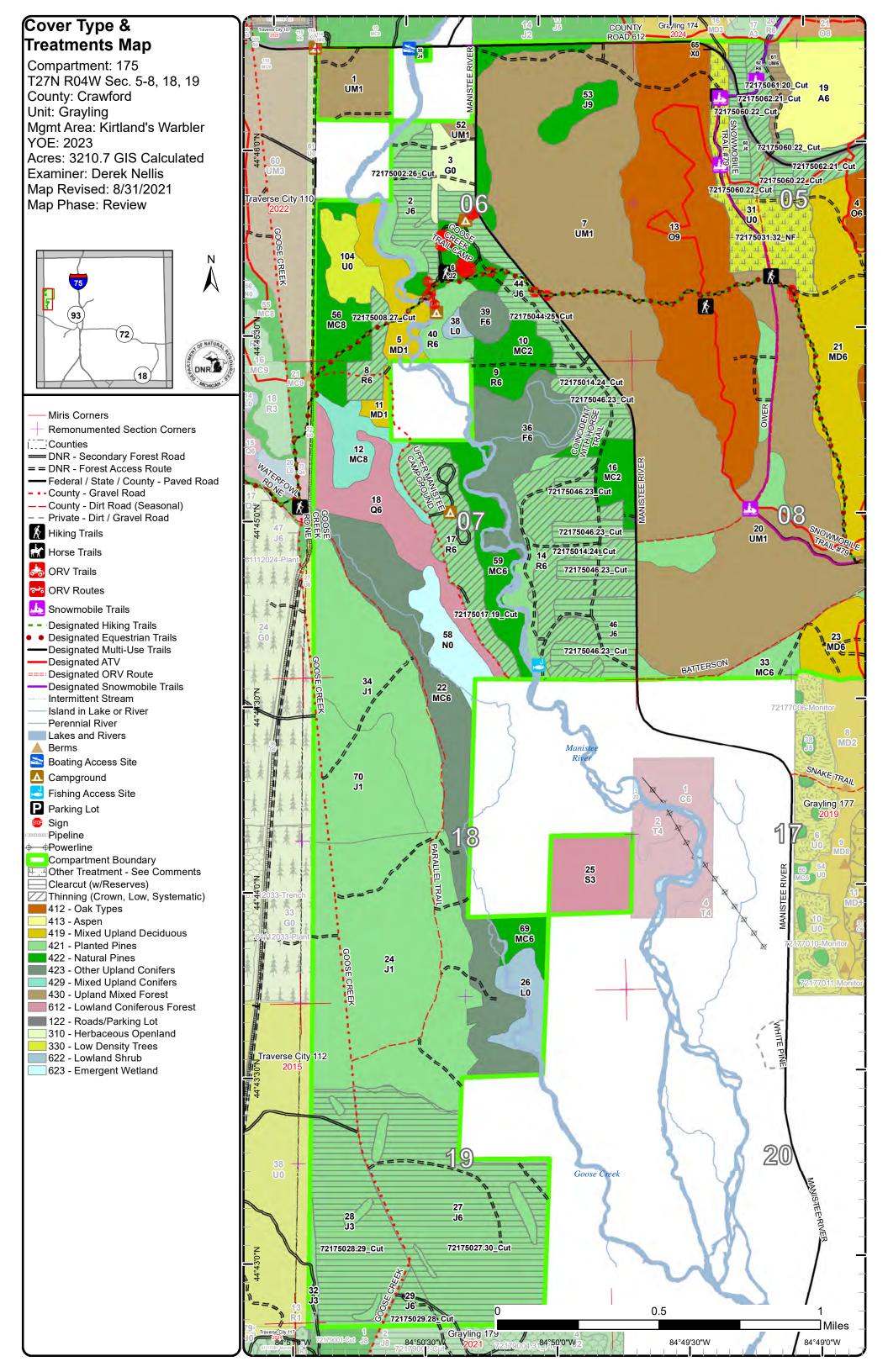
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

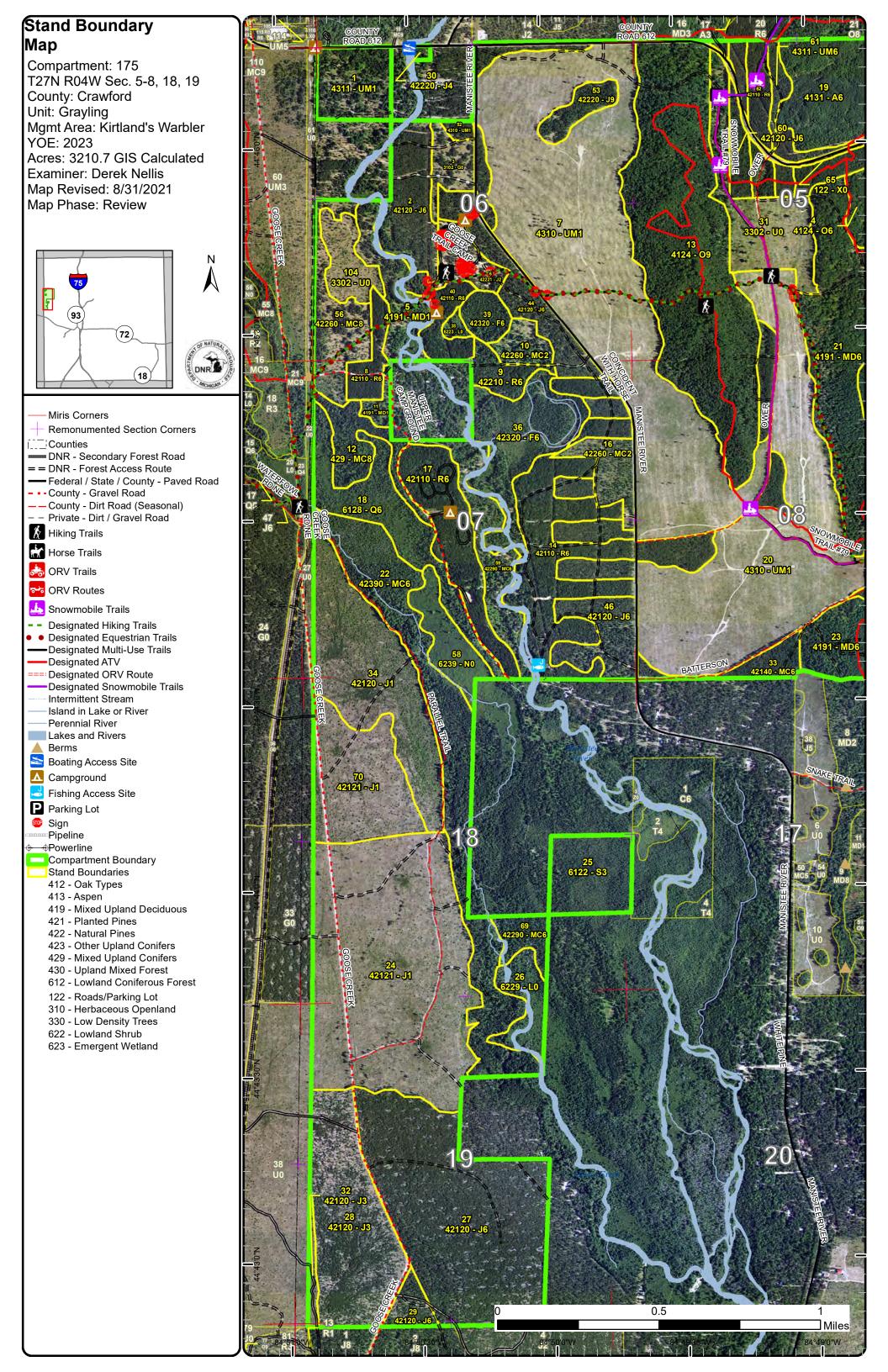
The following information is displayed, where pertinent, on the attached compartment maps:

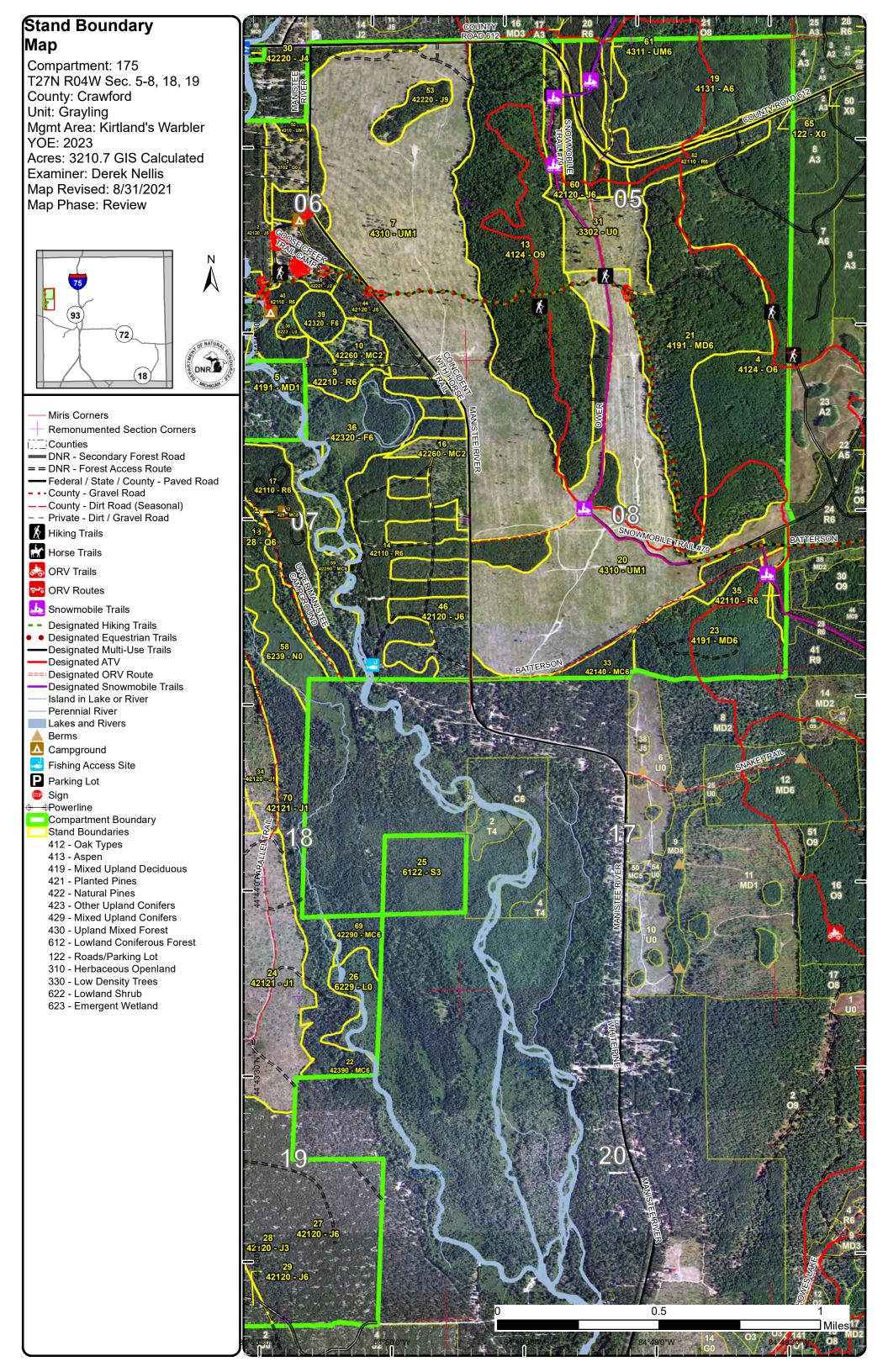
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

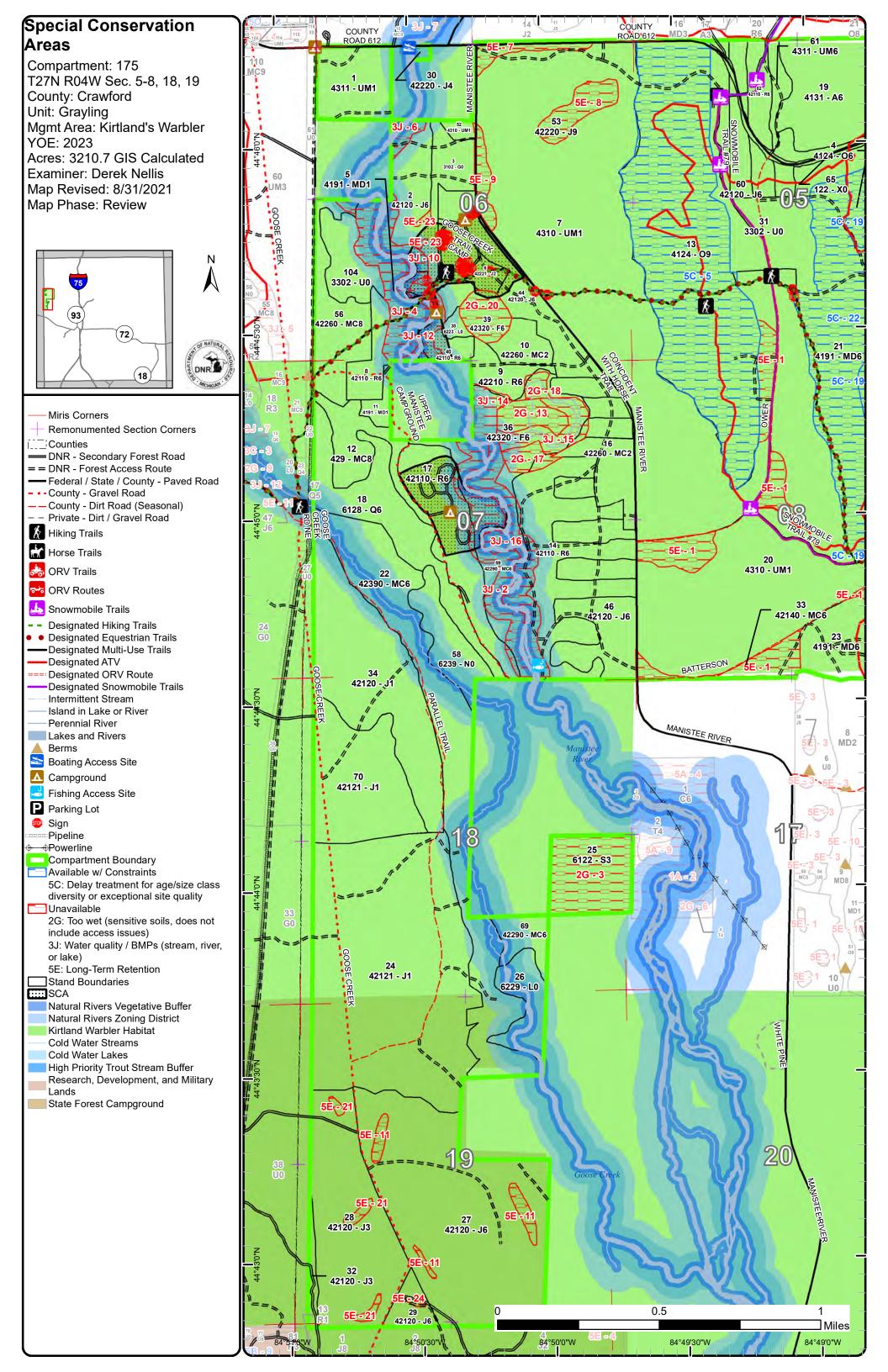


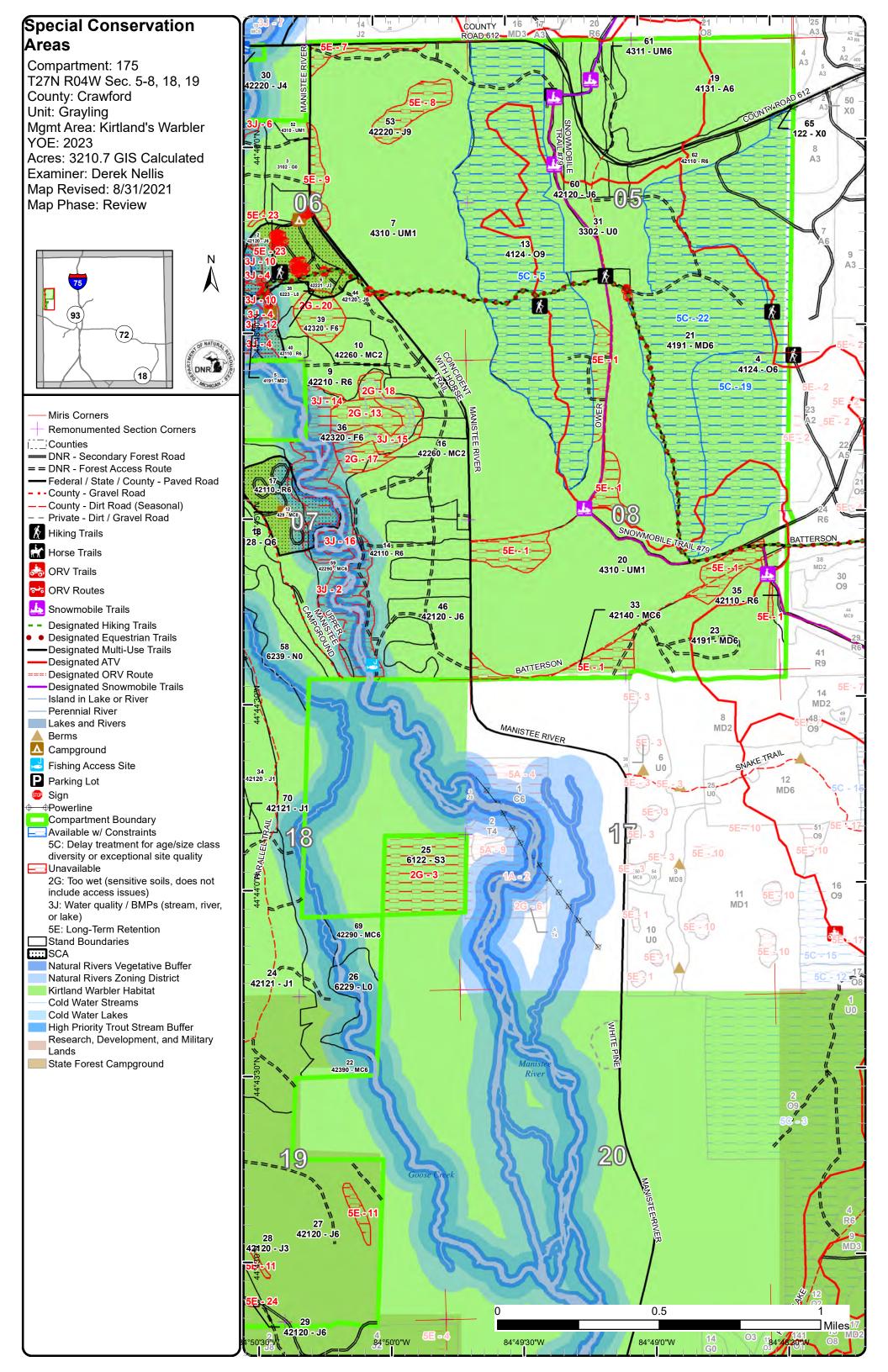












Grayling Mgt. Unit

Derek Nellis: Examiner



Age Class

	**************************************		3 / 2	\$ \$	& /v			3/8	* / *	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	* 8	8 /2	70,7			\$ 4	N. S.	\$ See	A LOS
Aspen	0	0	0	0	99	0	0	0	0	0	0	0	0	0	0	0	0	0	99
Herbaceous Openland	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Jack Pine	0	0	416	114	187	0	24	131	43	31	0	0	0	0	0	0	0	0	946
Low-Density Trees	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
Lowland Conifers	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	0	56
Lowland Shrub	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Lowland Spruce/Fir	0	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	39
Marsh	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Mixed Upland Deciduous	0	0	0	0	73	37	0	0	0	144	0	0	0	0	0	0	0	0	254
Natural Mixed Pines	0	0	0	21	0	0	13	13	76	0	0	0	0	0	0	0	0	0	122
Oak	0	0	0	0	0	0	0	0	0	391	0	0	0	0	0	0	0	0	391
Planted Mixed Pines	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60
Red Pine	0	0	0	0	0	0	9	188	51	0	0	0	0	0	0	0	0	0	248
Upland Conifers	0	0	0	0	0	0	0	124	0	0	0	0	0	0	0	0	0	26	150
Upland Mixed Forest	0	572	0	0	0	33	0	8	0	0	0	0	0	0	0	0	0	0	613
Upland Spruce/Fir	0	0	0	0	0	0	0	0	63	12	0	0	0	0	0	0	0	0	75
Urban	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	155	572	416	135	359	109	102	524	233	578	0	0	0	0	0	0	0	26	3208



Report 2 – Treatment Summary

Grayling Mgt. Unit Year of Entry: 2023

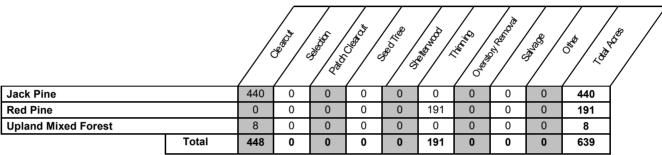
Acres of Harvest

Total Compartment Acres: 3,211

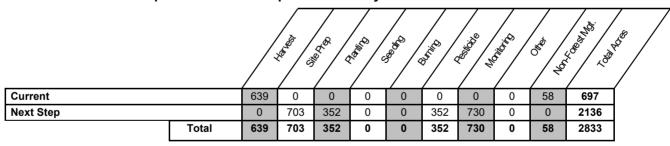
Compartment 175

Commercial Harvest - 639 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Grayling Mgt. Unit Report 3 -- Treatments Compartment: 175 s Year of Entry: 2023 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment** Cover Type Age n

Age

Habitat

Structure

Cut

Proposed Treatments:

d

Name

72175002.26 27.6 42120 - Planted Poletimber 78 51-80 Harvest Clearcut with 4222 - Natural Even-Aged No Jack Pine Well Jack Pine Retention Cut

Type

Range

Method

Objective

Prescription Harvest all trees greater than 2" DBH. No chipping. Scatter slash uniformly across treatment area. There will be a no slash area between the powerline ROW and the Equestrian camp. Retention was removed from treatment area for natural rivers buffer along the Manistee River Specs:

and for visual buffers per campground manager. Include powerline ROW spec.

Density

Monitoring, Natural Regen (Intermediate) Next Step

Treatments:

Acceptable Jack pine to meet minimum stocking. If natural regen fails. Site prep and plant to jack pine.

Regen:

Other Check on private land access easement restrictions.

CoverType

Comment:

Site Condition

Proposed Start Date: 10/1 /2022

42110 - Planted 62 72175008.27 Poletimber 171-42110 - Planted Even-Aged 15.2 Harvest Low Thinning No Red Pine Well 200 Red Pine Cut

Prescription Thin from below following, standard order of removal, to a residual basal area of 120. Include equestrian/pathway protection spec.

Specs:

Next Step **Treatments:**

Acceptable Moderate stocked red pine.

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2022

72175014.24 84.4 42110 - Planted Poletimber 171-Harvest Low Thinning 4211 - Planted Even-Aged No Red Pine Red Pine Well 200 Cut

Prescription Thin from below following, standard order of removal, to a residual basal area of 120.

Next Step

Treatments:

Acceptable Red pine at a moderately stocked level.

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Proposed Start Date: 10/1 /2022

72175060.22 31.0 42120 - Planted Poletimber 62 141-Harvest Clearcut 4319 - Mixed Even-Aged No Jack Pine Well 170 **Upland Forest** Cut

Prescription Harvest all trees greater than 2" DBH. No chipping. Slash must be dispersed within the harvest boundary. No area based retention due to irregular stand shape. Individual white oak and white pine may be retained, up to 10 BA, for mast and structure. Add snowmobile, ORV, and Specs: any other applicable trail specs.

Next Step Monitoring, Natural Regen (Intermediate); SitePrep, Trenching; Planting, Initial Plant; SitePrep, Roller Chopping; Pesticide, Skidder -

Treatments: Release

Acceptable Pine and oak to meet minimum stocking. If natural regen fails plant to red pine.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Grayling Mgt. Unit Report 3 -- Treatments Compartment: 175 s Year of Entry: 2023 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment** Cover Type Age Habitat n Method Name CoverType Density Age Range Type Objective Structure Cut d 61 72175061.20 7.7 4311 - Pine, Aspen Poletimber 51-80 Harvest Clearcut 413 - Aspen Even-Aged No Cut Mix Well Prescription Harvest all trees greater than 2" DBH. No retention due to size and shape of stand. Include applicable trail specs and drumming log spec. Specs: Next Step Monitoring, Natural Regen (Re-Inventory) Treatments: Acceptable Moderately stocked aspen. Regen: **Other** Comment: Site Condition Proposed Start Date: 10/1 /2022 72175062.21_ 42110 - Planted Poletimber 62 201+ 4211 - Planted 40.3 Systematic Even-Aged No 62 Harvest Red Pine . Thinning Red Pine Cut Prescription Harvest every third row. If rows are not identifiable or placed at inoperable widths - mark harvest strips with widths of 12 - 20ft and retain strips of 24-40ft between them. Add snowmobile, ORV, and any other applicable trail specs. Specs: Next Step

Next Step Treatments:

Acceptable moderately stocked red pine.

Regen:

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

Approved Treatments:

27 72175027.30 178.5 42120 - Planted Poletimber 34 1-50 Harvest Clearcut with 4212 - Planted Even-Aged No Cut Well Retention Jack Pine

Prescription Harvest all stems greater than 2" DBH, Leave retention in vortex strips. Add low stump specs.

Specs:

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Aerial - Site Prep; Planting, KW Initial Plant; Monitoring, Artificial

Treatments: Regen(1yr); Monitoring, Artificial Regen(3yr)

Acceptable Jack pine at KW density.

Regen: Other

Harvesting stand outside of YOE is meant to create a larger and easier managed KW block. Merge stands into Comp 179 following harvest.

Comment:

Site Condition

Proposed Start Date: 10/1 /2020

Grayling Mgt. Unit Report 3 -- Treatments Compartment: 175 s Year of Entry: 2023 t а **Treatment** Stand Size Stand BA **Treatment Treatment** Cover Type Acres Age Habitat n Method Name CoverType Density Age Range Type Objective Structure Cut d 28 72175028.29 93.3 42120 - Planted Sapling 27 Harvest Clearcut with 4212 - Planted Even-Aged No Jack Pine Cut Jack Pine Well Retention Prescription Harvest all stems greater than 2" DBH. Put retention in vortex strips. Add low stump specs. Specs: SitePrep, Roller Chopping; SitePrep, Trenching; Pesticide, Aerial - Site Prep; Planting, KW Initial Plant; Monitoring, Artificial Next Step Treatments: Regen(1yr); Monitoring, Artificial Regen(3yr) Acceptable Jack pine at KW density. Regen: Other Harvesting stand with mostly sub-merchantable stems outside of YOE is meant to create a larger and easier managed KW block. Merge stands into Comp 179 following harvest. Comment: Site Condition Proposed Start Date: 10/1 /2020 42120 - Planted Poletimber 27 4212 - Planted 72175029.28_ 1-50 Clearcut with No 29 9.8 Harvest Even-Aged Jack Pine Well Retention Jack Pine Cut Prescription Clearcut with retention. Add low stump spec. Specs: Next Step SitePrep. Roller Chopping: SitePrep. Trenching: Pesticide, Aerial - Site Prep: Planting, KW Initial Plant: Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) **Treatments:** Acceptable Jack pine at KW density. Regen: **Other** Harvesting stand outside of YOE is meant to create a larger and easier managed KW block. Merge stands into Comp 179 following harvest. Comment: Site Condition

Proposed Start Date: 10/1 /2020

72175031.32 320 - Upland 58.1 3302 - Low Density Nonstocked NonForestMat Other - Specify No Conifer Trees Shrub NF

Prescription Periodic opening maintenance, as needed, that may include disking, fertilizing, food plot seeding, no-till prairie grass drill seeding, mowing, brushing, tree removal, burning and herbicide application. Protect the rec trails.

Next Step

Treatments:

<u>Acceptable</u>

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 10/1 /2012

Total Treatment 697 Acreage Proposed:

Grayling Mgt. Unit

Derek Nellis : Examiner

Compartment: 175
Year of Entry: 2023

Availa	ability for	Managemer	nt							
Total	Acres	Acres Avail	Acres		Dominai	nt Site	e Con	ditions	8	
Acres	Available	With Condition	Not Available		5C	2G	3C	3J	5A	5E
99	99	0	0	Aspen						
16	16	0	0	Herbaceous Openland						
947	884	0	62	Jack Pine				17		45
79	79	0	0	Low-Density Trees						
56	56	0	0	Lowland Conifers						
26	26	0	0	Lowland Shrub				0		
39	0	0	39	Lowland Spruce/Fir		39			0	
26	26	0	0	Marsh						
253	78	144	31	Mixed Upland Deciduous	144			31		
123	93	0	31	Natural Mixed Pines				31		
391	1	391	0	Oak	391					
60	0	0	60	Planted Mixed Pines						60
248	220	0	28	Red Pine		2		26		
150	150	0	0	Upland Conifers			0			
613	611	1	0	Upland Mixed Forest	1					
75	4	0	71	Upland Spruce/Fir		32		39		
8	8	0	0	Urban						
3,211	2,353	536	322	Total Forested Acres	536	73	0	144	0	105
	73%	17%	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 ond Availability Dominant Site Condition		Acres Other Site Condition		Other Site Condition	Other Site Condition	Other Site Condition				
1	Unavailable	5E: Long-Term Retention	60	Unspecified	Unspecified	Unspecified	Unspecified				
	Comments:										
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	32	Unspecified	Unspecified	Unspecified	Unspecified				
Comments: Upper Manistee Natural River Buffer.											

Grayling Mgt. Unit

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3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	39	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	27	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Upper Manistee Na	atural River Buffer.					
5	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	215	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Upper Manistee Na	atural River Buffer.					
7	Unavailable	5E: Long-Term Retention	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	5E: Long-Term Retention	14	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
9	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Grayling Mgt. Unit

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10	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	12	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
11	Unavailable	5E: Long-Term Retention	8	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	11	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Jpper Manistee Na	tural River Buffer.					
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
4	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Jpper Manistee Na	tural River Buffer.					
15	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	15	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Grayling Mgt. Unit

Derek Nellis: Examiner

16	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	32	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Jpper Manistee Na	atural River Buffer.					
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
18	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	4	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	177	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
21	Unavailable Comments:	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified

Compartment: 175

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22	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	144	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
23	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
24	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						

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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: 175
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* 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	coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or tocked trout populations and those of other coldwater fish species to persist from year to year. Suitable onditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial roundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by irector's action and designated as trout resources by Fisheries Order 200.							
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 Research, and over 144,000 acres of Military Lands.	00 acre Houghton Lake Wildlife Research nat 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	e unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian ects on water quality and quantity, as well						
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cool U.S. Fish and Wildlife service for the recovery of threatened and 365, Endangered Species Protection, of the Natural Resources PA 451, and the Federal Endangered Species Act of 1973. This species plans in various stages of review. As of now only two e Plover Habitat.	d endangered species, as governed by Part and Environmental Protection Act, 1994 is an active program, with proposed						
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						



Stan	d Level 4 C	over Type		Size De	nsity	Acres	Stand Age I	BA Range	Managed S	ite	General Comments
1	4311 - Pin	e, Aspen M	lix	Sapling	Poor	33.3	40	1-50	N/A		Open areas dominated by sedges, sweetfern, blueberry, and lichen.
	Canopy Species	% Cover	Size Class		I Age						Upland mix, cherry, mixed pine. Gets more dense in the northeast
	Quaking Aspen	25	Sapling	3	40						portion of the stand. Lots of private line.
	White Pine	20	Sapling/Pole	3							
	Jack Pine	25	Sapling/Pole	3							
	Pin Cherry	10	Sapling	4	40						
	Northern Pin Oak	20	Sapling/Pole	3							
2	42120 - Plar	nted Jack P	Pine P	oletimb	er Wel	I 43.0	78	51-80	N/A		Natural Rivers buffer and private land along eastern edge.Jack pine
	Canopy Species	% Cover	Size Class	DBH	I Age						plantation. Borders SFCG. May be included in warbler block will have to check the plan. Powerline goes through stand.
	Jack Pine	90	Pole	6	78						oneok the plan. I owering good through stand.
	Pin Cherry	10	Sapling	1							
3	3102	- Grass		Nonst	ocked	16.4			No		Multiple clumps of jack pine and cherry with openings of grass and
						Sub-Ca	nopy Species	Density	Avg. Height	Size	sedges.Grassy opening with some shrubby cherry growing in it. There are also some small areas with jack pine in it.
							ck Pine	Low	10 - 20 feet	Pole	There are also some small areas with Jack pine in it.
						Che	erry (spp.)	Low	5 - 10 feet	Sapling	
4	4124 - Red v	with White (Oak P	oletimb	er Wel	l 177.1	83	81-110	N/A		Primarily mixed Oak with maple, Pine, and a few clones of aspen.hilly,
	Canopy Species	% Cover	Size Class	DBH	l Age						was thinned recently, nice mix of oak and pine. can wait to be treated. quality is fair. some aspen mixed in. lots of firewood trails.
	Red Maple	15	Sapling/Pole	1							4 <i>,</i>
	Red Oak	50	Log	10	83						
	White Oak	20	Pole/Log	8							
	Quaking Aspen	5	Pole	6							
	White Pine	5	Pole/Sap/Log	9							
	Red Pine	5	Pole/Log	8							
5	4191 - Mixed Upla Co	and Decidu	ous with	Saplino	Poor	31.1	40	1-50	N/A		The entire stand is included in the Natural Rivers buffer. Oak mortality in the overstory, horse trail traverses southern portion of the
	Canopy Species	% Cover	Size Class	DBH	I Age						stand Upland brush, large patches of cherry, some mixed pine
	Red Maple	15	Sapling	4							throughout, Close proximity to the river.
	White Pine	10	Sapling/Pole	4							
	Red Pine	15	Sapling/Pole	4							
	Jack Pine	10	Sapling/Pole	4							
	Pin Cherry	40	Sapling/Pole	4	40						
6	42221 - Natural Dec	Jack Pine,	Mixed S	apling l	Medium	າ 22.3	50		N/A		Goose Creek Trail Camp.Generally a grassy opening with some larger clumps of vegetation. Getting more dense on north side of stand.
	Canopy Species	% Cover	Size Class	DBH	l Age						
	Jack Pine	60	Pole/Sapling	5	50						
	Pin Cherry	40	Sapling	3	50						
	•										



Stan	d Level 4 Co	over Type		Size Density	Acres	Stand Ag	e BA Range	Managed Site	General Comments
7	4310 - Pir	ne, Oak Mix	•	Sapling Poor	333.2	5	Immature	N/A	Was final harvested in 2015 (#041-14), cutting stems 2"+ DBH except RP >24" DBH, additional green-painted RP in the NE of PU 6, and retention
	Canopy Species	% Cover	Size Class	DBH Age					islands. Chipping was completed early 2016. Was trenched in the
Bla	ck/Red (Hybrid) Oak	30	Sapling	1 6					opposing wave pattern for KW habitat in 2016 (part of KW Block #4) and
	Red Pine	1	XLog	25					planted to JP in 2017 with ten rows planted to RP flanking the county roads. 2018 regen survey found 856 JP & 1100 O-C TPA. Yr 3 regen
	Black Cherry	10	Sapling	1 6					survey found 639 JP & 627 O-RP TPA. FTP complete.
	Jack Pine	50	Sapling	1 5					
	Red Pine	9	Sapling	1 5					
8	42110 - Plar	nted Red P	ine	Poletimber We	ell 15.2	62	171-200	N/A	Red pine plantation.
	Canopy Species	% Cover	Size Class	DBH Age					relatively small red pine, high ba but only 2 and 3 stick stuff, could thin.
	Red Pine	100	Pole	8 62					relatively small rea pine. High ba bat only 2 and 0 stok stail. Sould till.
9	42210 - Nati			Poletimber We	.	65	51-80	N/A	Primarily red pine with oak mixed in on the SW. Contains access road to private property. Good field grade corner collected.
	Canopy Species		Size Class	DBH Age					•
	Jack Pine	10	Pole	5					Originally coded as an O6 stand. I think it still is in the O6 range. Some of the oak is approaching log sized but not the majority of it. Poor quality
	Northern Pin Oak	10	Log	12					as well. With the river and the private property, it would not be worth
	Red Pine	80	Log/Pole	10 65					harvesting. Would be more valuable standing.
10	42260 - Natural Pir			Sapling Mediu	1	50	1-50	N/A	Mixed conifer with sedge/grass openings. Private property access road on the south end.
	Canopy Species		Size Class	DBH Age					
	Quaking Aspen	10	Sapling	4					generally a grassy opening with some pockets of shrubby trees.
	Jack Pine	30	Sapling	4					
	Pin Cherry	15	Sapling	4 50					
	Northern Pin Oak	10	Sapling	4					
	Red Pine	30	Pole/Sapling						
	White Pine	5	Sapling/Pole	e 4					
11	4191 - Mixed Upla Co	ınd Decidu nifer	ous with	Sapling Poor	5.8	40	1-50	N/A	Upland shrub mixed with low density conifer. Private land to the east.scrubby cherry with some mixed pine
					1				
	Canopy Species	% Cover	Size Class	DBH Age					
	Canopy Species Red Maple	% Cover	Size Class Sapling	DBH Age					
	Red Maple	10	Sapling	1 1					
	Red Maple Quaking Aspen	10 20	Sapling Sapling	1 1					



Stand	Level 4 C	over Type		Size De	nsity	Acres	Stand Age	BA Range	Managed Site	General Comments
12	429 - Mixed Upland Conifers Sawtimber Medium 26.1		71	51-80	N/A	Uneven aged mixed conifer stand.				
	Canopy Species	% Cover	Size Class	DBH	l Age					mixed quality, some white pine mixed throughout. you get into some
	Black Spruce	40	Pole/Log/Sa	р 6	71					spruce as you move away from the road.
	White Pine	20	XLog/Log	18						
	Red Pine	20	Log/Pole	9						
	Red Maple	10	Log/Pole/Sa	p 10						
	Quaking Aspen	10	Pole/Sapling	g 5						
13	4124 - Red v	with White (Oak	Sawtimb	er Well	214.3	83	51-80	N/A	Oak ridge surrounded by KW planting. good health/vigor and decent
	Canopy Species	% Cover	Size Class	DBH	l Age					quality. Some red and white pine mixed in. Merchantable aspen and maple along with marked individual trees were harvested in 2007 under
	Red Maple	10	Sapling/Pole	e 3						contract 720230301 "ORV Snow Oak".
	Red Oak	50	Log	10	83					
	White Oak	30	Pole/Log	9	75					decent oak stand. looks to have been cut recently, could thin or shelterwood if. could leave since cutting large kw area. some steep terrain
	White Pine	5	Pole	6						Shellerwood II. could leave since culting large kw area. Some steep terrain
	Red Pine	5	Pole	6						
14	42110 - Pla	nted Red P	ine	Poletimb	er Well	102.4	62	171-200	N/A	Split out red pine blocks.Red and Jack Pine strip plantations. Planted
	Canopy Species	% Cover	Size Class	DBH	l Age					in 1959. Part of warbler block #4.
	Red Pine	90	Pole	7	62					
	Jack Pine	5	Pole	6	62					
١	Northern Pin Oak	5	Log	14						
16	42260 - Natural Pi	ne, Mixed D	Deciduous	Sapling I	Лedium	21.3	20	1-50	N/A	Still fairly open mixed conifer stand.
	Canopy Species	% Cover	Size Class	DBH	l Age					Stand swapped from Non-Forested to Forested. pine regen from recent
	Red Pine	30	Sapling	4						harvest
	Jack Pine	40	Sapling	3	20					
	Pin Cherry	20	Sapling	2						
١	Northern Pin Oak	10	Sapling	2						
17	42110 - Pla	nted Red P	ine	Poletimb	er Well	50.9	76	171-200	N/A	Thinned in 2007 under contract 72-053-06 "Upper Manistee CG".
	Canopy Species	% Cover	Size Class	DBH	l Age					Red pine plantation, has manistee river campground within. Portions of
	Red Pine	95	Pole	6	76					the stand have been 3rd row thinned, other portions have not. Most trees
Pi	in Oak (Southern)	5	Log	12	76					are only 2-3 sticks tall. They are starting to self prune. Would not hurt to leave for 10 years and possibly thin next YOE.

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Stand	Level 4 Cover Type 6128 - Lowland Coniferous, Mixed Deciduous			Size De	nsity	Acres	Stand Age B	A Range Managed Site		Site	General Comments	
18				Poletimber Well		56.4	55	1-50	N/A		Transitional stand from lowland to upland.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Car	nopy Species	Density	Avg. Height	Size	low area some standing water in places. small sized timber, most is unmerchantable in size. Thick pockets of spruce in places.	
	Red Maple	5	Sapling	1			ıg Alder	Medium	5 - 10 feet	Tall Shrub	tillinerchantable in size. Thick pockets of spruce in places.	
	Quaking Aspen	5	Sapling	1	-							
	Black Spruce	45	Pole/Sapling	5	55							
No	rthern White Cedar	10	Pole	1								
	Tamarack	10	Sapling	4								
	White Pine	10	Pole/Log	8								
	Pin Cherry	10	Sapling	1								
19	4131 - A	spen, Oak	F	Poletimb	er Well	99.3	36	1-50	N/A		Small pole sized aspen mixed with minor components of red maple, oak,	
	Canopy Species	% Cover	Size Class	DBH	Age						and pine.	
	Red Maple	20	Sapling/Pole	4							Aspen stand cut in 1984. Some is reaching merchantable status. Do	
	Quaking Aspen	60	Pole/Sapling	5	36						nothing.	
١	Northern Pin Oak	20	Sapling/Pole	4								
20	4310 - Pir	ne, Oak Mi	K	Sapling	Poor	235.2	5 I	mmature	N/A		Part of KW Block #4. Was final harvested in 2015 (#041-14), cutting stems 2"+ DBH except RP >24" DBH, additional green-painted RP in the	
	Canopy Species	% Cover	Size Class	DBH	Age						NE end, and retention islands. Chipping was completed early 2016.	
	Jack Pine	40	Sapling	1	5						Except for the 2-acre east poly, the stand was trenched in the opposing	
	Red Pine	10	Sapling	1	5						wave pattern for KW habitat in 2016 (W72-800), followed by an experimental mixed planting of jack pine (75%) and red pine (25%); see	
Blad	k/Red (Hybrid) Oak	40	Sapling	1	6						Michigan DNR Kirtland's Warbler Operational Plan, Goal 1, Objective 2.	
	Black Cherry	10	Sapling/Pole	1	6						Yr 1 regen survey found 743 JP, 19 RP, and 1016 oak/cherry per acre. Yr 3 regen survey found 639 JP & 627 O-RP TPA. FTP complete.	
21	21 4191 - Mixed Upland Deciduous with Poletimber Conifer			er Well	143.6	83	81-110	N/A		Primarily mixed Oak with maple, Pine, and a few clones of aspen.hilly, was thinned recently, nice mix of oak and pine. can wait to be treated.		
	Canopy Species	% Cover	Size Class	DBH	Age						quality is fair. some aspen mixed in. lots of firewood trails.	
	Red Maple	15	Sapling/Pole	1								
	Red Oak	35	Log	10	83							
	White Oak	5	Pole/Log	8								
	Quaking Aspen	20	Pole	6								
	White Pine	5	Pole/Sap/Log	9								
	Red Pine	20	Pole/Log	8								
22	42390 - Mixed Non-	Pine Uplar	nd Conifers F			124.1	60	51-80	N/A		Spruce stand with a narrow strip of pine west of goose creek.natural pine stand, close to river, within nat river corridor. a fair amount of large	
	Canopy Species		Size Class		Age		nopy Species		Avg. Height	Size	red pine in middle of stand. has been shelterwooded.	
	Black Spruce	50	Pole	5	60	Blac	k Spruce	Low	5 - 10 feet	Sapling		
	White Pine	15	XLog/Log	18								
	Red Pine	15	Log	10								
	Jack Pine	10	Pole	7	60							
No	rthern White Cedar	10	Pole	5								



Stand	and Level 4 Cover Type			Size Density		Size Density		Size Density		Size Density		Acres	Stand Age	BA Range	Managed S	Site	General Comments
23		4191 - Mixed Upland Deciduous with Conifer			Poletimber Well		36	51-80	N/A								
	Canopy Species	% Cover	Size Class	DB	H Age						Stand was cut in 1985. Orv Trail goes through stand. Do nothing.						
	Quaking Aspen	15	Sapling	4													
	White Pine	25	Sapling	4													
I	Northern Pin Oak	45	Sapling	4	36												
	Red Maple	15	Sapling/Pol	e 4													
24	42121 - Planted Dec	Jack Pine, iduous	Mixed	Saplin	g Poor	241.5	10	Immature	N/A		KW management area. Was final harvested in 2009 (#004-09), cutting stems 2"+ DBH. Was then trenched in 2009 and planted to JP in 2010						
	Canopy Species	% Cover	Size Class	DB	H Age						(W72-618). Early warm-up that May. Year 1 regen survey found almost complete failure. Entire site was then re-planted in 2011. Good						
	Jack Pine	80	Sapling	1	10						survivorship and full stocking in JP found at the following Year 1 regen						
I	Northern Pin Oak	10	Sapling	1	12						survey (1576 JP, 28 BC/NPO per acre). Re-survey in 2013 found						
	Black Cherry	10	Sapling	1	12						adequate stocking.						
25	6122 - BI	lack Spruce	•	Saplin	g Well	39.1	40		N/A		Accessible only through private land.						
	Canopy Species	% Cover	Size Class	DB	H Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	lowland stand. Lots of tag alder, spruce, some cedar. Very wet.						
	Quaking Aspen	10	Sapling	5		Ta	ag Alder	High	5 - 10 feet	Tall Shrub							
	Black Spruce	60	Sapling/Pol	e 5	40												
No	rthern White Cedar	20	Sapling/Pol	e 5													
	Pin Cherry	10	Sapling	5													
26	6229 - Mixed	d lowland sh	nrub	Nons	tocked	22.3	0		No		Riparian corridor of Goose Creek.						
						Sub-Ca	nopy Specie	es Density	Avg. Height	Size	Tag alder lowland. Remote call.						
						Ta	ag Alder	High	5 - 10 feet	Tall Shrub							
						Blac	ck Spruce	Low	10 - 20 feet	Sapling							
						W	hite Pine	Trace	>20 feet	Log							
27	42120 - Plai	nted Jack P	ine	Poletim	ber Well	187.0	34	1-50	N/A		Harvesting stand outside of YOE to create a larger and easier managed						
	Canopy Species	% Cover	Size Class	DB	H Age						KW block. Merge stands into Comp 179 following harvest. Stand swapped from Non-Forested to Forested. planted warbler plantation.						
	Jack Pine	95	Pole/Sapling	g 5	34						onapped non-ron-ron-contact planted naise plantation						
	Pin Cherry	5	Sapling	1													
28	42120 - Planted Jack Pine		ine	Saplir	ıg Well	97.9	27		N/A		Harvesting stand outside of YOE to create a larger and easier managed						
	Canopy Species	% Cover	Size Class	DB	H Age						KW block. Merge stands into Comp 179 following harvest.						
	Jack Pine	95	Sapling	3	27						young warbler plantation						
	Pin Cherry	5	Sapling	2													
29	42120 - Plai	nted Jack P	Pine	Poletim	ber Well	10.7	27	1-50	N/A		Harvesting stand outside of YOE to create a larger and easier managed						
											KW block. Merge stands into Comp 179 following harvest.						
	Canopy Species	% Cover	Size Class	DB	H Age												
	Canopy Species Jack Pine	% Cover 95	Size Class Pole/Sapling								similar to stand 44. may be part of next warbler block. will have to check						

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Stand	d Level 4 C	over Type		Size Density	Acres	Stand Age	BA Range	Managed S	Site	General Comments
30	42220 - Nat	tural Jack P	ine	Poletimber Poor	1.8	50		N/A		River access site on County Road 612.
	Canopy Species Jack Pine White Pine Northern Pin Oak	% Cover 80 5 15	Size Class Pole Log/Pole Log	7 50						Mostly pavement parking area, but has some Trees growing on it.
31	3302 - Low Den	nsity Conifer	r Trees	Nonstocked	57.5	0		No		Stand is included in KW block. High use area. Pretty sparse vegetation. JC update: Opening maintenance was approved by variance in January 2015. Most of the stand was harvested in 2015 (#041-14), as part of the initial reclaiming of the opening, with future non-commercial work to be carried out under FTP W72-764.
32	Canopy Species	% Cover	Pine Size Class		5.8	27		N/A		Previous inventory done by Mohney. Corrected during sale prep: this needs to be combined with the younger jack pine to the west in Kalkaska Co.
	Jack Pine Pin Cherry	95 5	Sapling Sapling	3 27						Mohney notes: young warbler plantation
33	42140 - Plan	nted Mixed F	Pine	Poletimber Well	60.3	62	111-140	N/A		Designated long term retention.
	Canopy Species Red Pine Jack Pine	% Cover 50 50	Size Class Pole Pole	DBH Age 6 6 6 62						Red and Jack Pine strip plantations. Planted in 1959. Part of warbler block #4.
34	42120 - Plar	nted Jack P	Pine	Sapling Poor	103.5	13	Immature	N/A		Split out stand 70 due to difference in stocking density.
	Canopy Species Jack Pine	% Cover	Size Class Sapling	DBH Age		inopy Specie ck Cherry	S Density Low	Avg. Height 5 - 10 feet	Size Tall Shrub	KW management area. Was final harvested in 2004 (#030-03), cutting stems 2"+ DBH. Was then trenched and planted to JP in 2008 (W72-501). Planted JP shifting into the 25-50% canopy closure category, with locally full cover in naturally-established JP on landings and main skid routes. Updated canopy records from the treatment report & 2016 imagery, not site visit.
35	42110 - Pla Canopy Species	% Cover	Size Class		8.7	54	81-110	N/A		Red pine plantation.
	Red Pine	100 pland Sprud	Pole	8 54 Poletimber Well	62.6	70	51-80	N/A		Lowland peninsula surrounded by oxbow ponds off Manistee River.
36	Canopy Species	•	Size Class			nopy Specie		Avg. Height	Size	Lowiand perinisula surrounded by oxbow ponds on manistee River.
No	Black Spruce orthern White Cedar White Pine	70 20 10	Pole/Saplin Pole/Saplin Pole/Log	g 5 70 g 5		ag Alder	Medium	5 - 10 feet	Tall Shrub	
38	6223 - Inundat	ed Shrub S	wamp	Nonstocked	3.2	0		No		Standing water surrounded by cattails with some scattered spruce and pine.



Stand	Level 4 C	over Type	5	Size De	ensity	Acres	Stand Age	BA Range	Managed S	ite	General Comments			
39	42320 - Սբ	oland Sprud			er Well	12.3	80	51-80	N/A		Black spruce bog with some tamarack, cedar and pine. Heavy sphagnum with labrador tea and other associated bog species.			
	Canopy Species		Size Class		l Age						man abhadan tad and other decodated bog oposite.			
	Black Spruce	80	Pole/Sap/Log		80									
	Tamarack	10	Pole/Sap/Log											
	White Pine	10	Log	12										
40	42110 - Pla				er Well	15.9	65	81-110	N/A		Planted red pine. Some dead oak in the canopy.			
	Canopy Species	% Cover	Size Class		l Age						Originally coded as an O6 stand. I think it still is in the O6 range. Some			
	Red Pine	90	Log/Pole	10	65						of the oak is approaching log sized but not the majority of it. Poor quality			
1	Northern Pin Oak	10	Log/XLog	16	94						as well. With the river and the private property, it would not be worth harvesting. Would be more valuable standing.			
44	42120 - Plar		Pine P		er Well	39.0	62	51-80	N/A		Buffers goose creek trail camp from manistee river rd. Horse trail traverses stand in addition to other access trails and roads.			
	Canopy Species Jack Pine	100	Pole	6							Jack pine plantation. Part of warbler block #4.			
	Jack I IIIe	100	1 016	0	02						Jack pine plantation. Fart of warbler block #4.			
46	42120 - Planted Jack Pine Poleti									62	51-80	N/A		Split from stand 14.
	Canopy Species	% Cover	Size Class	DBH	l Age						Jack pine plantation. Part of warbler block #4.			
	Jack Pine	100	Pole	6	62									
52	4310 - Piı	ne, Oak Mi	x	Sapling	Poor	3.4	5	Immature	N/A		Was final harvested in 2015 (#041-14), cutting stems 2"+ DBH except RP >24" DBH, additional green-painted RP in the NE of PU 6, and retention			
	Canopy Species	% Cover	Size Class	DBH	l Age						islands. Chipping was completed early 2016. Was trenched in the			
Blad	ck/Red (Hybrid) Oak	30	Sapling	1	6						opposing wave pattern for KW habitat in 2016 (part of KW Block #4) and			
	Red Pine	1	XLog	25							planted to JP in 2017 with ten rows planted to RP flanking the county roads. 2018 regen survey found 856 JP & 1100 O-C TPA. Yr 3 regen			
	Black Cherry	10	Sapling	1	6						survey found 639 JP & 627 O-RP TPA. FTP complete.			
	Jack Pine	50	Sapling	1	5						,			
	Red Pine	9	Sapling	1	5									
53	42220 - Natural Jack Pine		Natural Jack Pine Sawtimber Well			220 - Natural Jack Pine Sawtimber W			31.0	80	81-110	N/A		retention from final harvested in 2015 (#041-14). Chipping was completed early 2016. Was trenched in the opposing wave pattern for KW habitat in
	Canopy Species		Size Class		I Age						2016 (part of KW Block #4) and planted to JP in 2017 with ten rows			
	Jack Pine	60	Pole/Log	8	80						planted to RP flanking the county roads. 2018 regen survey found 856			
	Red Pine	30	Log	10	80						JP & 1100 O-C TPA. Yr 3 regen survey found 639 JP & 627 O-RP TPA. FTP complete.			
	White Pine	10	Log/XLog	14							TH complete.			
56	42260 - Natural Pi	ne, Mixed [Deciduous Sav				71	51-80	N/A		mixed quality, some white pine mixed throughout. you get into some spruce as you move away from the road. horse trail goes thru stand			
	Canopy Species	% Cover	Size Class	DBH	I Age	Sub-Ca	nopy Specie	es Density	Avg. Height	Size	oprado ao you move away nom the road. Horse trail goes that stand			
	White Pine	40	Pole/Log	8	71	Qual	king Aspen	Low	< 5 feet	Sapling				
	Red Pine	20	Log/Pole	9										
1	Black Cherry	40	Sapling/Pole	4										



Stand	d Level 4 Cover Type			Size De	ensity	Acres	Stand Age	BA Range	Managed S	ite	General Comments	
58	6239 - Mixed E	6239 - Mixed Emergent Wetland				25.8	0		No		Split from stand 18. Non-forested wetland with a minor component of stunted spruce.	
											low area some standing water in places. small sized timber, most is unmerchantable in size. Thick pockets of spruce in places.	
59	42290 - Nati			Poletimb		37.4	76	51-80	N/A		Manistee river meanders split from stand 17. Sandy ridges dominated by jack and red pine with some oak.	
	Canopy Species		Size Class		l Age							
	Red Pine	40	Pole/Log	8	76 76						Red pine plantation, has manistee river campground within. Portions of the stand have been 3rd row thinned, other portions have not. Most trees	
N	Northern Pin Oak	20	Log	12	76						are only 2-3 sticks tall. They are starting to self prune. Would not hurt to	
	Jack Pine	40	Pole	6							leave for 10 years and possibly thin next YOE.	
60	42120 - Pla			Poletimb		31.0	62	141-170	N/A		Jack pine plantation. strip planting of red and jack pine. Part of warbler block to be cut. ORV Trail through stand.	
	Canopy Species		Size Class		l Age						marbior blook to be out. Of the through starta.	
	Jack Pine	100	Pole	6	62							
61	4311 - Pine, Aspen Mix		Poletimber Well		7.7	62	51-80	N/A		Declining aspen with Jack pine.strip planting of red and jack pine. Part of warbler block to be cut. ORV Trail through stand.		
	Canopy Species	pecies % Cover Size Clas		DBH Age							-	
	Bigtooth Aspen	50	Pole	8	62							
	Jack Pine	40	Pole	7	62							
	Red Pine	10	Log	14								
62	2 42110 - Planted Red Pine		ne Poletimber We		Poletimber Well 4		62	201+	N/A		Red pine plantation. strip planting of red and jack pine. Part of warbler block to be cut. ORV Trail through stand.	
	Canopy Species	% Cover	Size Class	DBH	H Age						warbier block to be cut. ORV Trail tillough stand.	
	Red Pine	100	Pole	8	62							
65	122 - Road/Parking Lot		ot	Nonst	ocked	8.4	0		No		County rd 612 and associated non-forested right of way.	
69	42290 - Nati	ural Mixed F	Pine	Poletimb	er Well	13.4	60	51-80	N/A		natural pine stand, close to river, within nat river corridor. a fair amount	
	Canopy Species	% Cover	Size Class	DBH	l Age	Sub-Ca	nopy Specie	s Density	Avg. Height	Size	of larger red pine in middle of stand. has been shelterwooded.	
	Black Spruce	15	Pole	5		Bla	ck Spruce	Low	5 - 10 feet	Sapling		
	White Pine	15	Log	11		Ja	ack Pine	Medium	5 - 10 feet	Sapling		
	Red Pine	15	Log	10		Pi	n Cherry	Medium	5 - 10 feet	Sapling		
	Jack Pine	50	Pole	7	60						-	
	Pin Cherry	5	Pole/Saplin	a 6								

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Stand	d Level 4 Cover Type				nsity	Acres	Stand Age	BA Range	Managed Site		General Comments
70	9 42121 - Planted Jack Pine, Mixed Deciduous				Poor	70.9	13	Immature	N/A		Split from stand 34.
	Canopy Species Jack Pine Black Cherry	% Cover 70 30	Size Class Sapling Sapling	2 1	Age 13						KW management area. Was final harvested in 2004 (#030-03), cutting stems 2"+ DBH. Was then trenched and planted to JP in 2008 (W72-501). Planted JP shifting into the 25-50% canopy closure category, with locally full cover in naturally-established JP on landings and main skid routes. Updated canopy records from the treatment report & 2016 imagery, not site visit.
104	3302 - Low Den	sity Conife	r Trees	Nonsto	cked		0 nopy Specie ck Pine	es Density Low	4212 - Planted Avg. Height < 5 feet	Jack Pine Size Seeding	Final harvested by 2008 (#037-03). C72-600 trenched 2010, planted to JP in 2012, with high mortality. Re-planted in 2014. Passed Yr 3 regen survey. FTP complete.