

Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72063 Entry Year 2017 Acreage: 1,064 County Alcona Management Area: Alpena Lake Plain

Revision Date: 2015-07-31

Stand Examiner: Patrick Potter

Legal Description:

T28N R09E Section 4 & 5; T27N R07E Sections 2, 3, & 10; T28N R07E Section 12

Identified Planning Goals:

To maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management.

Soil and topography:

The compartment consists almost entirely of lowlands, primarily on Lupton Muck. The few acres of high ground along Sand Hill Road are on Battlefield and Eastport Sands

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

The compartment is split into two widely-separated ownership blocks. Major portions of the compartment's north block were transferred to Negwegon State Park following the state forest boundary review in 2004. Ownership is fairly solid in both the north and south blocks except for forty acres located in T28N R07E Section 12, encompassing large tracts of lowland cover types. Adjacent private land is also primarily swamp, so development is very limited, except along Hubbard Lake.

Unique Natural Features:

Wooded dune and swale complex: The Black River Swamp, and extensive lowland complex formed at the bas of a large NW-SE oriented moraine, has the potential to provide habitat for unique and uncommon plant species. Marshes associated with Hubbard Lake's South bay and the West Branch River floodplains support avian species whose populations are in the process of recovering.

Archeological, Historical, and Cultural Features:

Multiple archaeological sites are recorded within this compartment. Evidence of early Native American activity within the compartment has been recorded by the Department of State.

Special Management Designations or Considerations:

Most of the compartment's south block, near Hubbard Lake, was purchased by Wildlife Division in order to expand public recreational opportunities and secure valuable wetland wildlife habitat. Theses land were dedicated as the Hubbard Lake Wildlife Area. In addition there are two ERA's (Rich Conifer Swamp & Northern Fen) located in section 3.

Watershed and Fisheries Considerations:

The compartment's isolated blocks lie within two separate watersheds; the north block is associated with the Black River and lake Huron, while the south block is associated with the West Branch River and Hubbard Lake.

Wildlife Habitat Considerations:

The compartment's contiguous blocks of swamp conifers, lowland hardwoods, marshes and riparian corridors provide a wide spectrum of habitat suitable of a variety of plant and animal species.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine sand and gravel and sune sand. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Antrim Shale. The Antrim is quarried for cement products near Alpena. A gravel pit is located in Section 15 and there appears to be potential. There is no active leasing in the compartment but most of the state land immediately to the north in Alpena County is currently leased for oil and gas development. Antrim development is a bout two miles west.

Vehicle Access:

Due to the predominantly lowland terrain, access is extremely limited. Mt. Maria Road and Sand Hill Road are the only improved roads within the compartment.

Survey Needs:

State ownership boundaries in the compartment's south block near Hubbard Lake are unclear, a survey request has be submitted for sections 3 & 10.

Recreational Facilities and Opportunities:

While the compartment's north bock is immediately adjacent to Negwegon State Park, no developed recreational facilities exist in this portion of the compartment itself. The south block contains a Parks & Recreation Division public access site on Hubbard Lake's South Bay. Given the compartment's low terrain, opportunities for developing additional facilities are limited.

Fire Protection:

Access is very poor within the compartment, but the predominant lowland types usually do not normally present a fire hazard.

Additional Compartment Information:

Eurasian Phragmites was found in five individual sites; three in the north block and two in the south block. All sites have been reported to MISTN.

The following reports from the Inventory are attached:

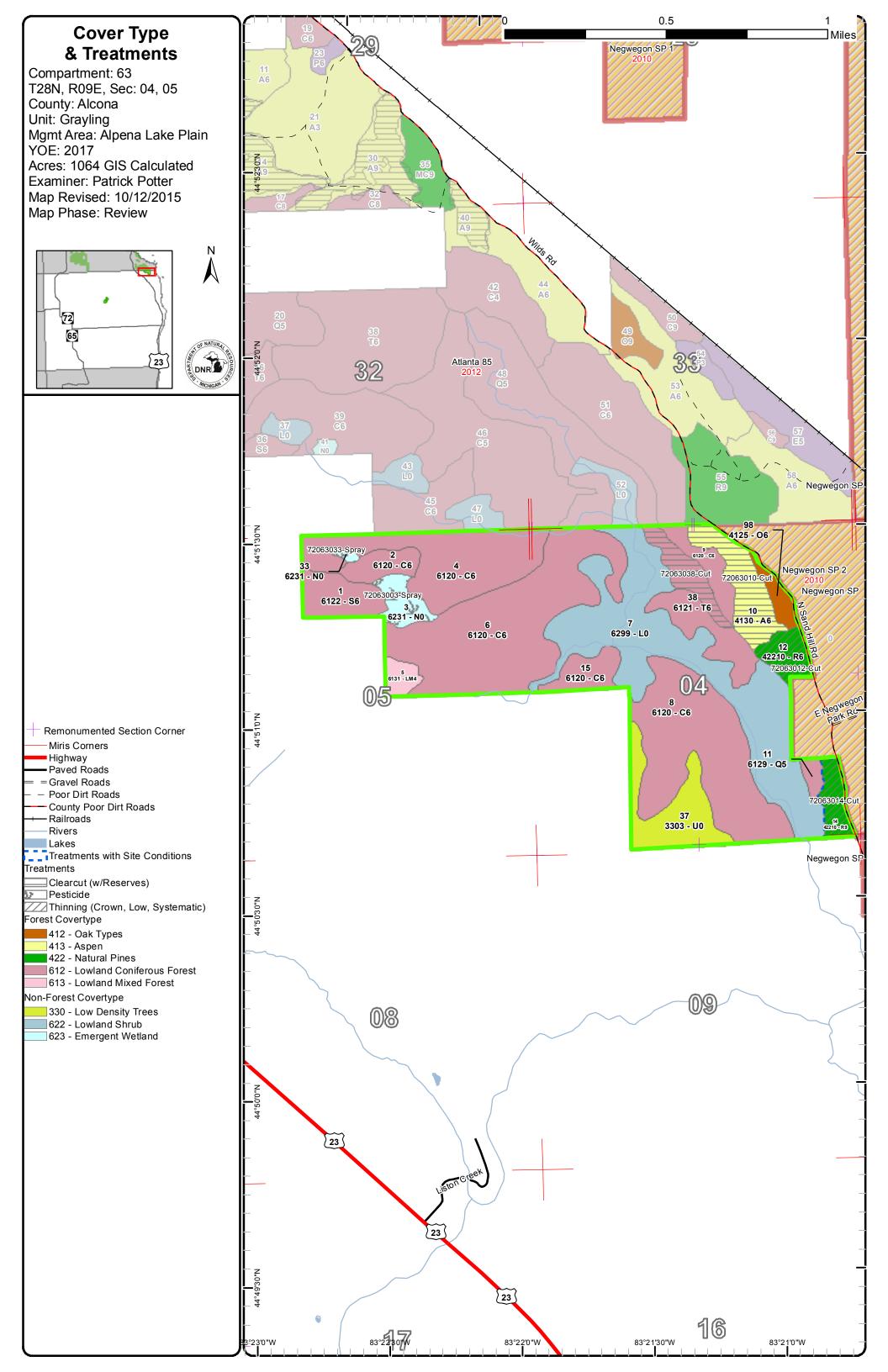
Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas Site Condition Details

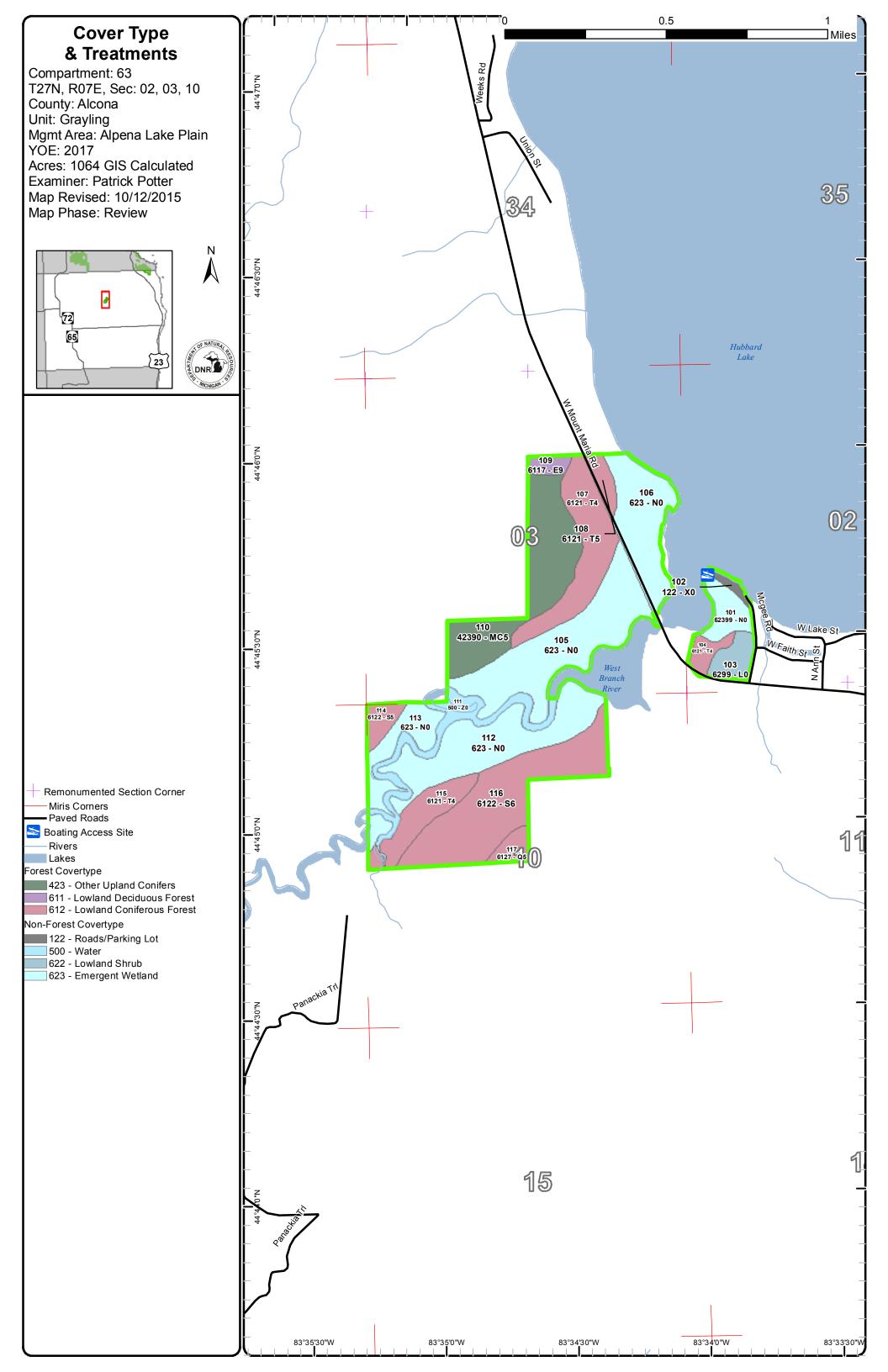
The following information is displayed, where pertinent, on the attached compartment maps:

Base feature information, stand boundaries, cover types, and numbers

Proposed treatments Site condition boundaries

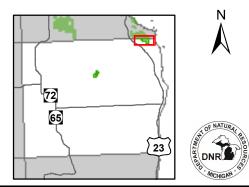
Details on the road access system

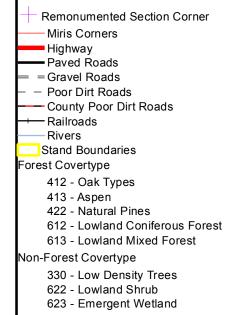


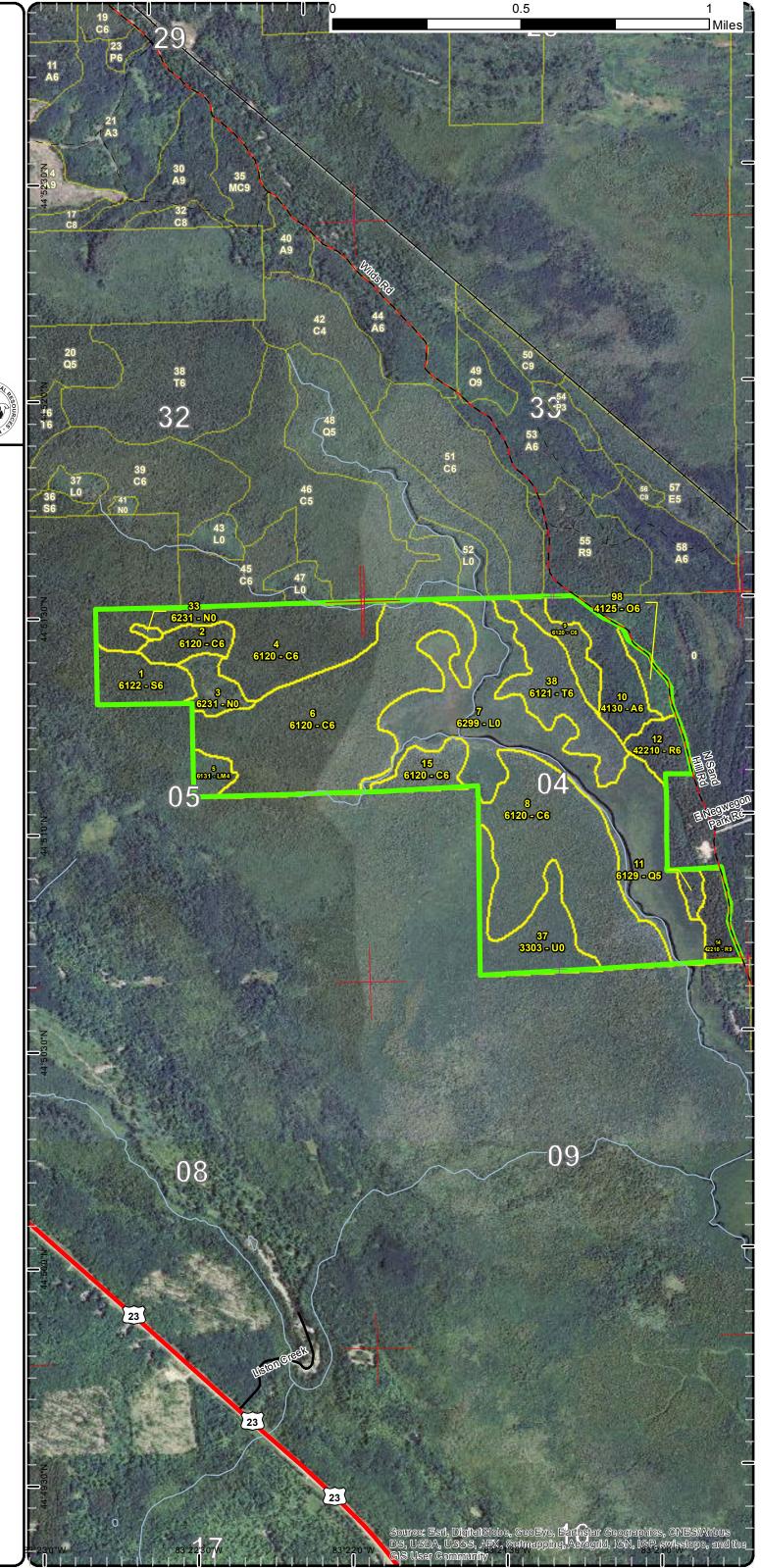


Stand Boundary Map

Compartment: 63 T28N, R09E, Sec: 04, 05 County: Alcona Unit: Grayling Mgmt Area: Alpena Lake Plain YOE: 2017 Acres: 1064 GIS Calculated Examiner: Patrick Potter Map Revised: 10/15/2015 Map Phase: Review

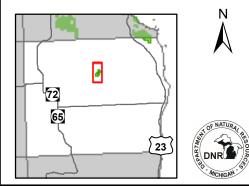




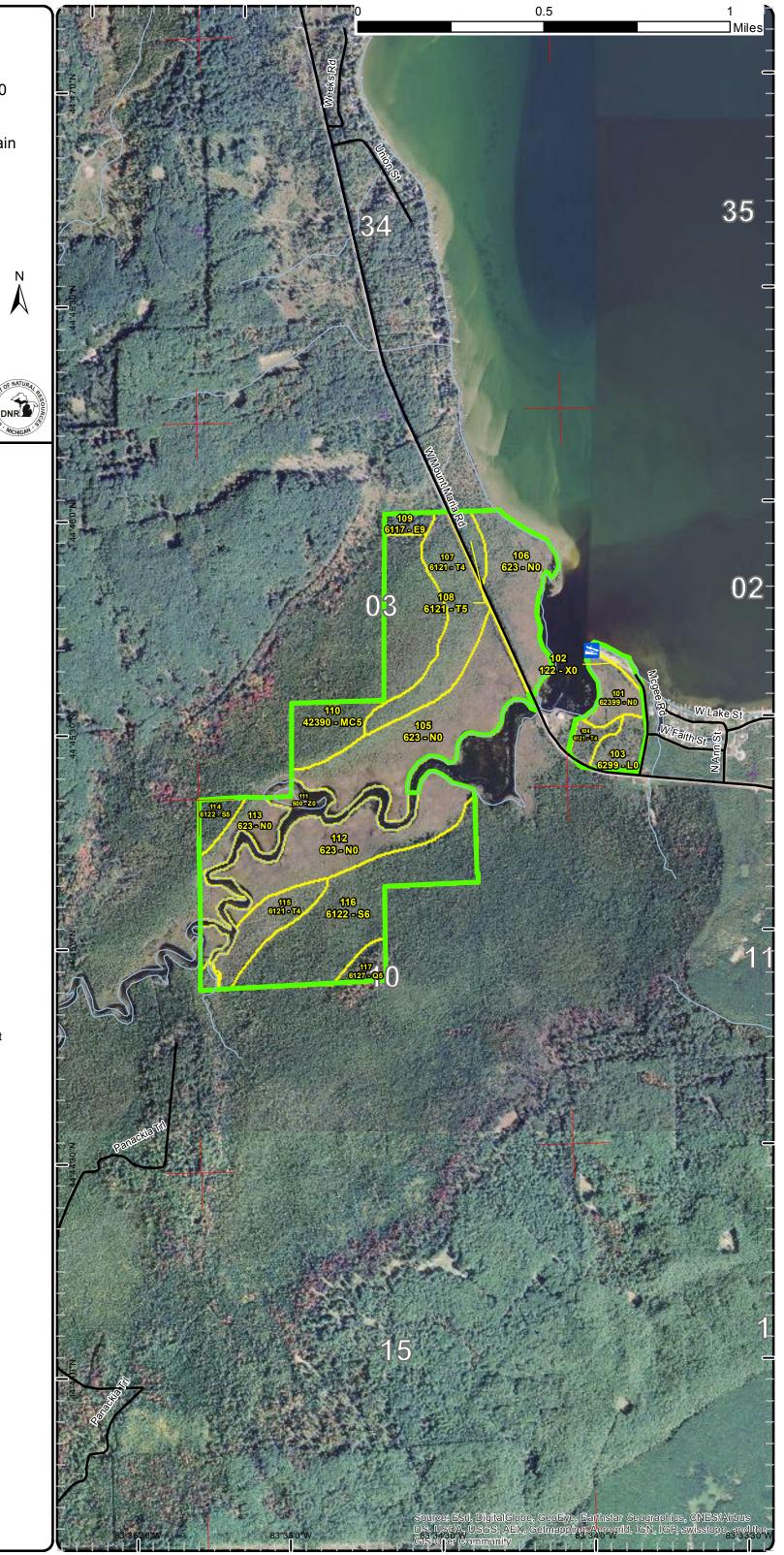


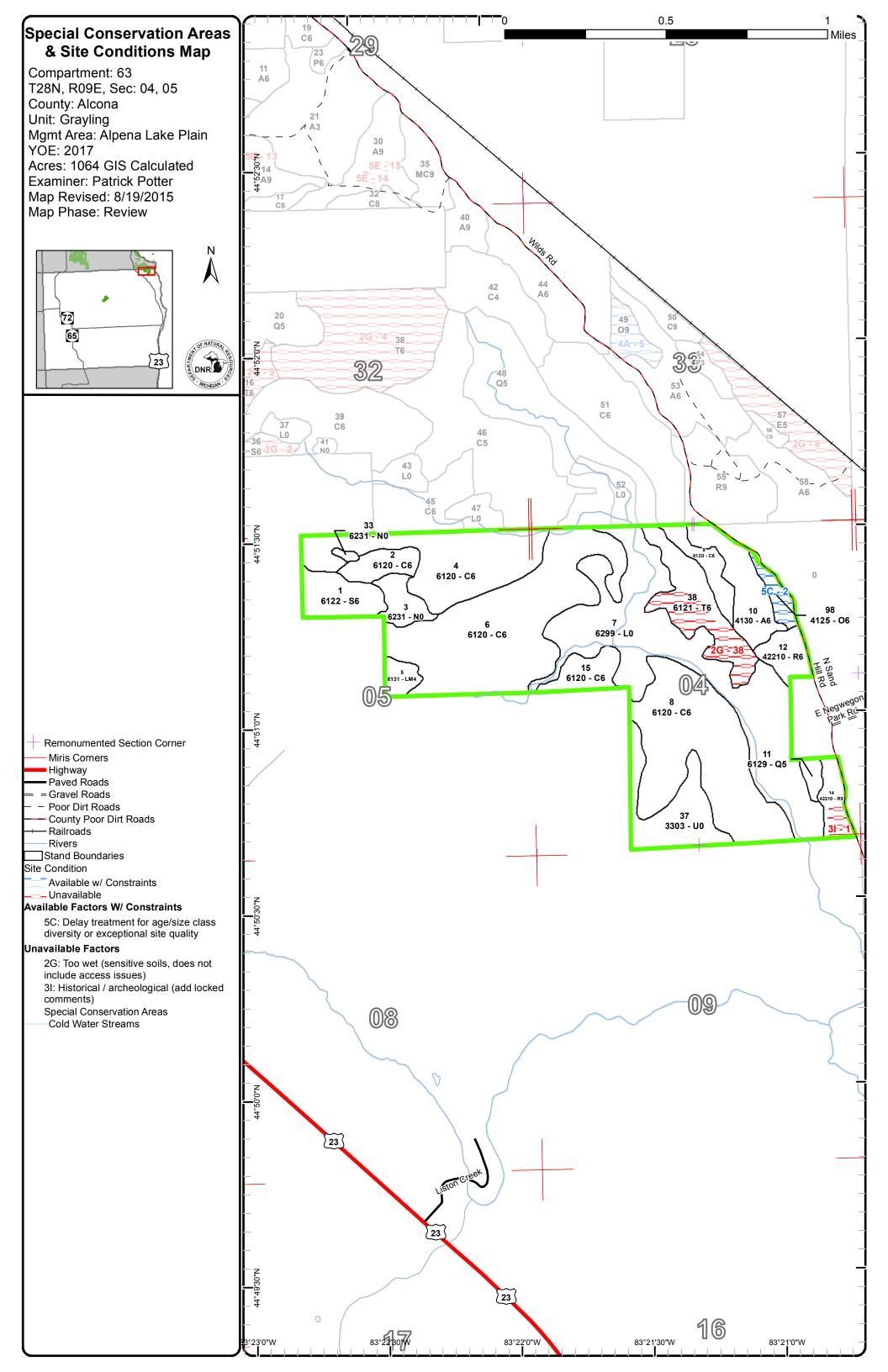
Stand Boundary Map

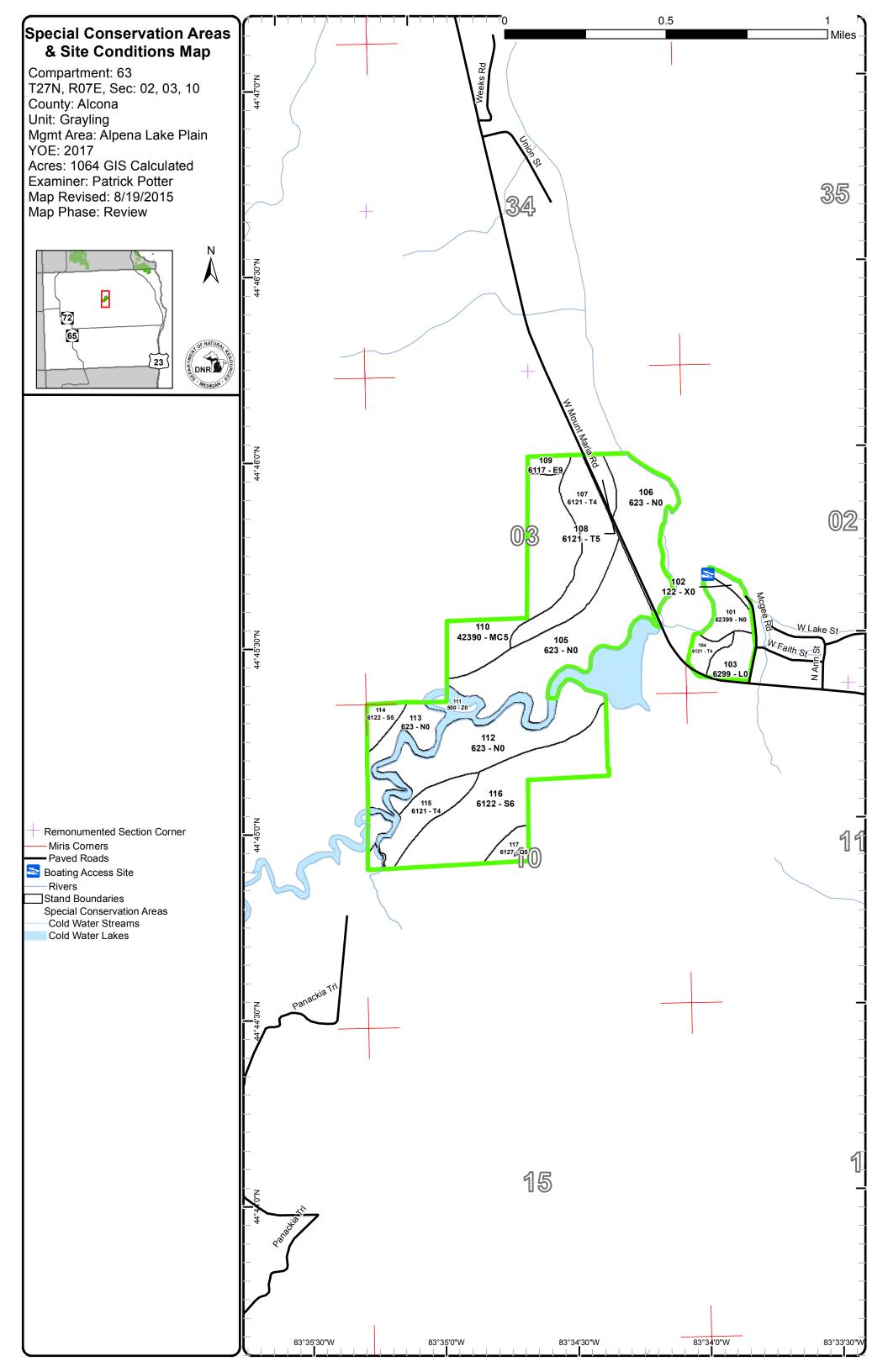
Compartment: 63 T27N, R07E, Sec: 02, 03, 10 County: Alcona Unit: Grayling Mgmt Area: Alpena Lake Plain YOE: 2017 Acres: 1064 GIS Calculated Examiner: Patrick Potter Map Revised: 10/15/2015 Map Phase: Review











Report 1 – Total Acres by Cover Type and Age Class

Grayling Mgt. Unit

Patrick Potter : Examiner



Age Class

	Non	to to the second	°2 / «	\$1. 2	30°2	8 4	0.40 20 - 20 20 -	\$ \$	88 R	\$. \$.	890 800 000	°, voj	70%	61, ⁴²	67.5 1.5	67.73 EL	10 10 10	DX JUN	A A A A A A A A A A A A A A A A A A A
Aspen	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27
Cedar	0	0	0	0	0	0	0	0	0	12	0	0	279	26	0	0	0	0	317
Low-Density Trees	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Lowland Conifers	0	0	0	0	0	0	0	0	0	4	7	0	0	0	0	0	0	0	11
Lowland Deciduous	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Lowland Mixed Forest	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Shrub	142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	142
Lowland Spruce/Fir	0	0	0	0	0	0	0	20	0	7	70	0	0	0	0	0	0	0	97
Marsh	206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206
Oak	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
Red Pine	0	0	0	0	0	0	0	0	0	0	13	12	0	0	0	0	0	0	25
Tamarack	0	0	0	0	0	0	0	6	0	64	0	0	37	0	0	0	0	0	107
Upland Conifers	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	55
Urban	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Water	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Total	408	0	0	0	0	7	27	30	0	142	90	20	316	26	0	0	0	0	1066



Grayling Mgt. Unit

Year of Entry: 2017	Acres of Harvest	Total Compartment Acres: 1,064
	Commercial Harvest - 54	
	Harvests with Site Condition - 12	
	Next Step Harvest - 0	
	Habitat Cut - 0	

Cover Type by Harvest Method

			Concrut	Delection Delection	Clearcur	Cond Teo	rent nood	Over Contraction of C	(e) Police	ogligge	in the second	Sec. A
Aspen		27	0	0	0	0	0	0	0	0	27	
Red Pine		0	0	0	0	0	25	0	0	0	25	
Tamarack		14	0	0	0	0	0	0	0	0	14	
	Total	41	0	0	0	0	25	0	0	0	66	

Proposed and Next Step Treatments by Method

		/.	tseened in	Contraction of the second	On Contraction of Con	Oceania Control	on on the second	Costicido	onition initial	N. Contraction	4 / 3	A COL
Current		66	0	0	0	0	13	0	0	0	78	
Next Step		0	0	0	0	0	13	54	0	0	67	
	Total	66	0	0	0	0	25	54	0	0	145	

S t		Gr	ayling Mgt. Unit		Re	eport 4	Treatme	ents		ment: 63 Entry: 2017	DRR DR RATURE
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
3	72063003- Spray	11.5	6231 - Phragmites	Nonstocke	d	Unspec ified	Pesticide	Hand Application	6128 - Lowland Coniferous, Mixed Deciduous	Even-Aged	Proposal
		nerbicide t ng 'Clearc	Site Condition: treatment in late sprin ast'	ng summer	using a	a approve	d wetland Rou	ndup herbicide. The	en do a follow-up	herbicide in lat	e summer or
<u>Next S</u> Treatn		de, Hand	Application; Monitor	ing, Herbic	ide Use	9					
<u>Accep</u> Regen											
Other Comm	nent:		omments: /2016								
	sed Start Date	_	4130 - Aspen	Poletimber	· 56	81-110	Harvest	Clearcut with	413 - Aspen	Even-Aged	Proposal
	t <mark>at Cut:</mark> No ription Final h	arvest with	Site Condition: h retention	Well				Retention			
<u>Next S</u> Treatn											
Regen Other Comm	Old n nent:	ext step co	omments:								
	sed Start Date 72063012-Cut	_	/2016 42210 - Natural	Poletimber	· 97	111-	Harvest	Crown Thinning	4211 - Planted	Even-Aged	Proposal
	t <mark>at Cut:</mark> No r <u>iption</u> Mark s	tand dowr	Red Pine Site Condition: n to 120 BA	Well		140			Red Pine		
<u>Next S</u> Treatn											
<u>Accep</u> <u>Regen</u>											
<u>Other</u> Comm		ext step co	omments:								
Propos	sed Start Date	<u>:</u> 10/1	/2016								
14 7	72063014-Cut	11.9	42210 - Natural Red Pine	Sawtimber Well	100	141- 170	Harvest	Crown Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
	t <mark>at Cut:</mark> No ription Mark s	tand dowr	Site Condition:		al/Arc	-	jical				
<u>Next S</u> Treatn											
<u>Accep</u> Regen											
<u>Other</u> Comm		ext step co	omments:								

S t	t					eport 4	Treatme	ents	•	ment: 63 Entry: 2017	DNR DR
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
33	72063033- Spray	1.3	6231 - Phragmites		d	Unspec ified	Pesticide	Hand Application	6117 - Lowland Deciduous, Mixed Coniferous	Even-Aged	Proposal
		nerbicide ng 'Clearc	Site Condition: treatment in late spri cast		using :	a approve	ed wetland Rou	ndup herbicide. The	en do a follow-up l	nerbicide in lat	e summer or
<u>Next S</u> Treatr	<u>Step</u> Pestici <u>ments:</u>	de, Hand	Application; Monito	ring, Herbic	ide Use	e					
Accep Regei											
<u>Other</u> Comn		ext step c	comments:								
Propo	sed Start Date	<u>:</u> 10/1	/2016								
38	72063038-Cut	14.4	6121 - Tamarack	Poletimber Well	r 115	81-110	Harvest	Clearcut with Retention	612 - Lowland Coniferous Forest	Even-Aged	Proposal
Habi	<u>tat Cut:</u> No		Site Condition:								
Presc Specs		arvest wit	th retention, retentior	n need to be	e strips	laid out in	a south-weste	rly direction.			
<u>Next S</u> Treatr	<u>Step</u> ments:										
<u>Accep</u> Regei		lowland s	pecies, tamarack, ce	edar, back s	pruce,	red maple	e, balsam fir				
<u>Other</u> Comn		ext step c	comments:								
<u>Propo</u>	sed Start Date	<u>:</u> 10/1	/2016								
Ac	Total Treatme reage Propos		78.4								

Grayling Mgt. Unit

Patrick Potter : Examiner

Compartment: 63 Year of Entry: 2017

Availability for Management

То	otal	Acres	Acres Avail	Acres		Domina	nt Site	e Conc	ditions
Ac	res	Available	With Condition	Not Available		5C	2G	31	
2	27	27	0	0	Aspen				l
3	18	318	0	0	Cedar				
3	3	33	0	0	Low-Density Trees				
1	1	11	0	0	Lowland Conifers				
4	4	4	0	0	Lowland Deciduous				
-	7	7	0	0	Lowland Mixed Forest				
14	42	142	0	0	Lowland Shrub				
9	96	96	0	0	Lowland Spruce/Fir				
20	06	206	0	0	Marsh				
1	8	0	8	0	Oak	8			
2	25	20	0	4	Red Pine			4	
10	07	85	0	22	Tamarack		22		
5	5	55	0	0	Upland Conifers				
	3	3	0	0	Urban				
2	24	24	0	0	Water				
1,0)64	1,030	8	26	Total Forested Acres	8	22	4	
		97%	1%	2%	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.

Una Comme	available	3I: Historical / archeological (add locked comments)	4	Unspecified	Unspecified	Unspecified	Linenceified
Comme					·	Unspecified	Unspecified
	ents:						
2 A v	vailable	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
Comme	ents:						

		ayling Mgt. Unit Potter : Examiner		Report 5 – Site Co	nditions	Compartment: 63 Year of Entry: 2017			
38	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	22	Unspecified	Unspecified	Unspecified	Unspecified		
C	Comments:								



Report 6 – 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 – 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.

Conservati 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 spect conditions 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	ies to persist from year to year. Suitable by are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish spec year 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.	ies (e.g., slimy sculpin) to persist from ese conditions due to substantial
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples or identified as Element Occurrences (EOs) by the Michigan Natura context of their natural community classification system. Elemen (Excellent) or B (Good) and a Global (G) or State (S) element (ra threatened (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 p submit recommendations for lands as ERAs using the DNR Con	al Features Inventory (MNFI) within the t Occurrences with viability ranks of A arity) ranking of endangered (1), may be located upon any ownership in of natural community types that are processes and values. The public may

S t	Grayling Mgt. Unit			Report 8	- Forested	Stands Compartment: 63 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6122 - Black Spruce	Poletimber Well	20.0	65	141-170	OPIC notes say this stand's Year Origin was 1960, the tamarack and black spruce that I cored met that age and the black spruce was close, both of these species appear to have regeneration after the strips cuts that occurred before 1938. In addition the 1938 photos show a lot of strip cuts. Stand is a mix of Black spruce, Tamarack with some cedar.
2	6120 - Lowland Cedar	Poletimber Well	12.0	122	141-170	OPIC - FMD: OI Stand Year Origin was 1893
4	6120 - Lowland Cedar	Poletimber Well	64.7	117	141-170	OPIC - FMD: VERY POOR GROWTHtwo story deer blind in NE corner. scattered white pine and b. fir. spruce mainly in East edge of stand.
5	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Poor	6.9	40	1-50	Stand was treated between 1963 & 1978 based on the aerial photos. Not sure this was not a timber-trespass, not harvest records found and you can see that the harvest also occurred on the surrounding private. Stand has a very high water-table
6	6120 - Lowland Cedar	Poletimber Well	118.1	117	171-200	The 1938 photos show a lot of strip cuts which are still visible in the 63 photos. Cored a black spruce within one of the strip and the cedar just outside of the edge.
8	6120 - Lowland Cedar	Poletimber Well	96.1	112	Unspecified	
9	6120 - Lowland Cedar	Poletimber Well	12.4	85	111-140	Heavy deer and rabbit trails. Again photos show strip cuts and found old road. I did not find any cedar regeneration in any of the cut strips.
10	4130 - Aspen	Poletimber Well	26.6	56	81-110	Red pine, white pine and Oak were left in 1959 Harvest. That portion of the compartment laying east of Sand Hill Road in Section 4 was transferred to Negwegon State Parke, reducing this stand's original acreage.
11	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	4.2	85	Unspecified	
12	42210 - Natural Red Pine	Poletimber Well	12.8	97	111-140	Aspen was harvest 1959, 2007 YOE: That portion of the compartment laying east of Sand Hill Road in Section 4 was transferred to Negwegon State Park, reducing this stand's original acreage.
14	42210 - Natural Red Pine	Sawtimber Well	11.9	100	141-170	OPIC - FMD: FUTURE ENTRANCE TO NEGWEGON STATE PARK. CUT J & A NOW TO ALLOW FOR RREGEN IN FUTURE. 2007 YOE: That portion of the compartment laying east of Sand Hill Road in Section 4 was transferred to Negwegon State Park; the chunk of former stand 15 that is west of Sand Hill Road was added as an inclusion to this stand. See locked comments regarding management constraints.
15	6120 - Lowland Cedar	Poletimber Well	14.2	120	171-200	Lots of old strip cut, and areas of heavy blow down. Found a few tamarack in a few open areas. Great rabbit habitat.

S t	Grayling	Mgt. Unit		Report 8	– Forested	Stands Compartment: 63 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
38	6121 - Tamarack	Poletimber Well	36.7	115	81-110	High water table, but the ground is firm in places. Treat portion of stand without site condition with the adjacent stands 9 & 10
98	4125 - Black, N. Pin Oak	Poletimber Well	7.6	105	1-50	Red pine, white pine and Oak were left in 1959 Harvest. Heavy deer activity.
104	6121 - Tamarack	Poletimber Poor	6.0	60	1-50	OPIC - FMD: Part of the Hubbard Lake public access site. Large pocket of phragmites.
107	6121 - Tamarack	Poletimber Poor	37.8	80	1-50	Stand west of Mt. Maria Rd. Stand is mainly a tamarack spreading out in to the adjacent floodplain which need full sunlight and can handle a higher water-table. Start finding more Spruce & Cedar as you get closer to the higher ground to the west
108	6121 - Tamarack	Poletimber Medium	6.4	80	1-50	Stand west of Mt. Maria Rd. Stand is mainly a tamarack spreading out in to the adjacent floodplain which need full sunlight and can handle a higher water-table. Start More Spruce & Cedar closer to the road edge, and most of the red maple is adjacent to the road.
109	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	4.4	68	81-110	Stand is on the south and east side of private. The private to the west have treated their property.
110	42390 - Mixed Non- Pine Upland Conifers	Poletimber Medium	54.6	80	81-110	Some pockets heavy to spruce. Some scattered white pine on the west side, a few cedar pockets. Ground is get softer as you go east.
114	6122 - Black Spruce	Poletimber Medium	6.7	85	51-80	Stand is a nice mix, a little higher ground
115	6121 - Tamarack	Poletimber Poor	20.2	80	1-50	Stand is mostly tamarack slowly working it's way into the floodplain, may not go much farther. Black spruce along the east edge along with a few pockets of cedar.
116	6122 - Black Spruce	Poletimber Well	69.7	90	81-110	Stand is mostly black spruce, with pockets of cedar and tamarack and scattered individual trees of red maple and paper birch.
117	6127 - Lowland Pine	Poletimber Medium	6.6	90	81-110	Stand is in the center of section 10.

Grayling Mgt. Unit

Compartment: 63 Year of Entry: 2017



Stand	Cover Type	Acres	Managed Site	General Comments:
3	6231 - Phragmites	11.5	No	Stand is a bog, which has filled in heavy with Eurasian Phragmites, in addition black spruce, tamarack, red maple and paper birch are starting to develop into scattered clumps. which is slowly filling in with
7	6299 - Lowland Shrub (OI)	131.3	No	North Branch of the Black River runs thru stand which is a trout stream based on the GDSE (trout stream Regulations 2012) some scattered Q-type along the outer edges. Also found a few acres of Eurasian Phragmites.
33	6231 - Phragmites	1.3	No	Complete full of Eurasian Phragmites
37	3303 - Mixed Low Density Trees	33.4	No	High water-table, believe this stand was treated with the adjacent private, can not find any record of harvest and we took to much of the over-story off and swamp the stand.
101	62399 - Marsh (OI)	11.8	No	CATTAIL MARSH. Part of the Hubbard Lake public access site.
102	122 - Road/Parking Lot	3.1	No	This stand is Park & Rec's public access site. Paved parking lot
103	6299 - Lowland Shrub (OI)	10.4	No	Part of the Hubbard Lake public access site.
105	623 - Emergent Wetland	67.5	No	OPIC - FMD: CATTAIL MARSH. Data obtained from photos. Stand is north of West Branch R. and west of Mt. Maria Rd.
106	623 - Emergent Wetland	39.1	No	Stand is east of Mt. Maria Rd and west of Hubbard Lake. Part of the floodplain
111	500 - Water	23.8	No	West Branch River west of Mt. Maria Rd. bridge.
112	623 - Emergent Wetland	54.2	No	Pockets of cattail, but mostly grasses & shrubs. Stand is south of West Branch R.
113	623 - Emergent Wetland	20.6	No	Floodplain of the West branch river