

# **Compartment Review Presentation**

**Grayling Forest Management Unit** 

Compartment 72073 Entry Year 2018 Acreage: 1,482

County Iosco

Management Area: Wurtsmith

Revision Date: 2016-08-11

Stand Examiner: Kevin Ehlert

**Legal Description:** 

T24N R08E Sections 11-14, 23-26

#### **Identified Planning Goals:**

Maintain forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment while providing for multiple use and visual management. The overall management objective will be to reproduce the entire swamp over a 100 year period, primarily to benefit deer and other wildlife species. Successfully regenerating cedar is a priority.

#### Soil and topography:

Soils consist of Tawas and Deford mucks, Dawson peat, and Au Gres and Ingalls sands. Major management concerns include tag alder succession, cedar seedling mortality, equipment operation limitations and wind-throw. The high water table restricts equipment use to dry summer or frozen winter conditions.

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

The state ownership is solid with the exception of approximately 120 acres of private ownership within section 24. The sate land is heavily used for hunting and other forms of dispersed recreation.

#### **Unique Natural Features:**

There are records of two special concern plants: Allegany plum (Prunus allaghaniensis var. davisii) in section 14, and Ram's Head Lady's-slipper (Cypripedium arietinum) in section 23. The Eastern massasauga rattlesnake (Sistrurus catenatus catenatus) and Secretive locust (Appalachia arcane), a species of special concern, have been observed within the compartment.

#### Archeological, Historical, and Cultural Features:

None known.

#### **Special Management Designations or Considerations:**

The Seven Mile Hill Swamp Management Plan. Cedar will be encouraged through cultural practices and where practicable, conversion from a swamp conifer mixture to a cedar type will be attempted. It is imperative to wildlife management that any reproductive-type cutting should result in regeneration of swamp conifers, preferably cedars. Prior strip cuts of approximately 1 acre in size were harvested in an effort to regenerate cedar. To date, we have not had cedar regeneration recruit in these areas, we are only getting black spruce back. The lack of confirmed success in these harvests will influence future management aimed at regenerating the cedar type.

#### **Watershed and Fisheries Considerations:**

None known.

#### Wildlife Habitat Considerations:

The compartment is considered a very important deer yard for white-tail deer (Odocoileus virginianus) and snowshoe hare (Lepus americanus).

#### Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of fine textured glacial till. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Coldwater Shale. There is not a current economic use for the Coldwater Shale. Gravel pits are located to the North, but the wetland area would have limited potential. This compartment is not currently leased for oil and gas development.

#### **Vehicle Access:**

Access is limited. There are access trails leading to the outside edge of the compartment. Old timber sale roads into the compartment are inaccessible due to deep ruts, wet soil, and wnd-thrown trees.

#### **Survey Needs:**

None at this time.

#### **Recreational Facilities and Opportunities:**

The compartment contains no designated recreational trails, but ORV and snowmobile trails run through adjacent compartments.

#### **Fire Protection:**

The wet forest type discourages ignition, but if fire is sustained in this area during drought, it is likely ground fires will result and the lack of access will pose great challenges in dealing with these type of fires.

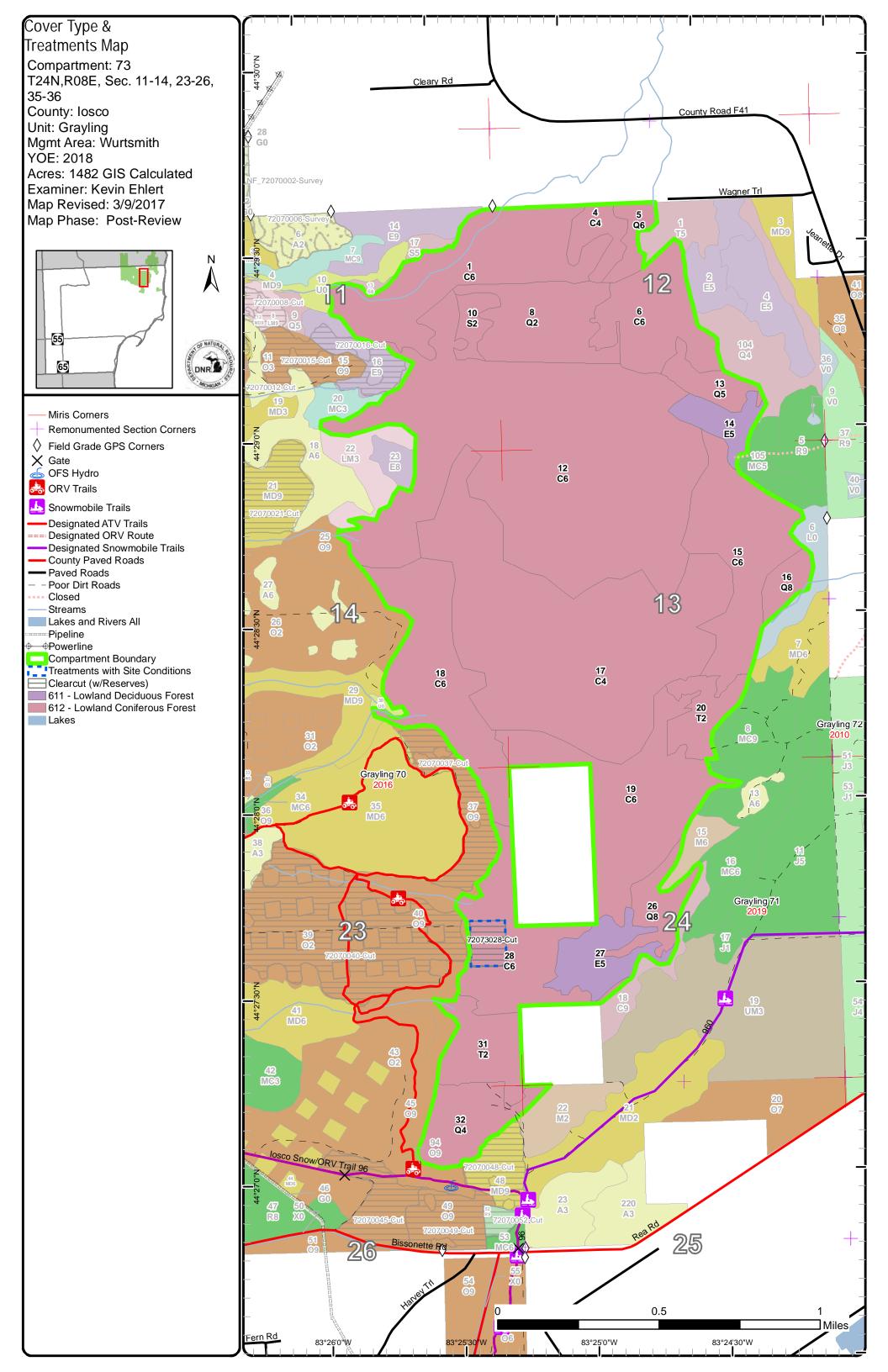
#### **Additional Compartment Information:**

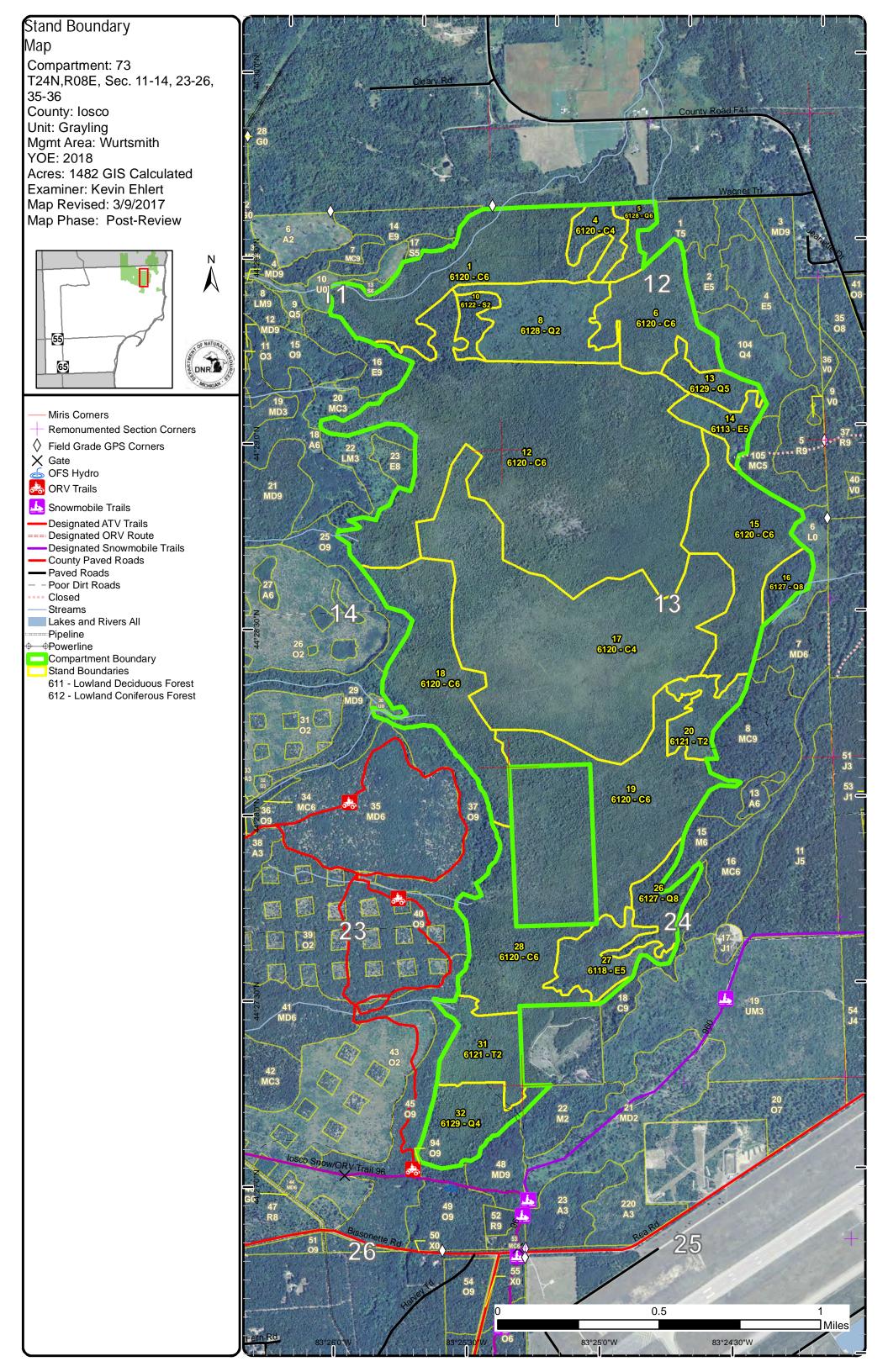
The following reports from the Inventory are attached:

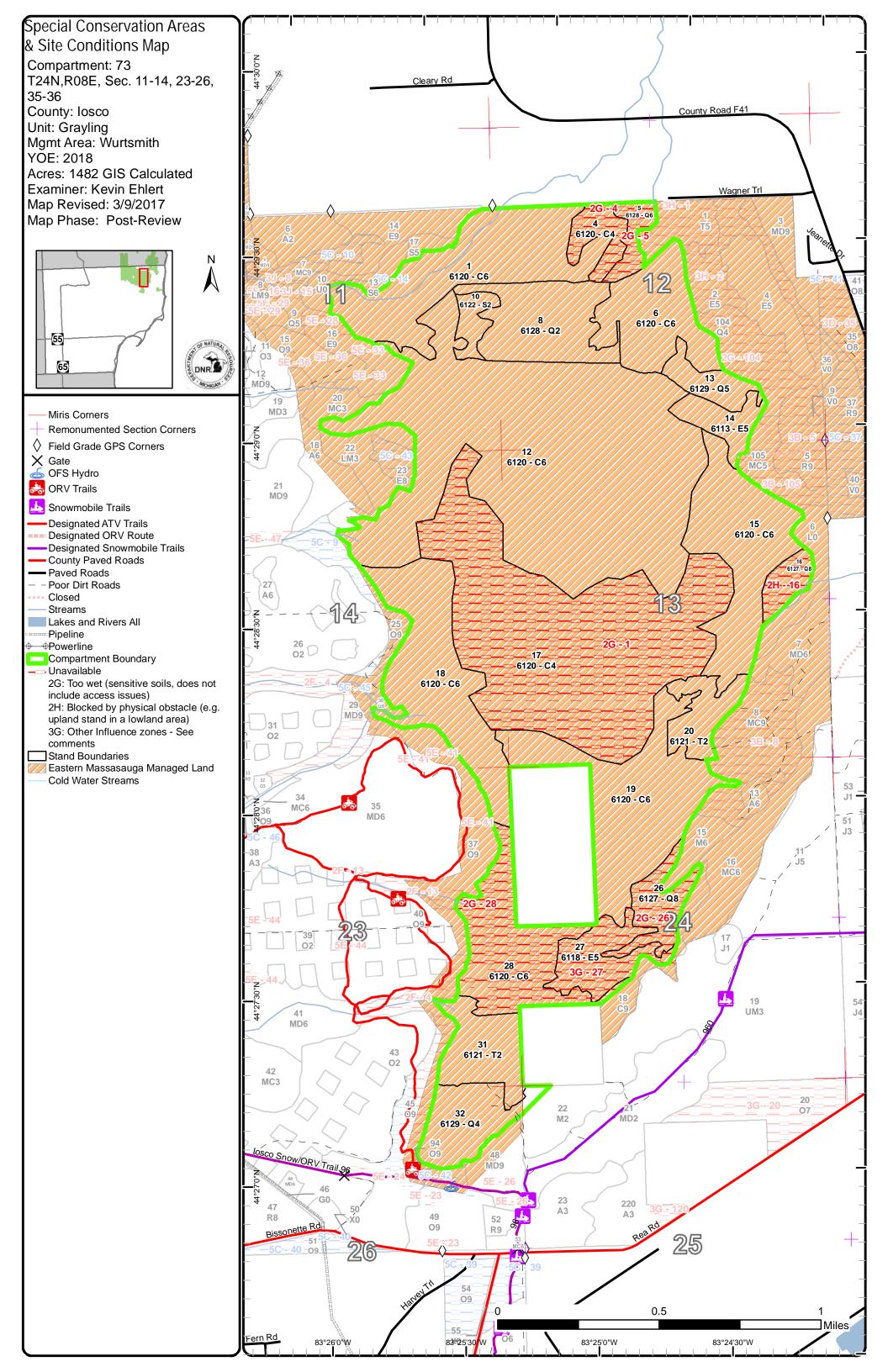
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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 73 Year of Entry 2018

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**Grayling Mgt. Unit Kevin Ehlert : Examiner** 



#### Age Class

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Cedar	0	0	0	0	0	0	0	0	0	0	0	1189	0	0	0	0	0	0	1189	ſ
Lowland Conifers	0	0	0	59	17	39	0	0	0	0	0	25	24	0	0	0	0	0	164	
Lowland Deciduous	0	0	0	0	19	33	0	0	0	0	0	0	0	0	0	0	0	0	52	
Lowland Spruce/Fir	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
Tamarack	0	0	0	25	38	0	0	0	0	0	0	0	0	0	0	0	0	0	63	
Total	0	0	0	95	74	72	0	0	0	0	0	1214	24	0	0	0	0	0	1479	



### **Report 2 – Treatment Summary**

# Grayling Mgt. Unit Year of Entry: 2018

#### **Acres of Harvest**

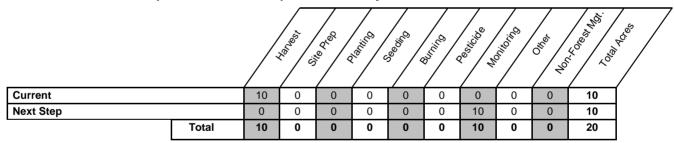
Compartment 73
Total Compartment Acres: 1,482

Commercial Harvest Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 10

#### **Cover Type by Harvest Method**



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



Year of Entry: 2018 **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** Method Name CoverType Density Age Range Type Objective Structure **Status** 

Harvest

Clearcut

Report 3 -- Treatments

Compartment: 73

Even-Aged

Draft Field

Boundary

6120 - Lowland

Cedar

**Habitat Cut: Yes Site Condition:** Too Wet

Prescription Non-commercial cut of up to a 10 acre block of cedar within stand 28. Cut all species over two inches except leave super canopy Red and White Specs:

Pine. Leave 20 BA of Cedar over 10"DBH. No other retention designated due to small treatment size and management objective.

Consider using exclosure to prevent browse of cedar regeneration. This will be determined by WLD at time of harvest.

109 81-110

Next Step Monitoring, Natural Regen (Intermediate)

10.0

Treatments:

72073028-Cut

Acceptable Cedar with a small component of black spruce expected.

Grayling Mgt. Unit

6120 - Lowland

Cedar

Poletimber

Well

Regen:

s

t а

n

d 28

Other Experimental Management. Leaving down cedar will hopefully provide seedlings with protection from herbivory and allow cedar to regenerate

successfully. WLD will develop regeneration monitoring protocol. Comment:

Actual treatment location within stand 28 will be determined at the time of implementation. Area will be up to 10 acres.

Eastern Massasauga Rattlesnake (EMR) Candidate Conservation Agreement (CCA) considered and not impacted by treatment.

01/01/2017 **Proposed Start Date:** 

**Total Treatment Acreage Proposed:** 

10.0

**Grayling Mgt. Unit** 

Kevin Ehlert : Examiner Year o

Compartment: 73 Year of Entry: 2018

Avail	ability for	Managemer	nt					
Total	Acres	Acres Avail	Acres		Domina	nt Site	Conc	litions
Acres	Available	With Condition	Not Available		2G	2H	3G	
1190	831	0	358	Cedar	358			
165	115	0	50	Lowland Conifers	37	13		
52	19	0	33	Lowland Deciduous			33	
11	11	0	0	Lowland Spruce/Fir				
63	63	0	0	Tamarack				
1,482	1,040		442	Total Forested Acres	395	13	33	
	70%		30%	Relative Percent				

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

soils, does not include access issues)  Comments: This stand came up on the SBW analysis, this stand is in the middle of the 7 mile swamp, too wet to harvest.  4 Unavailable 2G: Too wet (sensitive 18 3H: Deer Wintering Unspecified Unspecified Soils, does not include Areas access issues)  Comments:	Site No	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
This stand came up on the SBW analysis, this stand is in the middle of the 7 mile swamp, too wet to harvest.  4 Unavailable 2G: Too wet (sensitive soils, does not include access issues)  Comments:  5 Unavailable 2G: Too wet (sensitive soils, does not include access issues)  11 3H: Deer Wintering Unspecified Unspecifi	1	Unavailable	soils, does not include	272	Unspecified	Unspecified	Unspecified	Unspecified
4 Unavailable 2G: Too wet (sensitive soils, does not include access issues)  Comments:  5 Unavailable 2G: Too wet (sensitive soils, does not include access issues)  18 3H: Deer Wintering Unspecified		Comments:						
Soils, does not include access issues)  Comments:  5 Unavailable 2G: Too wet (sensitive soils, does not include access issues)  Areas  Unspecified Unspecified Unspecified Unspecified Areas		This stand came up	on the SBW analysis, this st	and is in t	the middle of the 7 mile sw	vamp, too wet to harvest.		
5 Unavailable 2G: Too wet (sensitive 11 3H: Deer Wintering Unspecified Unspecified Unspecified Unspecified Soils, does not include Areas access issues)	4	Unavailable	soils, does not include	18	_	Unspecified	Unspecified	Unspecified
soils, does not include Areas access issues)		Comments:						
Comments:	5	Unavailable	soils, does not include	11		Unspecified	Unspecified	Unspecified
		Comments:						

# Report 4 – Site Conditions

Grayling Mgt. Unit
Kevin Ehlert : Examiner

Compartment: 73
Year of Entry: 2018

16	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	13	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	25	Unspecified	Unspecified	Unspecified	Unspecified
С	Comments:						
27	Unavailable	3G: Other Influence zones - See comments	34	3H: Deer Wintering Areas	Unspecified	Unspecified	Unspecified
	Unavailable Comments:		34		Unspecified	Unspecified	Unspecified
			70		Unspecified Unspecified	Unspecified Unspecified	Unspecified Unspecified

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: 73
Year of Entry 2018



# 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	Туре	Description	HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	stocked trout populations and those of other col year to year. Coldwater streams in Michigan typ	ved oxygen conditions that allow naturally-reproduced or dwater fish species (e.g., slimy sculpin) to persist from ically provide these conditions due to substantial vs. Such streams are established by Director's action and er 210.

S t	Grayling	Grayling Mgt. Unit				Stands Compartment: 73 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	Poletimber Well	103.3	103	81-110	Pole size cedar stand. Low ground with open water. Dense subcanopy. Stand contains a couple small strips that were cut to regenerate cedar, which were filled in with black spruce and balsam fir. OPIC - FMD: Open and flowing water on the north and west edge. Stand is mostly Cedar but there are a few large strips and pockets of black spruce. Heavy tag alder, and black spruce understory. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
4	6120 - Lowland Cedar	Poletimber Poor	16.2	105	1-50	Low wet stand. Small diameter trees with lots of tag alder.OPIC - FMD: Lots of 3-4" dia 20-25 feet tall black spruce. Cedar is shorter but same dia. Height average 12-16', 96 years old. Dead tops wet and open, tag alder everywhere. Understory is a mix of spruce, tramrack, tag alder. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
5	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	12.3	104	81-110	Mixed lowland stand of cedar, spruce and aspen. Contains some scattered white pine. Patches of tag alder throughout the stand.
						OPIC - FMD: Just walked edges of this stand did not visit the interior parts of this stand, used air photo interpolation and old data. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
6	6120 - Lowland Cedar	Poletimber Well	60.1	106	141-170	OPIC - FMD: Lots of down and dead. Areas of tag alder and black spruce. Plenty of wet areas. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
8	6128 - Lowland Coniferous, Mixed Deciduous	Sapling Medium	59.4	29	Immature	OPIC - FMD: Stand final harvested from 1984-1988, winter time only. Open water, heavy skid tracks 2-feet deep. Did find one cedar seedling appears to have been a cedar top left in the skid trails. Very nice tramarck regen. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
10	6122 - Black Spruce	Sapling Medium	11.3	29	1-50	The cedar in stand appears to be what was left during previous harvest, including some pole size and some sapling.
						OPIC - FMD: Stand final harvested from 1984-1988, winter time only. Was part of stand 8, more spruce and cedar was left. Open water, heavy skid tracks 2-feet deep. Lots of tag alder. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."

S t	Grayling Mgt. Unit			Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 73 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	6120 - Lowland Cedar	Poletimber Well	374.4	104	81-110	OPIC - FMD: Lots of down and dead. Areas of tag alder and black spruce. Plenty of wet areas. Scattered and a few small pocket of white pine, with some regen. More Black spruce in the middle of stand. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
13	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	17.3	38	1-50	Access trail into past harvest runs through south end of stand and contains rutting and standing water. Low ground, with occasional higher spots. Lots of wet areas within the stand.
						OPIC - FMD: Changes to more spruce and a little cedar as you go west. The (99) species is a mix of (TA, BA, PB). "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
14	6113 - Lowland Maple	Poletimber Medium	19.0	33	51-80	Stand is mainly Red maple in the pole/sapling size class, and scattered black spruce, tamarack, oak, and a pocket of cedar. Much of the stand is low ground with standing water, with a few occasional higher spots. Tag alder is present in most of the stand, and very heavy in patches.
						OPIC - FMD: Standing dead paper birch, scattered black spruce and tramack. A small pocket of cedar, a few oak seedling which have been browsed heavily. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
15	6120 - Lowland Cedar	Poletimber Well	86.5	107	141-170	OPIC - FMD: Lots of down and dead. Areas of tag alder and black spruce. Plenty of wet areas. Parts of a pathway/ORV trail extends into stand 12 this trail is being kept open by someone brushing. "SCA-The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
16	6127 - Lowland Pine	Sawtimber Medium	13.3	109	81-110	Log/Xlog size white pine is the main component of stand. Stand is surrounded by low ground, flowing water on East edge. Thick sub-canopy. Lots of deer and other wildlife sign.
						OPIC - FMD: Lots of deer signs stand just on the edge of the swamp, including beds, browse, and trails. A very unique for this compartment. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
17	6120 - Lowland Cedar	Poletimber Poor	272.2	107	1-50	OPIC - FMD: Dead tops, wet and open areas, flowing stream. Cedar average height 12-16 feet, black spruce average height 25-30 feet tall, with a lot of 3-4 inch dia trees. Found six shooting lanes and a 2" round pipe stuck into the ground. Pathway/ORV trail is being kept open by whom every is using these shooting lanes. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."

S t	Grayling	ı Mgt. Unit		Report 7	– Forested	Stands Compartment: 73 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	6120 - Lowland Cedar	Poletimber Well	96.3	106	111-140	Pole size cedar stand. Some larger dia cedar along west edge.  Mostly Black spruce and balsam fir in sub canopy. Did find a few cedar seedlings.OPIC - FMD: Balsam and tag alder understory. A lot of 3" dia 20-25' tall spruce. Open water with flow, and a few blow-down area heavy black spruce regen. Did not find and cedar regeneration. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
19	6120 - Lowland Cedar	Poletimber Well	107.6	109	81-110	Stand has a lot of low wet ground. Sub canopy varies throughout the stand, with some areas being quite heavy and others fairly open. Lots of down trees. Some larger diameter trees on east edge of stand as it transitions to slightly higher ground. Lots of deer sign.OPIC - FMD: From the east, start off dry ground but turns wet quick with spruce understory with tag alder. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
20	6121 - Tamarack	Sapling Medium	25.0	29	Immature	OPIC - FMD: Found three cedar seedling in skid trail, with lots of tag alder, open creek. Highbush cranberry, and red osier dogwood heavy browse on the dogwood. West side a few cedar were left would have to make an effort of be in plot data. Wonderful tramarck and black spruce regeneration. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
26	6127 - Lowland Pine	Sawtimber Medium	24.4	113	81-110	Mixed conifer stand. Some low saturated areas and some slightly dryer areas. BA is quite variable depending on how much of the larger WP/RP is near, and lower where cedar/spruce dominate. Working around the scattered pockets of saturated ground would be difficult.
						OPIC - FMD: Standing dead paper birch, scattered black spruce and tramack. A small pocket of cedar, a few oak seedling which have been browsed heavily. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
27	6118 - Lowland Deciduous with Cedar	Poletimber Medium	33.3	48	1-50	OPIC - FMD: "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."

S t	Grayling	g Mgt. Unit		Report 7	– Forested	d Stands Compartment: 73 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	6120 - Lowland Cedar	Poletimber Well	72.9	109	81-110	West boundary along steep slope from higher ground adjacent compartment. Two small strips were previously cut in the Southwest corner of the stand. The strip cuts contain rutting, little to no cedar regeneration and heavy black spruce regeneration. Eastern Massasauga Rattlesnake (EMR) Candidate Conservation Agreement (CCA) considered and not impacted by treatment.
						OPIC - FMD: Lots of down and dead. Not as wet as some of the other stands, but there are pockets of heavy saturated soil with black spruce regeneration and tag alder. Nice straight stem, with no visible regeneration of cedar. A little wetter area as you go east. Of all the stand I have looked at I would think of thinning this one stand. "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value." WITHIN STAND DO VARIABLE RETENTION (DO ISLANDS WITH 80-100 BA ALONG WET AREA AND THE EDGE) MARK THE REST TO 60 BA. Deer yard. Try to stagger treatment over five year period.
31	6121 - Tamarack	Sapling Medium	37.9	32	1-50	Final Harvested 1979-1985 (51-79A, Cedar 23 Sale). Stand is in the sapling class with some stems approaching pole size.
						OPIC - FMD: Stand final harvested from 1979-1985, winter time only. Open water, heavy skid tracks 2-feet deep. Did find one cedar seedling appears to have been a cedar top left in the skid trails. Very nice tramarck regen, areas of red osier dogwood which has been browsed. Found a deer track "SCA- The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."
32	6129 - Mixed Coniferous Lowland Forest	Poletimber Poor	38.6	43	1-50	Shelterwood cut 1974-77 (Cedar 26 Block). Left WP/RP over 10", cedar under 4", and other species if they did not contain a merchantable pulp stick. RP and WP are scattered throughout stand, with higher concentrations along edges. Sub-canopy is very dense, dominated by black spruce, cedar, and tamarack. Deep ruts, standing water. Some wind-thrown cedar. OPIC - FMD: Stand harvested 74-77. Paper Birch, tag ader, black ash, lots of cedar stumps, wet, move into the interior of the stand changes to more black spruce regen Along the edge have some of the best cedar regen, (C2,W2,S2,T1) "SCA-The Seven Mile Swamp, It is considered a very valuable deeryard and has been identified by both Wildlife and Forest, Mineral, and Fire Management, as a separate management compartment with wildlife being the key value."

Mgt. Unit

# Report 8 - Nonforested Stands

Compartment: Year of Entry:



Stand	Cover Type	Acres	Site	General Comments:
		#Type!		