DNR MICHIGAN

Compartment Review Presentation

Grayling Forest Management Unit

Compartment 72264 Entry Year 2017 Acreage: 1,911

County Crawford

Management Area: Camp Grayling

Revision Date: 2015-07-29

Stand Examiner: Patrick Mohney

Legal Description:

T28N R2W Sections 34, 35, and 36, Lovells Township

Identified Planning Goals:

To provide an area that allows for National Guard training while maintaining forest health, productivity, sustainability, species diversification, and structural diversity throughout the compartment.

Soil and topography:

The topography within the compartment is generally flat to gently rolling terrain. Soil types within the compartment consists primarily Graycalm, Graycalm-Grayling Sands and Roslawn. These are well-drained soils for the most part with the exception of muck soils in and around the small lake in the south part of section 36.

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

The compartment consists of solid state ownership. All state land in the compartment is under long term lease to the Camp Grayling Nation Guard (L-1479) for purposes of military training. The compartment is located southeast of KP Lake.

Unique Natural Features:

The compartment also has or has the potential to have dry prairie plants, insects of grasslands and insects and reptiles of open wetlands.

Archeological, Historical, and Cultural Features:

Four archaeological sites are located within this compartment, in stands 6, 400, 404, and 406. These sites have been determined previously to not be significant, and do not need to be protected or avoided. We have no concerns.

Special Management Designations or Considerations:

None.

Watershed and Fisheries Considerations:

A portion of a small lake exits in the southwest of the southeast of section 36.

Wildlife Habitat Considerations:

To manage and maintain existing cover types within the compartment and to improve habitat conditions for a wide variety of non-game and game wildlife. Ongoing grouse management exists within the west half of section 34 of the compartment. Several 20 acre blocks have been cut in the past at different times to stagger age classes. Wildlife openings will be maintained within the compartment.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact outwash sand and gravel. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Coldwater Shale. The Coldwater does not have a current economic use. There are gravel pits in sections 22 and 24 to the north and potential is good. The compartment is not currently leased for oil and gas development. Antrim Shale development is occurring approximately four miles to the north.

Vehicle Access:

Access into the compartment can be obtained by Wakeley Bridge Road and Fruit Farm Road. The Lovells Snowmobile Trail traverses through all three sections of the compartment and several two tracks branch from this trail. Military gates are located upon these two tracks including Wakeley Bridge Road and the Lovells Snowmobile Trail that may be closed when military is training. No roads have been identified for closure.

Survey Needs:

The needs for survey may exist within the compartment.

Recreational Facilities and Opportunities:

No recreational facilities exist within the compartment. The Lovells Snowmobile Trail traverses through all three sections of the compartment. Other recreational opportunities include hunting, wildlife observation, hiking and mushrooming.

Fire Protection:

This compartment falls under the jurisdiction of the Lovells Volunteer Fire Department and the Grayling DNR. Good access, for fire suppression efforts exists throughout the compartment. However, the nearest accessible water sources are the North Branch of Big Creek that runs through Lovells and KP Lake just to the west of compartment. The majority of the compartment is Aspen that should not pose a major fire threat, but the Red Pine/Jack Pine mix in the east side of compartment has the potential threat of a major fire. The Red Line Fire Area, within this compartment and the compartment to the south, burnt a total of 127 acres in June of 1998.

Additional Compartment Information:

The following reports from the Inventory are attached:

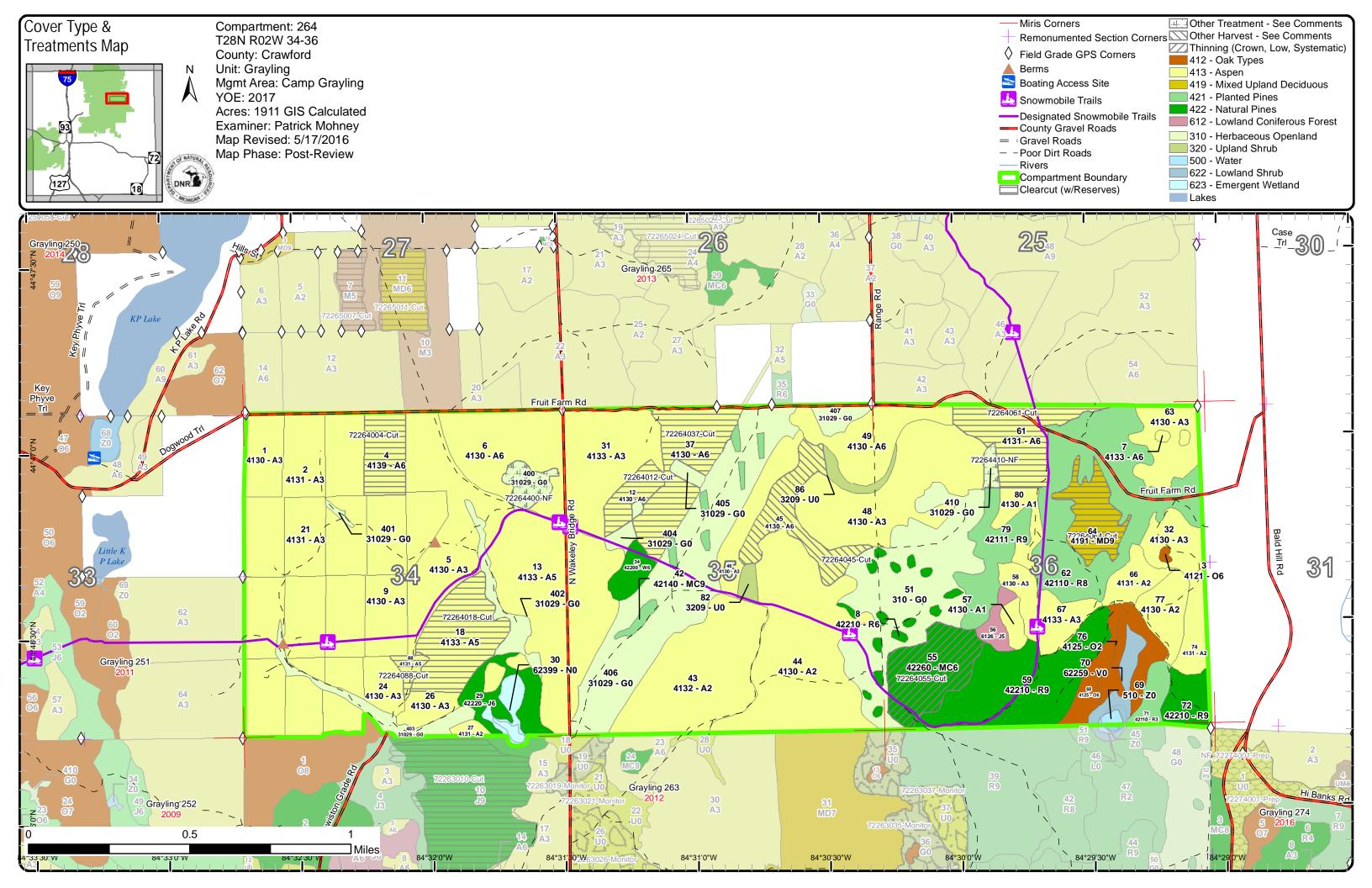
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

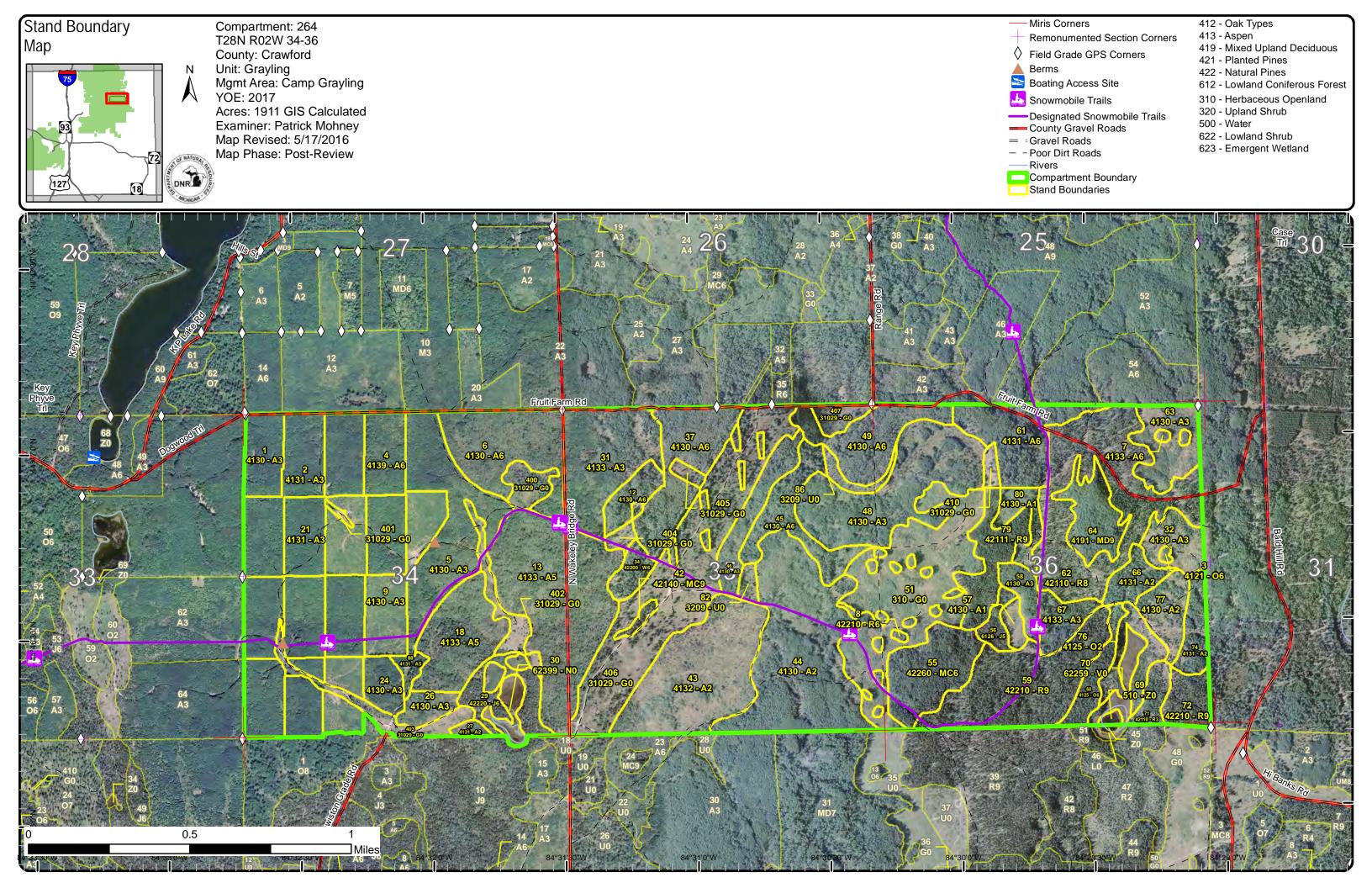
The following information is displayed, where pertinent, on the attached compartment maps:

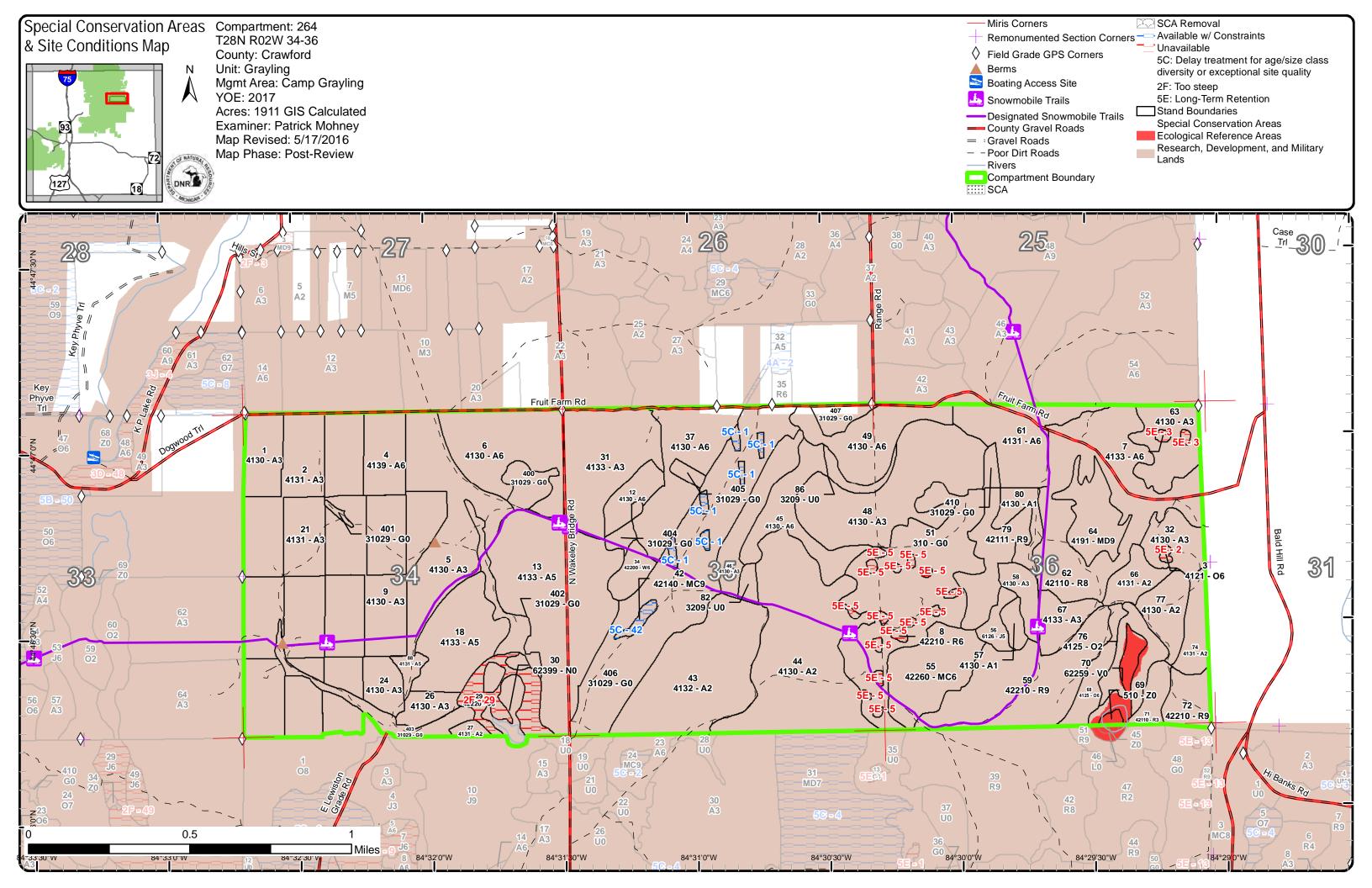
Base feature information, stand boundaries, cover types, and numbers Proposed treatments

Site condition boundaries

Details on the road access system







Grayling Mgt. Unit

Patrick Mohney: Examiner

Compartment 264 Year of Entry 2017



Age Class

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	, Nor	Koris C				3 / 5	1 2 C	3 / 8									LAS /	Dx Jue	De No.
Aspen	0	132	324	400	238	44	2	18	91	0	0	0	0	0	0	0	0	0	1249
Bog	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Herbaceous Openland	267	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	267
Jack Pine	0	0	0	0	0	7	0	0	20	0	0	0	0	0	0	0	0	0	27
Marsh	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	24
Natural Mixed Pines	0	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	38
Oak	0	0	17	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	32
Planted Mixed Pines	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	9
Red Pine	0	0	10	0	0	0	0	0	205	9	0	0	0	0	0	0	0	0	224
Upland Shrub	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
White Pine	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10
Total	298	132	351	400	238	51	12	18	393	18	0	0	0	0	0	0	0	0	1911



Report 2 - Treatment Summary

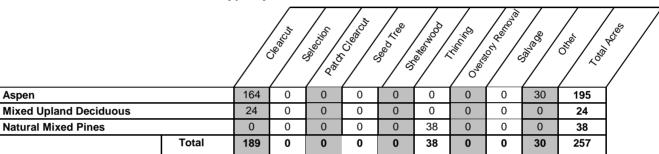
Grayling Mgt. Unit Year of Entry: 2017

Acres of Harvest

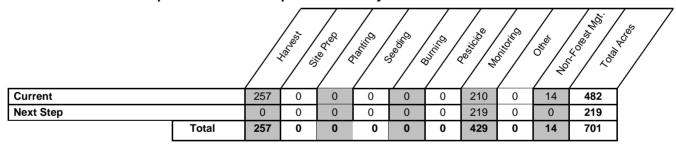
Compartment 264
Total Compartment Acres: 1,911

Commercial Harvest - 257 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Method



Next Step Treatments:

Acceptable Acceptable regen is Oak, aspen, maple

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

70.7 Natural Regen Sapling 4 Immatu Monitoring 413 - Aspen Proposal 9 72264009-4130 - Aspen Even-Aged Well (Re-Inventory) Monitor re

Habitat Cut: No Site Condition:

Prescription regen survey

Specs:

Next Step Treatments:

Acceptable aspen

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

12.7 12 72264012-Cut 4130 - Aspen Poletimber 67 111-Harvest Clearcut 413 - Aspen Even-Aged Proposal 140 Well

Habitat Cut: No Site Condition:

Prescription Final harvest stand. Leave no retention to maximize regeneration. Stand is small acreage. Use grouse drumming specs.

Specs:

Next Step Treatments:

Acceptable Aspen, Oak, maple and pine are all acceptable regen species.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

18 72264018-Cut 42.7 4133 - Aspen, Poletimber 38 1-50 Harvest Clearcut with 413 - Aspen Even-Aged Proposal Retention

Mixed Pine Medium

Site Condition: Habitat Cut: No

<u>Prescription</u> Final harvest stand. utilize island retention. let stand regenerate naturally. Use grouse drumming specs.

Specs:

Next Step

Treatments:

Acceptable Aspen, oak and maple are acceptable regen species.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Grayling Mgt. Unit Report 4 -- Treatments Compartment: 264 s Year of Entry: 2017 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age **Approval** n Method Name CoverType Density Age Range Type Objective Structure **Status** d Sapling Natural Regen 32 72264032-17.7 4130 - Aspen Monitoring 413 - Aspen Even-Aged 5 Immatu Proposal Monitor Well (Re-Inventory) Site Condition: **Habitat Cut: No** Prescription regen survey Specs: Next Step **Treatments:** Acceptable aspen Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 37 72264037-Cut 44.2 4130 - Aspen Poletimber 44 81-110 Clearcut with 413 - Aspen Even-Aged Proposal Harvest Well Retention **Habitat Cut: No Site Condition:** Prescription Cut stand to regenerate. Leave all pine over 12" diameter. Goal is to get a mix of aspen, pine oak regen. Soils are PARVVB. Should come back strong. Use Grouse drumming specs. Specs: Next Step **Treatments:** Acceptable Aspen, oak, maple and pine are all acceptable regen species Regen: Other Old next step comments: Comment: 10/1 /2016 **Proposed Start Date:** 72264045-Cut 30.4 4130 - Aspen Poletimber 79 81-110 Other - Specify 413 - Aspen Even-Aged Proposal Harvest Well **Habitat Cut: No Site Condition:** Prescription Habitat cut to be done by wildlife. Trees have bullets in them therefore a commercial harvest is not an option. Wildlife would like to treat portions of the stand at various times. Specs: Next Step Treatments: Acceptable Aspen Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 72264051-95.9 310 - Herbaceous Nonstocked 0 Natural Regen 413 - Aspen Even-Aged Proposal Monitoring

51 Unspec Monitor Openland ified (Intermediate)

Habitat Cut: No Site Condition:

Prescription regen survey on this stand.

Specs:

Next Step **Treatments:**

Acceptable Aspen and oak are acceptable regen.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

	Grayling	Mgt. Un
S		

Compartment: 264
Year of Entry: 2017

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
55	72264055-Cut	38.3	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	75	141- 170	Harvest	Crown Thinning	4221 - Natural Red Pine	Even-Aged	Proposal

Habitat Cut: No Site Condition:

<u>Prescription</u> Remove oak, aspen, jack pine. If there are pockets of RP that are very dense thin them. Target BA for the RP in the stand would be 120. <u>Specs:</u>

Next Step
Treatments:

Acceptable Aspen, Oak and red pine are acceptable regeneration.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

61 72264061-Cut 39.0 4131 - Aspen, Oak Poletimber 75 111- Harvest Clearcut with 413 - Aspen Even-Aged Proposal

ell 140 Retention

Habitat Cut: No Site Condition:

Prescription Final harvest stand, use island retention. Let stand regenerate naturally. Use grouse drumming specs.

Well

Specs:

Next Step Treatments:

Acceptable Aspen, Oak and maple is acceptable regeneration

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

63 72264063- 25.8 4130 - Aspen Sapling 6 Immatu Monitoring Natural Regen 413 - Aspen Even-Aged Proposal

re

(Re-Inventory)

Monitor

Habitat Cut: No Site Condition:

Prescription regen survey

Specs:

Next Step Treatments:

Acceptable aspen oak maple

Regen: Other

Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

64 72264064-Cut 24.3 4191 - Mixed Sawtimber 79 111- Harvest Clearcut with 412 - Oak Types Even-Aged Proposal

Upland Deciduous Well 140 Retention

with Conifer

Habitat Cut: No Site Condition:

<u>Prescription</u> Final harvest stand, leave retention in island form. Let stand regenerate naturally.

Specs:

Next Step Treatments:

Acceptable Oak, aspen, red maple and pine are all acceptable regeneration.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Grayling Mgt. Unit Report 4 -- Treatments

S t a coort 4 -- Treatments Compartment: 264
Year of Entry: 2017

n	Treatment	Acres	Stand	Size	Stand	BA	Treatment	Treatment	Cover Type	Age	Approval
d	Name		CoverType	Density	Age	Range	Type	Method	Objective	Structure	Status
88	72264088-Cut	4.5	4131 - Aspen, Oak	Poletimber Medium	68	111- 140	Harvest	Clearcut	413 - Aspen	Even-Aged	Proposal

Habitat Cut: No Site Condition:

Prescription Final harvest stand with stand 18. Leave no retention due to stand being very small and along rec. trail.

Specs:

Next Step Treatments:

Acceptable aspen and oak are acceptable regeneration.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

400 72264400-NF 10.4 31029 - Grass (OI) Nonstocked Unspec NonForestMgt Other - Specify 3102 - Grass Proposal

ified

Habitat Cut: No Site Condition:

Prescription WLD will mow, prune, herbicide, burn or any other means necessary to maintain this opening.

Specs:

Next Step Treatments:

<u>Acceptable</u>

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

41072264410-NF3.631029 - Grass (OI)NonstockedUnspecNonForestMgtOther - Specify3102 - GrassProposal

ified

Habitat Cut: No Site Condition:

Prescription WLD will mow, prune, herbicide, burn or any other means necessary to maintain this opening.

Specs:

Next Step Treatments:

Acceptable Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Total Treatment Acreage Proposed:

481.5

Report 5 – Site Conditions

Compartment: 264

Grayling Mgt. Unit

Patrick Mohney : Examiner Year of Entry: 2017

Availa	bility for	Managemer	nt					
Total	Acres	Acres Avail	Acres		Dominant Site Condition			
Acres	Available	With Condition	Not Available		5C	2F	5E	
1248	1246	0	2	Aspen			2	
10	10	0	0	Bog				
267	267	0	0	Herbaceous Openland				
27	7	0	20	Jack Pine		20		
9	9	0	0	Marsh				
24	24	0	0	Mixed Upland Deciduous				
38	38	0	0	Natural Mixed Pines				
32	31	0	1	Oak			1	
9	0	9	0	Planted Mixed Pines	9			
224	215	0	9	Red Pine			9	
10	10	0	0	Upland Shrub				
2	2	0	0	Water				
10	10	0	0	White Pine				
1,911	1,869	9	32	Total Forested Acres	9	20	12	
	98%	0%	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.

Available nents:	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
nents:						
navailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
navailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
nents:						
16	ents: available	ents: available 5E: Long-Term Retention	ents: available 5E: Long-Term Retention 2	ents: available 5E: Long-Term Retention 2 Unspecified	ents: available 5E: Long-Term Retention 2 Unspecified Unspecified	ents: available 5E: Long-Term Retention 2 Unspecified Unspecified Unspecified

Report 5 – Site Condition

Grayling Mgt. Unit

Patrick Mohney : Examiner

Compartment: 264
Year of Entry: 2017

cified Unspecified
cified Unspecified
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Mgt. Unit

Compartment: #Type! Year of Entry:



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				

Grayling Mgt. Unit Compartment: 264
Year of Entry 2017



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.

Conservation	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for include the 5,847 acre Forest Fire Experiment Station, the 12,000 Area, the Beaver Islands Archipelago Wildlife Research Area (the High and Hog Islands, all state owned land on Beaver, South Fow Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Res Nursery, and over 144,000 acres of Military Lands.	acre Houghton Lake Wildlife Research at includes most of Garden Island, all of and North Fox Islands), the Cusino
ERA Ecological Reference Areas		Ecological Reference Areas (ERAs) are high quality examples of identified as Element Occurrences (EOs) by the Michigan Natura context of their natural community classification system. Element (Excellent) or B (Good) and a Global (G) or State (S) element (rathreatened (2), or rare (3) serve as an initial base of ERAs. They the State. The system is comprised of individual or associations of managed for restoration and maintenance of natural ecological p submit recommendations for lands as ERAs using the DNR Constitution.	I Features Inventory (MNFI) within the Occurrences with viability ranks of A rity) ranking of endangered (1), may be located upon any ownership in of natural community types that are rocesses and values. The public may

S t	Graylin	g Mgt. Unit		Report 8	- Forested	Stands Compartment: 264 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	Sapling Well	19.5	26	Immature	Aspen stand that is growing fairly well. Decent understory mix. Do nothing at this time. OPIC - FMD: Immature Aspen stand (15yr). Stand is also mixed with Oak and Red Maple. Diameters range from 2-3 inches with a height of 15-20 feet. Braken fern, Wintergreen and some Blueberry make up the ground cover. There is scattered Witchhazel throughout the understory.
2	4131 - Aspen, Oak	Sapling Well	81.4	17	Immature	Stand is part of grouse block management. Stand is filling in and growing fairly well. Nice mix of oak and red maple in the stand. Decent understory shrub component.OPIC - FMD: Immature Aspen stand. Stand is mixed with Oak and Red Maple. Diameter ranges from 1/2"-1" and 5-10 feet tall. Braken fern and Wintergreen make up the ground cover. Witchhazel is scattered throughout the stand.
3	4121 - Oak, Aspen	Poletimber Well	1.0	74	141-170	Retention island left from previous sale.
4	4139 - Aspen, Mixed Deciduous	Poletimber Well	21.2	77	141-170	Interesting stand. Must be on better soils than the surrounding area. Kotar says ParVVB. Stand was held last YOE for age class diversity. This is in a grouse block area. Should regenerate nicely.
						OPIC - FMD: Mature Northern Hardwood stand. Could of key this stand to Aspen or Oak. Southend of stand is more Oak and the northend of stand is more Aspen. Recommend final harvest, especially if wildlife wants to continue managing blocks for grouse within this area. Ground Pine, Partridge berry and Wintergreen with some Braken fern make up the ground cover. Witchhazel is present in the south part of the stand. Old note from previous inventory said: SHOULD HOLD PATCHES OF SOLID OAK
5	4130 - Aspen	Sapling Well	84.8	26	Immature	Stand is dense, quality is fair. Approaching pole sized throughout the stand. Quality seems better in this stand than in other stands in the area. Soils could be different.OPIC - FMD: Immature Aspen stand (15yr old). Average diameter is 2-3 inches and the height is about 15 feet tall. There is Oak and Red Maple mixed within the stand also. Braken fern, Wintergreen and Witchhazel make up the ground cover.
6	4130 - Aspen	Poletimber Well	52.4	37	1-50	Stand is growing well. Oak is keeping pace with the aspen in most places. Could consider restarting stand next inventory cycle. Do nothing at this time.
						OPIC - FMD: Young Aspen stand. Last harvested in 1978. East side of the stand borders North Wakely Bridge Road. Used old site index.
7	4133 - Aspen, Mixed Pine	Poletimber Well	1.8	50	Unspecified	Retention islands from sale 72-633-08-01, Snow Mil Red Pine.

42210 - Natural Red Pine Poletimber Well

9.4

80

111-140

retention islands from 726530701 Wakely Oak Aspen.

S t	Graylin	g Mgt. Unit		Report 8	Forested	Stands Compartment: 264 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
9	4130 - Aspen	Sapling Well	70.7	4	Immature	Stand is regenerating well. It is a mix of aspen, red maple and oak. Stand is a multipart polygon. Part of grouse block management. These blocks were harvested in 2010 under contract 726520701 Wakely Grouse Patches. Do nothing.
						OPIC - FMD: Aspen and Red Maple stand with scattered Oak. Recommend final harvest with stand 10. Stand 9 is the same as stand 10, however they are seperated by two track(snowmobile trail) and grass stand. Old note: Previous inventory says to hold patches of solid Oak. Stand harvested in Fall 2010 under contract 72-652-07-01 Wakely Grouse Patches
12	4130 - Aspen	Poletimber Well	12.7	67	111-140	Stand was previously held for age class diversity. It is doing well but beginning to show its age. Decent amount of white pine regen underneath in spots.
13	4133 - Aspen, Mixed Pine	Poletimber Medium	107.2	38	1-50	Stand is somewhat variable. Can probably divide it up into more definitive stands as stand continues to develop. Some nice hawthorne patches throughout the stand. Aspen is not great quality. Oak is coming up nicely with the aspen. Do nothing at this point.
						OPIC - FMD: Aspen stand that is just starting to reach pole size. North Wakely Bridge Road traverses along the eest side of stand. There are scattered Red Pine sawlog trees in the south end of stand.
18	4133 - Aspen, Mixed Pine	Poletimber Medium	42.7	38	1-50	Poor quality aspen. Oak and pine are mixing in nicely. Some nice large diameter red pine in areas. Hypox in the aspen.
						OPIC - FMD: Aspen stand that is just starting to reach pole size. Snowmobile trail traverses along the west side of stand. There are scattered Red Pine sawlog trees in the south end of stand.
21	4131 - Aspen, Oak	Sapling Well	95.8	26	Immature	Stand is doing well. Stand is just reaching merchantable sized now. Some areas are a bit patchy with smaller diameter stuff. Do nothing at this time. Snowmobile trail runs through stand.OPIC - FMD: Immature Aspen stand.
24	4130 - Aspen	Sapling Well	12.3	26	Immature	Stand is well stocked. Poor quality aspen, has hypox in some spots. Oak is coming up underneath nicely. Do nothing at this time.
						OPIC - FMD: Immature Aspen stand. South end of stand borders the snowmobile trail.
26	4130 - Aspen	Sapling Well	9.9	17	Immature	Young aspen stand. Quality is fair. Lots of hawthorne and cherry. Do nothing at this time.
						OPIC - FMD: Immature Aspen stand. Hawthorne and Cherry(Upland brush) exists within the stand. West side of the stand borders the snowmobile trail.
27	4131 - Aspen, Oak	Sapling Medium	6.0	17	Immature	Small stand. it has regenerated partially. Still some open areas. Quality is fair. Do nothing at this time.OPIC - FMD: Immature Aspen stand. Hawthorne and Cherry(Upland brush) exists within the stand.

S t	Graylin	g Mgt. Unit		Report 8	Forested	Stands Compartment: 264 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	42220 - Natural Jack Pine	Poletimber Well	20.2	77	51-80	JP is short and bush in some areas of the stand but tall, straight and nice sized in others. Aspen is poor quality. Oak is coming along nicely. Stand has some steep terrain and has a wet area within the middle of the stand. Operations could be difficult with terrain and wet soils. Do nothing.
						OPIC - FMD: Jack Pine stand on side slope surrounding marsh. Stand has a mix of Aspen, Red Pine and White Pine. Erosion and slope steepness could be a problem for harvesting. Understory consists of Jack Pine as the dominant species with a fair amount of Quaking Aspen and White Pine scattered about the stand. Stand has a few super canopy Red and White Pine throughout it. Stand is somewhat near and visible to North Wakely Bridge Road. Past military and fire evidence exists within the stand.
31	4133 - Aspen, Mixed Pine	Sapling Well	54.6	18	Immature	Stand is doing well. Cut in 1997 as old notes indicate. RP is mixed throughout the stand. Fair amount of blow down in some areas of the stand. Do nothing at this time.
						OPIC - FMD: Immature Aspen stand. Final harvested in 1997 (#72-013-97-01 Lone Track Aspen). Used old site index because Aspen too small to bore. Some scattered Oak were marked to leave for mast. Stand border N. Wakely Bridge Road on the westside and the snowmobile trail on the southside. The northside borders a two track running along the section line.
32	4130 - Aspen	Sapling Well	17.7	5	Immature	Stand was final harvested in 2011. Contract 726330801 Snow Mil Red Pine. Stand is regenerating nicely to aspen, some oak in scattered areas. One retention island within stand. Do nothing at this time.OPIC - FMD: Large Red Pine stand with some evidence that some portions of the stand were planted. There is Jack Pine, Red Maple and Aspen scattered throughout the stand, but seam to be more associated in the valley than on the ridges. The terrain is very rolling with ridges and valley throughout the stand. Snowmobile trail traverses along the west side of the stand. Recommending a thinning, with the removal of all Aspen, Red Maple and Jack Pine. Also marking some Red Pine for harvest as well. Leaving a residual BA of Red Pine around 120 to 140. Variance request approved 8/27/08: After starting to mark out there, we realized that the residual BA needs to be lower in order to effectively release the remaining stems and to allow for equipment operation. The variance approved changing the prescription to leave a residual of 70-90 BA, with the option to open up more around mature oak, advanced oak regen and aspen pockets when the red pine quality isn't there. Harvested in the winter of 2009 under sale contract 72-633-08-01, Snow Mil Red Pine.
34	42200 - Natural White Pine	Poletimber Well	9.5	51	81-110	Interesting stand. Mostly made up of white pine of varying sizes. Quality is fair. Trail passes along edge of stand. Do nothing at this time. OPIC - FMD: White Pine stand with over mature poor quality Oak mixed in. Jack Pine, Aspen and some Red Pine exists within the stand. Old Rail Road Grade passes through the stand. Large diameter White Pine can be found along this old grade and was probably the seed source for the stand. Some small pockets of J2 and Oak regeneration exist within the stand. Snowmobile trail crosses the stand.

S t	Grayling	Mgt. Unit		Report 8	Forested	Stands Compartment: 264 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4130 - Aspen	Poletimber Well	44.2	44	81-110	Stand is merchantable sized, starting to decline in some spots. WP understory is very dense in some parts of the stand. Some large diameter pine mixed throughout the stand.
						OPIC - FMD: Young pole sized Aspen stand. North side of stand borders two track running along the section line and the east side of stand borders an old rail road grade.
42	42140 - Planted Mixed Pine	Sawtimber Well	9.3	84	81-110	All the stands individually do not meet mapping standards. I combined them and am considering them for possible big tree management. Do nothing at this time.
						OPIC - FMD: Small Jack Pine and Red Pine stand surrounded by grass lands. Small volumes and quality not the greatest due to it was open grown.
43	4132 - Aspen, Jack Pine	Sapling Medium	80.2	15	Immature	Stand has regenerated well from the cut in 1997. Significant oak and pine component to the stand. There are some areas that are pretty patchy, but slowly filling in. Should eventually reach the 75-100% canopy cover, but right now it is borderline.
						OPIC - FMD: Immature Aspen stand. Final harvested in 2000 (#72-014-97-01, Trail Around Stand.). Upland brush scattered throughout the stand (Cherry). Ground cover is bracken fern over grasses and blueberry.
44	4130 - Aspen	Sapling Medium	110.0	26	Immature	Stand is growing fairly well. Quality is variable. Some open patchy areas. Do nothing. OPIC - FMD: Immature Aspen stand with some two track trails running through the stand. An old military bunker is within the stand.
45	4130 - Aspen	Poletimber Well	30.4	79	81-110	Stand is showing its age. Aspen is starting to fail in some spots. Stand is site conditioned as having metal debris in the trees. Do nothing at this time.
						OPIC - FMD: Mature Aspen stand. This stand was part of the Bunker Hill Sale that was uncut due to bullets in trees. Recommend final harvest, but decided to limit factor stand due to that which is mentioned above.
46	4130 - Aspen	Sapling Well	22.0	26	Immature	Aspen is doing fairly well. Some hypox visible in areas. Oak and RM are keeping pace with the aspen. Do nothing at this time.
						OPIC - FMD: Immature Aspen stand.
48	4130 - Aspen	Sapling Well	77.4	17	Immature	Stand is coming along nicely. Oak has some browse throughout the stand. Do nothing at this time.
						OPIC - FMD: Immature Aspen stand. Final harvested in 1998(#020-97-01). 1inch in DBH 4-6ft tall. M1 understory. Grasses and Bracken Fern make up the ground cover. Two track trail on section line cuts through the stand (North and South).

S t	Graylin	g Mgt. Unit		Report 8	Forested	Stands Compartment: 264 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
49	4130 - Aspen	Poletimber Well	35.5	38	51-80	Stand is growing fairly well. Stand has reached merch. size. Oak and red maple keeping pace with the aspen. Quality is fair. Do nothing at this time.
						OPIC - FMD: Immature pole size stand. Just reached there. A2 understory with Braken Fern for the dominant ground cover.
55	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	38.3	75	141-170	Stand is decent quality timber. RP is nice and straight. Aspen is getting old, oak as well. Some rolling hills in the stand, decent access to the stand. OPIC - FMD: Red Pine stand mixed with Aspen and some Oak. South end borders snowmobile trail.
56	6126 - Lowland Jack Pine	Poletimber Medium	7.2	40	1-50	Stand would likely be wet in the spring time. Jack pine is not very impressive. Oak is poor quality and located along edges of stand mostly. Do nothing at this time.OPIC - FMD: Lowland Jack Pine stand. J2-J3 understory. Dense layer of leatherleaf for ground cover. Possibly wet in spring. Standind and down and dead throughout the stand.
57	4130 - Aspen	Sapling Poor	5.4	8	Immature	Stand is regenerating slowly. Aspen is filling in with some oak. Jackpine are pretty few and far between, but there are some. Do nothing.
						OPIC - FMD: Small Jack Pine stand located between Immature Aspen stand and a lowland Jack pine stand. Recommend final harvest. Plan for natural regeneration of Aspen, Oak, Jack Pine and Red Pine. Harvested in spring of 2007 under contract 72-664-07-01 Fire Missed Red Pine
58	4130 - Aspen	Sapling Well	10.9	25	Immature	Stand is doing well. Aspen seems healthy for the most part. Oak is coming in nicely. Some jack pine scattered throughout the stand. Do nothing.
						OPIC - FMD: Immature Aspen stand. Last harvested in 1990. 2- 3inches DBH. Snowmobile trail borders the east side of the stand.
59	42210 - Natural Red Pine	Sawtimber Well	68.7	75	81-110	RP is nice quality, some rolling hills in stand. BA is variable but seems to average out around the 70-80 range. Do nothing at this point.
						OPIC - FMD: Previous Inventory Note: Cut the fall of 1999 contract # 042-97-01 Mixed Cut Block. All jack pine and aspen cut, average 50 BA left. Since the last inventory, BA has increased by 20BA. Snowmobile trail traverses through the stand.
61	4131 - Aspen, Oak	Poletimber Well	39.0	75	111-140	Stand is merchantable and age is starting to show. It was recommended to be held last YOE. Time to restart the stand.
						OPIC - FMD: Mature Aspen stand (Mix of Quaking and Big Tooth Aspen) Big Tooth found on side slopes and ridge tops and Quaking found in the valleys. There is an M2 understory in the Big Tooth areas and a U2 (Cherry Brush) in the understory of the Quaking Aspen. Braken fern is the dominant ground cover with Blueberry and Grasses being the next dominant. There are lots of other herbacious plants within the stand. Snowmobile trail traverses through the stand. Hold stand for another 10yrs.

S t	Grayling	g Mgt. Unit		Report 8	– Forested	Stands Compartment: 264 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
62	42110 - Planted Red Pine	Sawtimber Medium	94.3	75	81-110	Sale was harvested as described by old comments. Stand looks great. Very minimal damage to residual trees. They have responded slowly to the harvest but seem to be gaining some diameter growth. Stand has some rolling hills in it. Obviously nothing that will prohibit operations.
						OPIC - FMD: Large Red Pine stand with some evidence that some portions of the stand were planted. There is Jack Pine, Red Maple and Aspen scattered throughout the stand, but seam to be more associated in the valley than on the ridges. The terrain is very rolling with ridges and valley throughout the stand. Snowmobile trail traverses along the west side of the stand. Recommending a thinning, with the removal of all Aspen, Red Maple and Jack Pine. Also marking some Red Pine for harvest as well. Leaving a residual BA of Red Pine around 120 to 140. Variance request approved 8/27/08: After starting to mark out there, we realized that the residual BA needs to be lower in order to effectively release the remaining stems and to allow for equipment operation. The variance approved changing the prescription to leave a residual of 70-90 BA, with the option to open up more around mature oak, advanced oak regen and aspen pockets when the red pine quality isn't there. Harvested in the winter of 2009 under sale contract 72-633-08-01, Snow Mil Red Pine.
63	4130 - Aspen	Sapling Well	25.8	6	Immature	Stand is regenerating nicely. Mostly aspen, some oak and red maple as well. OPIC - FMD: Aspen stand mixed with Red Pine. Some Red Pine is suppressed. Red Maple and Oak are scattered throughout the stand to. Recommend final harvest and manage for Aspen. Sure to get Aspen, Red Maple and some Oak back naturally. Harvested in winter of 2009 under contract number 72-633-08-01, Snow Mil Red Pine.
64	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	24.3	79	111-140	RP appears to have been stunted and stagnant. Everything in the stand is nice and tall and straight, diameter is lacking on the RP. Aspen is definitely showing its age and beginning to drop stems.
						OPIC - FMD: Oak stand on ridge top and slope with a component of Red Pine and Aspen. Red Pine was probably suppressed. Stand looked very health and should hold another 10 years.
66	4131 - Aspen, Oak	Sapling Medium	12.7	25	Immature	Stand is growing well, fairly open in some areas. Quality of aspen is not great but oak is coming along nicely in some spots. Do nothing at this time.
						OPIC - FMD: Immature Aspen stand 2-3inches DBH 10-20ft tall.
67	4133 - Aspen, Mixed Pine	Sapling Well	14.5	16	Immature	Stand is growing well. Fair amount of large RP throughout the stand. Some hypox in the aspen, nothing too bad at this point. OPIC - FMD: Cut in the fall of 1999 contract # 042-97-01, Mixed Cut Block. Featuring the understory species of Aspen, there is a
						considerable amount of Red Pine in the overstory. However, the Red Pine is in pockets or patches throughout the stand.

S t	Grayling	Mgt. Unit		Report 8	Forested	Stands Compartment: 264 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
68	4125 - Black, N. Pin Oak	Poletimber Well	13.9	75	111-140	Old comments recommended treating this YOE. Stand is older and showing its age. Oak seems to be in alright condition. Aspen is poor. Red pine is starting to really come in and develop nicely. Do nothing at this point. Let aspen decline and let oak and red pine fill in.
						OPIC - FMD: Mixed Oak and Red Pine stand. North end on a steep slope and the southend on a moderate slope. Portions of this stand may not be harvestable due to slope. South end border water at the bottom of slope. Recommend managing as a mixed Pine\Oak stand. Could remove Aspen and Jack pine where ever possible this time or the next treatment period.
71	42110 - Planted Red Pine	Sapling Well	9.6	17	Immature	Red Pine is doing well, some patches of the stand are not above the snow height, but overall the stand looks decent. Do nothing.
						OPIC - FMD: Immature Red Pine plantation. Stand ia portion of the Red LineFire on 6-21-98 and final harvested (salvaged) under contract #35-98 fall of 98. Scattered Oak stump strouts, seedling and saplings exist throughout the stand. Used old site index from previous Oak stand that existed there before the fire. Immature Red Pine looks very healthy. Planted in spring of 2000.
72	42210 - Natural Red Pine	Sawtimber Well	14.7	75	81-110	Stand was treated as noted by comments below. Some oak coming in the understory. Browse is evident. Red Pine is decent quality. Do nothing at this point.
						OPIC - FMD: Mature Red Pine stand mixed with Oak and some Jack Pine. This portion of the stand escaped the Red Line fire which occurred in 1998 Recommend a thinning of the stand. Thin to 90-100 BA by removing all Aspen and Jack pine as well as any Red Pine needed. Harvested under contract 72-664-07-01 Fire Missed Red Pine. Harvested in spring of 2007
74	4131 - Aspen, Oak	Sapling Medium	14.4	25	Immature	Stand has areas that are fairly sparse. Aspen is doing alright, not excellent quality, but not terrible either. Oak has filled in some areas, mostly along edges. Do nothing.
						OPIC - FMD: Immature Aspen stand. 2-3inch DBH 10-20ft Tall. Blueberry is the dominant ground cover species with a combination of bracken fern and sedges.
76	4125 - Black, N. Pin Oak	Sapling Medium	16.9	17	Immature	Stand was salvaged. Some larger RP left in stand. Stand slopes down toward the bog. Do nothing at this time.
						OPIC - FMD: Immature Oak stand. Stand was part of the Red Line Fire (1998) and the Bald Pine Salvage sale in 1998. Located on a very steep side slope, not all of this stand was salvaged in the Bald Pine Salvage sale. Lots of burnt, standing and down and dead trees (Red Pine) are scattered about the stand. Oak is mediem in stocking and there are a few large Red Pine in the north that survived the fire.
77	4130 - Aspen	Sapling Medium	17.7	25	Immature	Stand was really set back by the fire. Some areas still have not regenerated but others are doing quite well. It will just take more time. Do nothing at this time.
						OPIC - FMD: Immature Aspen stand. Stand was part of stands 66 and 74, but this portion was burned in the Red Line Fire in 1998. The fire set back the Aspen and Red Maple within this stand. Dominant ground cover consists of grasses with Blue berry as the second dominant ground cover.

S t	Grayling	g Mgt. Unit		Report 8	– Forested	Stands Compartment: 264 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
79	42111 - Planted Red Pine, Mixed Deciduous	Sawtimber Well	27.6	75	111-140	Stand has oak and maple scattered throughout. Red pine is still doing well and oak is not showing signs of decline. Do nothing, consider entering stand in ten years. OPIC - FMD: Red Pine stand with Oak and Red Maple mixed and scattered throughout the stand.
80	4130 - Aspen	Sapling Poor	12.3	4	Immature	Stand was in fact clear cut in 2011. A fair amount of large diameter red pine was left along snowmobile trail for visual. Stand has started regenerating. Do nothing. OPIC - FMD: Aspen stand mixed with Red Pine and Jack Pine. East side of stand border snowmobile trail. Recommend a thinning, removing all Red Maple, Aspen and Jack Pine. Leaving Red Pine for visual along the snowmobile trail. Harvested in winter of 2009 under contract number 72-633-08-01, Snow Mil Red Pine.
88	4131 - Aspen, Oak	Poletimber Medium	4.5	68	111-140	Stand is old and showing its age. Several stems of the aspen are dead right along the snowmobile trail. Stand should be cut to try and regenerate. Leave no retention due to small stand size. Stand was prescribed last entry but was never cut. OPIC - FMD: Aspen stand mixed with Oak. Recommend final harvest and naturally regenerate to Aspen. Old note: SHOULD HOLD PATCHES OF SOLID OAK

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Stand	Cover Type	Acres	Managed Site	General Comments:
30	62399 - Marsh (OI)	9.1	No	Stand was snow covered. Could not determine ground cover species. OPIC - FMD: Marsh stand located in a kettle hole. South end of stand has a pocket of standing water. Ground cover is marsh grasses.
51	310 - Herbaceous Openland	95.9		Stand was harvested in 2010. 726530701 Wakely Oak Aspen. Stand has some regen, but all relatively short. A fair amount of browse observed. Lots of snow when inventoried as well. OPIC - FMD: Aspen stand with Oak scattered throughout the stand. Some scattered Red Pine pulpwood throughout stand. Recommend a final harvest, but leaving patches throughout the stand at least a half acre in size. The Oak and Aspen is mature and needs to be regenerated however, due to the fair amount of Aspen and Aspen of different age classes with in the compartment, I would like to leave some Oak for species diversity and wildlife purposes within the compartment. Should get back by natural regeneration a mixed, medium to full stocking of Aspen, Red Maple and Oak. Stand was harvested under contract 72-653-07-01 Wakely Oak Aspen.
69	510- Water (OI)	1.7	No	Lots of snow when inventoried. Could not see ground cover species. OPIC - FMD: Small pond found in SE1/4 of section 36. Pond extends down into the compartment to the south.
70	62259 - Bog (OI)	10.3	No	Lots of snow covering this stand while inventorying. Unable to see ground cover. OPIC - FMD: Large bog surrounding small pond and stretching north into compartment. Wildfire burned up and through a portion of the bog. (Fen)
82	3209 - Upland Shrub (OI)	4.0	No	Lots of snow cover during inventory, unable to see ground cover. OPIC - FMD: Upland Brush stand with scattered Jack Pine and cherry. Aspen encroaching on all sides. Ground cover consists of grasses, sedges and blueberry. Wildlife may want to maintain this as an opening???
86	3209 - Upland Shrub (OI)	5.8	No	heavy snow cover, unable to see ground cover. OPIC - FMD: Upland Brush stand with scattered Jack Pine and cherry. Aspen encroaching on all sides. Ground cover consists of grasses, sedges and blueberry. Wildlife may want to maintain this as an opening???
400	31029 - Grass (OI)	10.4	No	WLD Managed opening. Snow covered, unable to see ground cover OPIC - FMD: GRASS OPENINGS AND DEVELOPED WILDLIFE OPENINGS.
401	31029 - Grass (OI)	1.2	No	OPIC - FMD: GRASS OPENINGS AND DEVELOPED WILDLIFE OPENINGS.
402	31029 - Grass (OI)	13.4	No	OPIC - FMD: GRASS OPENINGS AND DEVELOPED WILDLIFE OPENINGS.
403	31029 - Grass (OI)	16.1	No	OPIC - FMD: GRASS OPENINGS AND DEVELOPED WILDLIFE OPENINGS.
404	31029 - Grass (OI)	4.6	No	Managed WLD opening. Unable to see ground cover due to snow. OPIC - FMD: GRASS OPENINGS AND DEVELOPED WILDLIFE OPENINGS.

Compartment: 264 Year of Entry: 2017



Stand	Cover Type	Acres	Managed Site	General Comments:
405	31029 - Grass (OI)	3.2	No	OPIC - FMD: ROUTE USED BY VARIOUS MILITARY VEHICLES, BOTH WHEELED & TRACKED.
406	31029 - Grass (OI)	111.2	No	Large open stand. Several patches of scattered JP and RP throughout the stand. Lots of deer traffic. Islands of RP and JP within the stand. OPIC - FMD: ROUTE USED BY VARIOUS MILITARY VEHICLES, BOTH WHEELED & TRACKED.
407	31029 - Grass (OI)	7.5	No	Grassy opening along two track. Some scattered trees in the opening. Do nothing.
410	31029 - Grass (OI)	3.6	No	Grassy opening. Do nothing.