

GRAYLING FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 016 ENTRY YEAR: 2014

GIS Compartment Acreage: 1,275 County: Oscoda

Revision Date: 08/27/2012

Stand Examiner: Patrick Mohney

Legal Description: T28N R02E Sections 13, 23, 24 & 25

Elmer Township

Management Goals: Maintain forest health, productivity, sustainability, species diversification and structural diversity of the resources while providing for multiple uses of the land.

Soils and Topography: The soils are Grayling and Graycalm sands. There is some Emmet loamy sand in section 13. The area is rolling hills to the north with a wide valley to the south. The entire Compartment consists of very well-drained to excessively-drained upland soils.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The area is mixture of State land and private property to the north and east of the compartment. It is predominantly State land to the south and west. There are many private residences within the compartment. The Muskrat Lake Snowmobile Trail and an ORV trail traverse through the compartment.

Unique, **Natural Features:** The Pine Barrens Frost Pocket is in the adjacent compartment to the south.

Archeological, Historical, and Cultural Features: Evidence of historical occupation is found in the Compartment.

Special Management Designations or Considerations: None at this time.

Watershed and Fisheries Considerations: None at this time.

Wildlife Habitat Considerations: There are no maintained openings in the compartment. Priority species are deer, grouse and turkey. Continue to treat the aspen and jack pine stands to maintain intolerant types for the benefit of deer and grouse.

Mineral Resource and Development Concerns and/or Restrictions: There are four well sites in the Compartment. Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and an end moraine of fine-textured till. Glacial drift thickness varies between 400 and 800 feet. There is elevation relief of approximately 70 feet in the compartment. Beneath the glacial drift is the Coldwater Shale. There is not an economic use for the Coldwater Shale. This compartment is leased for oil and gas development and most of it has been developed for the Antrim Shale gas production.

Vehicle Access: Mt. Tom Road, Hill Road, Oak Lake Road, and Penn Road access the compartment. There are numerous two-track trails that traverse throughout the compartment. Existing access is adequate for current needs; no new roads need to be constructed. All new trail roads created for timber sales will be closed upon completion of the sale. The SENW of section 24 may not have legal access to it. Further investigation of the location of the survey corner will be needed to confirm access.

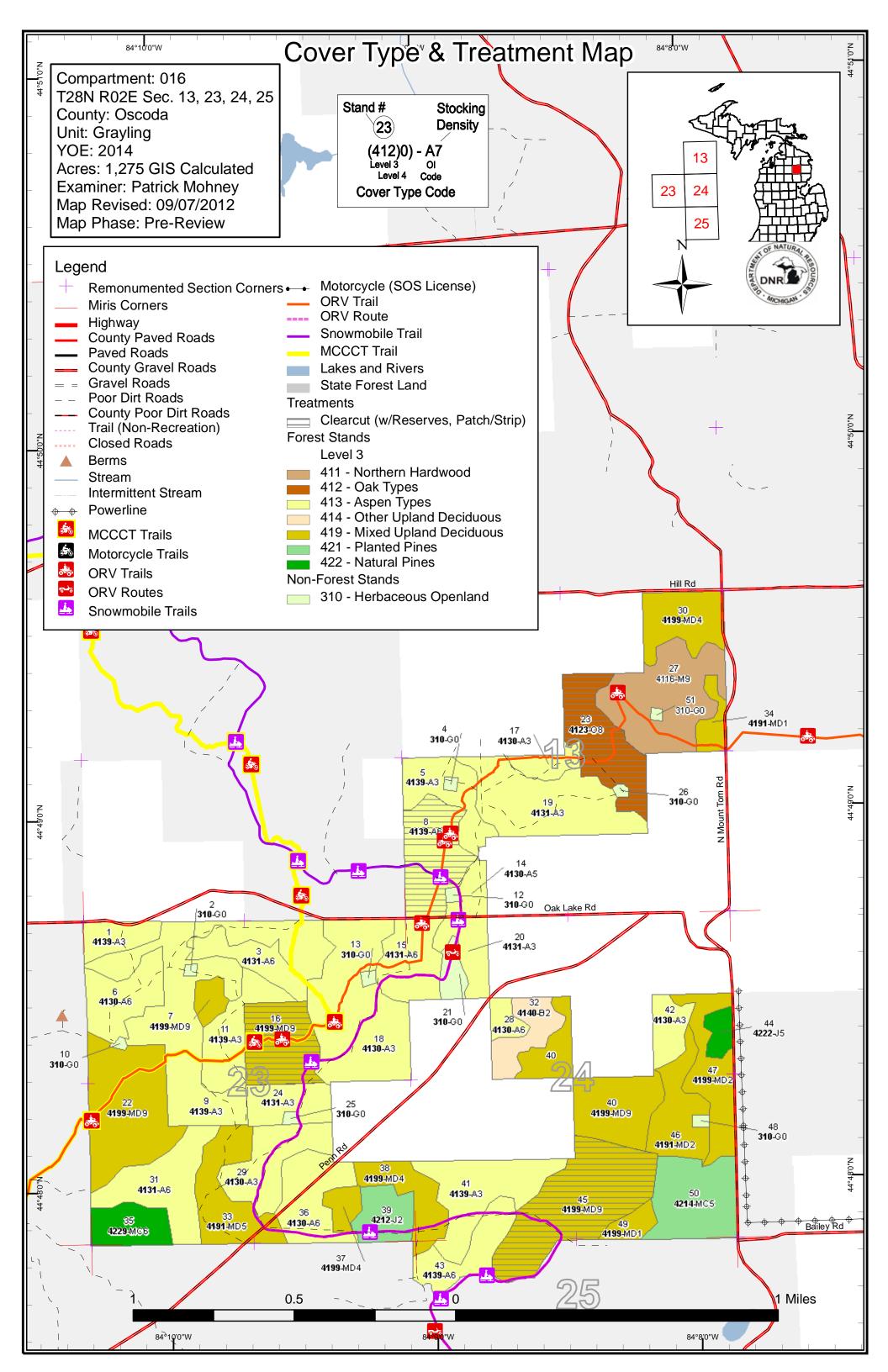
Survey Needs: Some need for surveys may exist.

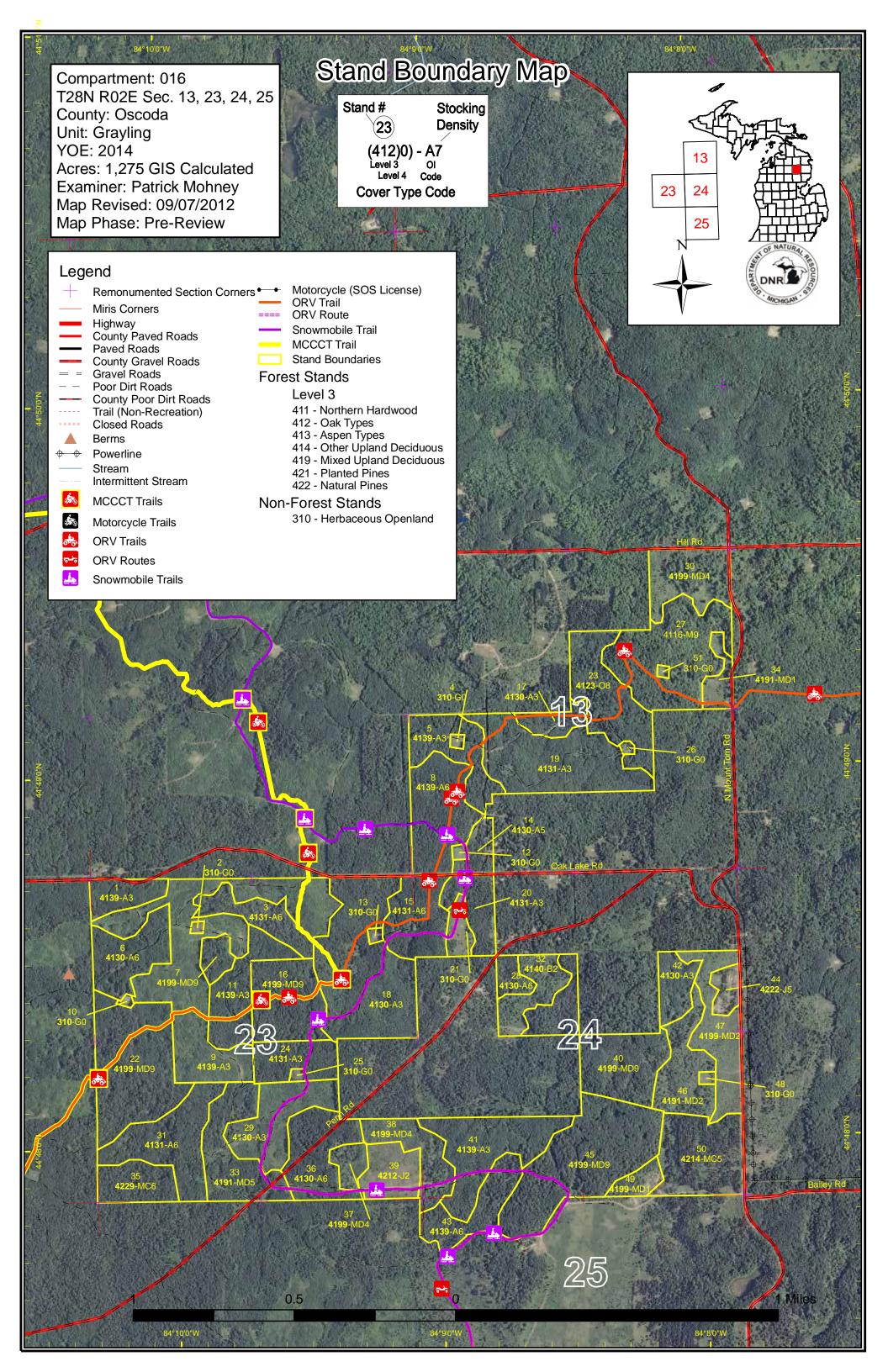
Recreational Facilities and Opportunities: The area receives pressure from hunting. The Muskrat Lake Snowmobile Trail (trail numbers 4 and 9) and an ORV Trail traverses through the compartment.

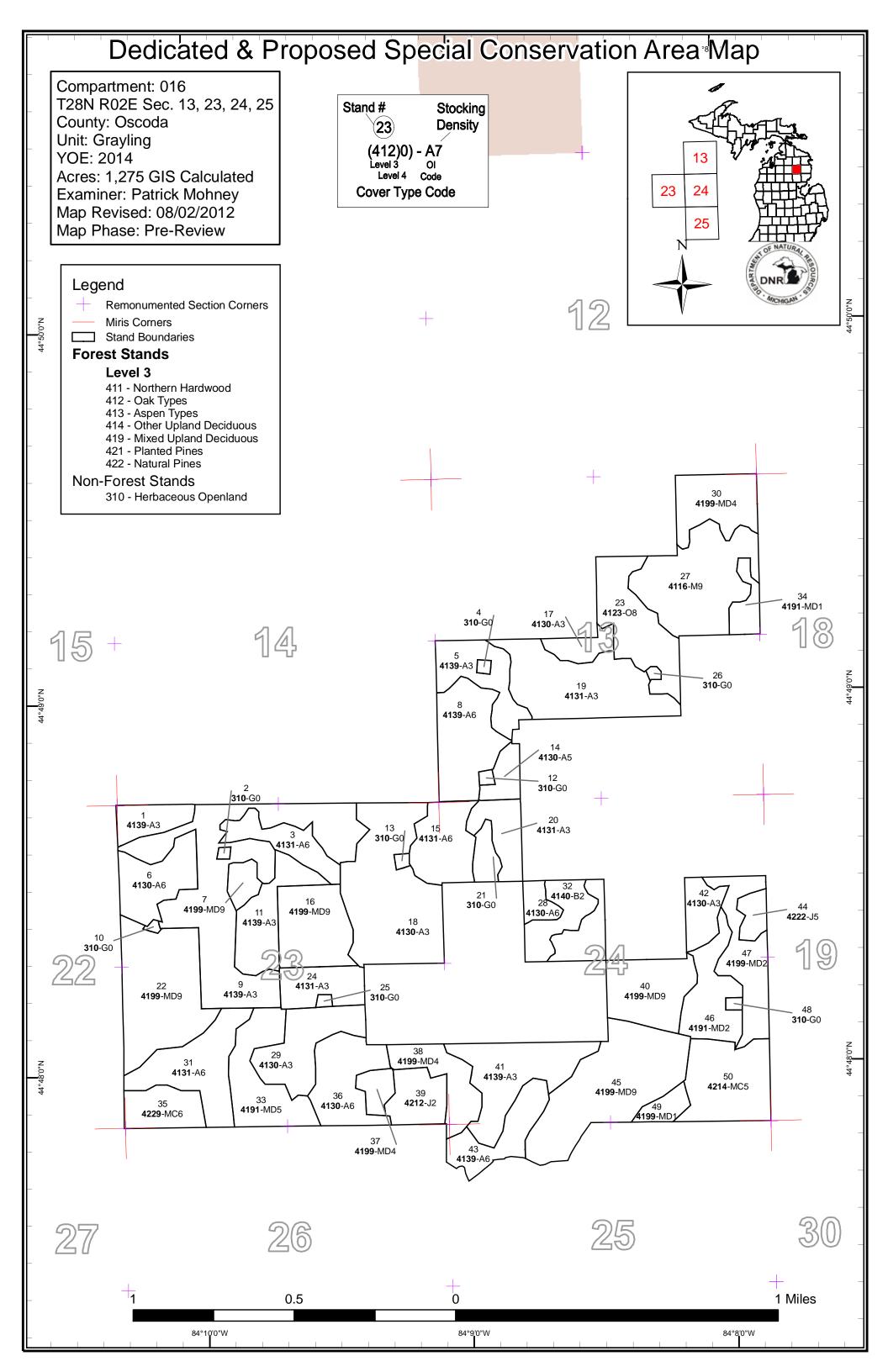
Fire Protection: The road system for fire protection appears to be adequate. The compartment consists of mostly rolling upland hardwoods and aspen plains. There is a small amount of jack pine in the compartment.

Additional Compartment Information: None.

- ➤ The following reports are available:
 - **♦** Total Acres by Cover Type and Age Class
 - **♦** Proposed Treatment Summaries
 - **♦** Dedicated Conservation Area Details
 - **♦** Listing of Forested Stands
 - **♦** Listing of Non-Forested Stands
 - **♦** Proposed Treatments with No Limiting Factor
 - **♦** Proposed Treatments with Limiting Factors
- > The following information is displayed, where pertinent, on the attached compartment maps:
 - ♦ Base feature information, stand numbers, cover types, recreation trails and facilities
 - **♦** Proposed treatments
 - **♦ Dedicated & Proposed Special Conservation Areas**







Compartment 016 Year of Entry 2014

Grayling Mgt. Unit patrick mohney: Examiner



Age Class																
		6.9	0.79	87.42	Si de la companya de	ig. ig.	Si de la companya de	89.00	R. o	\$ \ &	8.3	00,00	10,10	, o, J, d,	8	, \$ ³
Aspen	132	114	228	142	46	0	0	0	0	0	0	0	0	0	661	
Herbaceous Openland	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17	ĺ
Jack Pine	18	0	7	0	0	0	0	0	0	0	0	0	0	0	26	
Mixed Upland Deciduous	59	0	83	28	8	0	0	111	107	0	0	0	0	0	396	
Natural Mixed Pines	0	0	0	0	19	0	0	0	0	0	0	0	0	0	19	
Northern Hardwood	0	0	0	0	0	0	0	58	0	0	0	0	0	0	58	
Oak	0	0	0	0	0	0	0	0	39	0	0	0	0	0	39	
Paper Birch	0	0	0	18	0	0	0	0	0	0	0	0	0	0	18	
Planted Mixed Pines	0	0	0	0	0	41	0	0	0	0	0	0	0	0	41	ĺ
Total	227	114	318	189	72	41	0	169	146	0	0	0	0	0	1275	1



Table 2 – Proposed Treatment Summaries

Grayling Mgt. Unit

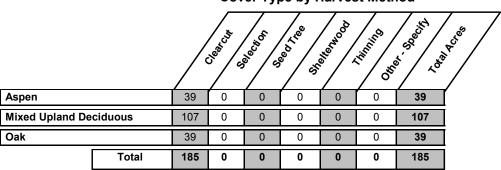
Compartment 016 Year of Entry 2014 **Total Compartment Acres: 1275**

Acres by Treatment Type

Commercial Harvest - 185 Site Prep - 0 Tree Planting - 0 Prescribed Burn - 0 Other - 0

Habitat Cut - 0 Tree Seeding - 0 Pesticide - 0 Opening Maintenance - 0

Cover Type by Harvest Method



Grayling Mgt. Unit

Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 016
Year of Entry 2014

1	10F	NATE	IRAL	1
RTME	7	4	3	\$ 50U
OEPA	DI	NR.		CES
3	M	CHIG	AN	•

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8	72016008-Cut	38.7	4139 - Aspen, Mixed Deciduous	High Density Pole	41	51-80	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

<u>Prescription</u> Final harvest stand. Leave red pine and red oak. There isn't a huge amount of either species so it should not impact the aspen regeneration. <u>Specs:</u> follow standard retention guidelines. Use recreational trail specs. Protect trail and leave 4' tall stumps along it. Focus retention to protect trail.

Other Comments:

Aspen, red maple, white pine and oak would be acceptable regeneration.

Next Steps:

S

<u>Proposed</u>

Start Date: 10/01/2013

1672016016-Cut35.24199 - Other MixedHigh8251-80HarvestClearcut with4131 - Aspen, OakCmpt. ReviewUpland DeciduousDensity LogReservesProposal

<u>Prescription</u> Final harvest stand. Leave white pine. Follow standard retention guidelines. Use recreational trail specs. Focus retention along trails to

<u>Specs:</u> protect. Leave 4' tall stumps along trail.

Other Comments:

Next A mix of aspen, oak, red maple and pine is acceptable.

Steps:

Proposed Start Date: 10/01/2013

23 72016023-Cut 38.9 4123 - Red Oak Medium 82 51-80 Harvest Clearcut with 4122 - Oak, Pine Cmpt. Review Density Log Reserves Proposal

<u>Prescription</u> Final harvest stand to try and maximize oak regeneration. Leave red pine. There is not a lot of red pine throughout stand so it should not impact <u>Specs:</u> regeneration much at all. Follow standard retention guidelines. Place retention along trails in large islands. Leave all stumps along trail 4 foot

tall.

Other Comments:

Next Regeneration of oak, aspen, red maple is acceptable. Full stocking is acceptable.

Steps:

<u>Proposed</u>

Start Date: 10/01/2013

45 72016045-Cut 72.0 4199 - Other Mixed High 82 51-80 Harvest Clearcut with 4121 - Oak, Aspen Cmpt. Review Upland Deciduous Density Log Reserves Proposal

<u>Prescription</u> Final harvest stand. Leave red pine. Not a lot of red pine in stand to interfere with regeneration. Mark out islands for retention throughout stand. Follow standard retention guidelines. Use recreational trail specs. Protect trail, use retention along trail to do so. Leave 4' stumps along

trail.

Other Comments:

Next A mix of oak, red maple, pine and aspen is acceptable.

Steps:

Proposed

Start Date: 10/01/2013

Total Treatment

Acreage Proposed: 184.9

Grayling Mgt. Unit Table 4 -- Treatments Prescribed with Compartment: 016 a Limiting Factor s Year of Entry 2014 n **Treatment Acres** CoverType Size Stand BA **Treatment Treatment Cover Type Approval** Method Objective Status Name Density Age Range Type d #Error Prescription Specs: <u>Other</u> Comment: <u>Next</u> Steps: <u>Proposed</u> Start Date: #Error

Total Treatment Acreage Proposed:

Limiting Factor and No Treatment Reason

0

Out of YOE -- Treatments Prescribed with No Limiting Factor

DNR DNR

Year of Entry: 2014

Treatment Acres CoverType BA **Treatment Treatment Cover Type Approva**l Density Method Name Objective Status Age Range Type 72269 OYOE 2.0 Harvest Clearcut 4131 - Aspen, Oak Cmpt. Review CC Proposal

<u>Prescription</u> Final harvest except leave any beech, ash, and conifers. No additional retention specified due to small stand size and the proximity of retention <u>Specs:</u> in comp 268 stand 28. Set up concurrent with compt 268 (2014 YOE) stand 28.

Other Comments:

Next Natural regen survey. Natural regen goal is a mixture of aspen, oak and hardwoods.

Steps:

Proposed

Start Date: 10/01/2013

72272_OYOE_ 5.6 Harvest Clearcut 42120 - Planted Cmpt. Review ccr Jack Pine Proposal

Prescription Specs:

Final harvest except leave the RP & WP. No additional retention due to small stand size. Run the north & west boundary to include the operable transition ground (where the densest black spruce cover is) down to the swamp. Cut all JP & Scotch pine stems regardless of merchantability. Harvest concurrent with the adjacent comp 268 stand 6 (aquired through the same land transaction). When harvesting this stand's planted SP, site a secondary landing immediately adjacent to the plantation so that Scotch pine doesn't get dragged through the general stand area, distributing its weed seed. Add hare habitat improvement spec to fell the red-painted boundary line trees bordering the swamp.

Other Protect the survey monument and any witness trees associated with the north quarter corner of section 22. Borders the Lovells KW Unit,

Comments: Management Block 56.

Next Trench and plant JP to KW specs. May need site prep treatments (that could include burning, herbicide, etc.) to control scotch pine regen before Steps: Planting. Artificial regen surveys. Acceptable regen is JP at stockings suitable for KW habitat, with minor components of naturally-established

mixed deciduous and native conifer species.

Proposed Start Date: 10/01/2013

72289_OYOE_ 6.7 Harvest Clearcut 42120 - Planted Cmpt. Review

cc Jack Pine Proposal

Prescription Final harvest, leaving any RP, WP and white oak. No additional retention due to small stand size. Treat concurrent with the adjacent comp 290

Specs: stand 2

Other Protect the survey monument and witness trees associated with the quarter corner common to sections 26 & 27.

Otner F
Comments:

Next Trench and plant JP to KW specs. Artificial regen surveys. Acceptable regen is JP at stockings suitable for KW habitat, along with naturally-

established oak and pine.

<u>Proposed</u>

Steps:

Start Date: 10/01/2013

Total Treatment

Acreage Proposed: 14.3

s t	Grayling Mgt. Unit			5 – Fo	orested Sta	Compartment: 016 Year of Entry: 2014
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4139 - Aspen, Mixed Deciduous	High Density Sapling	13.8	21		aspen regeneration. Fully stocked stand. Good quality. Some super canopy pine left throughout, no treatment needed.
3	4131 - Aspen, Oak	High Density Pole	19.3	28		Aspen stand that is approaching pole sized throughout. Previous OI says it was cut in 1984 Some oak within stand, can hold easily another ten to twenty. Do nothing at this time.
5	4139 - Aspen, Mixed Deciduous	High Density Sapling	26.0	28	1-50	aspen stand that is nearly merchantable. Decent quality, private on two sides. No treatment.
6	4130 - Aspen	High Density Pole	27.3	25		Nice aspen regen approaching merchantability. Some steep terrain in stand. Quality is good. No treatment needed at this time.
7	4199 - Other Mixed Upland Deciduous	High Density Log	7.5	40	81-110	some nice oak in thsi stand. large paper birch too. No treatment needed at this time. Aspen is declining but the oak seems healthy. Let aspen die and leave the oak.
8	4139 - Aspen, Mixed Deciduous	High Density Pole	38.7	41	51-80	Decent quality aspen stand. some oak and pine mixed throughout. cut to regenerate and leave red pine and oak.
9	4139 - Aspen, Mixed Deciduous	High Density Sapling	99.7	6		cut in 2006. aspen clear cut good regen, a bit patchy in places. close to a fully stocked stand. cycle trail goes through stand.
11	4139 - Aspen, Mixed Deciduous	High Density Sapling	27.7	26		aspen stand that is approaching merchantable size. Quality and density varies throughout stand. ORV Trail goes through. Some larger oak throughout stand as well.
14	4130 - Aspen	Medium Density Pole	9.5	32	51-80	pole sized aspen stand. somewhat patchy. quality is fair. snowmobile trail passes through stand. do nothing, should hold for another ten pretty easily.
15	4131 - Aspen, Oak	High Density Pole	27.8	28	1-50	Decent aspen stand. Approaching merchantability. Rolling topography in some spots. Lots of red maple coming into understory. No treatment, will hold ten years easily.
16	4199 - Other Mixed Upland Deciduous	High Density Log	35.2	82	51-80	mixed oak and aspen stand. Aspen is old and starting to decline. Oak is good sized and getting old as well. Cut to regen oak and aspen. Leave white pine. ORV Route goes through stand. SI is 56
17	4130 - Aspen	High Density Sapling	9.7	20		Young aspen stand, some super canopy red pine was left. No cutting record and stand was previously called an R7. Aspen is coming in nicely. No treatment.
18	4130 - Aspen	High Density Sapling	76.7	30		young aspen, good quality. very dense did not walk entire stand because. No treatment at this time.
19	4131 - Aspen, Oak	High Density Sapling	57.6	18		Aspen regen. According to OI it was cut in 1994. Regeneration is very dense, do nothing at this time.

S	Grayling Mgt. Unit			5 – Fo	orested Sta	Compartment: 016 Year of Entry: 2014
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4131 - Aspen, Oak	High Density Sapling	17.1	24		young aspen, poor quality. lots of other species competing. do nothing at this time. snowmobile trail goes along stand.
22	4199 - Other Mixed Upland Deciduous	High Density Log	62.7	78	51-80	Nice oak stand. Has some decent sized and quality stems throughout. A fair amount of aspen as well. Aspen and oak should hold for another ten no problem. Getting into log sized oak at this point. Previous SI is 58. Cycle trail passes through stand.
23	4123 - Red Oak	Medium Density Log	38.9	82	51-80	Stand was cut in within the last 20 years, no record in OI. It seems that all oak was left. Nice quality log sized oak. Very thick Red maple understory. There is not much oak regenerating underneath.
24	4131 - Aspen, Oak	High Density Sapling	19.8	28		Young aspen stand with decent quality. Previous inventory says it was cut in 1984. No treamtment needed at this time.
27	4116 - Mixed N. Hardwood - Aspen	High Density Log	58.0	75	81-110	Stand was thinned in 1997 according to old OI. Nice large diameter hardwood stand. Some steep terrain. Decent regen underneath. No treatment needed at this time, still putting on decent growth.
28	4130 - Aspen	High Density Pole	7.0	40		Previous inventory says this is an A6. I would expect some oak as well.
29	4130 - Aspen	High Density Sapling	32.2	6		stand cut in 2006. Has cycle trail through it. Young aspen, excellent regeneration. Do nothing at this time.
30	4199 - Other Mixed Upland Deciduous	Low Density Pole	28.3	35	1-50	Old homestead site. HAL hit. Nice fence rows of black walnut. No treatment needed at this time.
31	4131 - Aspen, Oak	High Density Pole	39.1	28		Aspen stand, some of it is approaching pole sized. Previous inventory says it was cut in 1984. Some larger oak scattered throughout. Do nothing at this time.
32	4140 - Other Upland Deciduous	Medium Density	18.3	30		Landlocked stand. Previously called a G0.
33	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	35.3	25		aspen is getting close to merch. sized. some mixed pine throughout. A small patch of red pine plantation included in stand, was not large enough to be its own stand. Aspen is patchy.
34	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	9.2	25		fairly open stand. has some strange topography, possibly could have been excavated by oil and gas development for some reason. Possibly a failed plantation at one point too. Not much that is merchantable in this stand at the time.
35	42290 - Natural Mixed Pine	High Density Pole	18.8	40		Mixed pine and aspen stand. Aspen has some pole sized stems, white pine is also pole sized. Do nothing at this time.

s t	Grayling Mgt. Unit			5 – Fo	orested Sta	Compartment: 016 Year of Entry: 2014
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
36	4130 - Aspen	High Density Pole	32.2	39	51-80	Nice quality aspen. some large diameter pine along penn rd. aspen is still growing well. will hold ten years no problem. a small <1 acre red pine plantation is included in this stand, too small to be its own stand. Treat that with the rest of the stand in the future. Southern portion of stand has small aspen regen, included due to small size.
37	4199 - Other Mixed Upland Deciduous	Low Density Pole	8.0	25		Open stand. Lots of cherry brush. Some oak mixed throughout, poor quality aspen. Do nothing at this time.
38	4199 - Other Mixed Upland Deciduous	Low Density Pole	22.6	25		Stand is dominated by large cherry brush. Some jack pine on west end. Do nothing at this time.
39	42121 - Planted Jack Pine, Mixed Deciduous	Medium Density	18.2	6		Stand was cut in 2006 and planted to jack pine. seems to be growing well. has some dead leaders on the jack pine but I am guessing due to drought. cherry and oak don't seem to be taking over too badly.
40	4199 - Other Mixed Upland Deciduous	High Density Log	48.2	70	81-110	Nice stand of log sized oak. Some rolling terrain throughout. Also has some very tall aspen in the bottoms of the valleys. Aspen decreases quality on east side of the stand.
41	4139 - Aspen, Mixed Deciduous	High Density Sapling	42.5	18		aspen regen is adequate. Lots of other species competing. Do nothing at this time. I did not walk through the entire stand. Was cut in 1994
42	4130 - Aspen	High Density Sapling	13.7	18		Young aspen regeneration. Fully stocked. Did not walk entire stand, but it seems to be growing very well. Not much oak throughout. Stand was cut in 1994.
43	4139 - Aspen, Mixed Deciduous	High Density Pole	23.8	38	1-50	Aspen stand. Has larger stems throughout. But also a lot of regen underneath. Larger stems are scattered and not really a full stocking. Do nothing at this time. Did not walk through southern most part of the stand.
44	42220 - Natural Jack Pine	Medium Density Pole	7.4	25		well site that is surrounded by jack pine. A very small stand, no treatment needed.
45	4199 - Other Mixed Upland Deciduous	High Density Log	72.0	82	51-80	Nice mixed stand. Oak is decent quality and fairly large diameter. Some rolling terrain. Snowmobile trail goes through stand. Nice pockets of aspen throughout. Cut to regenerate oak and aspen. Leave some larger diameter oaks per acre. Leave red pine?
46	4191 - Mixed Upland Deciduous with Conifer	Medium Density	28.2	5		Mostly cherry. Has some larger diameter jack pine throughout. Jack Pine is very dense in some places. Could be fire origin. Do nothing especially near the well pad. Small pockets of aspen throughout the stand. Was cut in 2007
47	4199 - Other Mixed Upland Deciduous	Medium Density	30.9	5		Mostly cherry brush. Some jack pine and aspen. Very little oak. Previous OI says it was cut in 1997

s t	Grayling		5 – Fe	orested Sta	Year of Entry: 2014	DNR	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	M/CHIGAN .
49	4199 - Other Mixed Upland Deciduous	Low Density Sapling	7.6	20		Mostly an open stand with all cherry brush growing in it. B the frost pocket pine barrens management area. Do not	
50	42141 - Planted Mixed Pine, Mixed Deciduous	Medium Density Pole	41.2	50	111-140	Mostly a red pine plantation, it is very patch. Some natura pine and aspen coming into the stand. RP has been thir thinned in 2006. Raccoon Red Pine. Quality is not grea ready to be treated again. Still growing fairly well.	d row

6 - Nonforested Stands

Compartment: 016 Year of Entry: 2014



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	3102 - Grass	0.9	No	Low (NonForested)	well pad, lots of knapweed
4	3102 - Grass	1.1	No	Low (NonForested)	Well site surrounded by an oak and aspen stand. Lots of knap weed.
10	3102 - Grass	0.9	No	Low (NonForested)	well pad, lots of knapweed
12	3102 - Grass	1.3	No	Low (NonForested)	well pad, lots of knapweed
13	3102 - Grass	1.2	No	Low (NonForested)	well pad, lots of knapweed.
21	3102 - Grass	7.6	No	Low (NonForested)	wildlife opening. Some aspen and jack pine along the edges that are included in other stands. Lots of penn sedge and knap weed.
25	3102 - Grass	1.1	No	Low (NonForested)	well site surrounded by an aspen stand. Lots of knap weed.
26	3102 - Grass	1.0	No	Low (NonForested)	well site surrounded by a large oak stand. Has some topography around edges of well site.
48	3102 - Grass	1.3	No	Low (NonForested)	Well site, lots of knap weed.
51	310 - Herbaceous Openland	0.8			Stand was thinned in 1997 according to old OI. Nice large diameter hardwood stand. Some steep terrain. Decent regen underneath. No treatment needed at this time, still putting on decent growth.

Grayling Mgt. Unit

Compartment: 016
Year of Entry: 2014



7 - 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.

Stand	SCA Type	SCA Name	Acres	Comments

Grayling Mgt. Unit

Compartment: 016
Year of Entry 2014



8 - DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

Conservation Type Description
Area

ERA = Ecological Reference Area

HCVA = High Conservation Value Area

SCA = Special Conservation Area