



Compartment Review Presentation

Grayling Forest Management Unit

Compartment 197

Entry Year 2015

Acreage: 1,577

County Crawford

Management Area: Ausable Outwash

Revision Date: 06/25/2013

Stand Examiner: Thomas Barnes

Legal Description:

Township 25N Range 4W, Sections 13, 14, 15

Identified Planning Goals:

The goals are to: 1) to manage and maintain species and structural diversity, health, productivity, and sustainability throughout the compartment 2) help address the need for age diversification among red pine stands throughout the state 3) provide an area for National Guard training under the 10 year management agreement guidelines 4) provide multiple use opportunities and incorporate any visual management needed to optimize these uses.

Soil and topography:

Grayling, Graycalm, Graycalm-Grayling complex, Graycalm-Klacking complex, and Klacking loamy sand are the predominate soils. The compartment contains several disturbed areas from oil and gas activities. The topography is level to rolling.

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

The compartment consists of solid State ownership with some private tracts in Sections 13 and 14. The Beaver Creek Gas Plant is located in the SWSW of Section 13. The area is receiving increasing pressure from oil and gas development as existing fields from the south expand north. The Beaver Creek Town Hall is located in the SE ¼ of the SE ¼ of sec 13. US-27 runs through the SE corner of section 13.

Section 15 is under the ten year management agreement with the Michigan Department of Military Affairs, National Guard. The management agreement allows for military camping and maneuvers, but does not allow the use of heavy equipment or high intensity live ammunition firing. Tracked vehicles are prohibited and all vehicle use is restricted to existing trail roads. This management agreement is due to expire in 2014. It is anticipated it will be renewed with little change.

Unique Natural Features:

An old MIMS plot is found in stand 32.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Using Kotar maps and through field observation this compartment may help serve the objectives of the Red Pine Ecosystem Team. This compartment is primarily mature red pine plantation with approximately half of it ready for treatment.

Michigan Natural Features Inventory suggests that any planting be done with native seed collected locally, and to use fire for preparation of seedbeds.

Watershed and Fisheries Considerations:

None recorded at this time.

Wildlife Habitat Considerations:

The primary game species are whitetail deer and ruffed grouse. There is considerable hunting pressure for both species. Deer and grouse are two species, which require habitat in younger age classes of forest growth. The combination of younger aspen stands, longer rotation pine stands, and some openings will accommodate a wide variety of songbirds and other wildlife.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. Glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Michigan Formation, quarried for gypsum elsewhere in the State. A gravel pit is located in Section 9 and potential is good on the upland areas. Most of the compartment is currently leased for oil and gas. Section 15 is part of the Beaver Creek Field. The field has produced over

21 MBO from the Devonian Richfield and over 5 Bcf gas from the Ordovician Prairie du Chien.

Vehicle Access:

Access throughout the compartment is good. The compartment has several paved and improved roads, including county roads of Military Rd., 7 Mile Rd., Tower Hill Truck Trail, King Rd., and Oak Rd. Two-tracks and trails provide access to the majority of the stands. There are no trail roads that need maintenance or closure in this system at this time. All new roads created through management activities are to be closed upon completion.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

A designated snowmobile trail, Trail 7, run along King Rd, a seasonal county road. Several opportunities exist for hunting deer, rabbit, turkey, and grouse. The NW 1/4 of the NW 1/4 is frequented by individuals looking for mushrooms.

Fire Protection:

Access throughout the compartment is adequate. Military road and the west 1/3 of 7-Mile Road are paved. The rest of 7 Mile road, Oak road, and King Road are county gravel roads. Well sites provide access to much of section 15. 2-tracks provide good access throughout the rest of the compartment. Section 13 could be an area of concern due to its fire prone cover types and the private properties to the north.

Additional Compartment Information:

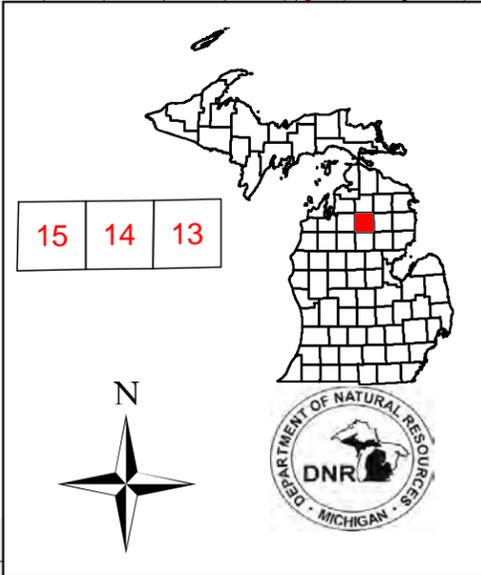
The following reports from the Inventory are attached:

- 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**

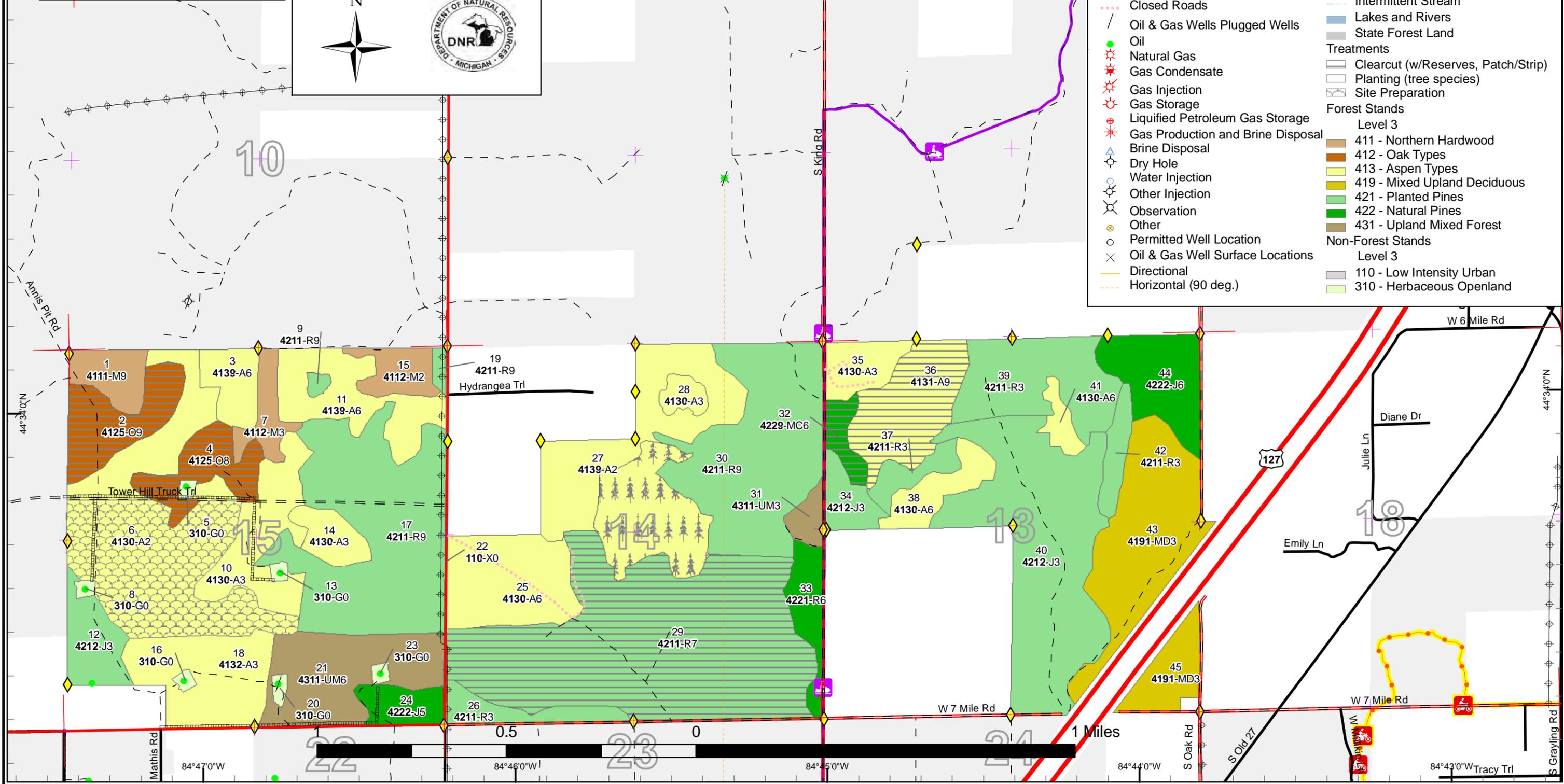
Compartment: 197
 T25N R04W Sec. 13, 14, 15
 County: Crawford
 Unit: Grayling
 YOE: 2015
 Acres: 1,577 GIS Calculated
 Examiner: Thomas Barnes
 Map Revised: 09/04/2013
 Map Phase: Pre-Review



Cover Type & Treatment Map

Stand #
 23
(412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

- ### Legend
- Remonumented Section Corners
 - PLSS Corner
 - Miris Corners
 - Highway
 - County Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - Closed Roads
 - Oil & Gas Wells Plugged Wells
 - Oil
 - Natural Gas
 - Gas Condensate
 - Gas Injection
 - Gas Storage
 - Liquefied Petroleum Gas Storage
 - Gas Production and Brine Disposal
 - Brine Disposal
 - Dry Hole
 - Water Injection
 - Other Injection
 - Observation
 - Other
 - Permitted Well Location
 - Oil & Gas Well Surface Locations
 - Directional
 - Horizontal (90 deg.)
 - Pipeline
 - Powerline
 - MCCCT Trail
 - Motorcycle (DNR Sticker)
 - Snowmobile Trail
 - Motorcycle Trails (DNR License)
 - MCCCT Trails
 - Snowmobile Trails
 - Stream
 - Intermittent Stream
 - Lakes and Rivers
 - State Forest Land
 - Treatments
 - Clearcut (w/Reserves, Patch/Strip)
 - Planting (tree species)
 - Site Preparation
 - Forest Stands
 - Level 3
 - 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 431 - Upland Mixed Forest
 - Non-Forest Stands
 - Level 3
 - 110 - Low Intensity Urban
 - 310 - Herbaceous Openland



44°35'0"N

44°34'0"N

44°33'0"N

84°45'0"W

84°47'0"W

84°46'0"W

84°45'0"W

84°44'0"W

84°43'0"W

44°34'0"N

44°33'0"N

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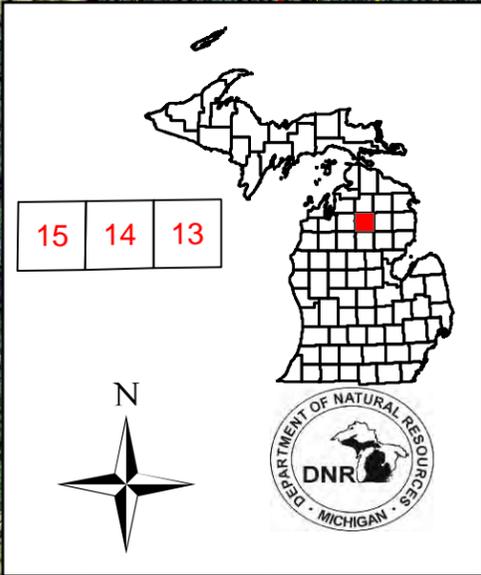
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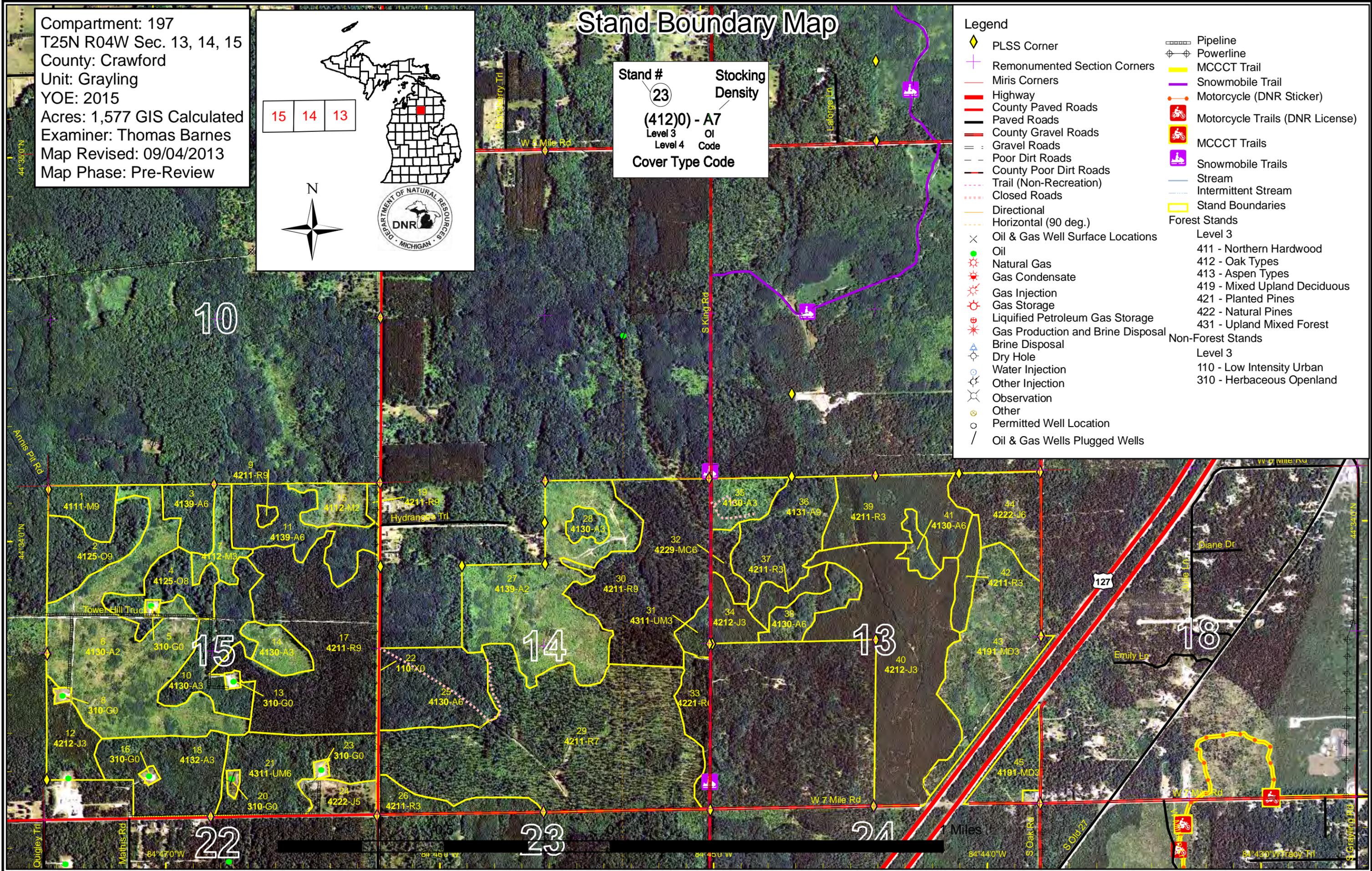


Stand Boundary Map

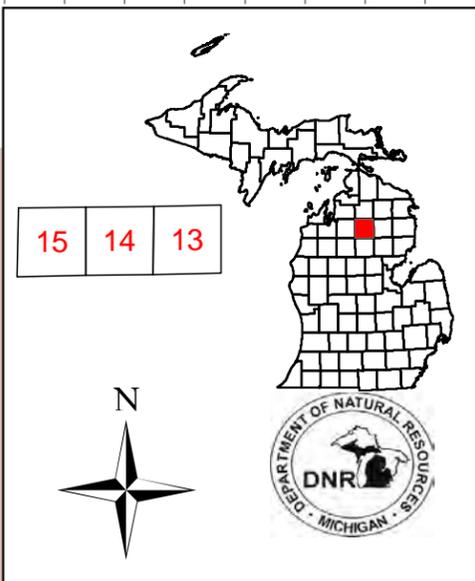
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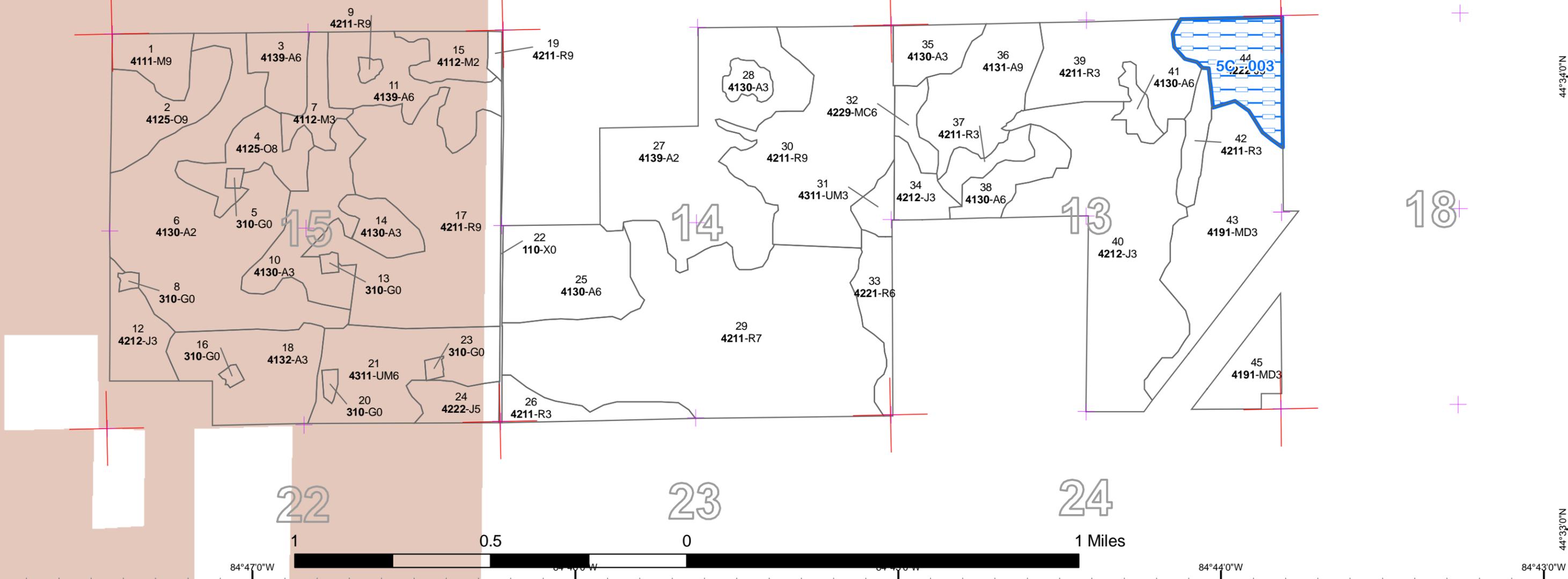
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Special Conservation Areas & Site Conditions Map

Stand #
 23
(412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

- Legend**
- + Remonumented Section Corners
 - Miris Corners
 - Stand Boundaries
 - Site Condition Available**
 - Available w/ Constraints (Factor - Number)
 - Available Factors W/ Constraints**
 - 5C: Delay treatment for age/size class diversity or exceptional site quality
 - Dedicated Special Conservation Areas**
 - Research, Development, and Military Lands



Report 1 – Total Acres by Cover Type and Age Class



	Age Class													Total	
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneven Age
Aspen	266	49	131	0	50	0	0	0	0	46	0	0	0	0	541
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Jack Pine	0	22	140	0	14	0	36	0	0	0	0	0	0	0	212
Mixed Upland Deciduous	22	75	0	0	0	0	0	0	0	0	0	0	0	0	97
Natural Mixed Pines	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
Northern Hardwood	29	0	0	0	0	0	0	0	0	17	0	0	0	0	45
Oak	0	0	0	0	0	0	0	0	26	0	32	0	0	0	57
Red Pine	0	17	74	0	0	0	0	451	0	0	0	0	0	0	542
Upland Mixed Forest	0	8	0	0	55	0	0	0	0	0	0	0	0	0	63
Urban	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	328	170	344	0	119	0	36	460	26	62	32	0	0	0	1577



Report 2 – Proposed Treatment Summaries

Grayling Mgt. Unit
Year of Entry 2015

Compartment 197
Total Compartment Acres: 1,577

Acres by Treatment Type

Commercial Harvest - 317 Tree Planting - 251 Other - 92
 Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Aspen Types	46	0	0	0	0	0	46
Natural Pines	9	0	0	0	0	0	9
Oak Types	57	0	0	0	0	0	57
Planted Pines	205	0	0	0	0	0	205
Total	317	0	0	0	0	0	317



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2 72197002-Cut	31.7	4125 - Black, N. Pin Oak	High Density Log	101	81-110	Harvest	Clearcut with Reserves	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal

Prescription Clearcut with reserves, follow standard retention guidelines focus retention around areas with higher densities of red and white pine.

Specs:

Other Comments: There is a road that does run through the stand. Heavy oil and gas activity in this area.

Next Steps: Monitor success of regeneration stand should come back as a fully stocked hardwood stand of maple, oak, aspen and other associated species.

Acceptable regeneration is a moderately stocked stand of same species listed above.

Proposed

Start Date: 10/01/2014

4 72197004-Cut	25.7	4125 - Black, N. Pin Oak	Medium Density Log	84	51-80	Harvest	Clearcut with Reserves	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal
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Prescription Clearcut with reserves, following standard retention guidelines. Try and focus retention in areas with advanced oak regeneration.

Specs:

Other Comments: The current understory is maple and oak with some aspen and overstory is low density mixed oak of fair quality. Heavy oil and gas activity in this area.

Next Steps: Monitor regenerations during next inventory cycle. Stand should regenerate to a moderate to fully stocked stand of maple, aspen and oak.

Acceptable regeneration is fair to moderately stocked stand of maple, aspen and oak.

Proposed

Start Date: 10/01/2014

29 72197029-Cut	204.8	42110 - Planted Red Pine	Low Density Log	71	1-50	Harvest	Clearcut	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Final harvest with reserves, follow standard retention guidelines. Retention should be focused in areas with advanced oak regeneration. Also

Specs: focus retention along 7 mile where pocket of advanced regeneration are well established.

Other Comments: There is tremendous regeneration of red maple, aspen and oak in this stand. Site is producing very nice red pine.

Next Steps: Site prep will be needed to remove existing regen, roller chop, herbicide as needed then trench and plant red pine.

Proposed

Start Date: 10/01/2014

32 72197032-Cut	9.2	42290 - Natural Mixed Pine	High Density Pole	73	51-80	Harvest	Clearcut	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription Clearcut without reserves to allow the expansion of aspen in this stand.

Specs:

Other Comments: Small stand of mixed hardwoods and conifer adjacent to a mature aspen stand

Next Steps: Monitor regenerations during the next inventory cycle. Stand should regenerate to a moderate to fully stocked stand of aspen, maple, oak and

red and jack pine. Acceptable regeneration is a fair to moderate stocked stand of listed species.

Proposed

Start Date: 10/01/2014

36 72197036-Cut	45.5	4131 - Aspen, Oak	High Density Log	97	81-110	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
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Prescription Clearcut with reserves follow standard retention guidelines try and focus retention around areas with established oak regenerations.

Specs:

Other Comments:

Next Steps: Monitor regeneration during next inventory cycle. Stand should regenerate to a fully stocked stand of mixed aspen and associated species.

Acceptable regeneration is moderate stocking of same species listed.

Proposed

Start Date: 10/01/2014



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6 72197006-Prep	92.0	4130 - Aspen	Medium Density Sapling	6		Site Prep	Chopping		Cmpt. Review Proposal

Prescription

Specs:

Other Looking for locations to plant to red pine in lieu of treating stand 14

Comments:

Next

Steps:

Proposed

Start Date: 01/01/2014

27 72197027-Plant_small	46.2	4139 - Aspen, Mixed Deciduous	Medium Density Sapling	4		Tree Planting	Hand Plant		Cmpt. Review Proposal
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Prescription Conduct appropriate site prep techniques to get site ready for trenching and planting to red pine

Specs:

Other Site was roller chopped in the summer of 2013.

Comments:

Next Monitor success of planting and artificial regeneration survey.

Steps:

Proposed

Start Date: 10/01/2014

**Total Treatment
Acreage Proposed: 455.3**



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

**Total Treatment
Acreage Proposed: 0.0**

Report 5 – Site Conditions

Grayling Mgt. Unit

Thomas Barnes : Examiner

Compartment 197

Year of Entry 2015

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No		5C
	Available	Not Available				
541	541		Aspen	541		
212	212		Jack Pine	176	36	
95	95		Mixed Upland Deciduous	95		
9	9		Natural Mixed Pines	9		
45	45		Northern Hardwood	45		
57	57		Oak	57		
541	541		Red Pine	541		
63	63		Upland Mixed Forest	63		
1,564	1,564		Total Forested Acres	1,528	36	
	100%		Relative Percent			

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

Site No.	Dominant Site Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
003	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	36				
Comments:							



Report 6 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				



Report 7 – 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.

ERA = Ecological Reference Area
 HCVA = High Conservation Value Area
 SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4111 - S.Maple, Hard Mast Association	High Density Log	16.5	97	81-110	Mixed hardwoods with sugar and red maple, basswood and oak. White ash stems are presents however all dead with heavy bird activity, a few beech present and looked to be clean as it pretains to BBD. Stand was thinned in 1996. Understory is heavy to ironwood with as well as overstory species listed above. Four BA swings were taken and stand ave was 85 species avs were 25 Sugar, 8 red maple, 22 oak, and 30 basswood. Stem quality is pretty good and I think this stand can go another 10 years before another treatment is needed. Stand is entirely PArVHa/PArVVb. Ground vegetation would not be listed due to snow.
2	4125 - Black, N. Pin Oak	High Density Log	31.7	101	81-110	Stand is oak and pine dominated in log size. Mixture of pole species. Sub-canopy has beech and w ash as a seedling component. Stand was thinned in 1996. Stand is entirely PArVHa/PArVVb. Ground vegetation would not be listed due to snow.
3	4139 - Aspen, Mixed Deciduous	High Density Pole	16.9	25		Stand is pole size, lower end of dbh, with a mixture of hardwood species. Red pine is present in the pole and log sizes, must of been left from previous harvest. Understory fairly open. Stand is primarily PArVHa/PArVVb, along the north boundary transitions into PArVVb. Ground vegetation would not be listed due to snow.
4	4125 - Black, N. Pin Oak	Medium Density Log	25.7	84	51-80	Mature oak stand with BA of 70. Understory well developed advanced regen of maple and oak. Stand was thinned back in the mid 90's. Stand is of fair quality, could go another 10 years, if not then final harvest. Stand is entirely PArVHa/PArVVb. Ground vegetation would not be listed due to snow.
6	4130 - Aspen	Medium Density	127.2	6		Prior to last harvest stand was an R9, it was decided that this stand would be allowed to convert to aspen management. Young stand of aspen with a fair component of red maple. Log size red pine are scattered throughout the stand. There some areas of the stand with very sparse regen, this could be a result of heavy deer browse as the stand did show signs of heavy deer use. There are a couple of well sites in close proximity to this stand as well. Stand is entirely PArVHa/PArVVb. Ground vegetation would not be listed due to snow.
7	4112 - Maple, Beech, Cherry Association	High Density Sapling	13.7	2		Young strand regenefating to red maple with some aspen oak and cherry. Stand is primarily PArVHa/PArVVb, northern third is PArVVb. Ground vegetation would not be listed due to snow.
9	42110 - Planted Red Pine	High Density Log	1.9	74	81-110	Small island of red pine log size, thinned in the mid 90's. Stand is entirely PArVVb. Ground vegetation would not be listed due to snow.
10	4130 - Aspen	High Density Sapling	40.1	26		Stand of mixed aspen, oak and maple with scattered red pine. Stand is upper sapling size with some pole sized stems, keep the overall size as sapling for this cycle. Stand is primarily PArVHa/PArVVb, the southern eastern portion PArVVb. Ground vegetation would not be listed due to snow.
11	4139 - Aspen, Mixed Deciduous	High Density Pole	41.1	26		Pole size aspen/maple stand with som oak. Island of red pine lft in middle (STAND9). Stand is primarily PArVVb with the middle portion being PArVHa/PArVVb. Ground vegetation would not be listed due to snow.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
12	42120 - Planted Jack Pine	High Density Sapling	21.7	16		Stand was planted in 1996 to jack pine, stand is doing well a couple of small pockets of aspen mixed within. Stand is entirely PArVHa/PArVVb. Ground vegetation would not be listed due to snow.
14	4130 - Aspen	High Density Sapling	13.7	8		Young aspen stand regenerating pretty well. The site has been planted to Jack Pine. Stand final harvested under tsale contract #720030501. FTP submitted for stand-C72-601. Jack Pine planted May, 2010 per C72-601. Didn't list stand as a plantation as the planted jack pine is still in the sub-canopy, site is dominated aspen at point in time. Stand is primarily PArVVb, a small portion of the stand is PArVHa/PArVVb. Ground vegetation would not be listed due to snow.
15	4112 - Maple, Beech, Cherry Association	Medium Density	14.8	2		Stand cut in 2010/, regenerating to a maple stand w/oak, cherry and aspen. Stand is entirely PArVHa/PArVVb, with east and west edges being PArVVb. Ground vegetation would not be listed due to snow.
17	42111 - Planted Red Pine, Mixed Deciduous	High Density Log	120.8	74	81-110	Thinned r pine plantation of good form and quality. Could go another 10 years. Understory heavy to maple and oak. Ten BA swings were taken and species averages were RP 80, OAK 20, RMAP 10. Stand is half PArVHa/PArVVb and PArVVb. Ground vegetation would not be listed due to snow.
18	4132 - Aspen, Jack Pine	High Density Sapling	49.0	16		Mixed stand of hwd and j pine. Southern portion of stand has larger scattered j pine and aspen but is included with this stand. Old OI notes the stand was planted in 1996 however, it seems that aspen has over taken the planting. Stand is entirely PArVHa/PArVVb. Ground vegetation would not be listed due to snow.
19	42110 - Planted Red Pine	High Density Log	2.5	74	81-110	Small stand of red pine left for what appears to be a visual screen foor adjacent cc. Stand is entirely PArVVb. Ground vegetation would not be listed due to snow.
21	4311 - Pine, Aspen Mix	High Density Pole	54.8	42		Stand is primarily pole/sap aspen and jack pine with oak and maple mixed in. There are llog sized jpine, wpine and oak scattered about of BA < 20. Was planted as jpine however aspen is equally mixed in where jpine wqs planted so I didn't call this a plantation. Stand is entirely PArVHa/PArVVb. Ground vegetation would not be listed due to snow.
24	42220 - Natural Jack Pine	Medium Density Pole	14.2	47		Stand is mixed open and j pine with mixed hwds. No form to jpine classic open grown cactus. Stand is primarily PArVHa/PArVVb, along the north boundary it is PArVCo. Ground vegetation would not be listed due to snow.
25	4130 - Aspen	High Density Pole	50.3	42		Aspen stand should b ready for harvest in next cycle of inventory. Scattered log sized oak throughout. Some of larger aspen have started to fall down, that size class is a low percentage. Stand is entirely PArVHa/PArVVb. Ground vegetation would not be listed due to snow.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	42111 - Planted Red Pine, Mixed Deciduous	High Density Sapling	16.8	16		Stand was planted in 1996 following salvage harvest. Good natural regen If oak. Stand is primarily PARVHa/PArVVb and the middle portion along the southern boundary is PArVVb. Ground vegetation would not be listed due to snow.
27	4139 - Aspen, Mixed Deciduous	Medium Density	107.7	4		Very young stand regenerating to r maple, aspen cherry. Stand is primarily PARVHa/PArVVb, in the NW corner along the private line is PArVVb. Ground vegetation would not be listed due to snow.
28	4130 - Aspen	High Density Sapling	6.7	21		Yong stand of aspen. Stand is entirely PARVHa/PArVVb. Ground vegetation would not be listed due to snow.
29	42110 - Planted Red Pine	Low Density Log	204.8	71	1-50	Stand was shelterwood cut in 2007-09, stands sub-canopy has tremendous regeneration of red maple, aspen and oak. Red pine is of good to excellent quality, sawlog and cabin log dbh with some potential for utility poles. Stand is entirely PARVHa/PArVVb. Ground vegetation would not be listed due to snow.
30	42110 - Planted Red Pine	High Density Log	102.4	71	81-110	Mature r pine stand, northern portion is where the other species occur the most. Understory is heavy to red maple. Treat stand during next inventory cycle. Stand is primarily PARVHa/PArVVb, eastern edge is PVCd. Ground vegetation would not be listed due to snow.
31	4311 - Pine, Aspen Mix	High Density Sapling	7.8	15		Young stand of mixed aspen and j pine. Stand is split between PARVHa/PArVVb and PVCd. Ground vegetation would not be listed due to snow.
32	42290 - Natural Mixed Pine	High Density Pole	9.2	73	51-80	Stand is a mixture of j pine, r pine, oak and aspen. Large pole to small log in size and of poor quality. Stand should be treated in the next inventory cycle. Stand is primarily PVCd with small areas in the NE and SE that are PARVHa/PArVVb. Ground vegetation would not be listed due to snow.
33	42210 - Natural Red Pine	High Density Pole	18.0	71	51-80	Northern portion of stand is primarily jack pine oak with some large r pine scattered about souther half is large red pine left for a visual screen when adjacent r pine was thinned. Stand is entirely PARVHa/PArVVb. Ground vegetation would not be listed due to snow.
34	42120 - Planted Jack Pine	High Density Sapling	13.0	22		CUT IN LATE 80's "End of Oak Block" #0448501, planted in 1991. Old SI used. Has a row of red pine or two in it. There are a couple of pockets of aspen included with this stand did not delineate out as they are the same age as plantation and would be treated when this stand is mature. Stand is primarily PVCd. Ground vegetation would not be listed due to snow.
35	4130 - Aspen	High Density Sapling	17.1	5		Stand harvested TS-720060501 "7-mile mix" 4.5 inches and up harvested. Young regenerating stand containing aspen, oak and maple. Stand is PARVHa/PArVVb. Ground vegetation would not be listed due to snow.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
36	4131 - Aspen, Oak	High Density Log	45.5	97	81-110	Stand is a mixture of big and q aspen, oak and maple. There is some scattered pine component. In areas q aspen is developing conks, however b aspen is looking good. Oak is poor to fair quality. Northern portion of stand has larger DBH and better quality. Previous OI notes this stand was held for age class distribution. There is a pocket of about 4 acres that was harvested TS-720060501 "7-mile mix" in 2007, this pocket is included with this stand. Stand is entirely PARVHa/PArVVb. Ground vegetation would not be listed due to snow.
37	42110 - Planted Red Pine	High Density Sapling	10.7	21		Red pine plantation with some oak, cherry, aspen and j pine mixed in the stand. Stand is upper end of sapling. Stand is primarily PARVHa/PArVVb with a small portion of stand having PVCd in the NE corner. Ground vegetation would not be listed due to snow.
38	4130 - Aspen	High Density Pole	18.4	26		Young aspen stand harvested in the 1986. Few red pine scattered throughout the stand. Surrounding area is a red pine plantation that was planted around this stand. Stand is primarily PARVHa/PArVVb with a small portion of stand having PVCd in the NE corner. Ground vegetation would not be listed due to snow.
39	42110 - Planted Red Pine	High Density Sapling	52.5	21		Red pine plantation with some oak, cherry, aspen and j pine mixed in the stand. Stand is upper end of sapling. There are some pockets of aspen with in this stand that were planted around. Stand is primarily PARVHa/PArVVb with vein of PVCd running from south boundary to the north in the western third of stand. Ground vegetation would not be listed due to snow.
40	42120 - Planted Jack Pine	High Density Sapling	126.6	21		CUT IN LATE 80's "End of Oak Block" #0448501, planted in 1991. Includes a 4 acre patch of larger Jack pine that may have been left when harvested last time. No reported sub canopy due to snow, dense stand of jack pine. Stand is primarily PARVHa/PArVVb, the southern quarter is PARVVb and the north western portion has a vein of PVCd. Ground vegetation would not be listed due to snow.
41	4130 - Aspen	High Density Pole	7.3	26		Young aspen stand harvested in the 1986/87. Few red pine scattered throughout the stand. Surrounding area is a red pine plantation that was planted around this stand. Stand is entirely PARVHa/PArVVb, snow is covering ground so can not inventory ground cover.
42	42110 - Planted Red Pine	High Density Sapling	11.1	21		Stand was planted to red pine in 1991. Stand is primarily PARVHa/PArVVb except for the southern quarter is PVCd. Ground vegetation would not be listed due to snow.
43	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	74.9	11		Young stand with a mixture of hardwoods and j pine. There are pole and log sized oak and j pine totaling less than 10 BA combined. Stand is primarily PARVHa/PArVVb except for a small area near the southern end of stand 41 which is PVCd. Ground vegetation would not be listed due to snow.
44	42220 - Natural Jack Pine	High Density Pole	36.1	61		Stand is a mixture of j pine size classes, primarily pole but areas with heavy sapling and there is a fair amount of log size as well. Red pine is also present in various size classes. Oak is present in sub canopy. Stand is half PVCd and PARVHa/PArVVb. Ground vegetation would not be listed due to snow.

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Grayling Mgt. Unit

Report 8 – Forested Stands

Compartment: 197
Year of Entry: 2015



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	21.7	6		Stand harvested during summer of 2006-timber sale 72-001-05-01. All jack pine and aspen was removed leaving oak and red pine as residual. The stand is primarily r pine with scattered oak and maple. Several r pine in excess of 20" dbh. Southern portion of stand is more reflrctive of a clear cut with good oak regen. There are pockets of young aspen regen scattered thru out stand. There is about 30 sqft of residual BA of oak, r pine and r maple. There is a home in the SE corner. Stand is entirely PArVHa/PArVVb. Ground vegetation would not be listed due to snow.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	3102 - Grass	1.3	No	Low	Breitburn Well Site. Well # B2-15 Permit # 55044
8	3102 - Grass	1.3	No	Low	Breitburn Well Site. Well # C1-15 Permit # 55037
13	3102 - Grass	1.4	No	Low	Breitburn well site. Well # C3-15 Permit # 55038
16	3102 - Grass	1.4	No	Low	Breitburn Well site. Well # D2-15 Permit # 55045
20	3102 - Grass	1.7	No	Low	Inactive well site. Miller Brothers Well # 1-15 Permit # 34660
22	11 - Low Intensity Urban	3.1	No	Unspecified	Military Road
23	3102 - Grass	1.5	No	Low	Breit Burn Well Site Well # D4-15 Permit # 55030