



Compartment Review Presentation

Grayling Forest Management Unit

Compartment 269

Entry Year 2015

Acreage: 1,789

County Crawford

Management Area: Camp Grayling

Revision Date:

Stand Examiner: Scott Shooltz

Legal Description:

T 28N R 02W Sections 1, 2, & 3

Identified Planning Goals:

The primary goal is to provide for National Guard training while maintaining health, productivity, species and structural diversity and sustainability through the compartment. Continue cutting in the aspen and oak stands to maintain age class diversity and stand vigor/health. Manage the lowland aspen in the river valley for deer and ruffed grouse. All state land is either Military Board land or long-term lease land. Thus, military activities take precedence over other management activities.

Soil and topography:

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Coldwater Shale. There is not an economic use for the Coldwater Shale. The nearest gravel pit is located in Section 24 and potential is thought to be good in the upland areas. Some of the compartment is leased for oil and gas. The Antrim Shale has been developed for gas production just to the east.

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

Some of the trail roads are difficult to travel due to military activities. The far western portion of the compartment is part of the Range 40 Complex Air-to-Ground Range. The Compartment receives heavy military use during portions of the year. The compartment consists of solid state ownership except for two private parcels in section 1. Section 3 is Military Board land. Sections 1 and 2 are State of Michigan DNR land leased to the military under L-1479 (Act 154, P. A. 1935). The long term lease provides for usage by the military during encampment, with no permanent buildings or improvements to be erected.

Unique Natural Features:

The North Branch of the AuSable River and its associated river valley traverses through the eastern portions of the compartment. There is a small area of Kirtland's Warbler habitat in the southeast corner of the compartment.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

The North Branch of the AuSable River is designated as a Natural River. The southeast corner of the compartment is Kirtland's Warbler habitat. The far western portion of the compartment is part of the Range 40 Complex Air-to-Ground Range. Several military "Firing Points" are located in the compartments. The compartment receives heavy military use during portions of the year.

Watershed and Fisheries Considerations:

The North Branch of the AuSable River is designated as a "Natural River". Lonesome Lake is in the middle of Section 03.

Wildlife Habitat Considerations:

Continue to treat oak and aspen stands to maintain age class diversification and stand vigor and health. Provide some cutting of the lowland aspen in the North Branch of the AuSable River for Ruffed Grouse habitat improvement.

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 800 feet. Beneath the glacial drift is the Coldwater Shale. There is not an economic use for Coldwater Shale. The nearest gravel pit is located in Section 24 and potential is thought to be good in the upland areas. Some of the compartment is leased for oil and gas. The Antrim Shale has been developed for gas production just to the east.

Vehicle Access:

Twin Bridge Road (F-97) is the only paved county road in the compartment. The river limits access into the Compartment from the east and the Range 40 Complex limits access from the west. The road system in the compartment consists mainly of poor dirt roads; some of which are mainly loose sand. The rugged terrain on the west side of the compartment limits access into some areas. No existing roads need to be closed at this time. All new roads created through management activities are to be closed upon completion.

Survey Needs:

There are two driveways in the SESE of Section 01 that may be in trespass on state land. These two driveways provide access to the private parcel in the SWSE of Section 01. The second private parcel is the SWNE of Section 01. No survey markers were found to identify the boundary.

Recreational Facilities and Opportunities:

There is a trail road to the North Branch of the AuSable River from F-97 which provides access for fishing. Lonesome Lake is located in the middle of Section 03, which provides some recreational opportunities. Shupac Lake State Forest Campground is located approximately 1½ miles south of the compartment.

Fire Protection:

The only hazardous fuel type is located in the southeast corner of the Compartment. Access for fire protection is not good within the Compartment because the river limits access on the east and the Range 40 Complex limits access on the west. The trails roads are in rough condition and many are made of loose sand. The rugged terrain on the west side of the Compartment limits access by fire equipment. Lonesome Lake and the North Branch of the AuSable River can be utilized as water access points.

Additional Compartment Information:

None.

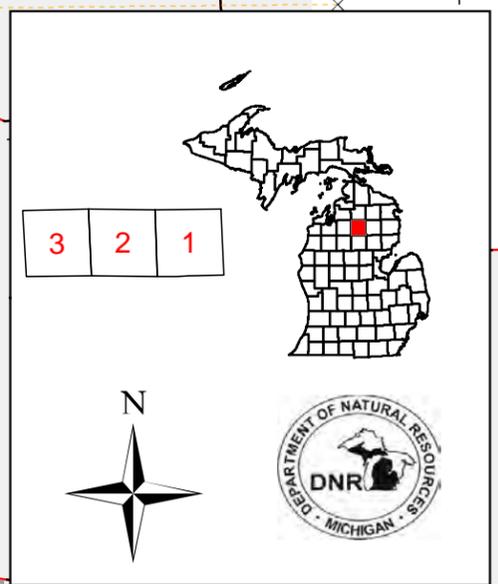
The following reports from the Inventory are attached:

- 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: 269
 T28N R02W Sec. 01, 02, 03
 County: Crawford
 Unit: Grayling
 YOY: 2015
 Acres: 1,789 GIS Calculated
 Examiner: Scott Shooltz
 Map Revised: 09/03/2013
 Map Phase: Pre-Review

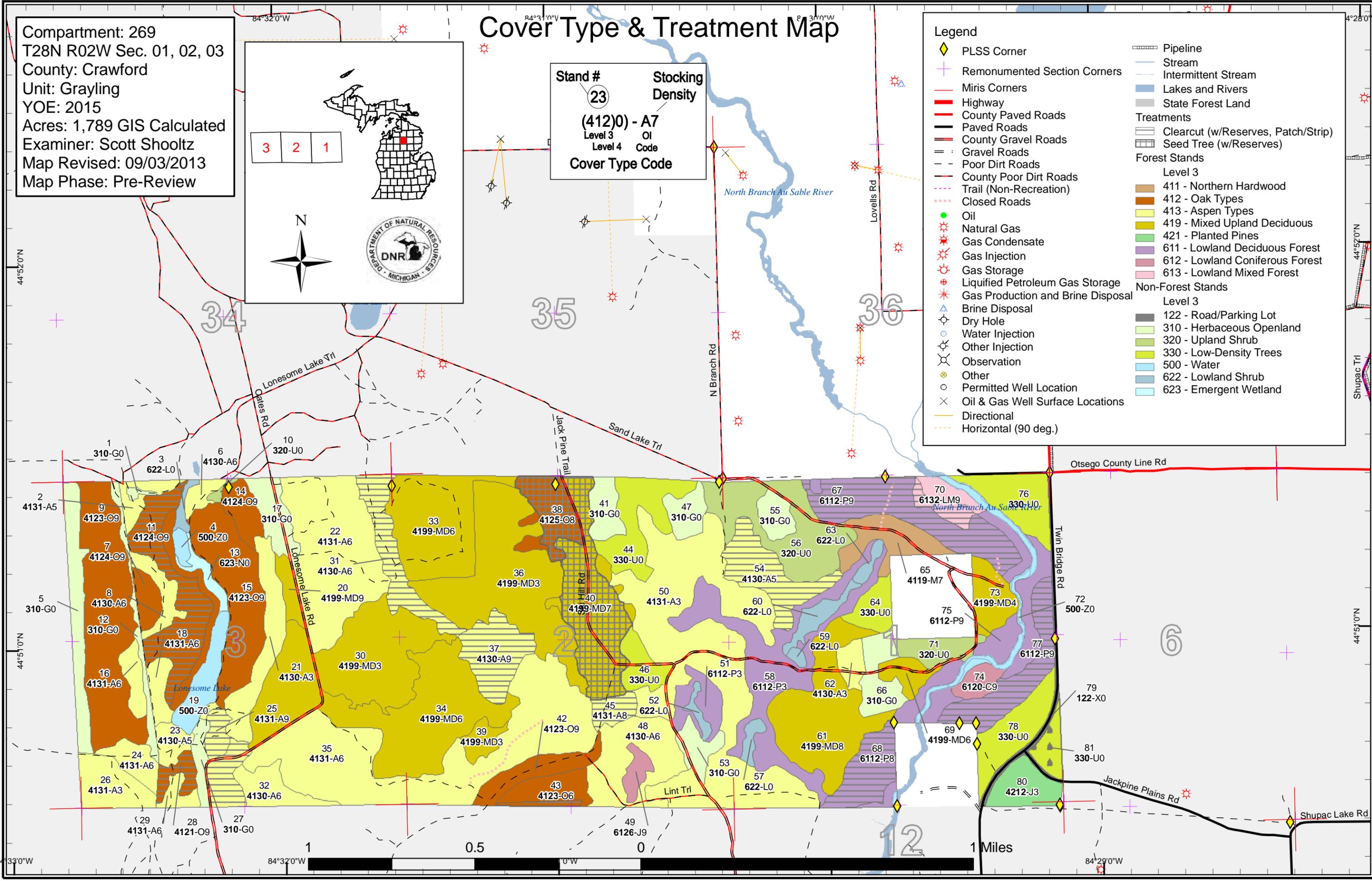


Cover Type & Treatment Map

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

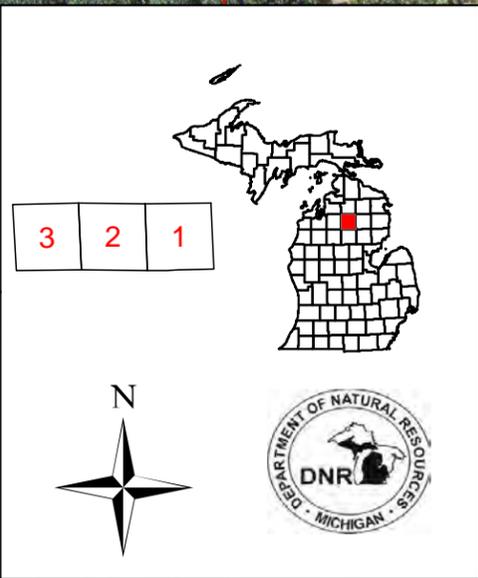
Legend

◆ PLSS Corner	▬ Pipeline
✚ Remonumented Section Corners	— Stream
— Miris Corners	- - - Intermittent Stream
— Highway	▬ Lakes and Rivers
— County Paved Roads	▬ State Forest Land
— County Gravel Roads	Treatments
— Gravel Roads	▬ Clearcut (w/Reserves, Patch/Strip)
— Poor Dirt Roads	▬ Seed Tree (w/Reserves)
— County Poor Dirt Roads	Forest Stands
- - - Trail (Non-Recreation)	Level 3
⋯ Closed Roads	▬ 411 - Northern Hardwood
● Oil	▬ 412 - Oak Types
⊛ Natural Gas	▬ 413 - Aspen Types
⊛ Gas Condensate	▬ 419 - Mixed Upland Deciduous
⊛ Gas Injection	▬ 421 - Planted Pines
⊛ Gas Storage	▬ 611 - Lowland Deciduous Forest
⊛ Liquefied Petroleum Gas Storage	▬ 612 - Lowland Coniferous Forest
⊛ Gas Production and Brine Disposal	▬ 613 - Lowland Mixed Forest
⊛ Brine Disposal	Non-Forest Stands
⊛ Dry Hole	Level 3
⊛ Water Injection	▬ 122 - Road/Parking Lot
⊛ Other Injection	▬ 310 - Herbaceous Openland
⊛ Observation	▬ 320 - Upland Shrub
⊛ Other	▬ 330 - Low-Density Trees
○ Permitted Well Location	▬ 500 - Water
⊛ Oil & Gas Well Surface Locations	▬ 622 - Lowland Shrub
— Directional	▬ 623 - Emergent Wetland
— Horizontal (90 deg.)	



84°33'0"W 84°32'0"W 84°31'0"W 84°30'0"W 84°29'0"W
 44°52'0"N 44°51'0"N 44°50'0"N 44°49'0"N 44°48'0"N
 1 0.5 0 1 Miles

Compartment: 269
 T28N R02W Sec. 01, 02, 03
 County: Crawford
 Unit: Grayling
 YOY: 2015
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 Map Revised: 09/03/2013
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Stand Boundary Map

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

Legend

- ◆ PLSS Corner
- Miris Corners
- ✚ Remonumented Section Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- ⋯ Closed Roads
- Directional
- Horizontal (90 deg.)
- × Oil & Gas Well Surface Locations
- 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 Wells Plugged Wells
- Pipeline
- Stream
- Intermittent Stream
- Stand Boundaries

Forest Stands

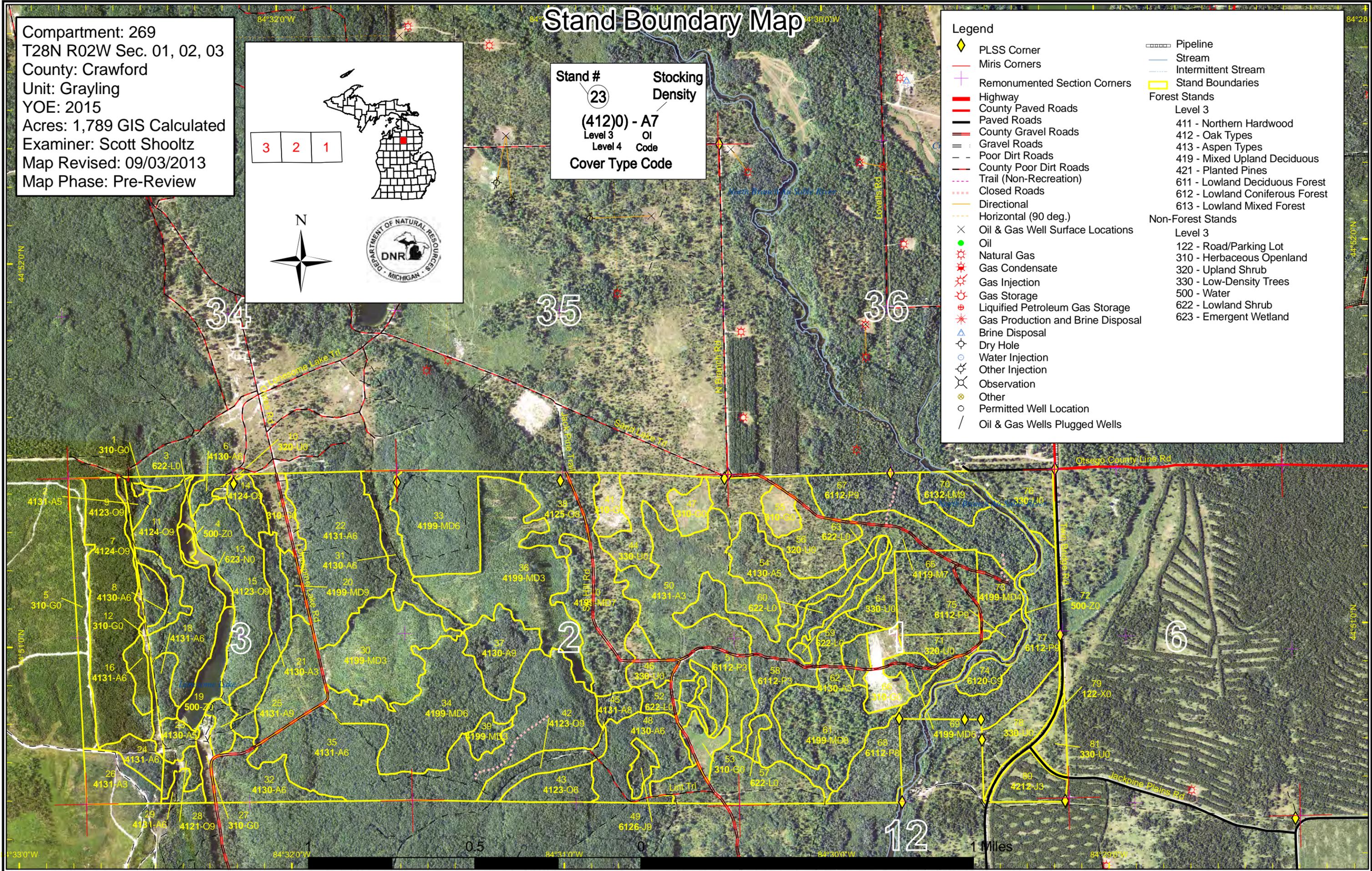
Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

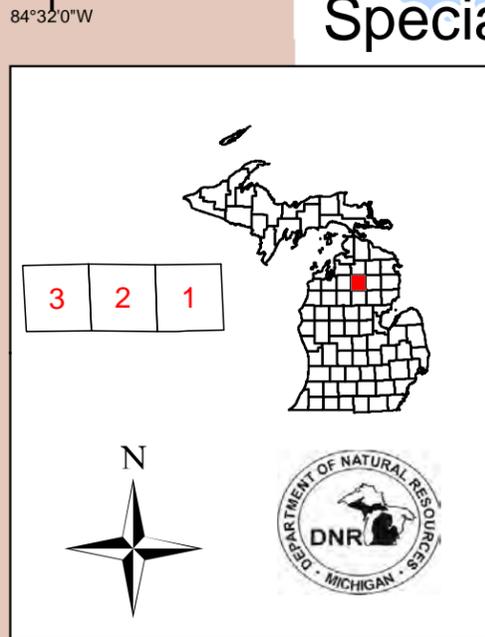
Level 3

- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



Special Conservation Areas & Site Conditions Map

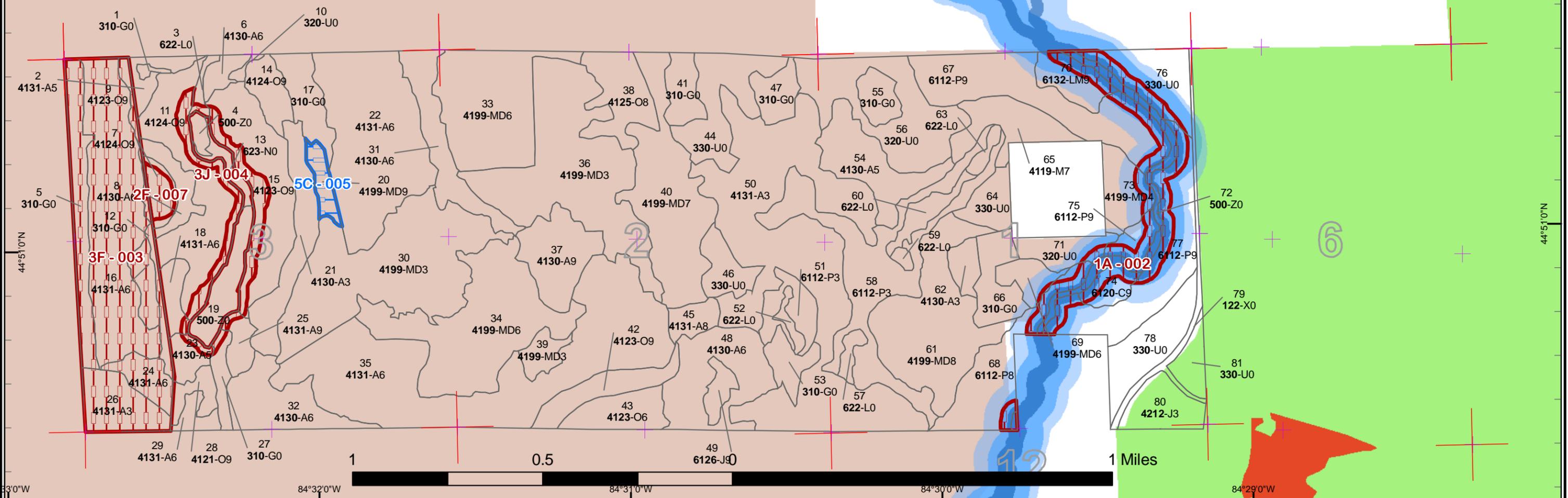
Compartment: 269
 T28N R02W Sec. 01, 02, 03
 County: Crawford
 Unit: Grayling
 YOE: 2015
 Acres: 1,789 GIS Calculated
 Examiner: Scott Shooltz
 Map Revised: 09/03/2013
 Map Phase: Pre-Review



Stand #
 23
Stocking Density
 (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)
- Unavailable (Factor - Number)
- Site Condition Type
- Available Factors W/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 1A: Federal/State/Local Law
- 2F: Too steep
- 3F: Military easement / lease
- 3J: Water quality / BMPs (stream, river, or lake)
- Dedicated Special Conservation Areas
- Cold Water Streams
- Ecological Reference Areas
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Essential Habitat (Kirtland Warbler)
- High Priority Trout Stream Buffer
- Research, Development, and Military Lands



84°32'0"W

84°29'0"W

84°28'0"W

44°52'0"N

44°52'0"N

44°51'0"N

44°51'0"N

84°33'0"W

84°32'0"W

84°31'0"W

84°30'0"W

84°29'0"W

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	152	30	154	16	152	50	0	7	7	0	0	0	0	0	567
Cedar	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7
Herbaceous Openland	102	0	0	0	0	0	0	0	0	0	0	0	0	0	102
Jack Pine	0	0	15	0	0	5	0	0	0	0	0	0	0	0	20
Low-Density Trees	98	0	0	0	0	0	0	0	0	0	0	0	0	0	98
Lowland Aspen/Balsam Poplar	0	68	0	0	0	0	127	0	0	0	0	0	0	0	196
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	12	0	0	0	12
Lowland Shrub	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20
Marsh	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Mixed Upland Deciduous	160	0	56	14	75	0	0	0	56	58	0	0	0	0	419
Northern Hardwood	0	0	0	0	0	0	0	0	19	0	0	0	0	0	19
Oak	0	0	15	0	0	0	0	197	0	21	0	0	0	0	232
Upland Shrub	54	0	0	0	0	0	0	0	0	0	0	0	0	0	54
Urban	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Water	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30
Total	628	98	239	30	227	55	127	203	82	79	19	0	0	0	1789



Report 2 – Proposed Treatment Summaries

Grayling Mgt. Unit
Year of Entry 2015

Compartment 269
Total Compartment Acres: 1,789

Acres by Treatment Type

Commercial Harvest - 301 Tree Planting - 0 Other - 0
 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>
	2	0	0	0	0	0	2
Aspen Types	96	0	0	0	0	0	96
Lowland Deciduous Forest	89	0	0	0	0	0	89
Lowland Mixed Forest	5	0	0	0	0	0	5
Mixed Upland Deciduous	0	0	48	0	0	0	48
Oak Types	43	0	17	0	0	0	60
Total	236	0	66	0	0	0	301



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
	72269_OYOE_cc	2.0					Harvest	Clearcut	4131 - Aspen, Oak	Fld. Tr. Bdy. - Incomplete
<p><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</p> <p><u>Specs:</u> in comp 268 stand 28. Set up concurrent with compt 268 (2014 YOE) stand 28.</p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u> Natural regen survey. Natural regen goal is a mixture of aspen, oak and hardwoods.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2013</p>										
11	72269011-Cut	36.6	4124 - Red with White Oak	High Density Log	75	81-110	Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Stand consists of oak ridges and aspen valleys. Apply retention by area not by BA. This is to maximize oak stump sprouting. Focus retention areas on inoperable slopes and keep them away from aspen pockets. Leave all white and red pine.</p> <p><u>Other</u> <u>Comments:</u> Harvest as far up slopes as possible without causing extensive damage. Treatment boundary buffers Lonesome Lake and inoperable areas along the lake.</p> <p><u>Next</u> <u>Steps:</u> Natural Regeneration Survey. Oak is the primary management objective but any mix of oak, aspen, or red maple would be acceptable.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										
25	72269025-Cut	5.8	4131 - Aspen, Oak	High Density Log	75	111-140	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Cut 2" and up. Leave white pine pocket to the west as retention. Do not apply retention by BA due to small stand in order to maximize oak stump sprouting. Previously harvested adjacent stands have had success with this prescription.</p> <p><u>Other</u> <u>Comments:</u> Protect slopes during harvest.</p> <p><u>Next</u> <u>Steps:</u> Natural Regeneration Survey. A mix of aspen and oak will be acceptable.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										
28	72269028-Cut	6.3	4121 - Oak, Aspen	High Density Log	75	51-80	Harvest	Clearcut	4121 - Oak, Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Cut 2" and up. Do not apply within stand retention because of small stand size. Harvest as far up slopes as possible.</p> <p><u>Other</u> <u>Comments:</u> Utilize low density area in between oak ridges or east side of stand for decking.</p> <p><u>Next</u> <u>Steps:</u> Natural Regeneration Survey. An even mix of oak and aspen will be considered a success. Also will accept a mixed upland deciduous type.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										
31	72269031-Cut	22.2	4130 - Aspen	High Density Pole	44	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Cut 2" and up. Leave all white pine and red pine. Mark a few healthy oak for retention as well.</p> <p><u>Other</u> <u>Comments:</u> Most of the aspen in this stand has heart rot and is deteriorating. Red maple saplings are growing into the canopy. Stand should be cut fairly clean to allow aspen to compete.</p> <p><u>Next</u> <u>Steps:</u> Natural Regeneration Survey. An aspen stand with a mix of red maple and oak will be considered a success.</p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>										



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
32 72269032-Cut	11.5	4130 - Aspen	High Density Pole	44	51-80	Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal

Prescription Cut 2" and up. Do not leave retention due to small stand size.

Specs:

Other Comments: This prescription splits stand 32. The west half of stand 32 is quaking aspen and the east half is bigtooth aspen/oak. The bigtooth aspen along with the oak is still growing vigorously but the quaking aspen is starting to stagnate.

Next Steps: Natural Regeneration Survey. Acceptable regeneration would be quaking aspen with a minor component of oak and red maple.

Proposed Start Date: 10/01/2014

37 72269037-Cut	23.7	4130 - Aspen	High Density Log	55	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription Cut 2" and up except leave all red pine. In addition mark out pockets of younger aspen stems for retention.

Specs:

Other Comments: Access to this stand will be from either the closed road to the south of this stand or by constructing a temporary road through the south portion of stand 31.

Next Steps: Natural Regeneration Survey. A fully stocked quaking aspen stand will be acceptable. Red maple may also become more prevalent.

Proposed Start Date: 10/01/2014

38 72269038-Cut	17.4	4125 - Black, N. Pin Oak	Medium Density Log	93	81-110	Harvest	Seed Tree with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal
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Prescription Cut this stand 2" and up leaving 10 - 20 sq ft/acre of healthy mature oak as a seed source and for mast. Favor white oak as it is longer lived and more favorable to wildlife. Avoid placing retention trees near aspen pockets when possible. Do not cut white pine.

Specs:

Other Comments: Fingers of this stand were left out because they are retention pockets from the adjacent stand. Do not include these in this sale.

Next Steps: Natural Regeneration Survey. A mix of red maple, oak, aspen will be acceptable.

Proposed Start Date: 10/01/2014

40 72269040-Cut	48.2	4199 - Other Mixed Upland Deciduous	Low Density Log	93	1-50	Harvest	Seed Tree with Reserves	3301 - Low Density Deciduous Trees	Cmpt. Review Proposal
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Prescription Cut this stand 2" and up leaving 10 sq ft/acre of healthy mature oak as a seed source and for mast. Favor white oak as it is longer lived and more favorable to wildlife. Leave the few jack pine and red pine stems for diversity. Protect advanced oak regeneration already in place.

Specs:

Other Comments: The goal of this harvest is to try and maintain an oak savannah type on the landscape through the use of harvesting.

Next Steps: An oak savannah type landscape is the primary objective. Will accept a mix of aspen and red maple patches in this stand as well.

Proposed Start Date: 10/01/2014

45 72269045-Cut	6.9	4131 - Aspen, Oak	Medium Density Log	83	51-80	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
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Prescription Mark to leave 10 - 20 healthy mature red and white oak throughout this stand to serve as retention. Do not leave retention near aspen pockets. Specs: Protect oak advance regeneration pockets. If they must be disturbed due to harvesting make sure they are cut clean and not run over.

Other Comments:

Next Steps: Natural Regeneration Survey. An even mix of oak and aspen will be considered a success. Will also accept any mixed upland deciduous type.

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
54 72269054-Cut	26.2	4130 - Aspen	Medium Density Pole	50	51-80	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Mark large diameter NPO as retention. Also protect hawthorn, serviceberry and a few of the natural brush openings with in the stand. Place the landing in stand 320 in order to maximize aspen regeneration.

Other Comments: Aspen is starting to deteriorate and varies in density. Group with another stand. Also protect firing point corners during harvest.

Next Steps: Natural Regeneration Survey. A medium stocked quaking aspen stand with natural brush openings will be accepted.

Proposed Start Date: 10/01/2014

67 72269067-Cut	43.0	6112 - Lowland Aspen	High Density Log	61	81-110	Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal
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Prescription Specs: Harvest 2" and up. Leave all cedar. Place in retention islands where necessary to increase windfirmness. In addition mark out several, one acre pockets which have dense understory balsam fir for wildlife cover and retention. Leave all red and white pine above 10" DBH.

Other Comments: Harvest this stand during freeze up or dry summer months. Ground is solid but is seasonally wet at times. Treatment boundary buffers intermittent stream. Since this stand is a lowland type, Military specifications will not apply. Stump heights may be left higher than Military specs to aid with winter logging. Leave all tops to protect top soil.

Next Steps: Natural Regeneration Survey. A mix of lowland aspen and lowland conifers will be an acceptable mix of regeneration.

Proposed Start Date: 10/01/2014

68 72269068-Cut	20.0	6112 - Lowland Aspen	Medium Density Log	61	51-80	Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal
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Prescription Specs: Cut 2" and up. Place retention pockets along the Natural River Buffer in order to widen it and provide for retention. Protect important shrub species such as hawthorn.

Other Comments: Harvest during freeze up or dry summer months and place the landing outside of this stand in order to protect the top soil layer. Protect firing point corners. Since this stand is a lowland type, Military specifications will not apply. Stump heights may be left higher than Military specs to aid with winter logging. Leave all tops to protect top soil.

Next Steps: Natural Regeneration Survey. A mix of lowland aspen and lowland conifers will be an acceptable mix of regeneration.

Proposed Start Date: 10/01/2014

70 72269070-Cut	5.3	6132 - Mixed Lowland Forest with Cedar	High Density Log	104	111-140	Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal
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Prescription Specs: Leave all cedar in this stand. Follow aspen as far as possible into this stand up to the Natural River Buffer.

Other Comments: Ground is solid in this stand but it is seasonally wet. Use caution when harvesting. Only harvest during freeze up or dry summer months. Since this stand is a lowland type, Military specifications will not apply. Stump heights may be left higher than Military specs to aid with winter logging. Leave all tops to protect top soil.

Next Steps: Natural Regeneration Survey. A mix of lowland aspen and lowland conifers will be an acceptable mix of regeneration.

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
77 72269077-Cut	26.4	6112 - Lowland Aspen	High Density Log	61	81-110	Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal

Prescription: Harvest 2" and up. Leave all cedar, red pine, and white pine for species diversity. Place retention islands adjacent to the Natural River buffer.
Specs: Preserve conifer species where possible.

Other Comments: Ground is solid but stand is seasonally wet. Harvest during freeze up or dry summer months. Place the landing in stand 78 so as to minimize soil disturbance. Treatment boundary was adjusted to protect the Black Hole fishing area. Since this stand is a lowland type, Military specifications will not apply. Stump heights may be left higher than Military specs to aid with winter logging. Leave all tops to protect top soil.

Next Steps: Natural Regeneration Survey. A mix of lowland aspen and lowland conifers will be an acceptable mix of regeneration.

Proposed Start Date: 10/01/2014

**Total Treatment
Acreage Proposed: 301.5**



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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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#Type! #Type!

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
Scott Shooltz : Examiner

Compartment 269
Year of Entry 2015

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	5C	3J	3F	2F	1A
	Available	Not Available							
567	530	37	Aspen	530		2	34		
7	4	3	Cedar	4					3
20	20		Jack Pine	20					
195	168	27	Lowland Aspen/Balsam Poplar	168					27
12	9	4	Lowland Mixed Forest	9					4
419	416	2	Mixed Upland Deciduous	410	6				2
19	19		Northern Hardwood	19					
232	139	93	Oak	139		21	67	5	
1,471	1,305	167	Total Forested Acres	1,299	6	24	101	5	37
	89%	11%	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 Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	1A: Federal/State/Local Law	56				
Comments: N. Branch AuSable natural river buffer 150 ft. from river edge.							
003	Not Available	3F: Military easement / lease	132				
Comments:							
004	Not Available	3J: Water quality / BMPs (stream, river, or lake)	25	2F: Too steep			
Comments: Buffered Lonesome Lake 100 ft in order to comply with BMP's. Areas that are wider than 100 ft had a slope that was greater than 45%. Harvester could reach down from the top of the ridge but operating on the slope would not be possible.							

Report 5 – Site Conditions

Grayling Mgt. Unit
Scott Shooltz : Examiner

Compartment 269
Year of Entry 2015

005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6
Comments:			
007	Not Available	2F: Too steep	5
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	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
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.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4131 - Aspen, Oak	Medium Density Pole	6.9	40		High disturbance due to military activity. Area is used as a turn around point.
6	4130 - Aspen	High Density Pole	4.9	40		Aspen is approximately 40 yrs. old but varies in age. Older stems are starting to deteriorate.
7	4124 - Red with White Oak	High Density Log	7.2	75	81-110	Stand is an east facing slope which is over a 30% grade. The west end of the stand butts up to the Range 40 fence.
8	4130 - Aspen	High Density Pole	8.8	40		Oak sprouted well. Mostly single to two stems that reached the canopy. Red maple also made it into the canopy but was mostly out competed by the aspen/oak component. Ridge tops provided the best regeneration. Lower along the road came back to poorer quality aspen.
9	4123 - Red Oak	High Density Log	66.6	75		Stand is just inside the Range 40 fence. Looks to be similar coverytype as adjacent oak stands.
11	4124 - Red with White Oak	High Density Log	47.0	75	81-110	(Hilly with more aspen in valleys. Old comment.) Red Oak dominates west facing slopes. White oak component is dominant on east facing slopes. Large diameter aspen stems are a present at the north end and in the valleys of this stand. Evidence of past fire activity is present but minimal fire scars and/or heart rot at the base of the trees was present.
14	4124 - Red with White Oak	High Density Log	10.0	75	51-80	Possible species removal occurred. Large oak canopy with sapling/pole size maple growing into the canopy. Aspen mixed into the canopy at the north end. The red maple is from stump sprout origin. Cored one aspen that was approximately 40 yrs. old and one red maple pole that was approximately the same.
15	4123 - Red Oak	High Density Log	44.8	75	111-140	Large ridge that runs north to south. Poorer quality oak on top. Better quality oak and aspen at lower elevations, primarily on the east and north slopes. West side of the ridge has a dense white pine understory. Few large red pine along lake aged at 110 yrs. old. Pockets of aspen regen. 15 - 20 ft. tall along the west slope.
16	4131 - Aspen, Oak	High Density Pole	7.3	42		Stand is inside the Range 40 fence.
18	4131 - Aspen, Oak	High Density Pole	7.1	42		(Previous Inventory: aspen along trail road smaller then to north cut in valley). Current age matched old OI at 42 yrs old. Canopy is mostly bigtooth aspen with a mix of oak and red maple stump sprouts. Some residual oak and aspen were left from previous harvest. Aged at 75.
20	4199 - Other Mixed Upland Deciduous	High Density Log	6.1	94	51-80	Large overmature oak make up approximately 50% of the canopy but only 20 BA/ac. Most of the BA is made up by red maple and aspen in the 40 yr. old age class or younger which have grown into the canopy.
21	4130 - Aspen	High Density Sapling	23.9	16		Stand was treated in 1996. TS# 0089501 "High Low 269". Regeneration is mostly aspen with a mix of red maple and oak. White oak is single stem. Scattered white and red oak were left from previous sale, less than 10 BA/acre.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4131 - Aspen, Oak	High Density Pole	70.8	44	111-140	North and south ridge runs through the center of the stand, aspen low with oak high. Aspen, red maple, and oak were harvested out of this stand on either side of the ridge. Most of the oak was left on top with scattered individuals at lower elevations. The oak that was left up high is smaller diameter and growing slower than the oak that was left lower.
23	4130 - Aspen	Medium Density Pole	6.7	30		Stand varies in density. A lot of disturbance due to military activity. This stand is in between oak ridges to the south and north and Lonesome Lake to the east. Aspen is more sparse in the south part of the stand with larger stems.
24	4131 - Aspen, Oak	High Density Pole	9.2	30		High disturbance area with in the Range 40 fence. Pole size aspen along road and in low areas. Oak higher up on ridges.
25	4131 - Aspen, Oak	High Density Log	6.6	75	111-140	Oak/aspen makes up the majority of the canopy. Small pocket of white pine in the west edge of the stand next to Lonesome Lake which are younger and smaller in diameter. Few log size red pine right along the lake.
26	4131 - Aspen, Oak	High Density Sapling	17.8	9		Stand was treated in 2004 by AJD Forest Products as part of TS# 720160202 "Range 40 Oak Salvage".
28	4121 - Oak, Aspen	High Density Log	6.3	75	51-80	Two oak ridges in this stand. Oak is more dense on top of ridges with more aspen present at the bottom. Most of the aspen is catfaced at the bottom and rotting. Possibly the result of past fire activity. Oak seems to be healthy. Adjacent stand to the south was cut 20 - 30 yrs ago and is a good mix of aspen, oak, and red maple with the majority of the canopy in aspen/oak.
29	4131 - Aspen, Oak	High Density Pole	4.7	28		Stand was cut in 1985 as part of TS# 710398401 which was a compartment 268 sale. Oak stump sprouted well on ridge tops, overtopping most of the red maple and aspen. Low areas filled in with quaking aspen which is of low quality. A two track runs through the low area of this stand. It is heavily used by military which has caused disturbance.
30	4199 - Other Mixed Upland Deciduous	High Density Sapling	81.1	5		Primary regeneration is a mix of red maple stump sprouts and aspen root suckers. Few oak stump sprouts present most are not overtopped and should persist in the stand. Aspen component is mixed throughout with a few denser pockets. The management objective for this stand is aspen. Stand was cut in 2008. TS# 720740501 "Wandering Oak".
31	4130 - Aspen	High Density Pole	22.2	44	81-110	Aspen overstory declining. Heart rot and black canker abundant throughout the stand. Advanced regen of maple and oak growing into the canopy, maple over oak. Few scattered canopy white and red oak present in the south part of stand.
32	4130 - Aspen	High Density Pole	24.4	44	51-80	Stand varies from aspen in the west to oak/aspen in the east/southeast. The oak component is of stump sprout origin and of medium quality. The aspen component varies in size but is mostly pole.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
33	4199 - Other Mixed Upland Deciduous	High Density Pole	49.4	25		Cut in 1988 as part of TS# 0268601 "Air Show Block". 355 crds mixed oak, 202 crds aspen, and 23 crds red maple (estimated). Stand is a west facing slope. Oak is heaviest up high. Aspen becomes more dominant at lower elevations. Oak is self-thinning, 1-2 stems per clump.
34	4199 - Other Mixed Upland Deciduous	High Density Pole	66.8	44	81-110	Stand was harvested 44 yrs ago. A few pockets of oak and aspen as well as individual stems were left from harvest with an average of 10-20 BA (varies across stand). Aspen and oak component is still growing well and will last another ten years.
35	4131 - Aspen, Oak	High Density Pole	116.0	25		Cut in 1987 as part of TS# 0328601 "Haywire block". Fully stocked stand of oak/aspen. Oak stump sprouts are healthy and most are in a dominate position within the canopy. Stand is a good mix oak/maple pockets and aspen pockets. Center of the stand has open areas of less than an acre each. This area is also heavier to red maple/aspen. Sparse sugar maple stems in the canopy and ironwood/beech in the sub-canopy throughout the east portion of the stand.
36	4199 - Other Mixed Upland Deciduous	High Density Sapling	78.9	5		Red maple stump sprouts and single stem sapplings make up most of the regeneration with in the stand. Oak stump sprouts are minor component but are not overtopped. Aspen is mixed throughout with a few dense clumps. Stand was cut in 2008. TS# 720740501 "Wandering Oak".
37	4130 - Aspen	High Density Log	23.7	55	81-110	Quaking aspen stand. Ranges in size from XL log to pole timber. Larger trees have heart rot and are deteriorating. Pocket of red pine regeneration in the middle of the stand.
38	4125 - Black, N. Pin Oak	Medium Density Log	20.6	93	81-110	Open grown oak stand with aspen pockets. Sparse red maple clumps growing into the canopy. Understory is minimal. Oak is large diameter with large crowns except the west edge where the site index is higher.
39	4199 - Other Mixed Upland Deciduous	High Density Sapling	6.4	25		Stand is less dense than surrounding stands and has a higher mix of red maple and white oak.
40	4199 - Other Mixed Upland Deciduous	Low Density Log	52.0	93	1-50	Scattered oak canopy with pockets of aspen/red maple. High disturbance do to military activity. Mostly black cherry brush is filling in the canopy openings.
42	4123 - Red Oak	High Density Log	14.8	75	81-110	Oak growth rates are still steady. A few large red pine and white pine stems present throughout the stand. Stands to the south and north were harvested 25 years ago. The oak stump sprouted well in these stands, overtopping the aspen in most cases.
43	4123 - Red Oak	High Density Pole	14.7	26	51-80	Cut in 1987 as part of TS# 0278601 "Little Bog Blk". Oak stump sprouted well and is self-thinning. Healthy/fully stocked mixed stand overall. A minor white ash component is present but is infested with emerald ash borer, will not persist. Paper birch and white oak are also present.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	4131 - Aspen, Oak	Medium Density Log	6.9	83	51-80	Previous Inventory: 1929 (83 yrs), matches current age. Canopy is made of mature oak and aspen with the oak more dense to the east. Pockets of younger aspen are growing where oak is less dense, primarily to the west. Understory has advanced oak regeneration with a few individuals growing into the canopy.
48	4130 - Aspen	High Density Pole	33.1	26		Cut in 1987 as part of TS# 720278601 "Little Bog Blk". Majority of the previous stand was aspen. Stand regenerated to bigtooth aspen with quaking aspen in lower areas. A few unmerchantable red maple stems were left from previous harvest.
49	6126 - Lowland Jack Pine	High Density Log	5.5	56	81-110	Lowland jack pine, white pine, spruce of poor quality. Ground is spongy. Blue berry/moss ground cover. Dense understory of white pine/jack pine with a few black spruce in the more open areas. Succeeding to white pine with a mix of jack pine and spruce.
50	4131 - Aspen, Oak	High Density Sapling	133.9	7		Treated in 2006 as part of TS# 720490501 "Warthog Aspen". Aspen is between 8 and 10 ft. Most areas of this stand have regenerated nicely. Southern end is a sparser with more cherry and oak. Super-canopy of red pine and oak is scattered throughout the stand at a low density. More toward the southern end. Red pine varies in size from pole to log.
51	6112 - Lowland Aspen	High Density Sapling	11.5	16		Treated in 1996 as part of TS# 0089501 "High Low 269 Block". Alder is mixed in along low areas.
54	4130 - Aspen	Medium Density Pole	26.2	50	51-80	Low density quaking aspen stand with a mix of open upland brush pockets. Aspen is starting to decline. Mortality is occurring in the older individuals.
58	6112 - Lowland Aspen	High Density Sapling	56.6	16		Treated in 1996 as part of TS# 0089501 "High Low 269 Block". This is low lying aspen with pockets of alder/willow in the middle of it. The lower parts of this stand are seasonally wet.
61	4199 - Other Mixed Upland Deciduous	Medium Density Log	55.8	80	51-80	Oak/red maple canopy. Varies in density, open areas mixed with denser timber. The red maple has 3 - 5 stems per clump and is low quality. The oak is larger with 1 - 2 stems. Mostly cherry brush filling in openings. Few aspen pockets to the north and south.
62	4130 - Aspen	High Density Sapling	6.2	17		Treated in 1996 as part of TS# 0089501 "High Low 269 Block".
65	4119 - Mixed Northern Hardwoods	Low Density Log	18.9	80	1-50	This stand was part of a U2 stand last year of entry. Separated more dense portion out. Maple and N. Pin Oak. Some oak has seeded into the understory. Red maple regeneration is minimal. Mostly cherry brush and serviceberry clumps in the understory.
67	6112 - Lowland Aspen	High Density Log	49.3	61	81-110	Small cedar pockets in the west and east ends. Mature quaking aspen stand. Paper birch and spruce in lower areas of the stand with a dense balsam fir understory. Stand shows evidence of a periodic high water table but is dry most of the year.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
68	6112 - Lowland Aspen	Medium Density Log	29.0	61	51-80	Prescribed last YOE as part of TS# 0089501 "High Low 269 Block". Never harvested stand because of soft ground due to warm winter weather. Mortality is occurring in older stems. Some aspen is filling in where sufficient canopy gaps occur but mostly lowland brush and willow.
69	4199 - Other Mixed Upland Deciduous	High Density Pole	8.1	43	51-80	Stand ranges in BA which is mostly due to red maple clumps. Aspen is spread evenly throughout. 2 large white pine at the west end of the stand have seeded in saplings through half of the stand.
70	6132 - Mixed Lowland Forest with Cedar	High Density Log	12.4	104	111-140	Center of the stand and along the river is primarily cedar and paper birch. Aspen becomes more dominant farther from the river. Mortality is occurring in the aspen and birch. Thick balsam fir understory through out the stand.
73	4199 - Other Mixed Upland Deciduous	Low Density Pole	14.2	30	1-50	Old Comment: red maple with oak overstory. Possibly harvested 30-40 years ago. Older oak super-canopy over a red maple/oak canopy. West side is mostly cherry with sparse maple. East side of the stand is filling in with oak saplings. Few pockets of aspen in the north end.
74	6120 - Lowland Cedar	High Density Log	7.1	104	171-200	Larger cedar patch. Aspen and birch mixed in. Aspen is mature like the adjacent stand. Fills in the openings where cedar is absent. Birch is mixed into the cedar. Cedar looks healthy and growing well.
75	6112 - Lowland Aspen	High Density Log	6.8	61	81-110	Quaking aspen stand with two pockets of n. white cedar. Occasional high water table in this stand. Some mortality is occurring but not as heavy as stand 68.
77	6112 - Lowland Aspen	High Density Log	42.4	61	81-110	Fisheries had objections to harvesting this stand last YOE. Worried if stand was cut the aspen regeneration might attract beavers. Issue because the N. Branch is a designated trout stream. Aspen is over mature and in a state of decline, approximately 60 yrs old which matched previous inventory. In areas with less canopy closure young aspen is filling in but will most likely not make it to the canopy or if it does will not produce a fully stocked stand. Pockets of cedar along the river are less than an acre in size each. Scattered red pine along the road. Heavy deer browse, most occurring on red-oiser dogwood.
80	42120 - Planted Jack Pine	High Density Sapling	14.8	29		Kirtland Warbler management area. Planted in 1984. Tree size class is in between sapling and pole and looks healthy.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	310 - Herbaceous Openland	1.1	No	Unspecified	Military uses this area as a turn around. Aspen/oak saplings are filling in along the perimeter.
3	6220 - Alder/willow	2.6	No	Unspecified	Thick alder pocket. Drains into the north pond of Lonesome Lake. Looks to be wet throughout the year.
4	50 - Water	2.8	No	Unspecified	Lonesome Lake
5	310 - Herbaceous Openland	21.6	No	Unspecified	High disturbance area due to military activity.
10	3205 - Mixed Upland Shrub	1.2	No	Unspecified	
12	310 - Herbaceous Openland	8.5	No	Unspecified	Travel corridor along the east Range 40 fence.
13	6233 - Wet Meadow	4.8	No	Unspecified	Old beaver damn at the north end of this stand regulates the flow of water through it. Primary flow of water is through a 1 ft wide by 1 ft deep drain that runs through the middle of the opening. This stand is wet through most of the year.
17	310 - Herbaceous Openland	13.8	No	Unspecified	Aspen/black cherry filling in the perimeter. Knapweed and sedges are the primary ground cover. High military use area. Opening contains an LZ.
19	50 - Water	14.3	No	Unspecified	Lonesome Lake
27	310 - Herbaceous Openland	6.1	No	Unspecified	Military use/high travel area.
41	3104 - Degraded	9.9	No	Unspecified	Military Firing Point (FP 115).
44	3301 - Low Density Deciduous Tree	26.2	No	Unspecified	Clumps of cherry and serviceberry are primary ground cover. 1-5 large oak per acre as well as a couple aspen clumps of less than an acre. White pine saplings present in the south east part of the stand.
46	3301 - Low Density Deciduous Tree	10.8	No	Unspecified	Mostly black cherry clumps. Few oak saplings filling in along with aspen. Aspen is mostly pole size pockets but there are scattered older stems (not enough to regenerate to a fully stocked stand).
47	3104 - Degraded	9.4	No	Unspecified	Military Firing point (FP 110).
52	6220 - Alder/willow	2.8	No	Unspecified	Stand is seasonally wet.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
53	3104 - Degraded	8.6	No	Unspecified	Military Firing Point (FP 124). Quaking aspen is filling in but should be disturbed by military activity.
55	3104 - Degraded	8.1	No	Unspecified	Military Firing Point (FP 127).
56	3205 - Mixed Upland Shrub	41.4	No	Unspecified	Upland shrub stand covered with sparse large mature oak, a few aspen pockets, and cherry brush/service berry. Some hawthorn and other beneficial shrubs present.
57	6220 - Alder/willow	3.4	No	Unspecified	Seasonally wet alder/willow stand.
59	6220 - Alder/willow	1.5	No	Unspecified	Seasonally wet stand of alder and willow.
60	622 - Lowland Shrub	7.3	No	Unspecified	Seasonally wet stand. Willow/dogwood dominated. Pocket of aspen/spruce in the middle.
63	6220 - Alder/willow	2.9	No	Unspecified	Seasonally wet alder stand.
64	3301 - Low Density Deciduous Tree	9.9	No	Unspecified	Low density maple/oak/aspens. South west corner contains the greatest amount of canopy cover due to an aspen pocket. Stand shows evidence of past fire activity.
66	3104 - Degraded	14.7	No	Unspecified	Military Firing Point. (FP 125 and 126). Quaking aspen is filling in but should be disturbed by military activity.
71	320 - Upland Shrub	10.9	No	Unspecified	Scattered hawthorn in this stand.
72	50 - Water	13.0	No	Unspecified	150 ft. natural river buffer associated with this stand.
76	3301 - Low Density Deciduous Tree	21.5	No	Unspecified	Fisheries used trees from stand for woody debris in the N. Branch Ausable as part of the LWD project. FTP was filled out in 2004 and is in the update folder but does not have a number. Stand was to be used as a wildlife opening afterwards. Filling in with cherry brush oak saplings currently. Still sufficient open space to be considered a non-forested stand.
78	3302 - Low Density Conifer Trees	21.5	No	Unspecified	Sparse jack pine. Larger pocket to the south but not large enough to be its own stand. Sweet fern and sedge is the primary ground cover.
79	122 - Road/Parking Lot	8.4	No	Unspecified	Twin Bridge Rd.
81	3302 - Low Density Conifer Trees	7.7	Natural Regen	Jack Pine	Stand is currently low density jack pine. Part of KW management block Lovells unit.