



COMPARTMENT REVIEW PRESENTATION

GAYLORD FOREST MANAGEMENT UNIT

COMPARTMENT: 101

ENTRY YEAR: 2014

ACREAGE: 2,040

COUNTY: Emmet

Revision Date: 05/11/2012

Stand Examiner: Don Stacks

Legal Description: T37N-R06W, Sections 19-21, 28-30, 32, 33.

Management Goals: To provide for the protection, integrated management and responsible use of a healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan.

Soil and Topography: Blue Lakes loamy sand on very hilly topography.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment consists of mostly contiguous state ownership. Several private residences and small farms are located in, and adjacent to, the compartment. Emmet County and Harbor Springs gun clubs are located in section 33.

Unique, Natural Features: Red-shouldered hawk nests have been documented in and around this compartment in previous years. The potential for unique species of flora and fauna exists within the compartment and are listed in the MNFI compartment notes.

Archeological, Historical, and Cultural Features: Documented archeological sites and potential sites occurring within this compartment are listed in the HAL layer of the GDSE.

Special Management Designations or Considerations: Stand 1 has been nominated as an SCA.

Watershed and Fisheries Considerations: This compartment contains portions of both Central Lake Michigan Management Unit and Northern Lake Huron Management Unit. There are no water bodies within this compartment, so Northern Lake Huron Management Unit has no concerns.

Wildlife Habitat Considerations: This compartment consists mostly of upland hardwoods with a few small aspen inclusions. Some of the hardwoods are going to be treated to provide structural diversity within the stand. One stand is going to be clear cut to provide for some early successional habitat. There is a large component of beech and some oak in this compartment which provides hard mast for white-tailed deer, turkey, and bear.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of coarse-textured glacial till, dune sand along the shoreline and minor glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 1,000 feet. The Devonian Detroit River Group subcrops below the glacial drift. The nearest gravel pit is located one-half mile to the north and potential appears to be good. The nearest oil and gas production, the Antrim Shale gas play, is located 30 miles to the southeast. Most of the Compartment is leased for the Collingwood/Utica Shale Formations exploration.

Vehicle Access: Multiple county and seasonal county roads provide adequate access through, and adjacent to, the compartment. Numerous forest trail roads can also be found throughout the compartment.

Survey Needs: Survey work may eventually be required along several areas of private ownership.

Recreational Facilities and Opportunities: Multiple segments of the designated snowmobile trail run through the compartment. Various outdoor recreational opportunities exist within the compartment.

Fire Protection: This compartment is composed almost entirely of lower risk hardwood fuel types. The Pellston DNR Field Office and VFD are located about fourteen miles to the east of the compartment. Readmond/Friendship VFD is located about two miles to the west.

Additional Compartment Information:

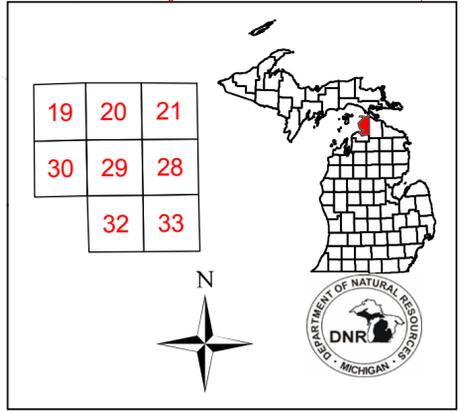
- **The following 3 reports from the IFMAP Inventory System are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **Suggested potential and current SCA's**

Cover Type & Treatment Map

Compartment: 101
 T37N R06W Sec. 19 - 21, 28 - 30, 32, 33
 County: Emmet
 Unit: Gaylord
 YOE: 2014
 Acres: 2,040 GIS Calculated
 Examiner: Don Stacks
 Map Revised: 02/14/2013
 Map Phase: Post-Review

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



Legend

- Remonumented Section Corners
- Miris Corners
- Corners
- Berns
- Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Other Harvest - See Comments

Forest Stands

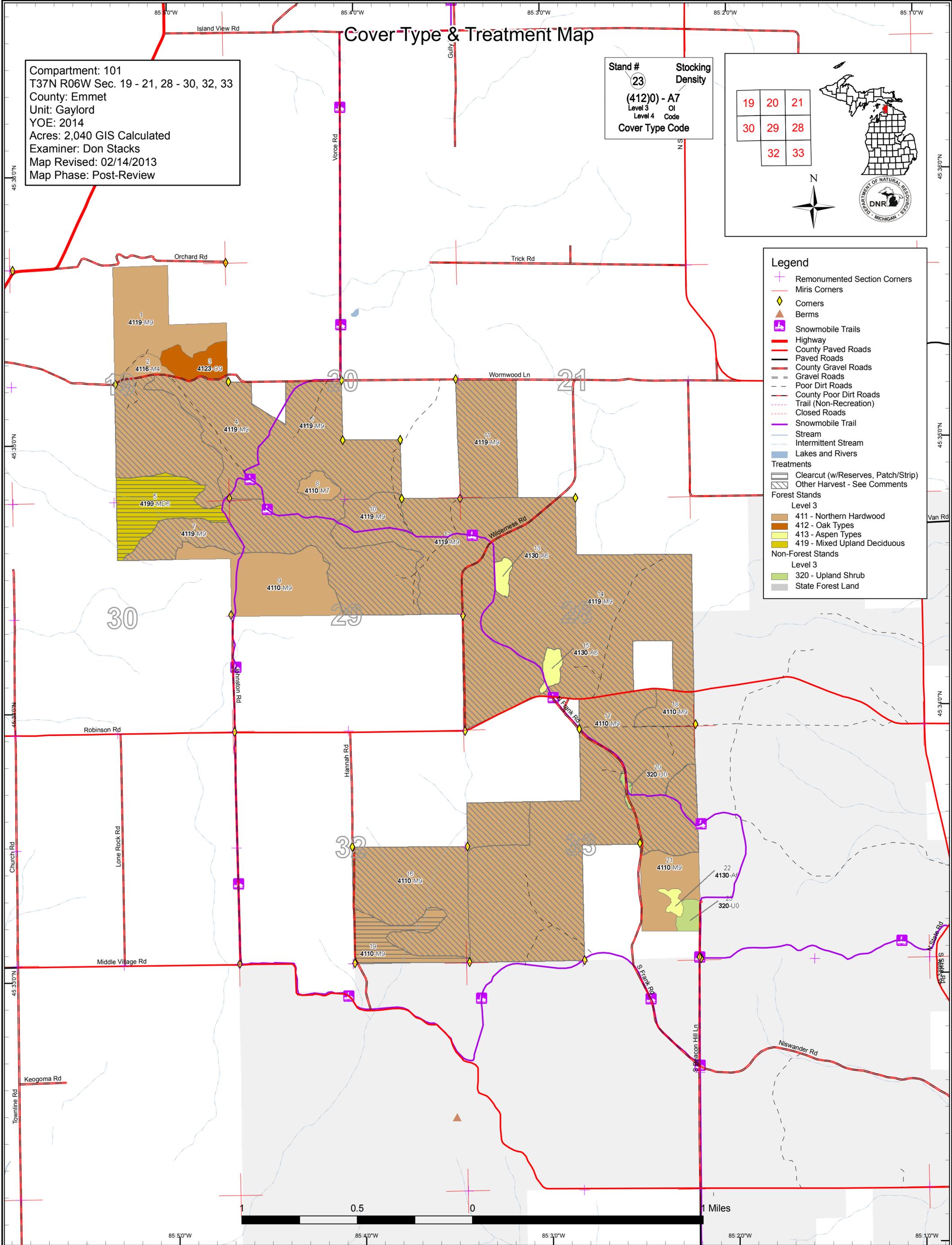
Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous

Non-Forest Stands

Level 3

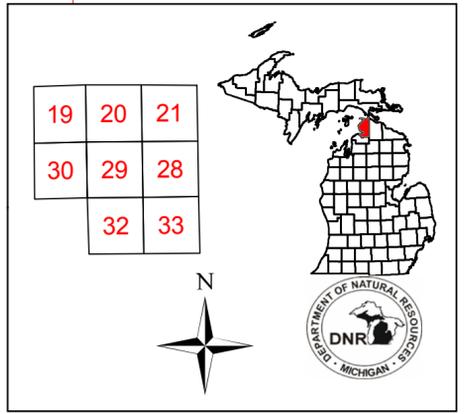
- 320 - Upland Shrub
- State Forest Land



Dedicated & Proposed Special Conservation Area Map

Compartment: 101
 T37N R06W Sec. 19 - 21, 28 - 30, 32, 33
 County: Emmet
 Unit: Gaylord
 YOE: 2014
 Acres: 2,040 GIS Calculated
 Examiner: Don Stacks
 Map Revised: 02/14/2013
 Map Phase: Post-Review

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



- Legend**
- Miris Corners
 - ⊕ Remonumented Section Corners
 - Stand Boundaries
 - Proposed Special Conservation Areas
 - ▨ SCA - Special Conservation Area
 - ▩ Dedicated Special Conservation Areas
 - IFMAP - FMU Approved SCA
 - Forest Stands
 - Level 3
 - 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - Non-Forest Stands
 - Level 3
 - 320 - Upland Shrub

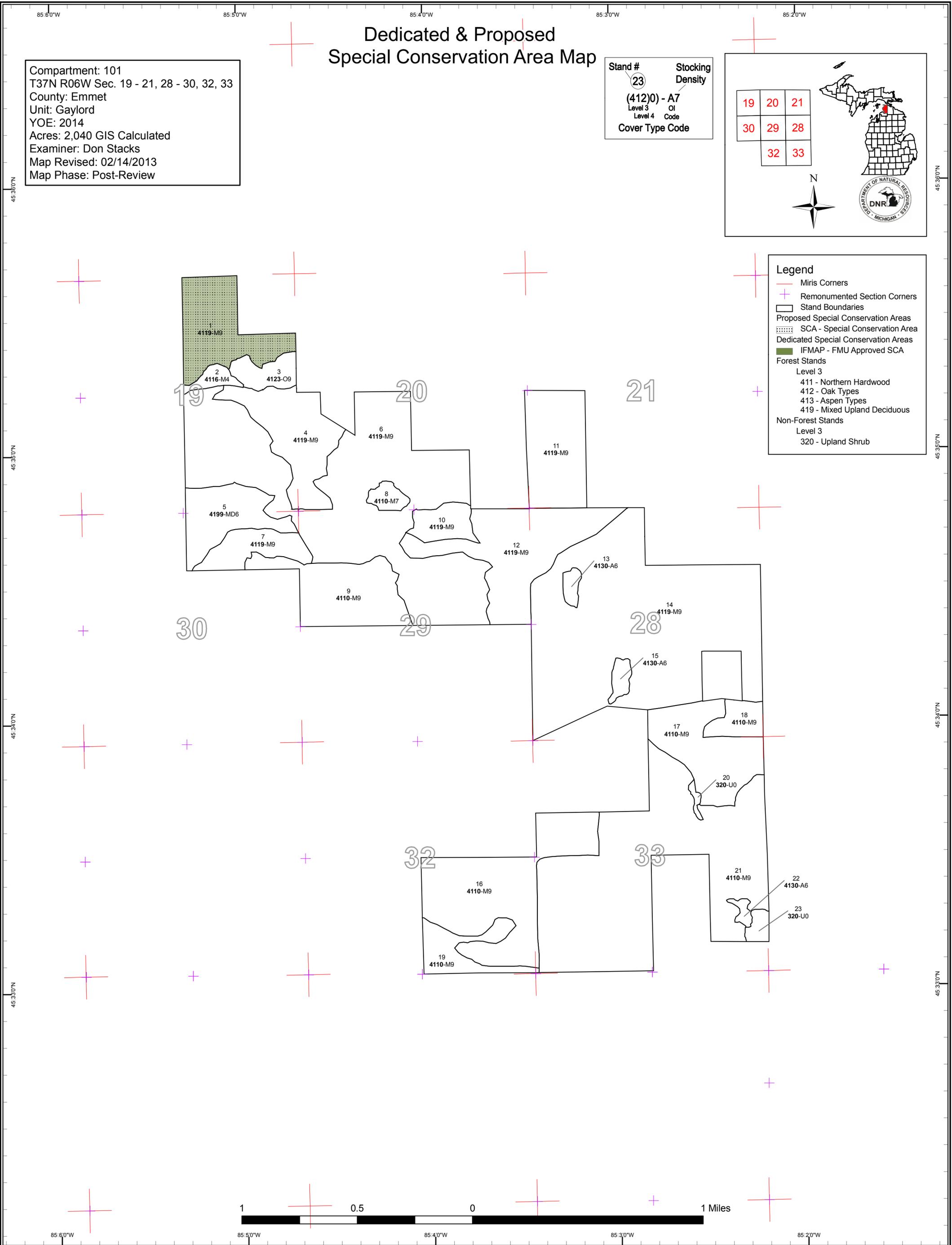
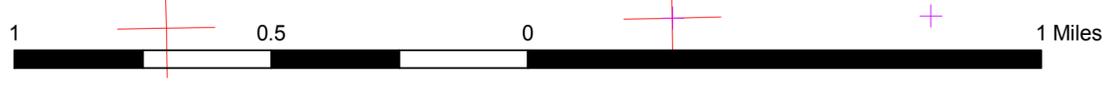
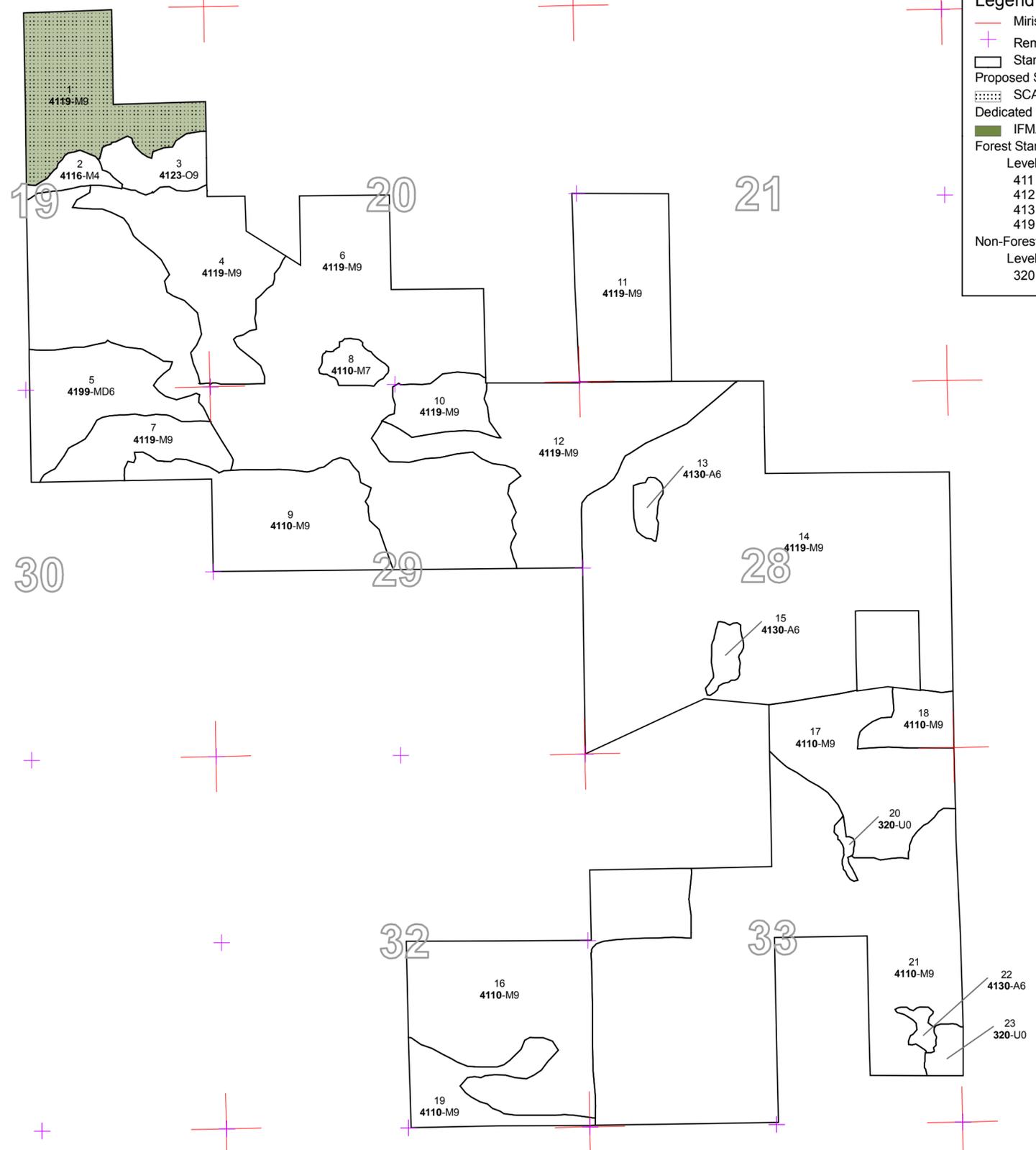


Table 1 – Total Acres by Cover Type and Age Class



	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	0	0	0	19	0	0	0	0	0	0	0	0	0	0	19
Mixed Upland Deciduous	0	0	0	0	0	0	58	0	0	0	0	0	0	0	58
Northern Hardwood	0	0	0	0	0	0	0	0	798	1132	0	0	0	0	1930
Oak	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22
Upland Shrub	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	10	0	0	19	0	0	58	0	798	1154	0	0	0	0	2040



Table 2 – Proposed Treatment Summaries

Gaylord Mgt. Unit
Year of Entry 2014

Compartment 101
Total Compartment Acres: 2040

Acres by Treatment Type

Commercial Harvest - 1763 Tree Planting - 0 Other - 0
 Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Mixed Upland Deciduous	58	0	0	0	0	0		58
Northern Hardwood	36	0	0	0	0	1669		1704
Total	94	0	0	0	0	1669		1763



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	52101004-Cut	84.6	4119 - Mixed Northern Hardwoods	High Density	86	81-110	Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription</u> Harvest stand following 2012 ash and beech salvage guidelines. Overall stand BA will potentially be lower than desirable because of ash and beech salvage operations. Non-winter harvest only because of designated snowmobile trails.</p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.</p> <p><u>Proposed Start Date:</u> 10/01/2012</p>										
5	52101005-ClearCutRes	58.4	4199 - Other Mixed Upland Deciduous	High Density Pole	66	111-140	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription</u> Final harvest (with a couple uncut retention islands) this stand and manage for a new growth of paper birch, big-toothed aspen, and northern hardwood. All red oak and junelberry would be left uncut. Also, leave 1 to 2 paper birch per acre for seed source. Non-winter harvest only because of presence of snowmobile trails, steep hills, and soil scarification.</p> <p><u>Other Comments:</u> Lesser quality hardwood poletimber, with a considerable amount of paper birch and beech, on some steep slopes. Lesser amounts of mixed hardwood and big-toothed aspen sawtimber also present. Scattered large red oak sawtimber can also be found in stand. Adjacent to private property on west side. Smaller diameters, mostly beech and paper birch. Some of the birch has started to die, and the beech is infested heavily with beech scale. White ash and beech windthrow can also be found within the stand. Only 19 acres of younger age class aspen currently exist in this compartment. With the the paper birch becoming overmature, most the beech is infected with beech scale, and white ash windthrow and the potential arrival of EAB, treat this stand this Y.O.E.</p> <p><u>Next Steps:</u> Monitor regen and forest health issues. Desired stand regen should consist of a mix of paper birch, big-toothed aspen, and northern hardwood, at a medium to well-stocked level.</p> <p><u>Proposed Start Date:</u> 10/01/2012</p>										
6	52101006-Cut	369.6	4119 - Mixed Northern Hardwoods	High Density Log	91	81-110	Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription</u> Harvest stand following 2012 ash and beech salvage guidelines. Overall stand BA will potentially be lower than desirable because of ash and beech salvage operations. Non-winter harvest only because of designated snowmobile trails.</p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.</p> <p><u>Proposed Start Date:</u> 10/01/2012</p>										
7	52101007-SeiCut	36.1	4119 - Mixed Northern Hardwoods	High Density Log	96	111-140	Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription</u> Mark stand following 2012 ash and beech salvage guidelines. There may be areas within the stand where stocking level needs to be reduced to 70 - 80 to release crop trees. Overall stand BA will potentially be lower than desirable because of ash and beech salvage operations. Non-winter harvest only because of designated snowmobile trails.</p> <p><u>Other Comments:</u> Large diameter northern hardwood. Areas of significant white ash and beech windthrow. Beech scale also present. Adjacent to MSU study area. Snowmobile trail lies along the east boundary of this stand.</p> <p><u>Next Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.</p> <p><u>Proposed Start Date:</u> 10/01/2012</p>										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
10	52101010- SelCut	24.2	4119 - Mixed Northern Hardwoods	High Density Log	96	111-140	Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription Specs:</u> Stand has already been marked, paint is fading fast. Mark stand following 2012 ash and beech salvage guidelines. There may be areas within the stand where stocking level needs to be reduced to 70 - 80 to release crop trees. Overall stand BA will potentially be lower than desirable because of ash and beech salvage operations. Non-winter harvest only because of designated snowmobile trails.</p> <p><u>Other Comments:</u> --Donald Stacks : 05/09/2012 comments: --Donald Stacks : 05/09/2012 comments:</p> <p>Northern hardwood sawtimber. Stand was marked in 2005 and was originally part of the Ferguson Hardwood. This 20 acre stand was removed from the Ferguson Hardwood sale, but as of this date, has not been harvested. Areas of significant white ash windthrow exist. Beech scale is also found within stand. Paint is fading fast in this stand.</p> <p><u>Next Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.</p> <p><u>Proposed Start Date:</u> 10/01/2012</p>										
11	52101011-Cut	82.7	4119 - Mixed Northern Hardwoods	High Density Log	85	81-110	Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription Specs:</u> Harvest stand following 2012 ash and beech salvage guidelines. Overall stand BA will potentially be lower than desirable because of ash and beech salvage operations.</p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.</p> <p><u>Proposed Start Date:</u> 10/01/2012</p>										
12	52101012- SelCut	124.0	4119 - Mixed Northern Hardwoods	High Density Log	86	111-140	Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription Specs:</u> Mark stand following 2012 ash and beech salvage guidelines. There may be areas within the stand where stocking level needs to be reduced to 70 - 80 to release crop trees. Overall stand BA will potentially be lower than desirable because of ash and beech salvage operations.</p> <p><u>Other Comments:</u> Mix of northern hardwood, mostly sawtimber, on rolling hills. Snowmobile trail runs through stand. Adjacent to county road and private property. Stand has an high component of beech, heavily infested with beech scale. Stand also has a significant stocking of white ash, some of which has been windthrown from possible root issues.</p> <p><u>Next Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.</p> <p><u>Proposed Start Date:</u> 10/01/2012</p>										
14	52101014-Cut	395.7	4119 - Mixed Northern Hardwoods	High Density Log	96	81-110	Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription Specs:</u> Harvest stand following 2012 ash and beech salvage guidelines. Overall stand BA will potentially be lower than desirable because of ash and beech salvage operations.</p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.</p> <p><u>Proposed Start Date:</u> 10/01/2012</p>										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
16	52101016-Cut	155.4	4110 - Sugar Maple Association	High Density Log	91	81-110	Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<u>Prescription</u> Harvest stand following 2012 ash and beech salvage guidelines. Overall stand BA will potentially be lower than desirable because of ash and										
<u>Specs:</u> beech salvage operations.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2012										
17	52101017-Cut	84.8	4110 - Sugar Maple Association	High Density Log	96	81-110	Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<u>Prescription</u> Harvest stand following 2012 ash and beech salvage guidelines. Overall stand BA will potentially be lower than desirable because of ash and										
<u>Specs:</u> beech salvage operations.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2012										
18	52101018- SelCut	20.4	4110 - Sugar Maple Association	High Density Log	96	111-140	Harvest	Other - Specify in Comments	4110 - Sugar Maple Association	Fld. Tr. Bdy. - Incomplete
<u>Prescription</u> Mark stand following 2012 ash and beech salvage guidelines. There may be areas within the stand where stocking level needs to be reduced to										
<u>Specs:</u> 70 - 80 to release crop trees. Overall stand BA will potentially be lower than desirable because of ash and beech salvage operations.										
<u>Other</u>										
<u>Comments:</u> High quality northern hardwood sawtimber, dominated by sugar maple. Ten years ago, stand was removed from prescription as a set aside at the request of private conservation group. Adjacent to county road.										
<u>Next</u>										
<u>Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2012										
19	52101019-Cut	35.7	4110 - Sugar Maple Association	High Density Log	91	81-110	Harvest	Clearcut with Reserves	4119 - Mixed Northern Hardwoods	Fld. Tr. Bdy. - Incomplete
<u>Prescription</u> Final harvest stand, leaving clumps of existing trees for retention purposes. Stand is being clearcut to address pending arrival of emerald ash										
<u>Specs:</u> borer and existing presence of beech bark disease.										
<u>Other</u>										
<u>Comments:</u> White ash and beech comprise almost 3/4 of the tree species found in this stand.										
<u>Next</u>										
<u>Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2012										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	52101021- SeICut	291.2	4110 - Sugar Maple Association	High Density Log	86	111-140	Harvest	Other - Specify in Comments	4110 - Sugar Maple Association	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription</u> Mark stand following 2012 ash and beech salvage guidelines. There may be areas within the stand where stocking level needs to be reduced to</p> <p><u>Specs:</u> 70 - 80 to release crop trees. Overall stand BA will potentially be lower than desirable because of ash and beech salvage operations. Non-winter harvest only because of designated snowmobile trails.</p> <p><u>Other Comments:</u> Stand consists of northern hardwood sawtimber and boltwood, on rolling hills, most of which are not as steep as most hardwood stands in Emmet county. Timber west of Frank Rd. is very high quality with higher BA than timber on the east side of this road. Snowmobile trail runs through and adjacent to this stand. This stand contains a significant white ash component, with some ash windthrow starting to occur. Beech exists at lower densities than ash, with beech scale found throughout the stand. There is also a large amount of high quality sugar maple crop trees in sawlog and boltwood sizes.</p> <p><u>Next Steps:</u> Monitor and evaluate post-salvage regen composition and density. Potential next steps could consist of measures to encourage regen of species other than ash and beech, including, but not limited to, yellow birch, black cherry, red oak, hemlock, white pine, basswood, and sugar maple.</p> <p><u>Proposed Start Date:</u> 10/01/2012</p>										

**Total Treatment
Acreage Proposed: 1762.8**

Table 4 -- Treatments Prescribed with a Limiting Factor



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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!

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Type!

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: 0

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
52068014-Cut	40.5	4112 - Maple, Beech, Cherry Association	High Density Log	89		Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal - Incomplete

Prescription Single tree selection to salvage the beech with BBD, mature White Birch sawtimber, and a minor volume of sugar maple logs. Target residual density is 80 sq.ft. BA/acre leaving some of the quality sugar maple in the 12- 16" dbh size class.

Other This stand has good access from Fox Lake Rd. along the powerline. The terrain is flat to slightly rolling with a good mix of Sugar Maple, Beech, White Birch, and Red Maple ranging from 12" -16" dbh.

Next Monitor the success of regeneration with an acceptable mix of all the overstory species.

Steps:

Proposed

Start Date: 10/01/2014

52105031-Cut1_exp-0	519.0	4119 - Mixed Northern Hardwoods	High Density Log	90		Harvest	Other - Specify in Comments	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal - Incomplete
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Prescription Cut all Beech and Ash except those marked with green paint (species designated). Mark 1 Ash or Beech every 5 Acres for wildlife snags and den trees. In addition: In areas where cutting the beech and ash do not achieve a residual BA of 80 square feet per acre, use single tree selection/crop tree release marking techniques to reduce stand stocking to 80 square feet per acre. In areas where stocking falls below 20 BA mark all trees in that area creating a large regen gap

Other

Comments:

Next

Steps:

Proposed

Start Date: 01/24/2013

52188008-Cut	32.6	4119 - Mixed Northern Hardwoods	High Density Pole	41		Harvest	Clearcut with Reserves	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal - Incomplete
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Prescription Clear Cut all trees two inches or greater in diameter. Follow retention guidelines.

Specs:

Other

Comments:

Next

Regen survey. Acceptable regeneration is a fully stocked stand of northern hardwoods and mixed aspen.

Steps:

Proposed

Start Date: 10/01/2014

52188012_ne w_small_small I-Cut	13.5	4130 - Aspen	High Density Pole	38		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal - Incomplete
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Prescription Clear cut all trees two inches and greater in diameter.

Specs: Retention is a portion of stand 21 that is not being harvested.

Other

Comments:

Next

Regen Survey. Acceptable regenreation is aspen with a mix of hardwood species.

Steps:

Proposed

Start Date: 10/01/2014

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
52188012_sm all-Cut	148.3	4130 - Aspen	High Density Pole	37		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal - Incomplete

Prescription Clear cut all trees two inches and greater in diameter.
Specs: Retention is a portion of stand 21 that is not being harvested.

Other
Comments:

Next Regen survey. Acceptable regeneration is aspen with a mix of hardwood species.
Steps:

Proposed
Start Date: 10/01/2014

52188021_sm all_exp-1-Cut	13.1	6132 - Mixed Lowland Forest with Cedar	High Density Pole	93		Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal - Incomplete
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Prescription Clear cut all trees two inches and greater in diameter.
Specs: Retention is a portion of stand 21 that is not being harvested.

Other
Comments:

Next Regen survey. Acceptable regeneration is a well stocked mix of current species, except Cedar.
Steps:

Proposed
Start Date: 10/01/2014

52188021_sm all_small-Cut	10.8	6132 - Mixed Lowland Forest with Cedar	High Density Pole	93		Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal - Incomplete
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Prescription Clear cut all trees two inches and greater in diameter. Leave all white pine and red pine (4%). Retention is a portion of stand 21 that is not being harvested.
Specs:

Other
Comments:

Next Regen survey. Acceptable regeneration is a well stocked mix of current species, except Cedar.
Steps:

Proposed
Start Date: 10/01/2014

NF_52188002- NonFor	4.2	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
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Prescription Mow, / plant.
Specs:

Other
Comments:

Next
Steps:

Proposed
Start Date: Unspecified

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
NF_52188003-NonFor	1.2	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow, / plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									
NF_52188004-NonFor	1.6	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow, / plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									
NF_52188005-NonFor	1.0	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow, / plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									
NF_52188006-NonFor	3.7	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow, /plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
NF_52188007- NonFor	9.4	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow, / plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									
NF_52188009- NonFor	15.0	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow,/ plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									
NF_52188010- NonFor	4.2	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow,/plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									
NF_52188011- NonFor	7.5	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow,/ plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									

Out of YOE -- Treatments
 Prescribed with No Limiting Factor

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
NF_52188013- NonFor	41.4	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Mow./ plant. <u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> Unspecified</p>									
NF_52188014- NonFor	5.2	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Mow/plant. <u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>									
NF_52188015- NonFor	1.1	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Mow/plant. <u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> Unspecified</p>									
NF_52188016- NonFor1	1.0	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Mow./plant. <u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p> <p><u>Proposed</u> <u>Start Date:</u> 10/01/2014</p>									

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
NF_52188017- NonFor	1.7	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow/plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									
NF_52188018- NonFor	1.2	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow,/plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									
NF_52188019- NonFor	2.2	Unspecified		0		Non-Forest Management	Clearcut	3102 - Grass	Cmpt. Review Proposal - Incomplete
<u>Prescription</u> Mow/plant. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> Unspecified									
Total Treatment Acreage Proposed:		879.7							



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4119 - Mixed Northern Hardwoods	High Density Log	78.6	81	111-140	Mix of northern hardwood and oak sawtimber lying on old Lake Michigan shoreline dunes. Fragile soil with numerous steep valleys and ridges. Stand is overstocked at present. Fair amount of hemlock present.
2	4116 - Mixed N. Hardwood - Aspen	Low Density Pole	9.7	83	1-50	Sparse stand of mixed northern hardwood, big toothed aspen, and northern red oak. Part of stand is on the side of a steep, south facing slope adjacent to seasonal county road.
3	4123 - Red Oak	High Density Log	21.7	91	111-140	High quality northern red oak, mostly sawtimber, with scattered big-toothed aspen and beech also present. Located on very steep, fragile shoreline dunes. Most of stand is inoperable.
4	4119 - Mixed Northern Hardwoods	High Density Log	84.6	86	81-110	Mixed northern hardwood sawtimber, with scattered red oak especially in northern 1/3 of stand. Many steep hills. Designated snowmobile trail adjacent to stand.
5	4199 - Other Mixed Upland Deciduous	High Density Pole	58.4	66	111-140	Lesser quality hardwood poletimber, with a considerable amount of paper birch and beech, on some steep slopes. Lesser amounts of mixed hardwood and big-toothed aspen sawtimber also present. Scattered large red oak sawtimber can also be found in stand. Adjacent to private property on west side.
6	4119 - Mixed Northern Hardwoods	High Density Log	369.6	91	81-110	Large diameter mixed northern hardwood. Lower BA's at present time because of recent selection harvests. Designated snowmobile trail runs through stand. Many hills with steep slopes present. Beech scale and white ash windthrow present in stand. Advanced hardwood regen in southeast corner from 1998 selection harvest.
7	4119 - Mixed Northern Hardwoods	High Density Log	36.1	96	111-140	Large diameter northern hardwood. Areas of significant white ash and beech windthrow. Beech scale also present. Adjacent to MSU study area. Snowmobile trail lies along the east boundary of this stand.
8	4110 - Sugar Maple Association	Low Density Log	10.2	97	1-50	Small, sparse stand of northern hardwood sawtimber on hilly terrain. This stand contained the first known occurrence of beech bark disease in Emmet County. A plan was implemented to try to contain the beech scale to this stand. All beech were harvested within the stand along with a few sugar maple and ash in 2005. Currently, the stand consists almost entirely of lower stocked sugar maple sawtimber, with a very dense growth of raspberry in the understory. Lesser amounts of sugar maple and beech regen can be found throughout the stand. Beech scale was not contained to this stand.
9	4110 - Sugar Maple Association	High Density Log	85.1	86	111-140	Stand consists of a mix of mature northern hardwood sawtimber. Fair amount of white ash windthrow exists in this stand.
10	4119 - Mixed Northern Hardwoods	High Density Log	24.2	96	111-140	Northern hardwood sawtimber. Stand was marked in 2005 and was originally part of the Ferguson Hardwood. Dr. Walters of MSU asked if this stand could be included as part of his hardwood regen study. This 20 acre stand was removed from the Ferguson Hardwood sale, but as of this date, has not been harvested. Areas of significant white ash windthrow exist. Beech scale is also found within stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
11	4119 - Mixed Northern Hardwoods	High Density Log	82.7	85	81-110	Mature mixed northern hardwood stand on rolling hills. Many large diameter trees. Stand received a selection harvest in 2000 - 2001. Lower BA at present. Heavy beech scale present. A fair amount of white ash wind throw from root rot also exists. Adjacent to county road.
12	4119 - Mixed Northern Hardwoods	High Density Log	124.0	86	111-140	Mix of northern hardwood, mostly sawtimber, on rolling hills. Snowmobile trail runs through stand. Adjacent to county road and private property. Stand has a high component of beech, heavily infested with beech scale. Stand also has a significant stocking of white ash, some of which has been windthrown.
13	4130 - Aspen	High Density Pole	6.5	38	1-50	Small aspen stand in transition from saps to small poletimber. Adjacent to snowmobile trail.
14	4119 - Mixed Northern Hardwoods	High Density Log	395.7	96	81-110	High quality mixed northern hardwood sawtimber, adjacent to Robinson Rd. and Wilderness Rd., on rolling hills with some steep slopes present. Designated snowmobile trail runs through stand.
15	4130 - Aspen	High Density Pole	8.1	37	1-50	Small big-toothed aspen stand from 1976 final harvest. Adjacent to snowmobile trail.
16	4110 - Sugar Maple Association	High Density Log	155.4	91	81-110	High quality mixed northern hardwood stand that received selection harvests in various parts of stand in 1997, 2005-2006, and 2011. Rolling hills with some steep slopes present. Harbor Springs Gun Club adjacent to the north.
17	4110 - Sugar Maple Association	High Density Log	84.8	96	81-110	Stand consists of high quality mixed northern hardwood, mostly sawtimber, adjacent to Robinson Rd. and designated snowmobile trail.
18	4110 - Sugar Maple Association	High Density Log	20.4	96	111-140	High quality northern hardwood sawtimber, dominated by sugar maple. Stand was removed from prescription as a set aside at the request of private conservation group. Adjacent to county road.
19	4110 - Sugar Maple Association	High Density Log	35.7	91	81-110	Mixed northern hardwood, mostly sawtimber, with areas of smaller diameter poletimber. Lower BA at present. Heavy sugar maple regen.
21	4110 - Sugar Maple Association	High Density Log	333.6	86	111-140	Stand consists of northern hardwood sawtimber and boltwood, on rolling hills, most of which are not as steep as most hardwood stands in Emmet county. Timber west of Frank Rd. is very high quality with higher BA than timber on the east side of this road. Snowmobile trail runs through and adjacent to this stand.
22	4130 - Aspen	High Density Pole	4.4	38	51-80	Small aspen stand in transition from saps to poletimber from 1975 final harvest.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
20	3205 - Mixed Upland Shrub	2.7	No	Unspecified	Small upland brush stand adjacent to seasonal county road/snowmobile trail. Scattered pin cherry and encroaching hardwood saps/poletimber.
23	3205 - Mixed Upland Shrub	7.7	No	Unspecified	Upland brush and encroaching hardwood saps and poletimber adjacent to private property and seasonal county road/snowmobile trail.

**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
1	Unique Site - SCA	52101001	78.6	Fragile soil, old dune areas with steep slopes. Hemlock component present. Occasional seeps.



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.

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

Conservation Area	Type	Description
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