



Compartment Review Presentation

Pigeon River Country Forest Management Unit

Compartment 31

Entry Year 2015

Acreage: 2,548

County Otsego

Management Area: Pigeon River Country

Revision Date: 05/22/2013

Stand Examiner: Greg Rekowski

Legal Description:

T32N R02W Sections 1, 12, 13, & 24

Identified Planning Goals:

Maintain the current species mix and apply appropriate management techniques to mature stands of timber that are in need of treatment.

Soil and topography:

The terrain ranges from flat to rolling in Sections 12, 13, and 24. Section 1 varies from flat to low lying swamp land east and south of Mud Lake. A variety of sandy soil types occur throughout the upland areas of the compartment with the most common types being Leelanau loamy sands, Blue Lake loamy sands, and Morganlake loamy sands. Lowland areas around Mud Lake are comprised mostly of the Tawas-Lupton and Tawas-Leafriver mucks.

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

The majority of this compartment is surrounded by state ownership. The north line of Section 1 as well as the west, south, and east lines of Section 24 border private property. A 2 acre private inholding is located at the southwest corner of Section 1.

Unique Natural Features:

The only documented occurrence of a rare species in this compartment is the red-shouldered hawk.

Archeological, Historical, and Cultural Features:

None identified.

Special Management Designations or Considerations:

There are no Special Management Designations in this compartment.

Watershed and Fisheries Considerations:

The Little Pigeon River is designated as a Natural River and management activities will be limited within the immediate vicinity of this trout stream. Fishing opportunities are available on Mud Lake although it is not known as a top notch fishing lake.

Wildlife Habitat Considerations:

Treatments in this compartment will maintain age class diversity in aspen and create a large patch of early successional habitat. This large patch should be more resistant to overbrowsing by elk than multiple smaller patches. There is an elk viewing area in this compartment that receives heavy public use and is treated annually to provide grazing opportunity for deer and elk.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and glacial outwash sand and gravel, and postglacial alluvium. Glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Devonian Antrim Shale, quarried for clay/shale and cement products elsewhere in the State. The nearest gravel pit is one-half mile to the east, and potential is considered good, especially in the uplands. This area was previously leased for oil and gas development. The Antrim Shale is present and produces just to the south and the Niagaran reef trend lies to the south and east. The southern portion of the Compartment is probably being drained of Antrim Shale hydrocarbons.

Vehicle Access:

Access is good throughout the compartment.

Survey Needs:

None required.

Recreational Facilities and Opportunities:

A popular elk viewing area is located within Section 13, just north of Sturgeon Valley Road. Mushroom picking, small game hunting, and deer hunting are also popular in this compartment.

Fire Protection:

Access is good in case of any fire suppression efforts, however the fire risk is low in this compartment.

Additional Compartment Information:

Camp Vanderbilt, which was formerly a CCC camp and now houses DNR land management equipment, is located in the compartment.

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**

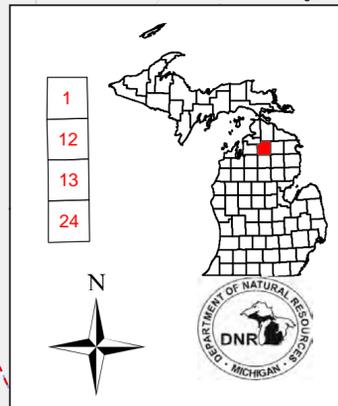
The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatment Map

Compartment: 031
 T32N R02W Sec. 01, 12, 13, 24
 County: Otsego
 Unit: Pigeon River Country
 YOE: 2015
 Acres: 2,548 GIS Calculated
 Examiner: Greg Rekowski
 Map Revised: 06/24/2013
 Map Phase: Pre-Review

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



Legend

- 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
- Pipeline
- Powerline
- Ski Trail
- Hiking Trail
- Bike Trail
- Bike Trails
- Hiking Trails
- Ski Trails
- Stream
- Intermittent Stream
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Prescribed Burn
- Other Treatment - See Comments

Forest Stands

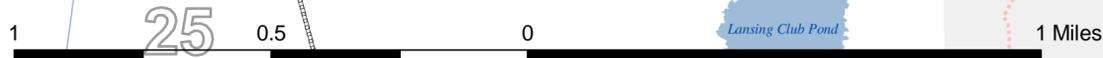
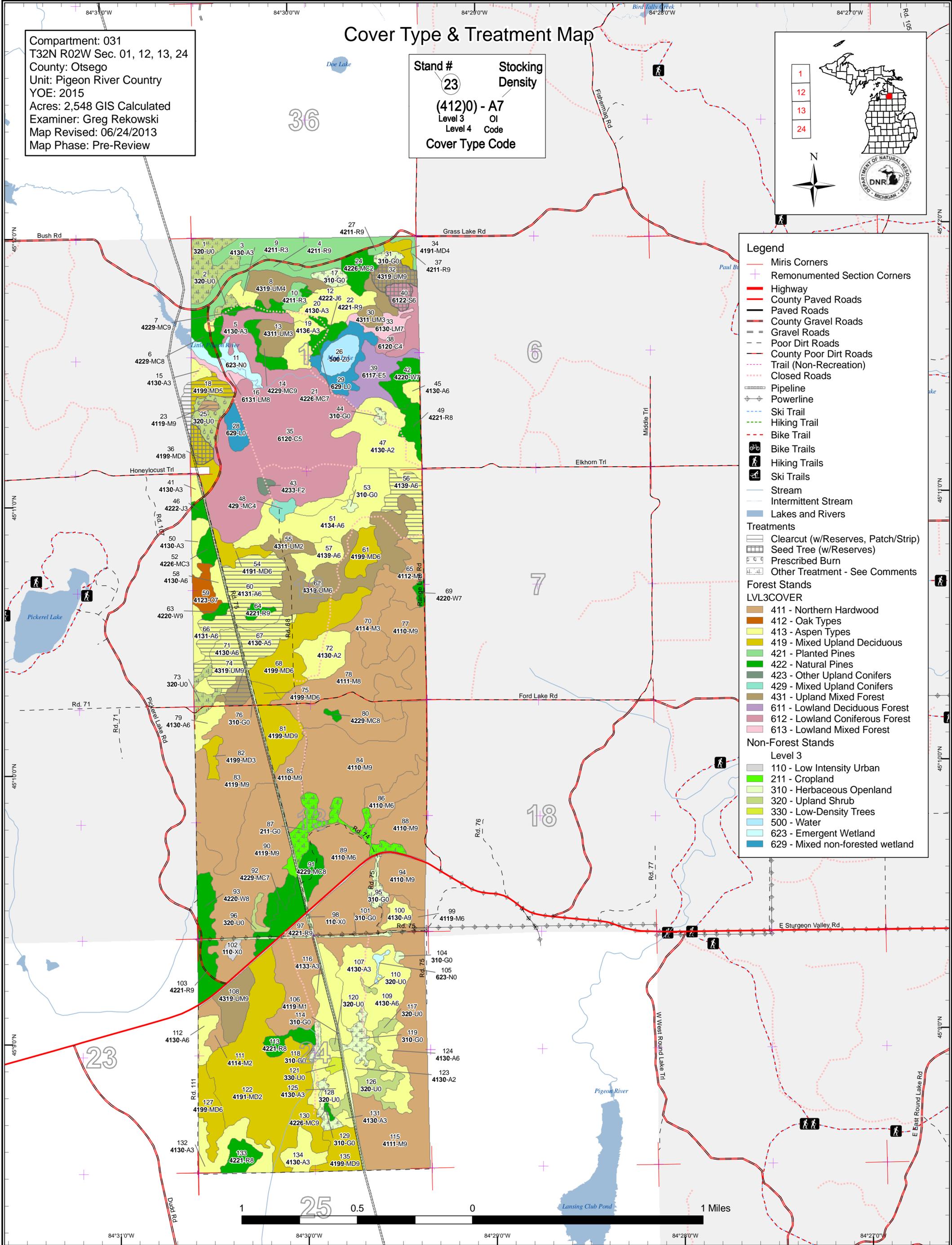
LVL3COVER

- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

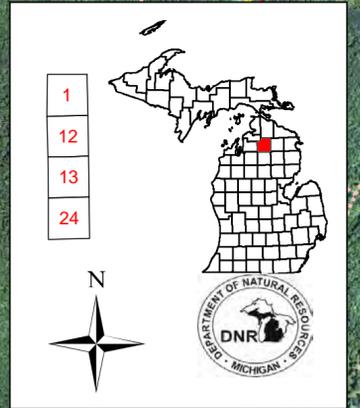
- 110 - Low Intensity Urban
- 211 - Cropland
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland



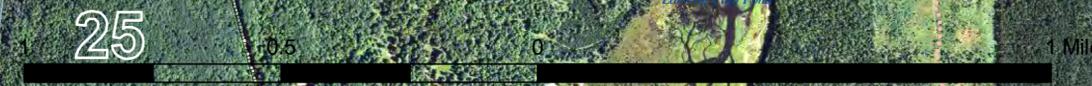
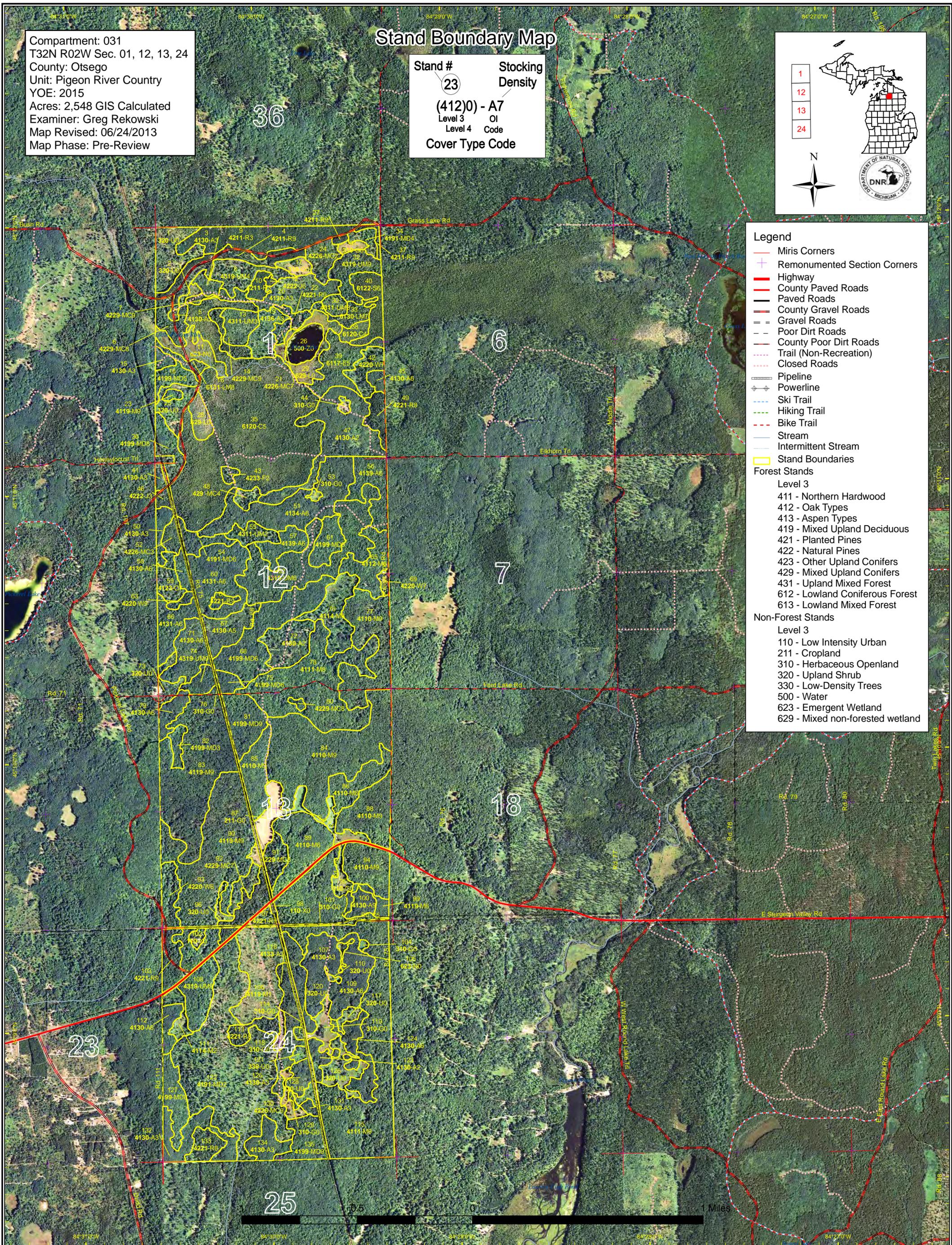
Stand Boundary Map

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



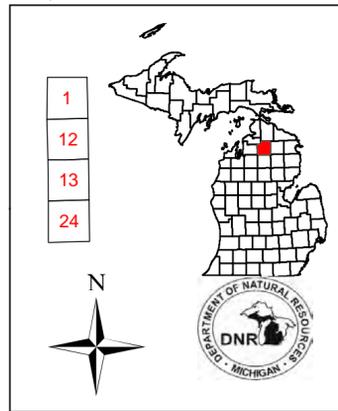
- Legend**
- Miris Corners
 - + Remonumented Section Corners
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
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 - Poor Dirt Roads
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 - Trail (Non-Recreation)
 - Closed Roads
 - Pipeline
 - Powerline
 - Ski Trail
 - Hiking Trail
 - Bike Trail
 - Stream
 - Intermittent Stream
 - Stand Boundaries
- Forest Stands**
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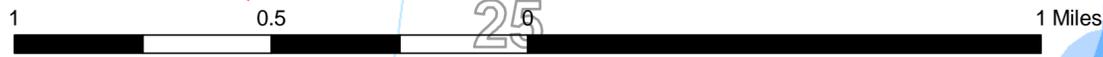
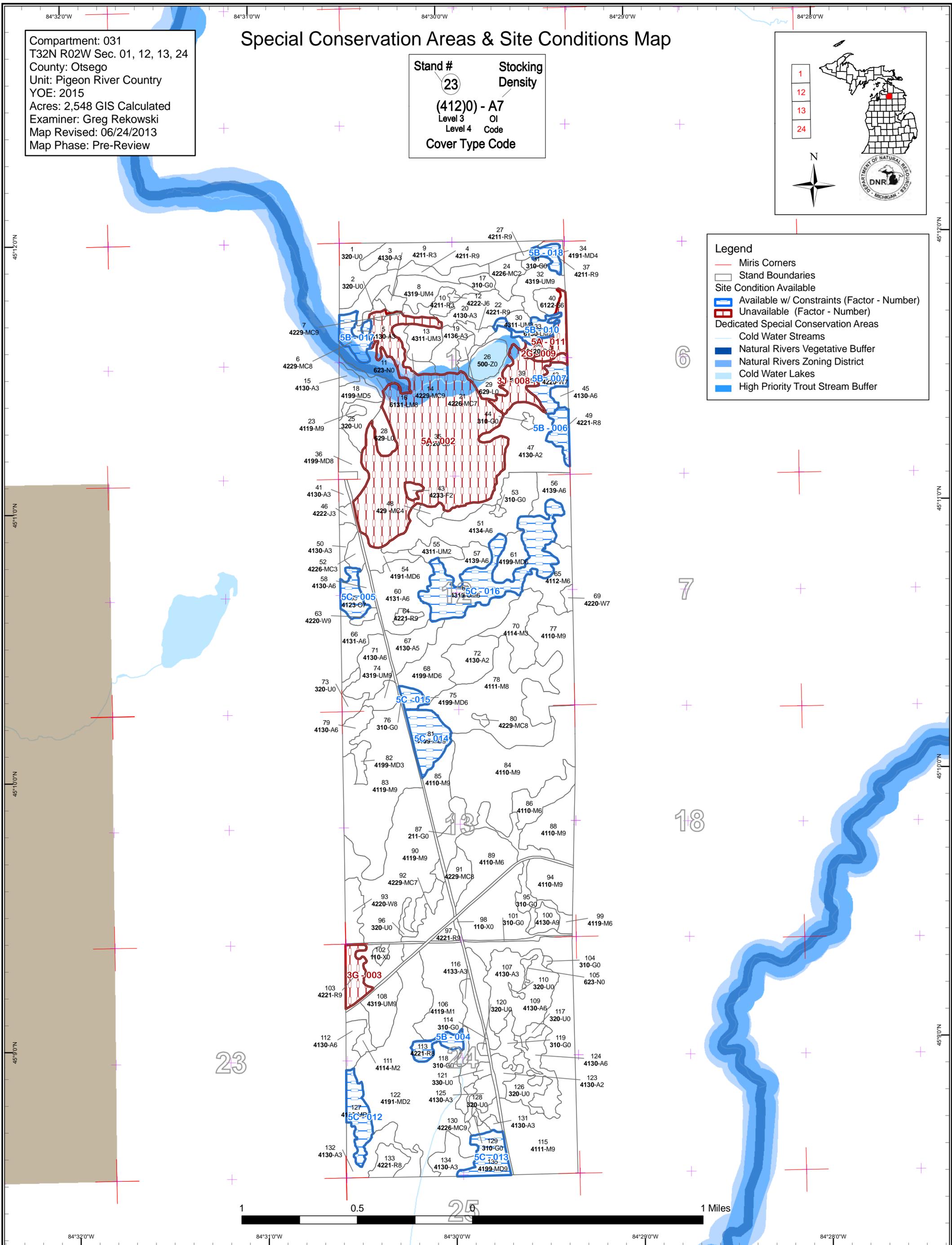
Special Conservation Areas & Site Conditions Map

Compartment: 031
 T32N R02W Sec. 01, 12, 13, 24
 County: Otsego
 Unit: Pigeon River Country
 YOY: 2015
 Acres: 2,548 GIS Calculated
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Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
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Cover Type Code



- Legend**
- Miris Corners
 - Stand Boundaries
 - Site Condition Available
 - ▭ Available w/ Constraints (Factor - Number)
 - ▭ Unavailable (Factor - Number)
 - Dedicated Special Conservation Areas
 - Cold Water Streams
 - Natural Rivers Vegetative Buffer
 - Natural Rivers Zoning District
 - Cold Water Lakes
 - High Priority Trout Stream Buffer



84°32'0"W 84°31'0"W 84°30'0"W 84°29'0"W 84°28'0"W

45°12'0"N

45°11'0"N

45°10'0"N

45°9'0"N

45°12'0"N

45°11'0"N

45°10'0"N

45°9'0"N

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	15	95	138	76	181	0	0	0	0	0	0	0	0	0	505
Cedar	0	0	0	0	0	0	0	0	0	5	0	0	217	0	222
Cropland	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Herbaceous Openland	61	0	0	0	0	0	0	0	0	0	0	0	0	0	61
Jack Pine	0	0	3	0	0	0	1	0	0	0	0	0	0	0	4
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Deciduous	0	0	0	0	24	0	0	0	0	0	0	0	0	0	24
Lowland Mixed Forest	0	0	0	0	0	0	0	5	9	0	0	0	0	0	15
Lowland Shrub	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17
Marsh	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Mixed Upland Deciduous	141	0	6	0	57	18	18	23	23	22	0	0	0	0	308
Natural Mixed Pines	0	0	18	1	8	10	8	4	5	0	0	0	0	12	67
Northern Hardwood	8	73	0	0	27	0	0	51	529	130	0	0	0	0	818
Oak	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11
Red Pine	0	0	47	0	0	24	4	43	22	0	0	0	0	0	140
Upland Conifers	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Upland Mixed Forest	0	5	22	0	17	0	20	66	24	0	0	0	0	0	155
Upland Shrub	72	0	0	0	0	0	0	0	0	0	0	0	0	0	72
Upland Spruce/Fir	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Urban	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Water	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
White Pine	0	0	0	0	3	12	13	0	0	0	0	3	0	0	30
Total	391	176	238	78	317	65	64	191	612	185	0	3	217	12	2548



Report 2 – Proposed Treatment Summaries

Don River Country Mgt. Unit
Year of Entry 2015

Compartment 031
Total Compartment Acres: 2,548

Acres by Treatment Type

Commercial Harvest - 150 Tree Planting - 0 Other - 13
Habitat Cut - 0 Opening Maintenance - 91

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	107	0	0	0	0	0	107
Lowland Coniferous Forest	0	0	7	0	0	0	7
Mixed Upland Deciduous	10	0	7	0	0	0	16
Northern Hardwood	2	0	0	0	0	0	2
Upland Mixed Forest	7	0	11	0	0	0	18
Total	126	0	24	0	0	0	150



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
53030_OutOfY OE-Cut	4.0					Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal
<u>Prescription</u> -Clearcut all aspen and red maple. Leave all other species.									
<u>Specs:</u> -No retention needed due to the small size of the stand.									
<u>Other Comments:</u> -This stand will be cut and burned along with stands 18, 23, 25, and 36 in Compartment 31.									
<u>Next</u> -Acceptable regeneration will be any mix of species resulting in at least a medium stocked stand.									
<u>Steps:</u> -Regen check at the appropriate interval. -Burn this stand after harvest with the objective of promoting a seed bed for oak regeneration.									
<u>Proposed Start Date:</u> 10/01/2014									
18 53031018-Cut	9.6	4199 - Other Mixed Upland Deciduous	Medium Density Pole	74	81-110	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal
<u>Prescription</u> -Clearcut all red maple and aspen. Leave everything else.									
<u>Specs:</u> -Require whole tree skidding. -Leave retention along Pickerel Lake Road.									
<u>Other Comments:</u>									
<u>Next</u> -Acceptable regeneration will be any mix of species resulting in at least a medium stocked stand.									
<u>Steps:</u> -Regen survey at the appropriate interval. -Burn after harvest to promote a seed bed for oak in order to increase it's presence in the stand.									
<u>Proposed Start Date:</u> 10/01/2014									
23 53031023-Cut	2.1	4119 - Mixed Northern Hardwoods	High Density Log	74	81-110	Harvest	Clearcut	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal
<u>Prescription</u> -Clearcut all red maple and aspen. Leave everything else.									
<u>Specs:</u> -No retention pockets needed due to the small size of the stand.									
<u>Other Comments:</u> -Some nice red oak saps along the perimeter of the stand that should be protected from harvesting damage.									
<u>Next</u> -Acceptable regeneration will be any mix of species. A non-forested stand will also be accepted here.									
<u>Steps:</u> -Burn after harvest to promote a seed bed for oak in order to try and increase it's presence in the stand.									
<u>Proposed Start Date:</u> 10/01/2014									
32 53031032-Cut	11.0	4319 - Mixed Upland Forest	High Density Log	88	81-110	Harvest	Seed Tree with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
<u>Prescription</u> -Cut all maple, fir, jack pine, and aspen. Mark to leave 10 ba/acre in white pine. Leave all other species. Mark to leave a few scattered mature									
<u>Specs:</u> jack pine, aspen, and fir. -No interior retention pockets needed as acreage has already been excluded from the treatment boundary along the west and southwest parts of the stand where the ground is wetter.									
<u>Other Comments:</u>									
<u>Next</u> -Acceptable regeneration will be any mix of species resulting in at least a medium stocked stand.									
<u>Steps:</u> -Regen survey at the appropriate interval.									
<u>Proposed Start Date:</u> 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
36 53031036-Cut	6.9	4199 - Other Mixed Upland Deciduous	Medium Density Log	74	81-110	Harvest	Seed Tree with Reserves	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal

Prescription -Clearcut all species except white pine, red pine, and oak. Mark to leave 10-20 ba/acre in oak.

Specs: -Retention has already been excluded from the treatment boundary (south 1/3 of the stand), focused around the house and Pickerel Lake Road.

Other Comments:

Next Steps: -Acceptable regeneration will be any mix of species resulting in at least a medium stocked stand.

-Burn after harvest in conjunction with stands 18, 23, and 25. Objective is to promote a seedbed for oak regeneration.

Proposed Start Date: 10/01/2014

40 53031040-Cut	6.6	6122 - Black Spruce	High Density Pole	94	81-110	Harvest	Seed Tree with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
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Prescription -Seed-tree harvest. Leave clumps of 5-10 spruce and tamarack spaced roughly 100 feet apart throughout the stand. Leave all pine and cedar.

Specs: -Leave one 1/2 acre interior retention pocket.

Other Comments: -Sphagnum understory. Winter or dry-summer cut only.
-No chipping permitted.

Next Steps: -Acceptable regeneration will be any mix of conifer species resulting in at least a medium stocked stand.

-Regen survey at the appropriate interval.

Proposed Start Date: 10/01/2014

56 53031056-Cut	19.2	4139 - Aspen, Mixed Deciduous	High Density Pole	43	81-110	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
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Prescription -Clearcut all fir, red maple, beech, aspen. Also, cut all white pine under 10 inches DBH. Leave all other species. Mark to leave some scattered

Specs: mature aspen as well as beech that appear healthy or are good wildlife trees.

Other Comments: -Add 2" spec to get rid of small RM and BF.
-Some scattered RO saps/poles that should be protected from harvesting damage.
-Stand has been moved up to the 2014 YOE to be treated with the adjacent stands across the road.

Next Steps: -Acceptable regeneration will be any mix of species resulting in at least a medium stocked stand and not dominated by beech.

-Regen survey at the appropriate interval. Monitor the amount of beech regeneration. If it appears to be taking over the site, consider some alternatives to steer the stand away from beech regen, such as herbicide or planting.

Proposed Start Date: 10/01/2013

60 53031060-Cut	39.0	4131 - Aspen, Oak	High Density Pole	42	81-110	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
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Prescription -Clearcut all aspen and red maple. Do not cut any other species.

Specs: -Leave 3-10% of the treatment acreage as retention pockets, focusing this retention in areas where oak is more abundant. Red oak is more abundant along the eastern edge of the stand.

Other Comments: -Add 2" spec to ensure all small red maple is cut.

Next Steps: -Acceptable regeneration will be any mix of species dominated by aspen resulting in at least a medium stocked stand.

-Regen survey at the appropriate interval.

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
66 53031066-Cut	12.4	4131 - Aspen, Oak	High Density Pole	44		Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription -Clearcut all aspen and red maple. Leave up to 10 ba/acre in red oak, cut the rest of it. Leave all other species.

Specs: -Retention has already been created along the western edge of the stand (outside of treatment boundary).

Other Comments:

Next Steps: -Acceptable regeneration will be any mix of species dominated by aspen and resulting in at least a medium stocked stand.

-Regen survey at the appropriate interval.

Proposed Start Date: 10/01/2014

67 53031067-Cut	17.4	4130 - Aspen	Medium Density Pole	43		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription -Clearcut all aspen and red maple. Leave all other species.

Specs: -Protect scattered RO saps and poles that are present along the stand's edge near the pipeline.

-Mark to leave some scattered aspen as snags and mark some cut-and-leave trees for CWD.

-Leave 3-10% of the stand's acreage in retention pockets.

Other Comments:

Next Steps: -Acceptable regeneration will be any mix of aspen, hardwoods, and pine resulting in at least a medium stocked stand.

-Regen survey at the appropriate interval.

Proposed Start Date: 10/01/2014

71 53031071-Cut	19.3	4130 - Aspen	High Density Pole	49		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription -Clearcut with reserves, cut all aspen and red maple. Leave all other species. Mark to leave scattered mature aspen as future snags. Mark some

Specs: cut-and-leave trees as well for CWD.

-Leave 3-10% of the stand's acreage in retention pockets.

Other Comments: -Scattered RO saps along the powerline edge that should be protected from harvesting damage.

Next Steps: -Acceptable regeneration will be any mix of species dominated by aspen and resulting in at least a medium stocked stand.

-Regen survey at the appropriate interval.

Proposed Start Date: 10/01/2014

74 53031074-Cut	6.8	4319 - Mixed Upland Forest	High Density Log	88	81-110	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
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Prescription -Cut all aspen, red maple, and red pine. Mark to leave scattered red pine (up to 10 ba/acre) and focus on leaving larger XL sized trees. Leave all

Specs: white pine, red oak, and paper birch as well as any other species that may be rare in the stand.

-Retention pocket has already been excluded from the treatment boundary (located on far west end of stand). No further retention is needed.

-Mark some log-sized cull trees as cut and leave trees to enhance large CWD.

Other Comments: -Add 2" spec to knock down all red maple, ironwood, and beech regen but try to protect any RO and PB saps/poles.

-Require whole-tree skidding to try and promote oak and pine regeneration.

Next Steps: -A medium stocked stand of mixed species will be accepted here as long as regeneration is not dominated by beech or ironwood.

-Regen survey at the appropriate interval.

Proposed Start Date: 10/01/2014



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
25	NF_53031025- Burn	12.6	3205 - Mixed Upland Shrub				Prescribed Burn	Unspecified	3205 - Mixed Upland Shrub	Cmpt. Review Proposal
<p><u>Prescription</u> -Burn in conjunction with forested stands 18, 23, and 36. <u>Specs:</u> -Objective is to set back encroaching woody vegetation and promote new growth of beneficial shrubs.</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>										
1	NF_53031001- NonFor	22.8	3205 - Mixed Upland Shrub				Non-Forest Management	Other - Specify	3205 - Mixed Upland Shrub	Cmpt. Review Proposal
<p><u>Prescription</u> -Maintain the nonforested condition of this stand either through prescribed burning, herbicide, or mechanical means. <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>										
2	NF_53031002- NonFor	2.5	3205 - Mixed Upland Shrub				Non-Forest Management	Other - Specify	3205 - Mixed Upland Shrub	Cmpt. Review Proposal
<p><u>Prescription</u> -Maintain the non-forested condition of this stand either through prescribed burning, herbicide, or mechanical means. <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>										
17	NF_53031017- NonFor	5.4	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify		Cmpt. Review Proposal
<p><u>Prescription</u> Maintain the non-forested condition of this stand either through prescribed burning, herbicide, or mechanical means. Treat any autumn olive that <u>Specs:</u> may be present in the stand.</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>										
31	NF_53031031- NonFor	3.1	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
<p><u>Prescription</u> Maintain the non-forested condition of this stand either through prescribed burning, herbicide, or mechanical means. Treat any autumn olive that <u>Specs:</u> may be present.</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>										



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
44 NF_53031044- NonFor	1.8	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3205 - Mixed Upland Shrub	Cmpt. Review Proposal

Prescription Maintain the non-forested condition of this stand either through prescribed burning, herbicide, or mechanical means.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified

73 NF_53031073- NonFor	7.4	3205 - Mixed Upland Shrub				Non-Forest Management	Other - Specify	3205 - Mixed Upland Shrub	Cmpt. Review Proposal
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Prescription -Maintain the non-forested condition of this stand either prescribed burning, herbicide, or mechanical means. Treat any autumn olive that may be

Specs: present.

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified

87 NF_53031087- NonFor	23.7	2113 - Forage Crops				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
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Prescription -Maintain the non-forested condition of this stand either through burning, herbicide, or mechanical means.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified

95 NF_53031095- NonFor	6.3	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
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Prescription -Maintain the non-forested condition of this stand either through burning, herbicide, or mechanical means.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified

118 NF_53031118- NonFor	3.4	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
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Prescription Maintain the non-forested condition of this stand either through prescribed burning, herbicide, or mechanical means.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
119 NF_53031119- NonFor	8.9	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal

Prescription: Maintain the non-forested condition of this stand either through prescribed burning, herbicide, or mechanical means.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified

129 NF_53031129- NonFor	5.5	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
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Prescription: Maintain the non-forested condition of this stand through either prescribed burning, herbicide, or mechanical means.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: Unspecified

**Total Treatment
Acreage Proposed: 257.7**



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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

**Total Treatment
Acreage Proposed: 0**

Report 5 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment 031

Greg Rekowski : Examiner

Year of Entry 2015

Availability for Management

Total Acres	Acres Available	Acres Not Available	Dominant Site Conditions	Dominant Site Conditions						
				No	5C	5B	5A	3J	3G	2G
505	505		Aspen	505						
222		222	Cedar				217			5
4	4		Jack Pine	4						
24		24	Lowland Deciduous					24		
15	15		Lowland Mixed Forest	5		9				
17	7	10	Lowland Spruce/Fir	7			10			
307	307		Mixed Upland Deciduous	240	62	6				
67	65	2	Natural Mixed Pines	53		12	2			
818	818		Northern Hardwood	818						
11	11		Oak		11					
140	127	13	Red Pine	108		18			13	
5	5		Upland Conifers	5						
155	155		Upland Mixed Forest	89	66					
3	3		Upland Spruce/Fir	3						
30	30		White Pine	18		12				
2,322	2,051	270	Total Forested Acres	1,855	139	58	228	24	13	5
	88%	12%	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	5A: Not able to obtain desirable regeneration	218	3J: Water quality / BMPs (stream, river, or lake)			
Comments:							
003	Not Available	3G: Other Influence zones - See comments	13				
Comments:							
Stand lies at the intersection of Pickerel Lake Road and Sturgeon Valley Road. Provides a nice visual buffer. Leave unmanaged for now.							

Report 5 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment 031

Greg Rekowski : Examiner

Year of Entry 2015

004	Available	5B: Retention for regeneration purposes	9	
Comments: Retain the overstory red pine until the understory aspen matures.				
005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	
Comments:				
006	Available	5B: Retention for regeneration purposes	9	
Comments: Leave pine unmanaged until the young aspen matures.				
007	Available	5B: Retention for regeneration purposes	12	
Comments: Regenerating aspen throughout stand. Manage the pine when the aspen matures.				
008	Not Available	3J: Water quality / BMPs (stream, river, or lake)	24	2G: Too wet (sensitive soils, does not include access issues)
Comments: Stand borders Mud Lake. Low amount of merchantable product. Wet ground.				
009	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5	
Comments: Wet ground. Not much merchantable product.				

Report 5 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment 031

Greg Rekowski : Examiner

Year of Entry 2015

010	Available	5B: Retention for regeneration purposes	9
Comments: Low amount of mature timber. In process of natural succession. Let grow for now.			
011	Not Available	5A: Not able to obtain desirable regeneration	10
Comments: This portion of stand 40 is heavy to cedar. Also, site productivity is much lower in this area. Spruce and tamarack do not show good growth at all.			
012	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17
Comments:			
013	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	18
Comments:			
014	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	22
Comments:			
015	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5
Comments:			

016	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	66
Comments:			
017	Available	5B: Retention for regeneration purposes	12
Comments:			
018	Available	5B: Retention for regeneration purposes	6
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 Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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	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	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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	4130 - Aspen	High Density Sapling	5.1	15		-Other species that were present but rare included jack pine, red maple, and balsam fir.
4	42110 - Planted Red Pine	High Density Log	24.0	59	141-170	-Thinned in 2005 by Biewer. "Standby Pine", sale # 53-015-05-01. Thin next entry period. -Some areas of heavy browse on the red maple understory. -Other species that were present but rare include red maple, red oak, white pine, jack pine, and quaking aspen. -Red pine site index = 56
5	4130 - Aspen	High Density Sapling	1.3	6		-Cut by Biewer in 2005. "Standby Pine", sale # 53-015-05-01.
6	42290 - Natural Mixed Pine	Medium Density Log	11.9	Uneven Age	81-110	-Multi-aged pine stand. Desirable white pine regeneration is filling in the open areas created from harvest in '80's. -South half of stand transitions into a swamp conifer type with a pine component. -Stand lies within the influence zone of the Little Pigeon River which reduces amount of treatable area. Leave stand unmanaged.
7	42290 - Natural Mixed Pine	High Density Log	5.4	88	81-110	-This is a thin stand which borders the swamp. A closed road runs through the stand. -Some very large XL size white pine scattered throughout. Most of the jack pine is in the west half of the stand. -Other species that were present but rare include red oak and balsam fir.
8	4319 - Mixed Upland Forest	Low Density Pole	17.4	42	1-50	-Poor quality, open grown timber. Not much commercial value at all, let white pine fill in. Possibly a good stand to burn? -Aspen trying to sprout back in a few spots but browse is knocking it back. -Other species that were present but rare include red pine and black cherry.
9	42110 - Planted Red Pine	High Density Sapling	41.8	25	1-50	-Close to being a pole stand. -Scattered open areas throughout that are filled mostly with black cherry. -A couple of scattered, mature red oak.
10	42110 - Planted Red Pine	High Density Sapling	5.4	22	1-50	-Aspen is primarily at the SW end of the stand.
12	42220 - Natural Jack Pine	High Density Pole	1.0	67		-Jack pine starting to break up. Leave this stand unmanaged for now until surrounding stands are treated. -Other species that were present but rare included white pine and red pine.
13	4311 - Pine, Aspen Mix	High Density Sapling	12.8	24		-Pine more dominant in the N 1/2 of stand. -A couple of scattered mature red oak.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	42290 - Natural Mixed Pine	High Density Log	7.4	68	81-110	-At least a two-aged pine stand. Some very large XL sized RP and WP. -Other species that were present but rare included black spruce and paper birch. -Found a very large stick nest in the south part of the stand which borders stand 19. The stick nest is sitting in a 30"+ white pine which is painted red (red line tree for adjacent harvest). Possible eagle nest? -Leave this stand as it is one of the few stands in the area that provide large supercanopy wildlife trees.
15	4130 - Aspen	High Density Sapling	3.6	15		-Very heavy browse on red maple understory.
16	6131 - Hemlock, White Pine, Maple, Birch	Medium Density Log	5.4	76	1-50	-This stand lies within the influence zone of the Little Pigeon River and serves as a nice vegetative buffer. Transition between upland and lowland. Leave unmanaged. -Other species that were present but rare included hemlock and white spruce.
18	4199 - Other Mixed Upland Deciduous	Medium Density Pole	9.6	74	81-110	-Low quality red maple, lot of stump sprouts. -Other species that were present but rare include balsam fir, paper birch, and red pine. -Portion of the north part of this stand lies within the influence zone for the Little Pigeon River. This area will likely have to be excluded from harvest.
19	4136 - Aspen, Mixed Conifer	High Density Sapling	14.0	7		-Stand cut in 2005. "The Witche's Broom", sale # 53-005-05-01. Cut by AJD. Everything cut but oak and white pine. Also some scattered aspen, red maple, and red pine marked to leave and maybe a few small retention pockets. Good looking cut with a diverse mix of residual species and sizes. -A few small wet pockets throughout. -Aspen regen is doing well. Elk browse seems to be nonexistent.
20	4130 - Aspen	High Density Sapling	23.7	15		-Pretty good aspen regeneration with only a few open areas that may have been impacted by browse. A few areas of heavy browse on the red maple understory. -Scattered hypoxylon canker throughout. -Other species that were present but rare include white spruce and balsam fir.
21	42260 - Natural Pine, Mixed Deciduous	Low Density Log	3.5	74	1-50	-Diverse mix of low-stocked mature trees. Serves as a good buffer for the adjacent Mud Lake. Measured a 44" white pine near the lake. -Other species that were present but rare included white spruce and paper birch.
22	42210 - Natural Red Pine	High Density Log	4.6	72	111-140	-This stand provides a nice buffer for Mud Lake. Leave unmanaged. -Old foundation near the lake with the remains of a chimney still standing. Another open area in the stand apparently is an old tennis court. -Other species that were present but rare include white spruce, paper birch, and aspen.
23	4119 - Mixed Northern Hardwoods	High Density Log	2.1	74	81-110	-Heavy browse on RM understory. -Some nice RO saps that should be protected from harvesting damage.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	42260 - Natural Pine, Mixed Deciduous	Medium Density	11.9	24		-Aspen mostly in the North 1/2 of stand, jack pine more dominant in the south 1/2. -Pocket of mature pine at the south end of stand. Possible retention pocket from previous harvest? -Other species that were present but rare include white pine, red maple, and black cherry.
27	42110 - Planted Red Pine	High Density Log	1.5	64	111-140	-Thinned in 2005 by Biewer. "Standby Pine", #53-015-05-01. -Treat in 10 years.
30	4311 - Pine, Aspen Mix	High Density Sapling	5.2	15		-Other species that were present but rare included white pine, white spruce, and black cherry.
32	4319 - Mixed Upland Forest	High Density Log	16.6	88	81-110	-Species diverse stand. Multiple sizes of white pine throughout, with a few very large XL size trees. Other species that were present but rare include red oak, black spruce, and paper birch. -Vernal pond on west end of stand. -South finger of stand becomes more of a lowland transition with the adjacent swamp. Some wet ground in this area with cedar and spruce becoming common. Leave this area as retention if a harvest occurs. -Areas of heavy browse on the red maple understory.
33	6130 - Fir, Aspen, Maple	Low Density Log	9.2	82	1-50	-Mix of upland and lowland. Overstory is quite light. Next entry this will probably be coded as a fir sap/pole stand. -All black ash in stand has been killed by EAB. -Other species that were present but rare included hemlock and paper birch.
34	4191 - Mixed Upland Deciduous with Conifer	Low Density Pole	5.6	84	1-50	-Poor quality red maple stump sprouts. Let white pine fill in. -Previous OI notes indicated red oak acorns were planted here. Only observed two red oak saplings in stand so planting was not successful.
35	6120 - Lowland Cedar	Medium Density Pole	216.6	138	81-110	-Variable stocking throughout the stand with some areas of nice cedar. Other areas of this stand are very wet and in these areas cedar is showing signs of decline and mortality. -A few scattered upland islands within this stand, most less than 1 acre in size. -Two old roads go through this stand but they are overgrown in many areas.
36	4199 - Other Mixed Upland Deciduous	Medium Density Log	13.0	74	81-110	-Small 2 acre parcel of private property with a house on it intersects this stand. Portion of stand south of this parcel becomes more open. This area will be left as retention. -Oak trying to regenerate in a few areas but browse is knocking it back.
37	42110 - Planted Red Pine	High Density Log	2.5	64	141-170	-Thinned in 2005 by Biewer. "Standby Pine", #53-015-05-01. Treat in 10 years. - Heavy browse on RM understory. -WP and JP also present but rare.
38	6120 - Lowland Cedar	Low Density Pole	5.2	90	1-50	-Poor quality cedar that is declining. Heavy fir understory. -Very wet stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
39	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	23.9	48	51-80	-Portions of the aspen were cut out from this stand 20 years ago. -Mixed bag of everything in this stand. Some upland islands are present but mostly this is a lowland stand with several wet drainages running through it. These drainages are comprised mostly of dead black ash and sub-merchantable balsam fir and red maple. -Cedar clumps are scattered throughout and there are also a few log-size aspen and spruce present.
40	6122 - Black Spruce	High Density Pole	16.7	94	81-110	-Relativley low site productivity in the majority of the stand. Leatherleaf and sphagum understory. The NW "bubble" has a little better site quality with the spruce and tamarack showing better growth. This is the only part of the stand that would make sense to do a commercial operation, however it would only be about 5 acres in size. -Balsam understory and cedar overstory become more prevalent as you move to the south "finger" of the stand. -Scattered blowdown.
41	4130 - Aspen	High Density Sapling	2.8	25		-On the verge of becoming a pole stand. -Other species that were present but rare include red pine, red oak, and balsam fir.
42	42200 - Natural White Pine	Low Density Log	12.3	56	51-80	-"The Witch's Broom", 53-003-05-01. Everything cut except red and white pine. Varying sizes of residual pine in the stand. A small clump of very large pine toward the north end of the stand with some 40"+ white pine. -Some lowland along the west and north edges of the stand.
43	42330 - Upland Fir	Medium Density	2.6	18		-Old tordon opening filling in with spruce and fir. A few mature pine, maple, and spruce along the east side.
45	4130 - Aspen	High Density Pole	3.7	25		-Other species that were present but rare included red oak and white pine.
46	42220 - Natural Jack Pine	High Density Sapling	3.1	25		-On the verge of becoming a pole stand. -Small area of wet ground along the road, has BS, Tam, and alder mixed in. -Other species that were present but rare include red pine, red oak, red maple, black spruce, tamarack, and balsam fir.
47	4130 - Aspen	Medium Density	50.5	25		-Scattered openings throughout that did not regenerate well. -Small clump of older aspen along the western edge of the opening. -Other species that were present but rare included white pine, red pine, and red oak.
48	429 - Mixed Upland Conifers	Low Density Pole	4.7	25	1-50	-Old tordon opening that has partially filled in. -Old railroad grade passes through stand.
49	42210 - Natural Red Pine	Medium Density Log	9.3	81	81-110	-Young aspen understory in stand which is a result of a 1988 harvest in stand. Some portions of the stand are pure pine, others are mostly aspen.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
50	4130 - Aspen	High Density Sapling	6.8	25		-On the verge of becoming a pole stand. -Heavy browse on RM understory in some areas. -Other species that were present but rare include red oak, white pine, and balsam fir.
51	4134 - Aspen, Spruce/Fir	High Density Pole	55.6	37	81-110	-Let this stand grow at least another ten years. -Some scattered, larger trees in the west end of the stand.
52	42260 - Natural Pine, Mixed Deciduous	High Density Sapling	5.6	25		-On the verge of becoming a pole stand. -Other species that were present but rare include red oak, red maple, and red pine.
54	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	9.1	43	51-80	-Two-aged stand. -Heavy deer use throughout, with significant browse on RM understory. -North edge becomes a little wetter with scattered cedar among RM poles. -Other species that were present but rare included cedar, red pine, jack pine, white spruce, and paper birch.
55	4311 - Pine, Aspen Mix	Medium Density	9.4	25	1-50	-Heavy browse on RM understory. Didn't observe any oak regen. -Balsam fir also present but rare.
56	4139 - Aspen, Mixed Deciduous	High Density Pole	21.7	43	81-110	-Diverse 2-aged stand but rather low quality. Oak and pine show the best growth. -Other species that were present but rare include red pine and paper birch. -Nice RO saps/poles in some areas. Make sure to protect if harvesting done this entry. -BBD found on a few scattered trees.
57	4139 - Aspen, Mixed Deciduous	High Density Pole	13.0	38	81-110	-Let this stand grow another entry period. Still quite a few small aspen and red maple stems. -Other species that were present but rare included red pine, paper birch, and sugar maple.
58	4130 - Aspen	High Density Pole	5.1	44		-Quite a few small aspen and RM stems, likely due to competition with the residual RO overstory that was left after previous harvest. Let grow for at least another entry period.
59	4123 - Red Oak	Low Density Log	11.0	90	1-50	-Low quality oak. -Evidence of heavy deer use. Mostly barren understory.
60	4131 - Aspen, Oak	High Density Pole	39.0	42	81-110	-Heavy deer use and browse throughout this stand. -Other species that were present but rare included; white pine, paper birch, jack pine, balsam fir, and beech. -Quite a few old WP stumps. -Previous harvest must have left all oak. Pockets of pure RO in the NE side of the stand. Scattered throughout remainder of stand. Oak saps and poles very rare.
61	4199 - Other Mixed Upland Deciduous	High Density Pole	13.2	53	81-110	-Diverse stand. Any management actions should take this into account when thinking about regeneration. -Lower end hardwood site.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
62	4319 - Mixed Upland Forest	High Density Pole	66.0	78	81-110	-Multi-aged and very diverse stand. Highly variable in composition with scattered pockets of W9. 21 plots were taken with an average BA/acre of 110 sq. ft. -The abundance of white pine is what separates this stand from the surrounding stands. -Let this stand grow some more before considering a harvest.
63	42200 - Natural White Pine	High Density Log	2.7	115	141-170	-Varying sizes and ages of WP within the stand.
64	42210 - Natural Red Pine	High Density Log	3.3	88	141-170	-If surrounding aspen stand is cut this entry then cut this as well, otherwise leave.
65	4112 - Maple, Beech, Cherry Association	High Density Pole	21.0	41	81-110	-Lot of small diameter's in this stand, particularly on the maple, aspen, and beech. Despite the presence of BBD on beech, recommend no treatment at this time. Let the rest of the species grow. -Some scattered RO saps/poles of decent quality.
66	4131 - Aspen, Oak	High Density Pole	17.5	44		-A lot of small aspen stems, likely due to competition with the residual RO overstory that was left after previous harvest. -Inclusions of pine/oak along west edge of stand that should be excluded if harvested.
67	4130 - Aspen	Medium Density Pole	17.8	43		-Variable stand. North half is low site quality (possible frost pocket or soil issues?), much of the quaking aspen is small (4-5") and appears to be dying. Site quality better in the south half, with more BTA and PB and a more developed understory. -Other species that were present but rare included paper birch and red pine.
68	4199 - Other Mixed Upland Deciduous	High Density Pole	47.8	46	81-110	-Two-aged and very diverse stand. Concern in harvesting this stand would be lack of diversity in regeneration. Heavy herbivory throughout this area. A similar stand adjacent to this one (SE side) was clearcut recently with the regeneration only consisting of beech, red maple, and aspen. 21 plots were taken within the stand with an average BA/acre of 104 sq. ft. -Hardwood species become more prevalent along the eastern half, aspen more prevalent along the western half. -Some pockets of nice RO and SM saps/poles. -Large, scattered WP stumps throughout. -Quite a few small stems in this stand, would prefer to let this stand grow for a while.
69	42200 - Natural White Pine	Low Density Log	2.6	43	1-50	-Open grown white pine. Ironwood, beech, black cherry, white pine, and red oak are the species slowly filling in this opening.
70	4114 - Beech, Hemlock	High Density Sapling	25.4	14		-Cut in 1998 by Georgia Pacific. Sale # 53-022-96-01, "Year End Aspen Block." Cut everything but oak. Removed roughly 200 cords red maple, 270 cords aspen, and 230 cords of mixed hardwood. Mixed hardwood contained paper birch, basswood, sugar maple, and beech. With the exception of beech, none of these hardwood species are represented in the regeneration. -Very dense beech regeneration in places. Only a few pockets of aspen. Most red maple heavily browsed.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
71	4130 - Aspen	High Density Pole	21.6	49		-Some scattered older QA throughout the stand. Pocket of mature oak at west end that should be excluded from harvest. -Try to protect RO saps and poles. There aren't many but some are scattered along the edges of the stand, especially near the pipeline.
72	4130 - Aspen	Medium Density	21.8	14		-Cut in 1998 by Georgia Pacific. Sale # 53-022-91-01, "Year End Aspen Block." Cut everything but oak. Removed roughly 200 cords red maple, 270 cords aspen, and 230 cords of mixed hardwood. Mixed hardwood contained paper birch, basswood, sugar maple, and beech. With the exception of beech, none of these hardwood species are represented in the regeneration. -Heavy browse on most species.
74	4319 - Mixed Upland Forest	High Density Log	7.5	88	81-110	-2-aged stand. XL sized trees are much older than the rest. -Heavy understory of undesirable hardwoods.
75	4199 - Other Mixed Upland Deciduous	High Density Pole	5.2	54	111-140	-Diverse stand. Too small to thin at this point. Let it grow. -All saplings a part of the overstory, being either in the intermediate or co-dominant canopy position.
77	4110 - Sugar Maple Association	High Density Log	48.0	90	81-110	-Stand recently thinned. "Lone Apple Tree Hardwoods", sale #53-004-07-01. Cut by Nash. Thinned too heavily in many areas, BA's quite low. Didn't clean up ironwood in canopy gaps. -No BBD observed on any of the residual beech. BBD is present in stand across the road to the east. -Ash rare, EAB on most of them. -7 BA plots taken with an average of 83 sq. ft. per acre.
78	4111 - S.Maple, Hard Mast Association	Medium Density Log	82.0	90	51-80	-Scattered open areas throughout that have filled in primarily with ironwood, beech, and white ash. Although rare, red oak saps/poles are present in a few spots. -Other species that were present but rare included paper birch, yellow birch, and white pine. -BBD was present in a pocket of 5 trees but not observed anywhere else in the stand. -White ash was rare in the stand but EAB was present on most merchantable stems.
79	4130 - Aspen	High Density Pole	9.1	26		-Just emerging as a pole stand. -Some scattered RO saps, but most are overtopped by aspen.
80	42290 - Natural Mixed Pine	Medium Density Log	1.5	37	51-80	-Small tordon opening (<1 acre) is directly adjacent to the west of this stand. -Other species that were present include striped maple and black cherry.
81	4199 - Other Mixed Upland Deciduous	High Density Log	21.9	94	81-110	-High quality oak in stand. Thinned in 2009 by Jaroche Brothers, "Ford Lake Road Oak", 53-005-09-01. -No ash in stand. No BBD observed. -Other species that were present but rare included bigtooth aspen, yellow birch, paper birch, and hemlock. -Red oak site index = 65. 5 Ba plots taken with an average of 102 sq. ft. per acre.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
82	4199 - Other Mixed Upland Deciduous	High Density Sapling	5.6	25		-Ironwood is dominant, however there is some good regeneration of oak and sugar maple. Cherry will likely become merchantable as well. All regeneration is in the range of 15-25 feet tall.
83	4119 - Mixed Northern Hardwoods	High Density Log	91.8	83	51-80	-Recently thinned. "Camp Hardwoods" 53-001-05-01. -High quality red oak in stand, good quality on other hardwoods as well. Red oak site index = 60. -A few areas of heavy blowdown adjacent to Road 73. -No ash observed in stand. A few areas in the stand that are heavy to beech. Light beech scale observed on a couple of trees. Due to the recent thinning and low BA, I recommend leaving the beech for now. -Other species that were present but rare included paper birch, yellow birch, hemlock, bigtooth aspen, and ironwood. -15 points were taken with an average ba/acre of 83 sq. ft.
84	4110 - Sugar Maple Association	High Density Log	97.5	86	81-110	-Thinned in 2003. Elk View Hardwoods. Let grow at least another ten years. High quality sugar maple throughout, especially in the east 1/2 of the stand. -Ash rare, EAB present. Beech uncommon, no BBD observed. -Other species that were present but rare included elm, YB, PB, BTA. -Beech regen becomes thick in the west 1/2 of the stand. -Found 1 stick nest (see OFS layer). -SM site index=56. Avg. ba/acre off of 12 points is 96 sq. ft./acre.
85	4110 - Sugar Maple Association	High Density Log	20.8	86	81-110	-BA still a little low, thin next entry. Nice SM sawlogs, some big diameters. -No ash present. Low amount of beech, BBD observed on 1 tree. -Found 1 stick nest (see OFS layer). -4 BA plots taken with an average of 93 sq. ft. per acre.
86	4110 - Sugar Maple Association	High Density Pole	19.6	78	81-110	-No ash in stand. Beech rare, no BBD observed. -BA's variable. High in some spots, low in others. Red oak also present but rare. -4 ba plots taken with an average of 85 sq. ft. per acre.
88	4110 - Sugar Maple Association	High Density Log	29.3	78	51-80	-Ash rare but EAB on most. Beech rare and no sign of BBD. -Other species that were present but rare included paper birch, red oak, and elm. -Thinned in 2008-09, "Soaring Eagle Hardwoods", #53-016-07-01. Cut by Tulgetska. -5 BA plots taken with an average of 76 sq. ft. per acre.
89	4110 - Sugar Maple Association	High Density Pole	32.6	87	81-110	-Last thinned in the '80's. BA's are quite variable, lower around the edges. A few pockets that could be thinned but acreage would be pretty small. Wait another ten years and consider. -Small area in center of stand that was salvaged following a windstorm in the mid '90's. Area roughly 1 acre or so in size. Mostly IW saps but a few saps of SM, PB, RO, BC, and Beech that made it. -No ash in stand. Beech rare, no BBD observed. -Other species that were present but rare included YB, PB, RO, BTA, elm, and WP. -Small stick nest in stand. -SM site index= 47 for a 12" tree, 87 years old, 69 feet tall. -5 BA plots were taken with an average of 92 sq. ft. per acre.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
90	4119 - Mixed Northern Hardwoods	High Density Log	106.3	81	51-80	-Recently thinned. "Camp Hardwoods", 53-003-05-01. -Other species that were present but rare included red pine, paper birch, hemlock, and bigtooth aspen. -Found BBD on a pocket of beech (5 trees). -Ash rare, but EAB present on most. -High quality oak and sugar maple in this stand. -20 BA plots taken with an average of 80 sq. ft. per acre.
91	42290 - Natural Mixed Pine	Medium Density Log	10.3	56	1-50	-Scattered open areas throughout. Road for elk viewing area runs through this stand. -Other species that were present but rare included basswood, paper birch, and red oak.
92	42290 - Natural Mixed Pine	Low Density Log	8.0	41	1-50	-Old opening that is filling in with a variety of tree species. Some scattered RO saps/poles of nice quality. Small pocket of BAM saps near the south end.
93	42200 - Natural White Pine	Medium Density Log	12.6	62	51-80	-North 1/3 of stand is more open with weevil damaged white pine. Autumn olive is concentrated in this northern portion. There is also a camping spot in the northernmost part of stand. -Other species that were present but rare included basswood and paper birch.
94	4110 - Sugar Maple Association	High Density Log	23.1	85	81-110	-Thinned in 2009. "Soaring Eagle Hardwoods", sale # 53-016-07-01. Cut by Tulgetska. -Scattered wet ground. SE part of stand has a drainage running through it with numerous vernal ponds. -Nice sugar maple. Other species that were present but rare included IW, WA, RO, elm, BTA, YB, PB, and beech. -No BBD observed. A couple of ash had EAB. -5 BA points were taken with an average of 92 sq. ft. per acre.
97	42211 - Natural Red Pine, Mixed Deciduous	High Density Log	14.8	72	51-80	-Large red pine, some are showing signs of senescence. Aspen and jack pine primarily in the NE 1/2 of the stand. -Some nice RO, SM, and PB poles/saps. -Other species that were present but rare included basswood, red oak, and white ash. -Red pine site index = 63, for a 72 year old tree, 81 feet tall.
99	4119 - Mixed Northern Hardwoods	High Density Pole	6.4	46	81-110	-EAB present on a lot of the ash. Not much value to the ash (all pulpwood), let it fall out so the other hardwoods can grow in. Nice RO and SM saps/poles. -Other species that were present but rare included elm and yellow birch.
100	4130 - Aspen	High Density Log	7.0	45		-Management will be difficult due to wet ground and multiple vernal pools throughout stand. Good amphibian habitat. If a treatment were prescribed, at least a 1 chain buffer should be put around all vernal pools, which would significantly reduce the acreage of the cut. Best ecological decision would be to leave this stand alone. -Other species that were present but rare included red oak, red maple, basswood, paper birch, yellow birch, and elm. Some nice saps/poles of basswood, birch, oak, and maple.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
103	42210 - Natural Red Pine	High Density Log	13.1	78	111-140	<p>-Pickerel Lake Road passes through this stand. In addition, two driveways pass through the west side of the stand. Old blue line passes through stand on east side of road. Possible trespass/easement issues with driveways? Survey may be needed.</p> <p>-Due to private property, road, and visual concerns, treatable area would be reduced significantly. Probably be best just to leave this stand alone for now.</p> <p>-Other species that were present but rare in the overstory included aspen, ironwood, and basswood.</p> <p>-RP site index = 65, for a 78 year old tree, 87 feet tall.</p>
106	4119 - Mixed Northern Hardwoods	Low Density Sapling	47.7	17		<p>-Stand harvested in 2010 (red pine overstory removal). "Gooseberry RPP", sale # 53-018-08-01. A previous timber sale was conducted in the mid '90's. Most of the advanced regeneration of hardwoods was a result of that sale.</p> <p>-Other species that were present but rare include paper birch, white pine, striped maple, white ash, and elm.</p> <p>-Due to the quality of the soils, the black cherry may have a chance at becoming a merchantable tree.</p>
107	4130 - Aspen	High Density Sapling	13.1	14		<p>-Site quality increases as you move north in the stand. Areas of pure SM and other hardwoods in some spots.</p> <p>-Other species that were present but rare include RO, RP, JP, WA, RM, and elm.</p> <p>-Residual RP log-trees more abundant to the north.</p>
108	4319 - Mixed Upland Forest	High Density Log	20.1	67	81-110	<p>-No ash. BBD on scattered beech. Beech more common at the south end of the stand.</p> <p>-Appears to be canopy gaps scattered throughout from previous harvest long ago? Mostly ironwood filled in the gaps, but there are some scattered nice RO poles and saps.</p> <p>-Other species that were present but rare included red maple, paper birch, and jack pine.</p> <p>-4 BA points were taken with an average of 97 sq. ft. per acre.</p>
109	4130 - Aspen	High Density Pole	51.2	44		<p>-High quality site. Let this stand grow for at least another ten years. Good potential for quality aspen sawlogs on this site.</p> <p>-Excellent understory of SM saplings. Any future management actions should take this into account.</p> <p>-A few areas of wetter ground, buffer and exclude them when harvest occurs.</p> <p>-Scattered openings and old logging roads throughout.</p> <p>-Other species that were present but rare include black cherry, elm, and white pine.</p> <p>-EAB present on some of the ash.</p>
111	4114 - Beech, Hemlock	Medium Density	8.0	7		<p>-Harvested in 2005. "Valley Combo", sale #53-003-05-01. Left residual white pine and red oak.</p> <p>-Formerly coded as a birch stand. No birch regeneration. Browse has impacted regeneration in the south finger of the stand, with beech being the only thing growing thus far. Aspen only in the N part of stand.</p>
112	4130 - Aspen	High Density Pole	7.6	38		<p>-Good site quality, let grow at least another ten years.</p> <p>-Other species that were present but rare included RP, WP, and PB.</p> <p>-Found a small stick nest in stand (see OFS layer).</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
113	42210 - Natural Red Pine	Medium Density Log	9.1	80	51-80	-Two-aged stand of large red pine with a well developed understory from a previous harvest. -Other species that were present but rare in the understory included red maple, jack pine, white pine, and red oak.
115	4111 - S.Maple, Hard Mast Association	High Density Log	156.6	81	81-110	-Highly variable BA's throughout. Large, open grown trees common in some spots. -Ash rare but EAB on most. Beech common in scattered pockets (most common in the southern part of the stand that widens out). Found BBD in three different areas. Amount of scale is relatively low at this point. -Other species that are present but rare include BTA, YB, elm, RP, and WP. -WA, IW, and beech dominate regeneration but there are a couple pockets of nice SM advanced regen. -Found several stick nests (see OFS layer). -28 BA points taken with an average of 82 sq. ft. per acre.
116	4133 - Aspen, Mixed Pine	High Density Sapling	20.1	14	1-50	-Red pine is mostly concentrated in the north 1/2 of the stand. Hardwood species become less abundant as you move south in the stand. -Other species that were present but rare included red oak, basswood, elm, white pine, sugar maple, and red maple.
122	4191 - Mixed Upland Deciduous with Conifer	Medium Density	141.2	9	1-50	-Pretty diverse regeneration, although dominated by ironwood and beech. Site quality increases as you go north in the stand. Southern 1/3 of stand has less canopy coverage and is more of a red maple, aspen, and pine type. The remainder of the stand is young hardwoods. A few nice patches of SM and RO saplings closer to Sturgeon Valley Road. -Clumps of mature pine and oak throughout. Avg. ba/acre only around 5-10 sq. ft. -Beech and red maple browsed heavily in some areas.
123	4130 - Aspen	Medium Density	7.4	14		-A few small, wet areas adjacent to the pipeline. -Other species that were present but rare include elm, sugar maple, beech, and red oak.
124	4130 - Aspen	High Density Pole	19.5	26		-Just emerging as a pole stand. Good site quality. -Other species that were present but rare include WP, WS, and SM.
125	4130 - Aspen	High Density Sapling	7.7	24		-Complete lack of tree species diversity. -Close to becoming a pole stand. -Trace of witch hazel in the understory.
127	4199 - Other Mixed Upland Deciduous	High Density Pole	17.4	84	81-110	-Overall BA's still pretty low at this point to justify a thinning. Hardwoods other than RO are pretty small at this point. -Other species that were present but rare include RP, WP, and beech. -4 BA points were taken with an average of 98 sq. ft. per acre.
130	42260 - Natural Pine, Mixed Deciduous	High Density Log	1.0	66	81-110	
131	4130 - Aspen	High Density Sapling	2.3	24		-Close to becoming a pole stand. -Other species that were present but rare included red pine, red oak, ironwood, and beech.

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Pigeon River Country Mgt. Unit

Report 8 – Forested Stands

Compartment: 031
Year of Entry: 2015

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
132	4130 - Aspen	High Density Sapling	22.8	26		-Other species that were present but rare included IW, RP, and JP.
133	42210 - Natural Red Pine	Medium Density Log	10.5	75	81-110	-Everything but RP, WP, and RO were cut from stand in 2005. "Valley Combo", sale # 53-003-05-01. -Aspen sprouts browsed pretty bad, not sure if they'll survive.
134	4130 - Aspen	High Density Sapling	13.0	24		-Close to becoming a pole stand. -Other species that were present but rare included red pine, jack pine, beech, and red oak.
135	4199 - Other Mixed Upland Deciduous	High Density Log	17.9	65	111-140	-Diverse stand. Beech and red maple competition in the understory will be an issue when trying to regenerate the oak. -Found a stick nest in a 12" paper birch (see OFS layer). -Did not see any BBD on any of the beech. -Red oak SI=61.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	3205 - Mixed Upland Shrub	22.8	No	Unspecified	
2	3205 - Mixed Upland Shrub	2.5	No	Unspecified	
11	6239 - Mixed Emergent Wetland	14.7	No	Unspecified	-Little Pigeon River flows through this stand. -Tamarack, spruce, and balsam are more abundant in the portion of the stand east of Pickerel Lake Road.
17	3105 - Mixed Upland Herbaceous	5.4	No	Unspecified	-Small inclusion (<1 acre) of mature jack pine. -Most black cherry and autumn olive around the perimeter of the stand.
25	3205 - Mixed Upland Shrub	13.1	Yes	Medium (NonForested)	-Clumps of trees common alongside Pickerel Lake Road.
26	50 - Water	13.3	No	Unspecified	Mud Lake
28	629 - Mixed non-forested wetland	8.6	No	Unspecified	-Wet stand. Standing dead cedar. Evidence of recent beaver activity. -An old road borders the east side of this stand running north-south. Or at least it looks like an old road, could just be a large beaver dam. Difficult to tell with the snow.
29	629 - Mixed non-forested wetland	16.6	No	Unspecified	-Ring of mostly dead cedar around Mud Lake. Sedge species dominate the vegetation of this wetland.
31	3105 - Mixed Upland Herbaceous	3.1	Yes	Medium (NonForested)	
44	3105 - Mixed Upland Herbaceous	1.8	No	Low (NonForested)	-Old borrow pit filling in with trees around the edges. Small amount of barren ground.
53	3105 - Mixed Upland Herbaceous	1.3	No	Unspecified	
73	3205 - Mixed Upland Shrub	7.4	No	Unspecified	On the west edge of this stand, just north of Ford Lake Road, is an illegal use area (RDR). An old sand pit that looks like it is being used as a party spot.
76	3105 - Mixed Upland Herbaceous	11.8	No	Unspecified	Lakehead Pipeline
87	2113 - Forage Crops	25.6	Yes	Medium (NonForested)	-Popular elk viewing area.
95	3105 - Mixed Upland Herbaceous	6.3	No	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
96	3205 - Mixed Upland Shrub	2.9	No	Unspecified	
98	11 - Low Intensity Urban	7.5	No	Unspecified	Sturgeon Valley Road
101	3105 - Mixed Upland Herbaceous	4.7	No	Unspecified	Powerline
102	11 - Low Intensity Urban	2.8	No	Unspecified	Camp Vanderbilt
104	3105 - Mixed Upland Herbaceous	1.0	No	Unspecified	
105	6239 - Mixed Emergent Wetland	1.8	No	Unspecified	
110	3205 - Mixed Upland Shrub	1.0	No	Unspecified	Small pocket of wet ground in east 1/3 of stand.
114	3105 - Mixed Upland Herbaceous	7.9	No	Unspecified	Lakehead Pipeline
117	3205 - Mixed Upland Shrub	3.5	No	Unspecified	-Browse has killed most tree species that were trying to seed in.
118	3105 - Mixed Upland Herbaceous	3.4	No	Unspecified	
119	3105 - Mixed Upland Herbaceous	8.9	No	Unspecified	-Single clump of aspen and pine (<1 acre) within stand.
120	3205 - Mixed Upland Shrub	1.3	No	Unspecified	-Slowly filling in with trees but for now a U type.
121	3303 - Mixed Low Density Trees	2.4	No	Unspecified	-This will likely be an MC1 or MC4 next entry period.
126	3205 - Mixed Upland Shrub	14.1	No	Unspecified	-Scattered clumps of sapling-sized aspen throughout.
128	3205 - Mixed Upland Shrub	3.1	No	Unspecified	-Red oak trying to grow in a few spots but browse is knocking it back.
129	3105 - Mixed Upland Herbaceous	5.5	No	Unspecified	Pine filling along edges of stand.