



**PIGEON RIVER COUNTRY MANAGEMENT UNIT  
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT 48 ENTRY YEAR: 2014**

**Compartment Acreage: 1876      County: Otsego**

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**Review Date:**

August 22, 2012

**Stand Examiner:**

Greg Rekowski

**Legal Description:**

T31N - R01W Sections 2, 11 and 14

**RMU (if applicable):**

Not Applicable

**Management Goals:**

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

**Soil and Topography:**

Rolling topography with a mix of sands and sandy-loam soils dominated by the Menominee-Bamfield-Blue Lake Complex. Several lowland stands are in the vicinity of Tubb's Creek and are predominantly Tawas-Lupton or Tawas-Leafriver mucks.

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

Entirely state-owned lands within the compartment. Privately owned land adjoins along the entire southern border of section 14.

**Unique, Natural Features (include only non-site specific and non-sensitive information):**

An active Red-Shouldered Hawk nest has been documented within this compartment. Several other stick nests were found throughout the compartment.

**Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):**

None identified.

**Special Management Designations or Considerations:**

None identified.

**Watershed and Fisheries Considerations:**

Tubb's Creek originates in stand #90 and flows through section 14. This watercourse is impounded by numerous beaver dams.

**Wildlife Habitat Considerations:**

Northern hardwoods and aspen dominate this compartment. There are swamp conifers in the south. Blocks of aspen will be clearcut in conjunction with other aspen in the compartment to the east. The stands cut will be relatively large to reduce the chance of overbrowsing by elk. One large opening in the middle of the compartment will continue to be maintained for deer, elk, and turkey.

**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. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift are the Devonian Berea Sandstone and Bedford and Antrim Shales. The Antrim is quarried for clay/shale and cement products elsewhere in the State. The nearest gravel pit is one and one-half miles to the northwest, and potential is considered good on the upland areas. This area is partially leased for oil and gas development with production from the Niagaran reef trend. Additional Niagaran reefs are likely in the compartment. The Antrim Shale has been developed and is producing to the south of the compartment. **Natural gas is being drained from State minerals.** There is excellent oil and gas potential for known producing formations in this compartment.

**Vehicle Access:**

The only wheeled vehicle access to this compartment is by way of Sawdust Pile Road which passes through section 14 and a small portion of section 11. All other roads have been closed to the public.

**Survey Needs:**

None required.

**Recreational Facilities and Opportunities:**

Two designated dispersed horse camping sites are located within this compartment (stands #68 and #52). The North Spur of the Shore-to-Shore horse riding trail as well as the Midland to Mackinaw hiking trail both follow Sawdust Pile Road through the compartment.

**Fire Protection:**

Access is generally good in case of any fire suppression efforts, though the area is at low risk to any wildfire potential. Most road systems are closed with berms.

**Additional Compartment Information:**

Elk and deer browse continue to be a problem in this compartment. Stands 5, 12, 32, 43, and 50 were harvested in the 1990's but browsing has eliminated virtually all tree species regeneration. In 2005, prescribed burns were conducted in these stands with the hopes of re-establishing regeneration but were unsuccessful. Stand 39 was harvested in 2005 but most aspen regeneration has failed.

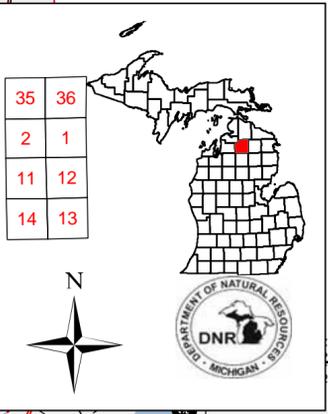
Beech bark disease (BBD) or emerald ash borer (EAB) were not observed in this compartment.

- **The following 9 reports from the IFMAP Inventory System are attached:**
  - ◆ **Cover Type by Age Class**
  - ◆ **Cover Type by Harvest Method**
  - ◆ **Treatments with No Limiting Factor**
  - ◆ **Treatments with Limiting Factor**
  - ◆ **Out of YOE Treatments**
  - ◆ **Forested Stands**
  - ◆ **Nonforested Stands**
  - ◆ **Proposed SCAs**
  - ◆ **Dedicated SCAs**
  
- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - ◆ **Base feature information, stand numbers, cover types, road access system**
  - ◆ **Proposed treatments**
  - ◆ **Special ecological designations**
  - ◆ **Recreational facilities**

# Cover Type & Treatment Map

Compartment: 048  
 T31N R01W Sec. 1, 2, 11, 12, 13, 14  
 T32N R01W Sec. 35, 36  
 County: Otsego  
 Unit: Pigeon River Country  
 YOY: 2014  
 Acres: 1,876 GIS Calculated  
 Examiner: Greg Rekowski  
 Map Revised: 04/04/2012  
 Map Phase: Pre-Review

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



### Legend

- + Remonumented Section Corners
- Miris Corners
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- - - Closed Roads
- Stream
- - - Intermittent Stream
- Pipe
- Power
- - - Bike Trail
- - - Horse Trail
- - - Ski Trail
- - - Hiking Trail
- - - Bike Trails
- - - Hiking Trails
- - - Horse Trails
- - - Ski Trails
- Lakes and Rivers
- State Forest Land

### Planned Regeneration

- Natural

### Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)
- Mowing

### Forest Stands

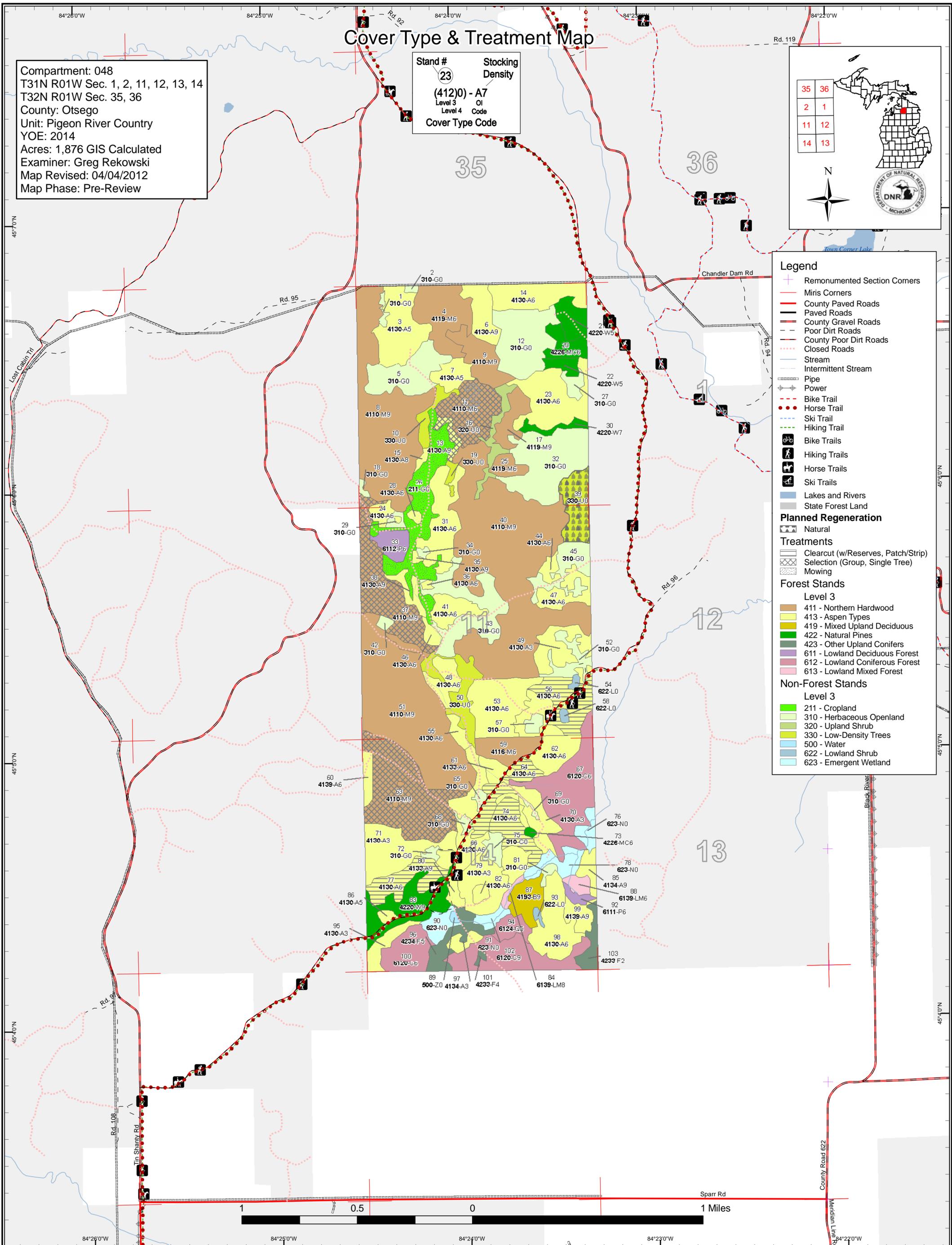
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

### Non-Forest Stands

Level 3

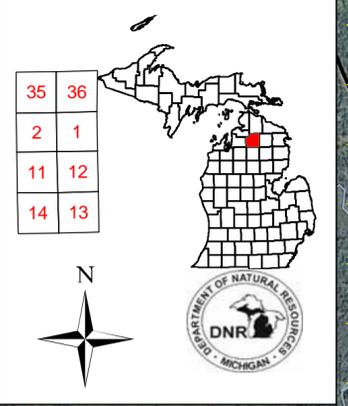
- 211 - Cropland
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



# Stand Boundary Map

Compartment: 048  
 T31N R01W Sec. 1, 2, 11, 12, 13, 14  
 T32N R01W Sec. 35, 36  
 County: Otsego  
 Unit: Pigeon River Country  
 YOE: 2014  
 Acres: 1,876 GIS Calculated  
 Examiner: Greg Rekowski  
 Map Revised: 04/04/2012  
 Map Phase: Pre-Review

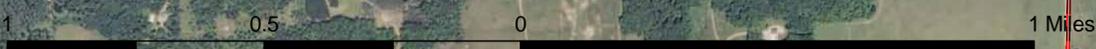
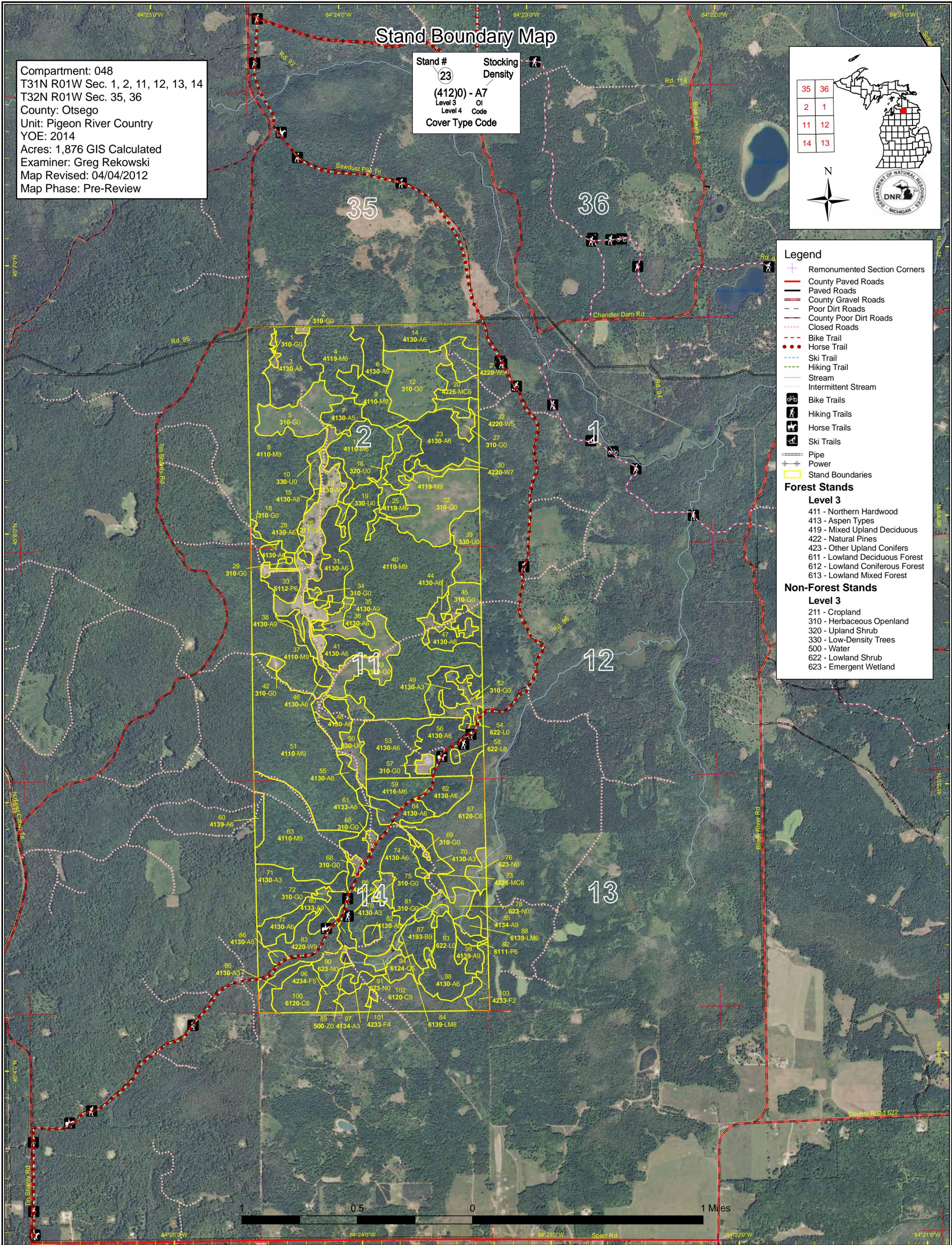
Stand #  
 23  
 Stocking  
 Density  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
 Cover Type Code



- Legend**
- Remonumented Section Corners
  - County Paved Roads
  - Paved Roads
  - County Gravel Roads
  - Poor Dirt Roads
  - County Poor Dirt Roads
  - Closed Roads
  - Bike Trail
  - Horse Trail
  - Ski Trail
  - Hiking Trail
  - Stream
  - Intermittent Stream
  - Bike Trails
  - Hiking Trails
  - Horse Trails
  - Ski Trails
  - Pipe
  - Power
  - Stand Boundaries

- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
  - 413 - Aspen Types
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  - 423 - Other Upland Conifers
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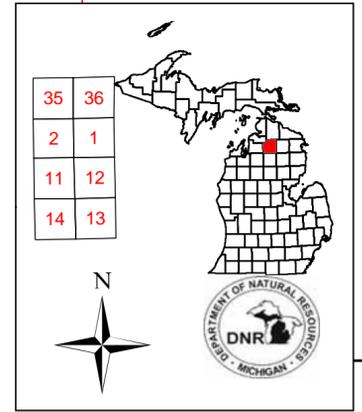
- Non-Forest Stands**
- Level 3**
- 211 - Cropland
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  - 320 - Upland Shrub
  - 330 - Low-Density Trees
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland



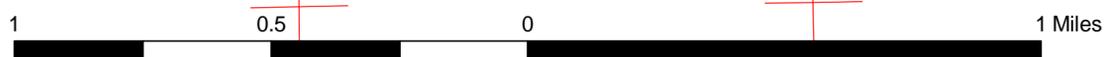
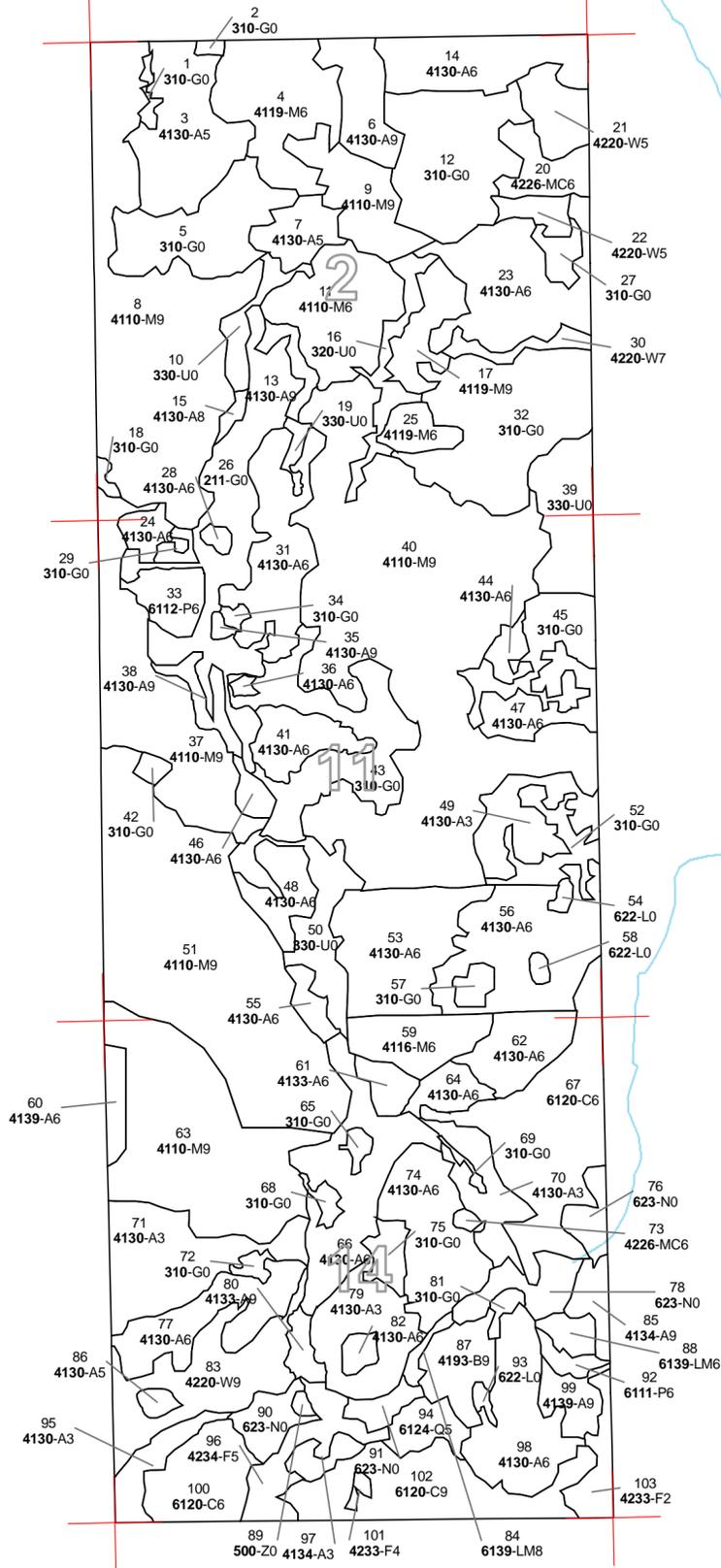
# Dedicated & Proposed Special Conservation Area Map

Compartment: 048  
 T31N R01W Sec. 1, 2, 11, 12, 13, 14  
 T32N R01W Sec. 35, 36  
 County: Otsego  
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 YOE: 2014  
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 Examiner: Greg Rekowski  
 Map Revised: 04/04/2012  
 Map Phase: Pre-Review

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



- Legend**
- + Remonumented Section Corners
  - Miris Corners
  - Stand Boundaries
  - Dedicated Special Conservation Areas
  - ▲ Campgrounds
  - B Boat Access Sites
  - Cold Water Streams
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
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  - 423 - Other Upland Conifers
  - 611 - Lowland Deciduous Forest
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  - 613 - Lowland Mixed Forest
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- Level 3**
- 211 - Cropland
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84°26'0"W 84°25'0"W 84°24'0"W 84°23'0"W 84°22'0"W

45°7'0"N

45°6'0"N

45°5'0"N

45°4'0"N

45°7'0"N

45°6'0"N

45°5'0"N

45°4'0"N

**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	23	316	16	114	70	29	5	11	8	0	0	0	0	592
Cedar	0	0	0	0	0	0	0	0	38	0	0	21	52	0	111
Cropland	48	0	0	0	0	0	0	0	0	0	0	0	0	0	48
Herbaceous Openland	224	0	0	0	0	0	0	0	0	0	0	0	0	0	224
Low-Density Trees	52	0	0	0	0	0	0	0	0	0	0	0	0	0	52
Lowland Aspen/Balsam Poplar	0	0	10	3	0	0	0	0	0	0	0	0	0	0	14
Lowland Conifers	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Lowland Mixed Forest	0	0	0	0	0	0	0	0	2	5	0	0	0	0	7
Lowland Shrub	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Marsh	31	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Natural Mixed Pines	0	0	1	0	0	0	0	0	0	0	0	0	0	11	12
Northern Hardwood	0	0	0	0	0	0	0	38	42	464	0	0	0	121	665
Paper Birch	0	0	0	0	0	0	0	0	14	0	0	0	0	0	14
Upland Shrub	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Upland Spruce/Fir	0	9	0	0	0	1	0	15	0	0	0	0	0	0	26
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
White Pine	0	0	0	12	0	11	0	33	0	0	0	0	0	0	55
<b>Total</b>	<b>371</b>	<b>32</b>	<b>327</b>	<b>32</b>	<b>114</b>	<b>82</b>	<b>29</b>	<b>90</b>	<b>115</b>	<b>477</b>	<b>0</b>	<b>21</b>	<b>52</b>	<b>132</b>	<b>1876</b>



Don River Country Mgt. Unit  
Year of Entry 2014

**Table 2 – Proposed Treatment Summaries**

Compartment 048  
Total Compartment Acres: 1876

**Acres by Treatment Type**

Commercial Harvest - 240	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 48	Tree Seeding - 0	Pesticide - 0	

**Cover Type by Harvest Method**

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	83	5	0	0	0	0	87
Northern Hardwood	0	152	0	0	0	0	152
<b>Total</b>	<b>83</b>	<b>157</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>240</b>



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<b>11 53048011-Cut</b>	32.2	4110 - Sugar Maple Association	High Density Pole	92	111-140	Harvest	Group Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal

Prescription -Thin down to average ba per acre of 80 sq. ft. between gaps. Create one large (>100 ft. diameter) canopy gap per five acres near larger diameter white pine, sugar maple, and basswood.  
Specs:  
-Do not harvest any species that may be rare in the stand.

Other -Go around steep slopes when putting in the treatment boundary.

Comments:  
-Protect existing white pine regeneration from damage.  
-GPS (point not polygon) location of canopy gaps.

Next Steps: -Acceptable regeneration will be any mix of hardwood species and white pine.

Proposed Start Date: 10/01/2013

<b>13 53048013-Cut</b>	4.9	4130 - Aspen	High Density Log	66		Harvest	Group Selection	4130 - Aspen	Cmpt. Review Proposal
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Prescription -This stand will be managed together with adjacent stand 11. Create a few, large canopy gaps where aspen is more concentrated. In areas where the species mix is more diverse, thin down to an average ba/acre of 70 sq. ft.  
Specs:  
-Do not mark any species that may be rare in the stand.  
-There is a pocket of nice advanced hardwood regeneration in the south part of the stand. Leave this area as retention.

Other  
Comments:  
-Acceptable regeneration will be a mix of aspen, white pine, and hardwoods.

Next Steps:

Proposed Start Date: 10/01/2013

<b>37 53048037-Cut1</b>	47.9	4110 - Sugar Maple Association	High Density Log	90	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription -Thin down to 80-90 sq. ft. per acre in between gaps. Do not remove more than 1/3 of the stand at any given location.  
Specs:  
-Practice Big Tree Silviculture in this stand by only lightly thinning areas that are dominated by large trees (>20" DBH).  
-Leave the majority of aspen for future snags but create some canopy gaps in the few areas where it is heavy. Make roughly one 66' canopy gap for every two acres.  
-To increase the amount of large CWD, mark trees (>10"DBH) of poor form as cut and leave trees.  
-Do not mark any elm, paper birch, white pine, red oak or other species that are rare in the stand.  
-There are no known T&E species that will be affected by this harvest.

Other -Some areas of lower stocking in the north end may need to be excluded.

Comments:  
-Some areas of seasonally wet ground in this stand.  
-Utilize the well pad as a landing.

Next Steps: -Aspen and hardwoods would be expected to fill in the canopy gaps.

Proposed Start Date: 10/01/2013

<b>56 53048056-Cut</b>	25.4	4130 - Aspen	High Density Pole	50		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription -Clearcut all aspen, red maple, and balsam fir. Leave some scattered mature aspen and fir as future snags. Do not cut any other species.  
Specs:  
-Leave a 1/2 chain buffer around the two lowland pockets to maintain shading effects.  
-Leave 3-10% area as interior retention pockets preferably along Sawdust Pile Road, which is also a segment of the Shore-to-Shore trail.  
-No known T&E species will be affected by this treatment.

Other -Several stick nests in and around this stand (see OFS layer).

Comments:  
Next Steps: -Acceptable regeneration will be any combination of aspen, hardwoods, and conifers.

Proposed Start Date: 10/01/2013



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
63	53048063-Cut1	72.3	4110 - Sugar Maple Association	High Density Log	94	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> -Thin down to an average basal area per acre of 80 sq. ft. between canopy gaps. Focus on removing sugar maple and basswood in the 8-10 inch diameter classes. <u>Specs:</u> -Using a different color, mark trees of poor form (>8" DBH) as cut and leave trees for future CWD. -Cut all ash. Mark to leave some scattered ash as future snag trees. -Do not mark any white pine, paper birch, aspen, elm, or any other species that may be rare in the stand. -Expand upon existing canopy gaps from previous harvests and clean up ironwood saplings that have filled in these gaps. Canopy gaps should be roughly 66 feet in diameter and at a rate of one per two acres. -Retention is in the form of certain species that will not be cut as well as small no-cut buffers around the seep and stick nest. -No known T & E species will be affected by this harvest. <u>Other</u> <u>Comments:</u> -Some areas of lower stocking along the northern edge of the stand that should be excluded when putting in the sale boundary. -Keep an eye out for additional stick nests in this stand. <u>Next</u> <u>Steps:</u> -Acceptable regeneration in canopy gaps will be any mix of hardwoods and conifers. <u>Proposed</u> <u>Start Date:</u> 10/01/2013										
64	53048064-Cut	6.3	4130 - Aspen	High Density Pole	49		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> -Clearcut all aspen, red maple, and balsam fir. Do not cut any other species. <u>Specs:</u> -Leave a few scattered mature aspen and fir as future snags. -Retention will be the small area along Sawdust Pile Road that has already been excluded from the treatment boundary. -No known T&E species will be affected by this treatment. <u>Other</u> <u>Comments:</u> <u>Next</u> <u>Steps:</u> -Acceptable regeneration will be any mix of aspen, hardwoods, and conifers resulting in a medium to well-stocked stand. <u>Proposed</u> <u>Start Date:</u> 10/01/2013										
66	53048066-Cut	10.9	4130 - Aspen	High Density Pole	43		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> -Clearcut all aspen, balsam fir, and red maple. Leave all other species as they do not represent a significant amount of basal area. <u>Specs:</u> -Mark to leave scattered mature aspen to serve as future snags and eventually CWD. -Shore-to-Shore trail intersects this stand so leave retention pockets along the side of the road/trail. Focus retention pockets in areas with large, decadent aspen or areas with higher conifer content. <u>Other</u> <u>Comments:</u> -Steep slope along the east side of this stand. The steepest portion has already been excluded from the treatment boundary. Evaluate the need for any additional retention that may be needed along this slope. -Utilize the adjacent opening as a landing. <u>Next</u> <u>Steps:</u> -Accetable regeneration will be any mix of aspen, hardwoods, and conifers resulting in a medium to well-stocked stand. <u>Proposed</u> <u>Start Date:</u> 10/01/2013										
74	53048074-Cut	19.3	4130 - Aspen	High Density Pole	56		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> -Clearcut all aspen and red maple, leave all other species. Leave scattered mature aspen as future snags and coarse woody debris. <u>Specs:</u> -Leave one interior retention pocket equal to 3-10% of the stand's area. -No known T&E species will be affected by this treatment. <u>Other</u> <u>Comments:</u> -There is a stick nest in the southern portion of the stand (likely gowhawk or RSH) that already has the appropriate buffer placed around it in the treatment boundary. Add spec that prohibits harvesting during raptor breeding season to avoid disturbance to the nest. <u>Next</u> <u>Steps:</u> -Acceptable regeneration will be any mix of aspen, hardwoods, and conifers resulting in a medium to well-stocked stand. <u>Proposed</u> <u>Start Date:</u> 10/01/2013										



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
77 53048077-Cut	20.6	4130 - Aspen	High Density Pole	44		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription -Mark to leave scattered oak and pine. Do not cut any species that may be rare in the stand.

Specs:  
-Mark trees of poor quality (>8" DBH) as cut and leave trees for future CWD.  
-Create retention pockets equal to 3-10% of the stands area.  
-No known T&E species will be affected by this treatment.

Other -Utilize the opening to the north as a landing.

Comments: -Stick nest in the north part of the stand near the vernal pond. This area has already been excluded from the treatment boundary.

Next Steps: -Acceptable regeneration will be any mix of aspen, pine, and hardwoods.

Proposed Start Date: 10/01/2013

26 NF_53048026-NonFor	47.8	2113 - Forage Crops				Non-Forest Management	Mowing	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
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Prescription

Specs:

Other

Comments:

Next

Steps:

Proposed Start Date: Unspecified

**Total Treatment  
Acreage Proposed: 287.6**

**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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#Error

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Error

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
53056_OutOfYOE-Burn	18.2					Prescribed Burn	Unspecified	3205 - Mixed Upland Shrub	Cmpt. Review Proposal
<u>Prescription</u> -Moderate intensity burn to reduce encroaching woody vegetation, mainly black cherry. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> <u>Proposed Start Date:</u> Unspecified									

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**Total Treatment Acreage Proposed: 18.2**

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## Pigeon River Country Mgt. Unit

## 5 – Forested Stands

Compartment: 048  
Year of Entry: 2014

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	4130 - Aspen	Medium Density Pole	33.6	27		-Several open areas where browsing has impeded regeneration success.
4	4119 - Mixed Northern Hardwoods	High Density Pole	34.4	82	81-110	-White pine is seeding in heavy in some areas. Let the understory white pine grow and then consider releasing the regeneration by partially removing some of the poorer quality hardwoods. -Aspen becomes more common in the northwest side of the stand. -There is a small pocket of red pine in the south end.
6	4130 - Aspen	High Density Log	16.2	66		-Large aspen that is starting to die off. Good amount of soft snag development. -Other species that were present but rare included red maple, beech, and paper birch. -Striped maple was of merchantable size in a few areas. -Some steep slopes, especially at the south end.
7	4130 - Aspen	Medium Density Pole	11.0	23		-More open along the western half.
8	4110 - Sugar Maple Association	High Density Log	101.1	94	81-110	-Other species that were present but rare included American elm, paper birch, red pine, and hemlock. Aspen and white pine are more common at the north end of the stand. -Variable quality throughout the stand with some areas having mostly poor-quality stump sprouts and looking as if it were high-graded. Other areas have much better quality. -In some areas, stocking becomes lower near the perimeter of the stand, especially near the southwest and northeast corner. -Average basal area per acre based off of 16 QD plots is 101 sq. ft. per acre. Of that total, white ash comprises 5 sq. ft. per acre, and beech comprises 3 sq. ft. per acre.
9	4110 - Sugar Maple Association	High Density Log	20.9	73	111-140	-Undulating terrain with a lot of slopes that are too steep for harvesting. -Other overstory species that were present but rare included red oak, white pine, ironwood, beech, and elm. -Five basal area plots were taken with an average basal area of 130 sq. ft. per acre.
11	4110 - Sugar Maple Association	High Density Pole	32.2	92	111-140	-Hardwood stand of poor-medium quality. -Previously thinned in the 1980's. Some areas were thinned heavily. Gaps created from previous thinning have filled in with ironwood and white ash. White pine seeding in throughout the stand. -Other species that are present but rare include white pine and beech. -Heavy browsing in the understory.
13	4130 - Aspen	High Density Log	4.9	66		-This stand is just a small pocket of aspen mixed in with the adjacent hardwood stand. In some parts of the stand, there is a nice understory of advanced hardwood regeneration. -This stand is too small to manage on its own; it should be managed together with the adjacent hardwood stand.

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## Pigeon River Country Mgt. Unit

## 5 – Forested Stands

Compartment: 048  
Year of Entry: 2014

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	4130 - Aspen	High Density Pole	26.4	28		-Site quality becomes much better as you move westward (up-slope) in the stand. BTA more common in the west, QA more common in the east side. -Other overstory species that were present but rare included; jack pine, red pine, paper birch, red maple, and white ash. -A few scattered open areas. -A few areas where quaking aspen is heavily affected by hypoxylon canker.
15	4130 - Aspen	Medium Density Log	1.8	84		-Transition between hardwoods and opening. -Other species present but rare included sugar maple and white pine.
17	4119 - Mixed Northern Hardwoods	High Density Log	13.1	96	81-110	-Diverse stand but quality is only mediocre. -Five basal area plots were taken with an average of 86 sq. ft. per acre.
20	42260 - Natural Pine, Mixed Deciduous	High Density Pole	11.3	Uneven Age	81-110	-Likely a three-aged stand. Scattered larger diameter oak and white pine mixed with smaller (8-12") white pine and hardwoods. -9 basal area plots taken with an average of 98 sq. ft. per acre.
21	42200 - Natural White Pine	Medium Density Pole	11.8	38	1-50	-Open lanes running through the stand that may have been skid trails from a previous thinning. Good growth rates on the pine. -9 basal area plots were taken with an average of 51 sq. ft. per acre.
22	42200 - Natural White Pine	Medium Density Pole	5.5	50	81-110	-Mix of open areas and more dense forested areas. Varying sizes of white pine.
23	4130 - Aspen	High Density Pole	37.6	27		-Most white pine around the perimeter of the stand. Other species that were present but rare included; white ash, sugar maple, beech, and red maple. -East edge of stand along compartment boundary is lower site quality.
24	4130 - Aspen	High Density Pole	5.6	29		-There are a few small wet areas.
25	4119 - Mixed Northern Hardwoods	High Density Pole	7.3	84	81-110	-Other species that were present in the overstory but rare included white pine and white ash. -Five basal area plots were recorded with an average of 90 sq. ft. per acre.
28	4130 - Aspen	High Density Pole	1.7	25		-Small aspen pole stand, surrounded by maintained wildlife opening. Stand should be managed with nearby aspen stands of similar age.
30	42200 - Natural White Pine	Low Density Log	5.3	50		-Transition between aspen stand to the north and opening to the south. -Very open stand with a few small clumps of dense white pine.
31	4130 - Aspen	High Density Pole	31.0	28		-Open areas along the eastern edge of the stand that filled in only partially with ironwood.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
33	6112 - Lowland Aspen	High Density Pole	10.1	29		-Stand becomes pretty wet in the south half. A vernal pond is located in this southern half. -There are a few pockets of larger trees along the edges of the stand. -Autumn olive is present along the edges of the stand near the maintained wildlife opening. -Basswood is attempting to regenerate in the understory but the browse is knocking it back.
35	4130 - Aspen	High Density Log	1.1	62		-Stand too small on its own to be managed. Should be managed with adjacent, younger aspen stands.
36	4130 - Aspen	High Density Pole	1.0	43		-Cannot recommend cutting due to the small size of the stand and the likelihood that browsing would eliminate any regeneration.
37	4110 - Sugar Maple Association	High Density Log	51.5	90	111-140	-A few pockets of large trees (>20" DBH). -Other overstory trees that were present but rare included; elm, paper birch, white pine, and red oak. -Recorded 26 basal area plots for an average of 118 sq. ft. per acre. -No canopy gaps needed at this time. -Keep an eye out for raptor nests when implementing treatment.
38	4130 - Aspen	High Density Log	6.7	61		-Heavy blanket of sugar maple saplings throughout most of the stand. -Other overstory species that were present but rare included; white pine, paper birch, and basswood. -Aspen is starting to die in some places creating good soft snag habitat. -Recommend letting this stand convert to hardwoods due to its small size and the likelihood that browsing would eliminate any regeneration.
40	4110 - Sugar Maple Association	High Density Log	193.5	93	81-110	-Thinned in 1985, removing all aspen, paper birch, and ironwood. As a result, this stand is highly variable in stocking density. -Other species that were present but very rare in the stand included red oak, white pine, elm, paper birch, and hemlock. -28 QD data points were taken with an average basal area per acre of 111 sq. ft. Of this total, white ash comprises 8 sq. ft. per acre and beech comprises 2 sq. ft. per acre.
41	4130 - Aspen	High Density Pole	13.2	35		-Let this stand grow for at least another ten years. -Other overstory species that were present but rare included; paper birch, white spruce, white pine, basswood, elm, and red oak.
44	4130 - Aspen	High Density Pole	4.7	25		-Heavy browse pressure in and around this stand. -Other overstory species present but rare included sugar maple and elm.
46	4130 - Aspen	High Density Pole	3.8	41		-Other overstory species present include paper birch and basswood.
47	4130 - Aspen	High Density Pole	14.3	25		-Heavy browse pressure in and around this stand.

S t a n d	Pigeon River Country Mgt. Unit		5 – Forested Stands			Compartment: 048
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2014
						General Comments:
48	4130 - Aspen	High Density Pole	12.1	26		-The southwest portion of this stand is lower ground and has a small, intermittent stream running through it. -The northeast portion of the stand is higher ground but has a vernal pond within, along with some seasonally wet ground. -Other species that were present but rare included sugar maple, elm, paper birch, red oak, and red maple.
49	4130 - Aspen	High Density Sapling	19.2	27		-Clearcut in 1987. Some scattered open areas that didn't regenerate well. -Severe browse damage on all of the understory tree species.
51	4110 - Sugar Maple Association	High Density Log	121.0	Uneven Age	81-110	-Thinned in 1985-87 which appeared to remove all aspen. As a result, stocking is variable. -Other species that were present in the stand but rare included bigtooth aspen, white pine, hemlock, elm, and paper birch. -24 QD points were taken with an average basal area per acre of 108 sq. ft. Of the total basal area per acre, white ash comprises 13 sq. ft. and beech 2 sq. ft. -A few pockets of large (>20" DBH sugar maple, beech, and ash). This stand could potentially be considered for old-growth potential. A 18" sugar maple I cored was roughly 125 years old.
53	4130 - Aspen	High Density Pole	36.4	44		-Other species that were present in the overstory but rare included white pine, red oak, paper birch, and basswood. -Northern hardwood species become more common as you move northward in the stand. -Let this stand grow at least another ten years as it is still relatively young and located on a site with good growth potential.
55	4130 - Aspen	High Density Pole	4.8	25		
56	4130 - Aspen	High Density Pole	40.0	50		-Bigtooth aspen more common west of Sawdust Pile Trail while quaking aspen and balsam fir are dominant species on the east side of the road. -Site quality is much lower on the east side of the road. -Other species that were present in the overstory but rare included black cherry, red oak, white pine, red maple, sugar maple, and paper birch. -This stand will be cut with the adjacent stand 81 in Compartment 49.
59	4116 - Mixed N. Hardwood - Aspen	High Density Pole	16.7	76	51-80	-Some areas are heavier to aspen than others. -Average ba/acre of 70 sq. ft. based off of 4 plots. -A stick nest was found in an 11" DBH sugar maple (see OFS layer).
60	4139 - Aspen, Mixed Deciduous	High Density Pole	5.8	29		-This stand should be managed with the larger stand to the west in Compartment 47.
61	4133 - Aspen, Mixed Pine	High Density Pole	5.9	43		-Poor quality aspen in the overstory. Let this stand convert to white pine as the understory is fully developed with white pine poles and saplings.
62	4130 - Aspen	High Density Pole	16.2	27		-Other species that were present but rare in the stand included sugar maple, paper birch, basswood, and white spruce. -Stocking and overall size become much lower as you get closer to the swamp conifer stand along the eastern edge of the stand.





	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
63	4110 - Sugar Maple Association	High Density Log	73.0	94	111-140	<ul style="list-style-type: none"> <li>-Thinned in 1985-87 which created a few canopy gaps. Beech and ironwood primarily filled in the gaps.</li> <li>-Lower stocking in the north end and along the perimeter of the stand between the two old logging roads. Treatment boundary will go around these areas of lower stocking.</li> <li>-There is a seep in the north end of the stand. See the OFS layer for the location of the seep.</li> <li>-13 QD points were taken with an average basal area per acre of 120 sq. ft. Together, beech and white ash comprise 9 sq. ft. per acre of the basal area.</li> </ul>
64	4130 - Aspen	High Density Pole	7.3	49		<ul style="list-style-type: none"> <li>-Variable size classes in this stand. Some pockets of larger aspen while other areas are primarily poles and saplings.</li> <li>-Other species that were present but rare included paper birch and sugar maple.</li> </ul>
66	4130 - Aspen	High Density Pole	35.2	43		<ul style="list-style-type: none"> <li>-Other species that were present in the overstory but rare included; paper birch, sugar maple, white pine, red pine, balsam fir, and basswood.</li> <li>-Sugar maple regeneration is heavy in the stand on the west side of the road.</li> <li>-There are some pockets of larger aspen mixed in with the overall stand. In addition, there are pockets of smaller, unmerchantable timber as well, most prevalent in the southern portion of the stand adjacent to stand 81 (exlcude these areas from harvest).</li> </ul>
67	6120 - Lowland Cedar	High Density Pole	52.4	128		<ul style="list-style-type: none"> <li>-Several seasonal streams running through this stand.</li> <li>-An old road cuts through this stand, running north to south.</li> </ul>
70	4130 - Aspen	High Density Sapling	15.3	25		<ul style="list-style-type: none"> <li>-East finger of stand is a mix of upland ridges dominated by aspen saplings and lowland troughs with mainly cedar. The west finger of the stand is all upland and dominated by bigtooth aspen.</li> <li>-Other species that were present but rare included; black spruce, white spruce, red oak, white pine, and red maple.</li> </ul>
71	4130 - Aspen	High Density Sapling	33.1	25		<ul style="list-style-type: none"> <li>-A few scattered log-size bigtooth aspen and red oak.</li> <li>-Paper birch was an additional species that was present but rare.</li> </ul>
73	42260 - Natural Pine, Mixed Deciduous	High Density Pole	1.1	25	51-80	
74	4130 - Aspen	High Density Pole	30.0	56		<ul style="list-style-type: none"> <li>-Some scattered, large aspen mixed in</li> <li>-Steep slopes along both the north and south edges of the stand. Parts of these slopes will need to be excluded from harvest.</li> <li>-Stocking along the NE side (N of stand 74) becomes much lower and oak becomes more common. Exclude this area from harvest.</li> <li>-Other species that were present but rare included; white pine, balsam fir, white ash, white spruce, paper birch, and red pine.</li> <li>-A large stick nest was found in the southern portion of the stand (see OFS layer). Put a 5 chain buffer around the nest.</li> </ul>
77	4130 - Aspen	High Density Pole	24.0	44		<ul style="list-style-type: none"> <li>-Other species that were present but rare included; white ash, red pine, white spruce, sugar maple, and paper birch.</li> </ul>

Stand	Pigeon River Country Mgt. Unit		5 – Forested Stands			Compartment: 048
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2014
						General Comments:
79	4130 - Aspen	High Density Sapling	23.2	15		-Scattered mature red oak, white pine, and red pine. -Nice pockets of pine regeneration in the few areas where aspen regeneration did not do well.
80	4133 - Aspen, Mixed Pine	High Density Log	4.6	74		-Let this stand convert to white pine as there is already a fully developed white pine understory and some of the aspen is starting to die off. -Other species that were present but rare included; red maple, paper birch, balsam fir, and red oak.
82	4130 - Aspen	High Density Pole	3.1	39		-Manage this stand with the surrounding stand when it becomes mature.
83	42200 - Natural White Pine	High Density Log	32.7	70	81-110	-Other species that were present but rare included white spruce and paper birch. -14 basal area plots were taken with an average basal area per acre of 109 sq. ft.
84	6139 - Mixed Lowland Forest	Medium Density Log	2.3	80		-Tubb's Creek runs through this stand.
85	4134 - Aspen, Spruce/Fir	High Density Log	6.7	81		-A wet drainage runs through the center of this stand. -Stocking becomes much less to the south. -Other species that were present but rare included cedar and black spruce. -Let this stand convert naturally to the next stage in succession.
86	4130 - Aspen	Medium Density Pole	2.3	85		-Small, medium-stocked stand of very poor quality quaking aspen. Let the aspen die out and allow the thick understory of white pine to grow.
87	4193 - Birch, Aspen	High Density Log	14.3	80		-Steep slope along the NW edge going down to Tubb's Creek. -White pine was also present but rare. -This stand could potentially be harvested but regeneration of birch would be doubtful due to deer and elk browse. In addition, access to this stand would be difficult.
88	6139 - Mixed Lowland Forest	High Density Pole	4.8	92		-Stagnant, low quality lowland hardwood stand. -Small pocket of mostly black spruce in NW part of stand.
92	6111 - Lowland Balsam Poplar	High Density Pole	3.5	34		-Wet. Drainage from stand 100 to the south enters this stand. Also, there is a stream along the north edge of this stand. -Two-aged. Younger ash and poplar, older cedar and basswood. -Other species that were present but rare included paper birch, elm, balsam fir, white spruce, and black spruce.
94	6124 - Lowland Spruce-Fir	Medium Density Pole	8.4	80		-Scattered upland pockets of aspen, spruce, and fir surrounded by less productive lowlands that are mainly small balsam and black spruce. -Aspen is dying and the ground is wet all around this stand. Let the stand convert naturally to a mixed spruce-fir type.
95	4130 - Aspen	High Density Sapling	9.3	25		-Scattered lowland pockets throughout the stand. -Small opening (<1 acre) on west end of stand adjacent to Compartment 47.





Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
96	42340 - Upland Spruce/Fir	Medium Density Pole	15.5	70		<ul style="list-style-type: none"> <li>-A part of this stand (south of Tubb's Creek, west of the road) was partially harvested at one point in time, which likely removed all aspen and BAM while leaving clumps of spruce, fir, and cedar. Aspen did not regenerate well in most of the openings. Adjacent stand 98 was harvested at the same time, much better regeneration in that stand.</li> <li>-Some pockets of lowland throughout the stand.</li> <li>-Other species present but rare included; white pine and paper birch.</li> </ul>
97	4134 - Aspen, Spruce/Fir	High Density Sapling	4.8	25		<ul style="list-style-type: none"> <li>-Several lowland pockets throughout the stand but majority of stand is upland.</li> <li>-Some scattered log-size cedar and white spruce.</li> </ul>
98	4130 - Aspen	High Density Pole	29.7	26		<ul style="list-style-type: none"> <li>-A mix of upland and lowland areas throughout this stand. Several of the lowland areas are quite wet in the spring.</li> <li>-Scattered residual cedar left from previous harvest.</li> </ul>
99	4139 - Aspen, Mixed Deciduous	High Density Log	8.3	91		<ul style="list-style-type: none"> <li>-Mostly upland stand with some lowland pockets.</li> <li>-There are two seasonal streams/drainages that flow through this stand, draining into stand 93.</li> </ul>
100	6120 - Lowland Cedar	High Density Pole	21.2	111		<ul style="list-style-type: none"> <li>-Wet stand. Some areas of low productivity due to wetness. These areas filled with balsam saps.</li> <li>-Other species that were present but rare included; paper birch, red maple, white pine, black spruce, quaking aspen, balsam poplar, and tamarack.</li> <li>-Black ash most common at the north end of the stand.</li> </ul>
101	42330 - Upland Fir	Low Density Pole	1.2	53		<ul style="list-style-type: none"> <li>-Small inclusion of sparsely stocked, upland spruce-fir type surrounded by lowland swamp conifer types.</li> </ul>
102	6120 - Lowland Cedar	High Density Log	37.8	85		<ul style="list-style-type: none"> <li>-Wet stand. Some small streams flowing through this stand. Isolated pockets of cedar mortality in wetter areas near streams.</li> <li>-A few upland inclusions (each less than 1 acre in size).</li> <li>-An old road passes through this stand with two or three old culverts in need of repair. If any future management occurs in this area, then the culverts will likely need to be replaced.</li> <li>-Other species that were present but rare included; white spruce, white pine, black ash, quaking aspen, and red maple.</li> </ul>
103	42330 - Upland Fir	Medium Density	8.8	17		<ul style="list-style-type: none"> <li>-Previously harvested in 1995, which likely removed all aspen and merchantable fir. Scattered mature white spruce throughout. Thick pockets of balsam fir saps that may have also been excluded from harvest.</li> <li>-Aspen has not regenerated well, which has resulted in many open areas throughout the stand.</li> <li>-Scattered low pockets and drainages throughout this stand.</li> </ul>



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	3105 - Mixed Upland Herbaceous	1.9	No	Unspecified	
2	3105 - Mixed Upland Herbaceous	1.1	No	Unspecified	
5	3105 - Mixed Upland Herbaceous	30.0	No	Unspecified	-This stand was formerly a mixed aspen/hardwood stand that was clearcut. Subsequent regeneration failed due to intense browse pressure and this stand has been converted to a non-forested condition. A prescribed burn was done in 2005 to maintain the opening.
10	3303 - Mixed Low Density Trees	7.5	No	Unspecified	
12	3105 - Mixed Upland Herbaceous	41.2	No	Unspecified	-Rolling terrain. -A prescribed burn was conducted in this stand in 2005. -This has previously been an aspen stand that was clearcut in the 1990's. Browsing eliminated aspen and most other tree species regeneration. -Trace of spotted knapweed in the NE corner where the closed road enters the stand.
16	3205 - Mixed Upland Shrub	11.5	No	Unspecified	-Heavy browse pressure on the witch hazel, beech, and ironwood.
18	3105 - Mixed Upland Herbaceous	1.3	No	Unspecified	
19	3301 - Low Density Deciduous Tree	2.4	No	Unspecified	
26	2113 - Forage Crops	47.8	Yes	Unspecified	-This is a maintained wildlife opening that appears to be planted annually. -Multiple clumps of aspen that are less than one acre and therefore do not qualify as individual stands.
27	3105 - Mixed Upland Herbaceous	4.8	No	Unspecified	
29	3105 - Mixed Upland Herbaceous	2.3	No	Unspecified	
32	3105 - Mixed Upland Herbaceous	52.2	No	Unspecified	
34	3105 - Mixed Upland Herbaceous	1.3	No	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
39	330 - Low-Density Trees	21.3	Natural Regen	Aspen	-Stand was clearcut in 2005. Browsing has eliminated most regeneration. Some aspen may make it past the browsing level but overall stocking and quality will be low. -White pine, basswood, sugar maple, and red maple stumps from the previous harvest indicate that this was once a productive stand. -Scattered leave trees from previous harvest, mostly bigtooth aspen.
42	3105 - Mixed Upland Herbaceous	2.0	No	Unspecified	-Charlton gas well #2-11 is located in this opening (still operable).
43	3105 - Mixed Upland Herbaceous	37.3	No	Unspecified	-This stand was clearcut in the 1990's but browsing has eliminated most regeneration. A prescribed burn was conducted in 2005 to maintain this stand as an opening.
45	3105 - Mixed Upland Herbaceous	18.5	No	Unspecified	
50	3301 - Low Density Deciduous Tree	20.7	No	Unspecified	-Spotted knapweed is present along the road that passes through the stand.
52	3105 - Mixed Upland Herbaceous	10.8	No	Unspecified	-A portion of this stand (along the east edge) has been recently burned along with an opening in adjacent Compartment 49.
54	6229 - Mixed lowland shrub	1.4	No	Unspecified	-Possible bog, couldn't tell with the snow on the ground.
57	3105 - Mixed Upland Herbaceous	3.5	No	Unspecified	-There is a well pad in this opening. State North Charlton 1-11. -There was a lot of snow during this inventory date, only species I observed was a small amount of mullein.
58	6229 - Mixed lowland shrub	1.4	No	Unspecified	-Possible bog, difficult to tell with all of the snow on the ground. -A large shrub (5-10 feet tall) was common around the edges of this lowland. I was unable to identify this shrub.
65	3105 - Mixed Upland Herbaceous	2.0	No	Unspecified	
68	3105 - Mixed Upland Herbaceous	2.4	No	Unspecified	
69	3105 - Mixed Upland Herbaceous	1.1	No	Unspecified	
72	3105 - Mixed Upland Herbaceous	2.0	No	Unspecified	
75	3105 - Mixed Upland Herbaceous	5.8	No	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
76	6239 - Mixed Emergent Wetland	6.5	No	Unspecified	-Lots of standing dead cedar in this stand; indicates this stand was likely flooded at one point. -A small clump of phragmites was found. Likely native, not sure how invasive phragmites could have gotten to this location. -Tubb's Creek passes through the south portion of this stand.
78	6239 - Mixed Emergent Wetland	11.4	No	Unspecified	-Beaver pond in the center of the stand (north of stand 117). -Tubb's Creek runs through this stand.
81	3105 - Mixed Upland Herbaceous	2.2	No	Unspecified	
89	50 - Water	1.0	No	Unspecified	-Old beaver pond, part of Tubb's Creek which flows east out of this stand.
90	6239 - Mixed Emergent Wetland	8.4	No	Unspecified	
91	6239 - Mixed Emergent Wetland	4.9	No	Unspecified	
93	6220 - Alder/willow	1.3	No	Unspecified	-Wet lowland dominated by alder.



### 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
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### 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
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.