



# Compartment Review Presentation

## Pigeon River Country Forest Management Unit

Compartment 41

Entry Year 2015

Acreage: 1,868

County Otsego

Management Area: Pigeon River Country

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**Revision Date:** 05/22/2013

**Stand Examiner:** Greg Rekowski

**Legal Description:**

T32N R01W Sections 25, 26, & 27

**Identified Planning Goals:**

Maintain 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 predominantly lowland in Section 27 and along the Black River to rolling terrain in Sections 25 and 26. There are also lowland types along Hardwood Creek. The uplands are a mixture of pine, oak, and aspen types. The northern hardwood cover type is rare in this compartment. Roselawn and Rubicon sands make up the majority of the uplands, with some Emmet sandy loam in the northern portion of Section 26. Rifle peats are predominant in the lowlands.

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

Sections 25 and 27 are all in state ownership. In Section 26, the state acquired 226 acres (Kronlund tract, 11/30/2001). There is roughly 54 acres of private ownership located in the SE 1/4 of Section 26. This compartment is surrounded by state land on all sides with the exception of the east side of Section 25 south of Hardwood Creek, which is privately owned.

**Unique Natural Features:**

Hill's Thistle is the only rare species that has been documented in this compartment.

**Archeological, Historical, and Cultural Features:**

None identified.

**Special Management Designations or Considerations:**

Three stands in Section 25 have been designated as Special Conservation Areas. Each of these stands are comprised of large diameter red and white pine of natural origin, many in excess of 120 years of age.

**Watershed and Fisheries Considerations:**

The Black River is a designated trout stream and runs through the southern edges of Sections 26 and 27.

**Wildlife Habitat Considerations:**

Treatments in this compartment will maintain early successional habitat on the forest. A large oak and oak/pine area in the eastern central part of the compartment will be untreated and will continue to provide oak mast that is used by deer, elk, turkeys and bear from a large area.

**Mineral Resource and Development Concerns and/or Restrictions**

Surface sediments consist of glacial outwash sand and gravel, postglacial alluvium and coarse-textured glacial till. Glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Devonian Antrim Shale. The Antrim is quarried for clay/shale and cement products elsewhere in the State. The nearest gravel pit is in Section 25 and potential is considered good, especially in the upland areas. This area is/was 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 not been developed but has potential in the compartment. There is excellent oil and gas potential for known producing formations in this compartment.

**Vehicle Access:**

There is good access throughout most of Sections 25 and 26. Section 27 has rather limited access due to the large amount of swampland.

**Survey Needs:**

None required at this time.

**Recreational Facilities and Opportunities:**

The High Country Pathway and North Spur of the Shore to Shore Riding Trail both pass through the compartment. Trout fishing is popular along the Black River with several undesignated camping spots routinely used near the shores of the Black River.

**Fire Protection:**

Fire risk is moderate in this compartment due to pine dominant types in Sections 25 and 26. Access is good in case of any fire suppression efforts.

**Additional Compartment Information:**

The following reports from the Inventory are attached:

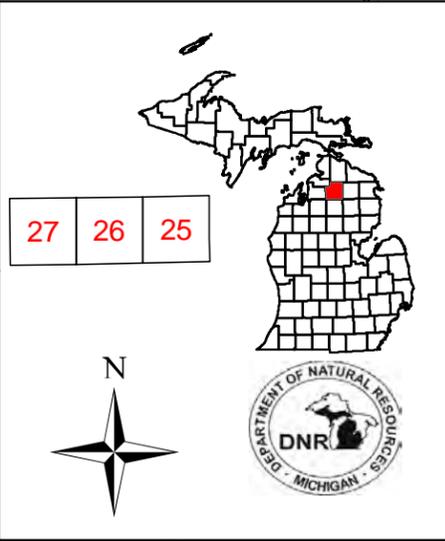
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

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

# Cover Type & Treatment Map

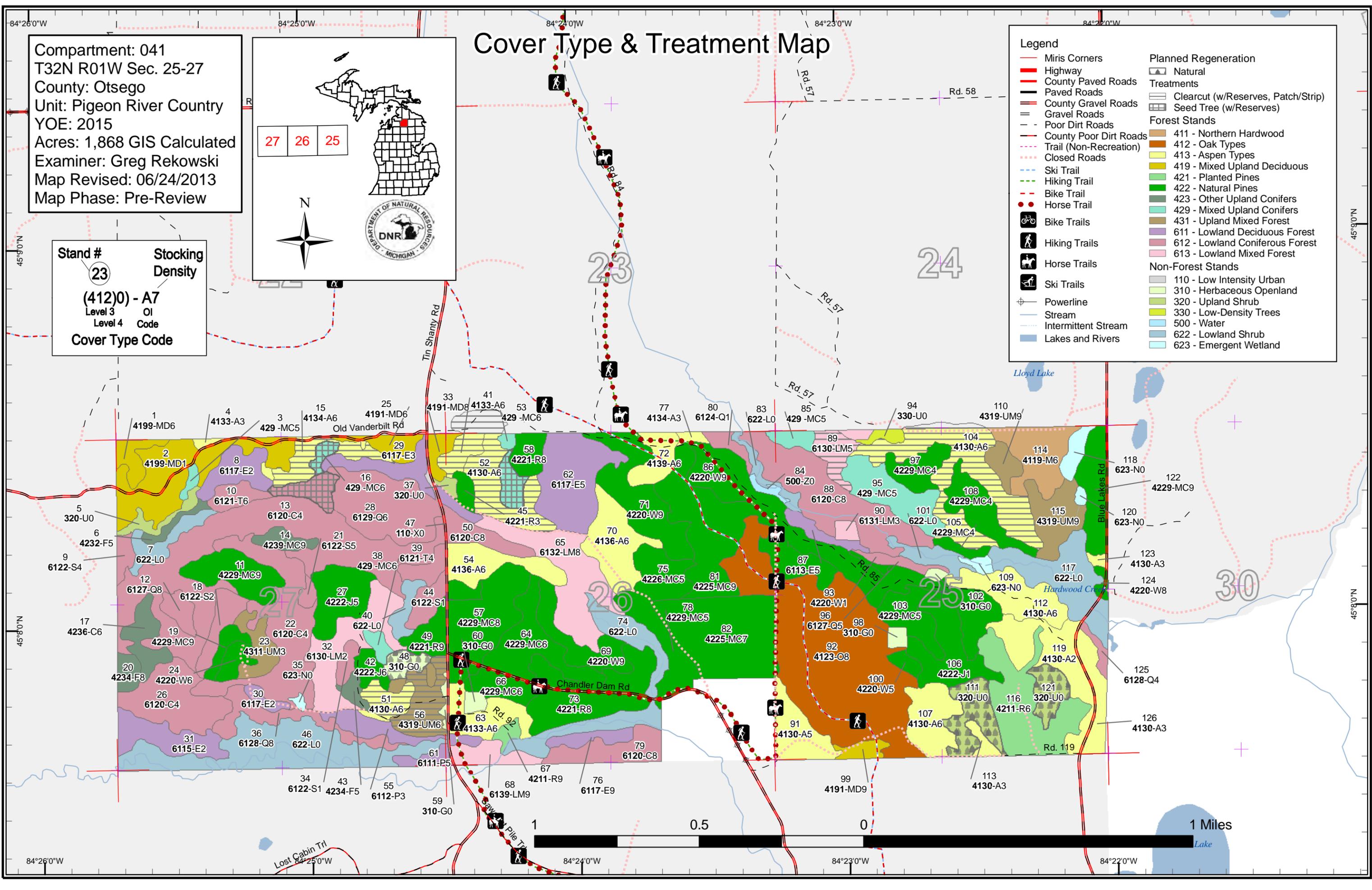
Compartment: 041  
 T32N R01W Sec. 25-27  
 County: Otsego  
 Unit: Pigeon River Country  
 YOE: 2015  
 Acres: 1,868 GIS Calculated  
 Examiner: Greg Rekowski  
 Map Revised: 06/24/2013  
 Map Phase: Pre-Review



**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

**Legend**

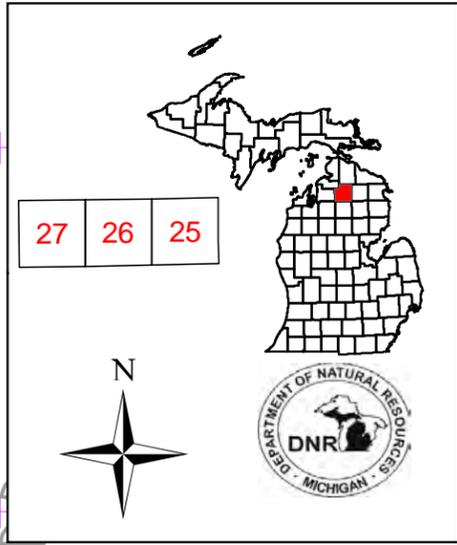
<ul style="list-style-type: none"> <li>— Miris Corners</li> <li>— Highway</li> <li>— County Paved Roads</li> <li>— Paved Roads</li> <li>— County Gravel Roads</li> <li>— Gravel Roads</li> <li>— Poor Dirt Roads</li> <li>— County Poor Dirt Roads</li> <li>— Trail (Non-Recreation)</li> <li>— Closed Roads</li> <li>— Ski Trail</li> <li>— Hiking Trail</li> <li>— Bike Trail</li> <li>— Horse Trail</li> <li>— Bike Trails</li> <li>— Hiking Trails</li> <li>— Horse Trails</li> <li>— Ski Trails</li> <li>— Powerline</li> <li>— Stream</li> <li>— Intermittent Stream</li> <li>— Lakes and Rivers</li> </ul>	<ul style="list-style-type: none"> <li>▲ Planned Regeneration</li> <li>▲ Natural</li> <li>▨ Treatments</li> <li>▨ Clearcut (w/Reserves, Patch/Strip)</li> <li>▨ Seed Tree (w/Reserves)</li> <li>Forest Stands</li> <li>■ 411 - Northern Hardwood</li> <li>■ 412 - Oak Types</li> <li>■ 413 - Aspen Types</li> <li>■ 419 - Mixed Upland Deciduous</li> <li>■ 421 - Planted Pines</li> <li>■ 422 - Natural Pines</li> <li>■ 423 - Other Upland Conifers</li> <li>■ 429 - Mixed Upland Conifers</li> <li>■ 431 - Upland Mixed Forest</li> <li>■ 611 - Lowland Deciduous Forest</li> <li>■ 612 - Lowland Coniferous Forest</li> <li>■ 613 - Lowland Mixed Forest</li> <li>Non-Forest Stands</li> <li>■ 110 - Low Intensity Urban</li> <li>■ 310 - Herbaceous Openland</li> <li>■ 320 - Upland Shrub</li> <li>■ 330 - Low-Density Trees</li> <li>■ 500 - Water</li> <li>■ 622 - Lowland Shrub</li> <li>■ 623 - Emergent Wetland</li> </ul>
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# Special Conservation Areas & Site Conditions Map

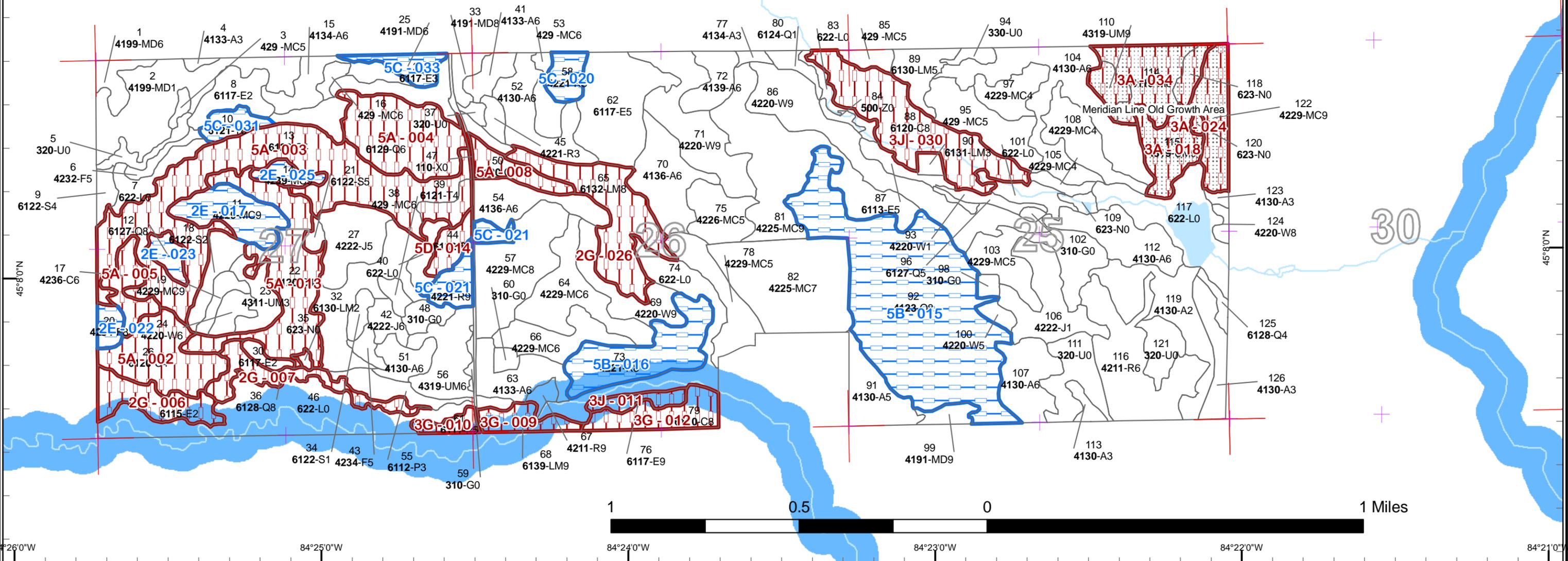
Compartment: 041  
 T32N R01W Sec. 25-27  
 County: Otsego  
 Unit: Pigeon River Country  
 YOE: 2015  
 Acres: 1,868 GIS Calculated  
 Examiner: Greg Rekowski  
 Map Revised: 06/24/2013  
 Map Phase: Pre-Review



**Stand #**  
 23  
**Stocking Density**  
 (4120) - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**

**Legend**

- Miris Corners
- Stand Boundaries
- Reviewable SCAs**
- Proposed SCA
- SCA Removal
- Site Condition Available**
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Dedicated Special Conservation Areas**
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



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	28	1	70	66	65	28	0	0	0	0	0	0	0	0	259
Cedar	0	0	0	0	0	0	0	0	0	54	28	71	94	0	248
Herbaceous Openland	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Jack Pine	0	23	0	0	24	0	0	0	0	0	0	0	0	0	47
Low-Density Trees	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Aspen/Balsam Poplar	0	0	11	0	4	0	0	0	0	0	0	0	0	0	16
Lowland Conifers	0	0	4	7	0	0	0	0	0	36	21	0	0	0	68
Lowland Deciduous	0	0	69	0	0	0	0	0	23	0	0	0	0	0	92
Lowland Mixed Forest	0	0	29	0	0	10	0	0	35	9	0	0	0	0	83
Lowland Shrub	136	0	0	0	0	0	0	0	0	0	0	0	0	0	136
Lowland Spruce/Fir	0	0	9	0	0	7	4	0	0	6	0	0	0	0	26
Marsh	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Mixed Upland Deciduous	0	39	0	0	0	0	0	11	5	8	0	0	0	0	62
Natural Mixed Pines	0	0	0	82	47	0	0	0	53	86	19	0	18	0	305
Northern Hardwood	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21
Oak	0	0	0	0	0	0	0	0	121	0	0	0	0	0	121
Red Pine	0	0	41	0	0	0	0	10	30	12	0	0	0	0	93
Tamarack	0	0	0	0	0	0	0	14	6	0	0	0	0	0	20
Upland Conifers	0	0	0	6	28	6	0	0	5	0	0	0	0	0	46
Upland Mixed Forest	0	0	9	0	18	0	0	0	0	0	6	0	0	17	50
Upland Shrub	32	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Upland Spruce/Fir	0	0	0	0	0	4	5	3	0	0	0	0	0	0	12
Urban	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
White Pine	1	0	0	0	0	9	0	42	16	30	2	0	0	0	100
<b>Total</b>	<b>229</b>	<b>63</b>	<b>243</b>	<b>161</b>	<b>187</b>	<b>63</b>	<b>9</b>	<b>81</b>	<b>294</b>	<b>261</b>	<b>76</b>	<b>71</b>	<b>112</b>	<b>17</b>	<b>1868</b>



## Report 2 – Proposed Treatment Summaries

**Don River Country Mgt. Unit**  
**Year of Entry 2015**

**Compartment 041**  
**Total Compartment Acres: 1,868**

### Acres by Treatment Type

Commercial Harvest - 131    Tree Planting - 0    Other - 0  
 Habitat Cut - 0    Opening Maintenance - 0

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
<b>Aspen Types</b>	91	0	0	0	0	0	91
<b>Lowland Coniferous Forest</b>	0	0	8	0	0	0	8
<b>Lowland Mixed Forest</b>	9	0	0	0	0	0	9
<b>Mixed Upland Conifers</b>	0	0	9	0	0	0	9
<b>Upland Mixed Forest</b>	15	0	0	0	0	0	15
<b>Total</b>	<b>115</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>131</b>



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
53039_OutOfY OE_1-Cut	2.0					Harvest	Clearcut	4130 - Aspen	Cmpt. Review Proposal

Prescription -Clearcut all aspen and red maple as well as all pine under 10 inches DBH. Group this stand with the adjacent stand to the south in Comp 41.  
Specs: -No area retention needed due to stand's small size.

Other  
Comments:

Next -Acceptable regeneration will be any mix of species dominated by aspen.  
Steps: -Regen check at the appropriate interval.

Proposed  
Start Date: 10/01/2014

53039_OutOfY OE-Cut	6.5					Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription -Clearcut all aspen, fir, and red maple as well as any spruce or pine less than 10 inches DBH. Do not cut any other species. If present, protect hemlock clumps with a 1/2 chain buffer.  
Specs: -Leave interior retention pockets equal to 3-10% of the treatment acreage.

Other -Group this stand with the adjacent clearcuts to the south in Comp 41.  
Comments:

Next -Acceptable regeneration will be any mix of aspen, maple, and conifers resulting in at least a medium stocked stand.  
Steps: -Regen check at three years due to possibility of browse impacting regen.

Proposed  
Start Date: 10/01/2014

10 53041010-Cut	7.6	6121 - Tamarack	High Density Pole	75	81-110	Harvest	Seed Tree with Reserves	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal
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Prescription -Mark to leave clumps of 5-10 tamarack and spruce at intervals of around 100 ft. Leave all cedar and any pine.  
Specs: -Leave one interior retention pocket equal to 3-10% of the treatment acreage.

Other -This is likely a winter-only site. Evaluate the "wetness" of the site during sale prep.  
Comments: -No chipping permitted.

Next -Acceptable regeneration will be any mix of lowland conifers and deciduous tree species. Tag alder may initially dominate this site and this non-forested condition will also be acceptable.  
Steps: -Evaluate regeneration success after three years and continually monitor this stand, as this may prove to be a difficult to regenerate site.

Proposed  
Start Date: 10/01/2014

15 53041015-Cut	11.6	4134 - Aspen, Spruce/Fir	High Density Pole	46	111-140	Harvest	Clearcut with Reserves	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription -Clearcut with reserves. Cut all aspen, BAM, red maple, fir, as well as all spruce under 10 inches DBH. Leave all other species.  
Specs: -Mark to leave some scattered aspen sawlog trees as cut-and-leave trees for drumming logs.  
-No area retention recommended. Retention will be in the form of individual trees being left.

Other -Potential green-up issues due to the adjacent stand to the west which is in the process of regeneration. Evaluate regeneration success of stand to the west at time of sale-prep. If regen is not adequate mark to leave scattered pole-size spruce along the western edge (in addition to the sawlog-sized trees already being left).

Next -Acceptable regeneration will be any mix of aspen, red maple, and conifers.  
Steps: -Regen survey at three years due to the small size of the stand and the potential for browse to negatively impact regen.

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
16 53041016-Cut	2.7	429 - Mixed Upland Conifers	High Density Pole	50	81-110	Harvest	Seed Tree with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription -Seed-tree with reserves. Leave 10 BA/acre in white spruce. Cut all aspen, BAM, red maple, and fir. Leave all other species. Mark some cut-and-leave trees for drumming logs.  
Specs:  
-No area retention needed. Retention is in the form of individual leave trees.

Other Comments:

Next Steps:  
-Acceptable regeneration will be any mix of conifers, red maple, and aspen.  
-Regen check at the appropriate interval.

Proposed Start Date: 10/01/2014

41 53041041-Cut	6.5	4133 - Aspen, Mixed Pine	High Density Pole	52	111-140	Harvest	Clearcut with Reserves	4133 - Aspen, Mixed Pine	Cmpt. Review Proposal
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Prescription -Clearcut all aspen, red maple, white pine, and fir, as well as all spruce 10 inches DBH. Mark to leave scattered white pine throughout the stand.  
Specs:  
Do not cut any other species.  
-Mark some scattered sawlog-sized trees of poor form as cut and leave trees.  
-Leave 3-10% in interior retention pockets.

Other Comments:

Next Steps:  
-Acceptable regeneration will be any mix of aspen, red maple, and conifer species resulting in at least a medium-stocked stand.  
-Regen check at the appropriate interval.

Proposed Start Date: 10/01/2014

51 53041051-Cut	7.6	4130 - Aspen	High Density Pole	43	51-80	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription -Clearcut with reserves. Cut all aspen and fir. Leave all other species.  
Specs:  
-Leave one retention pocket equal to 3-10% of the treatment acreage.  
-South boundary of treatment will be the road.  
-Mark some aspen sawlog trees as cut-and-leave trees for drumming logs.

Other Comments:

Next Steps:  
-Acceptable regeneration will be any mix of aspen and conifers.  
-Regen check at the appropriate interval.

Proposed Start Date: 10/01/2014

52 53041052-Cut	21.4	4130 - Aspen	High Density Pole	51	111-140	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription -Clearcut all aspen, red maple, and fir, as well as all white pine under 10 inches DBH. Leave all other species.  
Specs:  
-Mark some mature trees of poor form as 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, red maple, and conifers resulting in at least a medium-stocked stand.  
-Regen check 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
53 53041053-Cut	5.8	429 - Mixed Upland Conifers	High Density Pole	46	111-140	Harvest	Seed Tree with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal

Prescription -Seed-tree with reserves. Leave 10 ba/acre in white pine. Cut all red maple, aspen, and fir. Leave all other species.

Specs: -Mark some scattered sawlog-sized trees of poor form as cut and leave trees for drumming logs.

Other -Area retention has already been excluded from the treatment boundary and is the north "bubble" of stand where there is a thick concentration of WP.  
Comments:

Next -Acceptable regeneration will be any mix of red maple, aspen, and conifer species resulting in at least a medium-stocked stand.

Steps: -Regen survey at the appropriate interval.

Proposed  
Start Date: 10/01/2014

56 53041056-Cut	15.2	4319 - Mixed Upland Forest	High Density Pole	43	51-80	Harvest	Clearcut with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
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Prescription -Clearcut all aspen, jack pine, and fir as well as all spruce and white pine less than 10 inches DBH. Mark to leave some scattered trees of poor

Specs: form as cut and leave trees.

-Protect pockets of nice WS regen using retention pockets. Leave some retention along the road to ease visual concerns.

Other -See locked OFS comments.

Comments: -Wetland in north part of stand which has already been excluded from the treatment boundary.

Next -Acceptable regeneration will be any mix of aspen and conifers resulting in a medium-stocked stand and dominated by aspen.

Steps: -Regen survey at the appropriate interval.

Proposed  
Start Date: 10/01/2014

89 53041089-Cut	8.8	6130 - Fir, Aspen, Maple	Medium Density Pole	50	81-110	Harvest	Clearcut with Reserves	6130 - Fir, Aspen, Maple	Cmpt. Review Proposal
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Prescription -Clearcut with reserves. Cut all species except any pine, oak, or cedar. Mark to leave scattered spruce (3-5 per acre).

Specs: -Mark some mature aspen as cut and leave trees for drumming logs.

-Leave one interior retention pocket equal to 3-10% of the stand's acreage.

Other -Treatment acreage will likely be reduced due to wet ground, probably along the south finger of stand.

Comments: -Protect all existing blowdown and CWD that is present in the stand.

Next -Acceptable regeneration will be any mix of aspen and conifers.

Steps: -Regen check at three years due to potential browsing impacts.

Proposed  
Start Date: 10/01/2014

104 53041104-Cut	43.8	4130 - Aspen	High Density Pole	41	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
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Prescription -Clearcut with reserves. Cut all aspen, red maple, and fir as well as all white pine under 10 inches DBH. Leave all other species.

Specs: -Leave 3-10% of the stand's acreage as retention pockets.

-Mark some cut and leave trees to enhance CWD.

Other

Comments:

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

Steps: -Regen check in three years due to likelihood of browsing impacts.

Proposed  
Start Date: 10/01/2014

**Total Treatment  
Acreage Proposed: 139.6**



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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**

**Availability for Management**

Availability for Management			Dominant Site Conditions										
Total Acres	Acres Available	Acres Not Available		No	5D	5C	5B	5A	3J	3G	3A	2G	2E
259	259		Aspen	259									
248		248	Cedar					188	44	16			
47	47		Jack Pine	47									
16	11	4	Lowland Aspen/Balsam Poplar	11						4			
68	16	51	Lowland Conifers	11				36				15	6
92	69	23	Lowland Deciduous	69					6			17	
83	39	44	Lowland Mixed Forest	39						9		35	
26	19	7	Lowland Spruce/Fir	19	7								
62	62		Mixed Upland Deciduous	55		8							
305	287	18	Natural Mixed Pines	269							18		19
21	21		Northern Hardwood	21									
121	121		Oak				121						
93	93		Red Pine	44		19	30						
20	14	6	Tamarack	8		7		6					
46	46		Upland Conifers	40									5
50	27	23	Upland Mixed Forest	27							23		
12	12		Upland Spruce/Fir	7									5
100	100		White Pine	100									
1,668	1,244	424	Total Forested Acres	1,025	7	33	151	229	50	29	41	67	34
	75%	25%	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	28				
<b>Comments:</b>							

## Report 5 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment 041

Greg Rekowski : Examiner

Year of Entry 2015

003	<b>Not Available</b>	<b>5A: Not able to obtain desirable regeneration</b>	100	5D: Unproductive Forest Land	2G: Too wet (sensitive soils, does not include access issues)
<b>Comments:</b> Cedar regeneration is doubtful due to herbivory. Most species exhibited very poor growth in these stands.					
004	<b>Not Available</b>	<b>5A: Not able to obtain desirable regeneration</b>	36	2G: Too wet (sensitive soils, does not include access issues)	
<b>Comments:</b> Cedar regeneration not possible due to herbivory. Ground is very wet in places.					
005	<b>Not Available</b>	<b>5A: Not able to obtain desirable regeneration</b>	11		
<b>Comments:</b> Ability to regenerate cedar is not possible.					
006	<b>Not Available</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	17	5D: Unproductive Forest Land	
<b>Comments:</b> Standing water present. Growth on stems indicates that this is likely an unproductive site.					
007	<b>Not Available</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	15		
<b>Comments:</b> Many parts of this stand, particularly the western half, are very wet.					
008	<b>Not Available</b>	<b>5A: Not able to obtain desirable regeneration</b>	10		
<b>Comments:</b> Cedar regeneration not possible under current browsing pressure.					

## Report 5 – Site Conditions

Pigeon River Country Mgt. Unit  
 Greg Rekowski : Examiner

Compartment 041  
 Year of Entry 2015

009	<b>Not Available</b>	<b>3G: Other Influence zones - See comments</b>	9		
<b>Comments:</b> Travel influence for adjacent Tin Shanty Road also in the influence zone for the Black River.					
010	<b>Not Available</b>	<b>3G: Other Influence zones - See comments</b>	4		
<b>Comments:</b> Travel influence for adjacent Tin Shanty Road. Also, in the influence zone for the nearby Black River.					
011	<b>Not Available</b>	<b>3J: Water quality / BMPs (stream, river, or lake)</b>	6		
<b>Comments:</b> Adjacent to the Black River.					
012	<b>Not Available</b>	<b>3G: Other Influence zones - See comments</b>	16		
<b>Comments:</b>					
013	<b>Not Available</b>	<b>5A: Not able to obtain desirable regeneration</b>	44	5D: Unproductive Forest Land	2G: Too wet (sensitive soils, does not include access issues)
<b>Comments:</b> Cedar regeneration problems. Most species exhibited very poor growth.					
014	<b>Not Available</b>	<b>5D: Unproductive Forest Land</b>	7		
<b>Comments:</b>					

## Report 5 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment 041

Greg Rekowski : Examiner

Year of Entry 2015

015	Available	5B: Retention for regeneration purposes	121	
<b>Comments:</b> All red maple and aspen were removed in previous harvest.				
016	Available	5B: Retention for regeneration purposes	30	
<b>Comments:</b> All aspen was removed in previous harvest 5 years ago and regeneration is abundant in some areas.				
017	Available	2E: Road needed	19	
<b>Comments:</b> Isolated stand, road construction would be significant. Stand is possible type-2 old-growth.				
018	Not Available	3A: Potential old growth / biodiversity	17	
<b>Comments:</b> Old-growth designation.				
020	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	
<b>Comments:</b> Recently thinned, treat next entry.				
021	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	
<b>Comments:</b>				
022	Available	2E: Road needed	5	
<b>Comments:</b> Isolated stand. Not much timber value.				

## Report 5 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment 041

Greg Rekowski : Examiner

Year of Entry 2015

023	Available	2E: Road needed	6		
<b>Comments:</b> Isolated stand. Small acreage, not much timber value. Road would cut through wetland.					
024	Not Available	3A: Potential old growth / biodiversity	18		
<b>Comments:</b> Old-growth designation					
025	Available	2E: Road needed	5		
<b>Comments:</b> Isolated stand, small acreage. Road would cut through wetland.					
026	Not Available	2G: Too wet (sensitive soils, does not include access issues)	35	5A: Not able to obtain desirable regeneration	
<b>Comments:</b>					
030	Not Available	3J: Water quality / BMPs (stream, river, or lake)	44		
<b>Comments:</b> Hardwood Creek passes through this stand. Cedar regeneration not possible due to herbivory.					
031	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7		
<b>Comments:</b>					

033	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8
<b>Comments:</b>			
034	Not Available	3A: Potential old growth / biodiversity	33
<b>Comments:</b> Meridian Line SCA			
035	Not Available	3A: Potential old growth / biodiversity	1
<b>Comments:</b>			



**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
<b>Meridian Line Old Growth Area</b>	Habitat Areas or Corridors	Other Habitat Area	<b>SCA</b>	68.9
<b>Comments</b>				
This area has sections of very large and old red and white pine. No management activities will take place within the area which will result in the further development of old growth structure.				



## 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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4199 - Other Mixed Upland Deciduous	High Density Pole	6.5	72	111-140	-Beech rare. Did find BBD in adjacent stand to the west in Compartment 40. -All ash infected with EAB.
2	4199 - Other Mixed Upland Deciduous	Low Density Sapling	38.9	15		-"Watergun RPP", sale # 53-017-08-01. All RP cut except for a few scattered trees. Bought by Northern Pressure Treated Wood. Previously thinned in 1998, that is the year of origin for the understory hardwoods that were released by the most recent treatment. Unfortunately the majority of released hardwoods are undesirable species. A few clumps of aspen are present near the center of the stand but overall this stand doesn't have much of a future for merchantable timber. Another unsuccessful red pine removal. -Site quality decreases as you move south of Vanderbilt Road. Not a great hardwood site, better suited for oak and pine. -Somewhat of a toss-up between a forested or non-forested stand, could go either way at this point. -Other species that were present but rare included paper birch, white spruce, tamarack, sugar maple, red oak, and jack pine. Spruce and fir mostly in the east finger of stand. Black cherry sprouts are abundant in places but I doubt they will become merchantable.
3	429 - Mixed Upland Conifers	Medium Density Pole	1.9	39	1-50	-This stand was not included with the larger surrounding stand that was harvested. Potentially a retention pocket? Wide mix of species. -Some nice RO, RP, and JP saps. -Paper birch, white oak, and white spruce were also present but rare.
4	4133 - Aspen, Mixed Pine	High Density Sapling	1.2	15		-Other species that were present but rare included black cherry, sugar maple, red pine, red oak, and beech.
6	42320 - Upland Spruce	Medium Density Pole	3.5	73	51-80	-Stand lies on a transition between upland and lowland. -Tamarack and white pine were also present although rare.
8	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	12.5	24		-Cut sometime between the years of 1986-88. "Swamper's Delight", bought by Kapalla Logging. -Other species that were present but rare included red pine, white pine, red oak, black cherry, and cedar. Willow in stand will be merchantable, not a shrub.
9	6122 - Black Spruce	Low Density Pole	3.9	68	1-50	-Stand lies on a transition between upland and lowland. Scattered pockets of alder throughout. -QA saps are much more abundant in the south half of stand.
10	6121 - Tamarack	High Density Pole	14.3	75	81-110	-This stand was split out from the swamp conifer stand to the east. This stand has higher quality tamarack and much less cedar than the stand to the east. There is a thin strip of upland spruce at the north end of the stand. -Other species that were present but rare included balsam poplar, white spruce, and white pine. -5 BA points were taken with an average of 100 sq. ft. per acre. -Tamarack site index = 46 for a 9.5" DBH tree, 75 years old, 56 feet tall.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
11	42290 - Natural Mixed Pine	High Density Log	18.7	106	141-170	-High quality natural pine stand with some very large white pine and red pine. Due to the remoteness of this stand, consider nominating for type 2 old-growth? Has been thinned before, but that was at least two entries ago. Old canopy gaps have filled in nicely with white pine, white spruce, and a little red pine. -Other species that were present but rare included paper birch, balsam fir, and red maple. -6 BA plots were taken with an average of 148 sq. ft. per acre.
12	6127 - Lowland Pine	Medium Density Log	5.7	103	51-80	-Small pocket of upland W9 at the north end of stand, remainder of stand is lowland swamp conifers including scattered white pine. More open areas filling in with fir and spruce. -Other species that were present but rare included red maple and paper birch. -4 BA plots were taken with an average of 78 sq. ft. per acre.
13	6120 - Lowland Cedar	Low Density Pole	94.2	134	1-50	-Low productivity stand. Residual trees do not show much potential. Despite the openness of the stand there is hardly any regeneration of any tree species. Tamarack more prevalent in east half of stand. Quite thick lowland brush in the understory. -8 BA points were taken with an average of 48 sq. ft. per acre.
14	42390 - Mixed Non-Pine Upland Conifers	High Density Log	5.4	82	81-110	-Small swamp conifer upland island surrounded by lowland. Cedar is mostly along the perimeter of the stand. No management due to small acreage and remoteness of stand. -5 BA points were taken with an average of 106 sq. ft. per acre.
15	4134 - Aspen, Spruce/Fir	High Density Pole	13.1	46	111-140	-Small drainage with hemlock and cedar in east part of stand. Exclude this from treatment boundary. -Other species that were present but rare included white pine, hemlock, paper birch, cedar, and black cherry. -QA site index is 80+. Great growth.
16	429 - Mixed Upland Conifers	High Density Pole	2.7	50	81-110	-Some nice WS poles in this stand. A few very large WS sawlog trees as well. -Other species that were present but rare included BAM, paper birch, tamarack, and black cherry.
17	42360 - Upland Cedar	High Density Pole	11.1	110	141-170	-Stand lies on an upland island surrounded by lower, wetter ground. However, there are some lowland areas interspersed throughout. Some very large white pine in this stand. -An operable stand however cedar regeneration is not possible due to unuglate browsing. -Other species that were present but rare included red maple and paper birch. -5 BA plots were taken with an average of 146 sq. ft. per acre.
18	6122 - Black Spruce	Medium Density	9.3	26		-Clearcut in 1986 as part of "Swamper's Delight" t-sale. Bought by Kapalla Logging. -Other species that were present but rare included red maple, balsam fir, and paper birch.
19	42290 - Natural Mixed Pine	High Density Log	4.8	80	111-140	-Big diameters in this stand. Surrounded by stands of much younger age classes. Leave unmanaged for now. -Some blowdown has occurred in this stand.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	42340 - Upland Spruce/Fir	Medium Density Log	4.7	68	81-110	-Stand becomes much more open along the western edge. Cedar is present only along the perimeter of the stand.
21	6122 - Black Spruce	Medium Density Pole	2.3	92	51-80	-Black spruce is pretty decent quality. Understory has some sphagnum in spots. -Black spruce site index = 42, for a 9" DBH tree, 92 years old, 60' tall.
22	6120 - Lowland Cedar	Low Density Pole	44.3	94	1-50	-Poorly stocked stand. Other than cedar, most species exhibited poor growth and form. Most black ash is dead due to EAB. Thick lowland shrub layer in this stand. Quite a bit of cedar decline in this stand. Possible water drainage issues? -Trace of paper birch, white pine, BAM, and red-osier dogwood. -7 BA plots were taken in this stand with an average of 41 sq. ft. per acre.
23	4311 - Pine, Aspen Mix	High Density Sapling	9.4	26		-Stand clearcut as part of "Swamper's Delight" t-sale in mid 1980's. Cut by Kapalla Logging. All species clearcut, including cedar (none grew back). -Pockets of lower ground in this stand, especially as you move north to the two fingers of the stand. -Other species that were present but rare included tamarack, BAM, and red pine. -Close to being a poletimber stand.
24	42200 - Natural White Pine	High Density Pole	5.6	56	81-110	-Multiple sizes of white pine within this stand.
25	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	7.5	97	111-140	-Diverse stand. Hardwood quality decreases as you move west with aspen and fir becoming more common. Smaller stems mostly around the perimeter of the stand. A few small pockets of wet ground along the edges of the stand that have cedar in them. -Other species that were present but rare included elm, white pine, and white spruce. -Leave unmanaged.
26	6120 - Lowland Cedar	Low Density Pole	28.3	103	1-50	-A lot of cedar mortality and decline in this stand. Not a heavy overstory of cedar to start with but those that are still surviving have dead tops and only their side branches still have foliage. Possible water drainage issues? -VERY thick understory of fir and alder in this stand. This will likely be an F3 next entry period. Average DBH of balsam fir is about 2 inches at this point. -A few scattered XL-sized white pine, but these are also showing signs of decline. A few scattered saps of white spruce and paper birch but they are few and far between. -Black ash is present along the south edge of this stand but most of it is dead due to EAB. Becomes very wet along this southern edge.
27	42220 - Natural Jack Pine	Medium Density Pole	18.8	46	51-80	-According to old inventory notes this is a fire origin stand. Jack pine is mostly in the interior of the stand. Spruce becomes more common along the N, W, and E edges of the stand. -Variable stocking. Some areas of thick JP, other areas are more open-grown stems. -Quite a few small stems. Consider treatment next entry period. -Jack pine site index = 44, for a 9" DBH tree, 40' tall. -9 BA plots were taken with an average of 67 sq. ft. per acre.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	6129 - Mixed Coniferous Lowland Forest	High Density Pole	35.9	96	81-110	<ul style="list-style-type: none"> <li>-Site productivity decreases sharply as you move south in the stand with the majority of stems becoming very small and short. Ground is quite wet in many places. Cedar site index = 21.</li> <li>-Some windthrow throughout but not a significant amount.</li> <li>-6 BA points were taken with an average of 108 sq. ft. per acre.</li> <li>-Other species that were present but rare included paper birch, white pine, balsam fir, BAM, and black ash.</li> </ul>
29	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	13.9	24		<ul style="list-style-type: none"> <li>-Clearcut in 1988, "Swamper's Delight", bought by Kapalla Logging. Some cedar cut out of stand, none regenerated.</li> <li>-Portions of this stand are a transition between upland and lowland. Scattered open areas at west end of stand which have most of the larger spruce and pine.</li> <li>-Other species that were present but rare included tamarack, cedar, red oak, elm, paper birch, and red maple.</li> </ul>
30	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	3.2	26		<ul style="list-style-type: none"> <li>-"Swamper's Delight", all species clearcut, including cedar (none grew back). Bought by Kapalla Logging.</li> <li>-Old road runs through this stand.</li> <li>-Other species that were present but rare included red pine and paper birch.</li> </ul>
31	6115 - Lowland Ash	Medium Density	16.8	80	1-50	<ul style="list-style-type: none"> <li>-Very wet stand, standing water throughout. Not much merchantable ash but of the small amount that is present, is either dead/dying due to EAB. Low productivity site, other species present also did not display good growth. Small clump of mature cedar and white spruce in SW corner of stand near Black River (inclusion &lt;1 acre).</li> <li>-Sapling size black ash doesn't appear to be affected by EAB yet. It's likely that black ash will continue to perpetuate itself as a sapling sized tree in this stand.</li> <li>-Stand age taken from a 7" black ash.</li> <li>-Trace of paper birch, red maple, and white spruce in the stand.</li> </ul>
32	6130 - Fir, Aspen, Maple	Medium Density	26.1	26		<ul style="list-style-type: none"> <li>-Stand was a part of "Swamper's Delight" clearcut. Bought by Kapalla Logging. 1986 year of origin.</li> <li>-Highly variable stand. Many areas are lowland, however there are pockets of upland, mostly in the north half. Scattered inclusions of lowland shrub lacking in regeneration (each less than 1 acre). Aspen regeneration is poor in many areas and does not appear to be very healthy. Some pockets of mature spruce that were not harvested, mostly in south half of stand.</li> <li>-Other species that were present but rare included paper birch, BAM, and white spruce.</li> </ul>
33	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	4.8	84	81-110	<ul style="list-style-type: none"> <li>-Stand was ignored in the past due to unlikelihood of regenerating birch. As a result, most of the birch is on its way out and spruce/fir is starting to emerge. Leave unmanaged.</li> <li>-A few pockets of wetter ground along the road.</li> <li>-Other species that were present but rare included hemlock, white pine, and red pine.</li> <li>-There is a DNR corner in this stand.</li> </ul>
34	6122 - Black Spruce	Low Density Sapling	3.9	91	1-50	<ul style="list-style-type: none"> <li>-Low productivity site. Poles are located mostly along the outside perimeter of the stand.</li> <li>-Black spruce site index = 24, for a 7" DBH tree, 34' tall, 91 years old.</li> </ul>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
36	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Log	15.3	103	51-80	-Mixed bag of pretty much everything in this stand. Varies from spruce/aspens to pure cedar to black ash/BAM. Cedar is mostly in the western half of stand. West half is also very wet, standing water throughout. -EAB on most black ash greater than 4 inches DBH. -Other species that were present but rare included white pine, paper birch, and elm. -11 BA plots were taken with an average of 78 sq. ft. per acre.
38	429 - Mixed Upland Conifers	High Density Pole	3.2	52	51-80	-Two-aged stand of supercanopy pine with smaller spruce. Let the spruce grow a little more then consider a regeneration harvest.
39	6121 - Tamarack	Low Density Pole	5.6	87	1-50	-Low stocking and a lot of small stems. Likely an unproductive site for timber production.
41	4133 - Aspen, Mixed Pine	High Density Pole	6.5	52	111-140	-Quite a few small aspen stems. -4 BA plots were taken with an average of 122 sq. ft. per acre.
42	42220 - Natural Jack Pine	High Density Pole	5.5	45	81-110	-Possibly fire origin? Some old charred stumps in the stand. -Quite a few broken tops on the JP from the Dec. 2012 heavy snowstorm. -Let grow at least another ten years, still a lot of small stems. -JP site index = 44.
43	42340 - Upland Spruce/Fir	Medium Density Pole	3.6	54	51-80	-Scattered openings throughout stand. Road runs through stand as well.
44	6122 - Black Spruce	Low Density Sapling	6.9	58		-Low site productivity. Treed bog. -Black spruce site index = 26.
45	42210 - Natural Red Pine	High Density Sapling	3.6	22	1-50	-Red pine has possibly been planted. Found no planting records, but looks like rows in a few spots. Close to becoming a pole stand. -Mature pine mostly along the southern edge. -Other species that were present but rare included white spruce, red maple, balsam fir, and jack pine.
49	42210 - Natural Red Pine	High Density Log	11.7	97	111-140	-High quality red pine. -Aesthetics are main concern here. -Other species that were present but rare included JP, QA, WS, and BF. -RP site index = 57. -9 BA plots were taken with an average of 132 sq. ft. per acre.
50	6120 - Lowland Cedar	Medium Density Log	9.9	91	141-170	-Several open areas due to old blowdown. -Tamarack mortality throughout stand due to eastern larch beetle. -Heavy deer use. -Other species that were present but rare included paper birch and white pine.
51	4130 - Aspen	High Density Pole	8.5	43	51-80	-For some reason, stems in west half of stand become much smaller. Group with adjacent stand to the east if harvested this entry. -Other species that were present but rare included red pine, white pine, and balsam fir.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	4130 - Aspen	High Density Pole	21.4	51	111-140	-Quite a few small aspen stems in some spots. Small clump of mature trees at the far east end of stand. -8 BA plots were taken with an average of 118 sq. ft. per acre. -Other species that were present but rare included balsam fir, sugar maple, white ash, and paper birch. -BTA site index = 72.
53	429 - Mixed Upland Conifers	High Density Pole	7.3	46	111-140	-Quite a few poor quality WP poles. -4 BA points were taken with an average of 143 sq. ft. per acre.
54	4136 - Aspen, Mixed Conifer	High Density Pole	16.7	37	51-80	-Let grow at least another 10 years, still a lot of small stems. -About 1/3 of this stand is lowland, mostly around the north and west edges of the stand. -Other species that were present but rare included tamarack and paper birch.
55	6112 - Lowland Aspen	High Density Sapling	11.4	26		-Stand clearcut as part of "Swamper's Delight" t-sale. 1986 year of origin. Cut by Kapalla Logging. -Close to becoming a pole stand. -Other species that were present but rare included black ash, red maple, and white pine.
56	4319 - Mixed Upland Forest	High Density Pole	17.5	43	51-80	-Quite a few small stems in this stand, particularly south of the road that bisects the stand. Excellent spruce site, pockets of very good white spruce regen throughout. -Non-forested wetland in the north half of stand, about 0.7 acres in size. -8 BA plots were taken with an average of 85 sq. ft. per acre. -QA site index = 67.
57	42290 - Natural Mixed Pine	Medium Density Log	32.3	97	51-80	-Harvested last entry. Looks like all aspen, maple, and jack pine was removed. Let residual pine stems grow for another entry period. Lot of small white pine stems (likely much younger than red pine age). -5 BA plots were taken with an average of 72 sq. ft. per acre.
58	42210 - Natural Red Pine	Medium Density Log	7.5	79	81-110	-Recently thinned. Looks like most hardwoods were removed except for a few residual aspen and red maple left over. -Heavy browse on RM stump sprouts. -Red pine SI = 58.
61	6111 - Lowland Balsam Poplar	Medium Density Pole	4.3	41	81-110	-EAB present on most of the merchantable black ash. Dutch elm disease is killing a few of the elm. -Some beaver activity on the west end of stand. -Other species that were present but rare included red maple and balsam fir. -Leave unmanaged due to its proximity to the Black River and Tin Shanty Road.
62	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	33.6	26		-Stand clearcut in 1985-1986 as part of "Swamper's Delight" t-sale. Bought by Kapalla Logging. Quite a bit of cedar was cut out of this stand as evidenced by old stumps. None grew back. -Stand is a mix of upland and lowland with most upland being around the perimeter of the stand. Open area at south end of stand that did not regenerate well (likely an old landing). A few small pockets of pure alder. -Other species that were present but rare included red pine, tamarack, paper birch, elm, ash, and willow.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
63	4133 - Aspen, Mixed Pine	High Density Pole	15.3	36	51-80	<ul style="list-style-type: none"> <li>-Quite a few small aspen stems, let grow at least another entry period.</li> <li>-East 1/2 of stand is mostly pure aspen with less conifers, west 1/2 of stand has more conifers. A few clumps of larger pine are present near Tin Shanty Road.</li> <li>-Some nice pine regeneration in the E part of stand.</li> <li>-A small wetland depression is present in the SW corner of the stand. This is where most of the white spruce is located.</li> <li>-Other species that were present but rare included paper birch and balsam fir.</li> <li>-8 BA plots were taken with an average of 63 sq. ft./acre.</li> </ul>
64	42290 - Natural Mixed Pine	High Density Pole	25.3	37	51-80	<ul style="list-style-type: none"> <li>-Nice jack pine and white pine poles. Potential for some good sawlogs in the future. Let this stand grow.</li> <li>-This stand has more JP in it as opposed to the adjacent pole stand which has more WP.</li> <li>-8 BA plots were taken with an average of 80 sq. ft. per acre.</li> </ul>
65	6132 - Mixed Lowland Forest with Cedar	Medium Density Log	34.8	83	81-110	<ul style="list-style-type: none"> <li>-Small stream originates somewhere in this stand and drains into the adjacent marsh. Areas of blowdown and low stocking throughout stand that have a ton of alder.</li> <li>-Heavy deer and elk use. Trails everywhere.</li> <li>-Other than the cedar, most of the other species have poor growth and form. No management recommended.</li> <li>-EAB present on the black ash.</li> </ul>
66	42290 - Natural Mixed Pine	High Density Pole	16.0	37	51-80	<ul style="list-style-type: none"> <li>-Two-aged stand, sparse supercanopy of log-sized RP and WP with a thick pole/sap layer of white pine and jack pine. There is a small clump of R9/W9 in the SW portion of stand.</li> <li>-Nice JP and WP poles. Let this stand grow.</li> </ul>
67	42110 - Planted Red Pine	High Density Log	2.7	74	111-140	<ul style="list-style-type: none"> <li>-Undesignated recreation site. Access site to Black River. Some red pine have a lot of bole damage from campers.</li> <li>-Jack pine, white pine, and white spruce also present.</li> </ul>
68	6139 - Mixed Lowland Forest	High Density Log	9.1	93	81-110	<ul style="list-style-type: none"> <li>-At least a two-aged stand, varying sizes of all species within this stand.</li> <li>-Leave this stand unmanaged as it borders the Black River as well as Tin Shanty Road.</li> <li>-Other species that were present but rare included basswood, paper birch, white pine, and cedar.</li> <li>-EAB is present on the black ash.</li> <li>-6 BA plots were taken with an average of 107 sq. ft. per acre.</li> </ul>
69	42200 - Natural White Pine	High Density Log	15.8	89	111-140	<ul style="list-style-type: none"> <li>-Nice white pine stems, although mostly small sawtimber at this point.</li> <li>-East part of stand adjacent to wetland has a lower BA with smaller stems and should be excluded from thinning.</li> <li>-Other species that were present but rare included paper birch, balsam fir, red maple, red pine and black cherry.</li> <li>-9 BA plots were taken with an average of 132 sq. ft./acre.</li> </ul>
70	4136 - Aspen, Mixed Conifer	High Density Pole	22.7	37	51-80	<ul style="list-style-type: none"> <li>-Let grow at least another 10 years, quite a few small stems.</li> <li>-Pockets of the stand are heavy to white pine and balsam fir.</li> <li>-Areas of heavy browse on witch hazel and red maple in the understory.</li> <li>-Stand is more sparse on the thin strip west of the old pipeline.</li> </ul>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
71	42200 - Natural White Pine	High Density Log	29.5	93	111-140	<p>-High quality natural WP stand. Lot of "legacy" size WP which are likely much older than the recorded stand age. Possible type-2 old growth? Last thinned in 1985 by Catalano. Everything except pine and oak removed.</p> <p>-Red maple understory becomes very dense in the N 1/2 of stand. Pockets of heavy WP regen also. Heavy browse pressure on the RM in some spots.</p> <p>-10 BA plots were taken with an average of 115 sq. ft. per acre.</p> <p>-This stand should be managed on an uneven-aged basis, retaining all trees that are equal to or greater than the "legacy" size classification of 26" DBH.</p> <p>-WP site index = 64, for a 20" DBH tree, 93 years old, 101 feet tall.</p>
72	4139 - Aspen, Mixed Deciduous	High Density Pole	10.0	37		<p>-WP and RM more common in the S/SW part of stand. BTA dominant in N 1/2 of stand.</p> <p>-Some scattered mature WP and RP in addition to the RO.</p> <p>-Other species that were present but rare included PB, BW, and RO (poles).</p>
73	42210 - Natural Red Pine	Medium Density Log	30.0	89	51-80	<p>-Stand recently thinned. Couldn't find the sale folder but looks like all jack pine, aspen, and red maple were removed as well as some red pine. Much of the white pine is still quite small. Let the stand grow for another ten years and treat next entry.</p> <p>-Thin strip of spruce/fir along the edges of the stand that border lowlands.</p> <p>-Old foundation in SW part of stand near Black River. All structures have been removed. A small no-cut buffer was placed around this opening.</p> <p>-8 BA plots were taken with an average of 78 sq. ft. per acre.</p>
75	42260 - Natural Pine, Mixed Deciduous	Medium Density Pole	14.3	36	51-80	<p>-Multiple sizes of white pine in stand. Let grow and consider managing with aspen stand to the north next entry.</p> <p>-Relativley steep slopes.</p>
76	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	6.0	83	81-110	<p>-Stand lies within the influence zone of the Black River.</p> <p>-Small upland island within center of stand that has RP and WP.</p>
77	4134 - Aspen, Spruce/Fir	High Density Sapling	1.7	31		-White pine also present.
78	42290 - Natural Mixed Pine	Medium Density Pole	16.9	46	1-50	<p>-A lot of small stems in this stand. Let grow at least another ten years. Aspen is concentrated in a small clump at the south end of the stand near Chandler Dam Road.</p> <p>-Quite a few of the JP have broken tops due to the heavy snowstorm in Dec. 2012.</p> <p>-Larger WP and RP stems are closer to the western edge of the stand near the lowland.</p> <p>-9 BA plots were taken with an average of 47 sq. ft. per acre.</p>
79	6120 - Lowland Cedar	Medium Density Log	15.8	115	81-110	<p>-Portions of this stand lie within the influence zone of the Black River.</p> <p>-Cedar overstory is sparse in some areas, filling in primarily with thick balsam fir.</p> <p>-Stand is wet, especially in the western half.</p>
80	6124 - Lowland Spruce-Fir	Low Density Sapling	3.9	31		<p>-South end of stand has a small inclusion of mature tamarack, white pine, and spruce.</p> <p>-A few black ash in the stand but all are dead from EAB.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
81	42250 - Pine, Oak	High Density Log	53.7	93	81-110	-Stand had everything but pine and oak removed in 1995. "Fire Tower Block", #53-010-95-01. Bought by Haskill. A few pockets that were untreated due to steep slopes. -Some very steep slopes along the NE edge of stand. -Heavy browse damage on RM understory in some spots. -Other species that were present but rare included white spruce and hemlock. -10 BA points were taken with an average of 104 sq. ft. per acre. -Red oak site index = 58.
82	42250 - Pine, Oak	Low Density Log	48.4	80	1-50	-Stand cut in 2005, "Old Pipeline Aspen", # 53-013-05-01. All aspen and red maple cut. All pine and oak left. Residual BA's of pine highly variable throughout. Multiple sizes of white pine. -Heavy browse pressure on aspen and red maple regeneration. -11 BA plots taken with an average of 36 sq. ft. per acre. -No treatment until the aspen understory matures.
85	429 - Mixed Upland Conifers	Medium Density Pole	4.2	33	1-50	-Not a very well-stocked stand, quite a few open areas. Spruce and fir are slowly filling in.
86	42200 - Natural White Pine	High Density Log	42.4	75	81-110	-Variable stand. A few pockets of denser pine towards the north that could be thinned but acreage would be small. Red maple, jack pine, and aspen are more common in the SE half of the stand. -Heavy browse pressure on the RM understory in some spots. -Other species that were present but rare included white oak, jack pine, and hemlock.
87	6113 - Lowland Maple	Medium Density Pole	5.6	25	1-50	-Far NW of stand becomes more of a sapling stand dominated by birch and spruce. -Other species that were present but rare included white pine, tamarack, balsam fir, and red pine.
88	6120 - Lowland Cedar	Medium Density Log	44.4	113	111-140	-South half of stand has some nice cedar groves with some very large stems (20"+ cedar). North half of stand has quite a bit of blowdown with much less stocking. Fir is abundant in the understory throughout. -Other species that were present but rare included tamarack, white spruce, and quaking aspen. -12 BA plots were taken with an average of 122 sq. ft. per acre.
89	6130 - Fir, Aspen, Maple	Medium Density Pole	10.3	50	81-110	-Two-aged stand. Older aspen closer to the swamp edge. -6 BA plots were taken with an average of 90 sq. ft. per acre. -Stand lies on a transition between upland and lowland. Treatment acreage may be reduced due to wet ground along the western edge. Good amount of CWD in this stand. -Heavy deer use. -Other species that were present but rare included white oak and cedar.
90	6131 - Hemlock, White Pine, Maple, Birch	High Density Sapling	2.5	25		-Cedar clearcut in 1988, 53-004-88-02, bought by Ken Boughner. -Cedar regeneration is non-existent. -Other species that were present but rare included tamarack, balsam fir, and black ash.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
91	4130 - Aspen	Medium Density Pole	16.0	26		- "Pathway Overlook Aspen", 53-020-85-01. All species clearcut. Bought by K&R Logging of Millersburg. - Several open areas in stand where browsing impacted regeneration success. - Other species that were present but rare included jack pine, red pine, and white pine.
92	4123 - Red Oak	Medium Density Log	121.1	88	81-110	- All species except pine and oak were cut in 1995. "Fire Tower Block", 53-010-95-01. Bought by Haskill. - Variable site quality throughout stand. Ridge tops generally have lower quality oak while valleys have better quality oak. - Regeneration is primarily red maple (both stump-sprout and seed origin) with some scattered, thick pockets of striped maple and witch hazel. A few small pockets of aspen regen but insignificant overall. Did not observe any oak regeneration. - Browse damage on red maple and witch hazel is severe in some areas. Heavy deer and elk use in this stand. Scarification in combination with fencing will be the only way to get successful oak regen in this stand. - Steep slopes in stand but most appear workable. - Other species that were present but rare included white oak, white ash, and bigtooth aspen. - 16 BA plots were taken with an average of 90 sq. ft. per acre. - Red oak site index = 58, red pine site index = 52.
93	42200 - Natural White Pine	Low Density Sapling	1.3	8		- Old opening that is filling in with pine. - Age is an estimate from white pine whorl counts.
95	429 - Mixed Upland Conifers	Medium Density Pole	21.0	42	51-80	- Two-aged and complex stand. Stand lies on a transition between upland and lowland. A few pockets of W9 in the SE part of the stand. The remainder of the stand has a light overstory of mature JP with a heavy understory of fir poles. Let this stand grow as the majority of stems are still quite small. - 12 BA plots were taken with an average of 66 sq. ft. per acre. - Heavy deer use in this stand. Trails everywhere.
96	6127 - Lowland Pine	Medium Density Pole	4.2	25	1-50	- Just emerging as a pole stand. Transition between upland and lowland. Very heavy stocking in the east half of stand. Small nonforested inclusion in center of stand (less than 1 acre). - Other species that were present but rare included red maple, paper birch, fir, spruce, and quaking aspen.
97	42290 - Natural Mixed Pine	Low Density Pole	10.9	40	1-50	- A lot of open grown stems. Quite a few jack pine tops were broken off from the heavy snowstorm in Dec. 2012. - Other species that were present but rare included white oak, red maple, balsam fir, red pine, and white spruce.
99	4191 - Mixed Upland Deciduous with Conifer	High Density Log	4.4	78	111-140	- Leave unmanaged for now due to the small size of the stand. - Steep slopes in stand.
100	42200 - Natural White Pine	Medium Density Pole	3.1	50	1-50	- Part of "Fire Tower Block" t-sale, # 53-010-95-01. Bought by Haskill. Everything except pine and oak cut. - Heavy browse damage on red maple and witch hazel. - Other species that were present but rare included red oak and paper birch.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
103	42290 - Natural Mixed Pine	Medium Density Pole	26.5	33	51-80	-Jack pine has started to fall out of this stand. Large amount of snags and CWD. Natural succession to white pine has for the most part already taken place. Quite a few nice white pine poles, let them grow. -Other species that were present but rare included red oak, white oak, beech, and red pine. -11 BA plots were taken with an average of 64 sq. ft. per acre.
104	4130 - Aspen	High Density Pole	43.8	41	81-110	-Other species that were present but rare included white oak, white spruce, balsam fir, paper birch, sugar maple, and jack pine. -Witch hazel becomes more common along E end. Site quality increases as you move east. -QA site index = 79. -12 BA plots were taken with an average of 89 sq. ft. per acre.
105	42290 - Natural Mixed Pine	Low Density Pole	3.3	45	1-50	-Some hawthorn and alder along the swamp edge.
106	42220 - Natural Jack Pine	Low Density Sapling	22.8	18		- "Fire Tower Block", 53-010-95-01. All species cut. Bought by Haskill. -Open grown and deformed white pine and jack pine. -Very heavy use by deer and elk. Extreme browse pressure on red maple, aspen, oak, beech, etc. -A wet drainage runs through the north finger of the stand (see '98 DOQ imagery). Was not protected with a buffer.
107	4130 - Aspen	High Density Pole	18.0	25		-"Pathway Overlook Aspen", all species clearcut. 53-020-85-01, bought by K&R Logging of Millersburg. -Just emerging as a pole stand. Very heavy browse damage on red maple and witch hazel in some areas. -A few scattered mature red oak along the eastern edge.
108	42290 - Natural Mixed Pine	Low Density Pole	16.3	46	51-80	-Lot of open grown stems. Quite a few of the jack pine had broken tops from the heavy snowstorm in Dec. 2012. -White pine slowly filling in. -Let grow until there are merchantable products worth harvesting.
110	4319 - Mixed Upland Forest	High Density Log	6.1	102	81-110	-This stand was formerly coded as an SCA "Potential Old-Growth". This stand should remain under this designation. -A few clumps of hawthorn in the southern portion of this stand.
112	4130 - Aspen	High Density Pole	20.5	25		-Part of the t-sale "Pathway Overlook Aspen", #53-020-85-01. All species clearcut. Bought by K&R logging of Millersburg. -Thin strip of mature spruce, fir, and cedar along N edge of stand bordering wetland. Also a clump of larger white pine near the west end of stand. -Good growth on the aspen.
113	4130 - Aspen	High Density Sapling	3.1	25		-Pathway Overlook Aspen, 53-020-85-01. All species clearcut. Bought by K&R Logging of Millersburg.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
114	4119 - Mixed Northern Hardwoods	High Density Pole	21.3	97	81-110	-Besides the oak and pine, there are a lot of small stems in this stand. Let grow and consider a treatment in 10 years. -Vernal pool in this stand towards the NE corner of the stand. There is also a stick nest on the E side of the stand next to the non-forested wetland. -Other species that were present but rare included paper birch, hemlock, and beech. -Red oak site index = 58.
115	4319 - Mixed Upland Forest	High Density Log	17.3	Uneven Age	111-140	-This stand was formerly nominated as old-growth. This nomination should be left in place. Multiple ages of pine and hardwoods. Lot of big diameters on the pine. -A small stream runs through a small ravine from the beaver pond to the north down to the wetland to the south. -7 BA plots were taken with an average of 136 sq. ft. per acre.
116	42110 - Planted Red Pine	High Density Pole	37.5	27	81-110	-Looks good so far. -An old road runs north through this stand.
119	4130 - Aspen	Medium Density	28.1	7		-Clearcut in 2005. "Fire Tower Road Mix", 53-012-05-01. Cut by Schleben Forest Products. -Browse has impacted regeneration success in a few areas. South finger along the road more of a J2. -A few scattered WP poles, RP logs, and WO saps. -Small depression near intersection of Road 85 and Blue Lakes Road that has some BAM in it.
122	42290 - Natural Mixed Pine	High Density Log	17.9	132	111-140	-This stand has been nominated for old-growth potential. This designation should remain in place. Nice example of a high-quality natural pine stand. Last thinned in 1985. -Heavy browse on hardwood understory. -Other species that were present but rare included red maple, hemlock, cedar, and white oak. -7 BA plots taken with an average of 129 sq. ft. per acre.
123	4130 - Aspen	High Density Sapling	1.4	26		
124	42200 - Natural White Pine	Medium Density Log	2.1	100	51-80	-No opportunities for management in this stand. Blue Lakes Road runs through the stand and there is a small pull-off alongside the road that looks like an undesignated camping area.
125	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	2.7	36	51-80	-Sparsley stocked stand. BAM mostly at south end.
126	4130 - Aspen	High Density Sapling	11.0	26		-"Pathway Overlook Aspen", sale # 53-020-85-01. Clearcut by K&R Logging of Millersburg. -Other species that were present but rare included white pine, red pine, red oak, BAM, and white spruce.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	3205 - Mixed Upland Shrub	5.2	No	Unspecified	-Filling in with conifers.
7	6229 - Mixed lowland shrub	9.0	No	Unspecified	-Sparse overstory of large tamarack. Fir and spruce slowly filling in. May be a Q1 next entry period. -Very thick alder. -Stand possibly harvested in the past? No t-sale records but where did the cedar go?
35	6239 - Mixed Emergent Wetland	1.0	No	Unspecified	-Old logging road crosses the southern portion of this stand. Looks like a small stream has cut through this road, draining down to the non-forested lowland shrub stand to the south. Some dead cedar stems present.
37	3205 - Mixed Upland Shrub	1.8	No	Unspecified	-Filling in with conifers.
40	6220 - Alder/willow	5.5	No	Unspecified	
46	6229 - Mixed lowland shrub	51.7	No	Unspecified	-Scattered tree species along the northern edge of stand. All merchantable size black ash is dead due to EAB. -Very wet at time of inventory. At least a foot of water (result of snowmelt). -Black River passes through this stand.
47	11 - Low Intensity Urban	4.8	No	Unspecified	Tin Shanty Road
48	3105 - Mixed Upland Herbaceous	5.4	Natural Regen	Aspen	-In process of regeneration, aspen is less than 3 feet tall. -Browse damage on aspen regeneration doesn't seem to bad as of right now, although aspen sprouts aren't too numerous throughout the stand. -Clearcut recently, couldn't find t-sale folder. Estimated age is 3 years.
59	3105 - Mixed Upland Herbaceous	1.4	No	Unspecified	
60	3105 - Mixed Upland Herbaceous	2.5	No	Unspecified	Old oil pad. Past inventory notes indicate that some jack pine was planted here.
74	6220 - Alder/willow	26.9	No	Unspecified	-Black River flows through the south finger of this stand. North finger of stand has a small stream running through it along with a beaver dam and pond. -Scattered trees throughout, especially along the perimeter of the stand.
83	6229 - Mixed lowland shrub	4.9	No	Unspecified	-Looks like this stand used to be flooded. Quite a few old, dead trees. Tam and white pine are seeding in. -Hardwood Creek runs through the north part of the stand.
84	50 - Water	1.9	No	Unspecified	-Hardwood Creek runs through stand. -Old beaver dam at SE end.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
94	3302 - Low Density Conifer Trees	2.7	No	Unspecified	-Trees appear stunted, unproductive site for tree growth.
98	3105 - Mixed Upland Herbaceous	2.3	No	Unspecified	-Old inventory notes that this was planted with jack pine.
101	6220 - Alder/willow	7.5	No	Unspecified	-Hardwood Creek passes through this stand. -There is a thin strip of somewhat upland ground along the southern edge of the stand. This is where the apple and black cherry trees are located.
102	3105 - Mixed Upland Herbaceous	1.2	No	Unspecified	
109	6239 - Mixed Emergent Wetland	2.3	No	Unspecified	-Beaver dam at east edge of stand.
111	3205 - Mixed Upland Shrub	15.8	Natural Regen	Jack Pine	-Regeneration concern. -Harvested as a part of the "Fire Tower Road Mix" t-sale, # 53-012-05-01. All oak left and is concentrated mostly in the SW finger of stand. Jack pine has lightly seeded in a few areas so this may be a J1 next entry period. Overall, this stand will not provide much timber value in the future.
117	6229 - Mixed lowland shrub	30.2	No	Unspecified	-Hardwood Creek passes through this stand. Old imagery and inventory notes indicate that this stand used to be flooded by beavers. Not the case anymore as there isn't nearly as much water. Some trees growing along edges of stand.
118	6239 - Mixed Emergent Wetland	5.1	No	Unspecified	-Dead cedar and black ash throughout due to flooding. This stand is connected to the smaller wetland to the south through a small channel.
120	6239 - Mixed Emergent Wetland	1.1	No	Unspecified	-Beaver dam on south end of stand. Dead black ash throughout.
121	3205 - Mixed Upland Shrub	9.2	Natural Regen	Aspen	-Regeneration concern. -This stand was formerly a jack pine/aspen stand. Was harvested as a part of the "Fire Tower Road Mix", sale # 53-012-05-01. Browse has definitely impacted regeneration success of aspen. Some jack pine seeded in, may be a J1 at next inventory cycle.