

# **Compartment Review Presentation**

**Pigeon River Country Forest Management Unit** 

Compartment 55 Entry Year 2015 Acreage: 1,745 County Otsego Management Area: Pigeon River Country

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

Stand Examiner: Greg Rekowski

## Legal Description:

T32N R02W Sections 8, 9, & 10

## **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:

Flat to gently rolling terrain. Predominantly sandy soil types throughout the compartment of varying names and associations, such as the Blue Lakes, Kalkaska, and Rubicon sands. The lowland swamp types are mostly Tawas-Lupton and Ausable-Bowstring mucks.

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

The compartment is predominantly state ownership with the exception of roughly 160 acres in Section 9 that is privately owned by the Fontinalis Club. The entire northern and eastern boundaries of this compartment border state land as well as the southern boundary of Section 10. The remainder of the southern and western edges of the compartment border private property.

## **Unique Natural Features:**

No rare species have been documented in this compartment.

### Archeological, Historical, and Cultural Features:

None identified.

## **Special Management Designations or Considerations:**

The compartment is part of the Green Timbers Special Management Area which is off limits to motor vehicles. The Sturgeon River valley and surrounding ridges have been designated as Special Conservation Areas where no intrusive management activities will take place.

### Watershed and Fisheries Considerations:

A portion of the Sturgeon River and its tributaries, Club Stream and Pickerel Creek, flow through the compartment.

### Wildlife Habitat Considerations:

Treatments in this compartment include a large area that has been periodically burned in the past and will continue to be burned in the future. This will maintain this large area as open or upland brush. This is part of the largest grassland complex in the PRC. An oak regeneration prescription in the eastern part of the compartment will allow us to increase age class diversity in this important vegetation type. Both of these treatments will improve the habitat for deer and elk.

## Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. Glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift is the Devonian Antrim Shale, quarried for clay/shale and cement products elsewhere in the State. The nearest gravel pit is several miles away, but potential is considered good on the upland areas. The Antrim Shale has been developed to the south of this compartment. None of the State land is leased. Natural gas is being drained from State minerals. The Niagaran reef trend produces to the southeast and potential is minimal. There is excellent oil and gas potential for known producing formations in this compartment.

### Vehicle Access:

There is good access throughout most of this compartment, however this compartment is closed to all public motorized vehicles.

## **Survey Needs:**

None required at this time.

## **Recreational Facilities and Opportunities:**

Section 10 of this compartment has hiking trails along with two recreational shelters that are used heavily by hikers and mountain bikers.

## **Fire Protection:**

With the exception of jack pine types in Section 10, this compartment has a relatively low wildfire risk. Access is good in case of any fire suppression efforts.

## **Additional Compartment Information:**

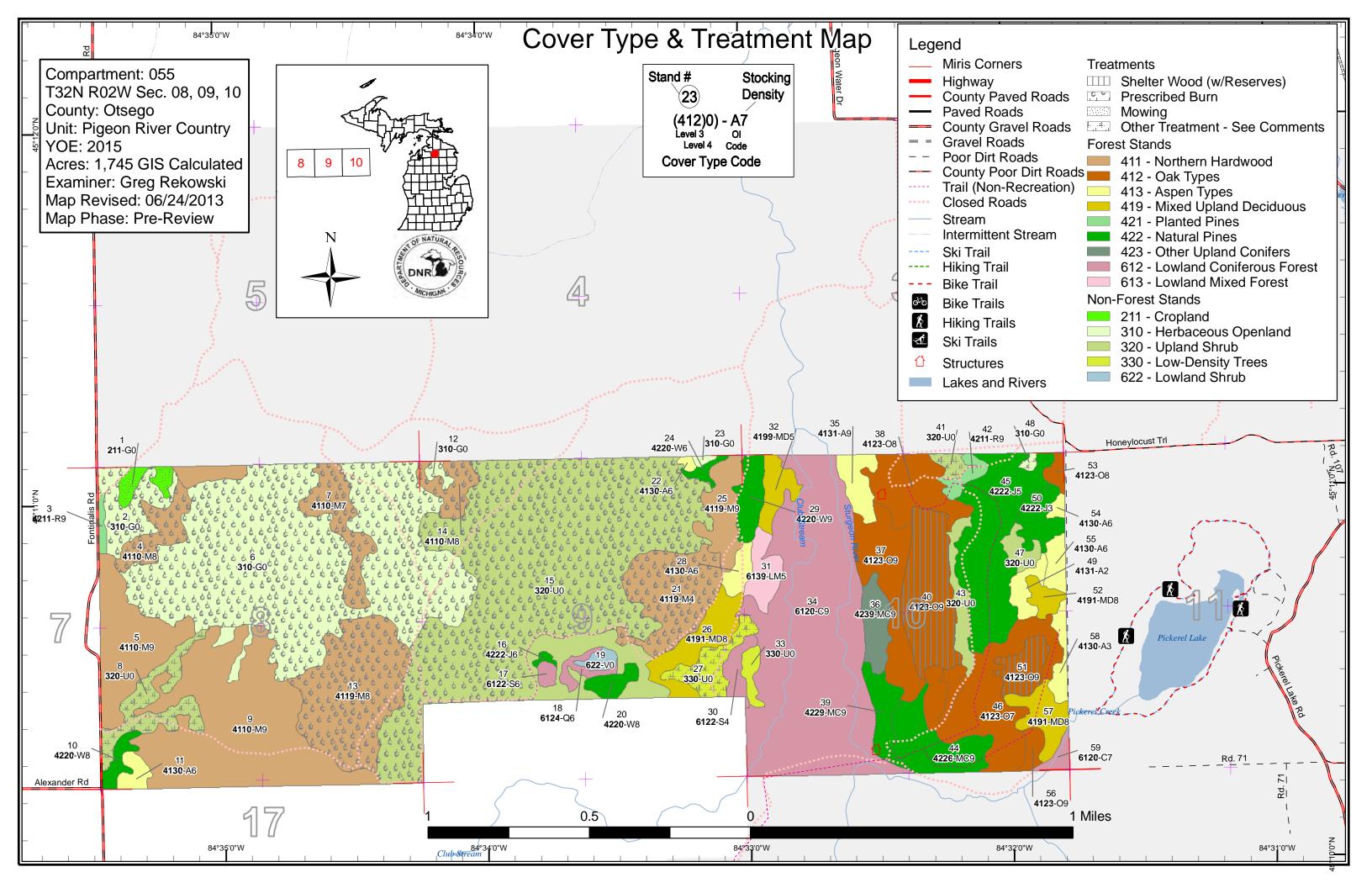
Most of the grass and upland brush types in Sections 8 and 9 fall within the Green Timbers Burn Project Area and will be periodically burned throughout the 10 year cycle to encourage the development of native grasses and forbs.

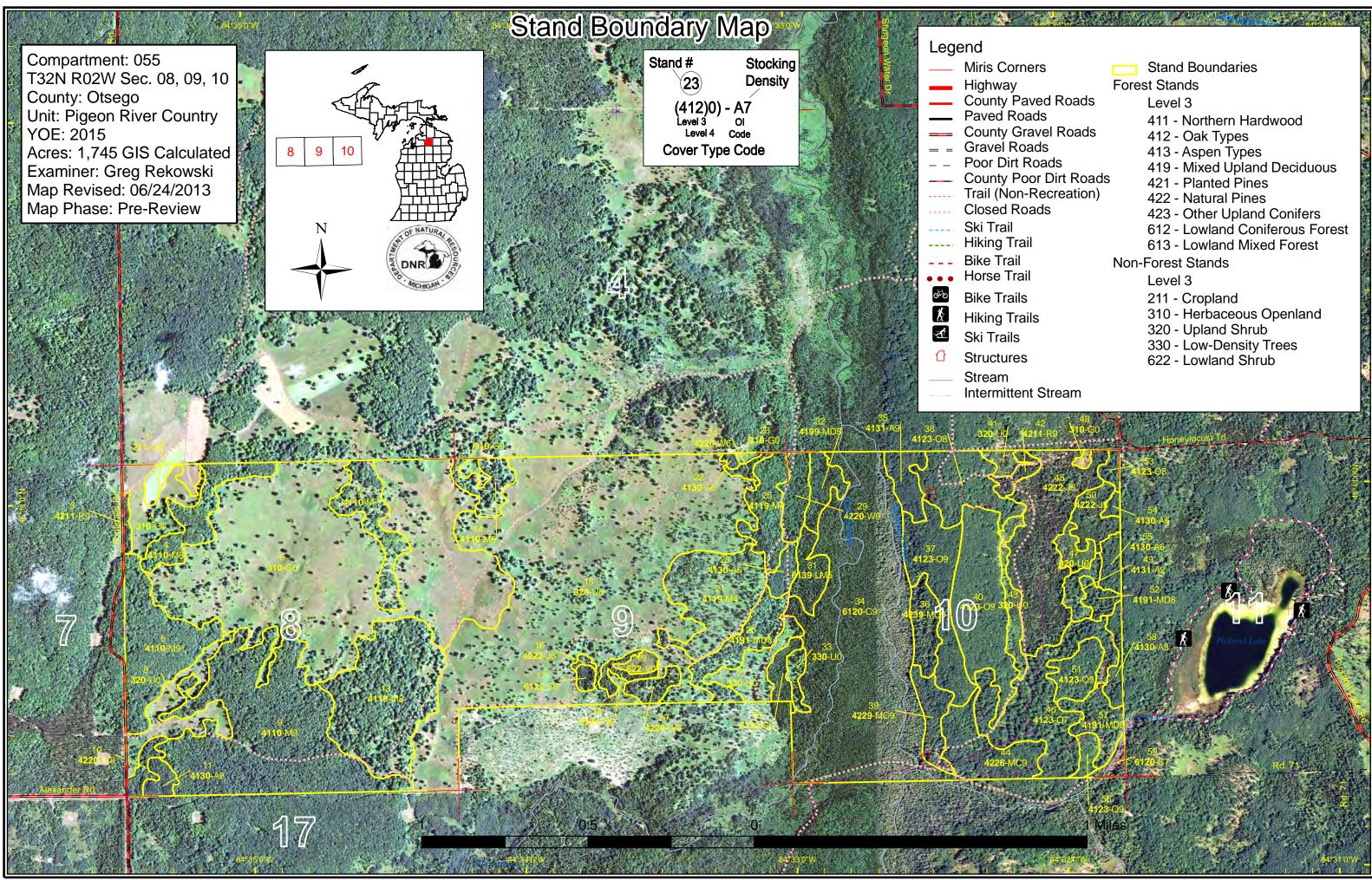
## The following reports from the Inventory are attached:

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

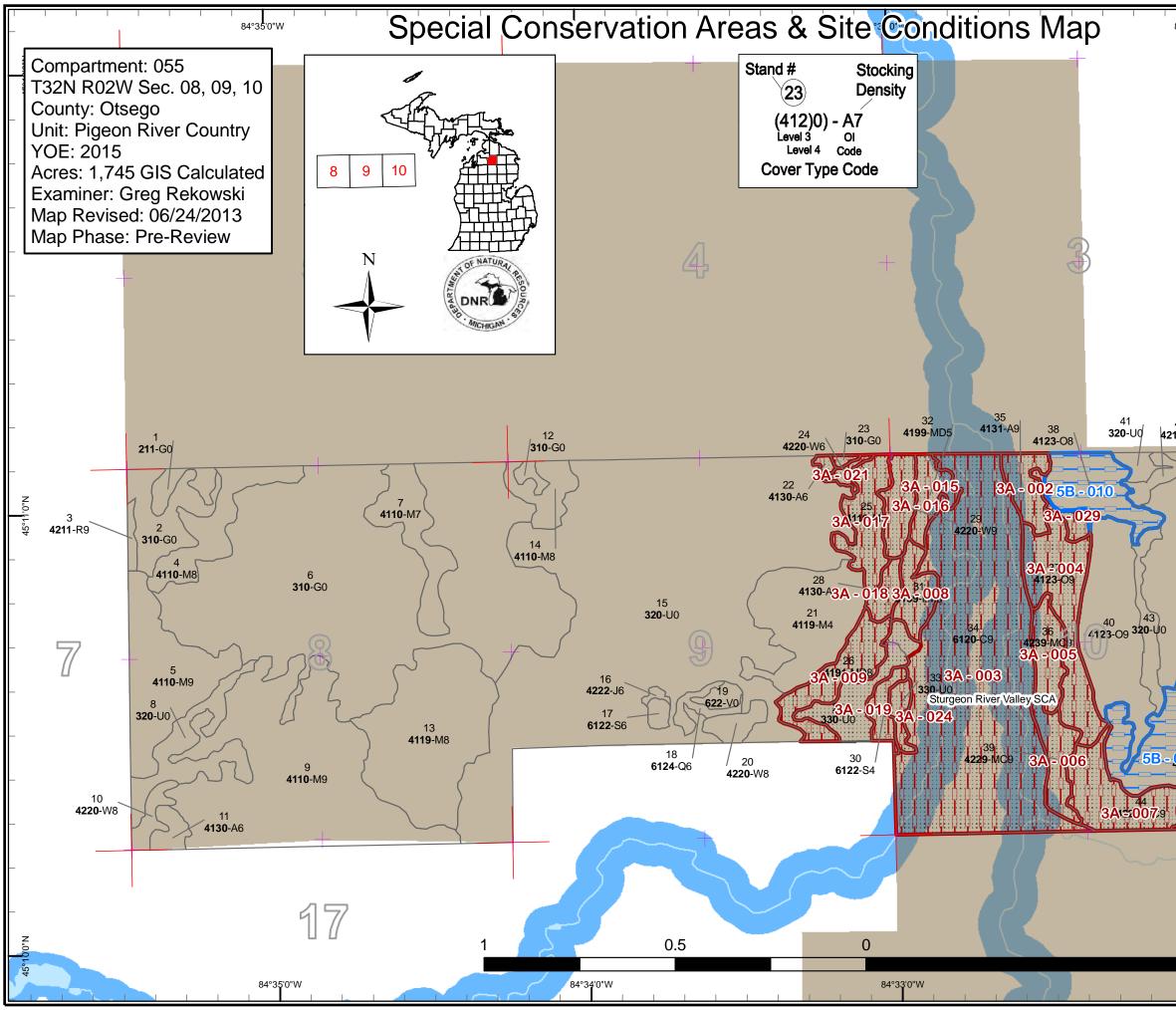
The following information is displayed, where pertinent, on the attached compartment maps: Base feature information, stand boundaries, cover types, and numbers Proposed treatments Site condition boundaries

Details on the road access system





- FUTUT		£
rners Paved Roads coads Gravel Roads Coads t Roads Poor Dirt Roads n-Recreation) Roads rail il	422 - Natural Pines 422 - Natural Pines 423 - Other Upland Conifers 612 - Lowland Coniferous Forest 613 - Lowland Mixed Forest Non-Forest Stands Level 3	
il	613 - Lowland Mixed Forest Non-Forest Stands	の一日の一日の一日の
	Level 3 211 - Cropland 310 - Herbaceous Openland 320 - Upland Shrub 330 - Low-Density Trees 622 - Lowland Shrub	「「「「たい」のないないというという」
		100



84°32'0"W 84°31'0"W	2'0"N -
	45-12
$\begin{array}{c} 42 \\ 211 \cdot R9 \\ 422 \cdot J5 \\ 4222 \cdot J5 \\ 4222 \cdot J5 \\ 4222 \cdot J5 \\ 4130 \cdot A6 \\ 55 \\ 4130 \cdot A6 \\ 49 \\ 4131 \cdot A2 \\ 5B - 012 \\ 4191 \cdot MD8 \\ 4130 \cdot A3 \\ 51 \\ 4123 \cdot 09 \\ 4130 \cdot A3 \\ 52 \\ 4191 \cdot MD8 \\ 4130 \cdot A3 \\ 51 \\ 4123 \cdot 09 \\ 58 \\ 4130 \cdot A3 \\ 58 \\ 58 \\ 4130 \cdot A3 \\ 58 \\ 58 \\ 4130 \cdot A3 \\ 58 \\ 58 \\ 58 \\ 58 \\ 58 \\ 58 \\ 58 \\ 58$	4541 0'N
<sup>56</sup> 4123-O9 1 Miles	45°10'0"N
84°32'0"W 84°31'0"W	

## Report 1 – Total Acres by Cover Type and Age Class

eon River Country Mgt. Unit Greg REKOWSKI : Examiner

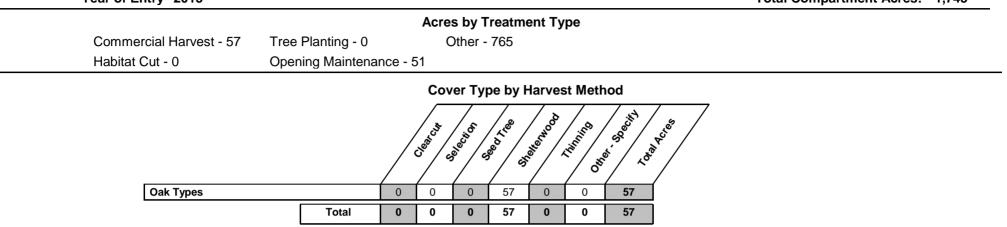
## Compartment 055 Year of Entry 2015



Age Class

	/	60	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~ /	2	8	\$	8	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	\$ /	8	00100	12,120	/	
			10 <sup>7</sup> 0	10 <sup>2</sup>	and	AD B	and and a second	89 99	10 10	50 00 60 00	89 J	,0 <sup>0</sup> ,	, <sup>0</sup>	20× 30	and the second s
Aspen	0	0	12	22	1	0	0	0	0	11	0	0	0	0	46
Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Cedar	0	0	0	0	0	0	0	0	4	0	0	0	191	0	195
Cropland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Herbaceous Openland	296	0	0	0	0	0	0	0	0	0	0	0	0	0	296
Jack Pine	0	0	62	12	0	1	0	0	0	0	0	0	0	0	75
Low-Density Trees	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20
_owland Conifers	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5
_owland Mixed Forest	0	0	0	0	0	0	0	0	0	0	12	0	0	0	12
_owland Spruce/Fir	0	0	0	0	0	7	0	0	0	3	0	0	0	0	9
Mixed Upland Deciduous	0	0	0	10	0	0	15	0	27	0	0	0	0	0	52
Natural Mixed Pines	0	0	0	0	0	0	0	13	27	0	0	0	0	0	40
Northern Hardwood	0	0	0	0	0	0	0	0	68	305	0	0	0	0	374
Oak	0	0	0	0	0	0	5	0	84	45	54	0	0	0	187
Red Pine	0	0	0	0	2	0	5	0	0	0	0	0	0	0	8
Upland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	13	0	13
Upland Shrub	375	0	0	0	0	0	0	0	0	0	0	0	0	0	375
White Pine	0	0	0	0	6	9	0	12	0	0	0	0	0	0	27
Total	701	0	73	45	10	22	24	25	211	364	65	0	204	0	1745





### **Report 3 -- Treatments Prescribed** with No Limiting Factor

Compartment: 055 Year of Entry 2015



t a					with			· • • • • • • • • • • • • • • • • • • •	DNR R	
n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
40	53055040-Cut	44.3	4123 - Red Oak	High Density Log	89 g	111-140	Harvest	Shelter Wood with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
<u>Pres</u> Spec		e competit	0					1 27	ave a lower ba/acre. L r form as cut and leav	
			rea in interior retentio		, ,				· · · · ·	

s with dense white pine regeneration. Some steep slopes along the eastern edge may need to be excluded from treatment boundary.

#### <u>Other</u>

c

Comments:

- -Mechanically scarify the site using DNR resources after harvest. <u>Next</u>
- -Natural regeneration survey at 3 years due to possible problems of oak regeneration. Continue to monitor regeneration success. Consider a next Steps: step of planting additional oak in this stand (acorns or saplings), if regeneration is unsuccessful.
  - -Acceptable regeneration will be a mix of oak, aspen, maple, and pine with at least a 30% representation of oak in the regeneration.

#### Proposed

#### Start Date: 10/01/2014

51 5305	5051-Cut	12.7	4123 - Red Oak	High Density Log	98	81-110	Harvest	Shelter Wood with Reserves	4319 - Mixed Upland Forest	Cmpt. Review Proposal
Prescription Specs:	stand. -Encourag	je scarifica	5	sale practices,	prefe	rably whole	-tree skidding. E	l pine, aspen, and an nsure protection of re on.	, ,	
<u>Other</u> Comments:										
<u>Next</u>	-Mechanic	ally scarify	y this site following	harvest using D	DNR re	esources.				

- -Evaluate regeneration success after three years. Continue to monitor regeneration success and consider planting additional oak if regeneration Steps: is unsuccessful.
  - -Acceptable regeneration will be at least a medium-stocked stand consisting of any mix of pine, oak, aspen, and maple, with at least a 30% representation of regenerating oak.

#### Proposed

#### 10/01/2014 Start Date:

4	53055004- Burn	16.7	4110 - Sugar Maple Association	Medium Density Log	95	81-110	Prescribed Burn	Unspecified	4110 - Sugar Maple Association	Cmpt. Review Proposal
Presc Specs			on with the adjacent st art of the West Unit. Se					in the hardwoods		
<u>Other</u> Comn										
<u>Next</u> Steps	<u>.</u>									
Propos Start D		14								
7	53055007- Burn	23.7	4110 - Sugar Maple Association	Low Density Log	84	1-50	Prescribed Burn	Unspecified	4110 - Sugar Maple Association	Cmpt. Review Proposal
Presc Specs			on with the adjacent st art of the West Unit. Se					in the hardwoods		
<u>Other</u>										

Comments:

<u>Next</u>

Steps:

Proposed Start Date: 10/01/2014

S

## **Report 3 -- Treatments Prescribed** with No Limiting Factor

Compartment: 055 Year of Entry 2015

DNR DNR
Approval
Statuc

S t					with		iting Factor		real of Entry 2015	UNR DNR
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	53055013- Burn	74.8	4119 - Mixed Northern Hardwoods	Medium Density Log	95 9	51-80	Prescribed Burn	Unspecified	4110 - Sugar Maple Association	Cmpt. Review Proposal
Presci Specs			n conjunction with the s art of the West Unit. Se					en understory in	the hardwoods.	
<u>Other</u> Comm	- nents:									
<u>Next</u> Steps:	-									
Propos Start D		014								
14	53055014- Burn	12.4	4110 - Sugar Maple Association	Medium Density Log	91 9	51-80	Prescribed Burn	Unspecified	4110 - Sugar Maple Association	Cmpt. Review Proposal
Presci Specs			on with the surrounding aintain an open unders				f Unit 2 (see old FT	P's) and will be b	ourned in the fall.	
<u>Other</u> Comm				-						
<u>Next</u> Steps:										
Propos Start D	sed_	014								
21	53055021- Burn	44.7	4119 - Mixed Northern Hardwoods	Low Density Pole	88	1-50	Prescribed Burn	Unspecified	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal
Presci Specs			art of burn unit 3 in the h. Boundary line is alrea						he fall with the surround	ling stands to
<u>Other</u> Comm	-									
<u>Next</u> Steps:	:									
Propos Start D	sed_	014								
2	NF_53055002 Burn	- 21.4	3105 - Mixed Upland Herbaceous				Prescribed Burn	Unspecified	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
Presci Specs	<u>s:</u> -This st	tand is a pa	on with the adjacent sta art of the Green Timber aintain the open charac	rs Prescribed	d Burn P			ation.		
<u>Other</u> Comm	- nents:									
<u>Next</u> Steps:	-									
ropos	sed									

Compartment: 055 Pigeon River Country Mgt. Unit **Report 3 -- Treatments Prescribed** Year of Entry 2015 with No Limiting Factor s t а Treatment Acres CoverType Size Stand BA Treatment Treatment Cover Type Approval n Method Objective d Name Density Age Range Type Status 265.6 3105 - Mixed Prescribed Burn NF\_53055006-Unspecified 3105 - Mixed Cmpt. Review 6 Burn Upland Herbaceous Upland Herbaceous Proposal Prescription - This stand is part of the Green Timbers Prescribed Burn Project Area. -Burn this stand. The majority of it is a part of the "West Unit", see old FTP's for boundaries. Specs: -Objective is to maintain the open character of the stand. Other Comments: Next Steps: **Proposed** Start Date: 10/01/2014 12 NF 53055012-2.4 3105 - Mixed Prescribed Burn Unspecified 3105 - Mixed Cmpt. Review Upland Herbaceous Upland Herbaceous Proposal Burn Prescription - This stand is a part of the Green Timbers Prescribed Burn Project Area. -Burn this stand in conjunction with the surrounding stands. Specs: -Objective is to maintain the opening. <u>Other</u> Comments: Next Steps: Proposed Start Date: 10/01/2014 NF 53055015-302.9 3205 - Mixed Prescribed Burn Unspecified 3205 - Mixed Cmpt. Review 15 **Upland Shrub** Upland Shrub Proposal Burn Prescription - This stand is part of the Green Timbers Prescribed Burn Project Area (Unit 3). Specs: -Burn in the fall with the objective of maintaining the open character of the stand. <u>Other</u> Comments: <u>Next</u> Steps: Proposed 10/01/2014 Start Date: NF 53055001-1 6.7 2113 - Forage Crops Non-Forest Mowing 3103 - Rubus-Fern Cmpt. Review Proposal NonFor Management Prescription -Maintain the open nature of this stand either through herbicide, fire, or mechanical means. Specs: <u>Other</u> Comments: <u>Next</u> Steps: Proposed 10/01/2014 Start Date: NF 53055008-3205 - Mixed 23.7 Non-Forest Other - Specify 3205 - Mixed Cmpt. Review 8 Upland Shrub Management Upland Shrub Proposal NonFor Prescription Maintain the non-forested condition of this stand either through prescribed burning, herbicide, or mechanical means. Specs: <u>Other</u> Comments: <u>Next</u>

Unspecified

<u>Steps:</u> <u>Proposed</u> <u>Start Date:</u>

S t	Pigeon	River Cou	ıntry Mgt. Unit	Repo			nents Prescri ting Factor	bed	Compartment: 055 Year of Entry 2015	OF NATURAL	
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status	
27	NF_53055027 _Mow-NonFor	15.3	3303 - Mixed Low Density Trees				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal	
Preso Spec		the non-fo	orested condition of thi	s stand eith	er throug	Ih prescrib	ed burning, herbi	cide, or mechanic	al means.		
<u>Othe</u> Com	<u>r</u> ments:										
<u>Vext</u> Steps											
ropo		ied									
41	NF_53055041- NonFor	4.0	3205 - Mixed Upland Shrub				Non-Forest Management	Other - Specify	3205 - Mixed Upland Shrub	Cmpt. Review Proposal	
Preso Spec		the non-fo	orested condition of thi	s stand eith	er throug	Ih prescrib	ed burning, herbi	cide, or mechanic	al means.		
Othe Com	<u>r</u> ments:										
<u>Next</u> Steps											
Propo Start I	<u>sed</u> <u>Date:</u> Unspecifi	ied									
48	NF_53055048- NonFor	1.2	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Reviev Proposal	
Preso Spec		the non-fo	orested condition of thi	s stand eith	er throug	Jh prescrib	ed burning, herbi	cide, or mechanic	al means.		
<u>Othe</u> Comi	<u>r</u> ments:										
<u>Next</u> Steps											
ropo tart l	<u>sed</u> <u>Date:</u> Unspecifi	ied									
A	Total Treatmer creage Propose		2.5								

S t	Pigeon	River Countr	y Mgt. Unit	Report 4		eatment imiting	Compartment: 055 Year of Entry 2015	ADT NATURAL PHODUREC		
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Type!							
<u>Preso</u> Spec	cription s:									
<u>Other</u> Comr	<u>r</u> ment:									
<u>Next</u> Steps	<u>s:</u>									
<u>Propo</u> Start	<u>osed</u> <u>Date:</u> #Type!									
<u>Limiti</u>	ng Factor									
A	Total Treatme creage Propose									

Greg Rekowski : Examiner

Compartment 055 Year of Entry 2015

## Availability for Management

		0					
Total	Acres	Acres		Domina	nt Site	e Conc	ditions
Acres	Available	Not Available		No	5B	ЗA	
46	28	19	Aspen	28		19	
195	3	192	Cedar	3		192	
75	75		Jack Pine	75			
5	5		Lowland Conifers	5			
12		12	Lowland Mixed Forest			12	
9	3	7	Lowland Spruce/Fir	3		7	
52	14	38	Mixed Upland Deciduous	9	6	38	
40		40	Natural Mixed Pines			40	
374	354	20	Northern Hardwood	354		20	
187	140	47	Oak	65	76	47	
8	8		Red Pine	8			
13		13	Upland Conifers			13	
27	12	15	White Pine	12		15	
1,044	643	401	Total Forested Acres	561	81	401	
	62%	38%	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.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	3A: Potential old growth / biodiversity	11				
-	<b>comments:</b> his stand is part of	the Green Timbers Old Grow	th Area.				
003	Not Available	3A: Potential old growth / biodiversity	188				
	<b>comments:</b> his stand is a part	of the Green Timbers Old Gro	wth Area				

Report 5 – Site Conditions

Compartment 055 Year of Entry 2015

Greg Rekowski : Examiner

Pigeon River Country Mgt. Unit

004	Not Available	3A: Potential old growth / biodiversity	36		
	omments: his stand is part o	f the Green Timbers Old Growth	h Area.		
005	Not Available	3A: Potential old growth / biodiversity	13		
	omments: his stand is part o	f the Green Timbers Old Growth	h Area.		
006	Not Available	3A: Potential old growth / biodiversity	13		
	omments: his stand is part o	f the Green Timbers Old Growt	h Area.		
007	Not Available	3A: Potential old growth / biodiversity	27		
C	omments:				
008	Not Available	3A: Potential old growth / biodiversity	12		
C	omments:				
009	Not Available	3A: Potential old growth / biodiversity	22		
С	omments:				
010	Available	5B: Retention for regeneration purposes	24	No Limiting Factor	
С	omments:				

# Report 5 – Site Conditions

Compartment 055 Year of Entry 2015

Greg Rekowski : Examiner

011	Available	5B: Retention for regeneration purposes	51	No Limiting Factor	
	<b>Comments:</b> Hold until immatur	e aspen and red maple is ready	r to har	vest.	
012	Available	5B: Retention for regeneration purposes	6		
	<b>Comments:</b> Previous harvest r	emoved all aspen and red mapl	e. Holo	d until these species mature.	
013	Not Available	3A: Potential old growth / biodiversity	4		
	<b>Comments:</b> Stand is a part of t	the Green Timbers Old Growth	Area.		
014	Not Available	3A: Potential old growth / biodiversity	5		
	<b>Comments:</b> Stand is a part of t	the Green Timbers Old Growth	Area.		
015	Not Available	3A: Potential old growth / biodiversity	11		
	<b>Comments:</b> Stand is a part of t	the Green Timbers Old Growth	Area.		
016	Not Available	3A: Potential old growth / biodiversity	12		
	<b>Comments:</b> Stand is a part of t	the Green Timbers Old Growth <i>i</i>	Area.		
017	Not Available	3A: Potential old growth / biodiversity	20		
	<b>Comments:</b> Stand is a part of t	the Green Timbers Old Growth	Area.		

## **Report 5 – Site Conditions**

Compartment 055 Year of Entry 2015

## Greg Rekowski : Examiner

Pigeon River Country Mgt. Unit

018	Not Available	3A: Potential old growth / biodiversity	6						
-	<b>Comments:</b> -Stand is a part of Green Timbers Old Growth Area.								
019	Not Available	3A: Potential old growth / biodiversity	7						
Comments:									
<ul> <li>Stand is a part of the Green Timbers Old Growth Area.</li> </ul>									

020 Not Available 3A: Potential old growth / 1 biodiversity

### **Comments:**

-Stand is a part of the Green Timbers Old Growth Area.

## 021 Not Available 3A: Potential old growth / 3 biodiversity

### **Comments:**

-Stand is a part of the Green Timbers Old Growth Area.

## 022 Not Available 3A: Potential old growth / 1 biodiversity

#### **Comments:**

-Stand is a part of the Green Timbers Old Growth Area.

## 024 Not Available 3A: Potential old growth / 5 biodiversity

#### **Comments:**

-Stand is a part of the Green Timbers Old Growth Area.

## 027 Not Available 3A: Potential old growth / 6 biodiversity

### **Comments:**

-This portion of Stand 57 is a part of the Green Timbers Old Growth Area.

Compartment 055 Year of Entry 2015

Greg Rekowski : Examiner

029	Not Available	3A: Potential old growth / biodiversity	4						
_	<b>Comments:</b> A portion of this stand lies within the Green Timbers Old Growth Area.								
030	Not Available	3A: Potential old growth / biodiversity	2						
_	Comments: -The portion of this stand at the southern end is part of the Green Timbers Old Growth Area.								



## 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
Sturgeon River Valley SCA Comments	Habitat Areas or Corridors	Other Habitat Area	SCA	425.6



## 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.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical r sites of cultural and historical significance that may occur upon to bottomlands. They include thousands of Native American settlen and British outposts, nineteenth century logging camps, mines a the Great Lakes, there are shipwrecks and other remains docum be identified by Natural heritage data from the State Historic Pre this compartment will be implemented in such a manner as to ma the sensitive nature of this information, no further detail about log	errestrial areas and Great Lakes nents and burial sites, as well as French and homesteads. Beneath the waters of nenting the maritime trade. Such sites may servation Office. Proposed treatments in aintain the integrity of these sites. Due to
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions stocked trout populations and those of other coldwater fish speci- conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	ies to persist from year to year. Suitable ey are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	ies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in influences the aquatic ecosystem and vice-versa. Because of the streams and open water wetlands, riparian areas harbor a high o communities are ecologically and socially significant in their effe as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian cts on water quality and quantity, as well
HCVA	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific mana rules, as governed by Part 5, Department of Natural Resources, 324.504). Section 38 of the Administrative Procedures Act (MCL the promulgation of rules. This is an active program, with one pro DNR.	of the NREPA (MCL 324.502(2) and .24.238) provides for public requests for

S t	Pigeon River Countr	y Mgt. Unit	Report 8	– Forested	Stands Compartment: 055 Year of Entry: 2015	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
3	42110 - Planted Red Pine	High Density Log	2.5	40	81-110	-White pine is present along the eastern edge of the stand.
4	4110 - Sugar Maple Association	Medium Density Log	23.6	95	81-110	-The majority of this stand is part of the Green Timbers Prescribed Burn Project Area. A portion of this stand lying along the north edge of the compartment is excluded from the existing burn boundary.
5	4110 - Sugar Maple Association	High Density Log	45.9	92	81-110	-Basal area is quite variable throughout. 9 BA points were taken with an average of 90 sq. ft. per acre. Lot of large pulp trees. -Old canopy gaps have filled in exclusively with ironwood. If prescribed, treatment boundary should go around open areas and areas of lower BA. -Ash is pretty rare in the stand but EAB is present on most of
						them. BBD is present in the stand with scale on about 1/5 of the trees. -Sugar maple site index= 56, for a 91 year old tree, 81 feet tall.
7	4110 - Sugar Maple Association	Low Density Log	23.7	84	1-50	<ul> <li>This stand is part of the Green Timbers Prescribed Burn Project Area.</li> <li>A two-aged stand consisting of scattered log-sized hardwoods and hardwood saplings. This stand could go either way; a low- stocked log stand or a hardwood sapling stand with light overstory of mature hardwoods.</li> <li>Hardwood regeneration is mostly white ash and ironwood, although sugar maple has surprisingly made it past the browse level in a few spots. However, in most areas the sugar maple</li> </ul>
						regen has been killed due to browsing. -EAB is present on most of the log-sized ash. Some of the poles and saplings are starting to show signs of EAB. -Small pocket of M9 in the north part of the stand.
9	4110 - Sugar Maple Association	High Density Log	128.8	96	81-110	<ul> <li>Stand thinned in 2005, "Green Timbers Hardwoods", cut by Weyerhauser. South half of stand thinned in 1990, bought by Heatherton Farm and Forest. Old canopy gaps filled in primarily with ironwood (sap/pole).</li> <li>29 BA points taken with an average of 92 sq. ft. per acre.</li> <li>EAB present, about 1/2 of ash already dead. BBD scale on a few beech, mostly in the north end.</li> <li>Some pockets of heavy porcupine damage.</li> <li>Sedge very heavy in the understory. Heavy use by deer and elk is negativley impacting the understory of this stand.</li> </ul>
10	42200 - Natural White Pine	Medium Density Log	5.9	40	51-80	-No real understory, saplings a part of the overstory. -Quite a bit of open-grown white pine.
11	4130 - Aspen	High Density Pole	5.4	27		-Stand clearcut in 1986 by D. Bunker and Son's Wood Pallets. -Pocket of bigger aspen in the SW corner of the stand.
13	4119 - Mixed Northern Hardwoods	Medium Density Log	74.8	95	51-80	<ul> <li>-This stand is part of the Green Timbers Prescribed Burn Project Area.</li> <li>-12 BA points were taken with an average of 58 sq. ft. per acre.</li> <li>-EAB on about 1/2 of the ash. Observed only one beech tree with scale on the bark. Beech is small and low quality.</li> <li>-Highly degraded hardwood stand due to heavy browse pressure and past management practices. Without intervention, this will eventually be a stand dominated by ironwood.</li> </ul>

S t	Pigeon River Country	y Mgt. Unit		Report 8	– Forested	I Stands Compartment: 055 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	4110 - Sugar Maple Association	Medium Density Log	12.4	91	51-80	-This stand is part of the Green Timbers Prescribed Burn Project Area. -Understory has recently been hydro-axed. -All ash in the stand has EAB and is close to death.
16	42220 - Natural Jack Pine	High Density Pole	1.1	54		
17	6122 - Black Spruce	High Density Pole	2.6	99	81-110	-Shaghnum and leatherleaf understory.
18	6124 - Lowland Spruce- Fir	High Density Pole	5.1	58	81-110	
20	42200 - Natural White Pine	Medium Density Log	6.6	53	1-50	-Lot of open grown stems. Some massive old WP stumps. -Difficult to tell with the snow, but looks like an old RR grade passes through this stand.
21	4119 - Mixed Northern Hardwoods	Low Density Pole	44.7	88	1-50	<ul> <li>This stand is part of a larger area which is routinely burned.</li> <li>Many of the trees are scorched on the bole and several were killed following the previous burn (2005).</li> <li>Little to no regeneration at all with the exception of a few localized areas where aspen is trying to sprout back.</li> </ul>
22	4130 - Aspen	High Density Pole	1.2	44		-Clump of hardwoods in the north end. -Two-ages of overstory aspen in the stand. Younger aspen is more dominant.
24	42200 - Natural White Pine	High Density Pole	2.7	50	51-80	<ul> <li>Possibly planted? No records found but white pine appear to be oriented in rows in some locations.</li> <li>Mature red oak, basswood, and beech were also mixed in but rare.</li> </ul>
25	4119 - Mixed Northern Hardwoods	High Density Log	19.9	95	81-110	<ul> <li>-Leave as part of Green Timbers Old Growth Area.</li> <li>-6 BA plots were taken with an average of 112 sq. ft. per acre.</li> <li>-Other species that were present but rare included paper birch, yellow birch, hemlock, red oak, and white ash.</li> <li>-Although ash was rare, all of it appeared to have EAB.</li> </ul>
26	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	21.6	88	51-80	<ul> <li>Portions of this stand lie on a relativley steep east-facing slope.</li> <li>Stocking and quality of stand improves as you move north.</li> <li>White pine is mostly in the south half. Pockets of younger aspen (25 y.o.) mized in with older aspen. Small pocket of red pine at the base of the hill in the NE part of the stand.</li> <li>This stand is not part of the burn area.</li> </ul>
28	4130 - Aspen	High Density Pole	6.1	27		-Stand clearcut in 1986 by D. Bunker and Son's Wood Pallets. -Stand is just over the pole-size threshold. -Scattered mature hardwoods throughout the stand. -Additional species that were present but rare included beech, hemlock, and balsam fir. -Stand lies on a relativley steep east-facing slope.

S t	Pigeon River Country Mgt. Unit			Report 8	– Forested	Stands Compartment: 055 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	42200 - Natural White Pine	High Density Log	12.0	77	111-140	<ul> <li>At least a two-aged white pine stand. Some very large XL sized white pine that are at least as old as the 2nd age for the stand (106 years).</li> <li>Other species that were present but rare included; white spruce, balsam fir, balsam poplar, and basswood.</li> </ul>
30	6122 - Black Spruce	Low Density Pole	6.8	59		-Poorly stocked stand.
31	6139 - Mixed Lowland Forest	Medium Density Pole	11.6	100	1-50	<ul> <li>-A portion of this stand (9 acres) was clearcut in 1986. Sale name "Spruce-itis." Scattered mature spruce, tamarack, and birch were left from the previous harvest. Appeared to be left in clumps. Saplings of various species have filled in gaps.</li> <li>-All overstory ash has EAB and appears close to death.</li> <li>-Pockets of mortality in the mature tamarack. Unsure of cause (likely Eastern Larch Beetle).</li> </ul>
32	4199 - Other Mixed Upland Deciduous	Medium Density Pole	10.5	39	1-50	-Mix of stocking and sizes in this stand. Varies from a sapling/alder stand to a pole/log stand. -Most of the ash has EAB.
34	6120 - Lowland Cedar	High Density Log	190.7	140	171-200	<ul> <li>-Did not visit interior of stand between Club Stream and Sturgeon River. Aerial imagery appears to be consistent throughout stand.</li> <li>-Some areas with large cedar (20"+ DBH).</li> <li>-Scattered pockets of cedar mortality in areas where the ground is wetter.</li> <li>-Not much ash but most of it is dead due to EAB.</li> <li>-Other species that were present but rare included ash, quaking aspen, BAM, basswood, and red maple.</li> </ul>
35	4131 - Aspen, Oak	High Density Log	11.2	90		-Recommend leaving as part of the Green Timbers Old Growth Area. -Stand lies along a steep slope. -Oak becomes more common in the N half. -Other species that were present but rare included white pine, red pine, and white spruce.
36	42390 - Mixed Non- Pine Upland Conifers	High Density Log	13.1	129		-Very unique upland cedar/hemlock stand lying along a steep westward facing slope. -Several seepages present throughout the stand.
37	4123 - Red Oak	High Density Log	35.8	82	81-110	-Stand lies on a steep west-facing slope. -Other species that were present but rare included white pine, balsam fir, white spruce, and paper birch.
38	4123 - Red Oak	Medium Density Log	28.5	92	81-110	<ul> <li>Two-aged stand of mature oak and sapling sized red maple and aspen. Variable stand density. Past harvest likely removed all red maple and aspen, similar to stand 42 at south end of compartment.</li> <li>Honeymoon cabin is located on the western end of this stand.</li> </ul>
39	42290 - Natural Mixed Pine	High Density Log	13.1	77	171-200	-Lower Green Timbers Cabin is located in the south end of this stand. -Two-aged pine stand. -Trail runs through stand.

Pigeon	River	Country	Mat. U	nit
i igeon	111101	oouniny	mgt. O	

S t

## Report 8 – Forested Stands

Compartment: 055 Year of Entry: 2015



a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	4123 - Red Oak	High Density Log	48.6	89	111-140	<ul> <li>-Medium site quality but areas with high quality oak. Habitat type likely a higher-end PArVHa.</li> <li>-Some XL sized oak scattered throughout suggest a two-aged stand.</li> <li>-White pine regeneration more abundant in the south half. Red maple saplings more abundant in the north half.</li> <li>-Most of the aspen is located in small pockets along the western and eastern ridgelines.</li> <li>-Other species that were present but rare included red pine, white spruce, and white oak.</li> <li>-11 basal area plots were taken with an average of 121 sq. ft. per acre.</li> <li>-Site index values of 57 and 64 for two separate sample trees.</li> </ul>
42	42110 - Planted Red Pine	High Density Log	5.4	62	141-170	-Short and limby red pine. -Understory mostly moss, grass, and sweetfern.
44	42260 - Natural Pine, Mixed Deciduous	High Density Log	27.0	87	111-140	<ul> <li>-Red pine is more common in the east half, white pine more common in the west half. Red pine possibly planted?</li> <li>-Other species that were present but rare included paper birch, balsam fir, white spruce, hemlock, and cedar.\</li> <li>-A small cedar seep is present.</li> <li>-Steep slopes present throughout stand.</li> <li>-Heavy browse damage on red maple understory.</li> </ul>
45	42220 - Natural Jack Pine	Medium Density Pole	61.7	27		<ul> <li>-Majority of this stand was clearcut from 1986-1988. All oak and 1 stick trees were left. A thin strip of J1 which runs down the center of the stand was excluded from the harvest. Sale name "Goosneck Jack Pine,", cut by Kapalla Logging.</li> <li>-As a result of the harvest listed above, this stand is two-aged and the jack pine is quite variable in size and stocking density. Most of the jack pine is in the pole/sap class but some pockets throughout of mature jack pine (2nd age for this stand is from a mature JP). There is also a pocket of mature oak in the northern part of this stand.</li> <li>-The stand becomes much more open along the edges with many open-grown and limby stems.</li> <li>-Other species that were present but rare included white pine, white spruce, red maple, and white oak.</li> </ul>
46	4123 - Red Oak	Low Density Log	53.7	102	1-50	<ul> <li>Two-aged stand that is highly variable in stocking density. Varies from pure aspen saplings to oak shelterwood. Previous harvest removed all species except oak and pine (Blueberry Hill Aspen, 1995).</li> <li>Heavy browse on red maple regeneration. A few white oak saplings have made it past browsing level but they are rare.</li> <li>White pine regeneration more abundant in the west 1/2 of the stand.</li> <li>NW finger of stand has quite a bit of mature RP and WP.</li> </ul>
49	4131 - Aspen, Oak	Medium Density	7.1	30	1-50	-Stocking density much lower in the south half. -Another one of these stands where all the red maple, jack pine, and aspen was removed and all oak was left.
50	42221 - Natural Jack Pine, Mixed Deciduous	High Density Sapling	12.5	30		-Areas of thick jack pine saplings, especially along the south edge of the stand.

S t	Pigeon River Country		Report 8	– Forested	Stands Compartment: 055 Year of Entry: 2015	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
51	4123 - Red Oak	High Density Log	12.7	98	81-110	<ul> <li>-Medium site quality. Habitat type lower end PArVHa (not much witch hazel, no maple-leaved viburnum).</li> <li>-Not much red maple competition in the understory.</li> <li>-Other species that were present but rare included paper birch and jack pine.</li> <li>-Red oak site index=56, for a 14" DBH tree, 76 feet tall, 97 years old.</li> </ul>
52	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	5.8	87	51-80	-White oak trying to regenerate in some areas, mostly wiped out by browsing but a few have made it. Red maple has also been heavily browsed.
53	4123 - Red Oak	Medium Density Log	3.3	96	1-50	<ul> <li>-Two-aged stand. Previous harvest likely removed all aspen and red maple. Retain the overstory for now. Consider other options when aspen matures.</li> <li>-Oak and red maple are being heavily browsed upon in the understory.</li> <li>-Red oak site index = 52 for a 13" DBH, 95 year old tree, 76 feet tall.</li> </ul>
54	4130 - Aspen	High Density Pole	1.9	30		
55	4130 - Aspen	High Density Pole	6.4	30		-Just emerging as a pole stand. A few scattered log-size RP and WP in addition to the oak.
56	4123 - Red Oak	High Density Log	4.5	68	111-140	-More aspen and less pine distinguishes this stand from the adjacent stand 50. -Aspen concentrated along steep slopes in southern half.
57	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	14.5	68	1-50	-Variable stand. SE 1/2 of stand very open. Pockets of sapling sized trees mixed in throughout. -Trail runs through stand.
58	4130 - Aspen	High Density Sapling	7.0	30		-Some larger RP and WP mixed in as well.
59	6120 - Lowland Cedar	Low Density Log	4.0	86		-Large beaver dam on Pickerel Creek near the south end of this stand. All trees are dead to the north of this beaver dam, with the exception of some live conifers along the perimeter.

Compartment: 055

Year of Entry: 2015

NATUR

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	2113 - Forage Crops	6.7	Yes	High (NonForested)	-This stand is planted regularly for elk by the Wildlife Division.
2	3105 - Mixed Upland Herbaceous	21.4	Yes	High (NonForested)	-This stand is part of the Green Timbers Prescribed Burn Project Area. -Parking lot for elk viewing area is in this stand along Fontinalis Road.
6	3105 - Mixed Upland Herbaceous	269.5	Yes	High (NonForested)	<ul> <li>This stand is part of the Green Timbers Prescribed Burn Project Area.</li> <li>Some areas are quite heavy to spotted knapweed.</li> <li>Clumps of hardwood become more prevalent in the west end of the stand.</li> <li>Clumps of autumn olive are mostly along the north-east edge of stand 7.</li> </ul>
8	3205 - Mixed Upland Shrub	23.7	No	Unspecified	-This stand is not a part of the Green Timbers Prescribed Burn Area. -Small pocket of planted red pine near the intersection of the two-track and Fontinalis Road.
12	3105 - Mixed Upland Herbaceous	2.4	Yes	High (NonForested)	-This stand is a part of the Green Timbers Prescribed Burn Project Area.
15	3205 - Mixed Upland Shrub	329.9	Yes	High (NonForested)	-Scattered trees throughout, including white pine, sugar maple, basswood, red maple, and elm. -Spotted knapweed presence in and along the roads.
19	6225 - Bog	3.7	No	Unspecified	
23	3105 - Mixed Upland Herbaceous	1.1	No	Unspecified	
27	3303 - Mixed Low Density Trees	15.3	No	Unspecified	
33	3302 - Low Density Conifer Trees	4.8	No	Unspecified	-Stand lies on a ridge, surrounded by wetlands on all sides.
41	3205 - Mixed Upland Shrub	4.0	No	Unspecified	
43	3205 - Mixed Upland Shrub	10.8	No	Unspecified	-Jack pine, white pine, and aspen slowing filling in.
47	3205 - Mixed Upland Shrub	6.4	No	Unspecified	
48	3105 - Mixed Upland Herbaceous	1.2	No	Unspecified	