

Compartment Review Presentation

Pigeon River Country Forest Management Unit

Compartment 35 Entry Year 2016 Acreage: 1,888 County Cheboygan Management Area: Pigeon River Country

Revision Date: 08/29/2014

Stand Examiner: Greg Rekowski

Legal Description:

T32N - R01W, Sections 10, 11, and 12

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:

In general this compartment is gently rolling, however, some steeper hills are found in the hardwood areas of sections 11 and 12. The Pigeon River flows through a steep sided valley in the western-most portion of section 10.

The predominate soil type in the hardwood area of sections 11 and 12 is Leelanau loamy sand. Section 10 and the west portion of section 11 are dominated by Grayling and Rubicon sands. Peats and mucks are found along the Pigeon River and around Hardwood Lake.

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

Solid state ownership, both within and around the compartment.

Unique Natural Features:

There are documented occurrences of Hill's thistle and red-shouldered hawk within this compartment. Two sinkhole lakes, North and South Twin Lakes, are located within section 10 of this compartment.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

The Pigeon River is a state-designated Natural River. A proposed Special Conservation Area (SCA) would include the Pigeon River, its associated Natural River buffer, and the steeper parts of the surrounding valley walls. This proposed SCA will extend north and south of the compartment and will be similar to what is already in place for the Sturgeon River valley.

Watershed and Fisheries Considerations:

The Pigeon River flows through section 10 of this compartment. North and South Twin Lakes are also in section 10 but are not open to public fishing. Hardwood Lake is located in section 11.

Wildlife Habitat Considerations:

A Wildlife Division representative will be available to participate in the formal compartment review.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of coarse-textured glacial till and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift is the Devonian Antrim Shale that is quarried for cement products elsewhere in the State. A former gravel pit is located in Section 10 and potential is considered good. However, page 30 of the Concept of Management for the PRC says that extraction of surface minerals will rarely be allowed. This area was previously leased for Niagaran oil and gas development and several wells were drilled including producing wells. Additional reefs are likely in the compartment. The Antrim Shale is present and has potential. However, the entire compartment is in the Consent Order Area and, as provided on page 33 of the Concept of Management, no new leases will be issued in this Area.

Vehicle Access:

There is good access throughout the majority of the compartment.

Survey Needs:

None required.

Recreational Facilities and Opportunities:

The Elk Hill Group Camp as well as a small portion of the Elk Hill Trail Camp are located in section 10 of this compartment. The Pigeon River Campground is also located in section 10. The Shingle Mill and High Country Pathways both pass through section 10 of this compartment, while the North Spur of the Shore to Shore trail passes through sections 10 and 11.

Fire Protection:

Wildfire potential is moderate-to-high as the western-half of this compartment is dominated by pine cover types. Access is generally good in case of any fire suppression efforts.

Additional Compartment Information:

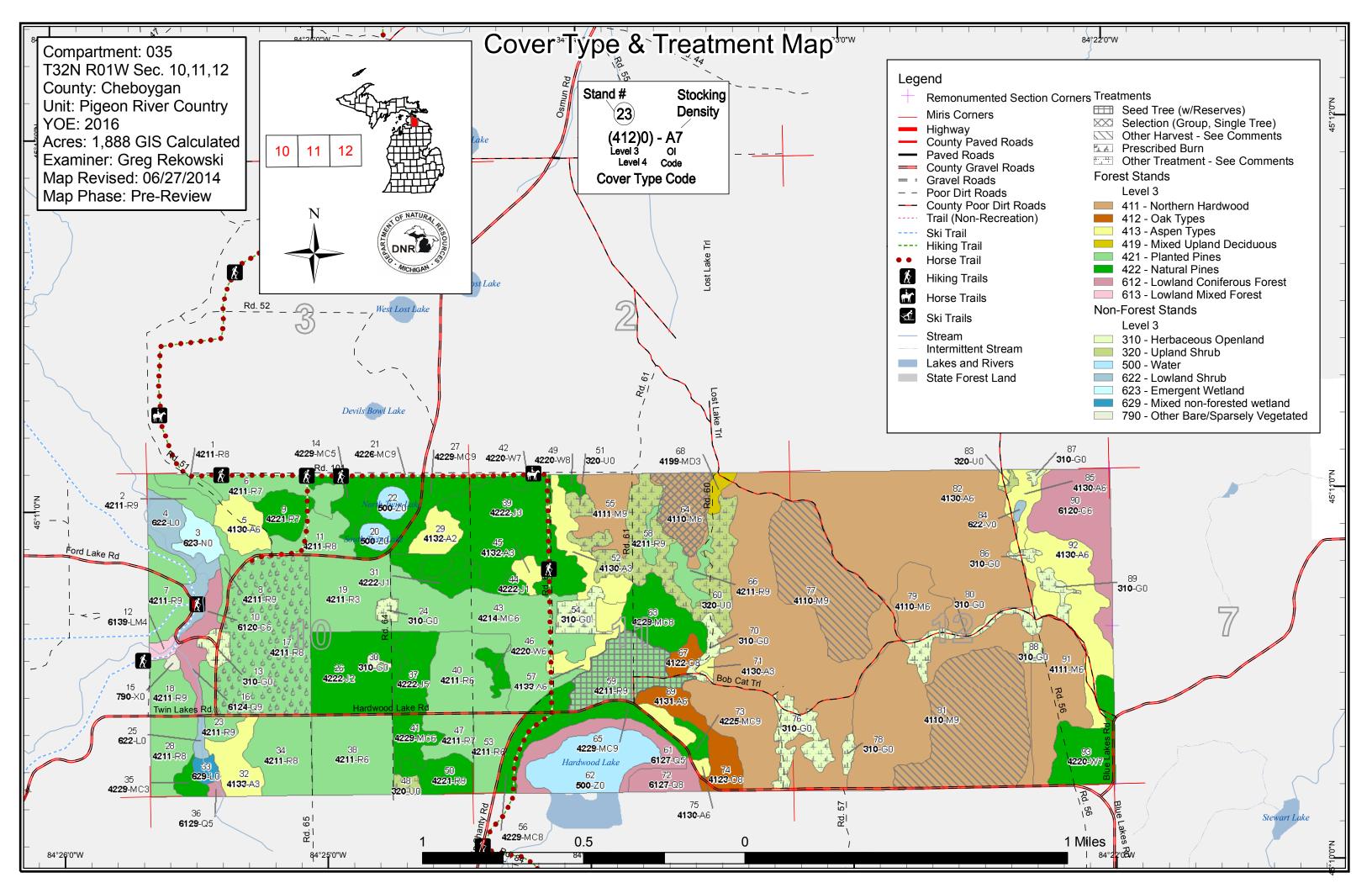
The following reports from the Inventory are attached: Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas Site Condition Details

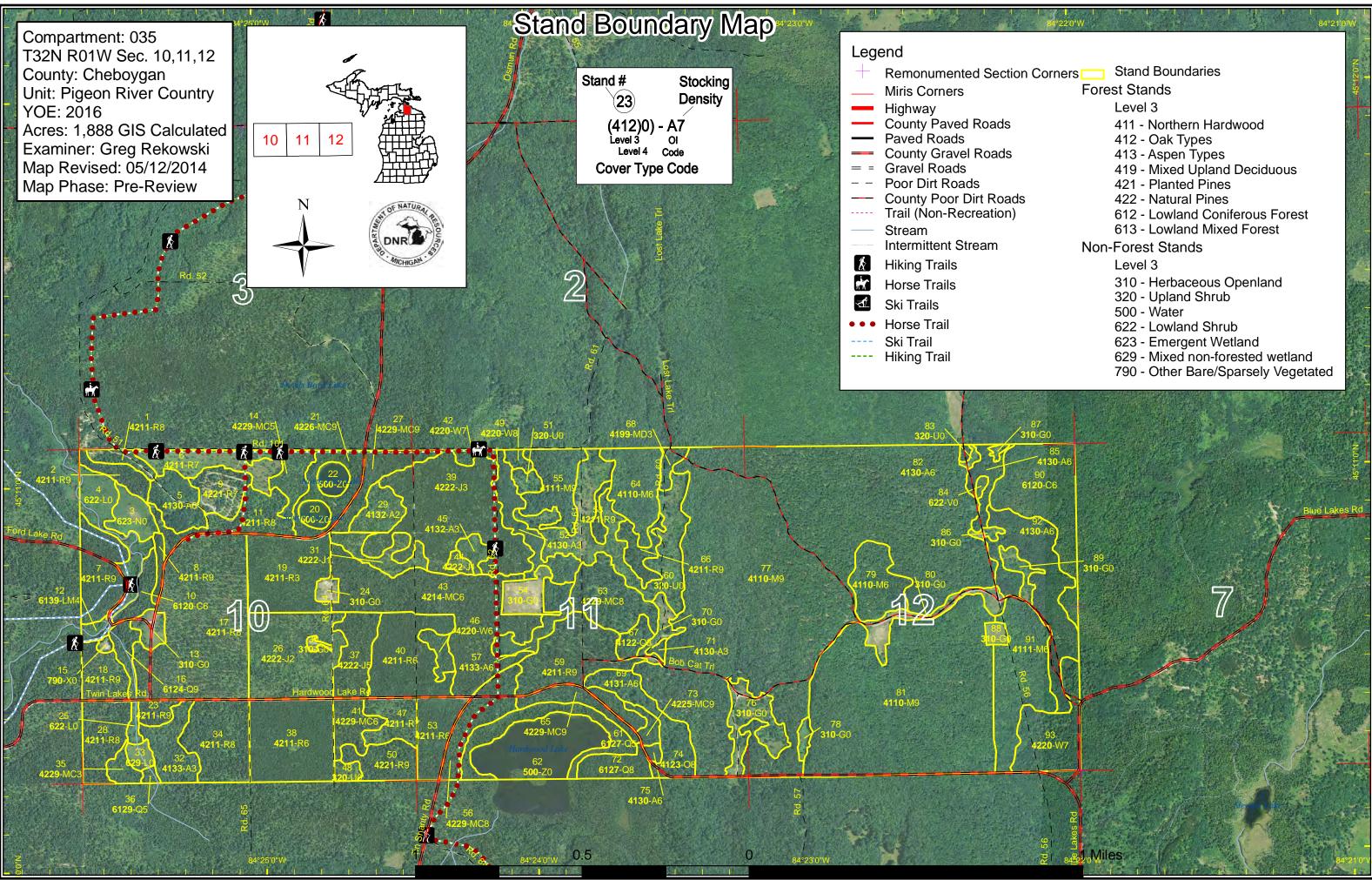
The following information is displayed, where pertinent, on the attached compartment maps: Base feature information, stand boundaries, cover types, and numbers

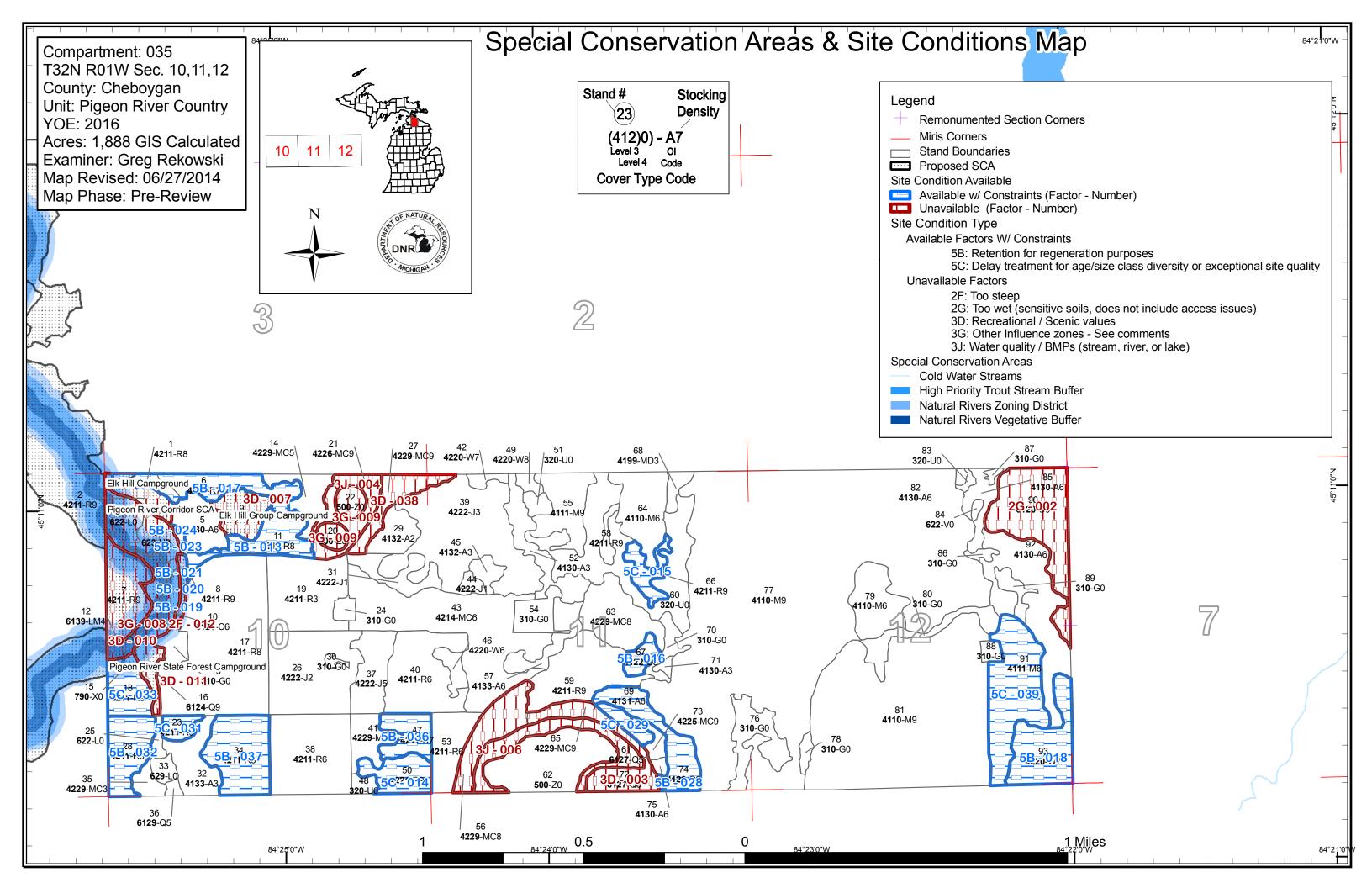
Proposed treatments

Site condition boundaries

Details on the road access system







Report 1 – Total Acres by Cover Type and Age Class

eon River Country Mgt. Unit Greg REKOWSKI : Examiner

Compartment 035 Year of Entry 2016



Age Class

		a.g	⁷ 0,70	12 ⁶²	30.30 30	AD AR	Sec. 1	80 80	10 10	200 60 60 60 60 60 60 60 60	, 9 ³	001.001	170,TJO	120× 150	AND LE	
Aspen	0	1	47	67	15	2	0	0	0	0	0	0	0	0	131	
Bare/Sparsely Vegetated	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Cedar	0	0	0	0	0	0	0	0	0	49	0	0	0	0	49	
Herbaceous Openland	65	0	0	0	0	0	0	0	0	0	0	0	0	0	65	
Jack Pine	0	43	80	17	0	0	0	0	0	0	0	0	0	0	140	
Lowland Conifers	0	0	0	20	0	0	0	10	0	7	1	0	0	0	38	
Lowland Mixed Forest	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3	
Lowland Shrub	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25	
Marsh	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
Mixed Upland Deciduous	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4	
Natural Mixed Pines	0	0	16	11	0	15	12	52	0	0	4	0	0	0	111	
Northern Hardwood	0	0	0	0	0	0	0	0	637	0	0	0	0	0	637	
Oak	0	0	0	0	0	0	0	0	26	0	0	0	0	0	26	
Planted Mixed Pines	0	0	0	71	0	0	0	0	0	0	0	0	0	0	71	
Red Pine	0	0	125	0	0	0	0	0	238	71	0	0	0	0	433	
Upland Shrub	60	0	0	0	0	0	0	0	0	0	0	0	0	0	60	
Water	45	0	0	0	0	0	0	0	0	0	0	0	0	0	45	
White Pine	0	0	0	5	0	0	0	0	5	0	27	0	0	0	37	
Total	207	48	268	190	15	20	12	62	906	127	32	0	0	0	1888	



	•
Acres by Treatment Type	
Commercial Harvest - 194 Tree Planting - 0 Other - 83	
Habitat Cut - 0 Opening Maintenance - 12	
Cover Type by Harvest Method	
0 21 0 0 0 0 21	
Northern Hardwood 0 0 0 0 0 141 141	
Planted Pines 0 0 31 0 0 31	
Total 0 21 31 0 0 141 194	

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 035 Year of Entry 2016 NATUR

S t							ting Factor	Year of Entry 2016	DNR MILLING MI	
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
77	35176_island	58.3	4110 - Sugar Maple Association	High Density Log	82 J	81-110	Harvest	Other - Specify in Comments	411 - Northern Hardwood	Cmpt. Review Proposal
Presc Spece	•	all white a	sh sawlogs within sal	e area.						
<u>Other</u> Comr	Lost La <u>ments:</u>	ke Salvage	e, #53-005-14-01.							
<u>Next</u> Steps	0	survey at T	CR + 4 years.							
Propos Start D		14								
	53035034_Out OfYOE-Cut	20.9					Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
Presc Specs	<u>s:</u> trees. -Create	roughly 1 c	q. ft. per acre. Focus anopy gap (>66 feet i pecies that may be ra	n diameter) f	for every	/ two acres	i.	-	s well as any that are g	ood wildlife
<u>Other</u> Comr	nents:	·				-				
<u>Next</u> Steps		ration surv	ey at the appropriate	interval (3-5	years).					
Propos Start D		13								
59	53035059-Cut	31.4	42110 - Planted Red Pine	High Density Log	86	51-80	Harvest	Seed Tree with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
Presc Spece			everage of 10 sq. ft. pe ear roads to ease visu		l pine. L	eave all oth	her species.			
<u>Other</u> Comr	Add wh nents:	ole-tree ski	idding spec and sumn	ner only harv	vest to ir	ncrease sca	arification.			
<u>Next</u> Steps	:: -Accepta regenera	able regene ation will als	npletion, plant 10-20 c eration will be at least so be acceptable. 'CR + 4 years. If reger	a medium-st	tocked s	stand of all			presentation of red pine	e. Oak
Propos Start D		15								
81	53035081-Cut	83.1	4110 - Sugar Maple Association	High Density Log	83	81-110	Harvest	Other - Specify in Comments	411 - Northern Hardwood	Cmpt. Review Proposal
Presc Spece	·	e all white a	ash sawlogs from the	sale area.						
<u>Other</u> Comr	nents:									
<u>Next</u> Steps		survey at T	CR+4 years.							
Propos Start D		13								

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Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 035 Year of Entry 2016



S t						with		iting Factor		real of Entry 2010	
a n d	Treat Nai		Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17	5303 Bu		83.4	42110 - Planted Red Pine	Medium Density Log	89	51-80	Prescribed Burn	Unspecified	4221 - Natural Red Pine	Cmpt. Review Proposal
Presci Specs	:	also hel	p to establis	y of this stand to pro sh red pine regenera e intense enough to	tion in the are	eas of th				ext inventory cycle. Th	is burn may
<u>Other</u> Comm	nents:	-An old operatio	closed road							ed due to its ladder fue e it suitable for prescrit	
<u>Next</u> <u>Steps:</u>		-Regen	survey at fo	our years after burn t	o monitor red	pine reç	gen.				
<u>Propos</u> <u>Start D</u>		0/01/20	15								
13	NF_530 Nor)35013-)For	5.5	3105 - Mixed Upland Herbaceous	;			Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
<u>Presc</u> Specs		Maintair	n the nonfor	ested condition of th	is stand throu	igh pres	cribed bu	rning, herbicide, or	mechanical mean	S.	
<u>Other</u> Comm											
<u>Next</u> Steps:	:										
Propos Start D	ed_	Jnspecif	ied								
24	NF_530 Nor)35024-)For	3.0	3105 - Mixed Upland Herbaceous	5			Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
Presci Specs		Maintair	the nonfor	ested condition of th	is stand throu	igh pres	cribed bu	rning, herbicide, or	mechanical mean	S.	
<u>Other</u> Comm											
<u>Next</u> Steps:											
Propos Start D		Jnspecif	ied								
30	NF_530 Nor)35030-)For	1.1	3105 - Mixed Upland Herbaceous	;			Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
Presci Specs		Maintair	n the nonfor	ested condition of th	is stand throu	igh pres	cribed bu	rning, herbicide, or	mechanical mean	S.	
<u>Other</u> Comm											
<u>Next</u> Steps:	<u>:</u>										
<u>Propos</u> Start D		Jnspecif	ied								

Compartment: 035 Pigeon River Country Mgt. Unit **Report 3 -- Treatments Prescribed** Year of Entry 2016 with No Limiting Factor s t а Treatment CoverType Size Stand BA Treatment Treatment Cover Type Acres Approval n Method Objective d Name Density Age Range Type Status 3205 - Mixed NF_53035048-2.8 Non-Forest Other - Specify 3205 - Mixed Cmpt. Review 48 NonFor Upland Shrub Management Upland Shrub Proposal Prescription Maintain the nonforested condition of this stand through prescribed burning, herbicide, or mechanical means. Specs: Other Comments: Next Steps: Proposed Start Date: Unspecified NF_53035051-51 3.5 3205 - Mixed Non-Forest Other - Specify 3205 - Mixed Cmpt. Review Upland Shrub Management Upland Shrub Proposal NonFor Prescription Maintain the nonforested condition of this stand through prescribed burning, herbicide, or mechanical means. Specs: Other Comments: Next Steps: **Proposed** Unspecified Start Date: 54 NF 53035054-9.3 3105 - Mixed Non-Forest Other - Specify 3105 - Mixed Cmpt. Review Upland Herbaceous Upland Herbaceous Management Proposal NonFor Prescription Maintain the nonforested condition of this stand through prescribed burning, herbicide, or mechanical means. Specs: Other Comments: Next Steps: Proposed Start Date: Unspecified 60 NF_53035060-51.7 3205 - Mixed Non-Forest Other - Specify 3205 - Mixed Cmpt. Review Proposal Upland Shrub Upland Shrub NonFor Management Prescription Maintain the nonforested condition of this stand through prescribed burning, herbicide, or mechanical means. Specs: Other Comments: <u>Next</u> Steps: Proposed Unspecified Start Date: NF 53035070-5.8 3105 - Mixed Non-Forest Other - Specify 3105 - Mixed Cmpt. Review 70 Upland Herbaceous Upland Herbaceous NonFor Management Proposal Prescription Maintain the nonforested condition of this stand through prescribed burning, herbicide, or mechanical means. Specs: <u>Other</u> Comments: <u>Next</u> Steps: Proposed Start Date: Unspecified

S t	t a						nents Prescri ting Factor	bed	Compartment: 035 Year of Entry 2016	DNR DNR
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
76	NF_53035076- NonFor	16.6	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
<u>Pres</u> Spec		the nonfor	ested condition of this	s stand throu	ugh pres	cribed burr	ning, herbicide, or	r mechanical mear	ns.	
<u>Othe</u> Com	<u>r</u> ments:									
<u>Next</u> Step	<u>s:</u>									
Propo Start		ed								
78	NF_53035078- NonFor	2.4	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
<u>Pres</u> Spec		the nonfor	ested condition of this	s stand throu	ugh pres	cribecd bu	rning, herbicide, c	or mechanical mea	ans.	
<u>Othe</u> Com	<u>r</u> ments:									
<u>Next</u> Step										
Propo Start		ed								
80	NF_53035080- NonFor	11.6	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
Pres Spec		the nonfor	ested condition of this	s stand throu	ugh pres	cribecd bu	rning, herbicide, c	or mechanical mea	ans.	
<u>Othe</u> <u>Com</u>	<u>r</u> ments:									
<u>Next</u> Step:	<u>s:</u>									
Propo Start		ed								
83	NF_53035083- NonFor	1.2	3205 - Mixed Upland Shrub				Non-Forest Management	Other - Specify	3205 - Mixed Upland Shrub	Cmpt. Review Proposal
<u>Pres</u> Spec		the nonfor	ested condition of this	s stand throu	ugh pres	cribecd bu	rning, herbicide, c	or mechanical mea	ans.	
<u>Othe</u> <u>Com</u>	<u>r</u> ments:									
<u>Next</u> <u>Step</u> :										
<u>Propo</u> Start		ed								
86	NF_53035086- NonFor	1.7	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
Pres Spec		the nonfor	ested condition of this	s stand throu	ugh pres	cribecd bu	-	or mechanical mea		
<u>Othe</u> <u>Com</u>	<u>r</u> ments:									
<u>Next</u> Step										
Propo Start		ed								

S t	Pigeon	ntry Mgt. Unit	Repo			nents Prescri ting Factor	bed	Compartment: 035 Year of Entry 2016	DNR DNR	
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
87	NF_53035087- NonFor	1.0	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
Pres Spec		the nonfoi	rested condition of this	stand thro	ugh prese	cribecd bu	rning, herbicide, o	or mechanical mea	ans.	
<u>Othe</u> Com	r <u>ments:</u>									
<u>Next</u> Step										
Propo		ed								
88	NF_53035088- NonFor	2.6	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	3105 - Mixed Upland Herbaceous	Cmpt. Review Proposal
Pres Spec		the nonfo	rested condition of this	stand thro	ugh preso	cribecd bu	rning, herbicide, o	or mechanical mea	ans.	
<u>Othe</u> Com	r <u>ments:</u>									
<u>Next</u> Step										
Propo Start	<u>osed</u> <u>Date:</u> Unspecifi	ied								
89	NF_53035089- NonFor	4.8	3105 - Mixed Upland Herbaceous				Non-Forest Management	Other - Specify	310 - Herbaceous Openland	Cmpt. Review Proposal
Pres Spec		the nonfo	rested condition of this	stand thro	ugh preso	cribecd bu	rning, herbicide, o	or mechanical mea	ans.	
<u>Othe</u> Com	r <u>ments:</u>									
<u>Next</u> Step										
Propo Start	<u>osed</u> <u>Date:</u> Unspecifi	ed								
A	Total Treatmer creage Propose		.7							

S t	Pigeon	Pigeon River Country Mgt. Unit				eatment Site Con	Compartment: 035 Year of Entry 2016	DNR MURAN MATURAL MATURAL MICHIGAN		
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
		#Type!	#Type!							
<u>Specs</u> <u>Other</u> <u>Comm</u>										
<u>Next</u> Steps	-									
<u>Propo</u> Start [
<u>Limitir</u>	ng Factor									
	Total Treatme reage Propose)							

Report 5 – Site Conditions

Pigeon River Country Mgt. Unit

Greg Rekowski : Examiner

Compartment 035 Year of Entry 2016

Availability for Management

Total	Acres	Acres	Dominant Site Conditions											
Acres	Available	Not Available		No	5C	5B	3J	3G	3D	2G	2F			
131	131		Aspen	126	5									
49		49	Cedar					7		42				
140	140		Jack Pine	140										
38	1	37	Lowland Conifers	1			20		17					
3		3	Lowland Mixed Forest					3						
4	4		Mixed Upland Deciduous	4										
111	55	56	Natural Mixed Pines	55			15		41					
637	637		Northern Hardwood	598	39									
26	26		Oak			26								
71	71		Planted Mixed Pines	71										
433	388	45	Red Pine	247	40	101		7	34		3			
37	37		White Pine	10		27								
1,680	1,491	189	Total Forested Acres	1,252	85	154	35	18	92	42	3			
	89%	11%	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	2G: Too wet (sensitive soils, does not include access issues)	42				
С	omments:						
003	Not Available	3D: Recreational / Scenic values	38	3A: Potential old growth / biodiversity			
	comments: isual buffer around	d Hardwood Lake that should	be left u	nmanaged. Part of propose	d SCA.		

Report 5 – Site Conditions

Compartment 035 Year of Entry 2016

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004	Not Available	3J: Water quality / BMPs (stream, river, or lake)	15	2F: Too steep		
	Comments: Steep slopes/erosic	on concerns. Also provides a vi	sual bu	ffer for the Twin Lakes.		
006	Not Available	3J: Water quality / BMPs (stream, river, or lake)	20	2G: Too wet (sensitive soils, does not include access issues)	3D: Recreational / Scenic values	
	Comments: Forested bog, buffe	er for Hardwood Lake.				
007	Not Available	3D: Recreational / Scenic values	13			
	Comments: Elk Hill Group Cam	р				
800	Not Available	3G: Other Influence zones - See comments	39	3J: Water quality / BMPs (stream, river, or lake)		
	Comments: This area is almost	entirely within the Pigeon Rive	r influer	nce zone		
009	Not Available	3G: Other Influence zones - See comments	17	3A: Potential old growth / biodiversity		
	Comments: Vithin influence zo	ne of Pigeon River, steep slope	es, part	of proposed SCA.		
010	Not Available	3D: Recreational / Scenic values	22	3G: Other Influence zones - See comments	3A: Potential old growth / biodiversity	
	Comments: Auch of stand withi	n influence zone of Pigeon Riv	er. Path	way goes through stand. F	Part of proposed SCA.	

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011	Not Available	3D: Recreational / Scenic values	7	3A: Potential old growth / biodiversity	3G: Other Influence zones - See comments	
	omments: ortion of stand wit	hin influence zone of Pigeon Ri	ver. W	et drainage drains into Pige	on River, part of proposed SCA.	
012	Not Available	2F: Too steep	3			
С	omments:					
013	Available	5B: Maintain for regeneration purposes	20			
С	omments:					
014	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14			
С	omments:					
015	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9			
С	omments:					
016	Available	5B: Maintain for regeneration purposes	5			
С	omments:					

Report 5 – Site Conditions

Report 5 – Site Conditions

Compartment 035 Year of Entry 2016

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017	Available	5B: Maintain for regeneration purposes	23	
Со	mments:			
018	Available	5B: Maintain for regeneration purposes	27	
Со	mments:			
019	Available	5B: Maintain for regeneration purposes	0	
Со	mments:			
020	Available	5B: Maintain for regeneration purposes	0	
Со	mments:			
021	Available	5B: Maintain for regeneration purposes	0	
Со	mments:			
022	Available	5B: Maintain for regeneration purposes	0	
Со	mments:			
023	Available	5B: Maintain for regeneration purposes	0	
Со	mments:			

Report 5 – Site Conditions

Compartment 035 Year of Entry 2016

Greg Rekowski : Examiner

Pigeon River Country Mgt. Unit

024	Available	5B: Maintain for regeneration purposes	0	
Con	nments:			
025	Available	5B: Maintain for regeneration purposes	0	
Con	nments:			
028	Available	5B: Maintain for regeneration purposes	21	
Con	nments:			
029	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	
Con	nments:			
031	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	
Con	nments:			
032	Available	5B: Maintain for regeneration purposes	18	
Con	nments:			

		ountry Mgt. Unit owski : Examiner		Report 5 – Site Conditions	Compartment 035 Year of Entry 2016
033	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13		
C	comments:				
036	Available	5B: Maintain for regeneration purposes	12		
C	comments:				
037	Available	5B: Maintain for regeneration purposes	28		
С	comments:				
038	Not Available	3D: Recreational / Scenic values	12		
	comments: art of proposed T	win Lakes SCA. Travel influence).		
039	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	39		
С	comments:				



Report 6 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Elk Hill Campground Comments This is a portion of Elk Hill Ca	Concentrated Recreation Area	State Forest Campground	SCA	0.9
Pigeon River State Forest Campground Comments Examiner Approved 9/12/201	Concentrated Recreation Area	State Forest Campground	SCA	4.3
Elk Hill Group Campground Comments	Concentrated Recreation Area	State Forest Campground	SCA	12.7
Pigeon River Corridor SCA Comments Examiner Approved 9/12/201	Spring-Seeps, Riparian Areas	Riparian Area	SCA	424.9



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

Conservatio 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 physic sites of cultural and historical significance that may occur upo bottomlands. They include thousands of Native American set and British outposts, nineteenth century logging camps, mine the Great Lakes, there are shipwrecks and other remains doo be identified by Natural heritage data from the State Historic I this compartment will be implemented in such a manner as to the sensitive nature of this information, no further detail about	on terrestrial areas and Great Lakes tlements and burial sites, as well as French es and homesteads. Beneath the waters of cumenting the maritime trade. Such sites may Preservation Office. Proposed treatments in o maintain the integrity of these sites. Due to
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen or stocked trout populations and those of other coldwater fish sp year to year. Coldwater streams in Michigan typically provide contributions of groundwater to their stream flows. Such stread designated as trout resources by Fisheries Order 210.	becies (e.g., slimy sculpin) to persist from these conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of streams and open water wetlands, riparian areas harbor a hig communities are ecologically and socially significant in their e as aesthetics, habitat, bank stability, timber production, and the	f the unique conditions adjacent to lakes, gh diversity of plants and wildlife. Riparian effects on water quality and quantity, as well
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from approved distance from the river centerlines. The Natural Riv most Natural Rivers. The Vegetative Buffer ranges from 25 tr and Vegetative Buffers for each Natural River see the table lo folder.	vers Zoning District is a 400 foot buffer for o 100 feet. To view specific Zoning Districts

S t	Pigeon River Country Mgt. Unit			Report 8	– Forested	Stands Compartment: 035 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42110 - Planted Red Pine	Medium Density Log	5.3	89	81-110	-Road 51 goes through the middle of this stand and a portion of Elk Hill Campground is at the north end. -#53-013-96-01, Campground Blocks, bought by Georgia Pacific.
2	42110 - Planted Red Pine	High Density Log	7.3	93	81-110	-Stand was planted to red pine by CCC but steep slopes make the majority of it inoperable. Jack pine is starting to fall over. -Leave unmanaged.
5	4130 - Aspen	High Density Pole	14.1	37	81-110	-Wait ten years. -Small inclusion of R9 next to Road 51. This is where most of the red pine is located. Poor quality, deformed white pine throughout. -QA is on the north side of the road. -Trace of red oak and paper birch.
6	42110 - Planted Red Pine	Low Density Log	17.3	89	1-50	-Twin Hardwood Red Pine, #53-013-07-01, bought by Bisballe. Red pine seed tree cut, all oak and birch left as well. Not much regen at this point. -Trace of paper birch and oak in the overstory. Trace of jack pine in the understory.
7	42110 - Planted Red Pine	High Density Log	21.6	94	111-140	-This stand doesn't appear that it has been thinned before. Travel and recreation influence, steep slopes as well along the south and east edges. The Shingle Mill Pathway meanders throughout this stand. -Leave this stand unmanaged.
8	42110 - Planted Red Pine	High Density Log	3.1	94	200+	-Stand was planted to RP by CCC but steep slopes make almost all of this stand inoperable.
9	42210 - Natural Red Pine	Low Density Log	12.7	89	1-50	-Elk Hill Group Campground
10	6120 - Lowland Cedar	High Density Pole	7.4	94	141-170	-No management due to its proximity to the Pigeon River. -Spruce more common along the western edges of the stand.
11	42110 - Planted Red Pine	Medium Density Log	19.9	89	51-80	-#53-013-96-01, Campground Blocks, bought by Georgia Pacific. Shelterwood harvest, with highly variable stocking (may have been a species removal harvest). Stocking and size greatly decrease as you move east and north in the stand, with WP poles picking up in this area. Portion of stand west of Road 51 has not been thinned and slopes down to a small Q type inclusion.
12	6139 - Mixed Lowland Forest	Low Density Pole	3.1	54	1-50	Pigeon River flows through this stand.
14	42290 - Natural Mixed Pine	Medium Density Pole	11.7	24	1-50	-Twin Lakes West Clearcut, #53-026-88-01, bought by K&R Logging. -Browsing has eliminated most of the aspen from this stand. Many of the JP and WP are open-grown, poor quality trees.
16	6124 - Lowland Spruce- Fir	High Density Log	6.8	97	81-110	-This stand slopes down to the north and there is a small stream flowing through the middle.

S t				Report 8	– Forested	Stands Compartment: 035 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	42110 - Planted Red Pine	Medium Density Log	88.0	89	51-80	 -#53-013-07-01, Twin Hardwood Red Pine, thinning bought by Bisballe. -The pine is still pretty small at this point to consider a regeneration treatment. Let it grow a little more and consider treating during the next inventory cycle. -Trace of red oak, paper birch, red maple, white pine, and balsam fir in the overstory. Trace of fir, beech, and aspen in the understory regen.
18	42110 - Planted Red Pine	High Density Log	13.1	94	51-80	-#53-013-07-01, Twin Hardwood Red Pine, bought by Bisballe. Rest ten years then treat. -Trace of white pine and red oak in the overstory.
19	42110 - Planted Red Pine	High Density Sapling	34.8	27		-Very close to being a pole stand. Developing nicely. -Stand was burned first, then planted to red pine in 1987.
21	42260 - Natural Pine, Mixed Deciduous	High Density Log	15.3	58	81-110	-Stand is a buffer for the Twin Lakes and will not be managed. Steep slopes leading down to the sinkhole lakes.
23	42110 - Planted Red Pine	High Density Log	4.9	81	51-80	-#53-008-86-01, Oswood Jack Pine Sale, bought by AJD. All jack pine was removed from stand. As a result, the residual stocking is variable. White pine in the stand appears to be of natural origin. -Consider a treatment in ten years.
26	42220 - Natural Jack Pine	Medium Density	43.2	17		-#53-010-96-01, Dead Horse Trail Blocks, jack pine clearcut bought by Georgia Pacific. -Variable stocking. Quite a few open-grown and crooked jack pine.
27	42290 - Natural Mixed Pine	High Density Log	12.4	67	81-110	 Wide mix of sizes within this stand, possibly uneven-aged. Jack pine and aspen are more prevalent as you move south in the stand. This stand serves as a nice visual buffer and should be left unmanaged for now.
28	42110 - Planted Red Pine	Medium Density Log	18.2	81	51-80	-#53-008-86-01, Oswood Jack Pine Sale, bought by AJD. All jack pine was cut out of stand, which resulted in variable residual stocking. Thin strip of R9 along the eastern edge of the stand, while the remainder is R8. Most RP poles are closer to Twin Lakes Road. -Consider a treatment in ten years.
29	4132 - Aspen, Jack Pine	Medium Density	10.3	26		-#53-011-87-01, Twin Lakes Burn Salvage, bought by Ralph Walker. Stand burned in 1987 in a wildfire and was subsequently put up for a salvage harvest.
31	42220 - Natural Jack Pine	Low Density Sapling	11.1	26		-#53-011-87-01, Twin Lakes Burn Salvage, bought by Ralph Walker. Stand burned in 1987 in a wildfire and was subsequently put up for a salvage harvest in 1988.
32	4133 - Aspen, Mixed Pine	High Density Sapling	15.7	27		 -#53-005-86-01, Twin Lakes Pine Clearcut, bought by Larry Bayaham. Everything cut except white pine, red pine, and oak. Scattered pockets of R9/W9, especially in the southern part of the stand. Trace of red oak. -Aspen doesn't look very healthy.

S t	Pigeon River Country Mgt. Unit			Report 8	– Forested	Stands Compartment: 035 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	42110 - Planted Red Pine	Medium Density Log	28.0	81	1-50	-#53-008-86-01, Oswood Jack Pine Sale, bought by AJD. All jack pine was removed from stand. As a result, stocking is highly variable. In general, the eastern half of the stand has lower stocking. -Consider a treatment in ten years.
35	42290 - Natural Mixed Pine	High Density Sapling	4.7	27		-#53-008-86-01, Oswood Jack Pine Sale, bought by AJD. Looks like everything except red and white pine was cut.
36	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	1.4	107	51-80	Low quality
37	42220 - Natural Jack Pine	Medium Density Pole	17.0	38	51-80	-All jack pine was cut out of this stand in 1976 by Glawe. -Let grow at least another ten years. -Good representation of supercanopy red pine. -Quite a few jack pine were killed when their tops were broken off from a heavy snowstorm in December 2012.
38	42110 - Planted Red Pine	High Density Pole	40.1	29	81-110	-Looks good.
39	42220 - Natural Jack Pine	High Density Sapling	66.7	25		-Stand burned in a wildfire and then was subsequently salvaged. Twin Lakes Burn Salvage, #53-011-87-01, bought by Ralph Walker. -Quite a few broken tops from a heavy snowstorm in 2012. -Good looking jack pine stand.
40	42110 - Planted Red Pine	High Density Pole	33.3	29	51-80	-#53-025-84-01, Jack Pine Velvet, jack pine clearcut bought by Champion. Planted to red pine in 1985. -Trace of white pine.
41	42290 - Natural Mixed Pine	High Density Pole	10.9	37	51-80	-#53-039-76, bought by Glawe, all jack pine cut. -Mix of log-sized red pine and pole/sap jack pine that is just starting to reach a merchantable size. Prescribe a treatment when the jack pine has matured.
42	42200 - Natural White Pine	Low Density Log	2.6	81	1-50	
43	42140 - Planted Mixed Pine	High Density Pole	70.8	38	51-80	-Fairly unique stand that is just reaching poletimber size. Records indicate this stand was planted in 1976 (red pine and jack pine were planted). However there is a good representation of supercanopy red and white pine, including scattered pockets of R9. Sap/pole-sized white pine is natural regen, the jack pine and red pine saps/poles were planted. White pine is most prevalent in the NW1/3 of the stand (west of Road 66).
44	42220 - Natural Jack Pine	Low Density Sapling	2.3	25		-Stand burned in a wildfire and then was salvaged. Twin Lakes Burn Salvage, #53-011-87-01, bought by Ralph Walker. -Poor quality open grown jack pine.
45	4132 - Aspen, Jack Pine	High Density Sapling	4.6	25		-Stand burned in a wildfire and then was salvaged. Twin Lakes Burn Salvage, #53-011-87-01, bought by Ralph Walker. -Scattered aspen mortality, pockets of hypoxlyon canker.

S t	Pigeon River Countr		Report 8	– Forested	Stands Compartment: 035 Year of Entry: 2016	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	42200 - Natural White Pine	High Density Pole	5.1	38	81-110	
47	42110 - Planted Red Pine	Low Density Log	12.1	90	51-80	-#53-010-96-01, Dead Horse Trail Blocks, bought by Georgia Pacific, all jack pine cut. -A few clumps of denser red pine, but the jack pine understory is free to grow in most spots.
49	42200 - Natural White Pine	Medium Density Log	2.5	81	51-80	-Small clump of bigtooth aspen at SE corner of stand.
50	42210 - Natural Red Pine	High Density Log	13.6	90	81-110	-#53-013-77, all jack pine and aspen cut out. As a result, the stocking is quite variable. Jack pine is most prevalent in the NW part of the stand. White pine is concentrated mainly in the SE 1/4 of the stand.
52	4130 - Aspen	High Density Sapling	16.4	25		-Twin Lakes Burn Salvage, #53-011-87-01, bought by Ralph Walker. -Aspen becomes much smaller and pine more numerous at the south end of the stand. -Trace of red pine and white pine.
53	42110 - Planted Red Pine	High Density Pole	16.4	26	51-80	-#53-001-86-01, Hardwood Lake Jack Pine, clearcut bought by U.S. Plywood Corp., replanted to red pine in 1988. Scattered pockets of aspen have made it to the overstory.
55	4111 - S.Maple, Hard Mast Association	High Density Log	19.5	85	51-80	-White pine along the west edge, trace of red pine along the east edge.
56	42290 - Natural Mixed Pine	Medium Density Log	18.7	73	51-80	-Stand is a nice buffer for Hardwood Lake. Jack pine is starting to fall over. Leave unmanaged. -Trace of paper birch.
57	4133 - Aspen, Mixed Pine	High Density Pole	11.4	36	81-110	-Wait ten years, still a lot of small stems. -Inclusion of mature red pine adjacent to the large nonforested opening. Jack pine becomes more common as you move south in the stand. -Trace of red oak, white oak, and paper birch.
58	42110 - Planted Red Pine	High Density Log	3.1	85	51-80	
59	42110 - Planted Red Pine	High Density Log	31.4	86	51-80	 -Mature red pine that is ready to harvest. Most of the white pine and oak are located in the far north finger of the stand. -Final Impact Block, #53-019-96-01, all aspen and jack pine were removed from stand. -Trace of aspen and oak regeneration in stand. -Red pine site index = 53.
61	6127 - Lowland Pine	Medium Density Pole	19.7	38	1-50	-Sphagum understory, slowly filling in with conifers. Stand is directly adjacent to Hardwood Lake. No managment.

S t	Pigeon River Country Mgt. Unit			Report 8	– Forested	Stands Compartment: 035 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density Acres		Stand BA Age Range		General Comments:
63	42290 - Natural Mixed Pine	Medium Density Log	23.7	77	51-80	-Final Impact Block, #53-019-96-01, bought by Georgia Pacific. Everything cut except white pine, red pine, oak, and hemlock. -Trace of aspen and red pine regeneration. -Nice white pine regeneration.
64	4110 - Sugar Maple Association	High Density Pole	22.4	81	111-140	 Stilt Root Hardwoods, #53-008-13-01, bought by Precision. Part of a larger ash and beech salvage sale which extends to the north and east into Compartment 33. High quality sugar maple throughout most of this stand. Trace of red maple, bigtooth aspen, red pine, paper birch, red oak, and elm.
65	42290 - Natural Mixed Pine	High Density Log	9.6	79	81-110	-Stand transitions to lowland along the southern edge. White pine more dominant in the SE finger of the stand. -Trace of hemlock, red maple, and black spruce.
66	42110 - Planted Red Pine	High Density Log	8.8	85	81-110	-Small pocket of nice RP regen at the NW corner of stand.
67	4122 - Oak, Pine	Medium Density Log	5.4	87	51-80	-Final Impact Block, #53-019-96-01, Georgia Pacific. Everything cut except pine, oak, and hemlock. -Pine mostly around the perimeter of the stand. -Heavy deer and elk use.
68	4199 - Other Mixed Upland Deciduous	High Density Sapling	3.9	16	1-50	-Final Impact Block, #53-019-96-01, everything cut except white pine, red pine, oak, and hemlock.
69	4131 - Aspen, Oak	High Density Pole	5.0	48	81-110	
71	4130 - Aspen	High Density Sapling	1.3	15		-Trace of white oak, red pine, elm, and hawthorn.
72	6127 - Lowland Pine	Medium Density Log	10.2	79	51-80	-Leave unmanaged as a buffer for Hardwood Lake.
73	42250 - Pine, Oak	High Density Log	3.9	107	111-140	-Leave unmanaged as of now for aesthetics.
74	4123 - Red Oak	Medium Density Log	21.0	87	51-80	-Final Impact Block, #53-019-96-01, Georgia Pacific, everything cut except red pine, white pine, red oak, and hemlock. -Heavy browse on maple. Lots of deer and elk use in stand.
75	4130 - Aspen	High Density Pole	1.6	51		

S t	Pigeon River Countr	Pigeon River Country Mgt. Unit			- Forested	Stands Compartment: 035 Year of Entry: 2016
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
77	4110 - Sugar Maple Association	High Density Log	378.5	82	81-110	 Part of stand east of Lost Lake Trail - #53-005-06-01, Bear Track Hardwoods. Part of stand west of Lost Lake Trail - #53-001-11-01, One Aspen Hardwoods. Heavily thinned in east part of the stand. Some scattered blowdown and thick raspberry layer in the east half of stand as well. A vein heavy to white ash runs through the center of the stand. The majority of white ash appears to be dead already. QD indicates a white ash presence of %. Heavy browse pressure, all sugar maple and basswood stump sprouts have been browsed to death. Regen exclusively white ash, ironwood, and beech.
79	4110 - Sugar Maple Association	High Density Pole	18.9	81	81-110	-Bear Track Hardwoods, 353-005-06-01, Northern Wood and Land Inc. -Trace of white pine, and white oak. All ash dead from EAB.
81	4110 - Sugar Maple Association	High Density Log	158.5	83	81-110	 -#53-018-96-01, Lost Dog Found, bought by JNJ Forest Products. Thinned too heavily in areas, which resulted in quite a bit of blowdown. -Moderate component of ash in stand, most of it appears to be close to death. QD indicates a % of ash. BBD scattered throughout stand as well. -Thick regeneration of undesirable species.
82	4130 - Aspen	High Density Pole	1.0	45		-Little McMasters Creek Trail goes through the middle of this stand. Leave unmanaged for aesthetics. -Trace of red oak, white oak, and red maple.
85	4130 - Aspen	High Density Pole	9.0	45		-Trace of white oak, red oak, black cherry, birch, hemlock, cedar, sugar maple, basswood, white pine, and red pine.
90	6120 - Lowland Cedar	High Density Pole	41.5	95	111-140	 -A very unique and diverse stand however timber quality is low. Undulating pit and mound topography throughout with the majority being very wet lowland. At least 1 small stream meanders through the north part of the stand, may be more. A few small inclusions of aspen and red maple along the western edge. Other species that were present but rare included yellow birch, quaking aspen, red oak, white spruce, basswood, and elm. Leave this stand unmanaged. -Heavy deer use, tracks everywhere.
91	4111 - S.Maple, Hard Mast Association	High Density Pole	39.4	85	111-140	-Trace of white pine, white ash, and yellow birch. -Small vernal pond in NE corner of stand. -White ash and beech both minor components of the stand but EAB and BBD were both found in the stand (BBD only on a single tree). -Avg. ba/acre = 113 sq. ft.
92	4130 - Aspen	High Density Pole	41.2	35		-#53-033-76-01, clearcut by Champion. -Pockets of wet ground, particularly along the east edge. Hardwoods pick up along the southern and western edges. -There is a strip of larger aspen along the western edge of the stand, however the remainder of the stand is small poletimber that has just reached merchantability. Hold at least ten years. -Trace of red pine, white pine, red oak, white oak, paper birch, sugar maple.

S t	Pigeon River Countr		Report 8	– Forested	Stands Compartment: 035 Year of Entry: 2016	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
93	42200 - Natural White Pine	Low Density Log	26.7	100	1-50	 -53-033-76-01, clearcut and all pine was left, bought by Champion. -Nice pockets of pine regeneration. Aspen is just reaching merchantable size. Trace of hemlock and red oak in the stand. -Future management should retain the large pine in this stand and protect some of the nicer pockets of pine regeneration. Average ba/acre of the large pine component roughly 30 sq ft per acre.

Compartment: 035 Year of Entry: 2016



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	6239 - Mixed Emergent Wetland	9.5	No	Unspecified	
4	6229 - Mixed lowland shrub	19.1	No	Unspecified	
13	3105 - Mixed Upland Herbaceous	5.5	No	Unspecified	-Burn the part of this stand east of Twin Lakes Road in conjunction with the adjacent red pine stand to the east.
15	790 - Other Bare/Sparsely Vegetate	1.2	No	Unspecified	-Appears to be an old gravel pit. Too much snow on the ground to see if it has re-vegetated.
20	50 - Water	4.2	No	Unspecified	South Twin Lake
22	50 - Water	5.1	No	Unspecified	North Twin Lake
24	3105 - Mixed Upland Herbaceous	3.0	No	Unspecified	
25	6229 - Mixed lowland shrub	2.5	No	Unspecified	
30	3105 - Mixed Upland Herbaceous	1.1	No	Unspecified	
33	629 - Mixed non-forested wetland	3.6	No	Unspecified	
48	3205 - Mixed Upland Shrub	2.8	No	Unspecified	
51	3205 - Mixed Upland Shrub	3.5	No	Unspecified	Filling in with white pine
54	3105 - Mixed Upland Herbaceous	9.3	No	Unspecified	
60	3205 - Mixed Upland Shrub	52.1	No	Unspecified	Close to being forested. Jack pine has filled in quite a bit, may be a J4 next inventory cycle.
62	50 - Water	36.0	No	Unspecified	Hardwood Lake. Two small islands, each less than 1 acre.
70	3105 - Mixed Upland Herbaceous	5.8	No	Unspecified	Slowly filling in with conifers.
76	3105 - Mixed Upland Herbaceous	16.6	No	Unspecified	
78	3105 - Mixed Upland Herbaceous	2.4	No	Unspecified	

Compartment: 035

Year of Entry: 2016

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Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
80	3105 - Mixed Upland Herbaceous	11.6	No	Unspecified	
83	3205 - Mixed Upland Shrub	1.2	No	Unspecified	
84	6225 - Bog	1.1	No	Unspecified	
86	3105 - Mixed Upland Herbaceous	1.7	No	Unspecified	
87	3105 - Mixed Upland Herbaceous	1.0	No	Unspecified	Filling in with white pine.
88	3105 - Mixed Upland Herbaceous	2.6	No	Unspecified	
89	3105 - Mixed Upland Herbaceous	4.8	No	Unspecified	