

## **Compartment Review Presentation**

#### **Pigeon River Country Forest Management Unit**

Compartment 53058 Entry Year 2019 Acreage: 829

County Otsego

Management Area: Pigeon River Country

**Revision Date: 2017-05-25** 

Stand Examiner: Greg Rekowski

**Legal Description:** 

T33N R02W Section 29

T32N R02W Sections 29 and 36

T31N R02W Section 1

#### **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 Compartment is primarily lowland swamp conifers with small upland stands along the edges. Some of the upland stands have fairly steep slopes.

Lowlands are primarily Tawas-Lupton muck soils while upland soils are a variety of sand types such as Blue Lake, Lindquist, Rubicon, Mancelona, Chinwisker, and more.

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

This Compartment is split into three separate blocks. These blocks of State-owned land adjoin private property on nearly all sides, making access very difficult.

#### **Unique Natural Features:**

Red-shouldered hawks have been known to occur in this Compartment.

#### Archeological, Historical, and Cultural Features:

The old Cornwall Railroad Grade passes through the northern parcel of this Compartment.

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

None identified.

#### Watershed and Fisheries Considerations:

The Pigeon River flows through the southern-most parcel of this Compartment. The Sturgeon River flows through both the central parcel (T32N R02W Section 29) and the northern parcel (T33N R02W Section 29).

#### Wildlife Habitat Considerations:

A Wildlife Representative will be available for comment at both the Open House and Compartment Review.

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

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Devonian Antrim Shale that is quarried for cement products elsewhere in the State. An inactive gravel pit is located 1.5 miles to the northeast (T32N R02W Section 36) and potential is good on the upland areas. However, page 30 of the Concept of Management for the PRC says that extraction of surface minerals will rarely be allowed. This area is within the Niagaran reef trend and additional Niagaran reefs may be located in the compartment. The Antrim Shale is present and State lands are leased and in production. 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:**

Access is limited in most parts of this Compartment due to surrounding private property.

#### **Survey Needs:**

Several survey requests are pending at this time to establish needed corners. In addition, two trespasses have been identified in this Compartment and will be resolved in the near future.

### **Recreational Facilities and Opportunities:**

A maintained river access site is at the northernmost parcel and provides recreational opportunities on the Sturgeon River. In addition, an established hiking trail provides access to the Pigeon River at the end of Gornick Trail in the southern-most parcel of the Compartment.

#### **Fire Protection:**

Access is poor in case of any fire suppression efforts, although the area is at low risk to any wildfire potential.

### **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

Pigeon River Country Mgt. Unit

Greg Rekowski : Examiner

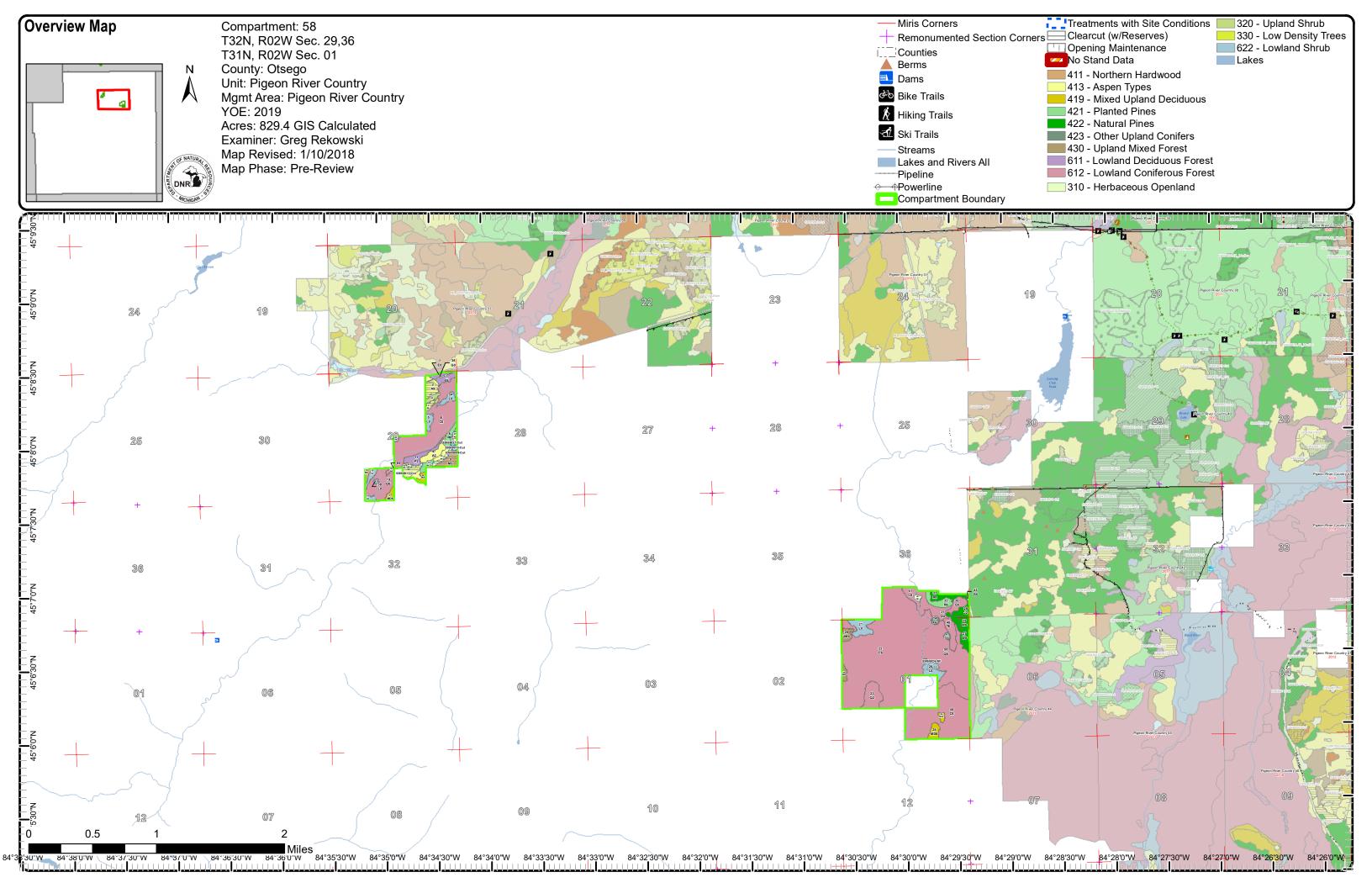
Compartment 58

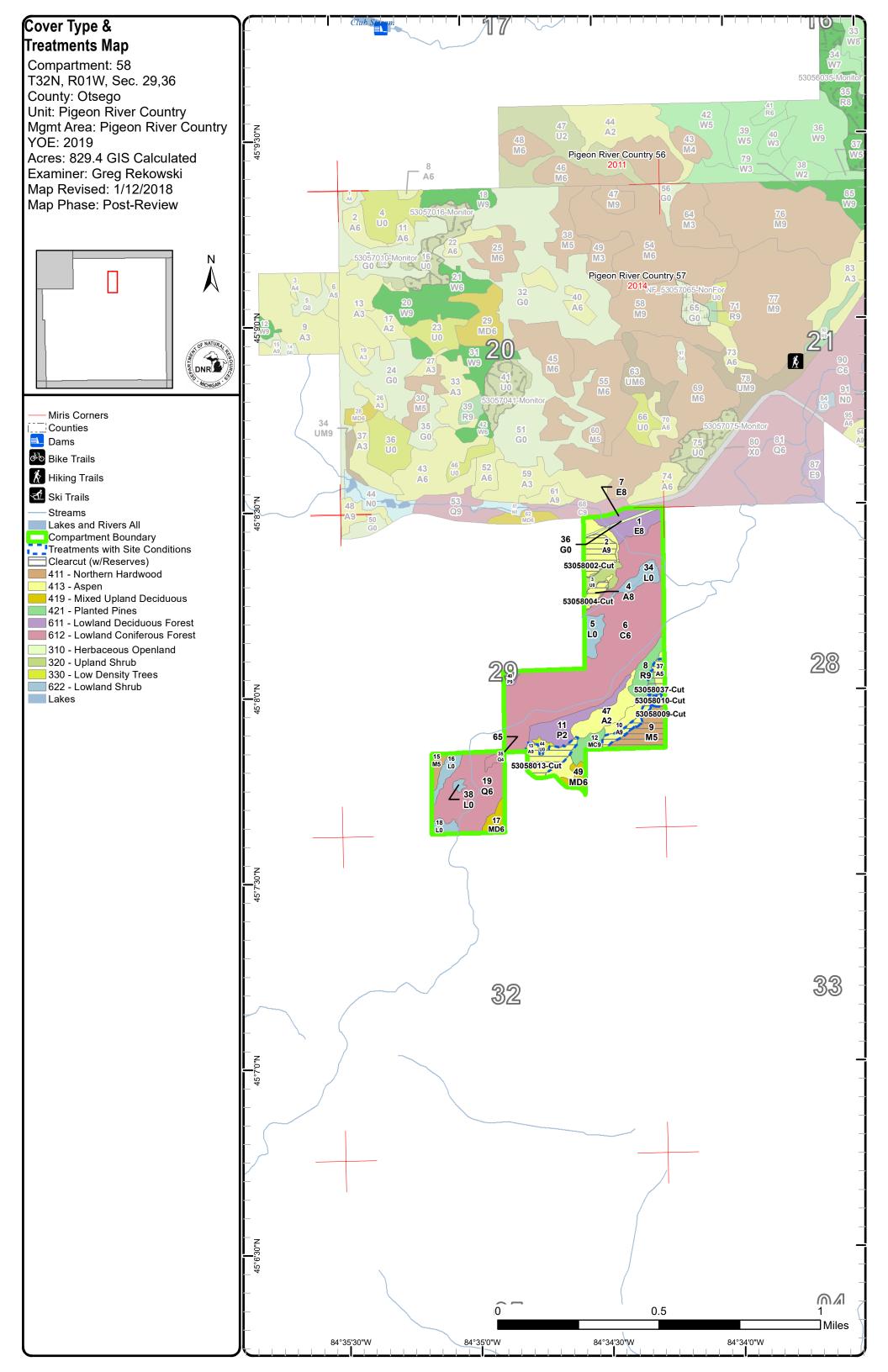
Year of Entry 2019

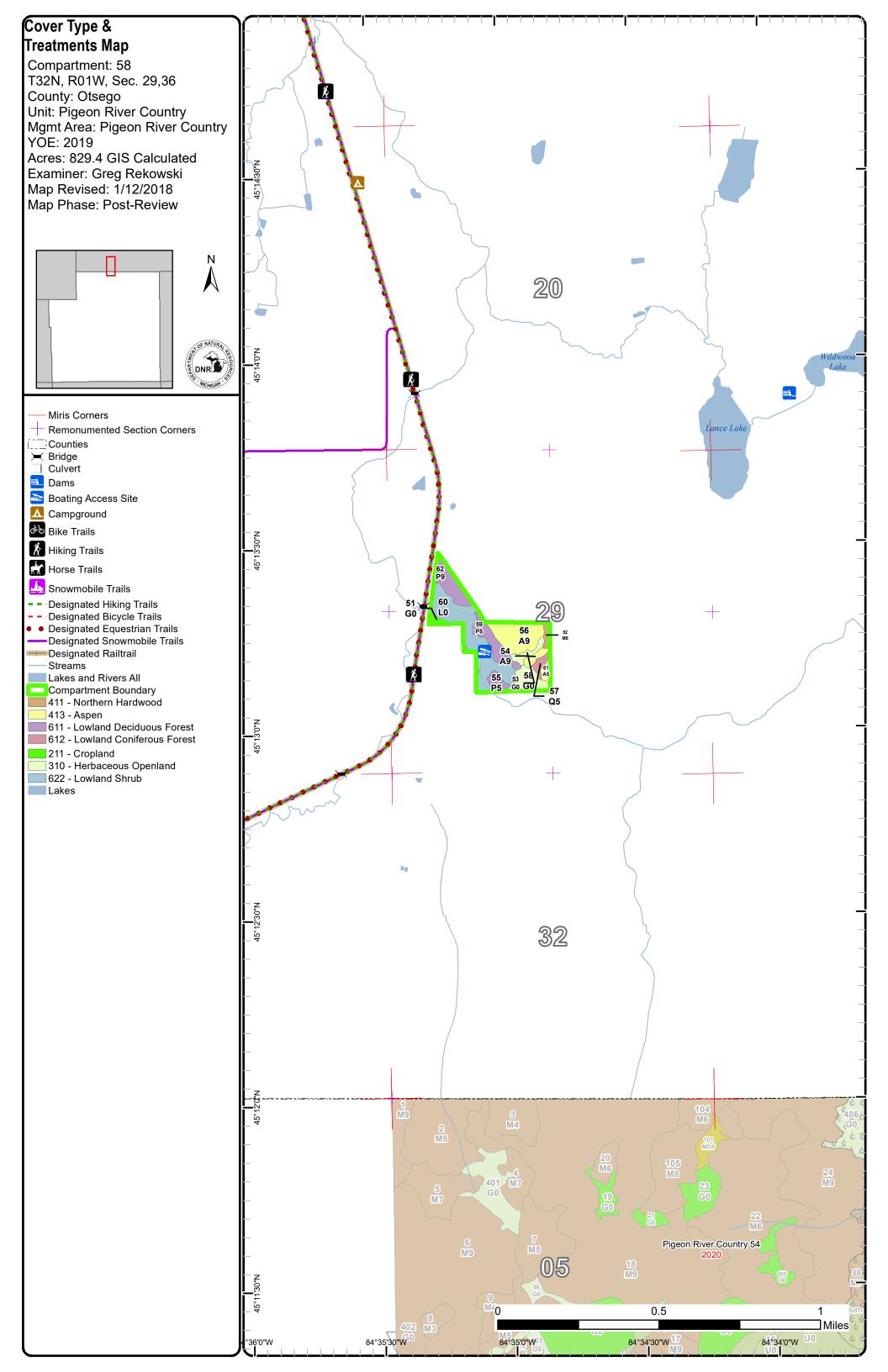


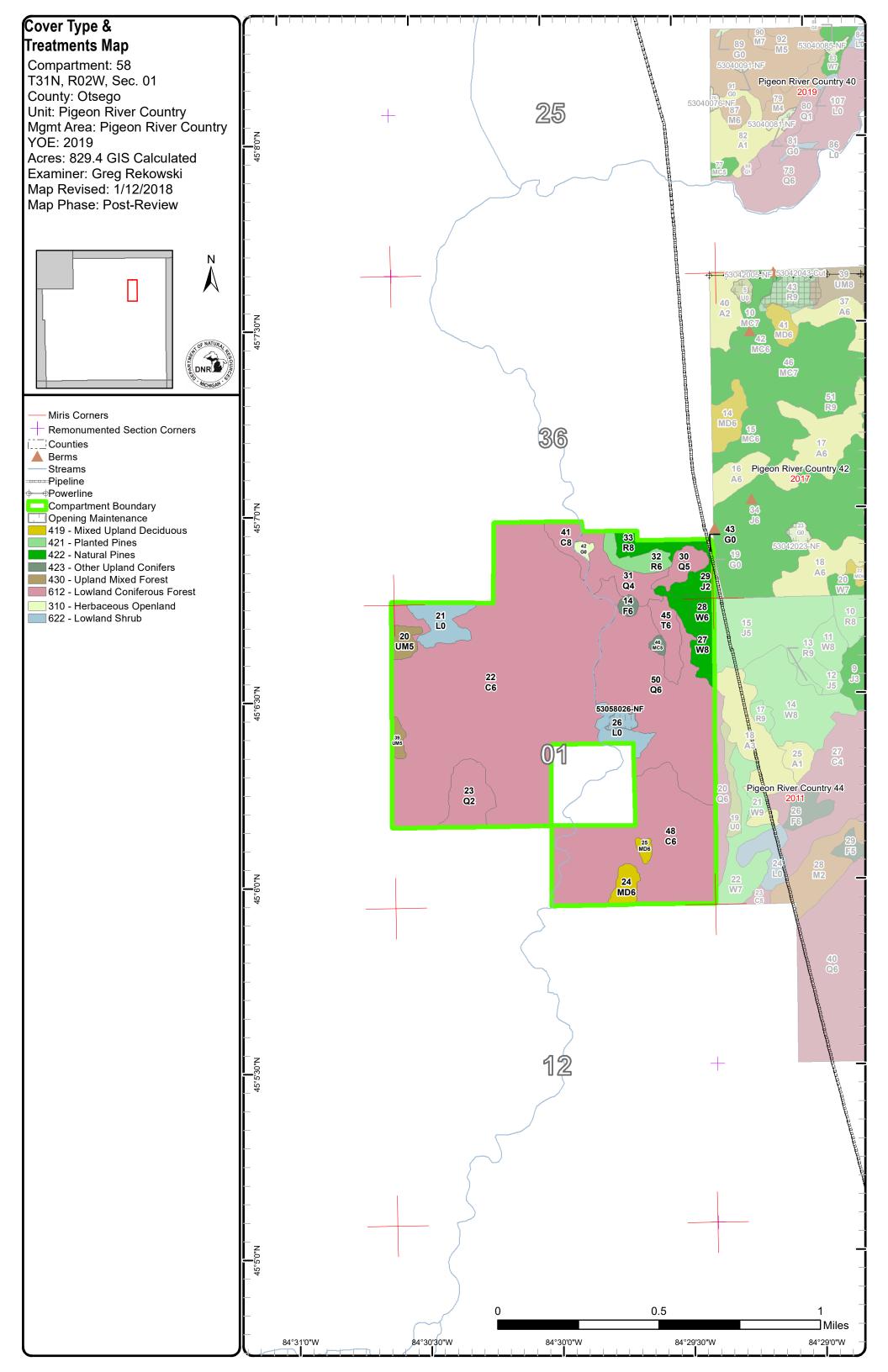
Age Class

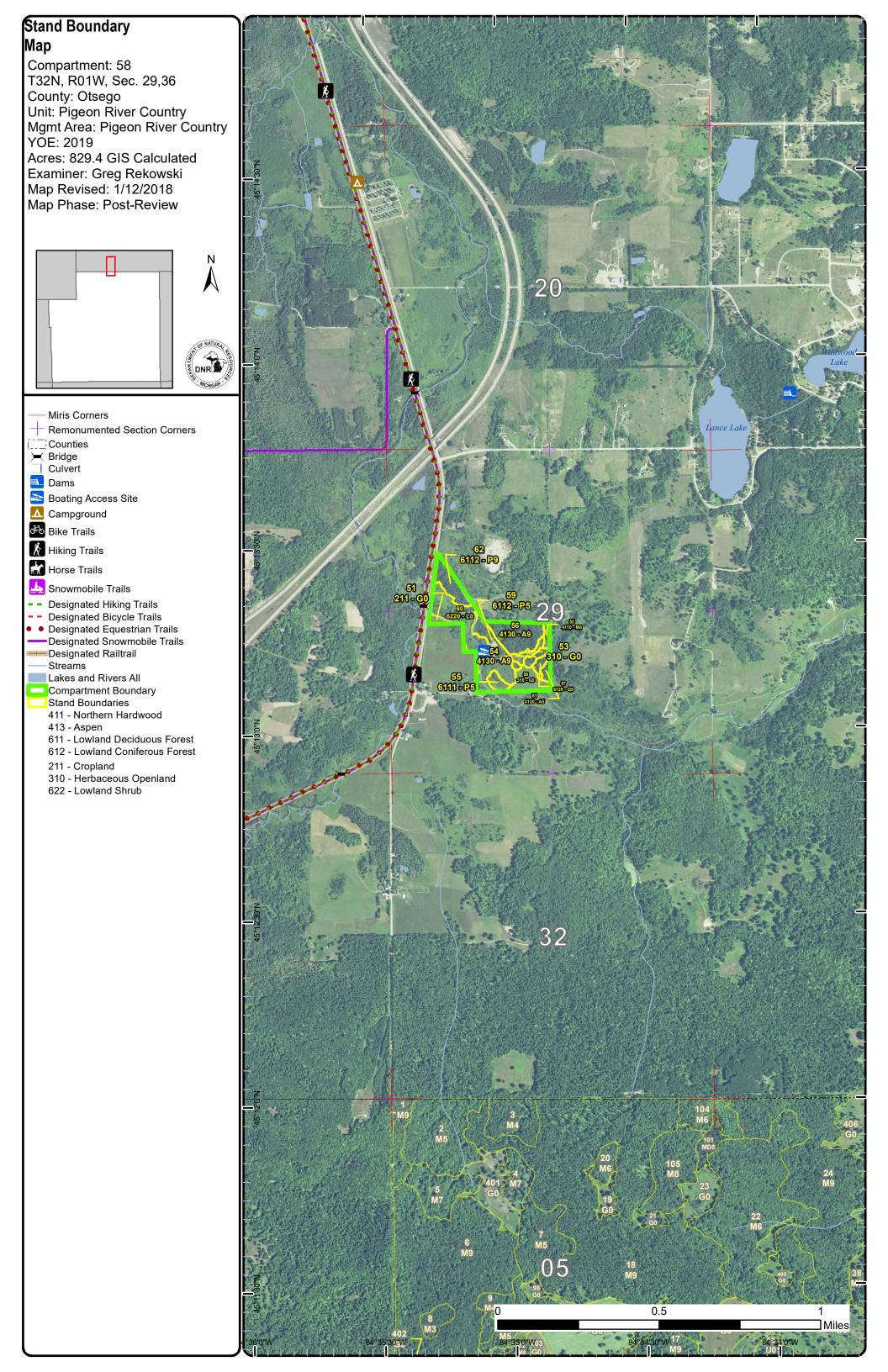
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	Age.		, 2, 2			8 /	No So	, 8 / 8				, 8 / 8		,			XXX X	g* Jue	A A A A A A A A A A A A A A A A A A A
Aspen	0	0	0	8	0	0	0	17	14	9	0	0	0	0	0	0	0	0	48
Cedar	0	0	0	0	0	0	0	0	0	7	94	0	343	0	0	0	0	0	444
Cropland	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Jack Pine	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Low-Density Trees	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Aspen/Balsam Poplar	0	0	0	9	0	2	4	0	6	0	0	0	0	0	0	0	0	0	21
Lowland Conifers	0	0	0	0	16	0	0	0	25	0	23	86	0	0	0	0	0	0	150
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
Lowland Shrub	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52
Mixed Upland Deciduous	0	0	0	0	0	0	0	3	0	10	0	0	0	0	0	0	0	0	13
Northern Hardwood	0	0	0	0	0	0	0	0	9	1	2	0	0	0	0	0	0	0	12
Planted Mixed Pines	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Red Pine	0	0	0	0	0	8	0	0	0	14	0	0	0	0	0	0	0	0	22
Tamarack	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
Upland Conifers	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Upland Mixed Forest	0	0	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	0	8
Upland Shrub	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Upland Spruce/Fir	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
White Pine	0	0	0	0	0	0	6	0	0	0	0	10	0	0	0	0	0	0	16
Total	67	0	6	17	16	12	10	27	71	41	127	96	343	0	0	0	0	0	833

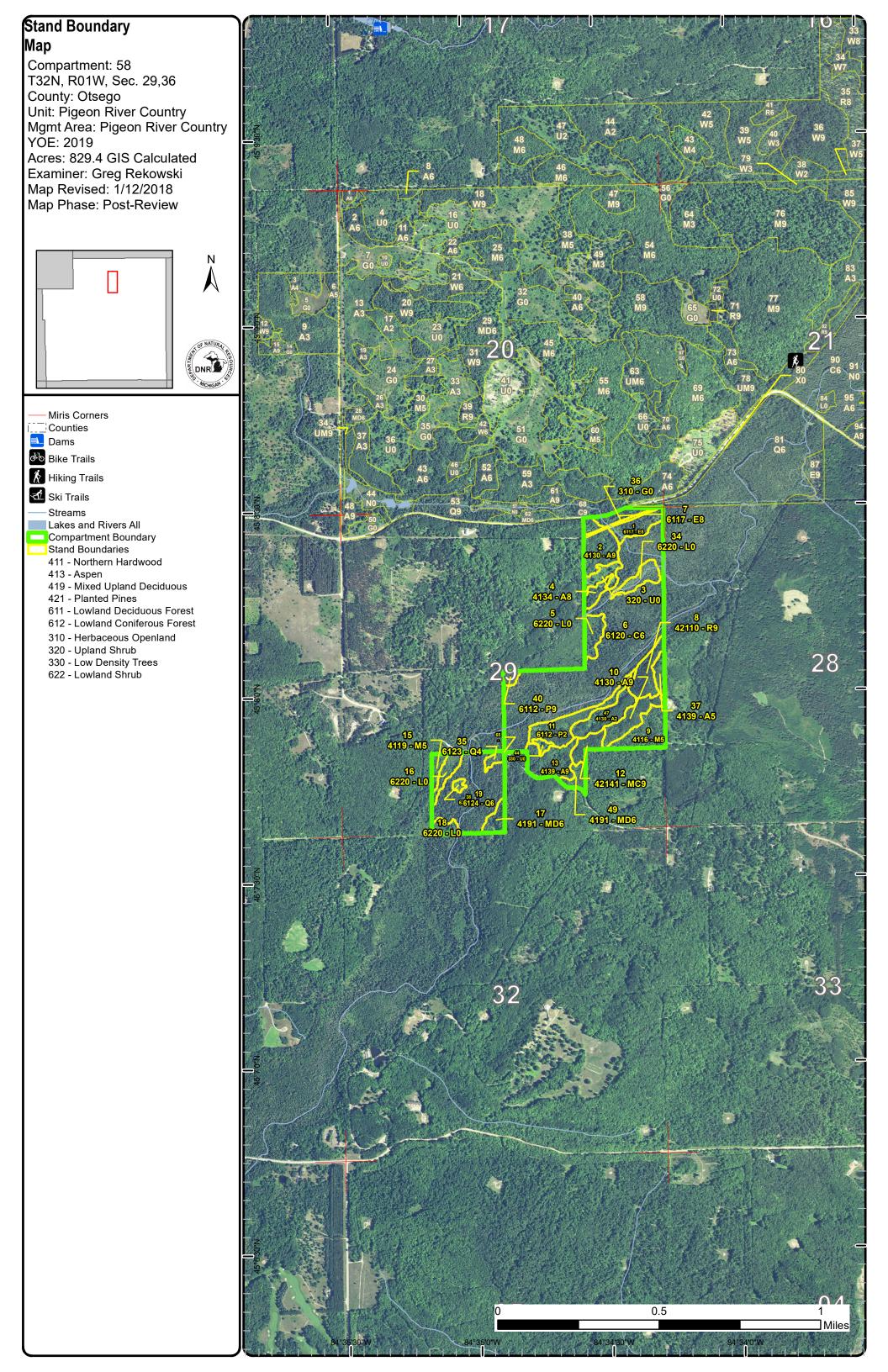


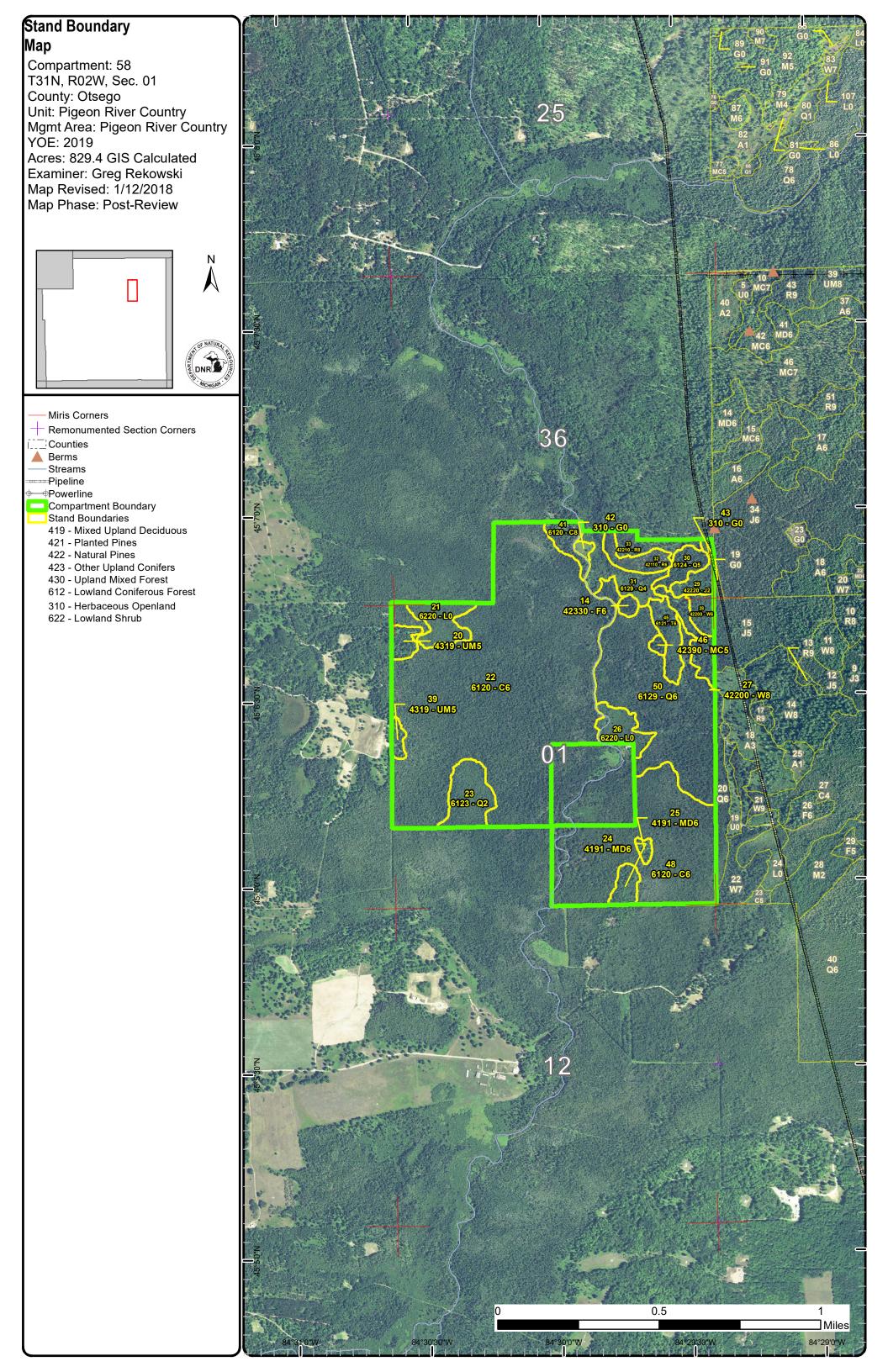


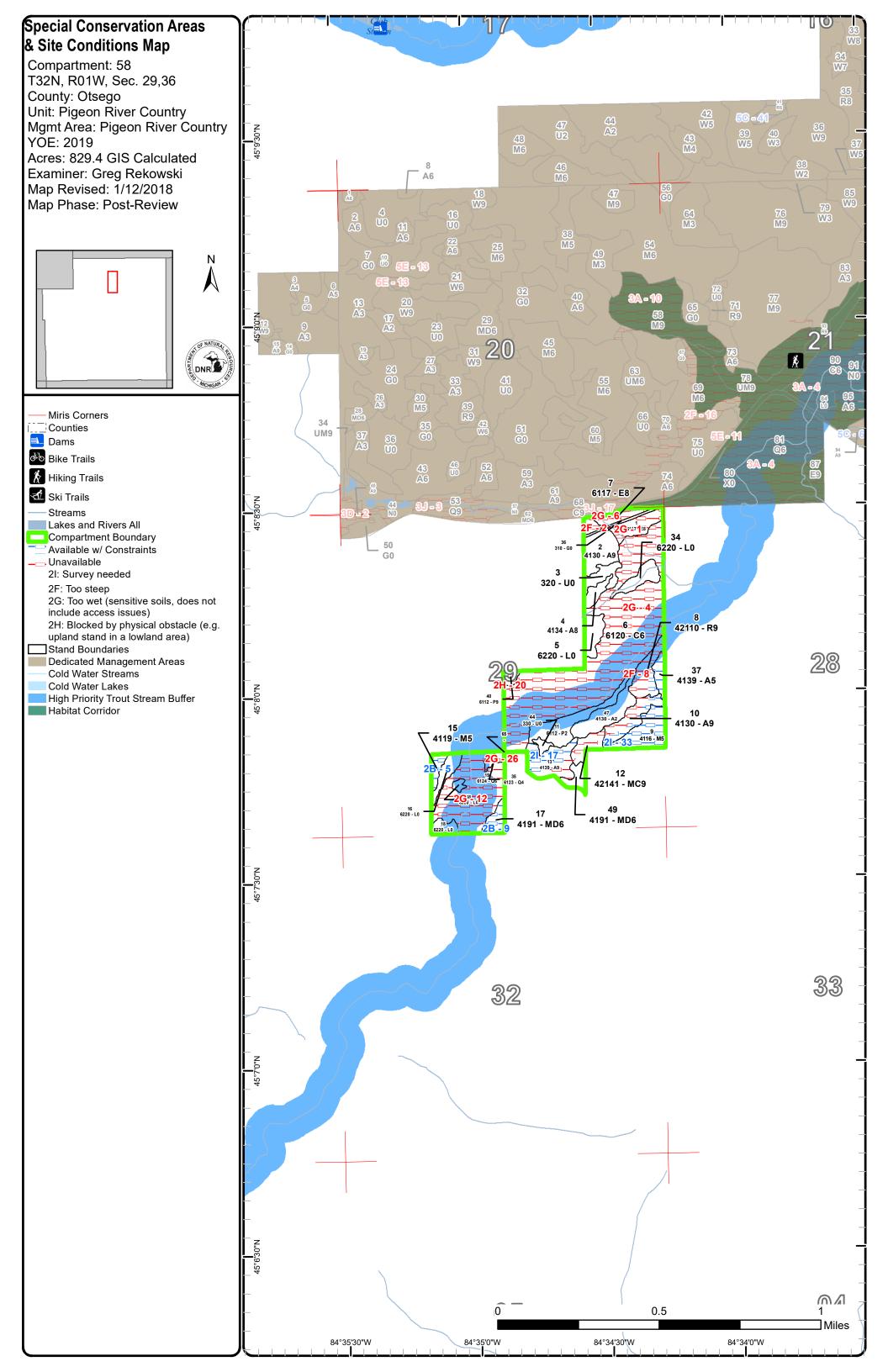


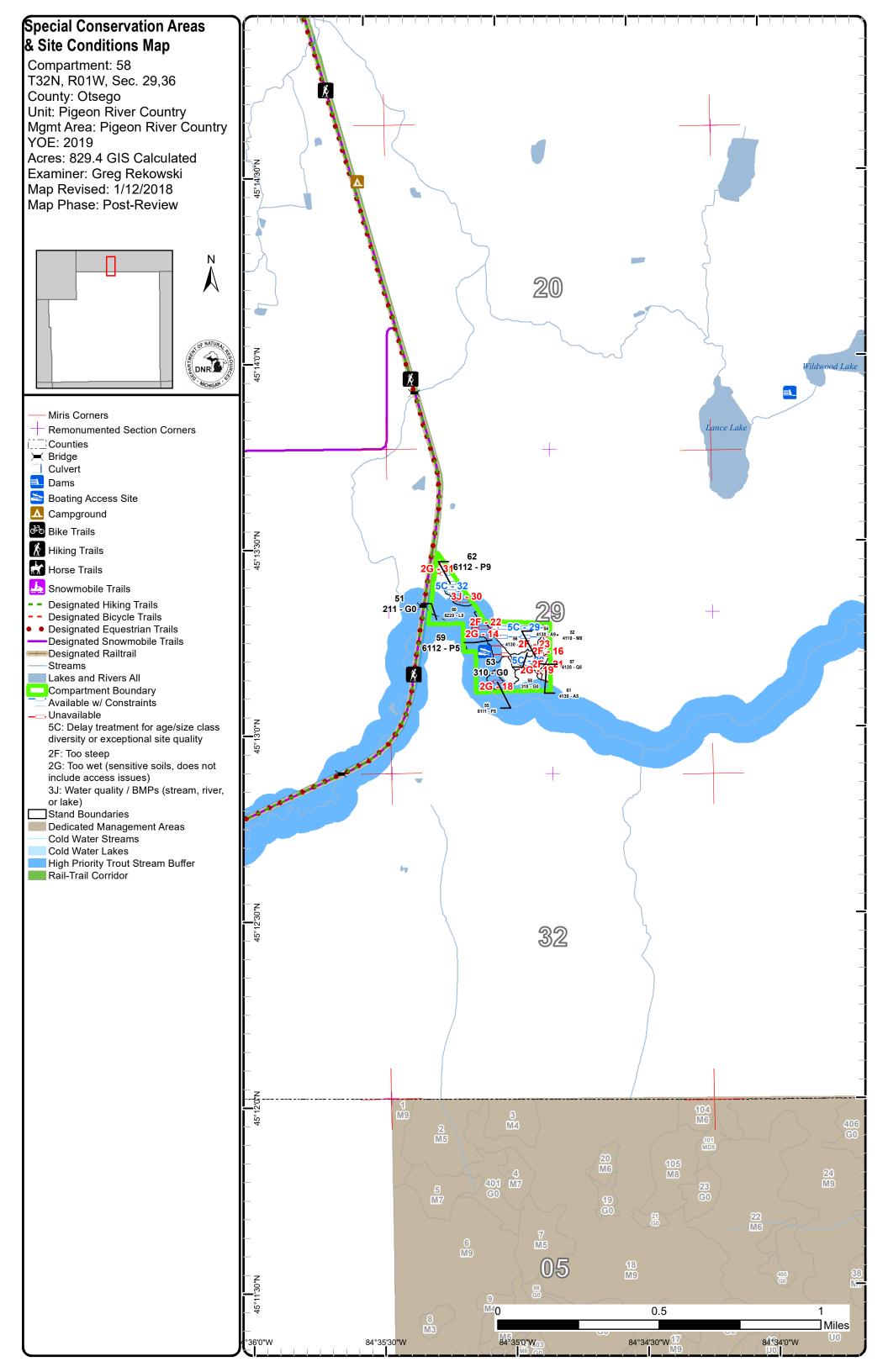


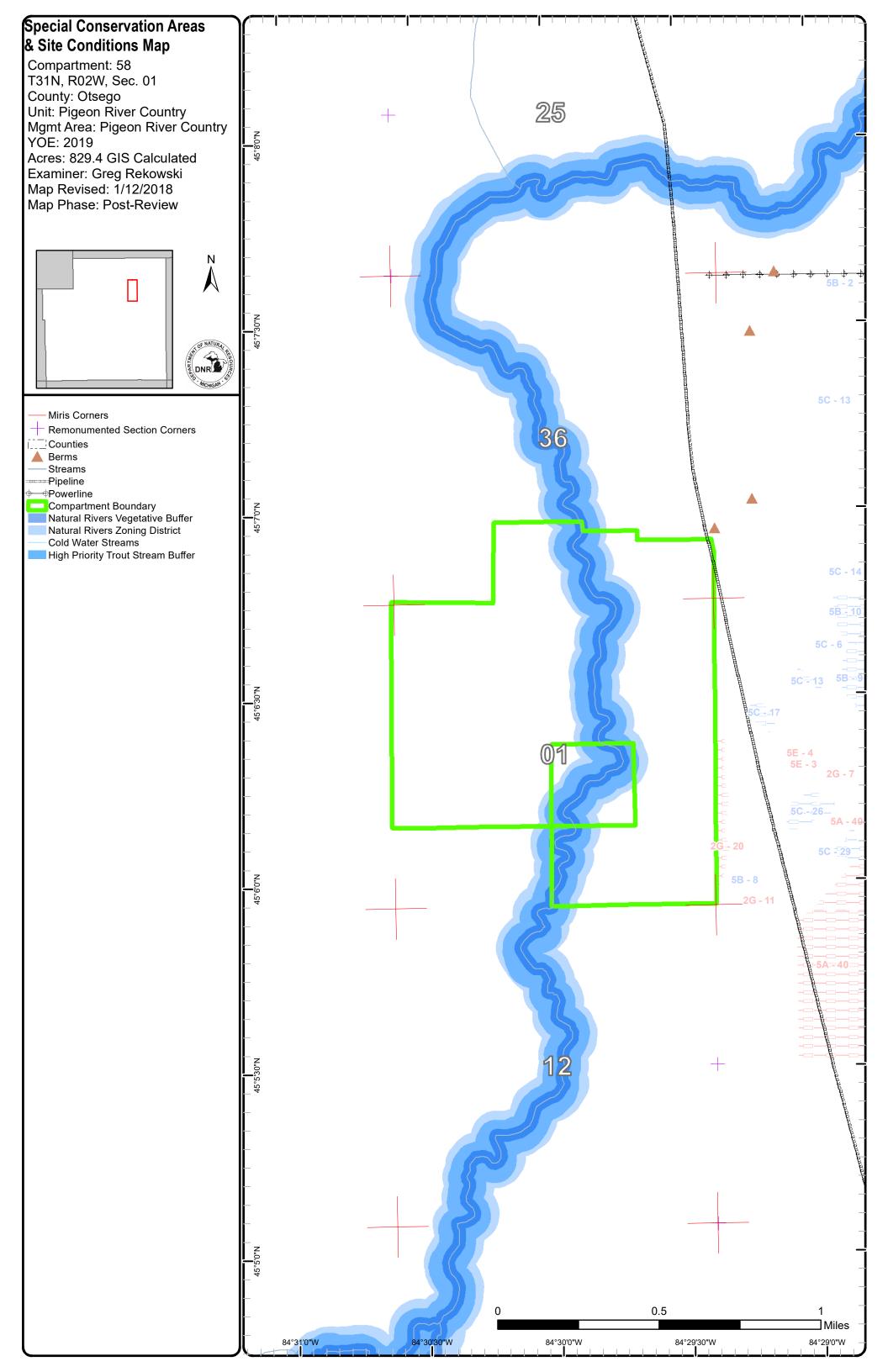


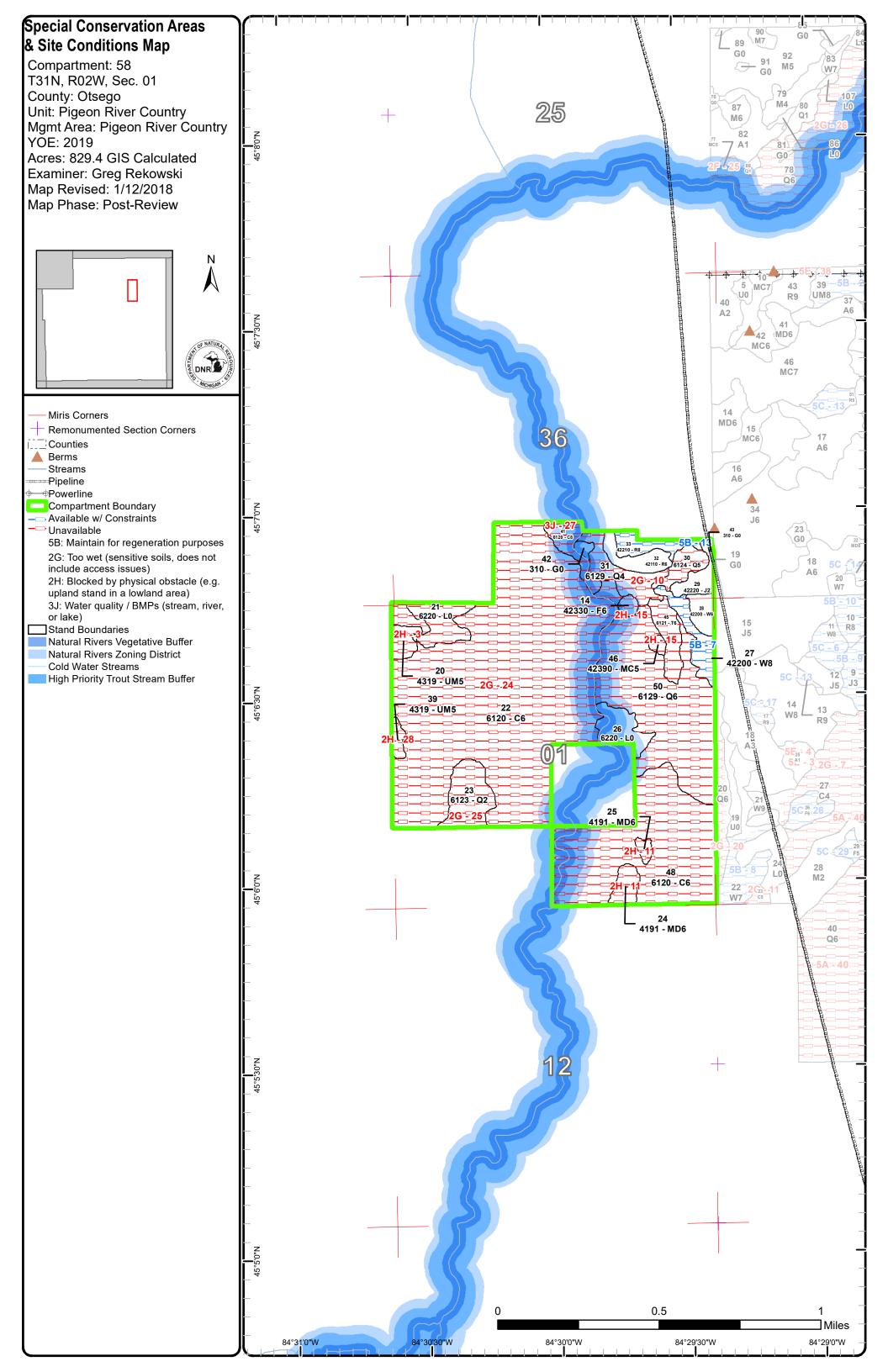














### **Report 2 – Treatment Summary**

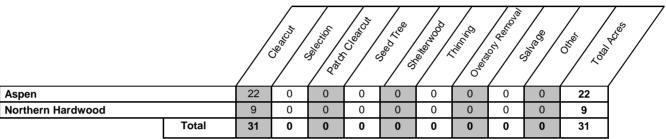
Pigeon River Country Mgt. Unit Year of Entry: 2019

#### **Acres of Harvest**

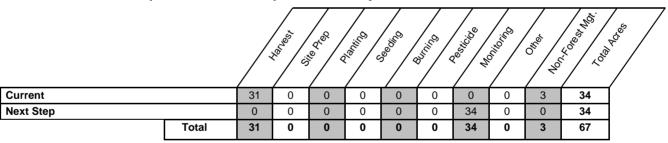
Compartment 58
Total Compartment Acres: 829

Commercial Harvest - 9 Harvests with Site Condition - 22 Next Step Harvest - 0 Habitat Cut - 0

### **Cover Type by Harvest Method**



### **Proposed and Next Step Treatments by Method**



Pigeon	River	Country	Mgt.	Unit
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Report 3 -- Treatments

Compartr	ment: 58	OF NATURA
Year of E	intry: 2019	DNR
r Typo	Λαο	Approval

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t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status	
2	53058002-Cut	6.7	4130 - Aspen	Sawtimber Well	77	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Field Boundary - Ready for VMS	

#### Site Condition: **Habitat Cut: No**

Prescription Cut all species except for any incidental oak or basswood. Leave one clump of hardwoods per acre (3-5 trees) and leave scattered aspen trees that have cavities and large amounts of rot. These individual trees will serve as retention. Stay off of the steep slope along the east edge. Steep Specs:

slopes run through the middle of the stand and may be inoperable.

Next Step **Treatments:** 

Acceptable Fully-stocked stand meeting aspen regeneration guidelines.

Monitoring, Natural Regen (Re-Inventory)

Regen:

Other Ken Ide has granted access through his property. He indicated he wants to cut some aspen on his property as well. Grouping this stand with his Comment:

sale may make this stand feasible to cut.

Work with Doug Heym on negotiated sale possibilities.

10/01/2017 Proposed Start Date:

53058004-Cut 22 4134 - Aspen, Sawtimber 51-80 Harvest Clearcut 413 - Aspen Even-Aged Field Spruce/Fir Medium Boundary -Ready for VMS

#### **Habitat Cut: No Site Condition:**

Prescription Clearcut all species except for any incidental oak or pine. Protect the few oak saplings that are present. Mark to leave 2 clumps of paper birch (3 trees) as well as a few of the larger aspen cavity trees. These individual trees will serve as retention. Do not extend the treatment boundary down Specs:

into the swamp as there is a small stream there and the expansion of further beaver activity is not desired.

Next Step Monitoring, Natural Regen (Re-Inventory)

**Treatments:** 

Acceptable A fully-stocked stand meeting aspen regeneration guidelines with any additional mix of species being present.

Regen:

Other Ken Ide has granted access through his property. He indicated he wants to cut some aspen on his property as well. Grouping this stand with his Comment:

sale may make this stand feasible to cut. Work with Doug Heym regarding negotiated sale possibilities.

**Proposed Start Date:** 10/01/2017

53058009-Cut Poletimber 51-80 8.7 4116 - Mixed N. Harvest Clearcut 4139 - Aspen. Even-Aged Draft Field Hardwood - Aspen Medium Mixed Boundary Deciduous

#### **Habitat Cut: No** Site Condition: Survey Needed

Prescription Cut all aspen, maple, fir, beech, and ironwood. Leave all other incidental species. A lot of the larger aspen is rotten and poor-quality so mark to leave at least 1 of these per acre to serve as future snags. No area retention due to the small size of the stand. Specs:

Monitoring, Natural Regen (Intermediate) Next Step

Treatments:

Acceptable At least a medium-stocked stand dominated by aspen with any additional mix of species being acceptable.

Regen:

Other Unknown if access through private property is possible. The survey corner past the southwest corner of the stand was not located, a survey

request is pending at this time. Comment:

**Proposed Start Date:** 10/01/2018

Compartment: 58
Year of Entry: 2019



a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
10	53058010-Cut	3.5	4130 - Aspen	Sawtimber Well	62	141- 170	Harvest	Clearcut	413 - Aspen	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition: Survey Needed

<u>Prescription</u> Cut all aspen, maple, fir, beech, and ironwood. Leave any other incidental species which may be present. A lot of the larger aspen is rotten and <u>Specs:</u> poor-quality so mark to leave at least 1 of these per acre to serve as future snags.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable At least a medium-stocked stand dominated by aspen with any additional mix of species being acceptable.

Regen: Other

As with the other 2 adjacent treatments, it is unknown if access through private property is possible.

Comment:

The west edge of the treatment line follows the ridge top, expect this to change slightly but do not dip down onto the steep slope.

Proposed Start Date: 10/01/2018

13 53058013-Cut 6.5 4139 - Aspen, Sawtimber 87 81-110 Harvest Clearcut 413 - Aspen Even-Aged Draft Field Boundary

Habitat Cut: No Site Condition: Survey Needed

Prescription Cut all species except for any oak. No area retention due to the small size of the stand. Mark to leave some clumps (at least 3 trees) of larger

Specs: pine, spruce and cull aspen, these will serve as retention.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable At least a medium-stocked stand dominated by aspen with any additional mix of species being acceptable.

Regen:
Other
Comment:

Steep slopes along the east have already been excluded but expect this treatment boundary to change slightly. Ensure that the steep slopes adjacent to the road which are experiencing erosion are protected.

Utilize the U type to the north as a landing.

The survey corners to the west are not in. A survey request is pending.

MNFI concern for RSH nest, site reviewed, nest was not found.

Proposed Start Date: 10/01/2018

26 53058026-NF 2.8 6220 - Alder/willow Nonstocked Unspec NonForestMgt Brush Cutting 622 - Lowland Draft Field ified Shrub Boundary

Habitat Cut: No Site Condition:

<u>Prescription</u> Shear all vegetation. Except do not cut any cedar or paper birch which may possibly be present. Also do not cut any ninebark clumps or apple <u>Specs:</u> trees of any size, and no black cherry over 5 inches diameter. Per comments from Fisheries Division, leave a thin row of alder uncut along the

river edge.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable

Regen:

Other South treatment boundary will follow the walking trail. The northwest boundary follows the approximate location of what appears to be a seasonal

<u>Comment:</u> stream channel. This is small (2-3 feet) and difficult to distinguish with snow on the ground.

Proposed Start Date: 10/01/2017

Pigeon River Country Mgt. Unit

Report 3 -- Treatments

Compartment: 58 Year of Entry: 2019



a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
37	53058037-Cut	3.3	4139 - Aspen, Mixed Deciduous	Poletimber Medium	75	81-110	Harvest	Clearcut	413 - Aspen	Even-Aged	Draft Field Boundary

**Habitat Cut:** No Site Condition: Survey Needed

Prescription Cut all aspen, pine, maple, fir, beech, and ironwood. Leave all other incidental species. A lot of the larger aspen is rotten and poor-quality so mark to leave at least 1 of these per acre to serve as future snags. The treatment boundary has been extended west into the flat portion of the Specs: adjacent pine stand. Mark to leave a few scattered pine here to retain a seed source.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable At least a medium-stocked stand dominated by aspen with any additional mix of species being acceptable.

Regen:

s

Other As with the other 2 adjacent treatments, it is unknown if access through private property is possible.

Comment:

Far northern portion of the stand sits on a somewhat steep slope with only some scattered oak and pine present.

**Proposed Start Date:** 10/01/2018

**Total Treatment Acreage Proposed:** 

33.7

Pigeon River Country Mgt. Unit

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Total	Acres	Acres Avail	Acres	D	omina	nt Site	Cond	dition	s			
Acres	Available	With Condition	Not Available		2B	21	5B	5C	2F	2G	2H	3J
48	18	20	10	Aspen		12		8	10	1		
443	0	0	443	Cedar						436		7
1	1	0	0	Cropland								
9	9	0	0	Herbaceous Openland								
6	6	0	0	Jack Pine								
1	1	0	0	Low-Density Trees								
21	9	2	9	Lowland Aspen/Balsam Poplar				2		7	1	1
150	0	0	150	Lowland Conifers						150		
8	0	0	8	Lowland Deciduous						8		
52	40	0	12	Lowland Shrub						12		
13	3	3	7	Mixed Upland Deciduous	3						7	
12	0	11	1	Northern Hardwood	2	9			1			
4	1	0	2	Planted Mixed Pines					2			
22	8	9	5	Red Pine		1	8		5			
10	0	0	10	Tamarack						10		
1	0	0	1	Upland Conifers							1	
8	0	0	8	Upland Mixed Forest							8	
4	4	0	0	Upland Shrub								
2	0	0	2	Upland Spruce/Fir							2	
16	6	10	0	White Pine			10					
830	105	55	669	Total Forested Acres	5	22	18	10	18	623	20	8
	13%	7%	81%	Relative Percent								

<sup>\*</sup>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	<b>Dominant Site Condition</b>	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
C	Comments:						

Pigeon River Country Mgt. Unit

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2	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
3	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	77	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
	Comments:						
5	Available	2B: Unknown if access through adjacent landowner(s) is possible	2	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
(	Comments:						
7	Available	5B: Maintain for regeneration purposes	10	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
7			10	Unspecified	Unspecified	Unspecified	

Pigeon River Country Mgt. Unit

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8	Unavailable	2F: Too steep	13	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
9	Available	2B: Unknown if access through adjacent landowner(s) is possible	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	32	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
11	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
(	Comments:						
13	Available	5B: Maintain for regeneration purposes	8	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						

Pigeon River Country Mgt. Unit

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ents:  available ents:  available ents:	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)  2F: Too steep	4	Unspecified	Unspecified	Unspecified	Unspecified
ents: available	obstacle (e.g. upland stand in a lowland area)		Unspecified	Unspecified	Unspecified	Unspecified
available	2F: Too steep	2				
	2F: Too steep	2				
ents:			Unspecified	Unspecified	Unspecified	Unspecified
vailable	2l: Survey needed	6	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
ents: request is in	1.					
available	2G: Too wet (sensitive soils, does not include access issues)	2	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
ents:						
available	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
avai	lable :	soils, does not include access issues)	soils, does not include access issues)	soils, does not include access issues)	soils, does not include access issues)	soils, does not include access issues)

Pigeon River Country Mgt. Unit Greg Rekowski : Examiner

20	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	1	Unspecified	Unspecified	Unspecified	Unspecified
С	comments:						
21	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
22	Unavailable	2F: Too steep	1	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
23	Unavailable	2F: Too steep	0	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
24	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	456	Unspecified	Unspecified	Unspecified	Unspecified
С	comments:						
25	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						

Pigeon River Country Mgt. Unit

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26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
27	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	7	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
28	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
29	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
30	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Influence zone of t	he Sturgeon River.					
31	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Pigeon River Country Mgt. Unit

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32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
33	Available	2I: Survey needed	15	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
	omments: urvey request is i	n.					

Mgt. Unit

Compartment: #Type! Year of Entry:



### Report 5 - PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Compartment: 58 Year of Entry 2019



## Report 6 – 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.

Conservation Area	Туре	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
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.	es (e.g., slimy sculpin) to persist from se 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 communities are ecologically and socially significant in their effect as aesthetics, habitat, bank stability, timber production, and their	e unique conditions adjacent to lakes, liversity 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
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from sp approved distance from the river centerlines. The Natural Rivers most Natural Rivers. The Vegetative Buffer ranges from 25 to 10 and Vegetative Buffers for each Natural River see the table locat folder.	S Zoning District is a 400 foot buffer for 00 feet. To view specific Zoning Districts

S t	Pigeon River Country		Report 7	– Forested	Stands Compartment: 58 Year of Entry: 2019	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	5.1	92	51-80	Stand becomes drier north of the powerline, the remainder is quite wet. Black ash used to be a large component but it is now all dead and most have fallen over. Moderate size stream runs close to the west boundary. Well developed shrub layer, there is likely some cranberry and wild raisin in addition to the nannyberry. Large amount of coarse woody debris. Heavy deer use. Average ba/acre from 5 plots = 62 square feet.
2	4130 - Aspen	Sawtimber Well	8.9	77	81-110	Several steep slopes throughout, especially the portion north of the powerline which is very steep. Slopes in the central part of the stand are about 35-40%. Small pockets of hardwoods mixed in throughout. Trace of white pine, basswood, and yellow birch (YB is north of the powerline). Average ba/acre from 8 plots = 103 square feet. Steep slopes, small acreage, and access issues make management of this stand questionable.
4	4134 - Aspen, Spruce/Fir	Sawtimber Medium	2.2	77	51-80	Stand becomes more open along the edge of the U stand, this is where most of the red maple is located. Many of the larger aspen have died and fir is replacing it, primarily along the swamp edge. A few very large aspen are still hanging on. A small stream is present in the adjacent swamp stand (stand #6), about a 1/2chain-1 chain east of the upland edge. Trace of white pine. Average ba/acre from 4 plots = 102 square feet. No access and small acreage make management of this stand questionable.
6	6120 - Lowland Cedar	Poletimber Well	77.2	110	111-140	Mediocre swamp conifer stand with varying levels of stocking. A few nice patches of cedar are present but there are also some areas of smaller, declining stems. Far north end of the stand has more of a hardwood component with a lot of black ash in the understory. Wet stand with no management potential. Average ba/acre from 14 plots = 126 square feet.
7	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	3.0	92	51-80	Stand becomes drier north of the powerline, the remainder is quite wet. Black ash used to be a large component but it is now all dead and most have fallen over. Moderate size stream runs close to the west boundary. Well developed shrub layer, there is likely some cranberry and wild raisin in addition to the nannyberry. Large amount of coarse woody debris. Heavy deer use. Average ba/acre from 5 plots = 62 square feet.
8	42110 - Planted Red Pine	Sawtimber Well	6.2	80	141-170	The majority of this stand lies on a steep side-slope that is inoperable for harvesting operations. Aspen and red maple is more common at the base of the slope near the swamp edge. White pine becomes more abundant in the north finger. The red pine was obviously planted although no planting records were found. Average ba/acre from 4 plots = 170 square feet.

4116 - Mixed N.

Hardwood - Aspen

4130 - Aspen

10

Poletimber

Medium

Sawtimber

Well

8.7

6.7

75

62

51-80

141-170

Variable stocking with many open areas throughout the stand.

Quite a few large aspen with large amounts of decay. Birch nearly all dead. Trace of sugar maple. Average ba/acre from 4 plots = 52 square feet.

The majority of this stand lies on slopes that are too steep to

harvest. The ridgetop along the eastern edge as well as the slopes at the northeast part of the stand would be operable. Small area of blowdown in the far NW corner. Trace of paper birch. Average ba/acre from 6 plots = 153 square feet.

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t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2019  General Comments:
11	6112 - Lowland Aspen	Sapling Medium	8.8	27	Immature	Stand cut as part of Sturgeon River Aspen timber sale, #53-004-90-01, bought by Ralph Walker. Aspen has not regenerated that well with the exception of a large clone near stand 44. Beavers may be the reason for this as there are signs of old beaver damage all throughout the stand. Spruce, fir, and alder are the primary species growing in the thin finger of the stand.
12	42141 - Planted Mixed Pine, Mixed Deciduous	Sawtimber Well	3.7	78	111-140	The majority of this stand lies on steep, inoperable slopes. No planting records were found but the red pine looks planted.  Could not find the survey corner. Average ba/acre from 4 plots = 128 square feet.
13	4139 - Aspen, Mixed Deciduous	Sawtimber Well	8.7	87	81-110	Steep slopes as you move east in the stand. Some gravel and sand is being deposited from the road into the stand along these steep slopes. Northeast finger of stand becomes more red maple dominant with some red oak, sugar maple, and ironwood mixed in there. Average ba/acre from 9 plots = 110 square feet.
14	42330 - Upland Fir	Poletimber Well	2.1	61	81-110	Small upland knob. Quaking aspen and cedar mostly along the edges. A lot of coarse woody debris from broken fir tops.  Average ba/acre from 4 plots = 98 square feet. Isolated stand, do not manage.
15	4119 - Mixed Northern Hardwoods	Poletimber Medium	2.1	92	81-110	Small sliver of hardwoods. Most of the balsam is on the swamp edge. No access. Average ba/acre from 3 plots = 90 square feet.
17	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	3.0	69	51-80	Small acreage for management, access issues. A small two- track runs north-south along the east boundary line. The corner appears to be on the east side of the two-track making this a probable trespass. Some trees have been cut along the two- track as well. Average ba/acre from 4 plots = 70 square feet.
19	6124 - Lowland Spruce- Fir	Poletimber Well	23.8	79	111-140	Pretty nice swamp conifer stand with the Sturgeon River flowing through the middle. Some areas of lower stocking scattered throughout. Cedar tends to be mostly near the river. Nice spruce, with some larger ones that I'm assuming are white spruce. Average ba/acre from 11 plots = 139 square feet. No management due to wet soils and river influence.
20	4319 - Mixed Upland Forest	Poletimber Medium	4.9	66	51-80	Mostly upland ridges that extend into the adjacent swamp conifer stand. A few lowland pockets are mixed in. Cedar is mostly along the edges. Average ba/acre from 6 plots = 70 square feet. There is a gate along the private fence to the west which provides access to this stand. A permanent blind and two-track/shooting land have been established, both in the northern part of the stand and visible on imagery.

S t	Pigeon River Country	Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 58 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	6120 - Lowland Cedar	Poletimber Well	265.6	112	111-140	Large swamp conifer stand of varying quality. In general, quality is best in the east half of the stand, closer to the river, and declines in the west half. A few streams meander through the stand, joining the Pigeon River at various points. Some cedar decline was noticed in the wetter areas but overall most of it is healthy. Trace amounts of cedar regeneration was observed at the far southwest corner of the stand. The private property to the west has a large fence enclosing their property which must limit deer movement in this area. Trace of hemlock and balsam poplar. Average ba/acre from 21 plots = 134 square feet.
						The NE portion of the stand, adjacent to the river and stand 41, appears to have had some cedar cut out at some time long ago.  Old stumps and some bucked logs are still evident.
23	6123 - Lowland Fir	Sapling Medium	16.0	31	Immature	Old notes state that this stand was possibly cut in the past. No old stumps visible, looks like on the 98DOQ there may be an old trail at the south end. The deciduous component is mostly in the north half and stocking is quite low here. Conifers pick up, as well as overall stocking, in the south half. There is a decent amount of cedar regeneration along the west line and southwest corner with some that have made it past the browse line.
24	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	5.5	85	81-110	Upland island stand with some pretty nice red maple. Stocking and quality decline in the north half. A component of upland cedar which is rare on the landscape. Very heavy deer use. Club-moss is dominant at the ground level in the south half. Average ba/acre from 6 plots = 85 square feet. Old wooden post a little bit west of the southeast corner of the stand which appears to be an old corner. There is a permanent blind, cleared shooting lanes and large baiting station just south of the state/private line. It does not appear to be a trespass.
25	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	1.9	85	81-110	Upland island stand that is similar in composition to the island stand to the southwest. Some open areas of lower stocking are mixed in throughout. Cedar is mostly on the edges. Red maple moderate quality with a couple large diameter trees present.  Average ba/acre from 4 plots = 103 square feet. No management possible.
27	42200 - Natural White Pine	Sawtimber Medium	10.2	104	51-80	Stand was cut in 1990 as part of the Hoobler Jack Pine sale, #53-035-89-01, bought by K&R Logging. All species were cut except for red and white pine, as well as a few jack pine. It doesn't appear that all areas of the stand were cut however, such as the far northern end and also some spots along the swamp edge with larger trees. Variety of sizes on the residual white pine, including some very large, old trees. The stand is highly variable in terms of stocking and composition. Many areas have a light white pine residual and are dominated by saplings and poletimber. Other areas are more of a W9 or W8. The fir and aspen component is more prominent at the south end. Areas of wet ground are most common in the middle portion of the stand. Average ba/acre from 8 plots = 65 square feet. Retain the overstory trees permanently and feature the understory during the next inventory cycle.
28	42200 - Natural White Pine	Poletimber Well	5.6	58	81-110	Stand was cut in 1990 as part of the Hoobler Jack Pine sale, #53-035-89-01, bought by K&R Logging. All species were cut except for red and white pine, as well as a few jack pine. White pine poletimber is dominant in most places. A second, younger age class of jack pine becomes more common in the north half.  Trace of jack pine sawlog trees and XL white pine trees.  Average ba/acre from 6 plots = 97 square feet.

S t	Pigeon River Country	Mgt. Unit		Report 7	– Forested	Stands Compartment: 58 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	42220 - Natural Jack Pine	Sapling Medium	6.1	18	Immature	Jack pine regeneration is best along old skid trails and the north finger of the stand, the remainder is a little more spotty. Some wet ground is present, most seems to be closer to the pipeline ROW. Variety of white pine sizes.
30	6124 - Lowland Spruce- Fir	Poletimber Medium	7.1	98	51-80	Moderate quality swamp conifer stand. Stocking tends to vary quite a bit with several non-forested wet pockets in the interior of the stand. Diameters vary as well, especially on the black spruce, with some areas being small poletimber and others approaching log-size. A small drainage seems to originate from the wet pockets in the middle of the stand, flowing southwest out of the stand. Edges of the stand are dry and would be available for harvest but the acreage would very small. Average ba/acre from 6 plots = 68 square feet.
31	6129 - Mixed Coniferous Lowland Forest	Poletimber Poor	14.8	98	1-50	Irregular-stocked, poor-quality swamp conifer stand. Most trees are found either adjacent to the upland pine stand to the east or found scattered throughout in clumps. A few of the cedar clumps contain some large trees. Many non-forested areas that are dominated by tag alder. Areas of wet ground throughout and there appears to be a drainage that starts in stand 30 to the east and flows west/northwest meeting the Pigeon River near the southern end of stand 42. Heavy deer and elk use in the cedar clumps. Average ba/acre from 8 plots = 58 square feet.
32	42110 - Planted Red Pine	Poletimber Well	8.0	49	141-170	Stand recently had a third row thin. There is a small component of larger, natural red pine. Quite a bit of mortality in the east part of the stand. Many red pine with snapped tops. Unsure if this was from disease following the harvest or simply a windstorm. Regardless there does not appear to be any sign of ongoing mortality. Average ba/acre from 5 plots = 144 square feet. Did not find planting records, age taken from previous examiner. May want to verify this next time.
						OPIC - FMD: Requesting variance to prepare stand for sale in '07 with stands in Compartment 42 to make it more marketable.
33	42210 - Natural Red Pine	Sawtimber Medium	7.8	80	51-80	Stand had a species removal harvest in 2000. The resulting stand is a mixed bag of everything with a highly variable residual. The east half of the stand has much lower stocking and most of the jack pine regeneration is found here. The west half has some strips of planted red pine mixed in. The far northwest corner was not included in the harvest, likely due to uncertainty of the corner locations, and has some mature aspen and red maple, as well as a small amount of red oak. Average ba/acre from 7 plots = 71 square feet. Retain until the second age class is mature.
35	6123 - Lowland Fir	Poletimber Poor	1.3	79	1-50	Area of lower stocking due to heavy blowdown. Thick fir and alder understory. Average ba/acre from 3 plots = 47 square feet.
37	4139 - Aspen, Mixed Deciduous	Poletimber Medium	2.4	75	81-110	The stand slopes down to the north with a clone of aspen in the middle. The remainder is mostly small, poor-quality red maple. A couple of red oak at the north end. Trace of paper birch and white spruce. Average ba/acre from 3 plots = 97 square feet.
39	4319 - Mixed Upland Forest	Poletimber Medium	2.8	76	51-80	Upland points that extend into the swamp. Cedar is mostly along the transitional edges. Scattered open areas. There is a gate on the private fence in the north of the stand which provides private access to this stand. Average ba/acre from 5 plots = 72 square feet.

S t	Pigeon River Country	Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 58 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	6112 - Lowland Aspen	Sawtimber Well	1.2	76	81-110	Stand is about 50/50 upland and lowland. A road splits the stand in two along the upland/lowland gradient. The bigtooth component is all on the upland side. Quaking component is starting to fall out of the lowland. Average ba/acre from 3 plots = 97 square feet.
41	6120 - Lowland Cedar	Sawtimber Medium	6.9	89	141-170	High-quality, large cedar in this stand with some of the largest cedar I have seen in the PRC. Stocking is variable as there are a few areas of blowdown. There was also a partial cut in this stand long ago as cut stumps and old bucked-up logs are still visible. Regeneration is very sparse in most areas of the stand. Evidence of heavy deer and elk use. A stream borders portions of the west boundary of the stand, eventually cutting through to the Pigeon River. Average ba/acre from 7 plots = 160 square feet.
45	6121 - Tamarack	Poletimber Well	9.7	78	81-110	Nice stand of tamarack. Stocking tends to decline slightly further north. Wet site, red-osier dogwood common in the understory but all are limited to 1-2 feet in height due to browse. Trace of paper birch and red maple. Average ba/acre from 6 plots = 110 square feet.
46	42390 - Mixed Non- Pine Upland Conifers	Poletimber Medium	1.5	45	81-110	Small upland island. The east half is more lowland and has most of the cedar. Average ba/acre from 4 plots = 85 square feet.
47	4130 - Aspen	Sapling Medium	8.1	27	Immature	Stand cut as part of Sturgeon River Aspen timber sale, #53-004-90-01, bought by Ralph Walker. Regeneration is decent on the upper side slopes but there is a large area of the stand with minimal regeneration.
48	6120 - Lowland Cedar	Poletimber Well	93.5	92	111-140	The majority of this stand is wet with small, poor-quality cedar. In general, the east half of the stand has much smaller trees, with some areas where the cedar is barely merchantable. Quality increases west of the two upland island stands with some groves of large, high-quality cedar as you get closer to the Pigeon River. There is also a lot of blowdown near the river. A decent amount of paper birch is present, more in the west half of the stand as well. Some areas of cedar decline were noticed, these seemed to be more prevalent in the east half of the stand. Average ba/acre from 18 plots = 114 square feet. No management possible, leave as is.
49	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	2.6	87	81-110	Small, poor-quality hardwoods. Trace of basswood and paper birch. A few larger white and red pine mixed in. Small pocket of planted red pine at the southeast corner near the road. Average ba/acre from 4 plots = 87 square feet.
50	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	85.5	101	81-110	Wet swamp conifer stand of varying quality and stocking. Tamarack tends to be high quality throughout and there are some areas, mostly in the central part of the stand, where this species dominates. Some pockets of tamarack mortality were observed, likely a result of eastern larch beetle. Cedar is moderate quality and most appears healthy, not much decline was noticed. Stocking declines significantly in the east and west edges of the stand, with some areas along the west edge dominated by small fir and almost looking like it was cut long ago? Trace of quaking aspen, balsam poplar, red maple, and white pine in the overstory. Average ba/acre from 12 plots = 107 square feet.

S t	Pigeon River Country	Mgt. Unit		Report 7	– Forested	Stands Compartment: 58 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	4110 - Sugar Maple Association	Sawtimber Medium	1.0	81	51-80	Small stand of nearly pure sugar maple, the majority of which sits on a very steep slope. A few white ash are hanging on in the north end. Poorly-stocked in the north 1/3rd of the stand. Trace of balsam fir. Average ba/acre from 3 plots = 53 square feet.
54	4130 - Aspen	Sawtimber Well	1.3	68	81-110	Mature stand of aspen, the majority of which sits on a very steep side slope. The southern 1/3rd of the stand is the only area that would be available for harvest. The quaking aspen component is mostly at the southern part of the stand. Average ba/acre from 3 plots = 113 square feet.
55	6111 - Lowland Balsam Poplar	Poletimber Medium	1.7	44	81-110	Old signs of beaver activity are present, particularly in the half of the stand closer to the Sturgeon River. Cedar component is only next to the river. Some of the smaller ash still appear to be alive. Nice shrub component. Average ba/acre from 4 plots = 93 square feet.
56	4130 - Aspen	Sawtimber Well	8.2	68	111-140	Mature stand of aspen with some very steep slopes present throughout. The steepest slopes are at the NW corner close to the road and also along the SE corner near the G stand. Quite a few larger aspen with good amounts of rot and snag potential. The sugar maple component tends to be scattered in small clumps and is mediocre quality. Some of the smaller ash is still alive. Trace of red oak and basswood. Some nice patches of serviceberry scattered throughout, some of which is 4-5" in diameter. Average ba/acre from 8 plots = 125 square feet.
57	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	1.2	99	Unspecified	This is a low-lying stand that sits in between upland slopes. A defined stream channel is present in the north half of the stand as well as a couple of seeps which originate from the side slopes. The stream channel disappears and the water starts to spread out in the south half. There also looks like there may be a couple of natural springs in this south half. Patches of redosier dogwood, shrub willow, and cattails are present at the SW corner.
						Tree cover is a mixed bag of everything. Cedar tends to run through the wetter, central part of the stand. QA and BAM are more prevalent at the far southern end. BTA and PB seems to be more along the north, upland edge. Average ba/acre from 4 plots = 60 square feet.
59	6112 - Lowland Aspen	Poletimber Medium	4.2	50	51-80	Wet stand of variable stocking and sizes. Looks like there may be a second age class of older aspen based on the presence of some large sawlog-sized trees. Some of the smaller ash still appears to be alive. The cedar component is primarily along the Sturgeon River. Nice diversity of understory shrubs. The redosier dogwood is being heavily browsed. Average ba/acre from 6 plots = 62 square feet. No management due to wet soils and proximity to the Sturgeon River.
61	4130 - Aspen	Poletimber Medium	1.0	65	51-80	The north half of this stand sits on an upland knob with some moderately steep slopes and has most of the bigtooth aspen. The south half has some areas of wet ground from the adjacent drainage in stand 57. Most of the quaking aspen is in this south half. Average ba/acre from 3 plots = 57 square feet. Do not manage.

S t a n d	Pigeon River Country Mgt. Unit			Report 7	– Forested	Stands Compartment: 58 Year of Entry: 2019	DNR DNR
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN . 6
62	6112 - Lowland Aspen	Sawtimber Well	4.9	70	51-80	Mostly lowland aspen stand with a few areas of lower mixed in. North end becomes very wet, with standin present, the majority of BAM is located here. Far south the river is more open and has the few apple and bat rees that are present. Diverse shrub understory. A fe smaller ash are still alive. Wild parsnip noticed arou western edges of the stand. Average ba/acre from 7 p square feet.	ng water h end near asswood ew of the und the
						North end of the stand is too wet for management, so real close to the river which leaves the central part ava a treatment but is only about 2 acres in size.	ailable for



Stand	Cover Type	Acres	Managed Site	General Comments:
3	320 - Upland Shrub	3.6	No	Not much encroachment at all.
5	6220 - Alder/willow	4.2	No	Wet stand. Black spruce poletimber and some sawlogs scattered infrequently throughout, more so along the eastern edge.
16	6220 - Alder/willow	3.1	No	A stream meanders through this stand. North part of the stand is more marsh-like with cattails. The remainder is dominated by alder.
18	6220 - Alder/willow	2.1	No	A stream meanders through the southwest part of the stand. Quite a bit of beaver activity near the stream. Some larger trees at the east end near the Sturgeon River.
21	6220 - Alder/willow	11.8	No	Dense tag alder stand. Starting at the NW section corner (NW corner of stand 22), there is a small blazed trail that runs east-west along the northern line of this stand, it then cuts south through the middle of the stand. Didn't follow it all the way so not sure where it ends up.
26	6220 - Alder/willow	10.2	No	Thick lowland shrub stand dominated by alder but also with a good amount of black cherry. Most of the black cherry is small (2-3 inches) but there are a few of poletimber size. A small trail leading west starts at the end of Gornick Trail and provides a public access to the Pigeon River. Ground tends to be a little wetter on the south side of this trail but overall the main part of this stand is not as wet as a typical lowland alder stand usually is. At the end of Gornick Trail, a gated driveway cuts south through the stand to the Sides property. The gate is on state land as is a large portion of the driveway, which was recently widened significantly. The area east/southeast of the driveway is much wetter and has many more saplings than the remainder of the stand. Looks like a small seasonal stream may be present in the northwest part of the stand.
34	6220 - Alder/willow	4.0	No	Standing dead cedar throughout with a stream meandering through the stand. Wellestablished patch of phragmites a little bit southwest of the central part of the stand and it appears to be spreading to the northeast. Did not visit the far eastern end of the stand to see if it was there as well.
36	310 - Herbaceous Openland	1.0	No	Powerline ROW. Wild parsnip was found scattered throughout the east 1/2 of the stand.
38	6220 - Alder/willow	0.7	No	Area of blowdown that is starting to fill in with trees.
42	310 - Herbaceous Openland	1.5	No	Seasonally wet stand. Clumps of heavily browsed shrubs in the east half of the stand. Difficult to ID due to the browse but they look like chokecherry.
43	310 - Herbaceous Openland	0.7	No	Gornick Trail and a pipeline ROW. There is some wet ground on the ROW.
44	330 - Low-Density Trees	1.0	No	This stand was likely the landing when stands 11 and 47 were cut. Scattered red maple, aspen, spruce, and fir are left. Fir regeneration is filling in. Use this stand as a landing if stand 13 is cut.
51	211 - Cropland	1.2	No	This stand is used as farmland by the adjacent private landowner. Newer landowners and I don't believe they are aware that they are in trespass.



Stand	Cover Type	Acres	Managed Site	General Comments:
53	310 - Herbaceous Openland	1.5	No	The central part of the stand is on a steep slope and has quite a bit of erosion ongoing. A couple large boulders at the north part of the stand on top of the slope. BAM saps at the bottom of the slope. IW/BTA/BC mostly at the top of the slope.
58	310 - Herbaceous Openland	4.1	No	The portion of this stand north and east of the old RR grade is seasonally wet from a drainage/small stream that enters the stand at the northeast side, coming from stand 57. This water tends to pond in the southeast corner of the stand and drains down to the river in a few spots across the RR grade. The portion of the stand west and south of the RR grade and closer to the Sturgeon River appears to flood on occasion. Wild parsnip is scattered throughout. Heavy deer browse on the red-osier dogwood. Do not manage this stand.
60	6220 - Alder/willow	15.9	No	Nice lowland shrub stand with a diversity of species. In general, willow shrubs tend to be more common in the south half, while nannyberry and cherry are more common in the north half. Some large, sawlog-size willow are present at the far NW corner of the stand. Clump of red pine on the north side of the river. Although rare, apple trees are scattered here and there throughout. The red-osier dogwood is being browsed heavily. Wild parsnip is present in the more open meadow-like portions of the stand.  There looks to be a trespass in the far SW corner of the stand where a portion of the private landowners yard is on state land as well as a trail that they cut to the banks of the Sturgeon River.