



Compartment Review Presentation

Pigeon River Country Forest Management Unit

Compartment 53045

Entry Year 2023

Acreage: 1,680

County Otsego

Management Area: Pigeon River Country

Revision Date: 2021-05-07

Stand Examiner: Greg Rekowski

Legal Description:

T31N R01W Sections 5, 8, and 17

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 majority of the Compartment is flat lowlands. Section 5 has some upland ground that is flat to gently rolling. Lowland soils are primarily Tawas and Lupton mucks. Upland soils are a mix of sands with the largest percentages in respective order being Rubicon sands, Lindquist sands, Morganlake loamy sands, and Croswell sands.

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

Solid block of State ownership. The southwest portion of the Compartment borders private land.

Unique Natural Features:

Wood turtles are known to occur in this Compartment.

Archeological, Historical, and Cultural Features:

None identified.

Special Management Designations or Considerations:

None identified.

Watershed and Fisheries Considerations:

The Black River flows south to north through the length of this Compartment. Numerous tributaries originate in the surrounding swamp and feed into the river. The Black River is known as having a high-quality brook trout fishery.

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

No known potential exists for commercial metallic mineral production in this part of the state. The nearest active sand/gravel operation is six miles away. Most of the compartment is wetland, which limits sand & gravel development potential. Furthermore, surface mining is not currently allowed. There are actively producing oil wells in Section 5. There is potential for Antrim Shale gas beneath the compartment and additional Guelph (Niagaran) reefs, but future additional mineral leasing and development is not currently allowed within the compartment. All parcels within the compartment are currently classified as Nonleasable, but active leases exist in the compartment tied to current and past production that predated the consent agreement. There has been, and continues to be, drainage of State mineral resources around the edge of the compartment without compensation to the State. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

Vehicle Access:

Section 5 is accessible via Green's Landing Trail, a county road. The DNR has an easement through private land which allows for public access to State land in Sections 8 and 17. However, this easement agreement is currently in dispute with the adjacent private landowner association and is awaiting judgement from the legal system.

Survey Needs:

None required at this time. Survey corners are well established along the public/private interface in Section 17.

Recreational Facilities and Opportunities:

There are no developed recreational facilities or trails within this Compartment.

Fire Protection:

Fire potential is very low in this Compartment due to the prevalent wet ground, with the exception of the upland areas in Section 5. This area of the Compartment has good access in the event of fire suppression needs. Most roads are closed with berms.

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

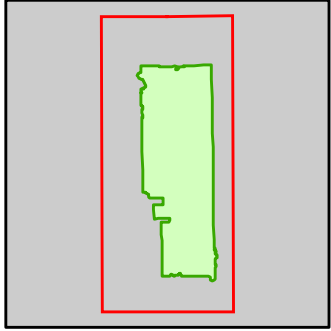


Age Class

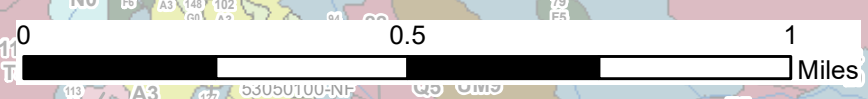
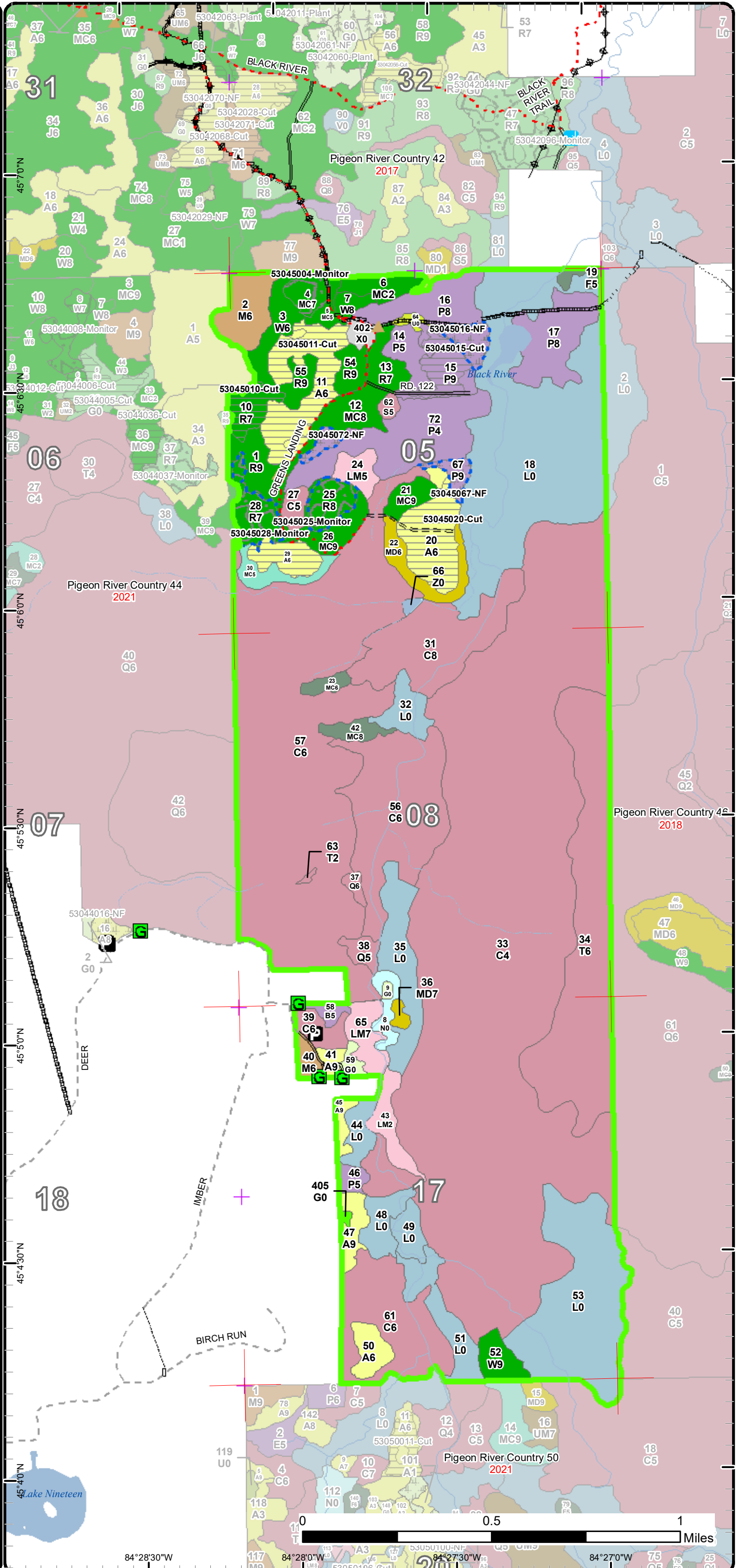
	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	0	0	0	66	3	0	10	0	0	0	0	0	0	0	0	0	79
Cedar	0	0	0	0	0	0	0	0	0	44	0	299	542	0	0	0	0	0	885
Cropland	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Herbaceous Openland	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Aspen/Balsam Poplar	0	0	0	0	3	21	45	24	24	0	0	0	0	0	0	0	0	0	117
Lowland Conifers	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Mixed Forest	0	0	0	9	0	0	6	0	0	10	0	0	0	0	0	0	0	0	25
Lowland Shrub	279	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	278
Lowland Spruce/Fir	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Marsh	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	12
Natural Mixed Pines	0	0	8	0	0	4	19	0	0	6	0	6	0	0	0	0	0	0	43
Northern Hardwood	0	0	0	0	0	0	0	0	0	15	4	0	0	0	0	0	0	0	19
Paper Birch	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Red Pine	0	0	0	0	0	0	18	8	6	10	8	12	0	0	0	0	0	0	62
Tamarack	0	0	0	1	0	0	0	0	0	0	94	0	0	0	0	0	0	0	94
Upland Conifers	0	0	0	0	0	7	0	0	0	8	0	0	0	0	0	0	0	0	15
Upland Spruce/Fir	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Urban	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Water	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
White Pine	0	0	0	0	11	0	0	0	0	0	11	0	0	0	0	0	0	0	22
Total	295	0	8	16	17	98	91	37	40	105	117	317	542	0	0	0	0	0	1681

Cover Type & Treatments Map

Compartment: 45
 T31N, R01W, Sec. 05, 08, 17
 County: Otsego
 Unit: Pigeon River Country
 Mgmt Area: Pigeon River Country
 YOE: 2023
 Acres: 1680.3 GIS Calculated
 Examiner: Greg Rekowski
 Map Revised: 6/17/2021
 Map Phase: Review



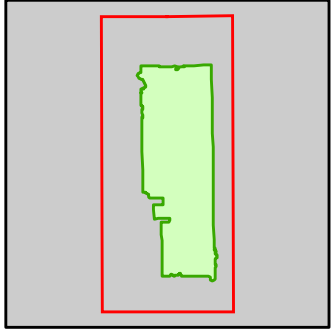
- Miris Corners
- + Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- Private - Dirt / Gravel Road
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Berms
- Gate
- Fishing Access Site
- P Parking Lot
- Pipeline
- Powerline
- Compartment Boundary
- Treatments with Site Conditions
- Other Treatment - See Comments
- Clearcut (w/Reserves)
- Regeneration Survey
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 110 - Low Intensity Urban
- 211 - Cropland
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



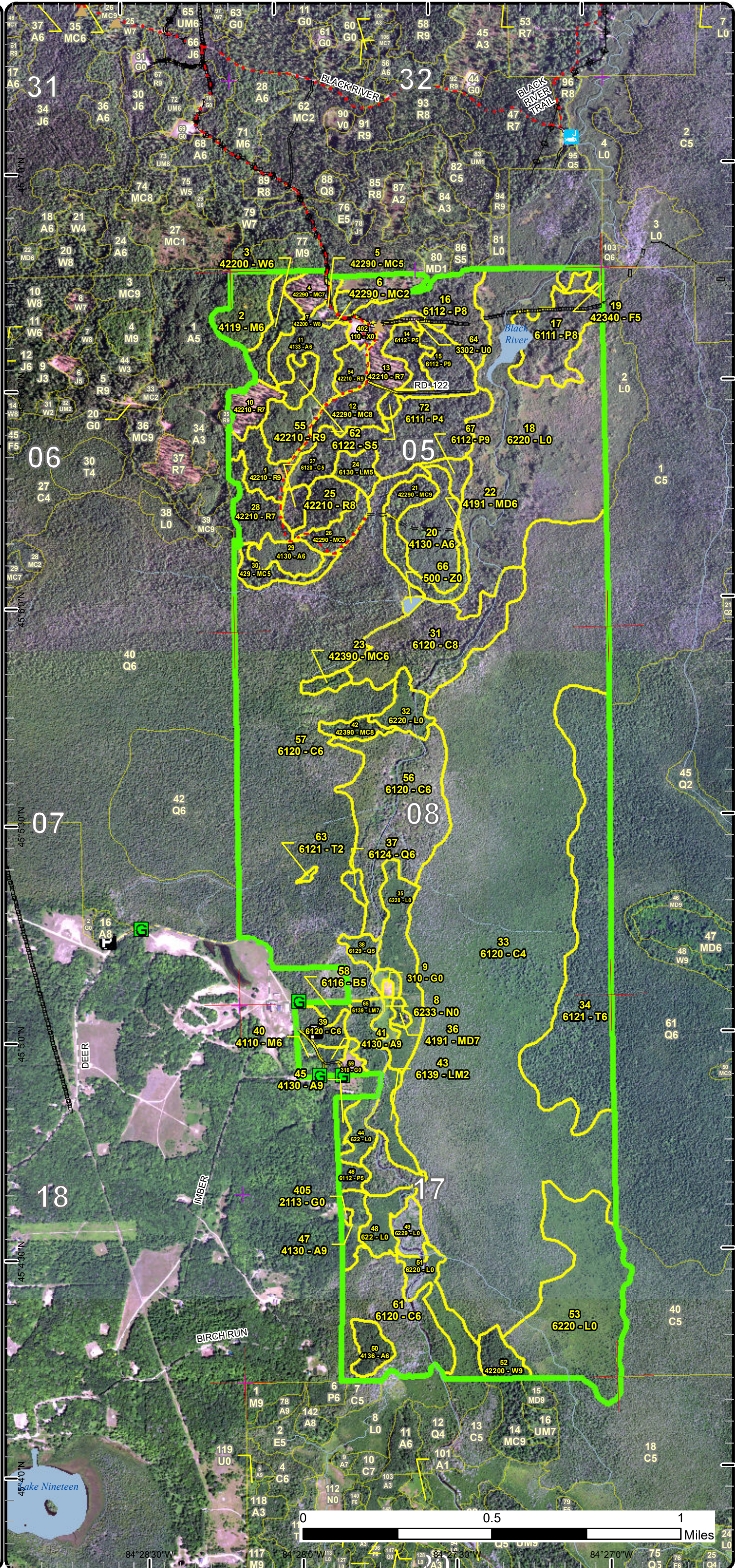
84°28'30"W 84°28'0"W 84°27'30"W 84°27'0"W

Stand Boundary Map

Compartment: 45
 T31N, R01W, Sec. 05, 08, 17
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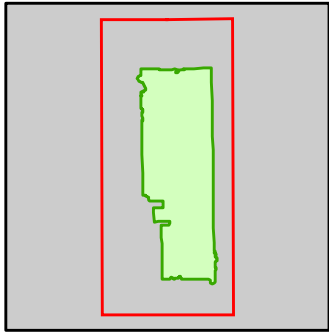


- Miris Corners
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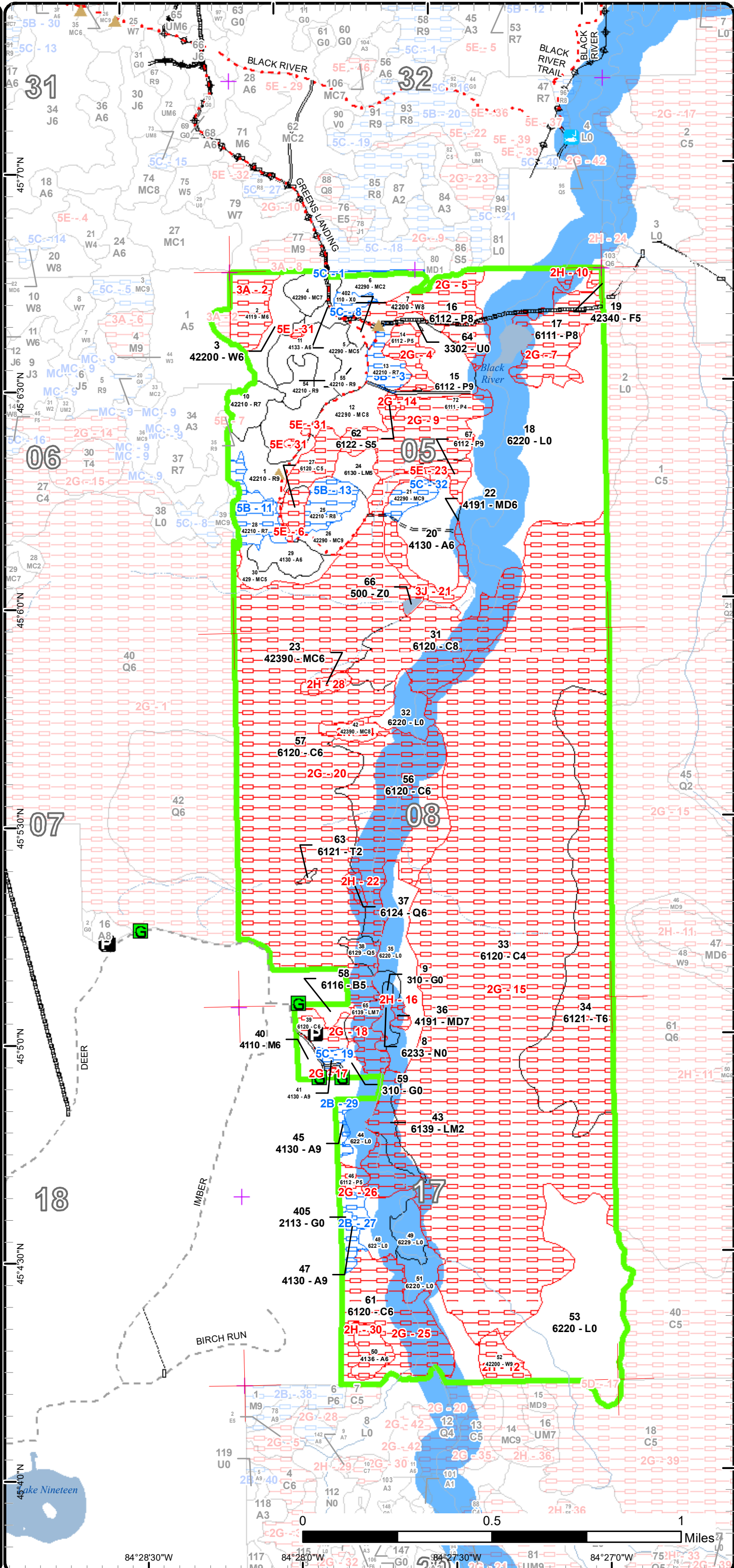


Special Conservation Areas

Compartment: 45
 T31N, R01W, Sec. 05, 08, 17
 County: Otsego
 Unit: Pigeon River Country
 Mgmt Area: Pigeon River Country
 YOE: 2023
 Acres: 1680.3 GIS Calculated
 Examiner: Greg Rekowski
 Map Revised: 6/17/2021
 Map Phase: Review



- Miris Corners
 - + Remonumented Section Corners
 - Counties
 - DNR - Secondary Forest Road
 - DNR - Forest Access Route
 - County - Gravel Road
 - Private - Dirt / Gravel Road
 - Intermittent Stream
 - Lake/Pond
 - Perennial River
 - Lakes and Rivers
 - Berms
 - Gate
 - Fishing Access Site
 - Parking Lot
 - Pipeline
 - Powerline
 - Compartment Boundary
 - Available w/ Constraints
 - Unavailable
- 5B: Maintain for regeneration purposes
 5C: Delay treatment for age/size class diversity or exceptional site quality
 2G: Too wet (sensitive soils, does not include access issues)
 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
 3A: Conservation Values incompatible with harvest at this time
 3J: Water quality / BMPs (stream, river, or lake)
 5E: Long-Term Retention
- Stand Boundaries
 - Cold Water Streams
 - Cold Water Lakes
 - High Priority Trout Stream Buffer





Report 2 – Treatment Summary

Acres of Harvest

Commercial Harvest - 75
 Harvests with Site Condition - 0
 Next Step Harvest - 0
 Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	57	0	0	0	0	0	0	0	0	57
Lowland Aspen/Balsam Poplar	10	0	0	0	0	0	0	0	0	10
Red Pine	8	0	0	0	0	0	0	0	0	8
Total	75	0	0	0	0	0	0	0	0	75

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	75	0	0	0	0	25	0	13		113
Next Step	0	8	8	0	0	83	0	0		99
Total	75	8	8	0	0	108	0	13		212



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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Proposed Treatments:

<p>10 53045010-Cut 8.2 42210 - Natural Red Pine Sawtimber Poor 62 1-50 Harvest Clearcut with Retention 4211 - Planted Red Pine Even-Aged No</p> <p><u>Prescription</u> Clearcut. Area retention is the small bubble (stand 35) on the west side. Leave all oak and white pine. Trench and replant to red pine. <u>Specs:</u> Chipping will not be required due to the low BA of overstory pine. Add low stump spec.</p> <p><u>Next Step</u> SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr) <u>Treatments:</u></p> <p><u>Acceptable</u> Fully-stocked stand of planted red pine. <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>
<p>11 53045011-Cut 27.2 4133 - Aspen, Mixed Pine Poletimber Well 46 81-110 Harvest Clearcut with Retention 413 - Aspen Even-Aged No</p> <p><u>Prescription</u> Cut all species except for oak. Leave all red or white pine over 18" DBH. Leave scattered small retention pockets around areas dominated by pine, see site conditions layer for preferred areas. Exclude small strips of advanced pine regeneration that are adjacent to Greens Landing Trail. <u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Intermediate) <u>Treatments:</u></p> <p><u>Acceptable</u> Fully-stocked meeting aspen regeneration guidelines with any additional mix of species being acceptable. <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition</u></p> <p><u>Proposed Start Date:</u> 10/1 /2022</p>
<p>16 53045016-NF 5.8 6112 - Lowland Aspen Sawtimber Medium 67 51-80 NonForestMgt Other - Specify 6112 - Lowland Aspen Even-Aged No</p> <p><u>Prescription</u> This stand may be suitable for a Wildlife Habitat Grant project. Hand-fell all aspen and balsam poplar. Shear all alder. This site is too wet for any large mechanical equipment. <u>Specs:</u></p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> <u>Regen:</u></p> <p><u>Other</u> <u>Comment:</u></p> <p><u>Site Condition</u> Too Wet</p> <p><u>Proposed Start Date:</u> 5 /12/2021</p>



Standard

Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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20	53045020-Cut	20.6	4130 - Aspen	Poletimber Well	47	81-110	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No
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Prescription Clearcut. Place retention at the far north end where the ground becomes wetter (already excluded in site conditions layer). Cut all species except for any incidental red pine. Leave all spruce over 12" DBH.

Specs: Follow the existing treatment boundary. Do not extend into surrounding stands as they are being left as buffers near streams and the Black River.

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable Regen: Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.

Other Comment: Use the field at the east edge as a landing.

The road getting into this stand needs work in the lowland portion where the stream and culvert are located. This may not be able to withstand the weight of logging truck traffic when the ground is not frozen. Look at requiring a winter harvest to freeze in this portion of the road if it has not been fixed by the time of sale prep.

Site Condition

Proposed Start Date: 10/1 /2022

29	53045029-Cut	8.8	4130 - Aspen	Poletimber Well	46	141-170	Harvest	Clearcut	413 - Aspen	Even-Aged	No
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Prescription Clearcut with no area retention due to the small size of the stand. Cut all species except for any pine over 18" DBH.

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable Regen: Fully-stocked stand dominated by aspen with any additional mix of species being acceptable.

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2022

67	53045067-NF	4.0	6112 - Lowland Aspen	Sawtimber Well	56	51-80	NonForestMgt	Other - Specify	6112 - Lowland Aspen	Even-Aged	No
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Prescription Potential stand for Wildlife Habitat Grant. Hand-fell all aspen and balsam poplar, shear all alder. This ground is not suitable for machinery.

Specs:
Next Step
Treatments:

Acceptable Regen:

Other Comment:

Site Condition Too Wet

Proposed Start Date: 5 /12/2021



Standard

Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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72	53045072-NF	2.7	6111 - Lowland Balsam Poplar	Poletimber Poor	52	51-80	NonForestMgt	Other - Specify	6112 - Lowland Aspen	Even-Aged	No
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Prescription This stand may be suitable for Wildlife Habitat Grant funding. Shear all trees and shrubs with machinery if soils appear capable of withstanding equipment. Otherwise, hand-fell trees and shear the alder.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Site Condition Too Wet

Proposed Start Date: 5/12/2021

Approved Treatments:

4	53045004-Monitor	6.1	42290 - Natural Mixed Pine	Sawtimber Poor	86	1-50	Monitoring	Natural Regen (Intermediate)	4319 - Mixed Upland Forest	Two-Aged	No
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Prescription Natural regen survey.

Specs:

Next Step
Treatments:

Acceptable Any combination of species will be acceptable when evaluating for successful regeneration.

Regen:

Other Percent to Treat = 100%

Comment:

Site Condition

Proposed Start Date: 10/1/2030

15	53045015-Cut	10.0	6112 - Lowland Aspen	Sawtimber Well	47	51-80	Harvest	Clearcut	6112 - Lowland Aspen	Even-Aged	No
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Prescription This stand was previously prepped and then purchased by Precision in the sale Little Gazelle Aspen but no activity took place and they dropped the sale in 2020. Lines will be refreshed and the sale will be put back up for bid. Cut all species except for any oak or elm. Also do not cut any pine or spruce over 20" DBH. No area retention.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Fully-stocked stand of aspen.

Regen:

Other

Comment:

Site Condition

Proposed Start Date: 5/12/2021

25	53045025-Monitor	8.4	42210 - Natural Red Pine	Sawtimber Medium	86	1-50	Monitoring	Natural Regen (Intermediate)	42210 - Natural Red Pine	Two-Aged	No
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Prescription 4 years post TCR

Specs: TCR 05/31/2019

Next Step
Treatments:

Acceptable Red pine that meets stocking guidelines.

Regen:

Other Percent to Treat = 100%

Comment:

Site Condition Shelterwood/Seed Source

Proposed Start Date: 10/1/2022



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
28 53045028-Monitor	10.8	42210 - Natural Red Pine	Sawtimber Poor	108	1-50	Monitoring	Natural Regen (Intermediate)	4319 - Mixed Upland Forest	Two-Aged	No
<p><u>Prescription</u> 4 years post TCR <u>Specs:</u> TCR 05/31/2019</p> <p><u>Next Step</u> <u>Treatments:</u></p> <p><u>Acceptable</u> Any mix of species will be acceptable when evaluating for successful regeneration. <u>Regen:</u></p> <p><u>Other</u> Percent to Treat = 100% <u>Comment:</u></p> <p><u>Site Condition</u> Shelterwood/Seed Source <u>Proposed Start Date:</u> 10/1 /2022</p>										

Total Treatment Acreage Proposed: 112.6

Availability for Management

Total Acres **Acres Avail** Acres
 Acres Available **With Condition** Not Available

Dominant Site Conditions

2B 5B 5C 2G 2H 3A 3J 5D 5E

	Total Acres	Acres Avail	Acres	Dominant Site Condition	2B	5B	5C	2G	2H	3A	3J	5D	5E
79	57	13	10	Aspen	10		2	0	7				3
885	0	0	885	Cedar				885					
1	1	0	0	Cropland									
3	3	0	0	Herbaceous Openland									
2	2	0	0	Low-Density Trees									
118	14	0	104	Lowland Aspen/Balsam Poplar				104					
6	0	0	6	Lowland Conifers				4	2				
25	6	0	19	Lowland Mixed Forest				19					
273	270	0	3	Lowland Shrub				0				3	
2	0	0	2	Lowland Spruce/Fir				2					
5	5	0	0	Marsh									
12	0	0	12	Mixed Upland Deciduous					2		10		
42	36	6	0	Natural Mixed Pines			6						
19	4	0	15	Northern Hardwood						15			
3	3	0	0	Paper Birch									
62	32	29	1	Red Pine		29							1
94	0	0	94	Tamarack				94					
15	7	0	8	Upland Conifers					8				
3	0	0	3	Upland Spruce/Fir					3				
3	3	0	0	Urban									
1	1	0	0	Water									
22	11	3	8	White Pine			3		8				
1,675	454	51	1,170	Total Forested Acres	10	29	12	1,109	29	15	10	3	4
	27%	3%	70%	Relative Percent									

*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment: 45

Greg Rekowski : Examiner

Year of Entry: 2023

2	Unavailable	3A: Conservation Values incompatible with harvest at this time	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Maintain this as an unmanaged hardwood stand due to its uniqueness in relation to the surrounding landscape.							
3	Available	5B: Maintain for regeneration purposes	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

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Greg Rekowski : Examiner

Year of Entry: 2023

8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	49	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Available	5B: Maintain for regeneration purposes	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
13	Available	5B: Maintain for regeneration purposes	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment: 45

Greg Rekowski : Examiner

Year of Entry: 2023

14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	597	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Seep							
18	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
19	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment: 45

Greg Rekowski : Examiner

Year of Entry: 2023

20	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	344	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Buffer for adjacent streams and the Black River.							
22	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
23	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
24	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
25	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	41	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment: 45

Greg Rekowski : Examiner

Year of Entry: 2023

26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
27	Available	2B: Unknown if access through adjacent landowner(s) is possible	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	2B: Unknown if access through adjacent landowner(s) is possible	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
30	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
31	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Recommended retention areas for stand 11.							

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment: 45

Greg Rekowski : Examiner

Year of Entry: 2023

32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

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
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Comments



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.

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
1	42210 - Natural Red Pine	Sawtimber Well	12.4	52	81-110	N/A	Two-aged pine stand along with a component of younger aspen as well. Large diameter, older red and white pine is more common in the south half of the stand which is also where some scattered clones of small diameter aspen are mixed in. There are also nice patches of advanced white pine regeneration in this area. The north half of the stand has younger and smaller diameter pine, the current age of 52 comes from a 13" red pine. Most of the stand appears to be natural pine except for the north part of the stand that is east of the road which has some distinguishable rows. The portion of the stand east of Greens Landing Trail is on transitional ground with the adjacent lowlands, there are legacy size white pine along this strip of the stand. Average ba/acre from 6 plots = 117 square feet.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Pine	20	Pole/Log/Sap	8	80	White Pine	Medium		Variable	Sapling
Bigtooth Aspen	15	Pole	6	46	Bigtooth Aspen	Medium		>20 feet	Sapling
Red Pine	60	Log/Pole/XLog	12	52	Red Maple	Low		Variable	Sapling
Red Oak	1	Log/XLog	15		Black Cherry	Low		Variable	Tall Shrub
Red Maple	4	Pole	7		Witch Hazel	Low		5 - 10 feet	Tall Shrub
2	4119 - Mixed Northern Hardwoods	Poletimber Well	15.1	84	111-140	N/A	Moderate quality hardwood stand that is heavy to red maple in most places. Quality is best in the southwestern 1/3rd of the stand, with more sugar maple and basswood in this area. Large diameter, supercanopy white pine is mostly at the northern end of the stand. Scattered clumps of suppressed hemlock in the understory. Hemlock saplings are not new ingrowth. A lot of the paper birch has died. Most beech has BBD and there are some areas of beech blowdown in the interior of the stand. Lots of clubmoss at the ground level in some areas. Average ba/acre from 7 plots = 123 square feet. Leave this stand unmanaged due to its unique character in relation to the surrounding landscape.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Ironwood	1	Pole	5		Ironwood	Low		Variable	Sapling
Red Oak	1	Log/XLog	16		Beech	Low		Variable	Sapling
Bigtooth Aspen	1	Log/XLog	16		White Pine	Trace		Variable	Sapling
Paper Birch	3	Log/Pole	11		Hemlock	Trace		>20 feet	Pole
White Pine	7	XLog/Log	20		Hemlock	Trace		>20 feet	Sapling
Hemlock	3	Pole/Log	8						
Beech	8	Pole/Log/XLog	8						
Basswood	8	Log/Pole	11						
Sugar Maple	18	Pole/Log	8						
Red Maple	50	Pole/Log	8	84					
3	42200 - Natural White Pine	Poletimber Well	10.8	37	81-110	N/A	Mostly well-stocked stand dominated by white pine. Previous inventory noted that there was more aspen in the stand initially but it was mostly browsed to death. Most of the red pine looks slightly older and must have been left as residual following the harvest. There are a few scattered residual hardwoods and oak as well. Average ba/acre from 5 plots = 86 square feet.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Ironwood	1	Pole	5		White Pine	Medium		Variable	Sapling
Quaking Aspen	4	Pole	6		Ironwood	Low		Variable	Sapling
Beech	1	Pole/Log	9		Witch Hazel	Medium		5 - 10 feet	Tall Shrub
Sugar Maple	1	Pole	6		Black Cherry	Low		5 - 10 feet	Tall Shrub
Red Oak	8	XLog/Log	19						
Bigtooth Aspen	8	Pole	6						
Red Pine	12	Log/Pole	11						
White Pine	65	Pole/Log	8	37					
4	42290 - Natural Mixed Pine	Sawtimber Poor	6.2	86	1-50	N/A	Stand harvested in the summer of 2016 as part of Raven's Ruin Pine, #53-022-13-01, bought by Precision. A whole-tree harvest took place and there was quite a bit of scarification within the stand. Not much regeneration has shown up yet other than red maple, which is being heavily browsed. Grass and sedge are becoming heavy in some areas. Residual trees are mostly high quality with some large diameter white pine. A few fell over after the harvest. Average ba/acre = 42 square feet. Retain the overstory and see if white pine starts to fill in. Evaluate at next inventory cycle.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	53	Log/XLog	15	86	White Pine	Trace		Variable	Sapling
Red Oak	3	Log/XLog	15		White Pine	Low		< 5 feet	Seeding
White Pine	44	Log/XLog	16		Red Maple	Medium		< 5 feet	Seeding
					Quaking Aspen	Trace		< 5 feet	Seeding
					Common Blackberry	Medium		< 5 feet	Tall Shrub
					Witch Hazel	Low	< 5 feet	Tall Shrub	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
5	42290 - Natural Mixed Pine	Poletimber Medium	3.7	47	51-80	N/A	Small hodgepodge of a stand that is basically the excluded edges of a bunch of stands that were recently cut. A landing was created in the part of the stand west of the road when stand 4 was cut. A small camping area is present at the northeast side of the stand. Average ba/acre from 5 plots = 78 square feet. Doesn't make any sense to manage this stand on its own.																																													
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6	42290 - Natural Mixed Pine	Sapling Medium	7.6	15	Immature	N/A	Not very good regeneration except for the middle part of the stand which has a nice mix of all 3 species of pine. It's look like there used to be quite a bit of bigtooth aspen regen throughout the stand but browse has killed most of it. Old 98DOQ imagery shows the east half of the stand was an A6 while the west half was a J6. A few larger pine were left at the far east end. Trace of black spruce saplings. Gently rolling terrain.																																													
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7	42200 - Natural White Pine	Sawtimber Medium	3.1	98	81-110	N/A	This stand had a species removal in 2005, cutting everything except red and white pine. Nice residual pine with some large diameters. Basal areas are lower at the south end with more regen in this area. Average ba/acre from 3 plots= 93 square feet.																																													
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8	6233 - Wet Meadow	Nonstocked	5.3		Unspecified	No	Opening that was likely created at the same time the lodge for the old hunt club was constructed. Most of the stand is seasonally wet ground except for some areas in the north half. Marsh grass/sedge is abundant throughout.																																													
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9	310 - Herbaceous Openland	Nonstocked	0.8		Unspecified	No	Former site of a lodge for the Rod and Gun Club. This is mostly dry ground. There is quite a bit of knapweed in the stand.																																													
10	42210 - Natural Red Pine	Sawtimber Poor	8.2	62	1-50	N/A	Stand harvested in the summer of 2016 as part of Raven's Ruin Pine, #53-022-13-01, bought by Precision. Whole-tree harvest and a lot of scarification took place during logging operations. Not much regeneration is showing up at this point. A thick grass component is widespread throughout which is likely impeding pine regeneration. Red maple and aspen seedlings are being heavily browsed. Average residual ba/acre = 40 square feet. It's unclear if this stand was originally planted or not as no planting records exist for this section. Current age came from a 13" red pine.																																													
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
11	4133 - Aspen, Mixed Pine	Poletimber Well	28.4	46	81-110	N/A	<p>Aspen stand of varying quality with a large component of red pine mixed in. Best quality and diameter growth is in the south half of the stand, which is predominantly bigtooth aspen. The north half of the stand is much lower aspen quality with a lot of small stems. The pine component is somewhat clumpy as there are scattered areas where it is dominant. The far north end has two small inclusions that used to have a lot of jack pine (see 98DOQ) although a lot of it has died. Scattered open areas with barely any trees and lots of reindeer moss. I'm wondering if this stand burned real hot in a wildfire many years ago which sterilized the soil in these areas. That could possibly explain the poor aspen diameter growth and also explain the large amount of natural pine found throughout this stand and others in the area. Old fire charred stumps are occasionally found throughout the stand. A few patches of nice advanced white pine regeneration can be found throughout as well as some small areas of nice red/white pine regen along the road. Average ba/acre from 13 plots = 104 square feet. With the exception of the bigtooth aspen in the south half, the rest of this stand is clearly better suited for pine.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	2	Pole	7		White Pine	Medium		Variable	Sapling
White Pine	8	Pole/Log	8		Red Pine	Trace		Variable	Sapling
Red Pine	25	Log/Pole/XLog	12		Witch Hazel	Low		5 - 10 feet	Tall Shrub
Red Oak	1	Log/XLog	15		Black Cherry	Low		5 - 10 feet	Tall Shrub
Red Maple	6	Pole	5						
Quaking Aspen	10	Pole	7						
Bigtooth Aspen	48	Pole	8	46					
12	42290 - Natural Mixed Pine	Sawtimber Medium	11.0	58	81-110	N/A		<p>Moderate quality mixed species stand. The red pine in the stand is natural except for a few spots at the far northern end that have a couple of planted rows. A variety of red pine diameters are present, including some large diameter, old trees. Jack pine used to be a larger component of the stand but much of it has died. Some areas that used to be primarily jack pine are now filling in with white pine. The southwest part of the stand adjacent to the road has a nice patch of natural pine regeneration. Black spruce is mostly along the lowland edges. Generally the aspen in the stand is small and poor quality, except for an area at the southwest edge of the stand that is seasonally wet and has larger aspen. The central part of the stand is on an elevated knob with moderately steep slopes on the south side. Most of the oak is located on this knob. Average ba/acre from 8 plots = 89 square feet.</p>	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
Red Oak	2	Log/XLog	15		White Pine	Medium	Variable		Sapling
Black Spruce	6	Pole/Log	8		Red Maple	Trace	Variable		Sapling
Red Maple	5	Pole	6		Black Spruce	Trace	Variable		Sapling
Bigtooth Aspen	6	Pole	6		Red Pine	Trace	Variable		Sapling
Quaking Aspen	10	Pole	6		Jack Pine	Trace	Variable		Sapling
Jack Pine	13	Pole/Log	8		Black Cherry	Low	Variable		Tall Shrub
White Pine	11	Pole/Log/XLog	9						
Red Pine	47	Log/Pole/XLog	12	58					
13	42210 - Natural Red Pine	Sawtimber Poor	7.6	92	1-50	N/A	<p>This stand was harvested in the summer of 2016 as part of Raven's Ruin Pine, #53-022-13-01, bought by Precision. Whole-tree skidding took place and tops were chipped but a lot of leftover slash was dragged back into the sale. Regardless a lot of scarification took place and mixed conifer regeneration is starting to show up. Residual trees are large diameter with an average residual ba/acre of 40 square feet. The southwest part of the stand was excluded from the harvest as BAs were already pretty low in that area. Regen survey results: red pine 280 TPA, jack pine 200 TPA, white pine 20 TPA, black spruce 20 TPA, quaking aspen 40 TPA. Many pine seedlings are still very small at this point and don't meet the 6" minimum size yet. Regeneration is best on skid trails but also showing up in many other areas of the stand. Re-evaluate next entry period, I'm guessing the regeneration will pass mixed conifer stocking standards by that time. Heavy browse noted on red maple stump sprouts. Several jack pine seedlings have also been browsed.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	1	Log	11		Red Pine	Trace		5 - 10 feet	Sapling
Red Oak	1	Log	13		White Pine	Trace		5 - 10 feet	Sapling
White Pine	26	Log/XLog	16		Black Spruce	Trace		5 - 10 feet	Sapling
Red Pine	72	Log/XLog	15	92	Red Pine	Low		< 5 feet	Seeding
					White Pine	Low		< 5 feet	Seeding
					Jack Pine	Low		< 5 feet	Seeding
					Black Spruce	Low		< 5 feet	Seeding
					Red Maple	Low		< 5 feet	Seeding
					Quaking Aspen	Trace	< 5 feet	Seeding	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
14	6112 - Lowland Aspen	Poletimber Medium	8.1	46	1-50	N/A	<p>Poorly-stocked, wet stand. Small areas of upland along the west edge. Most conifers are along this edge as well as the thin finger that extends south. There used to be some black ash in the stand but it is now all dead. Most elm are dead as well except for a few that are hanging on. Trace of red oak and white pine. Average ba/acre from 4 plots = 33 square feet. Average ba/acre from 4 plots = 33 square feet.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
American Elm	1	Log	12		Balsam Poplar	Medium		Variable	Sapling
Black Spruce	1	Pole	6		Red Maple	Low		>20 feet	Sapling
White Spruce	5	Pole/Log	8		White Spruce	Low		Variable	Sapling
Paper Birch	2	Log/Pole	10		Black Spruce	Trace		Variable	Sapling
Black Cherry	5	Pole/Log	8		Tag Alder	High		10 - 20 feet	Tall Shrub
Balsam Poplar	17	Pole/Log	8		Black Cherry	Low		Variable	Tall Shrub
Red Pine	2	Log/XLog	14		Nannyberry	Low		5 - 10 feet	Tall Shrub
Red Maple	7	Pole	6						
Quaking Aspen	60	Pole/Log	8	46					
15	6112 - Lowland Aspen	Sawtimber Well	13.4	47	51-80	N/A		<p>Nice lowland aspen stand. A few small ridges of drier ground are present at the north end of the stand and include a very small inclusion of red pine. The only other areas of drier ground are where the road travels through the stand at the south end. Quite a bit of recent blowdown in the stand, possibly a result of the seed tree harvest that took place to the west. Trace of white pine, red oak, paper birch, and elm in the overstory. Average ba/acre from 8 plots = 78 square feet. This stand was previously prepped and then purchased by Precision in the sale Little Gazelle Aspen but no activity took place and they dropped the sale in 2020. Lines will be refreshed and the sale will be put back up for bid.</p>	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
Balsam Poplar	7	Pole/Log	9		White Spruce	Trace	Variable		Sapling
Red Maple	3	Pole/Log	8		Red Oak	Trace	>20 feet		Sapling
Quaking Aspen	84	Log/Pole	10	47	American Elm	Trace	Variable		Sapling
Black Cherry	1	Pole	6		Tag Alder	Full	10 - 20 feet		Tall Shrub
Red Pine	4	Log/Pole/XLog	12		Nannyberry	Low	5 - 10 feet		Tall Shrub
White Spruce	1	Pole/Log	8						
16	6112 - Lowland Aspen	Sawtimber Medium	23.9	67	51-80	N/A	<p>Moderately stocked lowland poplar stand that is mostly wet except for a few small ridges of drier ground. A wet drainage flows east through the thin western part of the stand before turning into a wetland in the middle of the stand (see imagery). Stocking throughout the stand is patchy, with areas of little to no trees alternating with groves of aspen and BAM. Trace of elm, white pine, black spruce, and white spruce in the overstory, most of these species can be found along the edges. Found a few random red oak saplings on some of the drier ridges. Average ba/acre from 6 plots = 65 square feet. Soft organic soils and wet drainages make harvesting this stand impractical.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density			Avg. Height
Black Cherry	2	Pole	7		Red Maple	Low		Variable	Sapling
Paper Birch	1	Log	12		Balsam Poplar	Trace		Variable	Sapling
Red Maple	6	Log/Pole	12		White Spruce	Trace		Variable	Sapling
Balsam Poplar	30	Pole/Log	8		American Elm	Trace		Variable	Sapling
Quaking Aspen	61	Log/Pole	11	67	Black Ash	Trace		Variable	Sapling
					Nannyberry	Low		5 - 10 feet	Tall Shrub
					Black Cherry	Medium		Variable	Tall Shrub
					Tag Alder	High		10 - 20 feet	Tall Shrub
					Serviceberry (Juneberry)	Trace		Variable	Tall Shrub
17	6111 - Lowland Balsam Poplar	Sawtimber Medium	24.1	73	1-50	N/A		<p>Did not cross the river to see this stand. It is likely a mix of balsam poplar and quaking aspen.</p>	
18	6220 - Alder/willow	Nonstocked	136.7		Unspecified	No		<p>Only visited a few spots along the edge of this stand. It looks like mostly tag alder from imagery along with a few non-forested meadows. The Black River flows through the entire stand.</p>	
19	42340 - Upland Spruce/Fir	Poletimber Medium	2.7	65	51-80	N/A	<p>Did not visit this stand. From imagery it looks like the east and west sides are upland islands, with areas of wetter ground in the thin, central part of the stand. Spruce and fir appear to be the primary species along with some cedar.</p>		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																									
20	4130 - Aspen	Poletimber Well	22.0	47	81-110	N/A	Nice stand of quaking aspen. Well developed shrub layer with trace amounts of hawthorn, serviceberry, and tag alder. White spruce increases in abundance at the far northern end. Trace of black spruce, sugar maple, and black cherry in the overstory. Average ba/acre from 9 plots = 108 square feet. Ground is mostly dry except for the north end which starts to transition to lowland.																																																																									
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21	42290 - Natural Mixed Pine	Sawtimber Well	5.9	104	81-110	N/A	Nice natural red pine stand with some large diameter trees (20"+ DBH). Some scattered areas of lower stocking. Areas of smaller spruce/fir along the west/northwest edge. Trace of cedar. Average ba/acre from 6 plots = 85 square feet. Potential seed-tree treatment dropped at Pre-review due to rarity of unmanaged natural red pine stands. Next entry, observe the success of nearby recent seed tree harvests to see how regeneration responds and if a similar treatment should be prescribed for this stand in the future.																																																																									
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22	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	10.0	82	81-110	N/A	Mixed species stand of moderate quality. Several areas of lower stocking are present, more prevalent on the west side of the stand. A few small inclusions of mixed cedar and hemlock can be found along the western edge. Trace of XL-sized red and white pine and log-sized bigtooth aspen. Average ba/acre from 9 plots = 86 square feet. A small open area can be found at the far northeast corner of the stand.																																																																									
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23	42390 - Mixed Non-Pine Upland Conifers	Poletimber Well	3.2	84	141-170	N/A	Mostly upland stand with some wetter ground along the edges. Younger spruce and fir poletimber is more common at the east and west ends. 2 massive white pine in the stand, one is over 30 inches in DBH. Trace of tamarack and hemlock. Average ba/acre from 4 plots = 120 square feet. An old road runs north/south at the west edge of the stand. Someone hunts at this spot and has cleared the road several hundred feet both ways as shooting lanes. There are also a few shooting lanes that extend east into the stand.																																																																									
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
24	6130 - Fir, Aspen, Maple	Poletimber Medium	6.4	56	51-80	N/A	Moderate quality mixed species stand, although still quite young with a lot of small conifer stems in some places. Tossup between upland or lowland as the ground alternates between seasonally wet areas and areas of drier ground. Not well-stocked in some places. Patches of younger timber in the southwest part of the stand. Trace of elm and red oak in the overstory. Average ba/acre from 5 plots = 68 square feet. This ground appears operable. Apply a treatment when the stand matures.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Paper Birch	1	Pole/Log	8		Balsam Fir	Medium		Variable	Sapling
Black Cherry	1	Pole	8		Black Spruce	Low		Variable	Sapling
Red Pine	1	Log/XLog	15		White Spruce	Low		Variable	Sapling
Tamarack	1	Log	12		White Pine	Low		Variable	Sapling
Quaking Aspen	14	Log/Pole	10		Red Oak	Trace		>20 feet	Sapling
Balsam Fir	20	Pole	6		Red Pine	Trace		Variable	Sapling
White Pine	2	Pole	6		Red Maple	Trace		>20 feet	Sapling
Black Spruce	5	Pole	6		Michigan Holly	Low		5 - 10 feet	Tall Shrub
White Spruce	28	Pole/Log	8	56	Tag Alder	Low		Variable	Tall Shrub
Red Maple	27	Pole/Log	8		Serviceberry (Juneberry)	Low		Variable	Tall Shrub
25	42210 - Natural Red Pine	Sawtimber Medium	9.8	86	1-50	N/A		This stand was cut in the summer of 2018 in the sale Deadline Pine, #53-026-14-01, bought by Precision. Roundwood job and tops were chipped, although a few piles were left at the northern end of the stand. Very little residual damage, a moderate amount of scarification took place but not uniform throughout. Average residual ba/acre = 50 square feet. Some red and white pine seedlings are starting to show up in the stand, the red pine is still very small (<6" tall) at this point. Red maple stump sprouts are being heavily browsed. Give the regeneration more time to establish and evaluate again at next inventory cycle.	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density			Avg. Height
White Spruce	1	Pole/Log	8		White Pine	Low	5 - 10 feet		Sapling
Paper Birch	2	Pole/Log	8		White Pine	Low	< 5 feet		Seeding
White Pine	17	Log/XLog	15		Red Pine	Low	< 5 feet		Seeding
Red Pine	80	Log	15	86	Red Maple	Low	< 5 feet	Seeding	
26	42290 - Natural Mixed Pine	Sawtimber Well	7.8	58	81-110	N/A	Moderate quality mixed pine stand. There appears to be two age classes; younger pine that ranges anywhere from 7-14" DBH, and then an older age class that tends to be much larger, ranging from 15-20" DBH. Current age of 58 came from a 13" DBH red pine. Unsure of the harvest history of this stand but it's possible it had a partial harvest long ago. A variety of sizes of white pine are present, including a couple 20"+ trees along with a few nice patches of white pine regeneration. The central part of the stand sits on an elevated knob and is where most of the oak is located. A small camping spot is located in this area. The rest of the stand slopes gradually down to the east and south from this knob. Trace of black spruce, white spruce, and jack pine. Average ba/acre from 6 plots = 107 square feet.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Paper Birch	2	Pole/Log	8		White Pine	Medium		Variable	Sapling
Bigtooth Aspen	11	Pole/Log	8		Black Spruce	Trace		Variable	Sapling
Quaking Aspen	2	Pole/Log	8		White Spruce	Trace		Variable	Sapling
Balsam Fir	3	Pole	6		Red Pine	Trace		Variable	Sapling
Red Maple	11	Pole	7		Balsam Fir	Low		Variable	Sapling
Red Oak	3	Log/XLog	14	91	Witch Hazel	Low		10 - 20 feet	Tall Shrub
White Pine	21	Log/Pole/XLog	11						
Red Pine	47	Log/Pole/XLog	13	58					
27	6120 - Lowland Cedar	Poletimber Medium	4.1	106	51-80	N/A	Mostly a low quality, poorly-stocked stand with quite a bit of blowdown in the middle. Some areas of better quality and stocking along the east and west edges. There used to be a significant component of black ash in the stand but it is now all dead and fallen over. Trace of quaking aspen. Average ba/acre from 3 plots = 70 square feet. Wet stand, no management possible.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Balsam Poplar	1	Log	11		Balsam Fir	Medium		Variable	Sapling
White Pine	1	Log/XLog	16		Red Maple	Trace		>20 feet	Sapling
Red Maple	10	Pole/Log	8		White Spruce	Trace		Variable	Sapling
Paper Birch	4	Pole/Log	8		Tag Alder	Medium		10 - 20 feet	Tall Shrub
White Spruce	8	Pole/Log	8						
Balsam Fir	5	Pole	6						
Black Spruce	2	Pole	7						
Northern White Cedar	69	Pole/Log	9	106					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
28	42210 - Natural Red Pine	Sawtimber Poor	12.4	108	1-50	N/A	This stand was cut in the spring of 2018, but wasn't chipped until a year later in the sale Deadline Pine, #53-026-14-01, bought by Precision. Very little residual damage and a moderate amount of scarification took place but not uniform throughout. Aspen regen is showing up in the south half of the stand, browse impacts are not too bad at this point. Red maple stump sprouts are being heavily browsed. Not much new pine regeneration has seeded in yet. A few small patches of advanced pine regeneration were left during the harvest. Average residual ba/acre = 35 square feet. The residual is natural pine, retain indefinitely. The portion of the stand east of the road and adjacent to the swamp was left as retention.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	1	Log	13		Bigtooth Aspen	Medium		< 5 feet	Seeding
White Pine	25	Log/XLog	16		Bigtooth Aspen	Low		5 - 10 feet	Sapling
Red Pine	74	Log/XLog	15	108	White Pine	Low		Variable	Sapling
					Red Pine	Trace		Variable	Sapling
					White Pine	Low		< 5 feet	Seeding
					Red Maple	Low	< 5 feet	Seeding	
29	4130 - Aspen	Poletimber Well	8.8	46	141-170	N/A	Nice aspen stand with diameters that tend to vary, with some larger sawlog stems (10-11") around the edges of the stand. A couple of large red and white pine are scattered throughout (20"+ DBH). Trace of ironwood and white spruce. Average ba/acre from 7 plots = 161 square feet. Gently rolling terrain.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Balsam Fir	4	Pole	7		Balsam Fir	Medium		Variable	Sapling
White Pine	6	Log/Pole/XLog	13		White Pine	Low		Variable	Sapling
Red Pine	5	Log/XLog/Pole	14		Red Maple	Medium		< 5 feet	Sapling
Red Maple	5	Pole/Log	8		Black Cherry	Low		5 - 10 feet	Tall Shrub
Quaking Aspen	3	Pole/Log	9						
Bigtooth Aspen	77	Pole	8	46					
30	429 - Mixed Upland Conifers	Poletimber Medium	6.8	46	51-80	N/A	Mixed species stand that is not very well-stocked. No sale records exist but it looks like this stand had a partial harvest, likely at the same time the aspen stand to the north was cut. White pine, spruce, and fir comprise most of the younger age class, while red maple and large diameter red and white pine make up the older age class. A few of the white pine are very large (30"+ DBH). Trace of quaking aspen. Average ba/acre from 7 plots = 59 square feet. A small stream borders the southern edge of the stand, just inside the northern edge of the swamp conifer stand (#57).		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Northern White Cedar	1	Log/Pole	11		Balsam Fir	Medium		Variable	Sapling
Bigtooth Aspen	3	Pole/Log	8		Black Spruce	Low		Variable	Sapling
Paper Birch	2	Pole/Log	9		White Pine	Low		Variable	Sapling
Red Maple	28	Pole/Log	9	78					
Black Spruce	10	Pole	7						
Balsam Fir	15	Pole	6						
Red Pine	6	Log/XLog	15						
White Pine	35	Pole/Log/XLog	8	46					
31	6120 - Lowland Cedar	Sawtimber Medium	44.3	84	111-140	N/A	Generally high quality cedar however there is a ton of older blowdown, which makes it very difficult to get through this stand. The west side is still largely intact but the remainder of the stand is a blowdown mess. Mostly barren understory except for a few patches of black ash, most of which are being held below 2 feet tall due to browse. Black ash also used to be a component of the overstory but it is all dead. Heavy deer use throughout. Average ba/acre from 11 plots = 112 square feet. A large stream flows east through the northern edge of the stand. Did not visit the part of the stand east of the river. It looks from imagery like there may be some spruce mixed in on that side.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Balsam Poplar	3	Log	14		Balsam Fir	Trace		Variable	Sapling
Balsam Fir	5	Pole	7		Black Ash	Medium		< 5 feet	Seeding
Paper Birch	2	Pole/Log	8		Tag Alder	Low		Variable	Tall Shrub
Red Maple	5	Log/Pole	10		Black Ash	Low		Variable	Sapling
Northern White Cedar	84	Log/Pole	10	84					
Basswood	1	Log/XLog	14						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments									
32	6220 - Alder/willow	Nonstocked	9.2	0	Unspecified	No	Sparsely-stocked conifers with a full coverage of alder throughout. The northern end has a small clump of balsam poplar. Cedar is mostly near the river. This stand is lowland but many areas of the stand are not too wet.									
								Sub-Canopy Species	Density	Avg. Height	Size					
								White Spruce	Trace	>20 feet	Log					
								Balsam Fir	Low	>20 feet	Pole					
								Balsam Fir	Trace	>20 feet	Log					
								Balsam Fir	Low	Variable	Sapling					
								Balsam Poplar	Low	Variable	Sapling					
								Balsam Poplar	Low	>20 feet	Pole					
								Northern White Cedar	Low	>20 feet	Log					
								Tamarack	Trace	>20 feet	Log					
Black Spruce	Trace	>20 feet	Pole													
33	6120 - Lowland Cedar	Poletimber Poor	494.1	119	1-50	N/A	The majority of this stand is very wet, poorly-stocked, and very difficult to get through due to the thick lowland shrub layer. The cedar is small and stunted with many stems in decline, and a lot has blown over throughout the years. Trace of elm, white spruce, BAM, and quaking aspen. Average ba/acre from 14 plots = 39 square feet. Did not look at much of this stand other than when passing through to get to and from stand 34. No reason to visit this stand again for many years.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Paper Birch	1	Pole	5		Balsam Fir	Low	Variable	Sapling
								Red Maple	1	Pole	6		Black Spruce	Trace	Variable	Sapling
								Tamarack	4	Pole/Log	8		Black Ash	Trace	Variable	Sapling
								Black Spruce	20	Pole	6		Paper Birch	Trace	>20 feet	Sapling
								Balsam Fir	9	Pole/Sapling	5		Michigan Holly	Low	5 - 10 feet	Tall Shrub
								Northern White Cedar	65	Pole/Sapling	6	119	Red Osier Dogwood	Medium	< 5 feet	Tall Shrub
													Tag Alder	Full	10 - 20 feet	Tall Shrub
													Willow spp.	Low	Variable	Tall Shrub
34	6121 - Tamarack	Poletimber Well	93.7	90	81-110	N/A	Moderate quality tamarack stand. Most of the tamarack is healthy. Wet, hummocky ground throughout. Stocking varies somewhat with some areas that are not as well-stocked as others. Average ba/acre from 8 plots = 101 square feet. Elk sign in areas. Did not visit the northern 1/3rd of the stand.									
								Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
								Tamarack	69	Pole/Log	9	90	Balsam Fir	Low	Variable	Sapling
								Black Spruce	8	Pole	6		Black Spruce	Trace	Variable	Sapling
								Balsam Fir	2	Pole	5		Paper Birch	Trace	>20 feet	Sapling
								Northern White Cedar	20	Pole	7		Tag Alder	High	Variable	Tall Shrub
White Pine	1	Log	15													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
35	6220 - Alder/willow	Nonstocked	22.7		Unspecified	No	Thick alder stand that is not overly wet in all areas. The north half in particular has some areas of drier ground. The south half of the stand looks like it has several drainages passing through (visible from imagery). Scattered clumps of trees, mostly along the east edge of the stand. Cedar is mostly along the west side of the stand in the north half, adjacent to the Black River. A few very old roads are evident from imagery. One travels north through the northern half of the stand, the other goes east/west through the central part of the stand. Both are now mostly filled in with alder.	
		Sub-Canopy Species		Density	Avg. Height	Size		
		Northern White Cedar		Low	>20 feet	Log		
		Balsam Fir		Low	>20 feet	Pole		
		Balsam Fir		Low	Variable	Sapling		
		Black Spruce		Trace	>20 feet	Pole		
		Tamarack		Trace	>20 feet	Pole		
		Black Spruce		Trace	Variable	Sapling		
		Tamarack		Trace	Variable	Sapling		
		Black Ash		Trace	Variable	Sapling		
		Black Cherry		Low	>20 feet	Pole		
		Black Cherry		Low	Variable	Tall Shrub		
		Tag Alder		Full	10 - 20 feet	Tall Shrub		
36	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Poor	1.7	84	1-50	N/A	Poorly-stocked mixed species stand. The northern 1/3rd of the stand is lowland while the remainder of the stand is upland. There are a couple of alive ash poletimber stems in the north half and I think they are green ash. Average ba/acre from 3 plots = 27 square feet.	
		Canopy Species		% Cover	Size Class	DBH		Age
		Green Ash		1	Pole	6		
		Black Cherry		3	Pole	5		
		Quaking Aspen		18	Log/Pole	12		
		Balsam Fir		21	Pole/Log	8		
		White Spruce		13	Log/Pole	12		
		Red Maple		14	Pole/Log	8		
		Sub-Canopy Species		Density	Avg. Height	Size		
		Balsam Fir		Low	Variable	Sapling		
		White Spruce		Trace	Variable	Sapling		
		Red Maple		Trace	Variable	Sapling		
		Black Cherry		Medium	Variable	Tall Shrub		
		Tag Alder		Medium	10 - 20 feet	Tall Shrub		
37	6124 - Lowland Spruce-Fir	Poletimber Well	2.0	28	51-80	N/A	Old cedar cut that regenerated to mixed conifers. No cedar regeneration present. A few residual cedar are scattered throughout. Average ba/acre from 3 plots = 80 square feet.	
		Canopy Species		% Cover	Size Class	DBH		Age
		Balsam Poplar		2	Sapling/Pole	4		
		Paper Birch		3	Sapling/Pole	3		
		Northern White Cedar		10	Pole/Log	8		
		Tamarack		25	Pole/Sapling	5		
		Black Spruce		14	Pole/Sapling	5		
		Balsam Fir		46	Sapling/Pole	4		28
		Sub-Canopy Species		Density	Avg. Height	Size		
		Tag Alder		Low	Variable	Tall Shrub		
		Balsam Fir		Low	5 - 10 feet	Sapling		
38	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	4.0	28	1-50	N/A	Old cedar cut, no cedar regeneration evident. Very wet stand. A small stream flows east through the southern end of the stand. Several other wet areas that appear to be drainages are also present. Nice paper birch component in some places. Trace of elm saplings.	
		Canopy Species		% Cover	Size Class	DBH		Age
		Balsam Poplar		2	Sapling/Pole	4		
		Paper Birch		17	Sapling/Pole	4		
		Balsam Fir		40	Sapling/Pole	4		
		Tamarack		41	Pole/Sapling	5		28
		Sub-Canopy Species		Density	Avg. Height	Size		
		Tag Alder		High	10 - 20 feet	Tall Shrub		
		Balsam Fir		Medium	5 - 10 feet	Sapling		
		Balsam Poplar		Low	5 - 10 feet	Sapling		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
39	6120 - Lowland Cedar	Poletimber Well	6.9	119	141-170	N/A	Moderate quality cedar stand with some variability in species composition along the south edge. Lots of blowdown in the east half of the stand, enough that you can't walk through it. Most cedar that is standing is healthy. Dense stocking in the west/northwest part of the stand without much understory development. Southern edge transitions to upland with some aspen/birch/red maple mixed in. A few seeps are present along this transitional zone and seem to drain east through the stand. Average ba/acre from 7 plots = 154 square feet. Operability questionable throughout most of the stand.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Balsam Poplar		1	Log/Pole	11		Balsam Fir		Low	Variable	Sapling	
Quaking Aspen		12	Log/XLog	15		Black Ash		Low	Variable	Sapling	
Paper Birch		5	Pole/Log	8		Black Spruce		Trace	Variable	Sapling	
Black Spruce		9	Pole	7		Tag Alder		Medium	10 - 20 feet	Tall Shrub	
Red Maple		2	Log/Pole	11							
Balsam Fir		12	Pole	7							
Northern White Cedar		59	Pole/Log	8	119						
40	4110 - Sugar Maple Association	Poletimber Well	4.0	91	81-110	N/A		Moderate quality hardwood stand. The north half has lower BAs and more aspen mixed in. The south half has better quality and higher BAs. Trace of red maple and BAM. Average ba/acre from 3 plots = 95 square feet. A large pit is present in the middle of the stand with some old concrete remnants in places. Not sure of the history of this location and whether there used to be a structure here or if it is just an old borrow pit?			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Ironwood		4	Pole	6		Ironwood			Medium	Variable	Sapling
Quaking Aspen		2	Log	13		Beech			Low	Variable	Sapling
Bigtooth Aspen		9	Log	14		Leatherwood			Low	< 5 feet	Tall Shrub
Paper Birch		4	Pole/Log	9							
Basswood		13	Log/Pole	14							
Sugar Maple		68	Pole/Log	8	91						
41	4130 - Aspen	Sawtimber Well	2.7	51	81-110	N/A	Small aspen stand that has a component of larger, older trees mixed in. The bigtooth component is mostly in a clone in the middle of the stand. The north end transitions to more red maple and birch, with some large diameter quaking aspen mixed in. The ground becomes wetter at the north end. Ash is mostly at this northern end as well and there are some poletimber stems that appear alive. A small seep and drainage is present at the south end. Average ba/acre from 4 plots = 98 square feet. No sale records available for this stand but this was obviously cut at one time. Stand age came from a 12" aspen.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Ash		1	Pole	5		Ironwood		Medium	Variable	Sapling	
Sugar Maple		2	Pole/Log	8		White Ash		Medium	Variable	Sapling	
Red Maple		12	Log/Pole	12		Beech		Low	Variable	Sapling	
Paper Birch		10	Pole/Log	9							
Bigtooth Aspen		25	Log/Pole	12							
Quaking Aspen		50	Log/Pole/XLog	12	51						
42	42390 - Mixed Non-Pine Upland Conifers	Sawtimber Medium	4.9	84	81-110	N/A	Mostly an upland stand with some wetter ground along the edges. Some areas of lower stocking in the middle of the stand. More red maple in the east half of the stand, more fir and spruce poletimber in the west half. Average ba/acre from 5 plots = 98 square feet. Someone makes the effort to deer hunt in this stand as there is a chair at the northeast end.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Quaking Aspen		1	Log	12		Balsam Fir		Low	Variable	Sapling	
Balsam Poplar		2	Pole/Log	9		White Spruce		Trace	Variable	Sapling	
Paper Birch		3	Pole/Log	9		Tag Alder		Low	Variable	Tall Shrub	
White Spruce		1	Log/XLog	14		Black Cherry		Trace	Variable	Tall Shrub	
Black Spruce		3	Pole	7		Red Maple		Trace	Variable	Sapling	
Balsam Fir		21	Pole	7							
Black Cherry		1	Pole	6							
Red Maple		20	Log/Pole	13							
Northern White Cedar		48	Log/Pole	10	84						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
43	6139 - Mixed Lowland Forest	Sapling Medium	9.2	20	1-50	N/A	Thick black ash regeneration in many places with a sparse amount of larger cedar and fir mixed in throughout. Ash regeneration is most abundant in the north half of the stand. The south half of the stand has a thick alder component and fewer black ash saplings. The larger overstory trees tend to be in clumps, with cedar more common closer to the river. Recent beaver activity in many areas. Trace of elm and tamarack. Average ba/acre of the larger overstory trees = 20 square feet. Did not visit the southern 1/4 of the stand.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Paper Birch		2	Pole/Log	8		Tag Alder		
Red Maple		2	Pole/Log	8		Nannyberry		
Black Spruce		2	Pole	7		Density		
Balsam Fir		29	Pole/Sap/Log	5		Avg. Height		
Northern White Cedar		15	Log/Pole	11	119	Size		
Black Ash		50	Sapling	2	20			
44	622 - Lowland Shrub	Nonstocked	7.0		Unspecified	No	Alder mixed w/conifer and some deciduous. Observed from western boundary, appeared very similar to Stand 48 to south. Black River along portions of east boundary.	
Sub-Canopy Species		Density	Avg. Height	Size				
Tag Alder		High	10 - 20 feet	Tall Shrub				
Balsam Fir		Medium	10 - 20 feet	Sapling				
Black Willow		Low	>20 feet	Log				
Quaking Aspen		Low	10 - 20 feet	Sapling				
Balsam Fir		Medium	>20 feet	Pole				
45	4130 - Aspen	Sawtimber Well	3.4	70	51-80	N/A	OPIC - FMD: STAND WAS CUT WHILE UNDER PRIVATE OWNERSHIP. JSP '21: QA w/limited components of northern hardwood and some conifer. Overall lower stocking/density. East boundary borders transitional/lower ground. BA swings= 70,50,60 (60avg)	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Quaking Aspen		80	Log/Pole	12	70	Black Ash		
Bigtooth Aspen		6	Log/Pole	13		Red Maple		
Red Maple		4	Log/XLog/Pole	12		Ironwood		
Balsam Fir		4	Pole	7		Beech		
White Ash		4	Log/Pole	10		Black Cherry		
Sugar Maple		2	Pole/Log	9		White Spruce		
						Density		
						Avg. Height		
						Size		
46	6112 - Lowland Aspen	Poletimber Medium	3.3	35	81-110	N/A	McDonald '11: Stand Year Origin was 1986 JSP '21: Primarily QA/BAM mixed w/conifer. A lot of alder/blcash in the sub-canopy. Some areas were quite wet, then areas dry that still have alder in sub-canopy. Old grown-over forest rd in this stand, travels south into Stand 47. BA swings= 100,70 (85avg)	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Quaking Aspen		65	Pole/Log/Sap	7	35	Balsam Fir		
White Spruce		4	Log/XLog	15		Black Ash		
Northern White Cedar		5	Log/Pole	11		Red Oak		
Balsam Poplar		10	Pole/Sapling	6		Balsam Poplar		
Black Spruce		4	Pole	7		Red Maple		
Paper Birch		8	Pole/Sapling	7		Tag Alder		
Balsam Fir		4	Pole/Sapling	7		Density		
						Avg. Height		
						Size		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																										
47	4130 - Aspen	Sawtimber Well	6.7	70	81-110	N/A	McDonald '11: Year Origin was 1930 JSP '21: Aspen mixing with a limited amount of other deciduous/conifer. More/less a log sized stand, diameters taper/decrease in east, as the boundary approaches low ground. Small clump of L/P NWC in NW and small component of xlog/log RM present. The few white ash in the canopy were still alive (dead logs on adjacent PVT). Intermittent/seasonal seep with flowing water present near center of stand, just south of Stand 405 (OFS point taken). BA swings= 110,110,130,70 (105avg)																																																																										
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48	622 - Lowland Shrub	Nonstocked	9.5		Unspecified	No	Alder mixed w/conifer and some deciduous. Observed from southern and western edge. Very obvious beaver activity, new and old. Wet/mucky soils.																																																																										
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49	6229 - Mixed lowland shrub	Nonstocked	6.6		Unspecified	No	Unable to visit during the day spent in this area. Previous examiner typed it as a 'swamp'. Black River travels through the stand. Imagery show mortality and lowland shrub.																																																																										
50	4136 - Aspen, Mixed Conifer	Poletimber Well	7.1	47	81-110	N/A	McDonald '11: Stand Year Origin was 1974 JSP '21: A6 (Q6 in areas) in transition to A9. Saturated ground in areas, pools/ponded water observed. Sub-canopy BF component generally consistent, is 'high' in areas. Clumps of NWC/some spruce present, appear to of been 'skipped' during harvest/habitat cut. Fairly obvious browse line present. BA swings= 110,120,50,120 (100avg)																																																																										
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51	6220 - Alder/willow	Nonstocked	16.4	0	Unspecified	No	Only looked at the edge. Imagery shows a sparse canopy of conifers with a dense alder component.																																																																										
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
52	42200 - Natural White Pine	Sawtimber Well	7.8	91	141-170	N/A	High quality white pine stand that is part of a larger upland island with adjacent stands to the south. The east half of the stand has areas of very high white pine stocking with a minimal understory. The spruce/fir component picks up in abundance in the west half of the stand. Hardwoods, as well as some cedar and hemlock, are more prevalent at the south end. A lot of the hemlock has been killed by porcupines. Average ba/acre from 7 plots = 159 square feet. An active goshawk nest is in the northern part of the stand.	
Canopy Species		% Cover	Size Class	DBH	Age			
Hemlock		1	Pole/Log	8				
Northern White Cedar		2	Pole/Log	8				
Paper Birch		2	Pole/Log	8				
Balsam Fir		4	Pole/Log	8				
Black Spruce		10	Pole/Sap/Log	7				
Red Maple		16	Log/Pole	11				
White Pine		65	Log/XLog	14	91			
53	6220 - Alder/willow	Nonstocked	70.4	0	Unspecified	No	Only looked at the edge. Imagery shows only a sparse coverage of trees which are likely spruce, fir, and cedar. A stream flows through the southwestern portion of the stand.	
Sub-Canopy Species		Density	Avg. Height	Size				
Black Spruce		Low	Variable	Sapling				
Black Spruce		Low	>20 feet	Pole				
Balsam Fir		Trace	Variable	Sapling				
Balsam Fir		Trace	>20 feet	Pole				
Northern White Cedar		Trace	>20 feet	Pole				
Tag Alder		Full	5 - 10 feet	Tall Shrub				
54	42210 - Natural Red Pine	Sawtimber Well	6.1	52	111-140	N/A	This appears to be a natural red pine stand as rows are mostly non-existent and planting records don't exist for this section. A variety of red pine sizes are present and it looks like there are two age classes present including a much larger, older set of trees that range anywhere from 15-20" DBH. Stocking is somewhat sporadic as there are some areas of lower stocking, more so in the south half of the stand. Jack pine is mostly along the road edge, although a lot of it has died. Middle part of the stand is on an elevated knob with slopes running down to the north, east, and south. Average ba/acre from 6 plots = 112 square feet. Potential seed-tree treatment dropped at Pre-review due to rarity of unmanaged natural red pine stands. Next entry, observe the success of nearby recent seed tree harvests to see how regeneration responds and if a similar treatment should be prescribed for this stand in the future.	
Canopy Species		% Cover	Size Class	DBH	Age			
Bigtooth Aspen		8	Pole	7				
Quaking Aspen		5	Pole	7				
Jack Pine		7	Pole	7				
White Pine		12	Pole/Log	8				
Red Pine		62	Log/Pole/XLog	11	52			
Red Oak		2	Log/XLog	15				
Red Maple		4	Pole	7				
Sub-Canopy Species		Density	Avg. Height	Size				
White Pine		Medium	Variable	Sapling				
55	42210 - Natural Red Pine	Sawtimber Well	5.6	72	111-140	N/A	Small inclusion of red pine. A few areas look like they were planted, but not all. No planting records exist for this section. A variety of red pine diameters are present including some older, larger trees. Current age of 72 came from a 17" red pine. The aspen component is mostly around the edges. The east side of the stand is poorly-stocked with some open areas. There used to be more jack pine in this area but most of it has died. The northeast end of the stand is on an elevated knob. Old, fire charred pine stumps are common throughout. Trace of paper birch. Average ba/acre from 5 plots = 132 square feet. Potential seed-tree treatment dropped at Pre-review due to rarity of unmanaged natural red pine stands. Next entry, observe the success of nearby recent seed tree harvests to see how regeneration responds and if a similar treatment should be prescribed for this stand in the future.	
Canopy Species		% Cover	Size Class	DBH	Age			
Jack Pine		2	Pole	6				
Bigtooth Aspen		11	Pole/Sapling	6	46			
White Pine		9	Pole/Log/XLog	8				
Red Pine		68	Log/Pole/XLog	13	72			
Red Oak		3	Log/XLog	15				
Red Maple		7	Pole	6				
Sub-Canopy Species		Density	Avg. Height	Size				
White Pine		Medium	Variable	Sapling				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
56	6120 - Lowland Cedar	Poletimber Well	61.0	107	171-200	N/A	<p>Only looked at the part of the stand west of the river. The west side is mostly high quality cedar but there is some decline at the north end. Imagery shows that most of the stand east of the river is in decline. Dense stocking with a barren, park-like understory through most of the areas I walked through. Evidence of high deer use and this is likely a deer yard in the winter. Some areas of blowdown close to the rivers edge. Trace of white spruce, paper birch, white pine, and balsam poplar in the overstory. Average ba/acre from 7 plots = 186 square feet. Some cedar cutting took place in the narrow, southern part of the stand many years ago. An old road runs through this narrow area as well, ending at a small opening that is now filled in with mostly alder and fir. Just north of stand 37 along the old road is an abandoned ground blind with some trash scattered around.</p>				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Black Spruce		2	Pole	7		Balsam Fir		Low	Variable	Sapling	
Balsam Fir		8	Pole/Log	8		Tag Alder		Low	Variable	Tall Shrub	
Northern White Cedar		90	Pole/Log	9	107						
57	6120 - Lowland Cedar	Poletimber Well	233.7	107	81-110	N/A	<p>Wet lowland conifer stand. The cedar is generally low quality and small diameter, with the exception of some nice groves at the southern end of the stand. The majority of the cedar is healthy although there are some large areas of decline in the wettest areas of the stand (see IR imagery). Tamarack displays the best growth and quality on this site. Trace of white pine, red maple, white spruce, and balsam poplar. Average ba/acre from 17 plots = 103 square feet. At least two streams pass through the stand, one at the north end and one at the south end, but there are additional small drainages mixed in throughout. Too wet to harvest any portion of this stand.</p>				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Paper Birch		1	Pole/Log	8		Balsam Fir		Medium	Variable	Sapling	
Black Spruce		10	Pole	7		Black Spruce		Low	Variable	Sapling	
Balsam Fir		10	Pole	7		Tag Alder		Medium	Variable	Tall Shrub	
Tamarack		29	Pole/Log	8		Paper Birch		Trace	>20 feet	Sapling	
Northern White Cedar		50	Pole/Log	8	107						
58	6116 - Lowland Birch	Poletimber Medium	2.6	38	51-80	N/A	<p>Old cedar cut that came back moderately well to birch. No cedar regeneration evident. Average ba/acre from 4 plots = 63 square feet. A wet drainage flows west to east along the northern edge of the stand, bordering the south side of the road.</p>				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern White Cedar		1	Log	12		Balsam Fir		Low	Variable	Sapling	
Balsam Fir		16	Pole/Sapling	5		Paper Birch		Low	>20 feet	Sapling	
Red Maple		7	Pole	6		Black Ash		Trace	Variable	Sapling	
Paper Birch		76	Pole/Sapling	6	38	Black Spruce		Trace	Variable	Sapling	
						Willow spp.		Low	>20 feet	Tall Shrub	
						Tag Alder		High	10 - 20 feet	Tall Shrub	
						Wild Red Raspberry		High	< 5 feet	Tall Shrub	
59	310 - Herbaceous Openland	Nonstocked	2.7		Unspecified	No	<p>Grassy opening that has not been managed as a food plot. One apple tree is present in the middle of the stand. Knapweed mixed in throughout. Did not look at the northern bubble of the stand but from imagery it looks like that area may be seasonally wet. A road passes through the west side of the stand, leading to a gate at the private property line.</p>				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																
61	6120 - Lowland Cedar	Poletimber Well	40.7	119	111-140	N/A	McDonald '11: Stand Year Origin was 1902JSP '21: Didn't see all of this stand, did see the area north and west of Stand 50. NWC dominant where I was, with fir mixing in. Some blksprc and PB too. Appeared to be a rather extensive are of standing dead in north. Likely caused by excessively wet conditions. Imagery shows the west 1/2 of stand (where I was) being heavy to cedar. East 1/2 looks broadly mixed with conifer and deciduous. NWC saps listed in sub-can are suppressed stems, same age as canopy stems. BA swings= 160,150,180 (163avg)																																																																
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62	6122 - Black Spruce	Poletimber Medium	1.9	62	51-80	N/A	Small stand of moderate quality black spruce. The north half of the stand is drier ground but transitions to very wet ground in the south half with sphagnum at the ground level. There is a large area of the south half that is poorly-stocked with a thick layer of Michigan holly. Red maple is mostly at the south edge. Average ba/acre from 3 plots = 63 square feet.																																																																
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63	6121 - Tamarack	Sapling Medium	0.5	20	Immature	N/A	Small open area that is filling in with tamarack. A few older cedar are scattered throughout. Unclear if this was cut at some time as cut stumps aren't evident. Wet ground. Pitcher plants are scattered throughout.																																																																
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64	3302 - Low Density Conifer Trees	Nonstocked	1.9		Unspecified	No	Pipeline runs through this stand. Lots of reindeer moss. Filling in with pine.																																																																
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																		
65	6139 - Mixed Lowland Forest	Sawtimber Poor	9.7	86	1-50	N/A	Poor quality and sparsely stocked mixed species stand. Most of the ground is on wet organic soils except for a few areas of drier ground along the G type to the southwest. Conifers are more common in the north half of the stand. A few areas with nice black ash regeneration in the understory. Signs of old beaver activity in a few spots. Average ba/acre from 5 plots = 24 square feet.																																																																		
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66	500 - Water	Nonstocked	1.0		Unspecified	No	Beaver pond																																																																		
67	6112 - Lowland Aspen	Sawtimber Well	4.0	56	51-80	N/A	Lowland poplar stand sitting on wet organic soils. The northeast side of the stand is poorly-stocked. Average ba/acre from 4 plots = 78 square feet. Ground is very soft and not operable.																																																																		
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72	6111 - Lowland Balsam Poplar	Poetimber Poor	41.1	52	51-80	N/A	Wet, poorly-stocked lowland poplar stand. Multiple drainages flow east/northeast through the stand (see imagery). There are a few localized areas of drier ground, mostly along the northern stand edge. Heavy lowland shrub component throughout, mostly alder although there are a few areas heavy to holly and nannyberry. Quaking aspen is more dominant in the northeast part of the stand but less common throughout the rest of the stand. Stocking is generally much higher in the east half of the stand as compared to the west. Black ash regeneration is abundant in areas of the east half, and most appears healthy at this time. Trace of elm, white pine, tamarack, and cedar in the overstory. Average ba/acre from 8 plots = 53 square feet. Did not visit the far eastern or western ends of the stand.																																																																		
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402	110 - Low Intensity Urban	Nonstocked	3.3		Unspecified		Active oil well site with a lot of degraded, sandy ground.																																																																		
405	2113 - Forage Crops	Nonstocked	0.6		Unspecified	No																																																																			