



# Compartment Review Presentation

## Pigeon River Country Forest Management Unit

Compartment 53019

Entry Year 2023

Acreage: 2,048

County Cheboygan

Management Area: Pigeon River Country

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**Revision Date:** 2021-05-24

**Stand Examiner:** John St. Pierre

### Legal Description:

T34N, R01E Sections 19, 20, 29 & 30

### Identified Planning Goals:

To provide for the protection, integrated management, and responsible use of a healthy, productive, and undiminished forest resource base for the social, recreational, environmental, and economic benefit of the State of Michigan.

### Soil and topography:

Terrain is flat to gently rolling, except for a brief high point in section 20 the does feature steep slopes. The compartment offers a mixture of upland and lowland forested and non-forested covertypes. Upland soils are characterized primarily by sands and loamy sands. The highest percentages can be found in Rubicon sands, Au Gres sands, Croswell sands, Blue Lake loamy sands, Emmet loamy sands, and Riggsville loamy sands, respectively. Lowland soils are primarily Tawas peat, Roscommon muck, Bowstring muck, and Kinross mucky sands.

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

Ownership is primarily a contiguous block of state land with some private parcels along the northern boundary. A narrow twenty-acre block with frontage on Tucker Rd was acquired by the State in the early nineties. The examiner was not able to locate a survey corner at the southwest corner of this acquired land.

A portion of this compartment was 'absorbed' into the Gaylord Forest Management Unit (FMU) in late 2020. The 'absorbed' portion totaled about 174 acres, the majority of which is located north of Tucker road. A boundary review of state owned lands concluded this would simplify management responsibilities between the surrounding forest management units (Gaylord, Atlanta and Pigeon River).

### Unique Natural Features:

No unique natural features have been identified.

### Archeological, Historical, and Cultural Features:

No significant archeological, historical, and cultural features have been identified. However, there is an old railroad grade system that travels through sections 20 and 29. The grade likely dates back to the late 1800's - early 1900's, during Michigan's 'Logging Era'.

### Special Management Designations or Considerations:

A 'high priority trout stream' buffer is present along either side of Milligan Creek, in sections 19, 29, and 30. The creek is a tributary of Black River.

### Watershed and Fisheries Considerations:

As mentioned above, Milligan Creek has a 'high priority trout stream' buffer that extends off either side its banks. The creek is a tributary of Black River.

### Wildlife Habitat Considerations:

Please refer to Wildlife Biologist's comments.

### 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 less than three miles to the northwest. There might be some potential for sand & gravel on the upland areas within the compartment, but surface mining is not currently allowed. There has been no oil & gas production, past or present, within five miles of the compartment. There is low potential for oil and gas from known producing formations in this compartment. The Antrim Shale is thin or absent beneath the compartment, and the compartment is north of the Guelph (Niagaran) reef trend). There is no mineral leasing activity in the area, and all parcels within the compartment are currently classified as non-leasable.

### Vehicle Access:

Conventional vehicle access is generally good throughout most of the compartment. Access is interrupted by large and small lowland complexes in sections 19, 29, and 30. The western portions of the compartment are only accessible by forest roads that travel east off Osmun Rd.

Non-county owned forest roads within the compartment are closed to ORV traffic. These roads are posted as being closed, but this has done little to prevent ORV traffic from using the forest road system(s). Some of the carsonite 'Closed to ORV' signs in this compartment have been cut down.

#### **Survey Needs:**

One location near the center of section 20 may require a survey in the future.

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

No developed recreational facilities or trails exist in this compartment and none are needed. However, informal recreational opportunities are available and include snowshoeing, hiking, biking and generally meandering. The compartment does provide a wide range of hunting possibilities depending on the season.

#### **Fire Protection:**

Wildland fire protection for this compartment is provided by Michigan DNR resources from the Indian River and Onawa field offices. Local VFD personnel and equipment are vitally important fire response resources that would provide suppression too. Access could be difficult depending on where the start occurs. Watering points are not readily available in most locations too.

#### **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

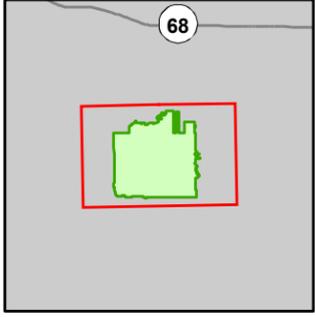


Age Class

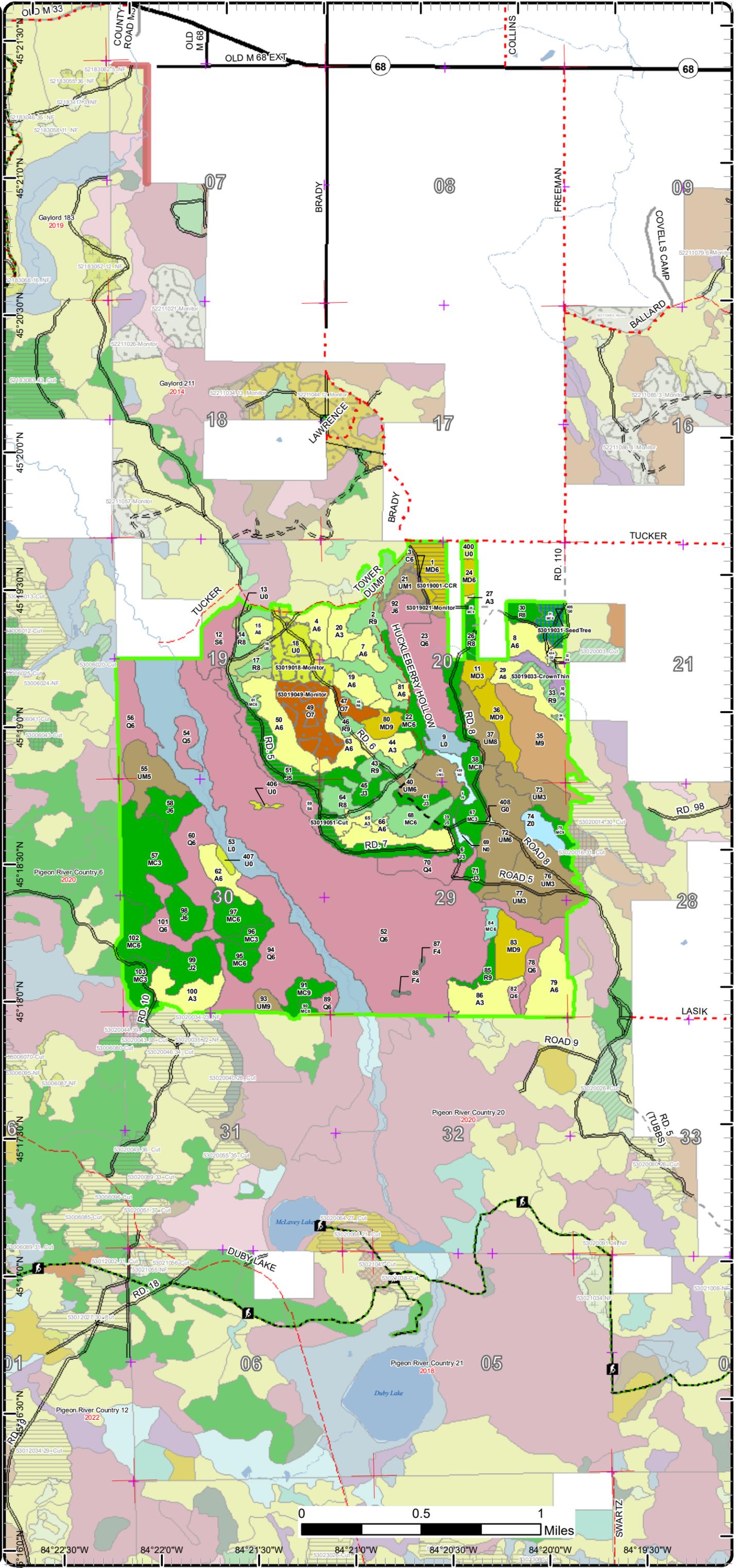
	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	23	0	42	85	42	66	11	0	0	0	0	0	0	0	0	0	0	269
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Herbaceous Openland	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Jack Pine	0	23	0	50	20	62	0	0	0	0	0	0	0	0	0	0	0	0	155
Low-Density Trees	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
Lowland Aspen/Balsam Poplar	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Lowland Conifers	0	0	0	0	0	0	0	20	0	105	0	106	28	377	0	0	0	0	635
Lowland Shrub	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	23	0	15	0	0	0	0	0	0	0	38
Marsh	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Mixed Upland Deciduous	0	0	0	0	9	0	0	0	42	18	9	0	0	6	0	0	0	0	84
Natural Mixed Pines	0	0	0	82	49	0	28	25	2	8	20	3	0	0	0	0	0	0	217
Northern Hardwood	0	0	0	0	0	0	0	0	0	51	0	0	0	0	0	0	0	0	51
Oak	0	0	0	0	0	0	0	0	0	42	0	0	0	0	0	0	0	0	42
Planted Mixed Pines	0	0	0	0	16	0	4	0	0	0	0	0	0	0	0	0	0	0	20
Red Pine	0	0	0	0	0	0	10	95	0	0	7	13	0	0	0	0	0	0	125
Upland Conifers	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
Upland Mixed Forest	0	15	14	71	56	27	0	6	0	18	0	0	0	0	0	0	0	0	206
Upland Shrub	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Upland Spruce/Fir	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Water	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
<b>Total</b>	<b>188</b>	<b>61</b>	<b>14</b>	<b>245</b>	<b>243</b>	<b>131</b>	<b>112</b>	<b>158</b>	<b>67</b>	<b>242</b>	<b>51</b>	<b>122</b>	<b>28</b>	<b>384</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2043</b>

# Overview Map

Compartment: 19  
 T34N,R01E, Sec. 19-21, 28-30  
 County: Cheboygan  
 Unit: Pigeon River Country  
 Mgmt Area: Pigeon River Country  
 YOE: 2023  
 Acres: 2048.3 GIS Calculated  
 Examiner: John St. Pierre  
 Map Revised: 6/17/2021  
 Map Phase: Review

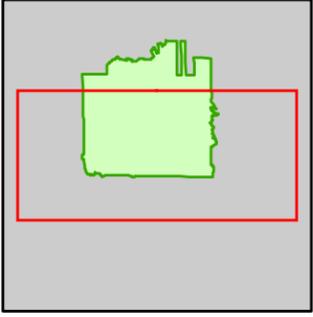


- Miris Corners
- Remonumented Section Corners
- Counties
- DNR - Secondary Forest Road
- DNR - Forest Access Route
- Federal / State - Dirt / Gravel Road
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Intermittent Stream
- Lake/Pond
- Perennial River
- Lakes and Rivers
- Compartment Boundary
- Clearcut (w/Reserves)
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Regeneration Survey
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland

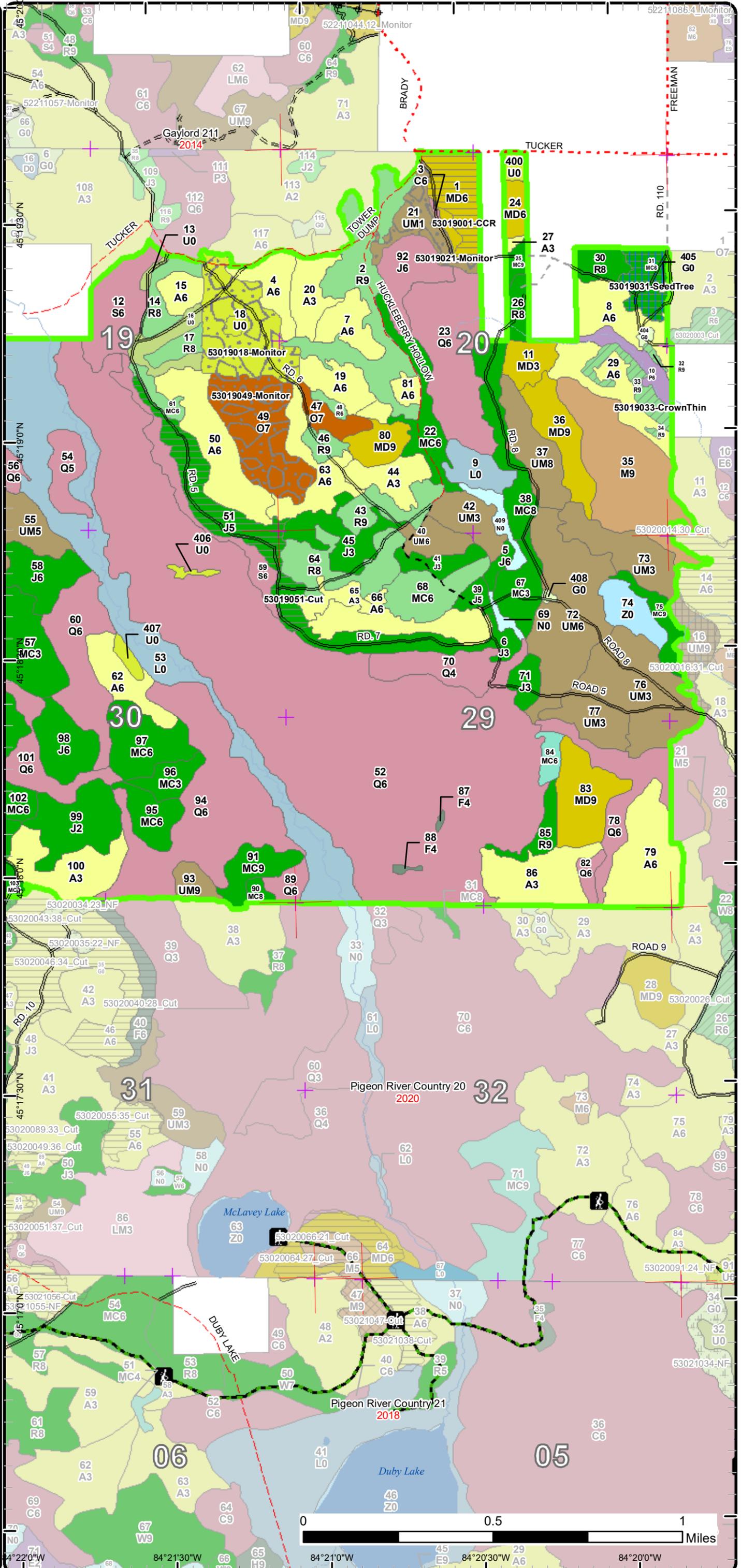


# Cover Type & Treatments Map

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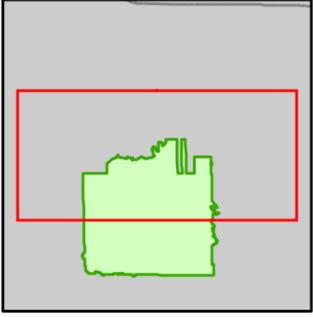
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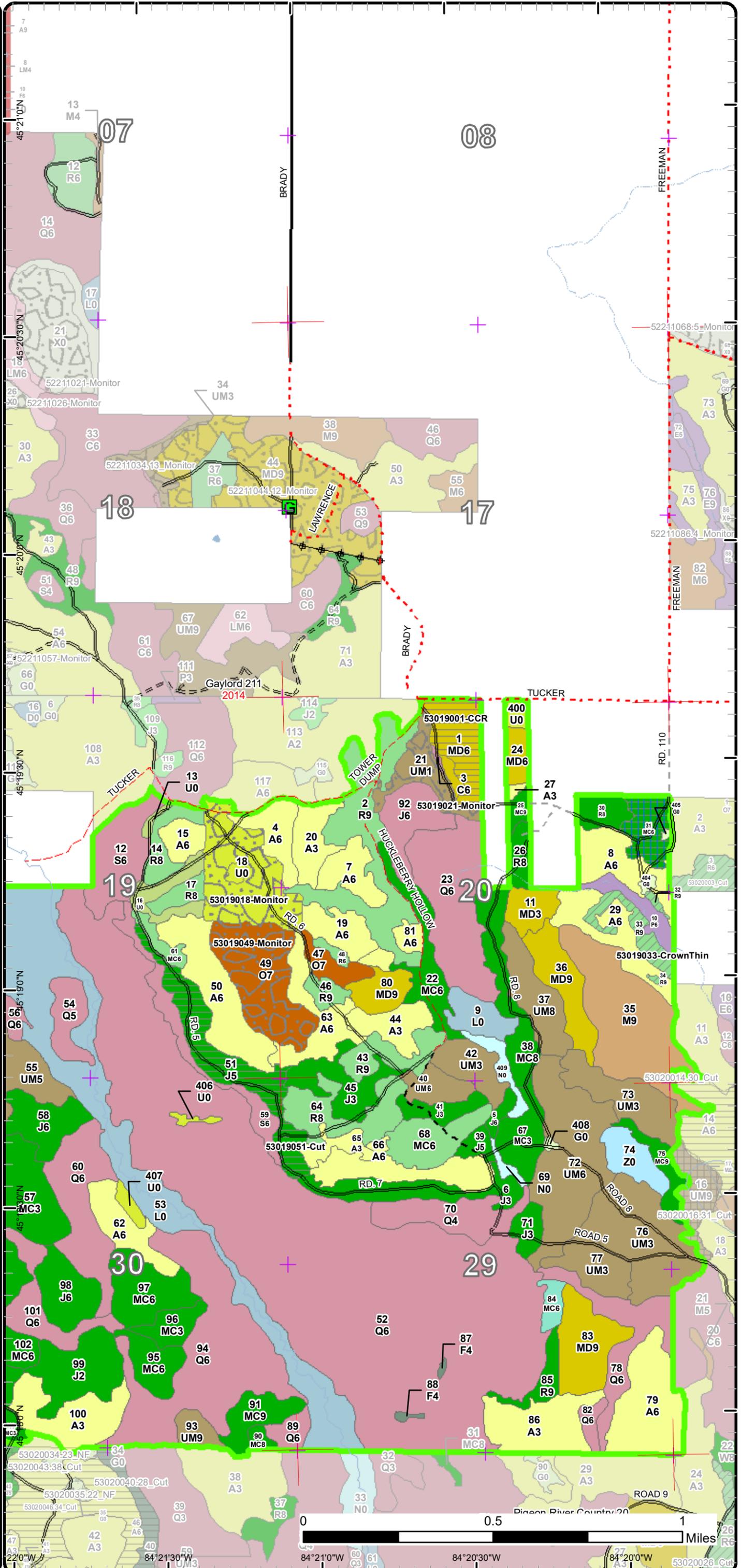
84°21'30"W 84°21'0"W 84°20'30"W 84°20'0"W

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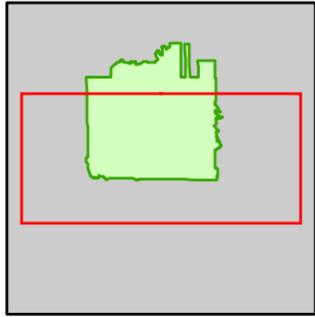


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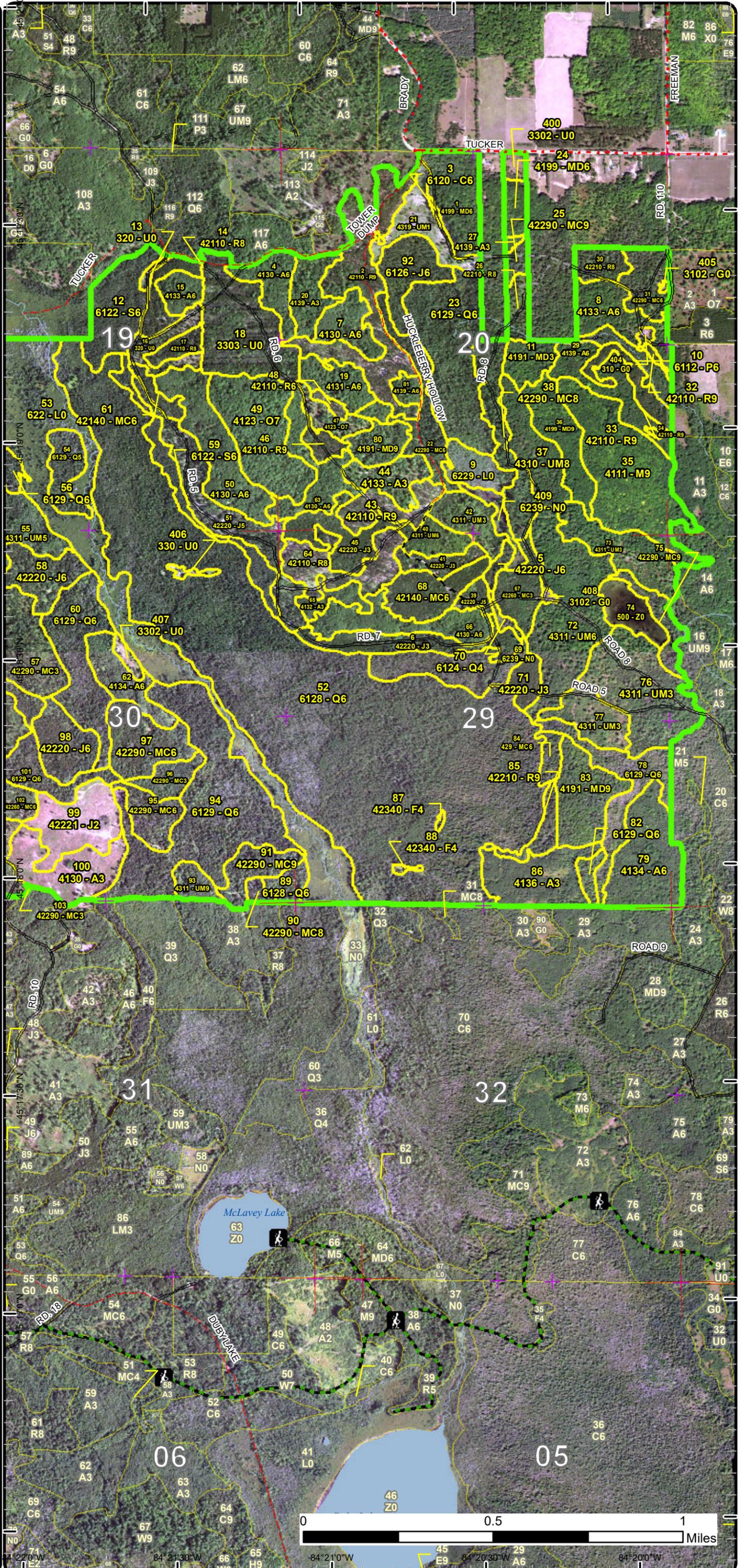


# Stand Boundary Map

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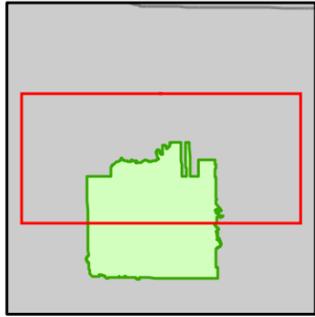


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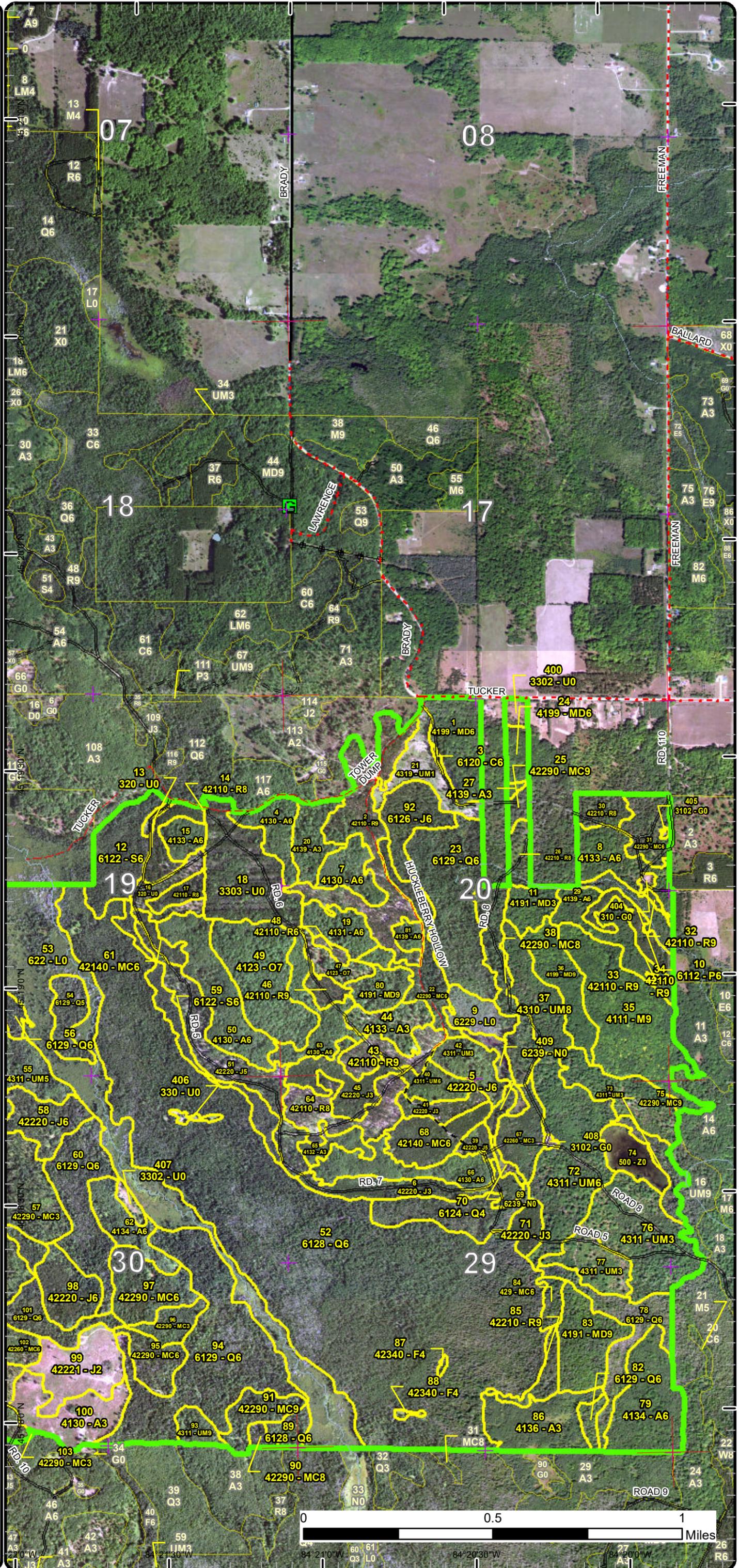


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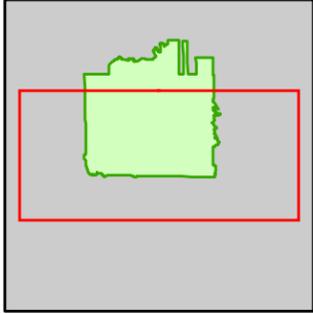


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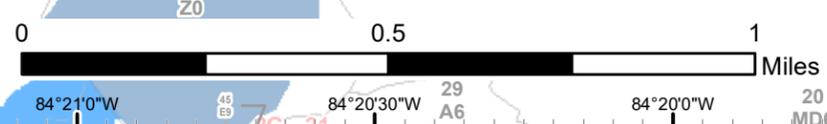
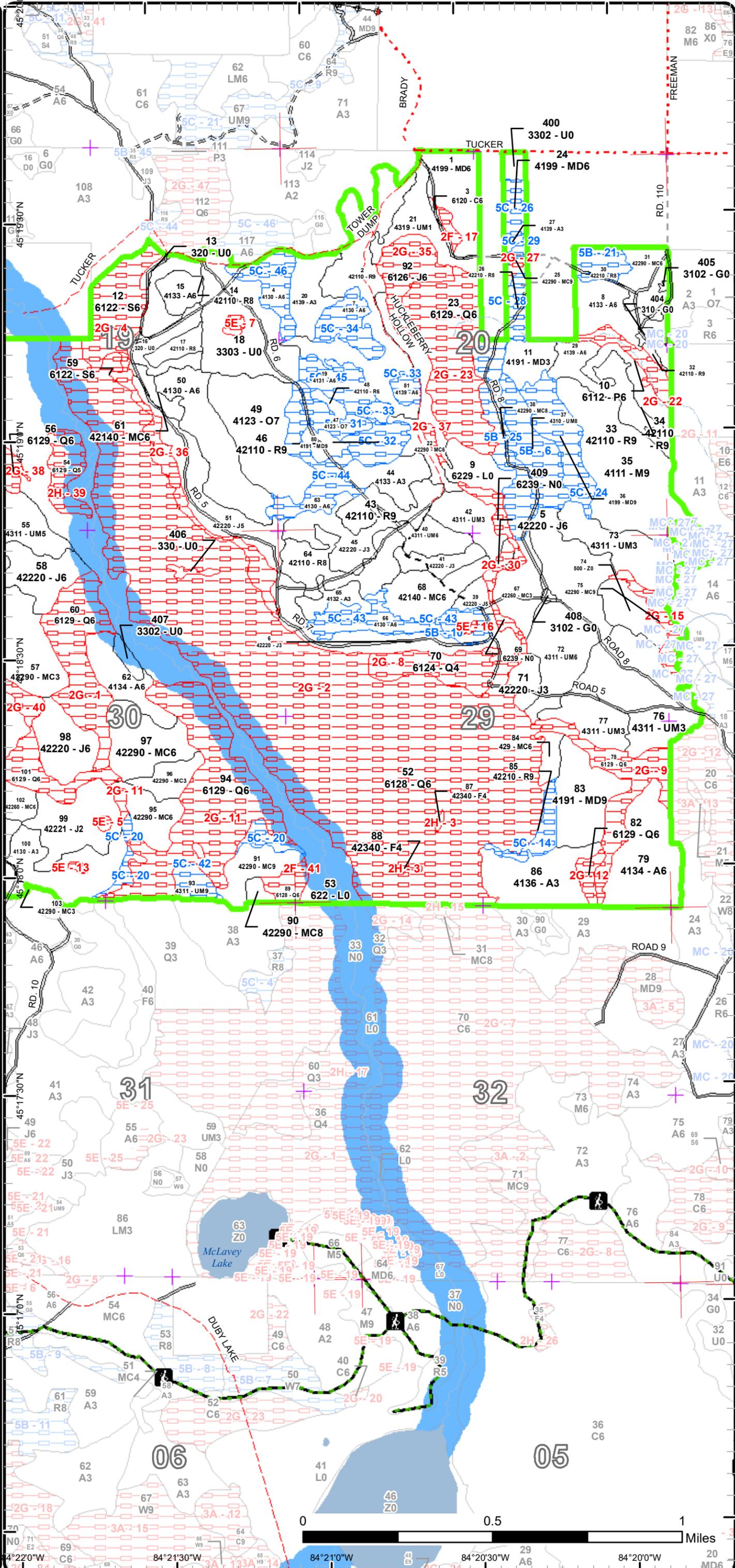


# Special Conservation Areas

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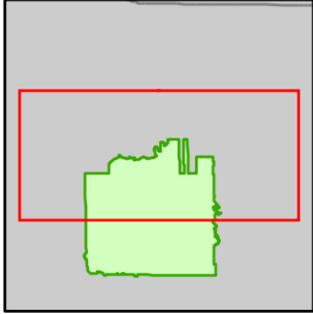


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- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 5E: Long-Term Retention
- Stand Boundaries
- Cold Water Streams
- High Priority Trout Stream Buffer

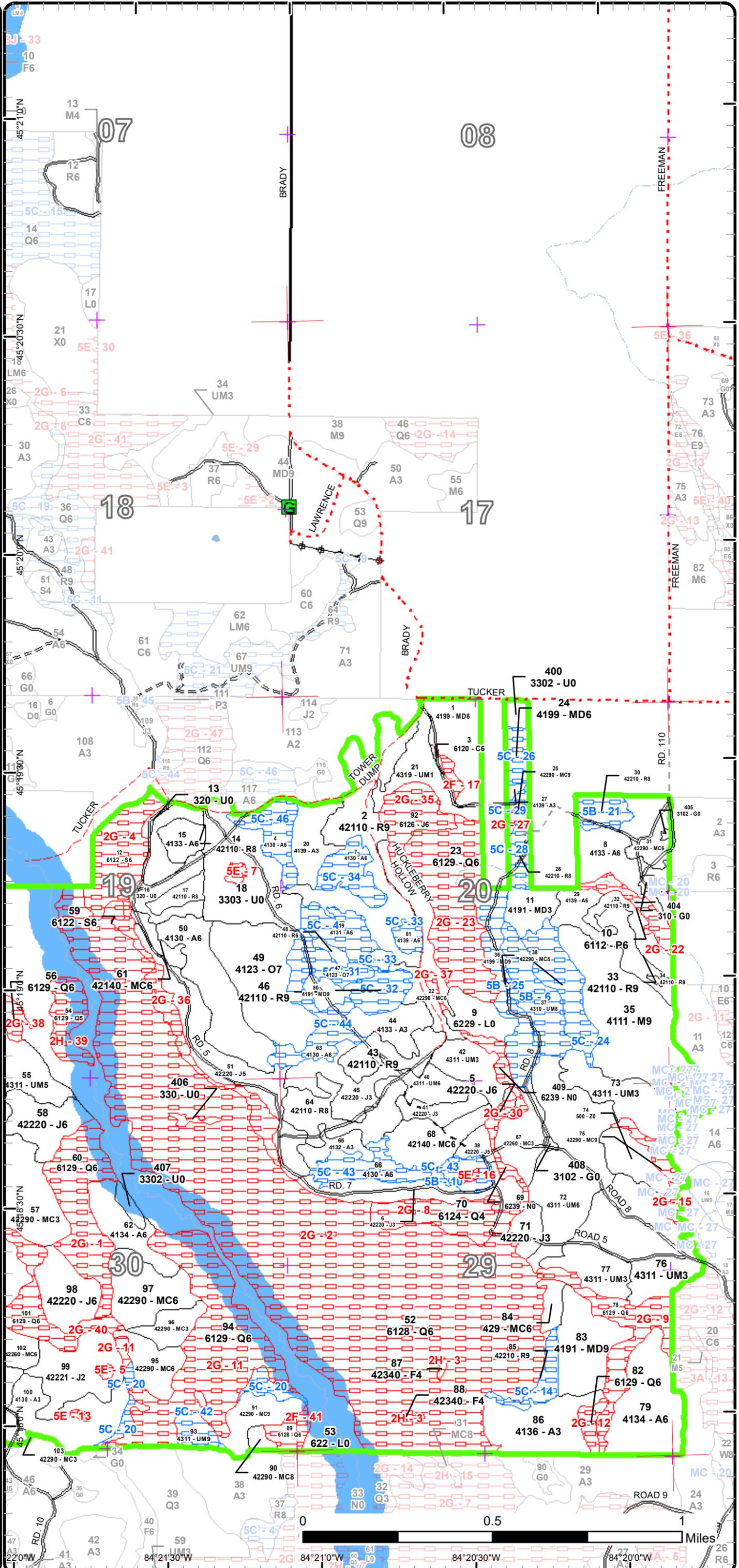


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  - Cold Water Streams
  - High Priority Trout Stream Buffer





## Report 2 – Treatment Summary

### Acres of Harvest

Commercial Harvest - 71  
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
Jack Pine	30	0	0	0	0	0	0	0	0	30
Mixed Upland Deciduous	18	0	0	0	0	0	0	0	0	18
Natural Mixed Pines	0	0	0	13	0	0	0	0	0	13
Red Pine	0	0	0	0	0	10	0	0	0	10
<b>Total</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71</b>

### Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	71	0	0	0	0	0	86	0	0	157
Next Step	0	0	0	0	0	0	61	0	0	61
<b>Total</b>	<b>71</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>147</b>	<b>0</b>	<b>0</b>	<b>218</b>



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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:**

<b>1</b>	<b>53019001-CCR</b>	17.7	4199 - Other Mixed Upland Deciduous	Poletimber Well	70	81-110	Harvest	Clearcut with Retention	4139 - Aspen, Mixed Deciduous	Even-Aged	No
<p><u>Prescription</u> Clearcut w/Retention.  <u>Specs:</u> - 'Too steep' excluded in southwest. Do not run redline right up to the steepest portions of this slope. Sandy soils are still healing from erosion caused by a previous RDR.                      - Capture some red oak within one or more retention areas                      - Leave incidental white oak. Leave red/white pine 18" and greater.                      - Protect legacy pine/oak. Observed one legacy white/red pine. Several red oak nearing 26".                      - Protect oak and pine saplings                      - Include drumming log spec</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)  <u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Moderate or better stocking of aspen with components of red maple, oak, pine, fir and spruce.  <u>Other Comment:</u> Survey corners located on east boundary. Still requires running a flag line through lowland, then hilly terrain. Consider reserving the Arrow antenna for this line.</p> <p><u>Site Condition</u>  <u>Proposed Start Date:</u> 10/1 /2022</p>											
<b>18</b>	<b>53019018-Monitor</b>	35.7	3303 - Mixed Low Density Trees	Nonstocked	0	Unspecified	Monitoring	Natural Regen (Re-Inventory)	42290 - Natural Mixed Pine	Even-Aged	No
<p><u>Prescription</u> Natural regeneration survey to be conducted during re-inventory in 2031.  <u>Specs:</u></p> <p><u>Next Step</u>  <u>Treatments:</u></p> <p><u>Acceptable Regen:</u> 2011 regen comment: A mix of pine and hardwood species meeting a moderate stocking level will be acceptable in determining regeneration success.  <u>Other Comment:</u> Final harvest completed in 2017. See stand comments for initial regeneration assessment, conducted in April '21. Closed/failed original survey, re-assess during re-inventory in '31.</p> <p><u>Site Condition</u>  <u>Proposed Start Date:</u> 10/1 /2030</p>											
<b>21</b>	<b>53019021-Monitor</b>	15.1	4319 - Mixed Upland Forest	Sapling Poor	3	Immature	Monitoring	Natural Regen (Re-Inventory)	42221 - Natural Jack Pine, Mixed Deciduous	Even-Aged	No
<p><u>Prescription</u> Natural regeneration survey to be conducted during re-inventory in 2031.  <u>Specs:</u></p> <p><u>Next Step</u>  <u>Treatments:</u></p> <p><u>Acceptable Regen:</u> 2011 regen comment: Jack Pine is the objective, but any mix of species will be acceptable for regeneration success. Leave about 10-20 BA of residual for seed source.  <u>Other Comment:</u> Final harvest completed in 2018. See stand comments for initial regeneration assessment, conducted in April '21. Closed/failed original survey, re-assess during re-inventory in '31.</p> <p><u>Site Condition</u>  <u>Proposed Start Date:</u> 10/1 /2030</p>											



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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
<b>31 53019031-SeedTree</b>	12.7	42290 - Natural Mixed Pine	Poletimber Well	69	51-80	Harvest	Seed Tree	4311 - Pine, Aspen Mix	Two-Aged	No
<p><u>Prescription</u> Seed Tree, leave 10-20BA.  <u>Specs:</u> - Leave scattered and/or clumps of healthy red, white, jack pine and some red oak as a seed source                      - Protect oak seed trees from damage by leaving a few non-oak 'bumper trees' around the crown/bole of selected oak. Negates needing to use oak wilt specs.                      - Require whole tree skidding during snow-off/ground not frozen conditions                      - Leave incidental hemlock                      - Use drumming log spec</p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)  <u>Treatments:</u></p> <p><u>Acceptable Regen:</u> Moderate or better stocking mixture of jack, white, red pine, aspen, red maple and oak. Pine species will likely take longer to regenerate. An additional survey may be required after initial regen check in '31.  <u>Other</u> - Require producer to spread out their skidding routes, to promote uniform scarification.  <u>Comment:</u> - Survey corners located along north boundary.</p> <p><u>Site Condition</u>  <u>Proposed Start Date:</u> 10/1 /2022</p>										
<b>32 53019032-CrownThin</b>	0.9	42110 - Planted Red Pine	Sawtimber Well	55	171-200	Harvest	Crown Thinning	42110 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Crown Thin, target 120BA.  <u>Specs:</u> - Focus marking defect prone red pine stems                      - Avoid marking the few log/xlog red oak, most are located along the boundary</p> <p><u>Next Step</u>  <u>Treatments:</u></p> <p><u>Acceptable Regen:</u>  <u>Other</u>  <u>Comment:</u></p> <p><u>Site Condition</u>  <u>Proposed Start Date:</u> 10/1 /2022</p>										
<b>33 53019033-CrownThin</b>	9.1	42110 - Planted Red Pine	Sawtimber Well	55	141-170	Harvest	Crown Thinning	42110 - Planted Red Pine	Even-Aged	No
<p><u>Prescription</u> Crown Thin, target 120BA.  <u>Specs:</u> - Focus marking defect prone red pine stems                      - Avoid marking the few xlog red oak and do not mark any of the legacy red oak that are present. Most of these stems are located along the boundary.                      - Protect legacy oak in specs                      - Walk through areas present</p> <p><u>Next Step</u>  <u>Treatments:</u></p> <p><u>Acceptable Regen:</u>  <u>Other</u> A seasonal drainage is located just north of sale area (Stand 10). It may be possible to use composite mats, or similar equipment, to cross  <u>Comment:</u> the drainage and haul wood a much shorter distance north, to Tucker Rd. Other haul route options are available.</p> <p><u>Site Condition</u>  <u>Proposed Start Date:</u> 10/1 /2022</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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<b>34</b>	<b>53019034-CrownThin</b>	0.4	42110 - Planted Red Pine	Sawtimber Well	55	201+	Harvest	Crown Thinning	42110 - Planted Red Pine	Even-Aged	No
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Prescription Crown Thin, target 120BA.  
Specs: - Focus marking defect prone red pine stems  
 - Small dense stand that's never been thinned. Some mature aspen stems will need to be marked to facilitate equipment mobility.

Next Step  
Treatments:

Acceptable Regen:

Other Comment: See Stand 33's comments regarding hauling options.

Site Condition

Proposed Start Date: 10/1 /2022

<b>49</b>	<b>53019049-Monitor</b>	35.1	4123 - Red Oak	Sawtimber Poor	87	1-50	Monitoring	Natural Regen (Re-Inventory)	4122 - Oak, Pine	Two-Aged	No
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Prescription Natural regeneration survey to be conducted during re-inventory in 2031.  
Specs:

Next Step  
Treatments:

Acceptable Regen: 2011 regen comment: A mix of Aspen, Oak and Red Maple.

Other Comment: Selection harvest completed in 2019. See stand comments for initial regeneration assessment, conducted in April '21. Closed/failed original survey, re-assess during re-inventory in '31.

Site Condition

Proposed Start Date: 10/1 /2030

<b>51</b>	<b>53019051-Cut</b>	30.3	42220 - Natural Jack Pine	Poletimber Medium	46	51-80	Harvest	Clearcut	4222 - Natural Jack Pine	Even-Aged	No
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Prescription Clearcut. No area retention. Leave a few scattered clumps of jack pine for a seed source. Leave incidental red pine and oak. Protect all jack pine and black spruce advanced regeneration (less than 2" DBH). Expand the treatment boundary west into stand 59 (S6 stand) where there are areas of operational ground.

Next Step Monitoring, Natural Regen (Re-Inventory)  
Treatments:

Acceptable Regen: Fully-stocked stand meeting jack pine regeneration guidelines.

Other Comment: Require chipping of tops in the summer or fall to encourage natural regeneration. Get the loggers to spread out their skidding routes to promote uniform scarification.

Site Condition

Proposed Start Date: 10/1 /2022

**Total Treatment** 157  
**Acreage Proposed:**

## Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment: 19

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Year of Entry: 2023

### Availability for Management

Total Acres	Acres Available	Acres Avail With Condition		Acres Not Available		Dominant Site Conditions							
						5B	5C	MC	2F	2G	2H	5E	
270	191	<b>77</b>		1	Aspen	1	76						1
1	1	<b>0</b>		0	Cedar								
2	2	<b>0</b>		0	Herbaceous Openland								
155	136	<b>0</b>		19	Jack Pine					18			1
44	42	<b>0</b>		2	Low-Density Trees		0			0			2
8	0	<b>0</b>		8	Lowland Aspen/Balsam Poplar					8			
636	1	<b>8</b>		628	Lowland Conifers		8		5	611	11		
113	113	<b>0</b>		0	Lowland Shrub								
38	0	<b>0</b>		38	Lowland Spruce/Fir					38			
7	0	<b>0</b>		7	Marsh					7			
84	49	<b>33</b>		2	Mixed Upland Deciduous		33		2				
218	185	<b>22</b>		11	Natural Mixed Pines	20	1			11			
51	51	<b>0</b>		0	Northern Hardwood								
42	35	<b>7</b>		0	Oak		7						
21	21	<b>0</b>		0	Planted Mixed Pines								
125	105	<b>20</b>		0	Red Pine	7	13						
4	4	<b>0</b>		0	Upland Conifers								
207	183	<b>25</b>		0	Upland Mixed Forest	18	6	1					
11	11	<b>0</b>		0	Upland Shrub								
1	0	<b>0</b>		1	Upland Spruce/Fir						1		
11	11	<b>0</b>		0	Water								
2,048	1,139	<b>192</b>		718	Total Forested Acres	<b>47</b>	<b>144</b>	1	7	694	12		4
	56%	<b>9%</b>		35%	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	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	31	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
Overall 'too wet'. Perimeter locations heavier to spruce might be 'opportunistically' available for harvest when adjacent stands are treated in the future.							

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2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	377	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
3	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	23	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
5	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
6	Available	5B: Maintain for regeneration purposes	18	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Fairly desirable/diverse sub-canopy of conifer and deciduous. Allow regeneration to recruit further towards mid-canopy positions.							
7	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Added this 5E S.C. during '20 inventory delineation. Wasn't previously overtop the island left in middle of the harvest area. JSP							

**Report 4 – Site Conditions**

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8	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	20	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
9	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	23	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Intermittent stream flowing west to east through northern portion of this stand. Southern area was very wet during visit in '21.							
10	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Area of jack pine and aspen saplings. Exclude from adjacent harvest and merge into another stand.							
11	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	66	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Overall 'too wet'. Some perimeter locations could 'opportunistically' be harvested when adjacent upland stands are treated (S.C. 5C-20 approximates a couple of those areas). Seasonal watercourses and flooded areas in perimeter areas too (some appear operable/dry, soils likely wouldn't support conventional harvesting equip).							
12	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	4	5A: Not able to obtain desirable regeneration	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Generally too wet/sensitive to manage with modern day equipment. Strong hemlock component and xlog/legacy WP. Would be difficult to regenerate those species if harvested (heavy deer/elk usage observed).							
13	<b>Unavailable</b>	<b>5E: Long-Term Retention</b>	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

### Report 4 – Site Conditions

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14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							
15	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> In general, this stand is seasonally 'Too wet' to manage. Better served to act as a filter/buffer strip along Grass Lake.							
16	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Recommended retention area for the harvest that was proposed during '23 YOE. That Rx has since been dropped, will likely be Rx'd during '33 YOE. So kept the proposed area captured as a 5E.							
17	Unavailable	2F: Too steep	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Steep slope that leads down to the ditch along the old railroad grade. Portions of this slope are a former RDR. An area has been blocked for some time w/cedar posts. Areas are still healing from erosion/sandy soils located on downslope portion.							
20	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Approximates three possible areas of ~operability within Stand 94. More 'opportunistic' locations observed in northern area of this stand (~during snow-on), adjacent to upland stands.							
21	Available	5B: Maintain for regeneration purposes	7	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Majority of stand harvested '04, a desirable regeneration layer of pine/some deciduous has established. Allow regen to continue to recruit into mid-canopy positions.							

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22	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	8	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Seasonal watercourse, flows west when conditions are excessively wet. Silty/sensitive soils in areas.							
23	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	44	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Some upland interface along perimeter areas, stand as a whole is 'too wet'.							
24	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	18	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Consider harvesting, possibly w/Stand 35, during '33 YOE.							
25	<b>Available</b>	<b>5B: Maintain for regeneration purposes</b>	20	5C: Delay treatment for age/size class diversity or exceptional site quality	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Most recently harvested in '04. Fairly desirable/diverse sub-canopy of conifer with some deciduous. Allow regeneration to recruit further towards mid-canopy positions.							
26	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Small two-aged stand with healthy red oak.							
27	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	2	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Watercourse when conditions are excessively wet, flows west. Silty/sensitive soils.							

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28	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Most recently harvested in '04. Some decent jack pine regen in areas.</p>							
29	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	2	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b></p>							
30	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Seasonally wet watercourse/corridor, primarily composed of non-forested covertypes (except Stand 5). Old railroad grade against majority of western boundary, has/is influencing water levels and direction of flow.</p>							
31	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Most recently harvested in '04. Regeneration was heavily browsed, now little regen present. Oak residual is now the dominant size class, its age is 'meeting' criteria.</p>							
32	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Retaining for now, for several reasons. See stand and draft rx comments.</p>							

**Report 4 – Site Conditions**

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33	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Aspen age 'meets' criteria. Aspen stems still quite small/lack merchantability.</p>							
34	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Aspen age 'meets' criteria. Merchantability of aspen is variable and needs at least one more rotation growth.</p>							
35	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> 'Fully treed bog' is a good way to describe the appearance of this stand. Northern areas are mostly upland, remainder is spongy/mossy with a blanket of lab tea and/or leatherleaf. Overall, conditions appeared 'too wet'.</p>							
36	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	15	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Stand located on transitional/operationally inconsistent ground. Opportunistically expand treatment boundary of Stand 51 into this stand during sale prep in '23.</p>							
37	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	1	Unspecified	Unspecified	Unspecified	Unspecified
<p><b>Comments:</b> Approximates a seasonally wet/watercourse present within Stand 22. Remainder of stand sits on transitional/seasonally wet ground, more so in the east half of this long/narrow stand.</p>							

## Report 4 – Site Conditions

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38	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	31	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Quite wet, soils would not support conventional harvest equipment/operations.							
39	<b>Unavailable</b>	<b>2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)</b>	11	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Lowland island stand, surrounded by Milligan Creek floodplain.							
40	<b>Unavailable</b>	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Quite wet. Surrounding harvests have already cut up to/into this stand as much and as practical.							
41	<b>Unavailable</b>	<b>2F: Too steep</b>	5	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Overall 'too wet'. Could 'opportunistically' harvest small portions along the northern boundary, when adjacent upland stands are harvested.							
42	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	6	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> Treat in future with adjacent stands. See draft rx comments.							
43	<b>Available</b>	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	19	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> See draft Rx notes for this stand. Proposed Rx for '23 YOE dropped, pre-review decision was to manage in '33 YOE with additional stands.							

**Report 4 – Site Conditions**

Pigeon River Country Mgt. Unit

**Compartment: 19**

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44	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	17	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> See draft Rx notes for this stand. Proposed Rx for '23 YOE dropped, pre-review decision was to manage in '33 YOE with additional stands.							
45	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> See draft Rx notes for this stand. Proposed Rx for '23 YOE dropped, pre-review decision was to manage in '33 YOE with additional stands.							
46	Available	<b>5C: Delay treatment for age/size class diversity or exceptional site quality</b>	12	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b> See draft Rx notes for this stand. Proposed Rx for '23 YOE dropped, pre-review decision was to manage in '33 YOE with additional stands.							
104	Unavailable	<b>2G: Too wet (sensitive soils, does not include access issues)</b>	2	Unspecified	Unspecified	Unspecified	Unspecified
<b>Comments:</b>							

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

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**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**

<b>1</b>	4199 - Other Mixed Upland Deciduous	Poletimber Well	20.2	70	81-110	N/A	McDonald '11: Mixed age class in the aspen. Quite a bit of 3-4" diameter trees. JSP '21: Interesting/diverse stand in areas, variable terrain too. Ages suggest a removal Rx occurred here in the early 50's, left all oak and a few WP/RP. Cored a 12.6" WO, had so many rings I couldn't properly count it. Used the RP age from Stand 3 and put it in the red oak canopy listing above. Western boundary in south sits a top a very high point (for Michigan) w/steep slopes that lead down to the ditch along the old railroad grade. Portions of that slope are a former RDR, have been blocked off for some time and are still healing from erosion/sandy soils on the steep downslope portion. Trace WO (log) is found just east of this prominent slope/along the western boundary. Variable DBH's depending on where you are. Northern ~1/3rd and extreme south held more log sized stems (besides oak). Remaining central/south-central portion leads up to/arrives at the stands high point. These areas hold a lot of RO, the RM/BTA regen has been more suppressed and is P/S and S/P sized. Could get away with calling the stand log sized. Observed consistent red oak regen, most of good/decent form and on the high side of 'medium density'. Trace HM (pole), mentioned the WO (log) and saw one apple tree (large sap). NW a broad mixture of BF, QA, RM, RP, some WP (one legacy WP on west boundary). BA swings= 60,120,80,140,60,70,110,140 (97avg)																																																																																									
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<b>2</b>	42110 - Planted Red Pine	Sawtimber Well	42.0	62	111-140	N/A	McDonald: Stand Year Origin was 1959. Stand was 3rd row thinned in 2014/15. JSP '21: Toggles between being smaller DBH/more R6 sized (western finger). Then areas larger/more reliably R9. Overall, small log sizes most common. Better stocking consistency than any of the other plantations in the comp. Defect/doubles not uncommon yet still potential/room for improvement following a future crown thin. The two 'blobs' west and north of Tucker Rd in north either weren't 3rd row thinned or only had a portion that was thinned. All deciduous was removed (except oak) during thin. Most deciduous regen has been browsed/consumed except less so in areas closer to forest rds or in some perimeter locations. The aspen/RM listed in the canopy represents the mature stems still present in 'blobs' west or north of Tucker Rd. BA swings= 100,70,90,110,120,140,130,170 (116avg)																																																																										
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
3	6120 - Lowland Cedar	Poletimber Well	0.5	121	141-170	N/A	Small stand that established in the ditch located east of the old railroad grade and narrow forest rd. Narrow area of NWC in south, north is a broad mixture of species. Cored a 15.0" RP that aged 121yrs. Tried coring a few NWC, they weren't sound. Estimated the age of the QA, based upon the dominate age located in Stand 1. Eastern boundary travels quickly upslope into Stand 1. I bet this stand could tell some interesting stories.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Northern White Cedar	55	Pole/Log/Sap	8	121	Black Spruce	Medium		10 - 20 feet	Sapling
Quaking Aspen	10	Log	13	70	Quaking Aspen	Low		>20 feet	Sapling
Red Pine	16	Log/XLog/Pole	16	121	Paper Birch	Low		>20 feet	Sapling
Paper Birch	5	Pole/Log	8		Red Pine	Low		Variable	Sapling
Balsam Fir	5	Pole/Sapling	7		Red Maple	Medium		10 - 20 feet	Sapling
Black Spruce	4	Pole/Sapling	7		Balsam Fir	Medium		10 - 20 feet	Sapling
Tamarack	2	Pole	7		Black Cherry	Low		5 - 10 feet	Sapling
White Pine	3	Log/XLog	15		Jack Pine	Low		>20 feet	Sapling
					Black Spruce	Low		< 5 feet	Seeding
					Tag Alder	Medium		5 - 10 feet	Tall Shrub
4	4130 - Aspen	Poletimber Well	11.9	59	81-110	N/A		McDonald '11: Stand Year Origin was 1966 JSP '21: Cored a 5.9" BTA having a '62 year of origin (59yrs old in '21), slightly older than McDonald's claim. Aspen stems toggle between areas of P/some logs to areas of more L/some poles. Stand still in conversion from pole to log. Generally scattered, sometime clumped older age class of xlog/some legacy RO (28"). Two/trace WO (log) observed on SW and SE boundary. Decent advanced RO regen scattered throughout but a bit more prevalent in north (most 10-20ft+). Advanced WP/RP regen generally near/on/along western boundary, some present elsewhere. Most RM 'off-the-stump' running large sap/small pole, a few logs present in south. BA swings= 70,100,110,80,60,100 (86avg)	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
Bigtooth Aspen	66	Pole/Log/Sap	8	59	White Oak	Trace	10 - 20 feet		Sapling
Red Maple	15	Pole/Sap/Log	6		Jack Pine	Trace	>20 feet		Sapling
Red Oak	12	XLog/Log/Pole	18	95	White Pine	Medium	10 - 20 feet		Sapling
Red Pine	4	Pole/Log	8		Red Maple	Medium	>20 feet		Sapling
White Pine	3	Pole/Sapling	7		Red Oak	Medium	10 - 20 feet		Sapling
					Black Spruce	Low	10 - 20 feet		Sapling
					Red Pine	Medium	5 - 10 feet		Sapling
					Balsam Fir	Low	10 - 20 feet		Sapling
					Balsam Fir	Low	< 5 feet		Seeding
					White Pine	Low	< 5 feet		Seeding
					Red Pine	Medium	< 5 feet		Seeding
					Black Spruce	Trace	< 5 feet		Seeding
5	42220 - Natural Jack Pine	Poletimber Well	2.8	27	51-80	N/A	McDonald '11: Stand Year Origin was 1994 JSP '21: Old railroad grade is more/less the western boundary. The area surrounding the grade is somewhat terraced, it steps 'up and down' from the grade itself. The grade funnels seasonally excessive water north, from Stand 69, through this stand, then dumps into the boot-shaped area of Stand 409. When water levels are really high, they overflow the channel and move into a few small low spots/'retention-pond' areas within this stand. These small holding areas are open/non-forested, some had tag alder/dogwood. Scattered larger WP/RP on perimeter, some located within the stand. A steeper slope present on east, against Stand 67, is sandy/has eroded in areas. Not caused by humans, believe animal usage has contributed to erosion though. BA swings= 50,100,100 (83avg)		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	78	Pole/Sapling	6	27	White Pine	Medium		10 - 20 feet	Sapling
Red Pine	5	Log/XLog	15		Red Pine	Low		5 - 10 feet	Sapling
Balsam Fir	5	Pole/Sapling	5		Balsam Fir	Medium		10 - 20 feet	Sapling
White Pine	5	Log/Pole/XLog	10		Red Maple	Low		10 - 20 feet	Sapling
Red Maple	3	Pole/Sapling	6		Jack Pine	Low		10 - 20 feet	Sapling
Quaking Aspen	3	Pole/Sapling	6		Black Spruce	Low		5 - 10 feet	Sapling
White Spruce	1	Log	12		Red Oak	Trace		10 - 20 feet	Sapling
					Red Osier Dogwood	Low		< 5 feet	Tall Shrub
					Tag Alder	Medium		5 - 10 feet	Tall Shrub



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6	42220 - Natural Jack Pine	Sapling Well	17.9	27	Immature	N/A	Mostly fully-stocked stand of jack pine regeneration, in some areas the regeneration is very thick. There are some scattered clumps of larger jack pine that were left throughout. There are also a few clumps of spruce/fir that were left along the southern edge. A few small clones of bigtooth aspen are present, mostly along the northern stand edge.																																																																	
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7	4130 - Aspen	Poletimber Well	11.4	60	81-110	N/A	McDonald '11: Stand Year Origin was 1966 JSP '21: Aged a 5.0" BTA at 60yrs, this is a 5yr difference from McDonalds age above. Stand is 2-aged, left RO/WO when harvest in the 60's (legacy RO present, found one 26"). Variable aspen diameters/merchantability. ~West 1/2 tended to be hold larger, more merch P/L BTA. Somewhat ~less oak residual in west too. In east 1/2, aspen tended to be S/P or P/S, clumpy/patchier stocking and more scattered/or clumps of residual oak. RP from adjacent plantation (Std.2) 'spills-over' into this stand in some perimeter areas (most of these RP are P/S). Then a trace amount of natural log sized RP within this stand. Small area of decent WO regen in SE (~0.2ac), ranged 5-20ft. Old/new elk browse/rub/teeth damage on many RM saps. RM saps 'high' in areas. BA swings= 90,100,50,40,120,90 (81avg)																																																																	
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8	4133 - Aspen, Mixed Pine	Poletimber Well	17.8	38	51-80	N/A	McDonald '11: Stand Year Origin was 1983 JSP '21: Same Rx history as Stands 10,11,29 (all four previously one stand). Aspen/RM diameters can vary quite dramatically in this stand. Aspen poles (some logs) more common in the area around Stand 404 (G0), patchy stocking there and had more more to grow. Poles also a bit more common along watercourse Stand 10. North 1/2 of stand begins a gradual climb up-hill until reaching a plateau heavy w/RO residual (O7/8 stocking). The south-facing slope and 'plateau' have sap/some pole aspen/RM, could honestly be its own small stand. Deciduous, except oak, appears offsite/were mostly poor form/quality, likely heavily browsed when young. A ~2.5ac strip along the northern boundary (west portion on a gradual slope) is heavy to a desirable mixture of pole/sap aspen, WP, RP and some JP. This too could be its own small stand. Trace BE (pole). BA swings= 100,90,40,20,40,60,50 (57avg)																																																																	
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9	6229 - Mixed lowland shrub	Nonstocked	10.1	0	Unspecified	No	McDonald '11: South end has been killed off due to beaver flooding. JSP '21: This is now a low-density tree (conifer/deciduous) lowland (yikes). Beaver flooding has caused wide-spread mortality of what appears to of been a Q6 or C6-type (was likely similar to Stand 23). Old railroad grade briefly on east boundary too. Eastern and western areas have a mixture of conifer/some deciduous that's still alive. Observed a fair amount of dead standing NWC from west boundary. Larch present but hadn't yet leafed-out, so unsure if some of those were still alive? Some scattered xlog/legacy WP. Some conifer was still alive in the interior areas.																																																																	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
10	6112 - Lowland Aspen	Poletimber Well	7.7	38	51-80	N/A	McDonald '11: Stand Year Origin was 1983.JSP '21: Same Rx history as Stands 8,11,29 (all four previously one stand). This stand is a seasonal watercourse, originates on State to SE. Flows across PVT, then west through this stand, across PVT/State, and all the way into Stand 23 when conditions are excessively wet. Very likely dry during most times, happened to have flowing water during my visit to this area over the course of a few days (OFS w/pics available). Generally dominated by P/L or L/P QA and BAM. Minor components of several other species, including trace AmElm, JP and RP listed above. Harvested in '83, this stand has put of diameter faster, given lack of residual stems to compete with and having 'direct access' to water. Canopy dissipates in west, stand becomes grassy w/scat aspen/conifer. Couldn't locate survey corner along PVT, there is/are PVC rods along that interface. BA swings= 70,90,100,60 (80avg)		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Quaking Aspen	45	Pole/Log/Sap	9	38	American Elm	Low		>20 feet	Sapling
Bigtooth Aspen	4	Pole/Log	9		American Elm	Trace		>20 feet	Pole
Red Oak	3	Log/XLog	16	84	Balsam Poplar	Low		10 - 20 feet	Sapling
Red Maple	5	Pole/Sapling	5		Balsam Fir	Medium		Variable	Sapling
Balsam Poplar	32	Log/Pole/Sap	10		Red Maple	Low		>20 feet	Sapling
Balsam Fir	3	Pole/Sapling	7		Red Oak	Low		>20 feet	Sapling
White Pine	4	Log/Pole	11		Sugar Maple	Trace		>20 feet	Sapling
Paper Birch	2	Pole	9		White Pine	Low		Variable	Sapling
Jack Pine	1	Log/Pole	10		Black Spruce	Trace		5 - 10 feet	Sapling
Red Pine	1	Pole	8		Beech	Low		5 - 10 feet	Sapling
					Honeysuckle (spp.)	Medium		< 5 feet	Tall Shrub
					Red Osier Dogwood	Medium		< 5 feet	Tall Shrub
					Serviceberry (Juneberry)	Medium		10 - 20 feet	Sapling
					Black Cherry	Low	5 - 10 feet	Sapling	
					Black Ash	Low	>20 feet	Sapling	
11	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	8.9	38	51-80	N/A	McDonald '11: Stand Year Origin was 1983.JSP '21: Same Rx history as Stands 8,10,29 (all four formally one stand). Regeneration from '83 harvest is the featured class for this stand, though at least 2-age classes are present. Harvest left RO,WP,RP in this stand, RO is the most consistent residual, the WP/RP mainly present in center/then in eastern areas. Broad range of species and DBH's across the regen layer. Toggled between sap/pole size (residuals mixing in, in most areas), then pole/sap in other areas. NW had a clone of reliably pole sized BTA. Stand as a whole should slowly convert to overall pole sized within next 10-20yrs. BA swings= 40,40,100,60,40 (56avg)		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	35	Sapling/Pole	4	38	Ironwood	Medium		10 - 20 feet	Sapling
Quaking Aspen	4	Pole/Sapling	6		Hemlock	Trace		5 - 10 feet	Sapling
Red Maple	20	Sapling/Pole	4		Black Spruce	Low		Variable	Sapling
Sugar Maple	4	Sapling/Pole	4						
Red Oak	10	XLog/Log/Pole	18	84					
Paper Birch	4	Sapling/Pole	4						
Balsam Fir	12	Pole/Sapling	5						
White Pine	8	Pole/Sap/Log	8						
12	6122 - Black Spruce	Poletimber Well	22.9	76	111-140	N/A	McDonald '11: OI Stand Year Origin was 1945 JSP '21: Mostly saw the south 1/2. Primarily spruce dominant (variable DBH's) w/smaller patches of isolated tip-up/windthrow. Alder common, heavier in windthrow patches. Spongy moss covered ground that was wet/damp during visit. Transitional perimeter was briefly 'upland' and held the JP,RP,WP component. Tamarack appeared to increase in northern areas. Seasonal watercourses present. Observed trace PB.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Black Spruce	66	Pole/Sap/Log	7	76	Balsam Fir	Medium		Variable	Sapling
Tamarack	10	Pole/Log/Sap	7		Tag Alder	Medium		5 - 10 feet	Tall Shrub
Balsam Fir	10	Pole/Sapling	6		Black Spruce	Medium		Variable	Sapling
Jack Pine	5	Pole/Log	8		Sphagnum Moss	High		Unspecified	Non-Wood
Red Pine	3	Log/XLog/Pole	14						
White Pine	3	Log/Pole/XLog	15						
Northern White Cedar	3	Pole/Log	8						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
13	320 - Upland Shrub	Nonstocked	1.4	36	Immature	No	Narrow non-forested strip adjacent to a lowland conifer stand. Not many trees growing in the stand. A few patches of leatherleaf are present. Ground cover is dominated by reindeer moss in most areas.			
		<b>Sub-Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>				
		Jack Pine		Low	>20 feet	Pole				
		Black Spruce		Low	>20 feet	Pole				
		Black Spruce		Trace	Variable	Sapling				
		Jack Pine		Trace	Variable	Sapling				
		Red Pine		Trace	Variable	Sapling				
		Red Maple		Trace	Variable	Sapling				
		Jack Pine		Trace	< 5 feet	Seeding				
		Red Pine		Trace	< 5 feet	Seeding				
		Black Cherry		Trace	Variable	Tall Shrub				
		Leatherleaf		Medium	< 5 feet	Tall Shrub				
		Tamarack		Trace	>20 feet	Log				
14	42110 - Planted Red Pine	Sawtimber Medium	8.2	60	81-110	N/A	Stand was cut in 2017. Part of RJRJRJ Pine sale (53-010-13-01). The north half of the stand is well-stocked and nice quality, with more poletimber size trees. The south half has much lower stocking, with red pine that is larger but more limby. It looks like the south half had some jack pine in it and they were all removed during the harvest, which is the reason for the lower BAs. Average ba/acre from 5 plots = 94 square feet.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Red Pine		100	Log/Pole	10	60	Red Maple		Trace	< 5 feet	Sapling
15	4133 - Aspen, Mixed Pine	Poletimber Well	6.7	36	81-110	N/A	Moderate quality aspen with scattered clumps of planted red pine mixed in throughout. Aspen diameters vary considerably with some areas still having a lot of sub-merchantable stems. Best diameter growth can be found on the north side where aspen diameters are in the 6-8" classes. Average ba/acre from 5 plots = 98 square feet. This stand sits on an elevated knob with the highest point in the middle of the stand and slopes going down in all directions from there. Heavy deer use in the stand.			
<b>Canopy Species</b>		<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
Balsam Fir		1	Pole	5		Red Maple		Medium	Variable	Sapling
White Pine		1	Pole	6		Black Cherry		Trace	Variable	Tall Shrub
Red Oak		5	Log/XLog	15						
Red Maple		3	Pole	5						
Red Pine		25	Log/Pole	11	60					
Bigtooth Aspen		65	Pole/Sapling	6	36					
16	320 - Upland Shrub	Nonstocked	9.3		Unspecified	No	Scattered red and jack pine are mixed in throughout this U type. A few areas of jack pine saplings as well. Lots of reindeer moss at the ground level. Rolling terrain in the southern part of the stand.			
		<b>Sub-Canopy Species</b>		<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>				
		Red Pine		Low	>20 feet	Log				
		Red Pine		Trace	>20 feet	Pole				
		Jack Pine		Low	>20 feet	Pole				
		Jack Pine		Low	Variable	Sapling				
		Black Cherry		Medium	Variable	Tall Shrub				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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<b>17</b>	42110 - Planted Red Pine	Sawtimber Medium	5.0	61	111-140	N/A	Small red pine plantation that doesn't look like it has had a treatment before. Stocking and quality is variable. The middle of the stand is well-stocked with good quality red pine but the east end has much lower stocking with limby, open grown red pine. The west end has some aspen and jack pine mixed in. Found one large, relict red pine on the southern edge of the stand closer to the west end. Average ba/acre of the stand from 5 plots = 116 square feet. Terrain slopes gradually up to the east.
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Canopy Species	% Cover	Size Class	DBH	Age
Black Cherry	1	Pole	8	
Quaking Aspen	4	Pole	7	
Jack Pine	6	Pole/Log	8	
Red Maple	4	Pole/Log	8	
Red Pine	85	Log/Pole	12	61

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Low	Variable	Sapling
Black Cherry	Low	Variable	Tall Shrub
Serviceberry (Juneberry)	Trace	10 - 20 feet	Tall Shrub

<b>18</b>	3303 - Mixed Low Density Trees	Nonstocked	37.2	0	Unspecified	42290 - Natural Mixed Pine	Stand was cut in 2017 as part of the RJRJR Pine sale (53-010-13-01). It looks like the tops were chipped and moderate scarification took place. Scattered residual red pine were left as well as a couple of oak, BAs are under 10 square feet. Regeneration has come back primarily to aspen, red maple, and pine at this point. Pine regeneration is "clumpy" and tends to be most prevalent in the heavily scarified skid trails. There are some areas where red pine appears to be coming in well. The red maple is being heavily browsed as is most of the aspen. Some oak seedlings are present but they too are being heavily browsed and most appear close to death. Jack pine regeneration appears to be more widespread than what the regen survey results indicate, maybe just bad luck in plot placement. In general, regeneration of pine is more abundant in the north half of the stand. Regeneration is lacking in areas of the southern 1/3rd of the stand.  Regen survey results (14 1/100th acre plots, avg height in parentheses): jack pine 114 TPA (1'), bigtooth aspen 471 TPA (3.5'), red pine 428 TPA (6"), red maple 557 TPA (2'), red oak 129 TPA (1.5'), black cherry 36 TPA (2.5'), balsam fir 7 TPA (1'), beech 14 TPA (1').
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Sub-Canopy Species	Density	Avg. Height	Size
Jack Pine	Low	< 5 feet	Seeding
Bigtooth Aspen	Medium	< 5 feet	Seeding
Red Pine	Medium	< 5 feet	Seeding
Balsam Fir	Trace	< 5 feet	Seeding
Red Oak	Low	< 5 feet	Seeding
Red Maple	Medium	< 5 feet	Seeding
Beech	Trace	< 5 feet	Seeding
Black Cherry	Low	< 5 feet	Seeding

<b>19</b>	4131 - Aspen, Oak	Poletimber Well	11.5	51	51-80	N/A	McDonald '11: Stand Year Origin was 1966 JSP '21: Aged a 5.1" BTA as having a '70 year of origin (51yrs old in '21), so ages differ slightly from McDonald's claim. Merchantability/diameters of ~66 regen starts out lower/smaller in south & east, then graduates into more merch/larger stems as you move west & north. South & east areas commonly held pockets/patchy BTA clones averaging 6-8", saps present and some scattered larger pole/and logs closer to RP Stand 48. In west & north, BTA still patchy/clonal with larger poles/then logs becoming common. Majority of off-the-stump RM still large sap/small pole, a few larger stems scattered about. Overall minor component of scattered conifer. Previous harvest left all oak. For the compartment, this stand (and Std.81) hold the highest amount of white oak that I came across (xlogs common, 23", 24"). Both oak species present appeared healthy. Canopy-closure on low-end of 75-100%. Narrow forest rd is the southern boundary. Regen south of the road (Std.81) is noticeably less merch, but has same Rx history as this stand. BA swings= 100,20,60,70,110,70 (71avg)
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Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	45	Pole/Sap/Log	8	51
Red Maple	20	Pole/Sap/Log	6	
Red Oak	14	Log/XLog/Pole	15	
White Pine	4	Pole	7	
Jack Pine	5	Pole/Log	8	
Red Pine	4	Log/Pole/XLog	11	
White Oak	6	Log/XLog	16	107
Balsam Fir	2	Pole/Sapling	6	

Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	Low	< 5 feet	Seeding
Jack Pine	Low	10 - 20 feet	Sapling
White Pine	Medium	10 - 20 feet	Sapling
Red Maple	High	>20 feet	Sapling
Bigtooth Aspen	Medium	>20 feet	Sapling
White Spruce	Trace	Variable	Sapling
Red Pine	Low	10 - 20 feet	Sapling
Balsam Fir	Low	10 - 20 feet	Sapling
Red Oak	Medium	10 - 20 feet	Sapling
White Oak	Low	10 - 20 feet	Sapling
Common Lowbush Blueberry	Low	< 5 feet	Tall Shrub



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>20</b>	4139 - Aspen, Mixed Deciduous	Sapling Well	12.0	38	1-50	N/A	<p>McDonald '11: Wildfire set this stand back, but aspen regeneration came in strong. Scattered oak throughout.</p> <p>JSP '21: Regarding Rick's fire comment, believe I did see old plow-lines along east and west boundaries. Unsure when the fire was/if a salvage then took place? Most aspen running the high-side of 4" or low-end of 5". Except for a ~1.5ac wedge shaped piece in the NE, against RP Stand 2. Aspen is P/some log within that inclusion, unsure if fire/salvage missed that area? Consistent RO regen (S/P) present. Some RO stems running right with the aspen (heights), then a 2nd stratified layer at 10-20ft tall. Same story for RM stems. Some natural, log-sized RP present, then a couple planted RP clumps (P/L) near Stand 2. Scattered/consistent older RO residual. A few orphaned, log sized BTA awkwardly hanging out here/there in the stand. Fire/salvage must of missed these too. Trace JP (log). BA swings= 20,50,80,30,30 (42avg)</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	54	Sapling/Pole	4	38	Red Oak	Medium		10 - 20 feet	Sapling
Red Maple	18	Sapling	3		Red Maple	High		10 - 20 feet	Sapling
Red Oak	10	Sapling	4		Black Cherry	Low		5 - 10 feet	Sapling
Red Oak	10	Log/XLog	16	95	White Pine	Low		10 - 20 feet	Sapling
Red Pine	5	Log/Pole	14		Black Spruce	Trace		< 5 feet	Seeding
White Pine	3	Pole/Sapling	7						
<b>21</b>	4319 - Mixed Upland Forest	Sapling Poor	15.1	3	Immature	N/A		<p>Harvest completed in '18. Regen survey conducted for STEMS 3FT and greater. Results for the nine (9) 1/100th acre plots were: JP: 500TPA, BlkCherry: 122TPA, BTA: 33TPA, QA: 355TPA, and RM: 66TPA. Initial impression is the stand is heading towards a moderate to low stocking level of conifer with mixed-deciduous.</p> <p>Failed original survey and created a new survey for re-inventory in 2031. Regeneration is responding and has established in areas, but not across the entire stand. More time is needed determine the success or failure of regen. Jack pine seedlings were concentrated in southern portions of the stand, closer to Stand 92. There are a fair amount of JP seedlings just below 3ft that should recruit, again mainly in the south. Old railroad grade is essentially the east boundary. Aspen and red maple regeneration is concentrated around and near the grade, more decid regen present in north. Some browse damage present but most deciduous has grown above it. Center/central portion of stand is lacking regen, populated with blkcherry and some smaller conifer stems that weren't run-over during harvest. Some scattered WP/RP/RO residual, some in the north, most in east or along eastern boundary.</p>	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density			Avg. Height
Jack Pine	32	Sapling	1	3	Labrador Tea	Medium	< 5 feet		Tall Shrub
Quaking Aspen	14	Sapling	1		Common Lowbush Blueberry	Medium	< 5 feet		Tall Shrub
Red Maple	6	Sapling	1		Blackberry/Raspberry	Medium	< 5 feet		Tall Shrub
Balsam Fir	5	Sapling	2						
Black Cherry	26	Sapling/Pole	1						
White Pine	5	Sapling	1						
Red Pine	2	Sapling	1						
Bigtooth Aspen	10	Sapling	1						
<b>22</b>	42290 - Natural Mixed Pine	Poletimber Well	16.9	53	51-80	N/A	<p>McDonald '11: Stand is a bog-type dominated by leatherleaf and other wetland shrubs.</p> <p>JSP '21: Stand 92 formally part of this stand. Narrow stand running between Huckleberry Hollow Rd and lowland Stands 9/23. In most areas, this stand is segmented into 3-additional N/S 'zones' of upland vs. lowland. The western zone extends ~1/2-chain (+,-) east of the road and is pretty much JP dominant. The center zone begins transitioning/mixing w/upland and lowland conifer types and soils. Quite certain areas of this central 'zone' seasonally hold/move water, these indicators are more apparent in the south (near/along Stand 9). Lab tea, alder, spruce, pit/mounds, standing water all present in areas during visit. The eastern 'zone' consists of small bouts of upland, and then transitional lowland w/up against Stand 23. Much more spruce in the central/eastern zones. Small piece west of the road is a mixture of conifer/aspen. Scattered 2nd/older age class of individual/and clumpy RP, then a few xlog/legacy WP. Trace PB (pole), WhtSprc (pole) and WO (log along Huckleberry Rd). BA swings= 60,60,70,80,70,60,50,100,40,110 (70avg)</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	50	Pole/Sap/Log	8	53	White Oak	Trace		5 - 10 feet	Sapling
Red Pine	8	Log/XLog/Pole	15	88	Red Maple	Low		>20 feet	Sapling
White Pine	8	Pole/Log/XLog	8		White Pine	Medium		10 - 20 feet	Sapling
Bigtooth Aspen	5	Pole/Log	9		Red Pine	Low		10 - 20 feet	Sapling
Black Spruce	20	Pole/Sap/Log	7		Balsam Fir	Medium		10 - 20 feet	Sapling
Red Maple	4	Pole/Sap/Log	7		Black Spruce	High		10 - 20 feet	Sapling
Balsam Fir	2	Pole/Sapling	6		Jack Pine	Medium		10 - 20 feet	Sapling
Tamarack	3	Pole/Log	9		Red Oak	Trace		10 - 20 feet	Sapling
					Black Cherry	High		5 - 10 feet	Sapling
					Black Spruce	Medium		< 5 feet	Seeding
					Tag Alder	Medium		5 - 10 feet	Tall Shrub
					Labrador Tea	Medium		< 5 feet	Tall Shrub
					Wild Raisin	Low		5 - 10 feet	Tall Shrub
					Leatherleaf	Low	< 5 feet	Tall Shrub	



**Stand**      **Level 4 Cover Type**      **Size Density**      **Acres**      **Stand Age**      **BA Range**      **Managed Site**      **General Comments**

**23**    6129 - Mixed Coniferous Lowland Forest    Poletimber Well    43.7    105    Unspecified    N/A

Old railroad grade in east. Transitional ground along most of the perimeter with a mixture of species including spruce, cedar, tamarack and white/red pine. Did not see all of this stand, areas observed were quite wet.

Canopy Species					% Cover	Size Class	DBH	Age	Sub-Canopy Species				Density	Avg. Height	Size
Northern White Cedar					40	Pole/Log/Sap	8	105	Balsam Fir		Medium	5 - 10 feet	Sapling		
Black Spruce					20	Pole/Log	8		Black Spruce		Low	5 - 10 feet	Sapling		
White Spruce					5	Log/Pole	11		Tag Alder		Medium	5 - 10 feet	Tall Shrub		
Balsam Fir					8	Pole/Sap/Log	7		Northern White Cedar		Low	>20 feet	Sapling		
Quaking Aspen					3	Log/XLog/Pole	14		Black Spruce		Low	< 5 feet	Seeding		
Balsam Poplar					3	Log/Pole	12								
White Pine					2	Log/XLog/Pole	16								
Red Maple					5	Pole/Log	9								
Paper Birch					4	Pole/Log	9								
Tamarack					8	Pole/Log	8								
Red Pine					2	Log/Pole/XLog	14								

**24**    4199 - Other Mixed Upland Deciduous    Poletimber Well    5.8    120    81-110    N/A

Narrow ~20ac strip between private ownership was acquired in '92. This stand is similar to Stand 1 to west. Appears to of had a removal harvest ~70yrs ago that left all red oak. Though the oak aged 120ish years, most are still L/P sized (a few xlogs) and healthy. Could call the stand overall log sized. Stand sits on a high point, slopes down in north and south. Northern boundary is transitional, mixes with some JP/RP before leading into G0 Stand 400. Trace BF (pole). BA swings= 80,60,90,130 (90avg)

Canopy Species					% Cover	Size Class	DBH	Age	Sub-Canopy Species				Density	Avg. Height	Size
Red Oak					50	Log/Pole/XLog	11	120	Red Pine		Trace	>20 feet	Sapling		
Red Maple					25	Pole/Sapling	6	68	Balsam Fir		Low	10 - 20 feet	Sapling		
Jack Pine					2	Pole	7		White Pine		Low	10 - 20 feet	Sapling		
White Pine					2	Pole/Sapling	6		Black Spruce		Trace	5 - 10 feet	Sapling		
Bigtooth Aspen					10	Log/Pole/Sap	12		Jack Pine		Trace	10 - 20 feet	Sapling		
Red Pine					2	Log/Pole/XLog	11		Scotch Pine		Trace	5 - 10 feet	Sapling		
Paper Birch					3	Pole	8		Red Maple		High	>20 feet	Sapling		
Beech					3	Pole/Sapling	6		Red Oak		Low	10 - 20 feet	Sapling		
Sugar Maple					3	Pole/Sapling	6		Beech		Low	10 - 20 feet	Sapling		
									Ironwood		Low	10 - 20 feet	Sapling		
									Bigtooth Aspen		Low	>20 feet	Sapling		
									Sugar Maple		Medium	>20 feet	Sapling		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**25** 42290 - Natural Mixed Pine Sawtimber Well 3.3 101 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	32	Log/XLog/Pole	15	101
White Pine	32	Log/Pole/XLog	15	
Jack Pine	8	Pole/Log	9	
Black Spruce	8	Pole/Sapling	7	
Quaking Aspen	8	Pole/Sap/Log	8	
Bigtooth Aspen	10	Log/Pole/Sap	13	68
Red Oak	2	Pole/Sapling	6	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Trace	10 - 20 feet	Sapling
Bigtooth Aspen	Trace	>20 feet	Sapling
Quaking Aspen	Trace	>20 feet	Sapling
White Pine	Medium	10 - 20 feet	Sapling
Black Spruce	Medium	10 - 20 feet	Sapling
Red Maple	Medium	10 - 20 feet	Sapling
Paper Birch	Trace	>20 feet	Sapling
Red Oak	Low	>20 feet	Sapling
Black Cherry	Low	5 - 10 feet	Sapling
Red Pine	Trace	>20 feet	Sapling
Nannyberry	Low	5 - 10 feet	Tall Shrub
Witch Hazel	Low	5 - 10 feet	Tall Shrub
Labrador Tea	Low	< 5 feet	Tall Shrub
Tag Alder	Low	5 - 10 feet	Tall Shrub

Narrow 20ac 'block' acquired by State in '92. Most of the area south of the forest rd used by private is a seasonally wet watercourse. This area holds the blksprc component mixed w/some pine, RM saps and alder. Center is upland pine mixing w/some aspen. Clump of 25" RP and some larger WP (one legacy) in center. Mixes briefly in north with the younger stems found in Stand 27. BA swings= 150,110,50 (103avg)

**26** 42210 - Natural Red Pine Sawtimber Medium 6.2 101 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	78	Log/XLog/Pole	15	101
White Pine	15	Log/Pole/XLog	12	
Red Oak	2	Pole/Log	9	
Black Spruce	4	Pole/Sapling	7	
Red Maple	1	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
Black Spruce	Low	< 5 feet	Seeding
Wintergreen	High	< 5 feet	Tall Shrub
Labrador Tea	Low	< 5 feet	Tall Shrub
White Oak	Trace	5 - 10 feet	Sapling
Black Spruce	Low	Variable	Sapling
Bigtooth Aspen	Low	5 - 10 feet	Sapling
Quaking Aspen	Medium	10 - 20 feet	Sapling
Red Maple	Low	10 - 20 feet	Sapling
Black Cherry	Low	5 - 10 feet	Sapling
Jack Pine	Medium	10 - 20 feet	Sapling
Red Pine	Medium	5 - 10 feet	Sapling
White Pine	Medium	10 - 20 feet	Sapling
Balsam Fir	Low	Variable	Sapling
White Pine	Low	< 5 feet	Seeding
Red Pine	Medium	< 5 feet	Seeding
Tag Alder	Low	5 - 10 feet	Tall Shrub

McDonald '11: Stand was selectively cut in 2004. JSP '21: A mix of regenerating pine and deciduous below a variably stocked canopy of mostly RP. Overall canopy-closure on low-end of 50-75%, some areas higher, other brief areas w/no residual. Most aspen/RM regen located briefly in south. Patchy/swathes of JP picks up in remainder of stand. JP regen mixing with lower components of sapling RP/WP. Some pole and sap blksprc present, mainly on west and in north. Intermittent/seasonal watercourse in south. This is a continuation of Stand 10 to east, water flows west when conditions are excessively wet (dry during visit(s)). BA swings= 50,90,110,50,0 (60avg)



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>27</b>	4139 - Aspen, Mixed Deciduous	Sapling Well	0.9	30	1-50	N/A	Brief area that has some younger 30yr old S/P and P/S aspen and RM. Some older stems mixing in on north and south boundary. WP saps present. McDonald commented that the younger aspen/RM was cut '90/'91 when this area was owned by private. BA swing= 50				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		3	Log/Pole	12	101	Black Cherry		Low	5 - 10 feet	Sapling	
White Pine		8	Sapling	4		Red Pine		Trace	>20 feet	Sapling	
Jack Pine		3	Pole/Log	9	68	Witch Hazel		Low	5 - 10 feet	Tall Shrub	
Red Maple		30	Sapling/Pole	4							
Quaking Aspen		3	Pole/Log	8							
Bigtooth Aspen		50	Sapling/Pole	4	30						
Red Oak		3	Log/Pole	12							
<b>29</b>	4139 - Aspen, Mixed Deciduous	Poletimber Well	17.7	38	81-110	N/A		McDonald '11: Stand Year Origin was 1983.JSP '21: Harvest in early 80's left RO, also appears to of left some HM and a handful of RP/WP. So there is a scattered 2nd age class, most of which if RO. Stems that have regenerated from harvest can vary in DBH, most currently running a bit small. A few pockets/clones of larger aspen (mainly BTA) can be found in areas. Some oak regen is present, tended to occur close to the RP plantation. Fairly consistent sub-can of IW/HM. West end begins 'mingling' w/conifer from adjacent stands. Originally part of one larger stand (now stands 8,10,11 and this stand), all of which have the same Rx history. Trace AmElm (log). BA swings= 100,110,120,50,70 (90avg)			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Quaking Aspen		40	Pole/Sapling	7	38	Ironwood			High	>20 feet	Sapling
Bigtooth Aspen		15	Pole/Log/Sap	8		Red Maple			Low	>20 feet	Sapling
Red Maple		6	Pole/Log	9		Sugar Maple			High	>20 feet	Sapling
Red Oak		10	Log/XLog/Pole	17	81	Paper Birch			Low	>20 feet	Sapling
Sugar Maple		16	Pole/Sap/Log	6		Balsam Fir			Low	Variable	Sapling
Paper Birch		3	Pole	6		White Pine			Low	Variable	Sapling
White Pine		3	Pole/Log	9							
Balsam Fir		3	Pole/Sapling	6							
Red Pine		2	Log/Pole	14							
Beech		2	Pole/Sapling	5							
<b>30</b>	42210 - Natural Red Pine	Sawtimber Medium	7.4	102	51-80	N/A	McDonald '11: Stand was selectively cut in 2004.JSP '21: Majority of this stand had a selection in '04, except for some portions located in the E/SE ~2ac of the stand. This small, generally unharvested, inclusion carries a similar BA range and has a very desirable component of advanced WP and some RP regen. It also holds the lower % canopy species listed above. The remaining western portion of the stand, that was thinned, held RP that was generally med/large log, with xlog RP common. WP variable from pole to legacy (28"), xlog generally most common. Advanced WP regeneration is prolific in the '04 thinned area, is moving the this stand towards having two distinct age classes (if not already). BA swings= 40,90,60,50 (60avg)				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		70	Log/Pole/XLog	16	102	White Pine		High	10 - 20 feet	Sapling	
White Pine		15	XLog/Log/Pole	20		Red Pine		Medium	>20 feet	Sapling	
Jack Pine		3	Pole/Log	9		Balsam Fir		Low	10 - 20 feet	Sapling	
Red Oak		3	Log/XLog/Pole	16		Black Spruce		Trace	>20 feet	Sapling	
Hemlock		1	Pole/Log	9		Red Maple		Low	>20 feet	Sapling	
Red Maple		2	Pole/Sapling	6		Red Oak		Low	>20 feet	Sapling	
Paper Birch		2	Pole/Log	8							
Bigtooth Aspen		2	Pole/Log	8							
Quaking Aspen		2	Pole/Log	8							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
31	42290 - Natural Mixed Pine	Poletimber Well	12.7	69	51-80	N/A	Size dominance (pole vs log) can vary upon location. Areas w/more RP tended to be log dominant, then areas prone to pole sizes w/logs mingling around. Overall can-closure on low-end of 75-100%. Begins to open-up/lower stocking in eastern areas. Some JP is standing dead, about to senesce or is CWD on the ground. Other JP stems are fairly healthy. RO and some of the RP is likely an older age class. Some younger pole RO is present. More/most aspen is located in eastern areas. Trace Hemlock (log). BA swings= 40,90,30,90,60,90,80 (68avg)		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	34	Pole/Log	8	69	White Pine	Medium		10 - 20 feet	Sapling
White Pine	20	Pole/Log	8		Jack Pine	Low		>20 feet	Sapling
Red Pine	28	Log/Pole/XLog	15		Red Pine	Medium		10 - 20 feet	Sapling
Red Oak	6	Log/Pole/XLog	14		Beech	Low		5 - 10 feet	Sapling
Bigtooth Aspen	5	Pole/Log	9		Common Lowbush Blueberry	Low		< 5 feet	Tall Shrub
Quaking Aspen	3	Pole/Log	9		Bracken Fern	High		Unspecified	Non-Wood
Red Maple	4	Pole	7						
32	42110 - Planted Red Pine	Sawtimber Well	0.9	55	171-200	N/A		3rd row thinned in '06. Narrow stand, really only 4-rows remaining (each w/2-rows of RP). RP a mix of logs/poles (some suppressed saps sill present/alive). Decent/ok/good quality RP for the site. Very minimal/almost no sub-canopy sapling layer to fight with. BA swings= 230,240,140 (203avg)	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
Red Pine	97	Log/Pole/Sap	10	55	White Pine	Low	5 - 10 feet		Sapling
Red Oak	2	XLog/Log/Pole	18		Beech	Low	5 - 10 feet		Sapling
White Pine	1	XLog/Log	20		Red Oak	Trace	5 - 10 feet		Sapling
					Black Cherry	Trace	5 - 10 feet		Sapling
					Beech	Low	< 5 feet		Seeding
					Serviceberry (Juneberry)	Low	5 - 10 feet		Tall Shrub
					Balsam Fir	Low	< 5 feet		Seeding
					White Pine	Low	< 5 feet		Seeding
33	42110 - Planted Red Pine	Sawtimber Well	9.1	55	141-170	N/A	3rd row thinned in '06. Similar to stand 32, ok/good form/quality RP. Small pocket of mortality in the hook-shaped area in SW. Small colony of invasive honeysuckle in east near PVT. Variety of DBH's, pole to medium log sized RP. A few scattered, generally xlog/legacy RO present (one was 32"). Most RO is located along/near boundary. Pockets where saps are more dense, usually where there's less canopy RP present. Deciduous not 10ft or greater have been browsed to seedling size/height. BA swings= 170,160,250,80,180,130,210 (168avg)		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	96	Log/Pole	10	55	Honeysuckle (spp.)	Low		5 - 10 feet	Tall Shrub
Red Oak	3	XLog/Log	21		Striped Maple	Trace		10 - 20 feet	Sapling
Quaking Aspen	1	Log/Pole	11		American Elm	Trace		>20 feet	Sapling
					Red Oak	Low		10 - 20 feet	Sapling
					White Pine	Low		10 - 20 feet	Sapling
					Beech	Low		10 - 20 feet	Sapling
					Balsam Fir	Medium		Variable	Sapling
					Black Cherry	Low		5 - 10 feet	Sapling
					Red Maple	Low		10 - 20 feet	Sapling
					Sugar Maple	Medium		10 - 20 feet	Sapling
					Ironwood	Medium		10 - 20 feet	Sapling
					Red Oak	Low		< 5 feet	Seeding
					Beech	Medium	< 5 feet	Seeding	
					White Pine	Low	< 5 feet	Seeding	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>34</b>	42110 - Planted Red Pine	Sawtimber Well	0.4	55	201+	N/A	Small pocket of planted RP, has not been previously thinned. Though small acreage, RP is ok/good/higher quality. Worth crown thinning along with adjacent RP stands. Could final harvest in future when surrounding Stand 29 is treated. Quaking aspen has grown up with the red pine. BA swings= 330,220 (275avg)				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		90	Log/Pole	12	55	Sugar Maple		Medium	10 - 20 feet	Sapling	
Quaking Aspen		10	Log/Pole	11		Ironwood		Low	10 - 20 feet	Sapling	
						Beech		Medium	Variable	Sapling	
<b>35</b>	4111 - S.Maple, Hard Mast Association	Sawtimber Well	50.7	84	81-110	N/A	Stand of decent/better quality NHWD mixed w/RO. RO is quite consistent throughout, generally large log to xlog then some poles (heavy wildlife usage below nearly all RO). HM mainly pole sized w/consistent stocking of saps (20ft+), then log sizes present but not overly abundant. Minor areas in SE&South boundary with open-grown/poorer quality stems. BE component primarily resides in this area too. Overall enough logs present to call M9 yet heavy pole presence with M6 dominant areas. Trace XL/L RP in east&SW, and L/P JP in east too. BA swings= 120,100,80,80,100,150,120,110 (107-avg).				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Sugar Maple		58	Pole/Sap/Log	8	84	Sugar Maple		High	>20 feet	Sapling	
Basswood		15	Log/Pole/XLog	12		Ironwood		Medium	10 - 20 feet	Sapling	
Red Oak		18	Log/XLog/Pole	17		Ironwood		Low	>20 feet	Pole	
Paper Birch		3	Pole/Log	8		Beech		Medium	10 - 20 feet	Sapling	
Beech		4	Pole/Log/XLog	9		Balsam Fir		Low	5 - 10 feet	Sapling	
Bigtooth Aspen		2	Log	15		White Pine		Trace	Variable	Sapling	
<b>36</b>	4199 - Other Mixed Upland Deciduous	Sawtimber Well	17.7	84	81-110	N/A	Mixed red oak stand. Southern 1/2-1/3rd is primarily RO mixed w/RM. Northern 1/3rd starts mingling w/NHWD species from Stand 35 as well as an increase in aspen component. The RP/WP component 'sprinkles' in/out along the western boundary. Red oak wasn't always the 'cleanest form', overall it was decent/ok to with some better quality stems here/there. Trace clump of P/L hemlock in northwest, BW in northeast too. BA swings= 140,70,100,80 (97avg).				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Oak		54	Log/Pole/XLog	14	84	White Pine		Medium	10 - 20 feet	Sapling	
Red Maple		20	Pole/Log	8		Beech		Medium	10 - 20 feet	Sapling	
Red Pine		3	Log/XLog/Pole	16		Ironwood		Medium	10 - 20 feet	Sapling	
White Pine		3	XLog/Log	22		Sugar Maple		Medium	>20 feet	Sapling	
Bigtooth Aspen		10	Log	14		Red Maple		Medium	>20 feet	Sapling	
Sugar Maple		8	Pole/Log	8		Red Oak		Medium	>20 feet	Sapling	
Paper Birch		2	Pole/Log	8		Balsam Fir		Low	5 - 10 feet	Sapling	
						Striped Maple		Medium	5 - 10 feet	Sapling	
<b>37</b>	4310 - Pine, Oak Mix	Sawtimber Medium	18.2	81	51-80	N/A	'11: OI Stand Year Origin was 1940 '21: Natural pine mixed w/deciduous, mainly RO/some aspen. Variable canopy closure and DBH's depending upon location. Areas of stand appear to of had a past shelterwood and/or leave pine/oak type harvest. Those locations have lower BA (~40-90) of pine/oak, generally as log sizes. South and an eastern area of R6 mixed w/RO/aspen plus scat log sized pine. Calling logs the 'overall size', their lower stocking in the canopy tended to average 50-75% closure. Some locations (the R6-ish areas) had higher can-closure. Fairly desirable/diverse sub-canopy of conifer/decid. ~E1/2 of stand resides atop some high ground that then slopes westward down into Stand 38 (not steep but more than gradual in areas). BA swings= 50,60,40,100,90 (68avg).				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		10	Log/Pole/XLog	12		Black Spruce		Low	Variable	Sapling	
Red Pine		46	Log/Pole/XLog	11	81	Balsam Fir		Medium	Variable	Sapling	
Red Oak		25	Log/Pole/XLog	12		White Pine		High	10 - 20 feet	Sapling	
Bigtooth Aspen		13	Log/Pole	11		Red Maple		Medium	>20 feet	Sapling	
Red Maple		4	Pole	7		Red Pine		Medium	5 - 10 feet	Sapling	
Jack Pine		2	Pole/Log	8		Red Oak		Low	>20 feet	Sapling	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>38</b>	42290 - Natural Mixed Pine	Sawtimber Medium	20.2	90	51-80	N/A	'11: Stand had all but pine removed in 1984. Selection cut in 2004.'21: Variable to lower stocked canopy of mostly XL/L (some Legacy) WP/RP growing on a narrow piece of transitional ground (north and south ends widens out a bit). Scattering of other conifer/deciduous, a bit more variety in north and south when the stand widens out and begins mingling w/adjacent stands. Increased RO/higher can-closure in north. Small pockets of NWC present along western boundary, old railroad grade on west too. Signs of past management pretty obvious in areas (stmp-sprt RM, pine stumps from selection). Desirable sub-canopy of advanced conifer (some decid) regen. BA swings= 80,70,50,80,90 (74avg).				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		36	XLog/Log/Pole	18		Red Maple		Medium	10 - 20 feet	Sapling	
White Pine		40	XLog/Log/Pole	22	90	Black Spruce		Medium	Variable	Sapling	
Northern White Cedar		4	Pole/Log	8		White Pine		Medium	10 - 20 feet	Sapling	
Balsam Fir		4	Pole/Sapling	6		Balsam Fir		Medium	Variable	Sapling	
Paper Birch		3	Pole	7		Red Pine		Low	10 - 20 feet	Sapling	
Bigtooth Aspen		4	Log	12		Red Oak		Low	10 - 20 feet	Sapling	
Red Maple		3	Pole/Sapling	6	37	Labrador Tea		Medium	< 5 feet	Tall Shrub	
Red Oak		3	Log/Pole	14							
Black Spruce		3	Pole/Sapling	6							
<b>39</b>	42220 - Natural Jack Pine	Poletimber Medium	3.9	36	81-110	N/A		Moderate quality jack pine. Best stocking is in the east half of the stand, the rest of the stand has more sporadic stocking. Aspen is mostly in the middle of the stand. Average ba/acre from 3 plots = 93 square feet. Terrain slopes gradually down to the east. Might be ready for a harvest next entry.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species			Density	Avg. Height	Size
Red Maple		1	Pole	5		Balsam Fir			Trace	Variable	Sapling
Balsam Fir		1	Pole	5		Red Maple			Trace	Variable	Sapling
Bigtooth Aspen		25	Pole/Sapling	6		White Pine			Trace	Variable	Sapling
Jack Pine		73	Pole/Sapling	5	36	Black Cherry			Trace	Variable	Tall Shrub
<b>40</b>	4311 - Pine, Aspen Mix	Poletimber Well	8.6	35	111-140	N/A	Red pine was row planted, but aspen sprouted back well and is overtopping the red pine in some areas. Close to a 50/50 mix between the aspen and red pine. Average ba/acre from 6 plots = 120 square feet.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Bigtooth Aspen		48	Pole/Sapling	5	35	Red Maple		Low	Variable	Sapling	
Red Pine		44	Pole/Sapling	5	35	Black Cherry		Low	Variable	Tall Shrub	
White Pine		1	Pole	6							
Jack Pine		3	Pole/Sapling	5							
Red Maple		2	Pole/Sapling	5							
Red Oak		2	Log	14							
<b>41</b>	42220 - Natural Jack Pine	Sapling Well	7.0	27	Immature	N/A	Moderate quality jack pine that is starting to approach merchantability. Not well-stocked in all areas and there are a few small non-forested openings mixed in throughout. Aspen as well as the red pine is mostly at the far western end of the stand. Lots of reindeer moss at the ground level.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		3	Log/Pole	10		Jack Pine		Trace	5 - 10 feet	Sapling	
Bigtooth Aspen		15	Sapling/Pole	3		Red Maple		Trace	Variable	Sapling	
Jack Pine		82	Sapling/Pole	4	27	Red Pine		Trace	Variable	Sapling	
						White Pine		Trace	Variable	Sapling	
						Black Cherry		Trace	Variable	Tall Shrub	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>42</b>	4311 - Pine, Aspen Mix	Sapling Well	12.2	27	1-50	N/A	<p>Could get away w/calling a pole stand. Western areas heavier to patchy/clumpy stocking of BTA mixing w/JP saps and residual RO. Many of the aspen stems were 4.5-4.9", some larger if growing w/less competition. East 1/2 travels gradually downslope towards Stand 409 (L0). Stem density increases, so does JP (and some other conifer). The east 1/2 is still pretty much sapling dominant. Scattered residual RO, a few WP,RP,JP and then a handful of BTA logs. MiFI wouldn't allow calling JP sap/pole/log. BF saps medium density along Stand 409. Stand appeared to be heavily traveled by wildlife. 3" aluminum disk corner found in stand, one witness tree too (a WP). BA swings= 50,70,20,10 (37avg).</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	40	Sapling/Pole	4	27	White Pine	Medium		10 - 20 feet	Sapling
Red Pine	1	Log/Pole	12		Red Pine	Low		5 - 10 feet	Sapling
Jack Pine	40	Sapling/Pole	4		Black Cherry	Low		5 - 10 feet	Sapling
Red Maple	5	Sapling/Pole	4		Balsam Fir	Low		10 - 20 feet	Sapling
Red Oak	5	Log/Pole	14	84					
White Pine	5	Sapling/Pole/Log	4						
Balsam Fir	4	Sapling/Pole	4						
<b>43</b>	42110 - Planted Red Pine	Sawtimber Well	12.4	62	81-110	N/A		<p>McDonald '15: Stand Year Origin was 1959. Stand thinned in 2015. JSP '21: 3rd row thinned in '15, appears all deciduous (except oak) was removed too. Remaining rows generally low/lower stocked, can-closure at low-end of 75-100%. Decent quality, but will take a long time before stand reaches a BA high enough to warrant a 2nd entry crown thin down to 120BA. Minimal deciduous in sub-canopy, most regen following deciduous removal has been browsed to 5ft or less. Scattered large RO, trace white oak saps observed in extreme west, in a small opening. BA swings= 80,70,70,120,110,130,130 (101avg)</p>	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
Red Pine	95	Log/Pole	11	62	Bigtooth Aspen	Low	5 - 10 feet		Sapling
Red Oak	3	XLog/Log/Pole	20		White Pine	Low	10 - 20 feet		Sapling
Bigtooth Aspen	1	Pole/Log	9		Red Pine	Low	5 - 10 feet		Sapling
Red Maple	1	Pole/Sapling	7		Red Maple	Low	< 5 feet		Sapling
					White Oak	Trace	10 - 20 feet		Sapling
					Red Oak	Low	10 - 20 feet		Sapling
					Black Cherry	Medium	5 - 10 feet		Sapling
<b>44</b>	4133 - Aspen, Mixed Pine	Sapling Well	11.7	27	1-50	N/A	<p>McDonald '11: Stand Year Origin was 1994.JSP '21: Clumpy, scattered pockets of aspen/RM regen mixed w/pine regen. Canopy-closure on the low-end of 75-100%. Regen is generally less dense when growing near residual oak, more dense if growing away from residual. Guessing browse underneath/near oak mast encouraged the 'consumption' of those regen stems not long after harvest. Suppressed med/low density layer of 5-10ft WP, RP, JP saps growing underneath and outside of the taller regen stems. Also, the same species at more/less the same height as the aspen/RM regen stems. Regenerating RO saps present, and some residual RO stems are xlog. A few scattered WP,RP,JP residuals, most near eastern boundary. Small clump of unharvested aspen east of forest rd, against Stand 43.</p>		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	41	Sapling/Pole	3	27	Red Pine	Medium		5 - 10 feet	Sapling
Red Maple	20	Sapling	2		White Pine	Medium		5 - 10 feet	Sapling
Red Oak	8	Log/Pole/Sap	15	84	Jack Pine	Medium		5 - 10 feet	Sapling
White Pine	10	Sapling/Pole	3		Black Cherry	Low		10 - 20 feet	Sapling
Jack Pine	10	Sapling/Pole	3						
White Oak	3	Sapling	4						
Red Pine	8	Sapling/Pole/Log	4						
<b>45</b>	42220 - Natural Jack Pine	Sapling Well	16.1	27	Immature	N/A		<p>Dense stand of young jack pine except for some scattered areas of blowdown. No furrows present but the jack pine almost appears planted in some spots? A few black cherry can be found at the south end of the stand in areas that look like old chip piles. A few white pine, black spruce, and white oak saplings are scattered throughout, although they are rare.</p>	
Canopy Species	% Cover	Size Class	DBH	Age					
Black Cherry	2	Sapling/Pole	4						
Balsam Fir	1	Pole/Sapling	5						
Red Pine	2	Log/Pole	12						
Quaking Aspen	2	Sapling	3						
Bigtooth Aspen	5	Sapling	3						
Jack Pine	88	Sapling/Pole	3	27					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																												
<b>46</b>	42110 - Planted Red Pine	Sawtimber Well	4.5	60	81-110	N/A	McDonald '11: Stand was 3rd row thinned in 2004. JSP '21: Variably stocked in areas, but overall lower stocked with RP. RP isn't the worst, is a bit short/somewhat limby, defect/doubles not uncommon. A few canopy red oak along perimeter (30" legacy in far east), as well as other deciduous mixing in from adjacent stands. Small sap pocket in west, must of been a clump of deciduous that was removed. Now holds some oak, RM, BTA JP and RP regen. Mentioned this in Stand 63 comments, P/S planted RP overtopped by BTA is present north of this stand, west of the forest rd. Will be final harvested with Stand 63. Almost no competition to deal w/in the sub-canopy. BA swings= 60,150,130,100,70 (102avg)																																																												
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<b>47</b>	4123 - Red Oak	Sawtimber Poor	7.0	85	1-50	N/A	McDonald '11: Oak residual. Too early to get a handle on reproductive success. JSP '21: Harvested in '04, stand coded as a J3 last YO. Yikes, except for a few scattered BTA clones (clones very small in size) and scattered RM regen off-the-stump, this stand has failed to regenerate/regen was eaten. Appears all remaining sub-canopy species were present/protected/not run-over during '04 harvest. Could maybe call RM saps ~'medium' density. North-end of stand used as a landing when Stand 49 was recently cut. Residual BA varies upon location. BA swings= 30,60,80 (56avg)																																																												
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<b>48</b>	42110 - Planted Red Pine	Poletimber Well	1.9	60	81-110	N/A	McDonald '11/'15: Stand Year Origin was 1961. Stand was thinned in 2015. JSP '21: 3rd row-thinned in '15. Could call a log sized stand, a lot of stems hanging out at 9"-11" DBH. Decent/ok quality RP, will take awhile for BA = build up to a density high enough to warrant a traditional crown-thin down to 120BA. 2-3 red oak present along boundary, the ones I observed were legacy size (26",30"). Deciduous likely removed in '15 (except oak), the minimal RM regen present is browsed to seedling height. BA swings= 130,100,100,100 (107avg)																																																												
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<b>49</b>	4123 - Red Oak	Sawtimber Poor	35.1	87	1-50	N/A	Stand was cut in 2019. Some oak was cut but the majority was left and it is nice quality oak for the most part. Average ba/acre of the residual from 7 plots = 30 square feet. Regeneration at this point consists mostly of red maple stump sprouts and bigtooth aspen clones. A small amount of birch and red oak stump sprouts are present but they are being heavily browsed and will likely not survive. The red maple and aspen are also being browsed but not too severely at this point. Regen survey results with average height in parentheses: bigtooth aspen 1071 TPA (3 ft), red maple 457 TPA (2 ft), red oak 86 TPA (1 ft). Almost all of this stand sits on an elevated knob that is higher in elevation than the surrounding stands.																																																												
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<b>50</b>	4130 - Aspen	Poletimber Well	28.4	44	81-110	N/A	Moderate quality aspen stand that sits on a west-facing slope. Diameters are small for the stands age, possibly due to lower site quality on a western aspect? The red oak is decent quality and there is a small amount of younger oak in the poletimber and sapling size classes that regenerated when the aspen was originally cut. The jack pine component tends to be in clumps, although a lot of it has died. A small inclusion of red pine is present at the far northeast corner of the stand. Trace of white pine poletimber. Average ba/acre from 9 plots = 103 square feet. This stand needs 10 more years of growth before a harvest is prescribed.																																																																												
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<b>51</b>	42220 - Natural Jack Pine	Poletimber Medium	30.3	46	51-80	N/A	Long linear stand of jack pine that borders lowland to the west and upland slopes to the east. Portions of the stand are on a slight western aspect. Sporadic stocking throughout the stand with many areas that are poorly-stocked. A few of these open areas are slowly filling in with jack pine. Jack pine quality is good in areas of better stocking. The spruce/fir component is mostly along the western edge. Dry, nutrient poor site as evidenced by reindeer moss, which is abundant throughout the stand. Average ba/acre from 12 plots = 62 square feet.																																																																												
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<b>52</b>	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	376.9	125	Unspecified	N/A	Did not see all of this very large lowland complex. Areas I did observe were accessed from eastern boundary locations. Perimeter areas were highly variable with regard to species mixing/dominance (fire & harvest origin RP/JP/WP/etc) as they transition from lowland to upland (generally). Though upland areas are present/limited, the locations I observed were quite wet with sensitive soils. Some small interior upland areas split out by McDonald are dotted across the complex. Old railroad grade dissects the stand in the south (travels NE/SW)																																																																												
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<b>53</b>	622 - Lowland Shrub	Nonstocked	102.7		Unspecified	No	Milligan Creek Floodplain. Observed in several locations along west boundary. Tag alder, 5-10ft+, common. Scattered then areas heavier stocked with conifer and deciduous, sapling to log sizes.																																																																												
<b>54</b>	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	11.3	116	51-80	N/A	Unable to see this stand in person. Using McDonald's previous covertime call from 2011.																																																																												



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>55</b>	4311 - Pine, Aspen Mix	Poletimber Medium	26.5	40	51-80	N/A	'11: OI Stand Year Origin was 1981 '21: Variable canopy-closure and species composition depending on location. Though somewhat obscured by snow, appeared that drainages (seasonal) move in/out of the stand in areas. Quaking aspen not completely 'onsite' here. Some residual RO scattered about, included those in the canopy list. Some of the WP/RP appeared to be residual from harvest too. Fir likes this ground, was growing well here.		
	<b>Canopy Species</b>	<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
	Quaking Aspen	56	Pole/Sap/Log	7	40	Black Cherry	Medium	10 - 20 feet	Sapling
	Balsam Fir	15	Pole/Sap/Log	6		Balsam Fir	Medium	10 - 20 feet	Sapling
	White Pine	8	Pole/Sap/Log	9		Red Maple	Medium	>20 feet	Sapling
	Jack Pine	10	Pole/Sapling	7		White Pine	Medium	10 - 20 feet	Sapling
	Red Pine	5	Pole/Log	9		Jack Pine	Low	10 - 20 feet	Sapling
	White Spruce	4	Pole/Sapling	6		Red Pine	Low	10 - 20 feet	Sapling
	Red Oak	2	Log/XLog	17		White Spruce	Low	10 - 20 feet	Sapling
						Tag Alder	Low	5 - 10 feet	Tall Shrub
<b>56</b>	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	30.7	88	111-140	N/A	'11: OI Stand Year Origin was 1933 '21: Transitional area of this stand, along the interface w/Std55, is generally log sized NWC, spruce and some RP/WP (some minor 'upland' in these areas). Once into the wet/core area, diameters decrease into pole sizes and/or pockets of regenerating blowdown (where DBH's are even small yet). The further north you go, the wetter and smaller the stand tended to get. 'Fans out' into lowland shrub in extreme north. BA swings= 100,150,140 (130avg).		
	<b>Canopy Species</b>	<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
	Black Spruce	30	Pole/Log	8		Balsam Fir	Medium	Variable	Sapling
	White Spruce	8	Log/Pole	12		Paper Birch	Low	>20 feet	Sapling
	Northern White Cedar	42	Pole/Log/Sap	8	88	Black Spruce	Medium	>20 feet	Sapling
	Balsam Fir	5	Pole/Sap/Log	6		Labrador Tea	Medium	< 5 feet	Tall Shrub
	Red Pine	4	XLog/Log	21		Balsam Fir	Medium	< 5 feet	Seeding
	White Pine	4	XLog/Log	22		Black Spruce	Low	< 5 feet	Seeding
	Quaking Aspen	7	Log	10		Tag Alder	High	5 - 10 feet	Tall Shrub
<b>57</b>	42290 - Natural Mixed Pine	Sapling Well	53.2	27	1-50	N/A	Appears to of been a 'leave all RP, WP, Oak and a few JP' harvest. The regenerating saplings are the featured layer. Very encouraging/generally dense mix of pine regeneration in most areas, some spruce (5%)/RM(4%) regen too, couldn't fit those into the above canopy list. JP saps quite dominant, then areas mixed heavier to RP/WP with JP. Residual stems (mostly RP) quite dense in areas, primarily in the ~east 1/2. Not as much regen where residual is heaviest. Observed two minor seasonally 'low' areas. BA swings= 0, 20,40,110,70,30,40 (44avg).		
	<b>Canopy Species</b>	<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
	Red Pine	18	Log/XLog	13	82	Common Lowbush Blueberry	Medium	< 5 feet	Tall Shrub
	Red Pine	24	Sapling	3	27	White Pine	Medium	< 5 feet	Seeding
	Jack Pine	28	Sapling/Pole	3	27	Jack Pine	Medium	< 5 feet	Seeding
	White Pine	3	Log/XLog	14	82	Red Pine	Medium	< 5 feet	Seeding
	White Pine	12	Sapling	3		Labrador Tea	Low	< 5 feet	Tall Shrub
	Balsam Fir	5	Sapling/Pole	4					
	Red Oak	2	Log	13	82				
	Bigtooth Aspen	8	Sapling	4					
<b>58</b>	42220 - Natural Jack Pine	Poletimber Well	15.6	46	51-80	N/A	'11: Stand was roller chopped in 1975. '21: Previously classified as a J4, canopy has/is closing in, now borderline 50-75/75-100% can-closure depending on location. Low-end of 75-100% is a reasonable fit. JP mainly dominant w/components of RP, WP, aspen and some minor spruce/fir in areas. Some RP/WP is a 2nd (older) age class. Two-acre inclusion of MC8/9 (w/some QA) in east (previously Std59). Inclusion located on transitional ground, features canopy/sub-canopy spruce along w/the RP, JP, WP and Fir.		
	<b>Canopy Species</b>	<b>% Cover</b>	<b>Size Class</b>	<b>DBH</b>	<b>Age</b>	<b>Sub-Canopy Species</b>	<b>Density</b>	<b>Avg. Height</b>	<b>Size</b>
	Jack Pine	60	Pole/Sap/Log	6	46	Red Maple	Low	>20 feet	Sapling
	Red Pine	12	Pole/Log	8		Jack Pine	Medium	10 - 20 feet	Sapling
	Black Spruce	4	Pole/Sapling	5		Red Pine	Low	10 - 20 feet	Sapling
	Balsam Fir	6	Sapling/Pole	4		Balsam Fir	Medium	Variable	Sapling
	Quaking Aspen	3	Pole/Sapling	5		White Pine	Low	Variable	Sapling
	White Pine	5	Log/Pole	12		White Spruce	Low	10 - 20 feet	Sapling
	Bigtooth Aspen	10	Pole/Sapling	6		Black Spruce	Low	10 - 20 feet	Sapling
						Bracken Fern	Medium	Unspecified	Non-Wood



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
59	6122 - Black Spruce	Poletimber Well	15.4	90	111-140	N/A	Narrow stand of black spruce of relatively good quality although there are a lot of small diameter trees in areas. Trace of white pine and red maple in the overstory. Average ba/acre from 13 plots = 130 square feet. The east edge of the stand is on the upland transitional zone. The rest of the stand is lowland but appears mostly operable. There are some wet areas that should be excluded if a harvest is prescribed.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	1	Log	14		Balsam Fir	Trace		Variable	Sapling
Tamarack	1	Log/Pole	10		Black Spruce	Trace		Variable	Sapling
Balsam Fir	5	Pole	5		Red Maple	Trace		Variable	Sapling
Jack Pine	20	Pole/Log	8		Michigan Holly	Low		5 - 10 feet	Tall Shrub
Black Spruce	70	Pole/Sap/Log	7	90	Tag Alder	Trace		Variable	Tall Shrub
Northern White Cedar	3	Pole	8		Nannyberry	Trace		5 - 10 feet	Tall Shrub
60	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	30.9	108	111-140	N/A		Didn't get a chance to see all of this stand. Variable dominance in the areas I did travel. Spruce more dominant near perimeter. Interior portions heavier to NWC. Interior portions quite wet w/areas of tip-ups/blowdown and heavy sapling production. Scattered log/xlog/legacy WP present. BA swings= 170,100,130 (133avg).	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density			Avg. Height
Northern White Cedar	40	Pole/Log/Sap	8	108	Balsam Fir	High	Variable		Sapling
Balsam Fir	5	Pole/Sapling	6		Northern White Cedar	Medium	>20 feet		Sapling
Black Spruce	33	Pole/Log	8		Black Spruce	Medium	10 - 20 feet		Sapling
Paper Birch	5	Pole/Log	8		Black Ash	Low	10 - 20 feet		Sapling
White Pine	4	Log/XLog/Pole	16		Tag Alder	Medium	5 - 10 feet		Tall Shrub
Red Maple	5	Pole/Log	8		Labrador Tea	Low	< 5 feet		Tall Shrub
Tamarack	8	Log/Pole	11						
61	42140 - Planted Mixed Pine	Poletimber Well	4.4	56	111-140	N/A	This stand is a near even mix of planted red pine and natural origin jack pine. The north and south ends are heavier to jack pine while the middle of the stand has more red pine. The jack pine is mostly small diameter. Trace of white pine and black spruce poletimber. Average ba/acre from 5 plots = 122 square feet. Most of the stand sits on a west facing slope. Allow the stand to increase in diameter and basal area before considering a harvest.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	6	Pole/Sapling	6		Balsam Fir	Trace		Variable	Sapling
Balsam Fir	1	Pole	5		Red Maple	Trace		Variable	Sapling
Red Oak	1	Log/XLog	15		Black Cherry	Low		Variable	Tall Shrub
Red Pine	45	Pole/Log	9						
Jack Pine	47	Pole	7	56					
62	4134 - Aspen, Spruce/Fir	Poletimber Well	13.7	46	51-80	N/A	'11: OI Stand Year Origin was 1975 '21: Aspen w/a conifer component that 'jets' in/out depending on location. A bit more open/lighter stocked in south. Closes up/higher stocking as you move north. Low-end of 75-100% closure is about average. Some of the conifer stems were +4-5" of the avg DBH listed above. Some minor 'low' areas around perimeter, specifically a dense pocket of conifer sap/pole in center/west of stand. Also ~1ac inclusion of some larger RP,WP,JP in NW (was formally its own stand). BA swings= 80,60,40 (60avg).		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Quaking Aspen	55	Pole/Log	8	46	White Pine	Medium		10 - 20 feet	Sapling
White Pine	10	Pole/Log	9		Balsam Fir	Medium		Variable	Sapling
Jack Pine	5	Pole/Log	8		Black Spruce	Medium		10 - 20 feet	Sapling
Black Spruce	8	Pole/Sapling	6		Jack Pine	Low		>20 feet	Sapling
Balsam Fir	14	Pole/Sap/Log	7		Red Pine	Low		>20 feet	Sapling
Bigtooth Aspen	5	Pole/Log	8		Balsam Fir	Medium		< 5 feet	Seeding
Red Pine	3	Pole/Log	9		White Pine	Medium		< 5 feet	Seeding
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																												
<b>63</b>	4130 - Aspen	Poletimber Well	17.1	55	81-110	N/A	McDonald '11: Stand Year Origin was 1966. JSP '21: Pretty much top to bottom a BTA stand. RO left when harvested in mid-60's. The oak is pretty well scattered throughout, except for a more prominent clump located in the narrow northern area (a 25" RO present in stand). Aspen in conversion from pole to log, still a fair amount of saps though. A few conifer hanging out in the sub-can, as well as some RO regen. RM saps off-the-stump generally medium, some areas flirting w/'high' density. Incidental/trace components of WO (saw 1-log in west), RP (xlog/log) and the PB,WP,JP listed in canopy. BA swings= 100,140,180,70,100,70 (110avg). Planted red pine (from Std.46) present in north, west of the forest rd. The planted RP is P/S and overtopped by BTA. Then saw trace natural RP in remainder of stand (xlog/log). RP listed in canopy represents the planted RP from Std.46.																																																												
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<b>64</b>	42110 - Planted Red Pine	Sawtimber Medium	20.4	62	111-140	N/A	Stand thinned in 2015 but it also looks like all jack pine was removed. This has resulted in highly variable BAs with scattered areas of low stocking. Jack pine has seeded into a few of these openings. Average ba/acre from 9 plots = 113 square feet.																																																												
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<b>65</b>	4132 - Aspen, Jack Pine	Sapling Well	6.1	27	Immature	N/A	Well-stocked stand of aspen with some clumps of jack pine. Most jack pine is free to grow but there are some areas where the aspen is overtopping the jack pine. The aspen is mostly healthy and doesn't show any signs of past browse damage. Trace of balsam fir, black spruce, and white pine saplings.																																																												
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<b>66</b>	4130 - Aspen	Poletimber Well	20.1	55	111-140	N/A	Moderate quality aspen stand. Diameters tend to vary significantly throughout the stand. A small component of larger, older aspen is scattered infrequently throughout and a lot of these are poor quality with lots of rot. There are also a few areas with smaller saplings mixed in, particularly the narrow central part of the stand as well as a few areas along the north and south edges. The area in the middle of the stand also has some small jack pine mixed in. I'm guessing this area was harvested with stand 6 to the south or stand 68 to the north but it's hard to tell on imagery. Trace of red oak, red pine, and paper birch in the overstory. Average ba/acre from 10 plots = 129 square feet.																																																												
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67	42260 - Natural Pine, Mixed Deciduous	Sapling Well	12.8	27	1-50	N/A	McDonald '11: Stand Year Origin was 1994 JSP '21: Fairly dense/consistent stocking of mainly JP/BTA. Areas along/near SE boundary were somewhat lower stocked. E1/2 of stand tended to be a mixture of JP/BTA. West 1/2 was primarily JP dominant. Scattered/minor residual WP, RP a few RO. Small area in NW had half-dozen or so residual BTA stems located on a slightly sloped piece of ground. Stand as a whole is regenerating well, some pole sizes emerging here/there. Somewhat steep slope on west along Stand 5/69, sandy and has experienced some erosion. Animal usage appears to of caused some of the erosion (doesn't appear human related anyhow). Trace WhtSprc (sap). No BA swings taken.																																																																	
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68	42140 - Planted Mixed Pine	Poletimber Well	16.3	36	81-110	N/A	Natural origin jack pine mixed in with planted red pine. Furrows are present throughout but the red pine is not uniform. Some areas of very dense stocking where the red and jack pine is mixed in together. Diameters vary quite a bit with smaller diameters in the northwest part of the stand. A few small clones of aspen are present in the middle of the stand and they are overtopping the pine. Average ba/acre from 6 plots = 98 square feet. Numerous deer and elk trails throughout. This stand will likely be ready for a thinning next entry but rows will probably have to be marked out as they are not distinguishable in all areas.																																																																	
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69	6239 - Mixed Emergent Wetland	Nonstocked	1.9	0	Unspecified	No	Similar to Stand 5 in that the majority of this stands western boundary is an old railroad grade. In areas north of the 2-track, the grade is terraced/steps 'up and down' from the grade itself. Grade has influenced how water moves north out of the large lowland complex (stand 52). This stand moves water, seasonally, when conditions are excessively wet. Course was dry but 'well defined' during my visit (OFS w/pic available). Stand itself is a mixture of willow, alder, JP (sap through log) and other species listed above. Extreme southern/narrow tail was quite wet/thick w/lowland shrubs. Mentioned this in Stand 5 comments, some eroding slope on east against Stand 67. Appears animal usage up/down those slopes has contributed to the sandy soils eroding in areas.																																																																	
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70	6124 - Lowland Spruce-Fir	Poletimber Poor	19.9	67	51-80	N/A	Poor quality stand on very wet ground. The only areas of better quality and stocking are along the north edge which is on the upland/lowland transitional zone. There is a small upland inclusion at the northeast part of the stand, west of the road, which has some large diameter red and white pine. Average ba/acre from 6 plots = 77 square feet. A small stream crosses Road 5 and does not have a proper culvert, it is currently flowing across the road.																																																																	
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71	42220 - Natural Jack Pine	Sapling Well	5.9	27	1-50	N/A	'11: OI Stand Year Origin was 1994 '21: Jack pine regen is quite dense, pole sizes emerging across most species. Perimeter areas generally feature the non-JP species. Transitional ground (softer/seasonally wet) along southern boundary.																																																																
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72	4311 - Pine, Aspen Mix	Poletimber Well	47.2	35	51-80	N/A	'11: OI Stand Year Origin was 1986 '21: Majority of stand is teetering on 'true' conversion to pole sizes. Inconsistent/patchy stocking, open in areas, ~75% overall can-closure. Many pine/conifer stems are the same/similar DBH as aspen (good soils here for pine/conifer). Pine/conifer regen is very dominant in areas. Scattered 2nd age class of residual RO, RP and some WP/JP (tough to feature those stems separately in MiFI). Small inclusion of un-harvested/mature stems in north. Trace BlkSprc/PB poles near Grass Lake.																																																																
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73	4311 - Pine, Aspen Mix	Sapling Well	20.9	27	1-50	N/A	Strong pine component in the regen layer (mainly RP), especially in southern portions of the stand. Scattered/consistent 2nd age class of residual red oak present, RO stems I observed appeared happy/healthy. McDonald noted browse pressure from deer/elk during visit in '11. Seems like the stems that were going to 'make it', have made it. Didn't see much in the way of new browse pressure during '21 visit.																																																																
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74	500 - Water	Nonstocked	10.7		Unspecified	No	Grass Lake. Previously listed as a 'Marsh' in Operations Inventory (OI). When I observed in Feb'21 there wasn't any ice and/or water. So this feature likely holds water seasonally...																																																																
75	42290 - Natural Mixed Pine	Sawtimber Well	8.3	86	111-140	N/A	Multiple lower stocked/wet leatherleaf pockets mixed in throughout. Jack pine has fallen out/expired in areas. Slopes (most gradual) lead down into this stand.																																																																
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
<b>76</b>	4311 - Pine, Aspen Mix	Sapling Well	38.5	26	1-50	N/A	Sigh, MiFI won't allow correct species representation of this 2-aged stand. Saplings (now some poles) are the featured/dominant layer, then a 2nd age class of residual (in order of prevalence) RP (L/XL), RO (L), WP (L) and JP (L/P) . A very broad mixture of species in the featured sap/pole layer, almost all desirable. Stocking throughout is variable/patchy: swathes of JP regen, consistent BTA in most areas, decent presence of RP/WP and lesser stocking of PB/RO/RM. Residuals appeared healthy and providing/provided a good seed source for volunteer establishment. Regen south of Rd.5 appeared older (more poles) and with a higher stocking of residual pine stems (think this area has a different treatment history).				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Bigtooth Aspen		46	Sapling/Pole	4	26	Beech		Low	5 - 10 feet	Sapling	
Red Pine		12	Log/Pole/Sap	14	78	Paper Birch		Medium	>20 feet	Sapling	
Red Maple		5	Sapling/Pole	4							
Balsam Fir		4	Sapling/Pole	3							
Red Oak		5	Log/Pole/Sap	14							
Jack Pine		20	Sapling/Pole/Log	3							
White Pine		8	Sapling/Pole/Log	3							
<b>77</b>	4311 - Pine, Aspen Mix	Sapling Well	14.1	17	Immature	N/A	Mainly aspen regen with a good component of conifer throughout. JP saps make up the bulk of the conifer regen. Southern and eastern areas where conifer/pine saps dominate. Scattered residual red oak and a few RP, WP and JP. Some regen along southern boundary is the result of species 'influence' Stand 78.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Bigtooth Aspen		50	Sapling	2	17	Black Spruce		Low	< 5 feet	Sapling	
Quaking Aspen		5	Sapling	2							
Jack Pine		18	Sapling	3							
White Pine		8	Sapling/Pole	3							
Red Pine		8	Sapling/Pole	3							
Balsam Fir		5	Sapling	2							
Red Oak		2	Sapling	2							
Red Oak		4	Log	12							
<b>78</b>	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	22.7	102	Unspecified	N/A	Intermittent creek runs east/west through the northern block of this stand. Slopes lead quickly down to the stream bed. Didn't see all of the northern area, portions I did see had a broader mix of species than the narrow southern 'tail'. Southern tail was pretty darn wet, areas of significant ash mortality that is being reclaimed by a mix of conifer (some deciduous) saps. Then areas of cedar dominance (generally small pole) in south. Cedar saps listed in sub-can are suppressed stems, generally same height/age as the 'true' NWC in canopy.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern White Cedar		45	Pole/Log	8	102	Balsam Fir		Medium	5 - 10 feet	Sapling	
Balsam Fir		15	Pole/Sapling	5		Northern White Cedar		Medium	>20 feet	Sapling	
Quaking Aspen		4	Log/XLog/Pole	16							
Red Maple		6	Log/Pole	10							
Black Spruce		15	Pole/Sap/Log	7							
Paper Birch		3	Pole/Log	7							
Balsam Poplar		3	Log/Pole	14							
White Pine		3	Log/XLog/Pole	17							
Red Pine		3	Log/XLog/Pole	17							
Tamarack		3	Log/Pole	12							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**79** 4134 - Aspen, Spruce/Fir Poletimber Well 30.5 37 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	45	Pole/Sap/Log	6	37	Balsam Fir	High	10 - 20 feet	Sapling
Balsam Fir	30	Sapling/Pole	4	37				
Red Maple	8	Sapling/Pole	4	37				
Paper Birch	5	Sapling/Pole	4					
Red Oak	3	Log/XLog	17					
White Spruce	3	Sapling/Pole	4					
White Pine	3	Pole/Sapling	5					
Balsam Poplar	3	Pole/Sapling	6					

'11: OI Stand Year Origin was 1986  
'21: A fair amount of QA stems have converted to pole sizes. Aspen diameters larger where conifer component was less dense, smaller if more dense. Majority of BF (and remaining species) hovering around large sap/small pole DBH's. Overall a 'closed-canopy' but not yet 'well stocked' w/pole sizes. Scattered 2nd age class of large red oak residuals from harvest. Trace clumps of P/L NWC and scattered pole RP.

**80** 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 9.4 90 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	18	Log/Pole	10		Red Maple	Medium	>20 feet	Sapling
Red Maple	4	Pole/Sapling	5		White Pine	Medium	10 - 20 feet	Sapling
Red Oak	57	Log/Pole	12	90	Jack Pine	Low	10 - 20 feet	Sapling
White Pine	5	Pole/Log	8		Balsam Fir	Low	10 - 20 feet	Sapling
Jack Pine	8	Pole/Log	8		Bigtooth Aspen	Low	>20 feet	Sapling
Red Pine	5	Log/Pole	11	67	Red Oak	Medium	10 - 20 feet	Sapling
White Oak	1	Log/Pole	16	107	White Oak	Trace	10 - 20 feet	Sapling
Balsam Fir	2	Pole	7		Red Pine	Low	10 - 20 feet	Sapling

Small mixed stand, RO tended to be most common. Appears that some kind of removal Rx went through the stand, likely 50 or more years ago. RM was the obvious 'off-the-stump' regen, and some of the aspen are likely regen stems. Some adjacent stands were cut in the mid-60's timeframe. Remainder of stand is rare in the sense that it appears lightly managed. Variable/reduced canopy closure, mostly in west a top a knob/high-point populated by wider-crowned RO. BTA/JP mixing in throughout, east end and NW a bit more JP dominant. S/P and P/S RM experiencing mortality, appears to be the result of repetitive browse damage/being in a suppressed canopy position for quite some time. Canopy closure averages low-end of 75-100%. Minor components of generally scattered WP/RP and trace WO (log/1-pole) and BF (pole). Stand 47, to the NW, was recently harvested, nearly all regen has been consumed/eaten. Unsure what the previous covertime was, residuals/proximity suggest it was similar to this stand.... BA swings= 50,100,50,40,90,40,50 (60avg)

**81** 4139 - Aspen, Mixed Deciduous Poletimber Well 5.8 50 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	52	Pole/Sapling	6	50	White Pine	Low	10 - 20 feet	Sapling
Red Maple	18	Sapling/Pole	4		Red Maple	Medium	>20 feet	Sapling
Red Oak	12	Log/XLog/Pole	17		Red Oak	Low	10 - 20 feet	Sapling
White Pine	3	Pole	7		White Oak	Low	10 - 20 feet	Sapling
Jack Pine	6	Pole	7		Red Pine	Low	5 - 10 feet	Sapling
Red Pine	3	Log/Pole	11		Balsam Fir	Trace	10 - 20 feet	Sapling
White Oak	6	Log/XLog/Pole	16	107	Black Spruce	Trace	10 - 20 feet	Sapling
					Striped Maple	Trace	10 - 20 feet	Sapling
					White Pine	Low	< 5 feet	Seeding
					Red Pine	Low	< 5 feet	Seeding

McDonald '11: Stand Year Origin was 1966  
JSP '21: Aged a 4.4" BTA at 50yrs, 5yr difference from McDonald's age above. This stand has the ~same Rx history and dominant/second age as Stand 19, but aspen stems noticeable smaller and still moving from large sap into small pole sizes. RM is 'off-the-stump' regen, majority of which are still sap size. Scattered but consistent 2nd/older age class of RO/WO, all those I observed appeared healthy. As mentioned in Stand 19 comments, from what I observed during inventory, these two stands hold the majority of the white oak component found within the compartment. Some natural and a few planted RP (from Std.2) present, as are a few pole sized WP stems. RM saps 'high' in areas. WO saps ranged 5-20ft tall. BA swings= 40,90,50,20 (50avg)



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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**82** 6129 - Mixed Coniferous Lowland Forest Poletimber Well 3.7 108 141-170 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Hemlock	38	Pole/Log/Sap	9	108
Northern White Cedar	30	Pole/Log	8	
Red Maple	6	Log/Pole	10	
White Pine	14	XLog/Log	22	
Paper Birch	2	Log/Pole	10	
Red Pine	2	XLog/Log	20	
Balsam Fir	8	Pole/Sapling	7	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Medium	Variable	Sapling
Red Maple	Low	>20 feet	Sapling
Hemlock	Medium	>20 feet	Sapling
Northern White Cedar	Low	>20 feet	Sapling

Could call Log or Pole dominant. Hem/NWC mix w/scattered but consistent component of XL/L (some Legacy) WP super-can trees. Didn't have room for the following species in the canopy: QA (~2%, XL/L), trace AmElm (L/P) and RO (Pole). Site seemingly had 'upland' areas when visited/was quite walkable. Other areas wet w/blowdown. Heavy ungulate usage observed.

**83** 4191 - Mixed Upland Deciduous with Conifer Sawtimber Well 22.0 77 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	22	Log/XLog/Pole	15	
Sugar Maple	3	Pole	8	
Red Maple	24	Pole/Log	9	77
Red Oak	2	Log/Pole	15	
Red Pine	8	Log/XLog/Pole	15	
White Pine	10	Log/Pole/XLog	13	
Quaking Aspen	8	Log/XLog/Pole	14	
Northern White Cedar	2	Pole/Log/XLog	9	
Paper Birch	8	Pole	8	
Balsam Fir	10	Pole/Sap/Log	7	
White Spruce	2	Log/Pole	14	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	High	>20 feet	Sapling
Red Maple	Low	>20 feet	Sapling
Sugar Maple	Low	>20 feet	Sapling
White Pine	Medium	Variable	Sapling
White Spruce	Low	>20 feet	Sapling
Paper Birch	Low	>20 feet	Sapling
Balsam Fir	Medium	< 5 feet	Seeding
Red Pine	Trace	< 5 feet	Seeding

Fairly diverse/little bit of everything. East 5ac was formally Std81, features isolated wet/low areas and holds more BF/QA in canopy. Species dominance 'toggles', ~center area(s) held more pine/conifer, increased deciduous outside those areas. Nearly all perimeter locations gently slope down (into wet on north & east), north more prominent slope into the intermittent creek bed. Very consistent sub-can BF, most 20ft or greater. Legacy WP present, didn't have room to include BlkSprc in canopy (P, 2-3%), trace BAM (P/L) and YB is likely present.

**84** 429 - Mixed Upland Conifers Poletimber Well 4.4 51 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	15	Log/Pole/XLog	15	88
Balsam Fir	18	Pole/Log	8	
Jack Pine	20	Pole	8	51
White Pine	8	Log/Pole	11	
Red Maple	12	Pole	9	
Paper Birch	6	Pole	8	
Quaking Aspen	9	Log/Pole	14	
Black Spruce	12	Pole	7	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	High	Variable	Sapling
White Pine	Medium	10 - 20 feet	Sapling
Red Pine	Low	10 - 20 feet	Sapling
Black Spruce	Medium	10 - 20 feet	Sapling

'11: OI Stand Year Origin was 1970.  
'21: May of been an old seed-tree type harvest, scattered and clumps of RP in areas, some quite large/xlog. Remainder of stems anywhere from sap/pole, pole/sap and pole/log. Canopy closure variable, lower end of 75-100% appeared average. Lowland influence along western/northern boundary. Intermittent drainage/creek shortly beyond northern boundary of this stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
<b>85</b>	42210 - Natural Red Pine	Sawtimber Well	6.7	92	141-170	N/A	Natural (likely fire origin) R/MC9 stand. Stocking is variable upon location, BA swings from south to north: 300,160,170,90 (180-avg). Stocking tended to remain higher in west 1/2 and in the southern 'squiggly' area. Squiggly south area holds a higher amount of NWC w/RP&WP mixed in (300BA swing from there). Most of the natural RP/WP present were of the quite tall/fairly well self-pruned variety. Deciduous increases in east along Std83. Legacy WP present and Trace RO logs. Decent Blk/WhtSprc advanced regen observed.			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Red Pine		62	Log/XLog/Pole	16	92	Balsam Fir		High	Variable	Sapling
White Pine		16	Log/Pole/XLog	14		Northern White Cedar		Low	>20 feet	Sapling
Northern White Cedar		5	Pole/Log/Sap	9		White Pine		Low	Variable	Sapling
Quaking Aspen		3	Log/XLog	17		Black Spruce		Medium	10 - 20 feet	Sapling
Paper Birch		3	Pole/Log	9		Red Pine		Low	Variable	Sapling
Red Maple		5	Log/Pole	11						
Black Spruce		3	Pole/Sapling	7						
Bigtooth Aspen		3	Log/Pole/XLog	15						
<b>86</b>	4136 - Aspen, Mixed Conifer	Sapling Well	24.0	24	1-50	N/A	Perimeter areas held higher amounts of conifer. Aspen (mainly QA) shares remainder of stand w/clumpy components of conifer. Majority of aspen stems running 3-4", some larger in areas w/less competition. Semi-open/lightly stocked areas common and raspberry still present/miserable in spots (but <5'). A very scattered second age class of residual Hem, NWC, RO (some looked like XO) and WP remain (most healthy). McDonald observed heavy browse here in '11 (I didn't see ~much, stems now mostly above browse ht).			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Quaking Aspen		50	Sapling/Pole	4	24	Beech		Low	5 - 10 feet	Sapling
White Spruce		5	Sapling	3		Blackberry/Raspberry		Medium	< 5 feet	Tall Shrub
Bigtooth Aspen		8	Sapling/Pole	4		Black Spruce		Low	< 5 feet	Seeding
Red Oak		3	Sapling/Pole/Log	3		White Spruce		Low	< 5 feet	Seeding
White Pine		10	Sapling/Pole/Log	3		White Oak		Trace	5 - 10 feet	Sapling
Balsam Fir		14	Sapling/Pole	3		Ironwood		Low	10 - 20 feet	Sapling
Red Maple		5	Sapling	3						
Paper Birch		3	Sapling	3						
Red Pine		2	Sapling	3						
<b>87</b>	42340 - Upland Spruce/Fir	Poletimber Poor	0.5	62	1-50	N/A	McDonald's OI inventory stated "High spot in swamp" and coded as an F4. Green sheet data (from '01) had 20BA of BF and grass in the open areas.			
<b>88</b>	42340 - Upland Spruce/Fir	Poletimber Poor	0.8	62	1-50	N/A	McDonald's OI inventory stated "High spot in swamp" and coded as an F4. Green sheet data (from '01) had 10BA of BF and grass in the open areas.			
<b>89</b>	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	5.4	104	111-140	N/A	'11: OI Stand Year Origin was 1917 '21: Variable size classes depending on location. Western areas more P/S, then some eastern and northern areas more P/L. Scattered but consistent XL/L/Legacy super-canopy WP present. Clumpy/pockets of NWC and/or spruce. Wet pockets, tip-ups and alder present. North and northwest areas featured the ~upland transitional/drier ground. BA swings= 100,120,130 (116avg).			
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
Northern White Cedar		32	Pole/Log	9	104	Balsam Fir		High	Variable	Sapling
Black Spruce		16	Pole/Log	8		Black Spruce		Medium	>20 feet	Sapling
Balsam Fir		6	Pole/Sapling	7		Red Maple		Low	>20 feet	Sapling
White Pine		6	XLog/Log	22		Tag Alder		Low	5 - 10 feet	Tall Shrub
Red Maple		12	Log/Pole	10		Black Spruce		Low	< 5 feet	Seeding
Paper Birch		6	Pole/Sapling	7						
Quaking Aspen		6	Log/Pole	10						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																																																											
90	42290 - Natural Mixed Pine	Sawtimber Medium	2.4	71	51-80	N/A	'11: Stand Year Origin was 1950 '21: Mixed conifer, semi-open/low-canopy closure in areas (varies on location). Similar to Stand 91, this stand appears 2-aged, scattered component of Log/Xlog RP/WP present. At least on legacy WP on east boundary, large/likely legacy RP there too. BA swings= 50,100,40 (63avg).																																																																																											
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91	42290 - Natural Mixed Pine	Sawtimber Well	11.6	65	81-110	N/A	Variable... Stocking/can-closure is lumpy/clumpy, ranges ~50-100%. Low-end of 75-100% seemed average. Wide range of sizes/DBH's present, at least 2-aged (a few scat older legacy's too). Log sizes overall more common yet not fully stocked, a lot of pole/saps throughout. Variable sap heights, majority were 20ft or greater. Some wolfy WP present in the semi-open areas in south and far east. Surrounding lowland conifer species 'creep' into this stand along most perimeter locations. A few legacy WP/RP (27" RP). Trace Red Oak (log). BA swings= 20,80,100,170,180 (110avg).																																																																																											
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92	6126 - Lowland Jack Pine	Poletimber Well	16.1	49	51-80	N/A	McDonald '11: Stand is a bog-type dominated by leatherleaf and other wetland shrubs.JSP '21: Formally part of Stand 22. Interesting stand and ground that it's growing on. Leatherleaf and lab tea carpet most of the ground, yet at least the N1/2 appears to primarily 'upland'. S1/2 was still mostly dry (low/no-snow in 'winter 20/21) but obvious low spots/alder patches/moss/wet and spongy areas. JP consistent throughout, is running large sap/small pole and dominance increases in north (canopy on low-end of 75-100% in north). S1/2 a broader mixture of JP, spruce, RP/WP, some larch and a few clumped NWC. Had a difficult time deciding on 'Low w/up' or 'Up w/low'. The lowland indicator species landed me on 'Low w/up'. Cored a JP (7.8") and RP (14.1"). RP showed huge growth gains starting at ~about year 50, the same time the JP established. Either fire, harvested, something else happened here 50yrs ago. BA swings= 80,40,40,30,70 (52avg)																																																																																											
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
<b>93</b>	4311 - Pine, Aspen Mix	Sawtimber Well	6.0	65	111-140	N/A	Small stand but fairly well mixed. South ~1/2 more aspen dominant. North 1/2 holds a higher component of RP in the canopy. WP poles (some logs) common throughout. West boundary has more spruce/fir creeping in from Stand 94. Scattered xlog/super-canopy RP present. A few log sized red oak observed.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Bigtooth Aspen	45	Log/Pole/XLog	12	65	White Pine	Medium		10 - 20 feet	Sapling
Quaking Aspen	3	Log/Pole	11		Red Pine	Medium		>20 feet	Sapling
Red Maple	5	Pole	7		Red Maple	Medium		>20 feet	Sapling
Red Pine	20	Log/Pole/XLog	12		Black Spruce	Low		Variable	Sapling
White Pine	12	Pole/Log	9		Balsam Fir	Medium		Variable	Sapling
Balsam Fir	5	Pole/Sap/Log	7						
Red Oak	2	Log/Pole	12						
Paper Birch	4	Pole/Log	8						
Jack Pine	2	Log/Pole	10						
Black Spruce	2	Pole	7						
<b>94</b>	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	73.8	89	111-140	N/A		'11: OI Stand Year Origin was 1932'21: Variable species dominance, drier/less wet areas were typically spruce dominant. These locations were closer to adjacent upland stands. Interior and/or excessively wet locations (that I saw) moved into heavier or complete NWC dominance w/scat spruce (smaller DBH's & heavier saps in some of those 'really' wet areas). Xlog/Legacy WP common on/near the drier areas heavier to spruce, xlog RP common there too. Bottleneck area along the Admin Rd had areas of 'true' upland, some JP present there..	
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density			Avg. Height
Northern White Cedar	35	Pole/Log/Sap	8	89	Red Maple	Low	Variable		Sapling
Red Maple	5	Pole/Log	8		Balsam Fir	High	Variable		Sapling
Black Spruce	32	Pole/Log	8		Black Spruce	Low	10 - 20 feet		Sapling
Balsam Fir	4	Pole/Sapling	7		White Pine	Low	Variable		Sapling
Red Pine	3	XLog/Log/Pole	21		Hemlock	Trace	>20 feet		Sapling
Jack Pine	3	Pole/Log	9		Northern White Cedar	Medium	>20 feet		Sapling
Paper Birch	3	Pole	7		Black Spruce	Low	< 5 feet		Seeding
Quaking Aspen	5	Log	15		Labrador Tea	Low	< 5 feet		Tall Shrub
Tamarack	3	Log/Pole	11		Tag Alder	Medium	5 - 10 feet		Tall Shrub
White Pine	4	XLog/Log/Pole	22						
Hemlock	3	Log/Pole	12						
<b>95</b>	42290 - Natural Mixed Pine	Poletimber Well	11.3	56	81-110	N/A	'11: OI Stand Year Origin was 1960 '21: Variable DBH sizes, somewhat dependent on location, could get away w/calling a 'log' sized stand. Stocking/can-closure varies as well, low-end of 75-100% seemed average. JP stems a mix of P/L and L/P, WP stems too. RP fairly reliable log/larger log and xlog. Favorable component of WP/Spruce advanced regen present. Some JP losing vigor. Aspen appears 'offsite', WP/RP looking healthy. Small area in north was lower stocked w/RP, looks like it may of been thinned in past (provide access to get into Stand 96?). Transitional/seasonally wet ground in northwest, west and northeast. BA swings= 150,60,110,80,40 (88avg).		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	55	Pole/Log	9	56	White Pine	Medium		10 - 20 feet	Sapling
White Pine	11	Pole/Log/XLog	9		Black Spruce	Medium		10 - 20 feet	Sapling
Red Pine	15	Log/XLog/Pole	15	52	Balsam Fir	Medium		Variable	Sapling
Black Spruce	4	Pole/Sapling	7		Red Maple	Low		>20 feet	Sapling
Red Maple	4	Pole/Sapling	6		Red Pine	Low		10 - 20 feet	Sapling
Paper Birch	3	Log/Pole	10		Jack Pine	Low		10 - 20 feet	Sapling
Quaking Aspen	4	Pole/Log	9		Common Lowbush Blueberry	Medium		< 5 feet	Tall Shrub
Bigtooth Aspen	4	Log/Pole	11		Balsam Fir	Medium		< 5 feet	Seeding
					White Pine	Medium		< 5 feet	Seeding



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																													
96	42290 - Natural Mixed Pine	Sapling Well	7.9	36	1-50	N/A	'11: OI Stand Year Origin was 1985 '21: Some areas, more so in east 1/2, are a wall of conifer saps (some poles), mainly WP, RP and some spruce. Lowland tendencies/species in east too. Things begin to 'open-up'/become patchy in western locations, stems larger there too (more poles). Looks like the harvest in '85 left a scattered 2nd age class of WP, those range L/P (MiFI wouldn't allow S/P/L in above canopy list). As a whole, the stand should move into 'pole sized' before too long.																																																													
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97	42290 - Natural Mixed Pine	Poletimber Well	20.1	36	51-80	N/A	'11: OI Stand Year Origin was 1985 '21: Encouraging mix of naturally regenerated pine species, plus some spruce/BF. Aspen common throughout w/more prominence in east. Some lighter stocked areas ranging 50-75% closure. Stand as a whole fits into 75-100%. Scattered, likely 2nd age class of WP/RP logs (not very many though). BA swings= 60,90,100 (83avg).																																																													
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98	42220 - Natural Jack Pine	Poletimber Well	16.2	36	51-80	N/A	'11: Stand Year Origin was 1985 '21: JP primarily dominant, ranging in size from larger sap to smaller pole sizes. RP is sprinkled throughout except in some areas where it's dominant (mainly in SW). Some other conifer species and a bit of aspen/RM present. Imagery ('98's) suggests equipment entered the stand from the north end (wondered how they got into this stand, surrounded by lowland). That area is now briefly low/wet/alder/spruce before moving onto high ground. Impressive/nice natural pine stand. BA swings= 70,50,110 (76avg)																																																													
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99	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Medium	23.0	7	Immature	N/A	Stand was classified as a J6 prior to harvest. Cut late summer/fall of '14. Regeneration assessed Feb '21, natural JP regen is looking good/filling in, though not fully stocked decided current regen is acceptable. JP volunteers present in larger patches of dominance, were generally at 3ft (+- a few inches) and could expand their extent further given more time. Aspen filling in other areas (and mixing w/the JP) but were suffering some browse damage. Snow present during survey (1.5ft) may of obscured additional JP saps/seeds. A few scattered residual RP/RO logs present.																																																													
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<b>100</b>	4130 - Aspen	Sapling Well	22.6	7	Immature	N/A	McDonald '18: Stand was cut in late summer and fall of 2014. Aspen coming back well but with some browse damage. JSP '21: Browse pressure still occurring, but regen is fairing well. Some JP volunteers seeding in. Some residual RO scattered around and appeared healthy.																																																																																	
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<b>101</b>	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	17.2	115	111-140	N/A	'11: OI Stand Year Origin was 1906'21: 'Toggles' between conifer specie dominance. Northern areas heavier to spruce w/RP, JP, some xlog/Legacy WP mixing in. Begins to shift into NWC as you move south, still mixed w/spruce though. Southern narrow 'tail' is a spruce/pine mix along the edges, then NWC occupying the center 'vein' of the 'tail'. Northern areas are likely dry at certain times of the year. In general, perimeter of stand holds most of the pine species. BA swings= 120,130,100,160 (127avg).																																																																																	
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<b>102</b>	42260 - Natural Pine, Mixed Deciduous	Poletimber Well	21.0	38	51-80	N/A	'11: OI Stand Year Origin was 1983 '21: At least 2-age classes present, likely 3 (perhaps more). Previous harvest left RO (not many and scattered) and likely some merch and sapling sized pine species (mainly RP/WP). Some of those 'residual' merch and/or sapling pine stems from the harvest are now a few or more inches larger than the featured 'regen' layer from '83 harvest. Most of the '83 regen is running larger sap to smaller pole size depending on surrounding competition/available sunlight. Overall size is 'small pole' but isn't yet 'well stocked', even though canopy closure is generally low-end of 75-100%. A bit more open/patchy in southern areas. Nice mix of pine species plus clumpy/clonal aspen. BA swings= 60,50,60,40,110 (64avg).																																																																																	
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<b>103</b>	42290 - Natural Mixed Pine	Sapling Well	16.1	27	1-50	N/A	End of the day, running late special... Didn't see interior, did see from northern boundary (while in Std102) and from forest road. Regen sapling layer observed was heavy to JP and RP with WP mixing in. MiFI won't allow correct representation of the second age class of scattered, then clumpy RP (L/P) and JP (mostly pole/some logs). Spruce regen likely present, especially near interface with Stands 44/58. Some saps nearing pole size and/or were pole size.																																																																																	
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400	3302 - Low Density Conifer Trees	Nonstocked	2.9		Unspecified	No	Where conifer is established, generally along/near perimeter, it has a 'high' density. Interior clumps of conifer present too. Mature scotch pine windrow on east along PVT. Most scotch in this opening found in east, saps/some poles, 'high' where present. Jack pine present in clumps, sap/poles, 'high' where present. Black cherry scattered throughout, pole/one small log, 'medium' density. Invasive honeysuckle observed in south, 'low'. Lilac in northwest near PVT, 'low' density. One WP log near Tucker Rd.																																												
404	310 - Herbaceous Openland	Nonstocked	1.0		Unspecified	No	Sandy, poor soils in and around this opening. Some scattered conifer/deciduous along perimeter. More or less a turn-around area for vehicles.																																												
405	3102 - Grass	Nonstocked	0.3		Unspecified	No	Small opening with little/no seed/sapling establishment. Unofficial horse trail travels through this opening.																																												
406	330 - Low-Density Trees	Nonstocked	1.4		Unspecified	No	Grassy island with low-density trees in the middle of the swamp. ORV's are able to reach the island from east.																																												
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407	3302 - Low Density Conifer Trees	Nonstocked	2.7		Unspecified	No	Scattered/shrubby jack pine (mainly saps), pole/log WP/RP and BF/some spruce present. Relatively 'open/grassy' with conifer beginning to re-populate areas. Some black cherry observed. Provides a pleasant vista view of the lowland shrub corridor surrounding Milligan Creek and then across to Stand 52.																																												
408	3102 - Grass	Nonstocked	0.7		Unspecified	No	More/less an intersection area of forest rds. Scattered saps and deciduous/conifer encroachment along the perimeter. Raspberry too.																																												
409	6239 - Mixed Emergent Wetland	Nonstocked	5.4		Unspecified	No	Essentially a seasonal lowland/watercourse, mixed with lowland shrubs and low-density mixed trees. Open water portion at the north-end. Old railroad grade cuts through the middle of the stand (runs N/S). Not to far north from the grade is an old beaver dam, which is responsible for the open-water area in far north. These two features are strongly influencing local hydrology. Between the old beaver dam and RR grade, it's a bit less dense w/lowland shrubs and tree species ranging sap through log size. Stand narrows south of the grade, more tree species line/encroach along perimeter (log WP/RP). Boot shaped, wider area in far south pick-up with more sap/some pole JP and is grassy/seasonally wet. Waterfowl using open-water portion during my visit. Remaining areas were a bit wet but beginning to dry out. White pine and red pine listed above are present as sapling through log/xlog sizes.																																												
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