

Compartment Review Presentation

Newberry Forest Management Unit

Compartment 42038

Entry Year: 2026

Acreage: 2,397

County: Luce

Management Area: Grand Marais Moraine Complex

Stand Examiner: Amy Livermore

Legal Description:

T50N, R09W, Sections 23-27, 34-36; T50N, R08W, Section 30

Identified Planning Goals:

Restore overstory species of jack pine and/or red pine, naturally or artificially, within the Duck Lake Fire area, through proper management, while providing for wildlife habitat and recreational opportunities.

Soil and topography:

Rubicon sand and Deer Park sand dominate the compartment. Topography ranges from level to rolling to steep dunes along Lake Superior shoreline and rivers. River bottoms are comprised of Croswell, rarely flooded-Deford, frequently flooded complex; and Carbondale, Lupton, and Tawas soils.

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

State lands border the west, south and east. Private land borders the north surrounding Little Lake. Three private 40's are within the compartment boundary. The whole compartment and surrounding area were burned in the Duck Lake Fire of 2012. This is the northeastern reaches of the fire. Numerous camps were burned or damaged and are currently being rebuilt. Rainbow Lodge was destroyed by the fire, but a couple cabins survived and canoe rental continues. Three Encroachment Resolution Initiative (ERI) trespasses were resolved in the area. There is a group trying to restore the old airstrip for recreational use.

Unique Natural Features:

Eagles and satiny willow have been observed. Piping plover habitat and high priority trout stream are within the compartment.

Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

Special Management Designations or Considerations:

A Luce County Lease forty included within the compartment. The Two-Hearted River is a designated natural river; critical dunes and piping plover habitat parallel the Lake Superior shoreline.

Watershed and Fisheries Considerations:

The Two Hearted River borders the northwest corner of this compartment, while the Little Two Hearted River flows through and borders the eastern portion. Both rivers receive a run of steelhead in the spring, while extremely popular run of Coho salmon occurs in the fall on the Two Hearted River. The Two Hearted River is a Natural River. Brook trout are present in the Little Two-Hearted River, but most likely only use this reach of the river during cooler time periods. For stand 31, in accordance with BMPs, a minimum 100-foot, plus 5 feet per 1% increase in slope, riparian management zone is recommended along the Little Two Hearted River.

Wildlife Habitat Considerations:

Compartment 38 lies along the Lake Superior shoreline and is in the Grand Marais Moraine Complex Management Area. The compartment has been nearly entirely burned in the recent Duck Lake fire and has undergone substantial widespread changes in habitat characteristics. The landscape in the compartment is largely set back to earlier successional stages and focus for this compartment is on regeneration of stands.

Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial oil & gas production in this part of the state, and there is no known potential for occurrences of commercial deposits of metallic or critical minerals in this area. No active sand/gravel pits are known to exist in the area. There may be some potential for sand (and perhaps limited amounts of gravel) within the compartment on the uplands, but the compartment might be too far from populated areas (commercial markets) for any aggregate resources present to have much economic value beyond limited use by the county road commission, logging companies, or DNR for local road maintenance. No current State mineral leasing activity exists in the area.

Vehicle Access:

Access to the area is good. County Road 423 dead-ends at the mouth of the Two-Hearted River. County Road 412 runs along the southern edge and eastern portion of the compartment. These roads are accessed via County Road 500 and County Road 414. There are some sandy two-tracks that also bisect the compartment.

Survey Needs:

None needed.

Recreational Facilities and Opportunities:

The North Country National Scenic Trail (hiking), snowmobile trail #8 and the Two-Hearted ORV Trail run through the compartment. Two-Hearted State Forest Campground and boat launch is located near the river mouth.

Fire Protection:

Area is in the Two Hearted Zone Dispatch Area. Fires had the potential to become large because of the large acreage of Jack Pine, as witnessed by the Duck Lake Fire in May 2012. The scattering of different age classes in the Jack Pine, simulating fuel breaks, may need to be restored over the years to help suppression efforts. The accessibility for fire suppression is good because of the sandy soils.

Additional Compartment Information:**The following reports from the Inventory are attached:**

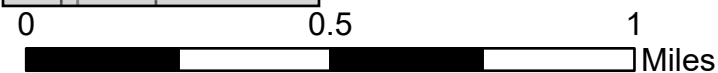
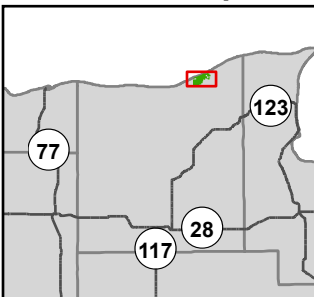
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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**

Cover Type & Treatments Map

Compartment: 42038
T50N, R09W, Sec: 24-27, 34, 35
County: Luce
Unit: Newberry
Mgmt. Area: Grand Marais Moraine Complex
YOE: 2026
Acres: 2,397 GIS Calculated
Examiner: Amy Livermore
Date Exported: 6/24/2025
Map Phase: Post Review



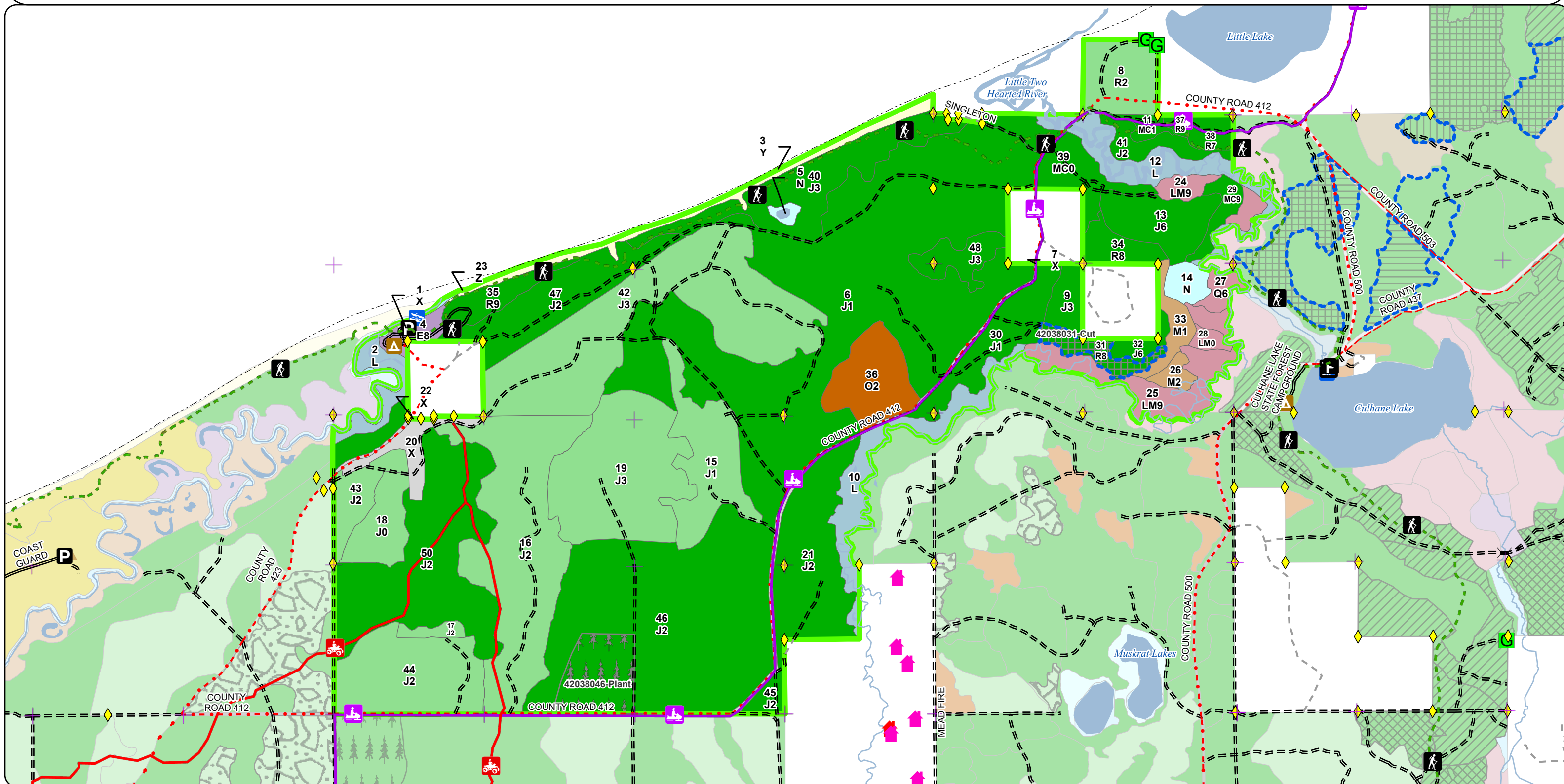
- Remonumented Section Corners
- Survey Grade Corners
- Cabin
- Toilet
- Structure, Seasonal Dwelling
- Berms
- Gate

- Boating Access Site
- Bridges
- Campground
- Parking Lot
- Sign
- Designated Hiking Pathways
- Designated Snowmobile Trails
- Designated ATV Trails

- DNR - Secondary Forest Road
- DNR - Forest Access Route
- County - Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Perennial River
- Lakes and Rivers
- Counties

- Compartment Boundary
- Seed Tree
- Planting (tree species)
- Treatments with Site Conditions
- 411 - Northern Hardwood
- 412 - Oak Types
- 421 - Planted Pines
- 422 - Natural Pines

- 500 - Water
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 110 - Low Intensity Urban
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand, Soil



Cover Type & Treatments Map

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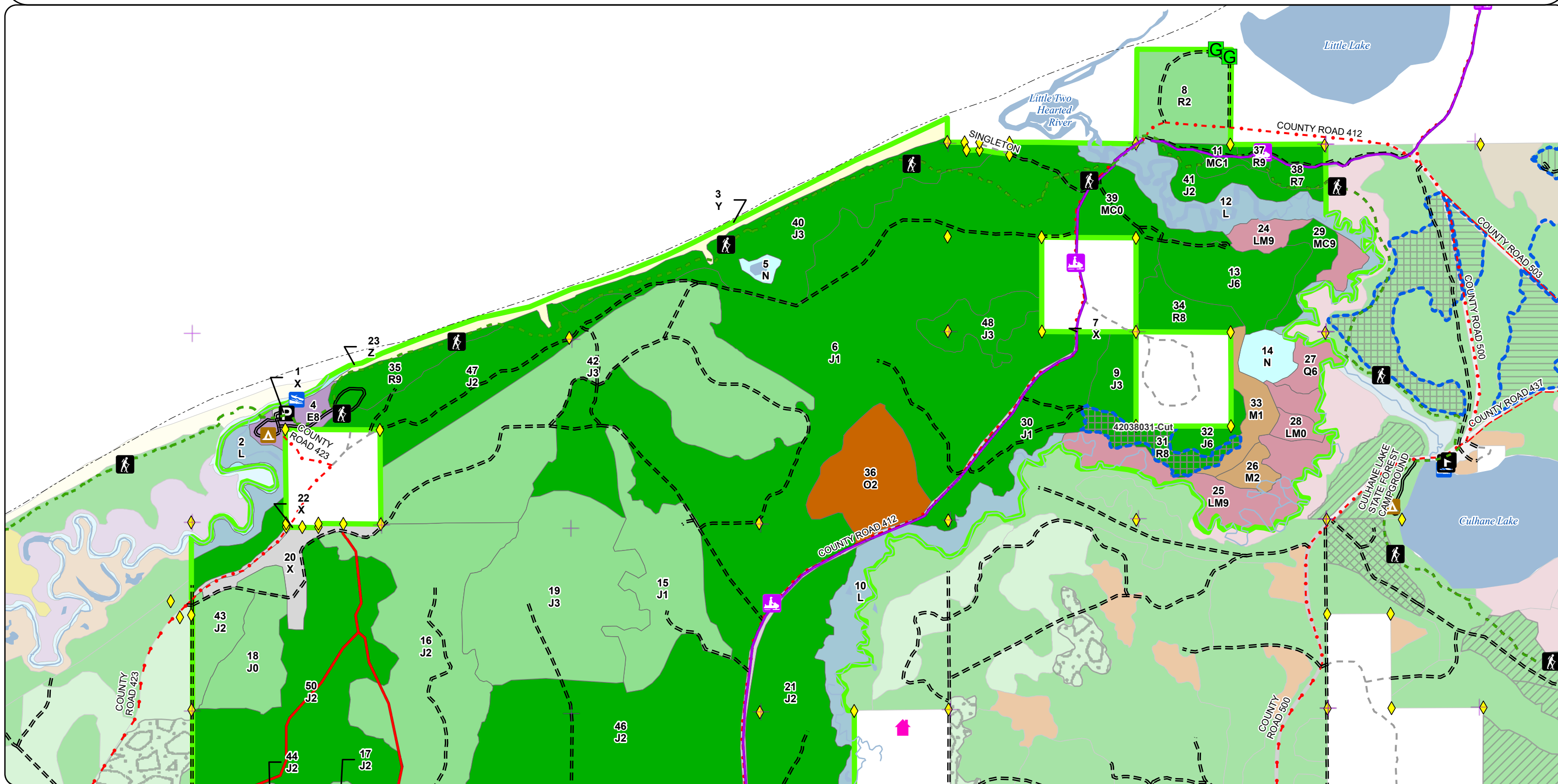
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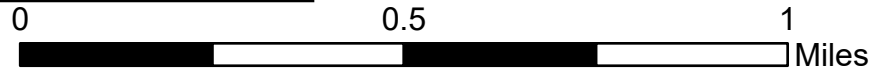
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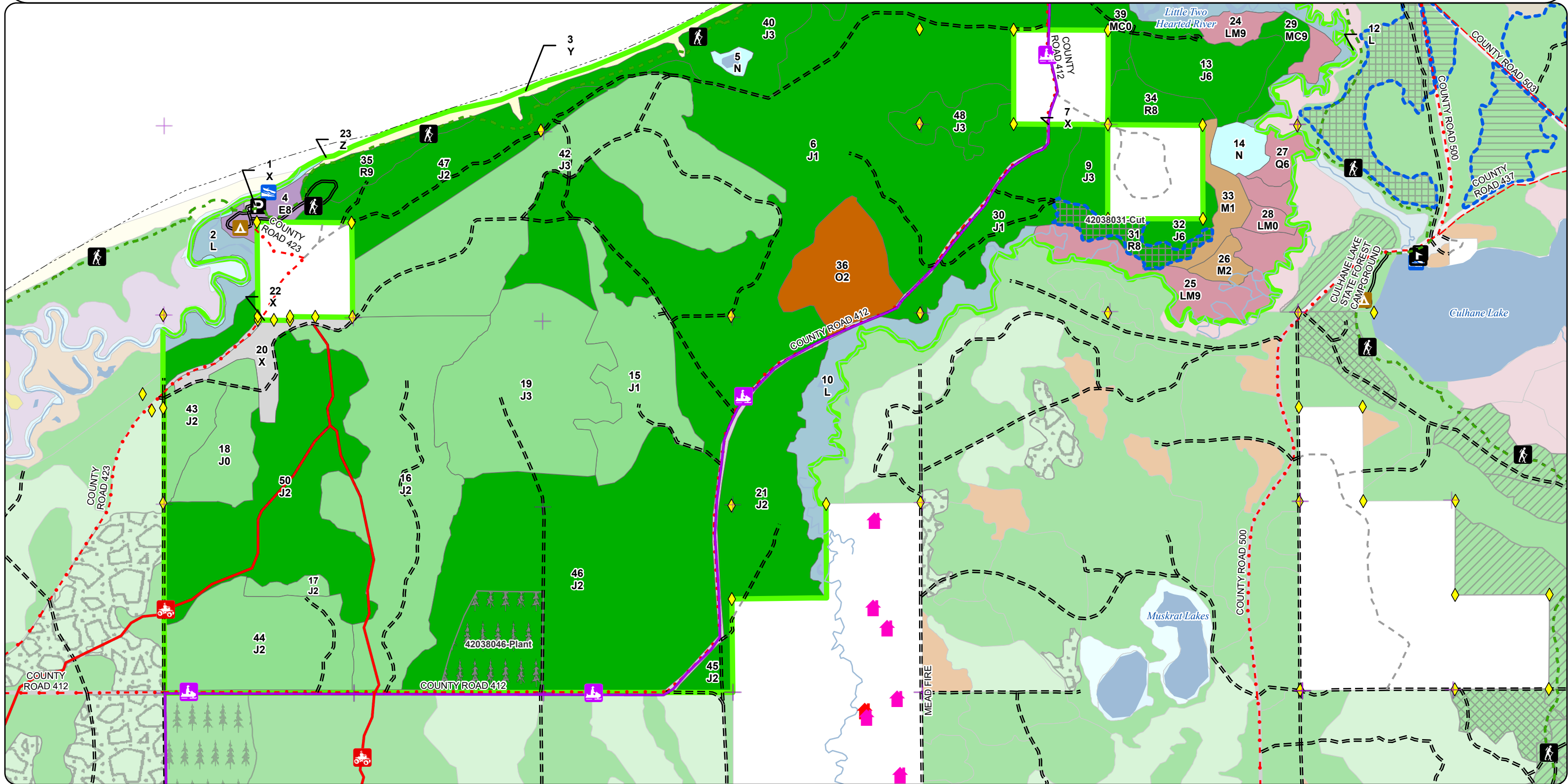
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- County - Dirt Road (Seasonal)
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- Lakes and Rivers
- Counties
- Compartment Boundary
- Seed Tree
- Planting (tree species)







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A horizontal scale bar with a black outline. It is divided into four segments by three vertical tick marks. The first segment is black, the second is white, the third is black, and the fourth is white. Above the bar, the numbers 0, 0.5, and 1 are placed at the first, second, and third tick marks respectively. To the right of the bar, the word "Miles" is written.

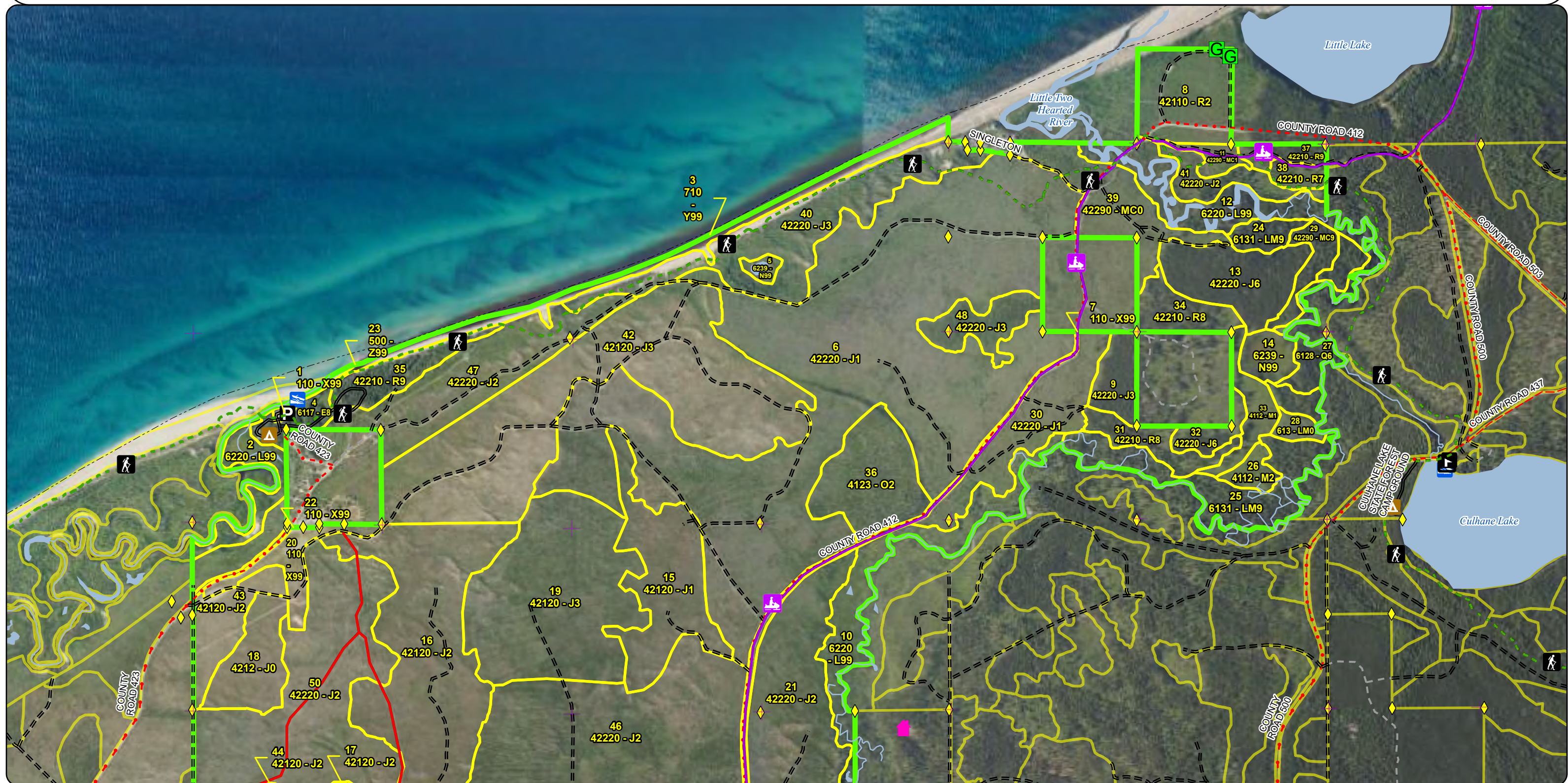
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Stand Boundary Map

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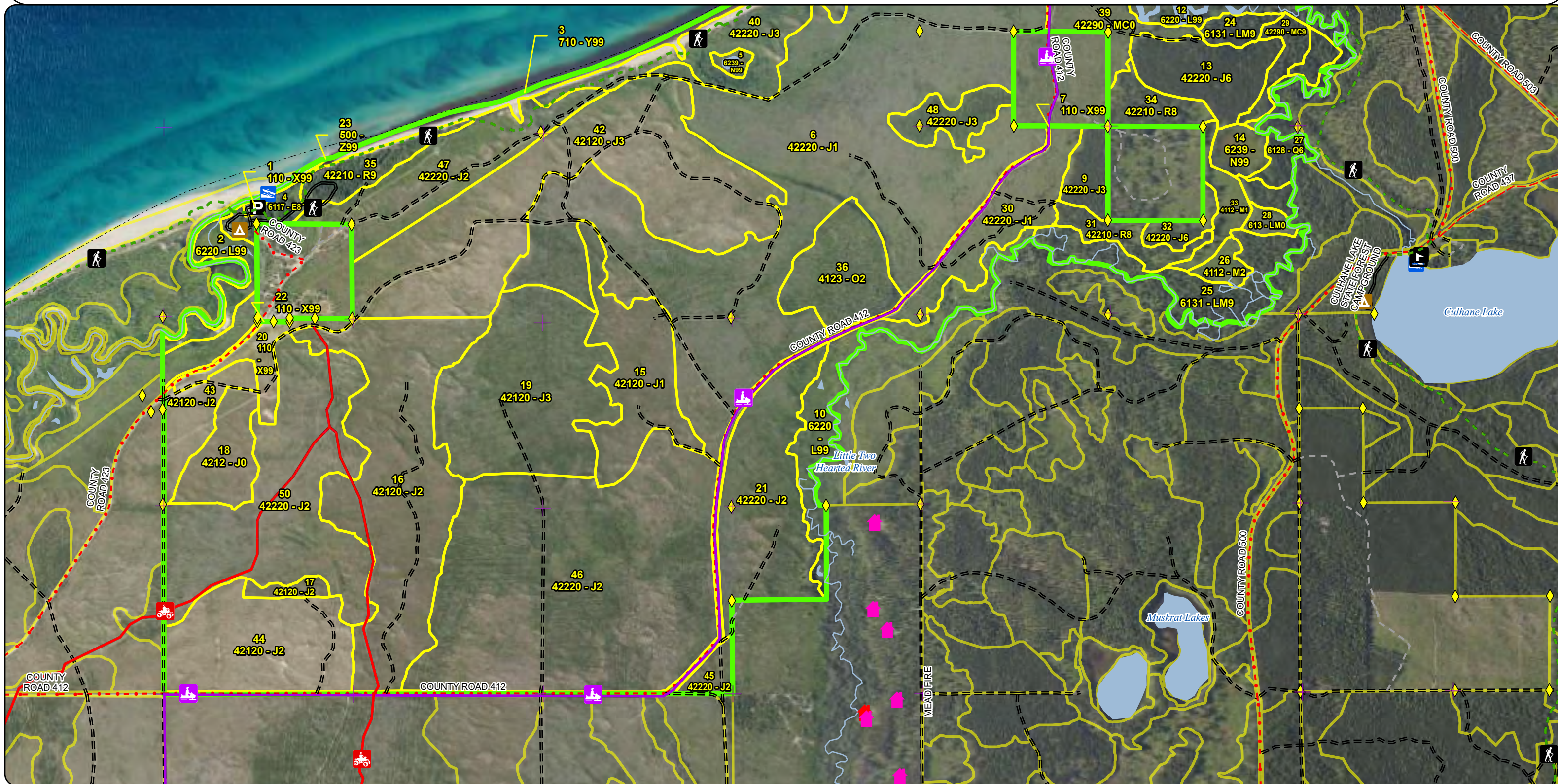
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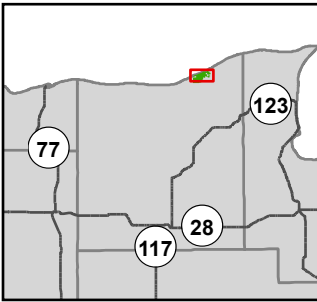
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Special Conservation Areas & Site Conditions Map

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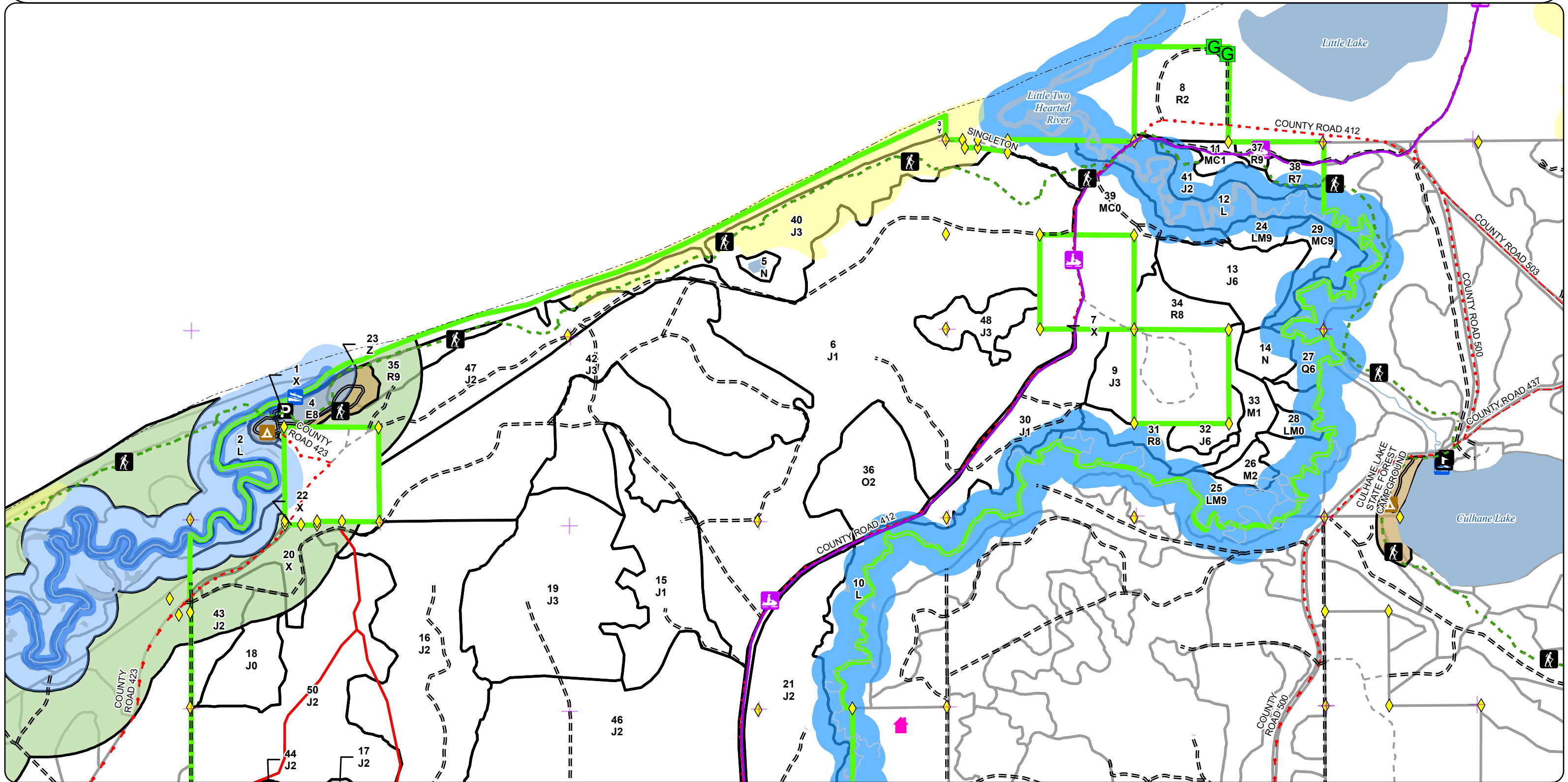
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- Stand Boundaries
- Critical Dunes

- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- SCA
- Cold Water Streams
- High Priority Trout Stream Buffer
- Boat Access Site
- State Forest Campground
- Recreational/Scenic Value Area



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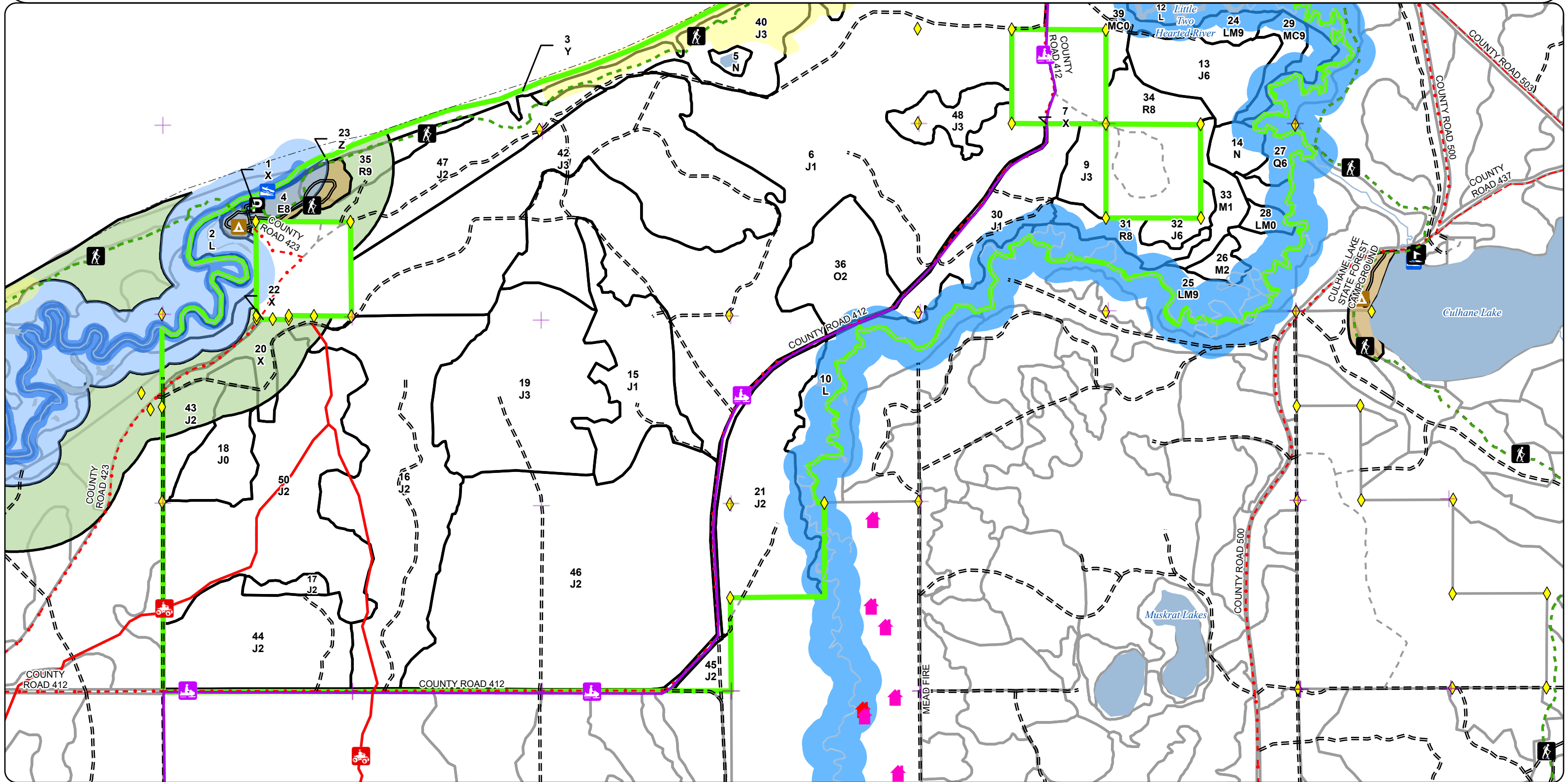
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Report 1 – Total Acres by Cover Type and Age Class

	Age Class																		Total
	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+	Unseen-Aged	
Jack Pine	28	405	1392	0	0	62	0	0	0	0	0	0	0	0	0	0	0	0	1887
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
Lowland Deciduous	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
Lowland Mixed Forest	5	0	0	0	0	0	0	0	0	0	0	63	0	0	0	0	0	0	68
Lowland Shrub	106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106
Marsh	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Natural Mixed Pines	40	0	7	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	58
Northern Hardwood	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Oak	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
Red Pine	0	0	39	0	0	0	0	0	0	17	0	30	0	0	19	0	0	0	105
Sand, Soil	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Urban	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Water	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	265	405	1503	0	0	62	0	0	10	17	9	104	0	0	19	0	0	0	2394

Report 2 – Treatment Summary

Newberry Mgt. Unit
Year of Entry: 2026

Acres of Harvest

Compartment 38
Total Compartment Acres: 2,397

Commercial Harvest -
Harvests with Site Condition - 16
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

		Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Oversory Removal	Salvage	Other	Total Acres
Red Pine		0	0	0	16	0	0	0	0	0	16
	Total	0	0	0	16	0	0	0	0	0	16

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		16	0	38	0	0	0	0	0	0	54
	Total	16	0	38	0	0	0	0	0	0	54

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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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Approved Treatments:

46	42038046-Plant	38.3	42220 - Natural Jack Pine	2	13	Immature	Planting	Planting (tree species)	4222 - Natural Jack Pine	Planting Record	No
<u>Prescription</u> Interplant jack pine seedlings if there is a surplus <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> jack pine <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2024											
31	42038031-Cut	15.5	42210 - Natural Red Pine	8	107	51-80	Harvest	Seed Tree	42210 - Natural Red Pine	Planting Record	No
<u>Prescription</u> leave 10-20 BA. Keep red and white pine in the red line. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> red pine, white pine <u>Regen:</u> <u>Other</u> Maintain a 100' buffer along the Little Two Heart (built into treatment shape). <u>Comment:</u> <u>Site Condition:</u> Evaluated for Forest Health <u>Proposed Start Date:</u> 10/01/2025											

Total Treatment 53.8
Acreage Proposed:



Availability for Management

Total	Acres	Acres Avail	Acres	Dominant Site Conditions										
Acres	Available	With Condition	Not Available		5B	5C	5F	1A	2F	2G	3D	3E	3J	5D
1796	1713	0	84	Jack Pine					6		75	1	1	
9	0	0	9	Lowland Conifers									3	6
10	0	0	10	Lowland Deciduous							10			
59	0	0	59	Lowland Mixed Forest						10			49	
105	0	0	105	Lowland Shrub				16					89	
14	14	0	0	Marsh										
22	7	11	5	Natural Mixed Pines		11							5	
16	14	0	1	Northern Hardwood									1	
44	44	0	0	Oak										
106	0	47	59	Red Pine	31		16				19	39		
5	0	0	5	Sand, Soil				2			3			
31	20	0	11	Urban				0			1	10		
6	0	0	6	Water				6						
2,224	1,812	58	353	Total Forested Acres	31	11	16	24	6	10	109	50	148	6
	81%	3%	16%	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		3D: Recreational/scenic values	55	3G: Other influence zones - See comments	Unspecified	Unspecified	Unspecified
Comments: Lake Superior shoreline								
2	Unavailable		3E: Easement/lease, non-military (e.g. Consumers Power red pine, etc.)	40	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Luce County Lease 40								

Report 4 – Site Conditions

Newberry Mgt. Unit
Amy Livermore: Examiner

Compartment: 38
Year of Entry: 2026



3	Available	5B: Maintain for regeneration purposes	17	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Live red pine stands after salvage cutting completed from Duck Lake Fire.							
4	Unavailable	1A: Federal/State/Local Law	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Natural River zone							
5	Unavailable	3E: Easement/lease, non-military (e.g. Consumers Power red pine, etc.)	12	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Two-Hearted River Airstrip lease							
6	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	152	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	3D: Recreational/scenic values	51	2F: Too steep	Unspecified	Unspecified	Unspecified
Comments:							
8	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	6	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comments: Below bluff along river corridor.							

Report 4 – Site Conditions

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Amy Livermore: Examiner

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9	Unavailable	2F: Too steep	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	5D: Unproductive forest land	6	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	5F: Evaluated for Forest Health Considerations	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments: 5F: diploidia concerns in regeneration							
13	Unavailable	3D: Recreational/scenic values	6	3D: Recreational/scenic values	Unspecified	Unspecified	Unspecified
Comments: Mouth of the Two Heart State Forest Campground							
14	Available	5B: Maintain for regeneration purposes	8	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Live red pine stands after salvage cutting completed from Duck Lake Fire.							

Report 4 – Site Conditions

Newberry Mgt. Unit
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15	Available	5B: Maintain for regeneration purposes	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
16	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:

Report 5 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																									
1	110 - Low Intensity Urban	Unspecified	1.2			Yes	PRD Boating Access Site. Tahquamenon Falls State Park manages this facility.																									
2	6220 - Alder/Willow	Unspecified	16.0			No	Lowland along Two Hearted River.																									
3	710 - Sand, Soil	Unspecified	26.4			No	Lake Superior shoreline.																									
4	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	10.3	76	51-80	N/A	Burned through from Duck Lake Fire, May 2012. Areas of tag alder along with upland areas of western campground loop. Mouth of two Hearted River State Forest Campground. Facility is managed by Tahquamenon Falls State Park.																									
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size																						
Balsam Fir		16	Seedling	9		Balsam Fir		Medium	Variable	Variable																						
Red Maple		40		12	76	Red Maple		Low	Variable	Variable																						
Paper Birch		20		10		Tag Alder		Medium	10 - 20 feet	10 - 20 feet																						
White Spruce		20		10																												
White Pine		2		16																												
5	6239 - Mixed Emergent Wetland	Unspecified	3.4			No																										
6	42220 - Natural Jack Pine	Sapling Poor	441.3	13	Immature	N/A	<table><tr><td>Canopy Species</td><td>% Cover</td><td>Size Class</td><td>DBH</td><td>Age</td></tr><tr><td>Red Pine</td><td>3</td><td>Log</td><td>2</td><td></td></tr><tr><td>Jack Pine</td><td>90</td><td>Log</td><td>2</td><td>13</td></tr><tr><td>Paper Birch</td><td>5</td><td>Log</td><td>3</td><td></td></tr><tr><td>Red Oak</td><td>2</td><td>Log</td><td>3</td><td></td></tr></table>	Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	3	Log	2		Jack Pine	90	Log	2	13	Paper Birch	5	Log	3		Red Oak	2	Log	3	
Canopy Species	% Cover	Size Class	DBH	Age																												
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Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size																							
Red Pine		3	Log	2		Red Pine	Low	< 5 feet	< 5 feet																							
Jack Pine		90	Log	2	13	Jack Pine	Medium	< 5 feet	< 5 feet																							
Paper Birch		5	Log	3																												
Red Oak		2	Log	3																												
7	110 - Low Intensity Urban	Unspecified	19.7			Yes																										
8	42110 - Planted Red Pine	Sapling Medium	39.3	13	Immature	N/A	<table><tr><td>Canopy Species</td><td>% Cover</td><td>Size Class</td><td>DBH</td><td>Age</td></tr><tr><td>Red Pine</td><td>93</td><td>Log</td><td>2</td><td>13</td></tr><tr><td>Paper Birch</td><td>2</td><td>Log</td><td>2</td><td></td></tr><tr><td>Jack Pine</td><td>5</td><td>Log</td><td>2</td><td></td></tr></table>	Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	93	Log	2	13	Paper Birch	2	Log	2		Jack Pine	5	Log	2						
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9	42220 - Natural Jack Pine	Sapling Well	14.7	45	1-50	N/A	<table><tr><td>Canopy Species</td><td>% Cover</td><td>Size Class</td><td>DBH</td><td>Age</td></tr><tr><td>Red Pine</td><td>10</td><td></td><td>14</td><td></td></tr><tr><td>White Pine</td><td>5</td><td></td><td>14</td><td></td></tr><tr><td>Jack Pine</td><td>85</td><td>Pole</td><td>4</td><td>45</td></tr></table>	Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	10		14		White Pine	5		14		Jack Pine	85	Pole	4	45					
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Red Pine		10		14																												
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Jack Pine		85	Pole	4	45																											
10	6220 - Alder/Willow	Unspecified	45.7			No																										

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
11	42290 - Natural Mixed Pine	Sapling Poor	6.6	12	Immature	N/A	Burned by Duck Lake Fire, May 2012. Salvage cut 2012, DLS#3, 42-026-12-01. Regen survey in 2015 by summer students. Variable regen densities established of jack pine and red maple (400 trees/acre).			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
	Red Maple	10	Log	2		Jack Pine		Low	< 5 feet	< 5 feet
	Jack Pine	35	Log	2		Red Maple		Low	< 5 feet	< 5 feet
	Red Pine	55	Log	2	12					
12	6220 - Alder/Willow	Unspecifed	44.3			No	Little Two Hearted River corridor. Burned by Duck Lake Fire, May 2012.			
13	42220 - Natural Jack Pine	Poletimber Well	38.7	49	51-80	N/A	Excluded from salvage sale. Some underburning from Duck Lake Fire, May 2012.			
	Canopy Species	% Cover	Size Class	DBH	Age					
	Red Pine	10		10						
	White Pine	5		10						
	Jack Pine	85	Seedling	7	49					
14	6239 - Mixed Emergent Wetland	Unspecified	10.9			No				
15	42120 - Planted Jack Pine	Sapling Poor	60.7	10	Immature	N/A	Duck Lake fire May 2012. Salvage cut 2012 DLS #4 sale #42-027-12-01. Planted May 2013, no trenches, 5 x 8 spacing, approx 1200 trees/acre. FTP# 42-825. Failed regen check in fall 2013/spring 2014. Was planned to replant spring of 2014, but ran out of trees. Regen survey summer 2017: 660 Trees per acre.			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
	Jack Pine	100	Log	2	10	Jack Pine		Low	< 5 feet	< 5 feet
16	42120 - Planted Jack Pine	Sapling Medium	153.8	11	Immature	N/A	Duck Lake fire May 2012. Salvage cut 2012 DLS #4 sale #42-027-12-01. Planted May 2013, no trenches, 5 x 8 spacing, approx 1200 trees/acre. FTP# 42-826. Failed regen check fall 2013/spring 2014. Replanted May 2014, 4 x 10 spacing, KW funded. Passed regeneration check 5/23/2016 - 622 trees/acre (545 planted, 40 volunteers).			
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size
	Jack Pine	100	Log	2	11	Jack Pine		Medium	< 5 feet	< 5 feet
17	42120 - Planted Jack Pine	Sapling Medium	6.0	12	Immature	N/A	Duck Lake fire May 2012. Salvage cut 2012 DLS #4 sale #42-027-12-01. Planted May 2013, no trenches, 5 x 8 spacing, approx 1200 trees/acre. FTP# 42-827. Failed regen check fall 2013/spring 2014. Replanted May 2014, 4 x 10 spacing, from each end. Middle may be sparser. Quick plots in 2016 averaged 700 trees/acre. Regen survey summer 2017: 430 Trees per acre.			
	Canopy Species	% Cover	Size Class	DBH	Age					
	Jack Pine	100	Log	2	12					
18	4212 - Planted Jack Pine	Unspecified	28.4	1			Duck Lake fire May 2012. Salvage cut 2012 DLS #4 sale #42-027-12-01. Planted May 2013, no trenches, 5 x 8 spacing, approx 1200 trees/acre. FTP# 42-827. Failed regen survey in fall 2013. Planned on replanting in spring 2014, but ran out of trees. Never replanted, but survival is better than originally thought. Average 550 trees/acre in 2015 regen survey by summer students. Regen check summer 2017: 470 trees/acre.			
						Sub-Canopy Species		Density	Avg. Height	Size
						Jack Pine		Low	5 - 10 feet	5 - 10 feet

Stand	Level 4 Cover Type	Size Density				Acres	Stand Age	BA Range	Managed Site	General Comments																																																					
19	42120 - Planted Jack Pine	Sapling Well				117.2	8	Immature	N/A	Very dense with some more open areas.																																																					
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Jack Pine</td><td>80</td><td>Log</td><td>2</td><td>8</td></tr><tr><td>Red Pine</td><td>5</td><td>Log</td><td>2</td><td></td></tr><tr><td>Red Oak</td><td>15</td><td>Log</td><td>2</td><td></td></tr></table>						Canopy Species	% Cover	Size Class	DBH	Age	Jack Pine	80	Log	2	8	Red Pine	5	Log	2		Red Oak	15	Log	2		<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>Jack Pine</td><td>Medium</td><td>< 5 feet</td><td>< 5 feet</td></tr><tr><td>Red Pine</td><td>Medium</td><td>< 5 feet</td><td>< 5 feet</td></tr></table>					Sub-Canopy Species	Density	Avg. Height	Size	Jack Pine	Medium	< 5 feet	< 5 feet	Red Pine	Medium	< 5 feet	< 5 feet	Duck Lake Fire May 2012. Salvage cut 2012 DLS #4, sale #42-027-12-01. Regen survey in 2015 by summer students. Fully stocked overall. Averages 2480 trees/acre of red pine and jack pine.																				
Canopy Species	% Cover	Size Class	DBH	Age																																																											
Jack Pine	80	Log	2	8																																																											
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Red Pine	Medium	< 5 feet	< 5 feet																																																												
20	110 - Low Intensity Urban	Unspecified				17.4			Yes	Old airstrip																																																					
21	42220 - Natural Jack Pine	Sapling Medium				83.1	12	Immature	N/A	Good regen in most of the stand. The step hillsides have little regen. Lots of slash remaining.																																																					
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Jack Pine</td><td>100</td><td>Log</td><td>2</td><td>12</td></tr></table>						Canopy Species	% Cover	Size Class	DBH	Age	Jack Pine	100	Log	2	12	<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>Jack Pine</td><td>Low</td><td>< 5 feet</td><td>< 5 feet</td></tr><tr><td>Red Maple</td><td>Low</td><td>Variable</td><td>Variable</td></tr></table>					Sub-Canopy Species	Density	Avg. Height	Size	Jack Pine	Low	< 5 feet	< 5 feet	Red Maple	Low	Variable	Variable	Duck Lake fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01. Regen survey in 2015 by summer students. Average 850 trees/acre of jack pine. Variable densities.																														
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22	110 - Low Intensity Urban	Unspecified				1.9			Yes	County Road 423.																																																					
23	500 - Water	Unspecified				6.4			No	Two Hearted River.																																																					
24	6131 - Hemlock, White Pine, Maple, Birch	Sawtimber Well				14.2	106	81-110	N/A	Lower ground along Little Two Hearted River. Some burn through from Duck Lake Fire, May 2012. Mostly floodplain.																																																					
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Red Pine</td><td>2</td><td></td><td>16</td><td></td></tr><tr><td>White Pine</td><td>25</td><td></td><td>14</td><td></td></tr><tr><td>Red Maple</td><td>20</td><td></td><td>10</td><td></td></tr><tr><td>Paper Birch</td><td>30</td><td></td><td>10</td><td>106</td></tr><tr><td>White Spruce</td><td>15</td><td></td><td>10</td><td></td></tr><tr><td>Northern White Cedar</td><td>8</td><td></td><td>10</td><td></td></tr></table>						Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	2		16		White Pine	25		14		Red Maple	20		10		Paper Birch	30		10	106	White Spruce	15		10		Northern White Cedar	8		10		<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>White Spruce</td><td>Medium</td><td>Variable</td><td>Variable</td></tr><tr><td>Red Maple</td><td>Medium</td><td>Variable</td><td>Variable</td></tr><tr><td>Balsam Fir</td><td>Medium</td><td>Variable</td><td>Variable</td></tr></table>					Sub-Canopy Species	Density	Avg. Height	Size	White Spruce	Medium	Variable	Variable	Red Maple	Medium	Variable	Variable	Balsam Fir	Medium	Variable	Variable		
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Balsam Fir	Medium	Variable	Variable																																																												
25	6131 - Hemlock, White Pine, Maple, Birch	Sawtimber Well				48.5	101	51-80	N/A	Upland/lowland transition along Little Two Hearted River. Burned through by Duck Lake Fire, May 2012. Did not burn hot through this stand, mostly underburn.																																																					
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>White Pine</td><td>35</td><td></td><td>15</td><td></td></tr><tr><td>Northern White Cedar</td><td>2</td><td>Seedling</td><td>8</td><td></td></tr><tr><td>Red Pine</td><td>8</td><td></td><td>16</td><td></td></tr><tr><td>Red Maple</td><td>53</td><td>Seedling</td><td>9</td><td>101</td></tr><tr><td>Paper Birch</td><td>2</td><td>Seedling</td><td>6</td><td></td></tr></table>						Canopy Species	% Cover	Size Class	DBH	Age	White Pine	35		15		Northern White Cedar	2	Seedling	8		Red Pine	8		16		Red Maple	53	Seedling	9	101	Paper Birch	2	Seedling	6		<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>Balsam Fir</td><td>High</td><td>Variable</td><td>Variable</td></tr></table>					Sub-Canopy Species	Density	Avg. Height	Size	Balsam Fir	High	Variable	Variable															
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Sub-Canopy Species	Density	Avg. Height	Size																																																												
Balsam Fir	High	Variable	Variable																																																												
26	4112 - Maple, Beech, Cherry Association	Sapling Medium				7.1	12	Immature	N/A	Duck Lake fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01. Regen survey in 2015 by summer students. Red maple regen is acceptable regen in this stand. Averages 1650 trees/acre of red maple.																																																					
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Red Pine</td><td>10</td><td>Log</td><td>2</td><td></td></tr><tr><td>Red Maple</td><td>85</td><td>Log</td><td>1</td><td>12</td></tr><tr><td>Jack Pine</td><td>5</td><td>Log</td><td>2</td><td></td></tr></table>						Canopy Species	% Cover	Size Class	DBH	Age	Red Pine	10	Log	2		Red Maple	85	Log	1	12	Jack Pine	5	Log	2																																							
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																														
27	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	8.6	91	51-80	N/A	Lowland along Little Two Hearted River. Burned by Duck Lake Fire, May 2012.																														
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Black Spruce</td><td>15</td><td>Seedling</td><td>7</td><td></td></tr><tr><td>Northern White Cedar</td><td>40</td><td></td><td>11</td><td>91</td></tr><tr><td>Balsam Fir</td><td>10</td><td>Seedling</td><td>6</td><td></td></tr><tr><td>Red Maple</td><td>25</td><td>Seedling</td><td>8</td><td></td></tr><tr><td>Paper Birch</td><td>10</td><td>Seedling</td><td>7</td><td></td></tr></table>								Canopy Species	% Cover	Size Class	DBH	Age	Black Spruce	15	Seedling	7		Northern White Cedar	40		11	91	Balsam Fir	10	Seedling	6		Red Maple	25	Seedling	8		Paper Birch	10	Seedling	7	
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Paper Birch	10	Seedling	7																																		
28	613 - Lowland Mixed Forest	Unspecifed	5.0	1	Unspecified		Low ground bordering Little Two Hearted River. Burned by Duck Lake Fire, May 2012. Previously mix of maple, birch and white pine. Regen survey in 2015 by summer students. Red maple white spruce and birch regenerating. Lots of pole sized snags.																														
<table><tr><th>Sub-Canopy Species</th><th>Density</th><th>Avg. Height</th><th>Size</th></tr><tr><td>White Spruce</td><td>Low</td><td>5 - 10 feet</td><td>5 - 10 feet</td></tr><tr><td>Red Maple</td><td>High</td><td>< 5 feet</td><td>< 5 feet</td></tr><tr><td>Paper Birch</td><td>Medium</td><td>< 5 feet</td><td>< 5 feet</td></tr></table>						Sub-Canopy Species		Density	Avg. Height	Size	White Spruce	Low	5 - 10 feet	5 - 10 feet	Red Maple	High	< 5 feet	< 5 feet	Paper Birch	Medium	< 5 feet	< 5 feet															
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29	42290 - Natural Mixed Pine	Sawtimber Well	11.3	109	111-140	N/A	Upland mixed pine bordering Little Two Hearted River. Some underburn from Duck Lake Fire, May 2012. Occassional oak, white birch, red maple and spruce.																														
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Red Pine</td><td>58</td><td></td><td>15</td><td>109</td></tr><tr><td>White Pine</td><td>40</td><td></td><td>15</td><td></td></tr><tr><td>Jack Pine</td><td>2</td><td>Seedling</td><td>8</td><td></td></tr></table>						Canopy Species		% Cover	Size Class	DBH	Age	Red Pine	58		15	109	White Pine	40		15		Jack Pine	2	Seedling	8												
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30	42220 - Natural Jack Pine	Sapling Poor	43.9	13	Immature	N/A	Duck Lake fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01. Regen survey in 2015 by summer students. Variable regen densities established. Averages 283 trees/acre.																														
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Red Oak	4	Log	2																																		
Paper Birch	3	Log	2																																		
Bigtooth Aspen	8	Log	3																																		
31	42210 - Natural Red Pine	Sawtimber Medium	16.0	107	51-80	N/A	Burned through from Duck Lake Fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01. Western portion was mostly underburned and thinned by salvage cut (70 BA residual), while eastern portion burned heavier and had more cut (30 BA residual). Combined into one stand. Decent red pine regeneration in more open areas of the stand.																														
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>White Pine</td><td>10</td><td></td><td>14</td><td></td></tr><tr><td>Red Pine</td><td>90</td><td></td><td>15</td><td>107</td></tr></table>						Canopy Species		% Cover	Size Class	DBH	Age	White Pine	10		14		Red Pine	90		15	107																
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Jack Pine	Low	>20 feet	>20 feet																																		
32	42220 - Natural Jack Pine	Poletimber Well	9.0	47	1-50	N/A	Burned through from Duck Lake Fire, May 2012. Part of salvage sale 2012 DLS #3, sale #42-026-12-01, but not really cut through due to smaller diameter.																														
<table><tr><th>Canopy Species</th><th>% Cover</th><th>Size Class</th><th>DBH</th><th>Age</th></tr><tr><td>Red Pine</td><td>3</td><td>Seedling</td><td>8</td><td></td></tr><tr><td>White Pine</td><td>2</td><td>Seedling</td><td>9</td><td></td></tr><tr><td>Jack Pine</td><td>95</td><td>Seedling</td><td>6</td><td>47</td></tr></table>						Canopy Species		% Cover	Size Class	DBH	Age	Red Pine	3	Seedling	8		White Pine	2	Seedling	9		Jack Pine	95	Seedling	6	47											
Canopy Species	% Cover	Size Class	DBH	Age																																	
Red Pine	3	Seedling	8																																		
White Pine	2	Seedling	9																																		
Jack Pine	95	Seedling	6	47																																	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments		
33	4112 - Maple, Beech, Cherry Association	Sapling Poor	14.4	13	Immature	N/A	Duck Lake Fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01. Regen survey in 2015 by summer students. Variable species and densities. Mainly red maple, averaging 1000 trees/acre; thicker regen on edges. North side has very good jp regen and some rp all 1" 10'+ tall		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	3	Log	1		Red Maple	Medium		< 5 feet	< 5 feet
Red Maple	90	Log	1	13	Jack Pine	Trace			
Red Pine	7	Log	1						
34	42210 - Natural Red Pine	Sawtimber Medium	17.3	89	51-80	N/A	Burned through from Duck Lake Fire, May 2012. Partially salvage cut 2012 DLS #3, sale #42-026-12-01. RP with scattered small JP pole/sap patches.Red pine saplings regenerating in patches.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Jack Pine	20	Seedling	7		Red Pine	Low		< 5 feet	< 5 feet
Red Pine	80		12	89					
35	42210 - Natural Red Pine	Sawtimber Well	19.3	135	81-110	N/A	Burned through by Duck Lake Fire, May 2012. Partially salvage cut 2012 Duck Lake Campgrounds, sale #42-040-12-02. Mostly underburned. Most balsam understory burned. Occassional oak within stand. Mouth-of-Two-Hearted River state forest campground. Facility is managed by Tahquamenon Falls State Park. Small drainage runs through stand		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
White Pine	5		16		Balsam Fir	Low		Variable	Variable
Paper Birch	5	Seedling	8		Red Maple	Low		Variable	Variable
Red Pine	90		16	135	Paper Birch	Low		Variable	Variable
36	4123 - Red Oak	Sapling Medium	44.2	12	Immature	N/A	Duck Lake fire May 2012. Salvage cut 2012 DLS #4, sale #42-027-12-01. Some nice oak stump sprouts as well as seedlings coming back, along with birch, maple and jack pine. Regen survey in 2015 by summer students. Averages 1725 trees/acre of oak, jack pine and aspen. Scattered red maple and birch within stand.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Oak	85	Log	3	12	Jack Pine	Medium		< 5 feet	< 5 feet
Red Maple	3	Log	2						
Paper Birch	2	Log	2						
Jack Pine	5	Log	2						
Quaking Aspen	5	Log	2						
37	42210 - Natural Red Pine	Sawtimber Well	7.9	109	81-110	N/A	Burned from Duck Lake Fire, May 2012. Retention from salvage cuts. Some underburned from fire.Decent red pine regen		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	95		12	109	White Pine	Low		Variable	Variable
White Pine	5		12		Jack Pine	Low		>20 feet	>20 feet
					Red Pine	Medium		Variable	Variable
38	42210 - Natural Red Pine	Sawtimber Poor	6.2	109	1-50	N/A	Burned from Duck Lake Fire, May 2012. Salvage cut in 2012, DLS #3, 42-026-12-01. Residual BA a bit thicker to the west. Regen survey in 2015 by summer students revealed approx. 200 trees/acre of jack pine, as well as 300 trees/acre birch, regen under residual RP. Re-evaluate at a later date.		
Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density		Avg. Height	Size
Red Pine	95		14	109	Red Pine	High		5 - 10 feet	5 - 10 feet
White Pine	5		14		Red Maple	Low		< 5 feet	< 5 feet
					Paper Birch	Medium		< 5 feet	< 5 feet

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
39	42290 - Natural Mixed Pine	Unspecified	40.1	2	Immature		<p>Young jack/ red pine regenerating after Duck Lake fire. Some log sized red pine on the SE edge of the stand that survived the fire.</p> <p>Duck Lake fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01 & DLS #4, sale #42-027-12-01. Regen survey in 2015 by summer students. Mix of species (red pine, jack pine, aspen, red maple and birch) and densities. Averages 470 trees/acre.</p>
40	42220 - Natural Jack Pine	Sapling Well	71.4	12	Immature	N/A	<p>Duck Lake fire May 2012. Not part of salvage sales. Includes steep hillsides. Regen survey in 2015 by summer students. Variable densities and species (red pine, jack pine, oak, red maple, birch and cherry). Averages 1200 trees/acre of all species combined.</p>
41	42220 - Natural Jack Pine	Sapling Medium	15.8	12	Immature	N/A	<p>Upland to transition ground. Regen survey in 2015 by summer students. Variable regen densities established; mainly birch with some jack pine. Acceptable regen due to location along river corridor. More jack pine may seed in.</p>
42	42120 - Planted Jack Pine	Sapling Well	186.3	9	Immature	N/A	<p>Duck Lake Fire May 2012. Salvage cut 2012 DLS #4, sale #42-027-12-01.</p> <p>Currently under FTP C42-859 for roller chop, plant and monitor. Roller chopped in 2015. Hand planted without furrows in May 2016. Regen survey summer 2017: 220 Trees per acre.</p> <p>FTP 42-859: Trenching complete 8/11/18. To be planted to JP in spring 2019.</p> <p>5/20/19 FTP C42-859 Planting - Stocking = Planted 1017 trees/ac. 1123 trees/ac plot data, 978 trees/ac linear data.</p> <p>Regen Check: 10/16/19 - JP 800 TPA. Small pockets of brown defoliation. Passed.</p> <p>Regen Survey: Fall of 2021 - 693 TPA Jack Pine.</p>

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
43	42120 - Planted Jack Pine	Sapling Medium	23.4	6	Immature	N/A	Duck Lake fire May 2012. Salvage cut 2012, DLS #4, sale #42-027-12-01. Currently under FTP C42-858 for roller chop, plant and monitor. Roller chopped in 2015. Hand planted May 2016 without furrows. Regen check summer 2017: 200 trees/acre. FTP 42-858: Trenching completed 8/8/18. To be planted to JP in spring of 2019. Regen Survey: Fall of 2021 - 436 TPA Jack Pine. Portion of stand is under airport lease agreement. Contractor Data: 5/17/19 Stand 43 - Planted 1109 trees/ac, 1091 trees/ac plot data, 983 trees/ac linear data. Regen Check: 10/16/19 - 833 TPA. Some pocket mortality noticed. Passed.
Canopy Species		% Cover	Size Class	DBH	Age		
Jack Pine		100	Log	2	6		
44	42120 - Planted Jack Pine	Sapling Medium	77.4	6	Immature	N/A	Duck Lake fire May 2012. Salvage cut 2012, DLS #4, sale #42-027-12-01. Currently under FTP 42-858 for roller chop, plant and monitor. Roller chopped in 2015. Hand planted to jack pine 5/18/2016. Regen survey summer 2017: 174 Trees/acre. FTP 42-858: Trenching complete 8/8/18. To be planted to JP in spring 2019. Fully stocked 2/24 Contractor Data: 5/17/19 Stocking = Stand 44 - Planted 1074 trees/ac. 1124 trees/ac plot data, 983 trees/ac linear data Regen Check: 10/16/2019 - JP 733 TPA. Regen Survey: Fall of 2021 - 321 TPA Jack Pine.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density
Jack Pine		98	Log	1	6	Jack Pine	Medium
Paper Birch		2	Log	2			
						Avg. Height	Size
						< 5 feet	< 5 feet
45	42220 - Natural Jack Pine	Sapling Medium	8.3	13	Immature	N/A	Small pocket in the southeast corner of the stand has log sized red pine. Red maple stump sprouts scattered throughout the stand Duck Lake fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01. Regen survey in 2015 by summer students. Mixed red pine, jack pine with red maple. Average 430 trees/acre of pine.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density
Red Maple		5	Log	1		Red Pine	Low
Jack Pine		90	Log	2	13	White Pine	Low
Red Pine		5	Log	2		Jack Pine	Low
						Avg. Height	Size
						< 5 feet	< 5 feet
46	42220 - Natural Jack Pine	Sapling Medium	273.0	13	Immature	N/A	Duck Lake Fire May 2012. Salvage cut 2012 DLS #4, sale #42-027-12-01. Regen survey in 2015 by summer students. Variable densities. Averages 1260 trees/acre. Parts of stand are very dense and others are very open
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density
Red Oak		15	Log	2		Red Pine	Low
Bigtooth Aspen		5	Log	2		Jack Pine	High
Jack Pine		80	Log	2	13		
						Avg. Height	Size
						< 5 feet	< 5 feet
47	42220 - Natural Jack Pine	Sapling Medium	63.6	13	Immature	N/A	Duck Lake Fire May 2012. Salvage cut 2012 DLS #4, sale #42-027-12-01. Regen survey in 2015 by summer students. Mostly jack pine with red pine. Associated red maple, aspen and birch. Averages 1880 trees/acre.
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density
Jack Pine		95	Log	2	13	Red Pine	Low
Red Maple		3	Log	2		Red Maple	Trace
Paper Birch		2	Log	2		Jack Pine	Low
						Avg. Height	Size
						< 5 feet	< 5 feet

Stand	Level 4 Cover Type		Size Density		Acres	Stand Age	BA Range	Managed Site	General Comments	
48	42220 - Natural Jack Pine		Sapling Well		19.7	12	Immature	N/A	Duck Lake Fire May 2012. Salvage cut 2012 DLS #4, sale #42-027-12-01. Regen survey in 2015 by summer students. Stand is fully stocked with jack pine	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
	Jack Pine	100	Log	2	12	Red Pine	Low	< 5 feet		< 5 feet
						Jack Pine	Medium	< 5 feet		< 5 feet
50	42220 - Natural Jack Pine		Sapling Medium		151.3	13	Immature	N/A	Duck Lake fire May 2012. Salvage cut 2012, DLS #4, sale #42-027-12-01. Regen survey completed by summer students in spring 2015. Moderately stocked in variable densities. Regen counts vary from 0-17 trees/plot. Average 403 trees/acre.	
	Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height		Size
	Jack Pine	100	Log	2	13	Jack Pine	Medium	< 5 feet		< 5 feet