



Compartment Review Presentation

Newberry Forest Management Unit

Compartment 38

Entry Year 2016

Acreage: 2,397

County Luce

Management Area: Deer Park

Revision Date: 07/25/2014

Stand Examiner: Amy Douglass

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:

Fisheries Values: Excellent

Fisheries Concerns: The Two-Hearted River borders 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 the Two-Hearted River receives an extremely popular run of salmon in the fall. 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. No treatments are prescribed near water, so Fisheries has no concerns at this time.

Wildlife Habitat Considerations:

Compartment 38 lies along the Lake Superior shoreline and is in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment is in the Deer Park Management Area and has the American marten, Kirtland's warbler, piping plover and red crossbill as featured species. 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. Some acreage of burned jack pine is being planted and a small portion of it is being replanted with optimal spacing to benefit Kirtland's warbler.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville was used as a building

stone in the past. There are no gravel pits in the area, and potential appears to be limited. There is no economic oil and gas production in the UP.

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**

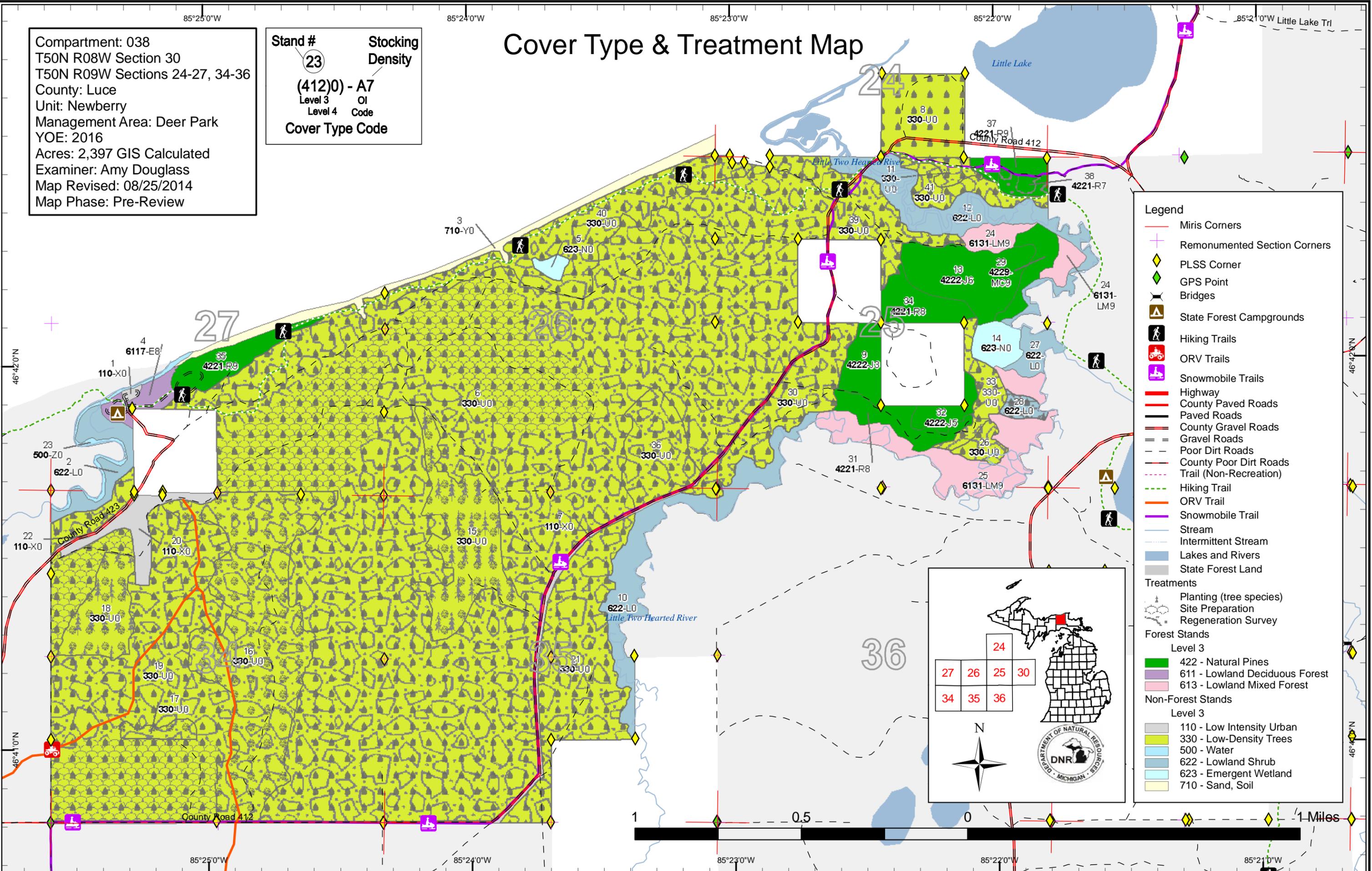
The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Compartment: 038
 T50N R08W Section 30
 T50N R09W Sections 24-27, 34-36
 County: Luce
 Unit: Newberry
 Management Area: Deer Park
 YOE: 2016
 Acres: 2,397 GIS Calculated
 Examiner: Amy Douglass
 Map Revised: 08/25/2014
 Map Phase: Pre-Review

Stand #
 23
 Stacking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code

Cover Type & Treatment Map



Legend

- Miris Corners
- Remonumented Section Corners
- PLSS Corner
- GPS Point
- Bridges
- State Forest Campgrounds
- Hiking Trails
- ORV Trails
- Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Hiking Trail
- ORV Trail
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

Treatments

- Planting (tree species)
- Site Preparation
- Regeneration Survey

Forest Stands

Level 3

- 422 - Natural Pines
- 611 - Lowland Deciduous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

- 110 - Low Intensity Urban
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand, Soil

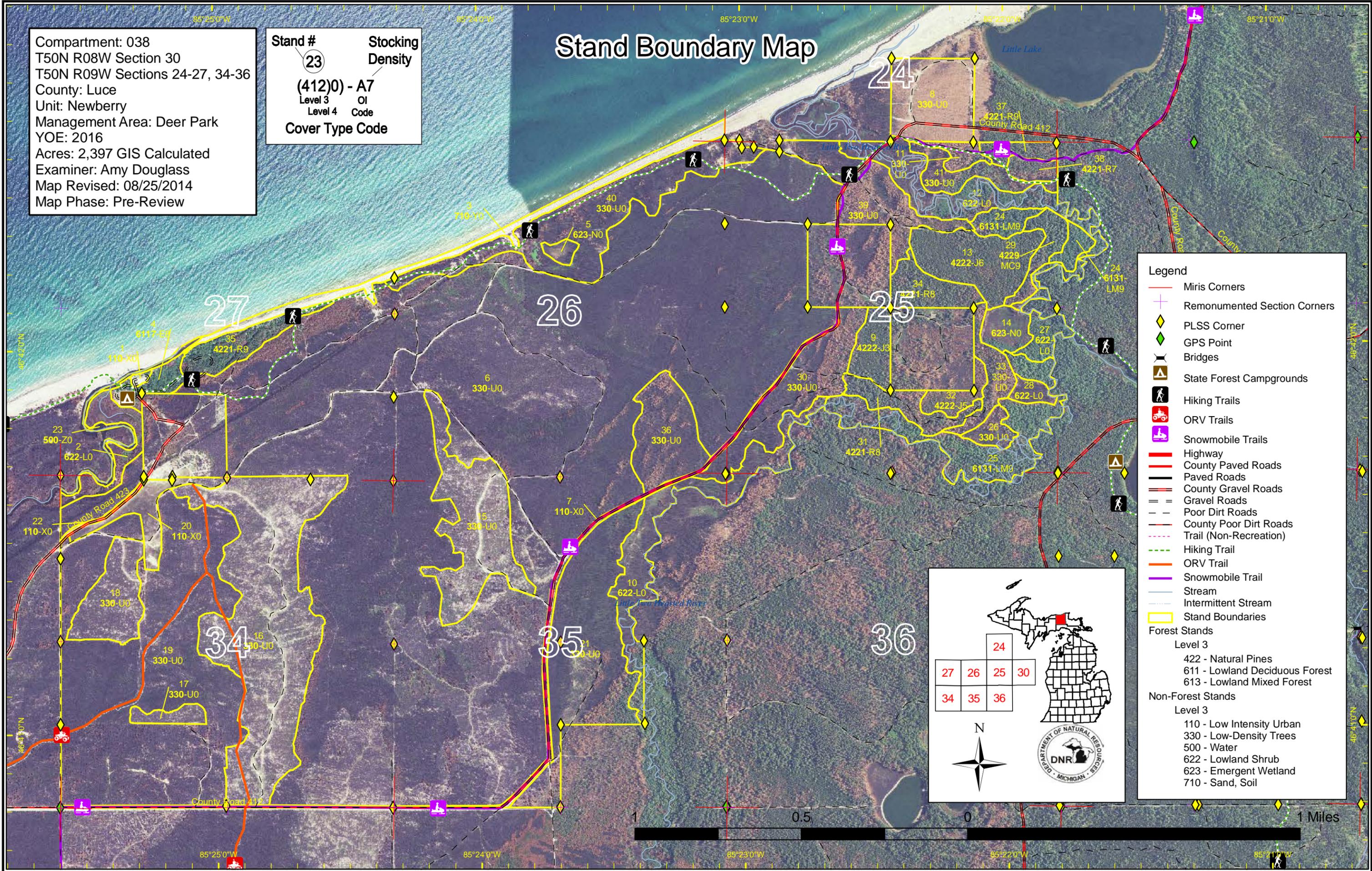
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 DNR
 MICHIGAN



Stand Boundary Map

Compartment: 038
 T50N R08W Section 30
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Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



Legend

- Miris Corners
- + Remonumented Section Corners
- ◆ PLSS Corner
- ◆ GPS Point
- Bridges
- State Forest Campgrounds
- Hiking Trails
- ORV Trails
- Snowmobile Trails
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- - - Poor Dirt Roads
- - - County Poor Dirt Roads
- - - Trail (Non-Recreation)
- - - Hiking Trail
- ORV Trail
- Snowmobile Trail
- Stream
- - - Intermittent Stream
- Stand Boundaries

Forest Stands

Level 3

- 422 - Natural Pines
- 611 - Lowland Deciduous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

- 110 - Low Intensity Urban
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 710 - Sand, Soil

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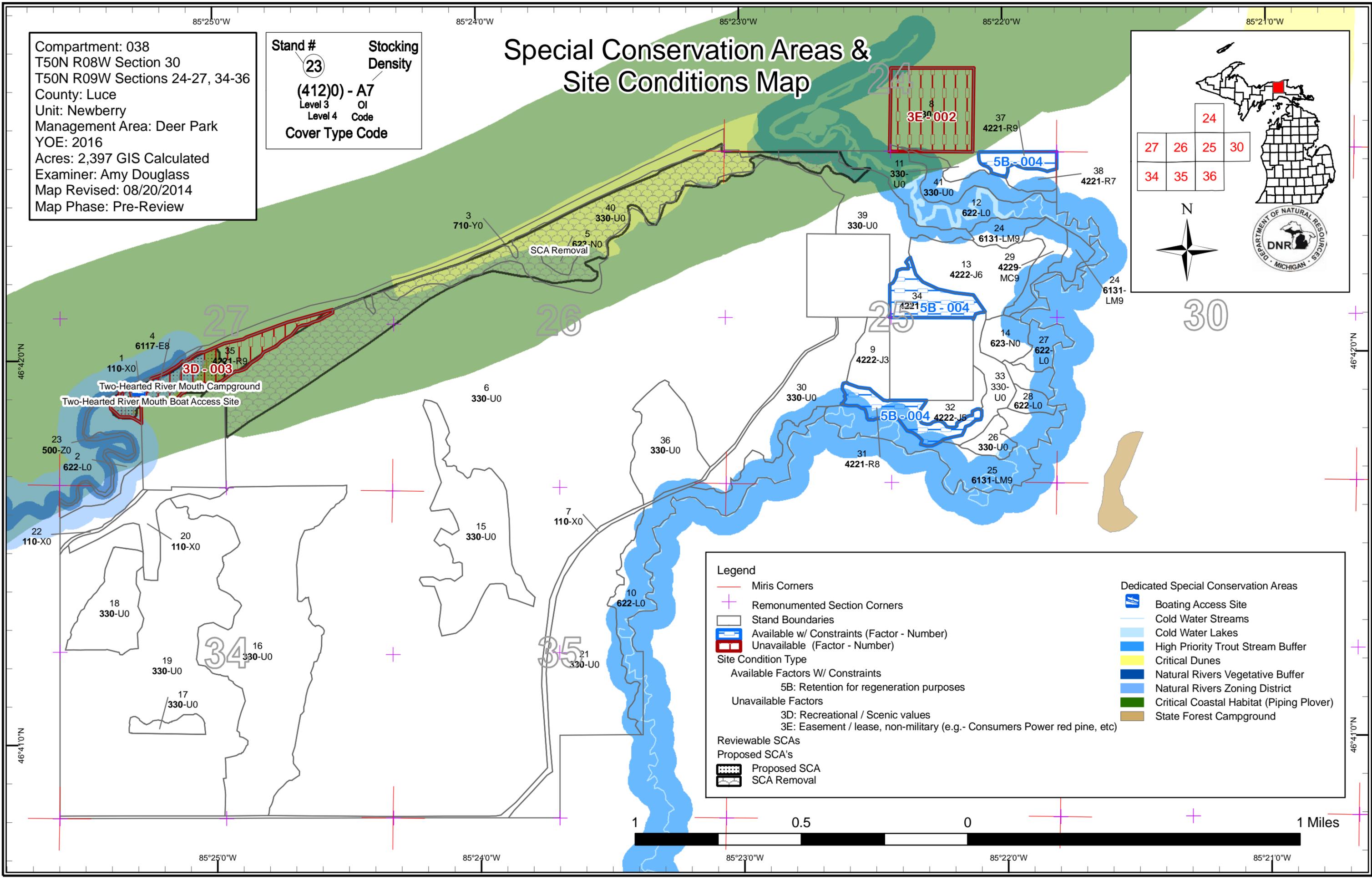
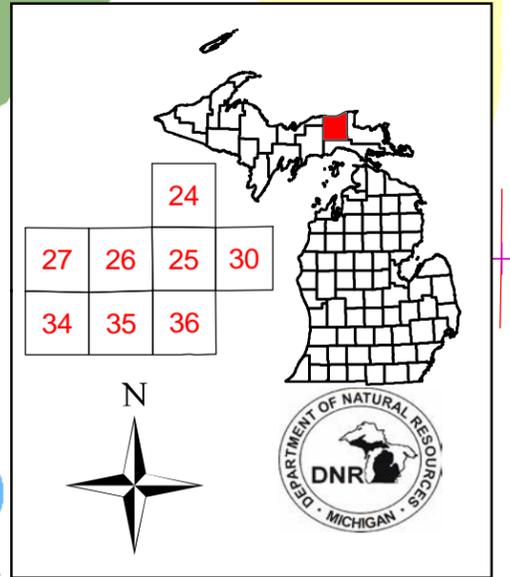
DNR
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MICHIGAN



Compartment: 038
 T50N R08W Section 30
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 County: Luce
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 Examiner: Amy Douglass
 Map Revised: 08/20/2014
 Map Phase: Pre-Review

Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

Special Conservation Areas & Site Conditions Map



Legend

- Miris Corners
- Remonumented Section Corners
- Stand Boundaries
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)

Site Condition Type

- Available Factors W/ Constraints
 - 5B: Retention for regeneration purposes
- Unavailable Factors
 - 3D: Recreational / Scenic values
 - 3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)

Reviewable SCAs

- Proposed SCA's
- Proposed SCA
- SCA Removal

Dedicated Special Conservation Areas

- Boating Access Site
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer
- Critical Dunes
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Critical Coastal Habitat (Piping Plover)
- State Forest Campground



Report 1 – Total Acres by Cover Type and Age Class



	Age Class														Total
	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 +	Uneven Age	
Jack Pine	0	0	0	62	0	0	0	0	0	0	0	0	0	0	62
Low-Density Trees	1977	0	0	0	0	0	0	0	0	0	0	0	0	0	1977
Lowland Deciduous	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	63	0	0	0	0	63
Lowland Shrub	120	0	0	0	0	0	0	0	0	0	0	0	0	0	120
Marsh	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Natural Mixed Pines	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
Red Pine	0	0	0	0	0	0	17	0	30	0	0	19	0	0	67
Sand, Soil	26	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	40
Water	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	2184	0	0	62	0	0	10	17	0	104	0	0	19	0	2397



Report 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2016

Compartment 038
Total Compartment Acres: 2,397

Acres by Treatment Type

Commercial Harvest - 0	Tree Planting - 90	Other - 285
Habitat Cut - 0	Opening Maintenance - 0	

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
		#Error	#####	#Error	#####	#Error	#####	
Total		0	0	0	0	0	0	0



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6	NF_42038006- Prep	187.3	3302 - Low Density Conifer Trees				Site Prep	Chopping	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Roller chop burned young jack pine to prepare area for planting.										
<u>Specs:</u>										
<u>Other</u> FTP# 42-859 for roller chopping and planting. Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Plant to jack pine. Regeneration survey per Work Instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 08/10/2014										
19	NF_42038019- Prep_north	22.7	3302 - Low Density Conifer Trees				Site Prep	Chopping	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Roller chop burned young jack pine to prepare area for planting.										
<u>Specs:</u>										
<u>Other</u> FTP# 42-858 for roller chopping and planting. Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Plant to jack pine. Regeneration survey per Work Instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 08/10/2014										
19	NF_42038019- Prep_south	75.0	3302 - Low Density Conifer Trees				Site Prep	Chopping	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Roller chop burned young jack pine to prepare area for planting.										
<u>Specs:</u>										
<u>Other</u> FTP# 42-858 for roller chopping and planting. Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Plant to jack pine. Regeneration survey per Work Instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 08/10/2014										
15	NF_42038015- Plant	60.7	3302 - Low Density Conifer Trees				Tree Planting	Hand Plant	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Hand plant jack pine (replant). Recommended spacing is 5 x 10 on the north half and 4 x 10 on the south half.										
<u>Specs:</u>										
<u>Other</u> Proposed KW funding. Burned in Duck Lake Fire, May 2012. Originally planted in May 2013.										
<u>Comments:</u>										
<u>Next</u> Monitor for regeneration per Work Instructions. Acceptable regeneration includes jack pine, red pine, white pine and oak with some aspen and maple.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 04/01/2015										
18	NF_42038018- Plant	29.4	3302 - Low Density Conifer Trees				Tree Planting	Hand Plant	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Hand plant (replant) to jack pine, 6 x 8 foot spacing.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012. Originally planted in May 2013.										
<u>Comments:</u>										
<u>Next</u> Regeneration survey per Work Instructions. Acceptable regeneration includes jack pine, red pine, white pine and oak with some aspen and maple.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 04/01/2015										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
38	42038038- Survey	6.2	42210 - Natural Red Pine	Low Density Log	98	1-50	Regeneration Survey	Intermediate Survey (natural regen)	4221 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes red pine, white pine, jack pine and oak with some aspen and maple. If natural regeneration fails, plant to red										
<u>Steps:</u> pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										
6	NF_42038006- Survey	922.6	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	4222 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes jack pine, red pine, white pine and oak with some aspen and maple. If natural regeneration fails, plant to jack										
<u>Steps:</u> pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										
11	NF_42038011- Survey	6.6	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	4221 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes red pine, white pine, jack pine and oak with some aspen and maple. If natural regeneration fails, plant to red										
<u>Steps:</u> pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										
16	NF_42038016- Survey	154.1	3302 - Low Density Conifer Trees				Regeneration Survey	Artificial Regeneration (1yr)	4212 - Planted Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Monitor for regen success at 3 years. Replant if necessary. Acceptable regeneration includes jack pine, red pine, white pine and oak with some										
<u>Steps:</u> aspen and maple.										
<u>Proposed</u>										
<u>Start Date:</u> 05/01/2014										

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
17 NF_42038017-Survey	6.4	3302 - Low Density Conifer Trees				Regeneration Survey	Artificial Regeneration (1yr)	4212 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Regeneration survey per Work Instructions.
Specs:

Other Burned in Duck Lake Fire, May 2012.
Comments:

Next Steps: Monitor for regen success at 3 years. Replant if necessary. Acceptable regeneration includes jack pine, red pine, white pine and oak with some aspen and maple.

Proposed
Start Date: 05/01/2015

19 NF_42038019-Survey	152.9	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	4222 - Natural Jack Pine	Cmpt. Review Proposal
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Prescription Regeneration survey per Work Instructions.
Specs:

Other Burned in Duck Lake Fire, May 2012.
Comments:

Next Steps: Acceptable regeneration includes jack pine, red pine, white pine and oak with some aspen and maple. If natural regeneration fails, plant to jack pine.

Proposed
Start Date: 10/01/2016

21 NF_42038021-Survey	91.6	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	4222 - Natural Jack Pine	Cmpt. Review Proposal
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Prescription Regeneration survey per Work Instructions.
Specs:

Other Burned in Duck Lake Fire, May 2012.
Comments:

Next Steps: Acceptable regeneration includes jack pine, red pine, white pine and oak with some aspen and maple. If natural regeneration fails, plant to jack pine.

Proposed
Start Date: 10/01/2016

26 NF_42038026-Survey	7.1	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	4221 - Natural Red Pine	Cmpt. Review Proposal
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Prescription Regeneration survey per Work Instructions.
Specs:

Other Burned in Duck Lake Fire, May 2012.
Comments:

Next Steps: Acceptable regeneration includes red pine, white pine, jack pine and oak with some aspen and maple. If natural regeneration fails, plant to red pine.

Proposed
Start Date: 10/01/2016



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
28	NF_42038028- Survey	5.0	6220 - Alder/willow				Regeneration Survey	Intermediate Survey (natural regen)	613 - Lowland Mixed Forest	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes maple, birch, aspen, white pine, with some areas remaining non-forested. If natural regeneration fails, plant to										
<u>Steps:</u> white pine and red pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										
30	NF_42038030- Survey	43.9	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes red pine, jack pine, white pine and oak with some aspen and maple. If natural regeneration fails, plant to a mix										
<u>Steps:</u> of red pine and jack pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										
33	NF_42038033- Survey	14.4	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	4221 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes red pine, white pine, jack pine and oak with some aspen and maple. If natural regeneration fails, plant to red										
<u>Steps:</u> pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										
36	NF_42038036- Survey	35.4	3301 - Low Density Deciduous Trees				Regeneration Survey	Intermediate Survey (natural regen)	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes oak, birch, maple, jack pine with red pine and white pine.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
39	NF_42038039- Survey	40.1	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	4221 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes red pine, white pine, jack pine and oak with some aspen and maple. If natural regeneration fails, plant to red										
<u>Steps:</u> pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										

40	NF_42038040- Survey	71.5	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012. Terrain will limit anything other than hand planting, if needed.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes red pine, white pine, jack pine and oak with some aspen and maple. If natural regeneration fails, plant to red										
<u>Steps:</u> pine/white pine/jack pine mixture.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										

41	NF_42038041- Survey	15.8	3302 - Low Density Conifer Trees				Regeneration Survey	Intermediate Survey (natural regen)	4222 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Regeneration survey per Work Instructions.										
<u>Specs:</u>										
<u>Other</u> Burned in Duck Lake Fire, May 2012.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration includes jack pine, red pine, white pine and oak with some aspen and maple. If natural regeneration fails, plant to jack										
<u>Steps:</u> pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2016										

**Total Treatment
Acreage Proposed: 1948.5**



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Type! #Type!

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

Total Treatment
Acreage Proposed: 0.0

Report 5 – Site Conditions

Newberry Mgt. Unit
Amy Douglass : Examiner

Compartment 038
Year of Entry 2016

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	5B	3D
	Available	Not Available				
62	62		Jack Pine	62		
10		10	Lowland Deciduous			10
63	63		Lowland Mixed Forest	63		
11	11		Natural Mixed Pines	11		
67	47	19	Red Pine	6	41	19
213	184	30	Total Forested Acres	143	41	30
	86%	14%	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
002	Not Available	3E: Easement / lease, non-military (e.g.- Consumers Power red pine, etc)	40				
Comments: Luce County Lease 40							
003	Not Available	3D: Recreational / Scenic values	30	3G: Other Influence zones - See comments			
Comments: Two-Hearted River Mouth Campground and dunes along Lake Superior.							
004	Available	5B: Maintain for regeneration purposes	41				
Comments: Live red pine stands after salvage cutting completed from Duck Lake Fire.							



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

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

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Two-Hearted River Mouth Boat Access Site	Concentrated Recreation Area	Boat Access Site	SCA	
Comments				
Two-Hearted River Mouth Campground	Concentrated Recreation Area	State Forest Campground	SCA	
Comments				
SCA Removal	Other SCA		SCA Removal	
Comments				
Previous POG that was burned in the Duck Lake Fire. Most of eastern portion is covered by Critical Dunes.				

**Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS**

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

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

Conservation Area	Type	Description
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
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.
HCVA	Critical Dunes	Critical dune areas are established via the public legislative process, and governed by Part 353, Sand Dune Protection and Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the Michigan Department of Environmental Quality (DEQ). The current distribution of designated critical dunes is established by the DEQ 1989 Atlas of Critical Dune Areas.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Log	10.2	65	51-80	Burned through from Duck Lake Fire, May 2012. Areas of tag alder along with upland areas of western campground loop.
9	42220 - Natural Jack Pine	High Density Sapling	14.8	34		Retention area for salvage sale. Somewhat burned through by Duck Lake Fire, May 2012.
13	42220 - Natural Jack Pine	High Density Pole	38.7	38		Excluded from salvage sale. Some underburning from Duck Lake Fire, May 2012.
24	6131 - Hemlock, White Pine, Maple, Birch	High Density Log	14.2	95		Lower ground along Little Two Hearted River. Some burn through from Duck Lake Fire, May 2012. Mostly floodplain.
25	6131 - Hemlock, White Pine, Maple, Birch	High Density Log	48.5	90	51-80	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.
29	42290 - Natural Mixed Pine	High Density Log	11.3	98	81-110	Upland mixed pine bordering Little Two Hearted River. Some underburn from Duck Lake Fire, May 2012. Occasional oak, white birch, red maple and spruce.
31	42210 - Natural Red Pine	Medium Density Log	16.0	96	51-80	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.
32	42220 - Natural Jack Pine	Medium Density Pole	9.0	36		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.
34	42210 - Natural Red Pine	Medium Density Log	17.3	78	51-80	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.
35	42210 - Natural Red Pine	High Density Log	19.3	124	81-110	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. Occasional oak within stand.
37	42210 - Natural Red Pine	High Density Log	7.9	98	81-110	Burned from Duck Lake Fire, May 2012. Retention from salvage cuts. Some underburned from fire.
38	42210 - Natural Red Pine	Low Density Log	6.2	98	1-50	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.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	11 - Low Intensity Urban	1.2	Yes	Low	Boating access and parking lot.
2	6220 - Alder/willow	15.9	No	Low	Lowland along Two Hearted River.
3	710 - Sand, Soil	26.4	No	Low	Lake Superior shoreline.
5	6239 - Mixed Emergent Wetland	3.4	No	Low	
6	3302 - Low Density Conifer Trees	1109.9	Natural Regen	Jack Pine	Duck Lake Fire May 2012. Salvage cut 2012 DLS #4, sale #42-027-12-01.
7	11 - Low Intensity Urban	19.7	Yes	Low	County Road 412.
8	3302 - Low Density Conifer Trees	39.3	Natural Regen	Red Pine	Luce County Lease Land. Burned by Duck Lake Fire, May 2012. Salvaged and planted to red pine after fire.
10	6220 - Alder/willow	46.2	No	Low	Lowland along Little Two Hearted River. Areas of tag alder and areas of marsh grass. Burned by Duck Lake Fire, May 2012.
11	3302 - Low Density Conifer Trees	6.6	Natural Regen	Red Pine	Burned by Duck Lake Fire, May 2012. Salvage cut 2012, DLS#3, 42-026-12-01.
12	6220 - Alder/willow	44.4	No	Low	Little Two Hearted River corridor. Burned by Duck Lake Fire, May 2012.
14	6239 - Mixed Emergent Wetland	10.9	No	Low	
15	3302 - Low Density Conifer Trees	60.7	Plantation	Jack Pine	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.
16	3302 - Low Density Conifer Trees	154.1	Plantation	Jack Pine	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.
17	3302 - Low Density Conifer Trees	6.4	Plantation	Jack Pine	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.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
18	3302 - Low Density Conifer Trees	29.4	Plantation	Jack Pine	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.
19	3302 - Low Density Conifer Trees	250.7	Natural Regen	Jack Pine	Duck Lake fire May 2012. Salvage cut 2012, DLS #4, sale #42-027-12-01.
20	11 - Low Intensity Urban	17.0	Yes	Low	Old airstrip
21	3302 - Low Density Conifer Trees	91.6	Natural Regen	Jack Pine	Duck Lake fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01.
22	11 - Low Intensity Urban	1.9	Yes	Low	County Road 423.
23	50 - Water	6.5	No	Low	Two Hearted River.
26	3302 - Low Density Conifer Trees	7.1	Natural Regen	Red Pine	Duck Lake fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01.
27	6220 - Alder/willow	8.6	No	Low	Lowland along Little Two Hearted River. Burned by Duck Lake Fire, May 2012.
28	6220 - Alder/willow	5.0	Natural Regen	Lowland Deciduous	Low ground bordering Little Two Hearted River. Burned by Duck Lake Fire, May 2012. Previously mix of maple, birch and white pine.
30	3302 - Low Density Conifer Trees	43.9	Natural Regen	Natural Mixed Pines	Duck Lake fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01.
33	3302 - Low Density Conifer Trees	14.4	Natural Regen	Red Pine	Duck Lake Fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01.
36	3301 - Low Density Deciduous Tree	35.4	Natural Regen	Oak	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.
39	3302 - Low Density Conifer Trees	40.1	Natural Regen	Red Pine	Duck Lake fire May 2012. Salvage cut 2012 DLS #3, sale #42-026-12-01 & DLS #4, sale #42-027-12-01.
40	3302 - Low Density Conifer Trees	71.5	Natural Regen	Natural Mixed Pines	Duck Lake fire May 2012. Not part of salvage sales. Includes steep hillsides.
41	3302 - Low Density Conifer Trees	15.8	Natural Regen	Jack Pine	Upland to transition ground.