



Newberry Forest Management Unit
Compartment Review Presentation
Compartment: 036 Entry Year: 2014
Compartment Acreage: 2,473 County: Luce

Revision Date: 2/13/2012

Stand Examiner: Jason Darling

Legal Description: T49N, R9W. Sections 4, 8, 9, 16, 17, 18.
T50N, R9W. Section 33

RMU (if applicable): Compartment located within the Deer Park Management Unit.

Management Goals: Maintain forest health, forest resource protection, forest recreation, timber production, forest diversity and forest sustainability while considering wildlife, fisheries and environmental needs and concerns.

Soil and Topography: Rubicon Sand, slopes from 0-6 and 6-15 percent, gently rolling. The south east corner of the compartment offers some diversity containing a water feature and Dawson, Greenwood, and Loxley Soils but is a very minor component of the compartment.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Ownership pattern consists of a large, contiguous block of state ownership.

Unique, Natural Features: Within the compartment MNFI shows no potential for rare species. GDSE 'Elemental Occurrences' data layer was referenced and also showed no rare species. Most of the compartment was burnt by the Duck Lake Fire and is being treated with salvage cuts. A few small pockets of timber survived and are reserved from cutting.

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: Fisheries Values: Minimal

Fisheries Concerns: This entire compartment is located within the Duck Lake Fire area. It contains Little Perch Lake and a portion of Little Pike Lake. A 100' foot buffer should already be in place for these two water-bodies. The East Branch Two-Hearted River is also located along the western side of the compartment. Prior salvage operations have already taken part in this compartment and were approved by Fisheries Division.

Wildlife Habitat Considerations: Compartment 36 lies in north central Luce county and lies in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection and in the Deer Park Management Area with red crossbill, Kirtland's warbler, piping plover and american marten as designated featured species. The compartment was part of the 2012 Duck Lake fire and was heavily burned through destroying nearly all of the mature forested stands. Much of the burned timber in the compartment was prescribed in salvage sales following the fire. A few scattered small stands of standing live trees exist and are primarily 30-40 year old jack pine. A few small, burned through stands of spruce and red pine exist as well. Wildlife species use of this compartment is minimal at the current time but species are anticipated to use existing live tree patches for cover, travel and food resources in the immediate landscape. The live tree patches will be important nesting locations for avian species in the coming years. Burned areas will either be left to regenerate naturally or will be re-planted to their previous cover type.

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 subcrop below the glacial drift, and 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: The compartment can be accessed by county roads 414 and 423, both which are primary routes that run through a majority of the compartment. These roads are maintained by the Luce County Road Commission. The County has designated this road as seasonal and they do not routinely maintain it as they do other county roads. These roads provide great public access throughout the compartment. There are also a good number of small forest roads/logging roads that run through a majority of the stands, making access easy to the entire compartment.

Survey Needs: None

Recreational Facilities and Opportunities: The Two-Heart ORV Trail meanders through portions of the compartment. FMD snowmobile trail 8 runs through the compartment as well. Hunting, wildlife viewing and trapping opportunities are also present.

Fire Protection: This compartment is part of the Two Hearted Zone Dispatch Area. The potential for large fire growth in this compartment is high because of the high acres of Jack Pine. Most of the compartment is accessible with heavy equipment. It is part of the Duck Lake Fire, which burned 5/24/2012.

Additional Compartment Information: None.

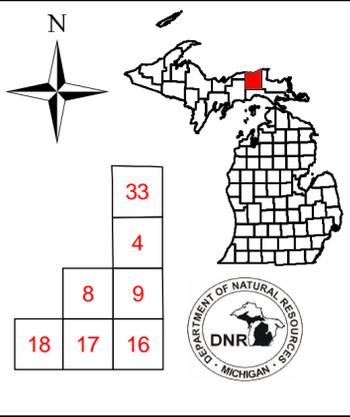
➤ **The following reports from the Inventory are attached:**

- ◆ **Total Acres by Cover Type and Age Class**
- ◆ **Proposed Treatment Summary**
- ◆ **Proposed Treatments – No Limiting Factors**
- ◆ **Proposed Treatments – With Limiting Factors**
- ◆ **Stand Details (Forested and Nonforested)**
- ◆ **Dedicated and Proposed Special Conservation Areas**

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

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

Cover Type & Treatment Map

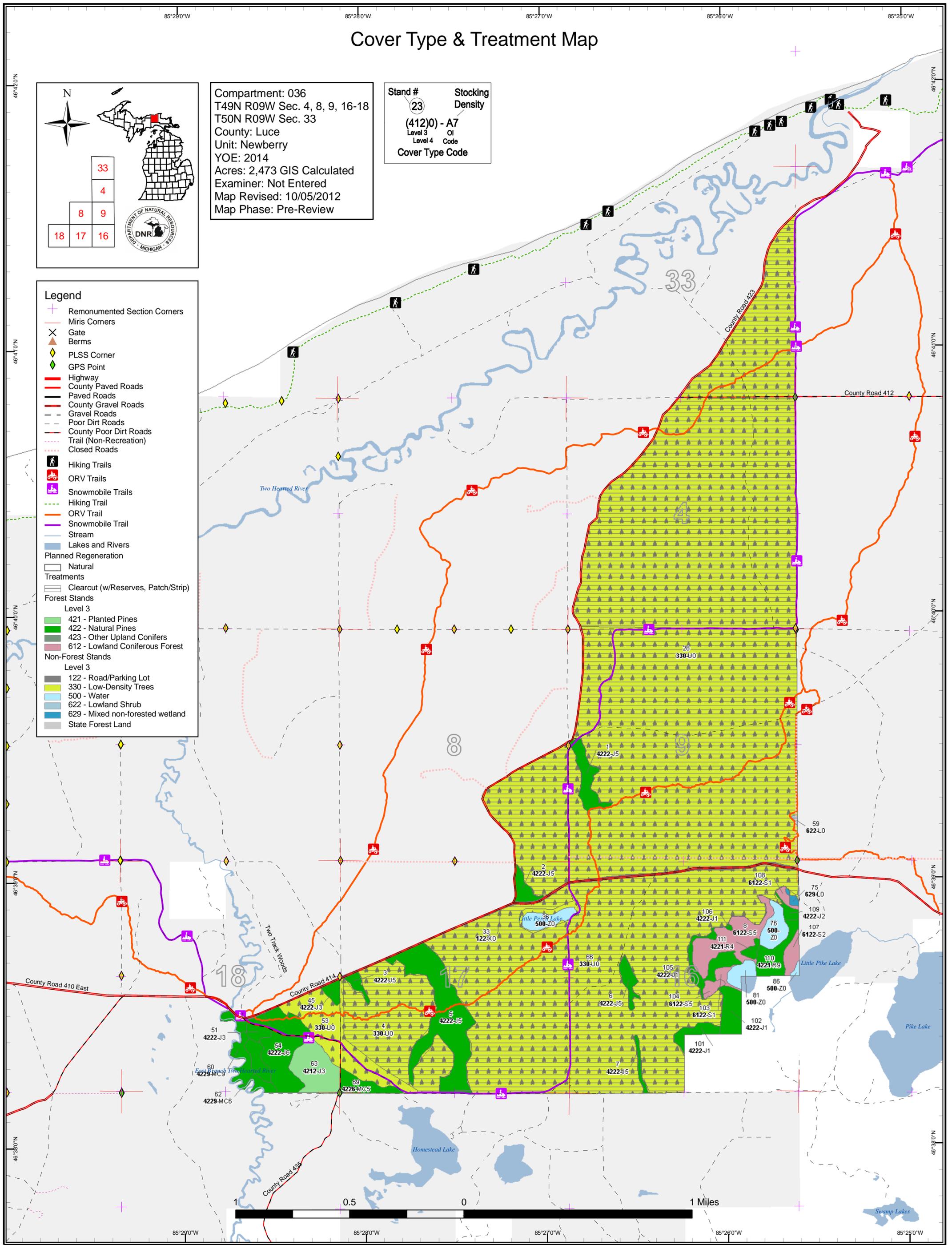


Compartment: 036
T49N R09W Sec. 4, 8, 9, 16-18
T50N R09W Sec. 33
County: Luce
Unit: Newberry
YOE: 2014
Acres: 2,473 GIS Calculated
Examiner: Not Entered
Map Revised: 10/05/2012
Map Phase: Pre-Review

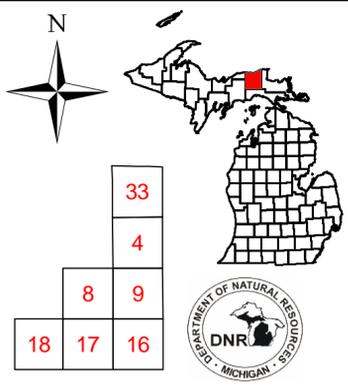
Stand #
23
(412)0 - A7
Level 3 OI
Level 4 Code
Cover Type Code

Legend

- ✚ Remonumented Section Corners
- ✚ Miris Corners
- ✕ Gate
- ▲ Berms
- ◆ PLSS Corner
- ◆ GPS Point
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- 🚶 Hiking Trails
- 🚙 ORV Trails
- 🏠 Snowmobile Trails
- 🚶 Hiking Trail
- 🚙 ORV Trail
- 🏠 Snowmobile Trail
- Stream
- Lakes and Rivers
- Planned Regeneration
- Natural
- Clearcut (w/Reserves, Patch/Strip)
- Forest Stands
- Level 3
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 612 - Lowland Coniferous Forest
- Non-Forest Stands
- Level 3
- 122 - Road/Parking Lot
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland
- State Forest Land



Stand Boundary Map

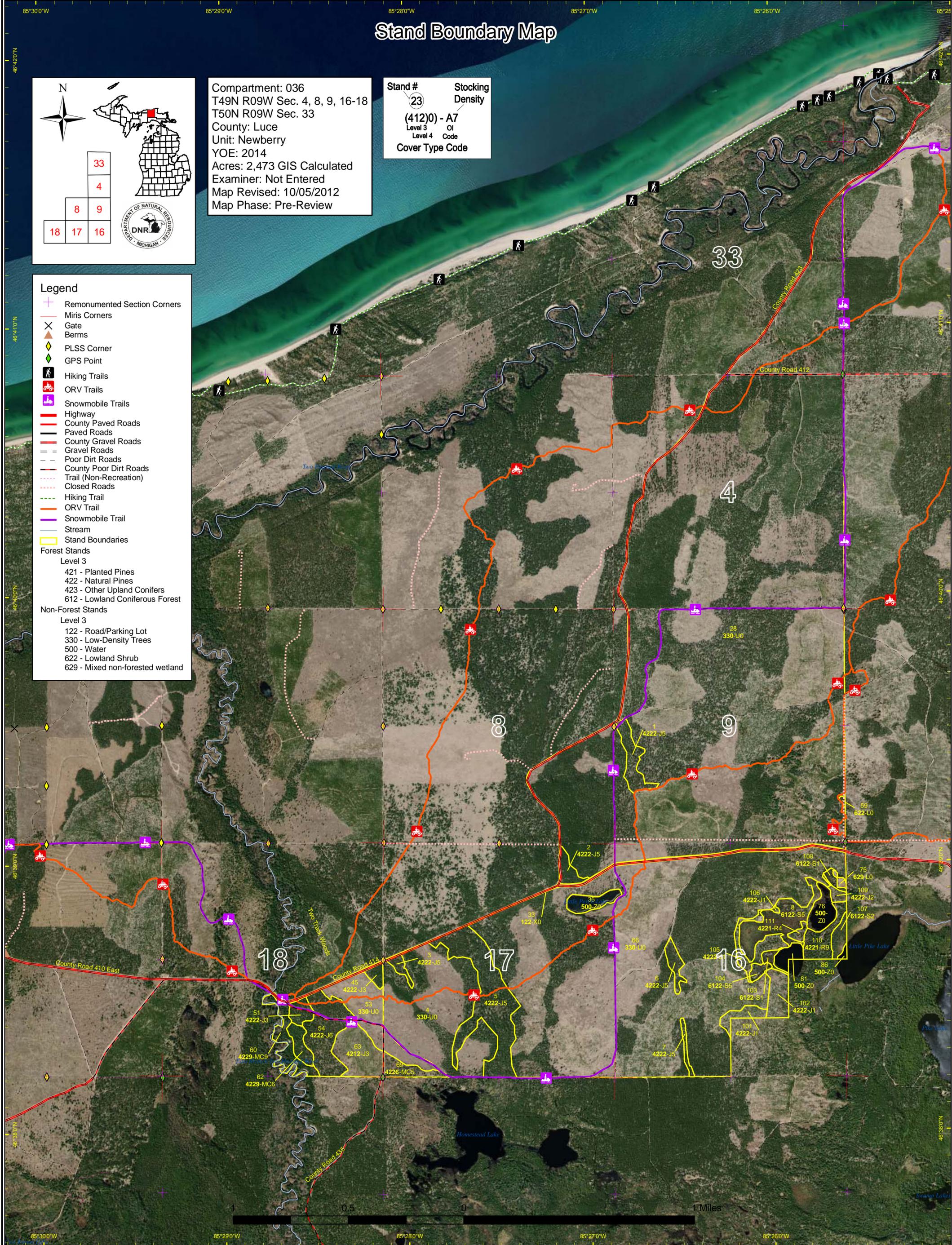


Compartment: 036
T49N R09W Sec. 4, 8, 9, 16-18
T50N R09W Sec. 33
County: Luce
Unit: Newberry
YOE: 2014
Acres: 2,473 GIS Calculated
Examiner: Not Entered
Map Revised: 10/05/2012
Map Phase: Pre-Review

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

Legend

- Remunemented Section Corners
 - Miris Corners
 - Gate
 - Berms
 - PLSS Corner
 - GPS Point
 - 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)
 - Closed Roads
 - Hiking Trail
 - ORV Trail
 - Snowmobile Trail
 - Stream
 - Stand Boundaries
- Forest Stands**
Level 3
421 - Planted Pines
422 - Natural Pines
423 - Other Upland Conifers
612 - Lowland Coniferous Forest
- Non-Forest Stands**
Level 3
122 - Road/Parking Lot
330 - Low-Density Trees
500 - Water
622 - Lowland Shrub
629 - Mixed non-forested wetland



Dedicated & Proposed Special Conservation Area Map

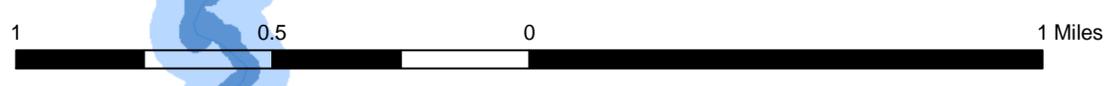
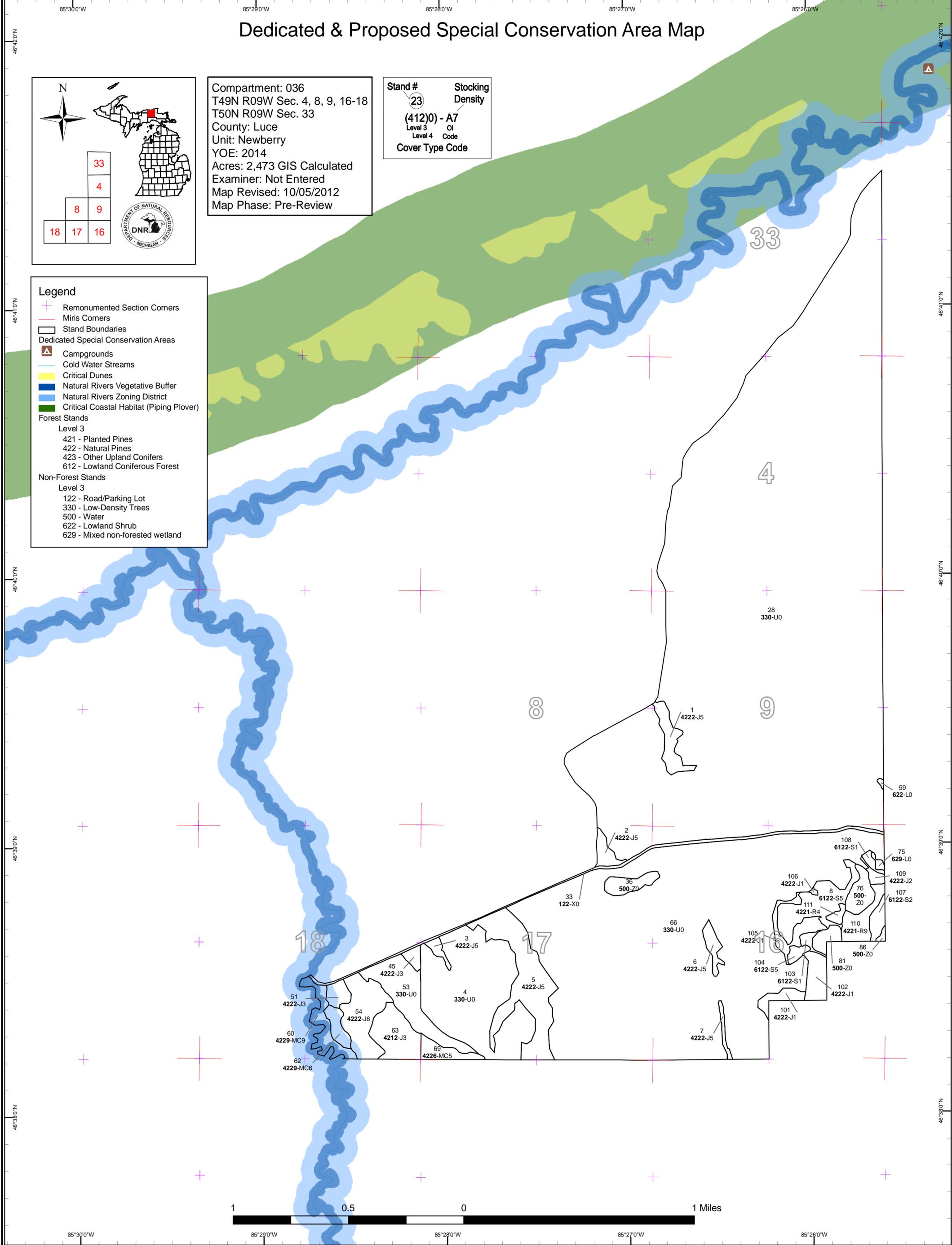
33
4
8 9
18 17 16

Compartment: 036
T49N R09W Sec. 4, 8, 9, 16-18
T50N R09W Sec. 33
County: Luce
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Examiner: Not Entered
Map Revised: 10/05/2012
Map Phase: Pre-Review

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

Legend

- Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas
- Campgrounds
- Cold Water Streams
- Critical Dunes
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District
- Critical Coastal Habitat (Piping Plover)
- Forest Stands
 - Level 3
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 612 - Lowland Coniferous Forest
- Non-Forest Stands
 - Level 3
 - 122 - Road/Parking Lot
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 - 500 - Water
 - 622 - Lowland Shrub
 - 629 - Mixed non-forested wetland



85°30'0"W 85°29'0"W 85°28'0"W 85°27'0"W 85°26'0"W

46°42'0"N
46°41'0"N
46°40'0"N
46°39'0"N
46°38'0"N
46°37'0"N

85°30'0"W 85°29'0"W 85°28'0"W 85°27'0"W 85°26'0"W

Table 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	50	10	21	0	0	31	74	0	0	0	0	0	0	185
Low-Density Trees	2159	0	0	0	0	0	0	0	0	0	0	0	0	0	2159
Lowland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Spruce/Fir	0	0	0	0	0	0	3	0	38	0	0	0	0	0	40
Natural Mixed Pines	0	0	0	0	0	0	9	0	0	15	0	0	0	7	31
Red Pine	0	0	0	0	0	0	0	0	15	0	0	0	0	0	15
Urban	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Water	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Total	2202	50	10	21	0	0	43	74	53	15	0	0	0	7	2473



Table 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2014

Compartment 036
Total Compartment Acres: 2473

Acres by Treatment Type

Commercial Harvest - 0	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

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



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
15	42036_DLS_6	520.9	3302 - Low Density Conifer Trees				Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Fld. Tr. Bdy.
<u>Prescription</u> Following retention guidance and woody biomass guidance perform salvage of burned wood from the Duck Lake fire. Retention will include individual and patches of live trees, along with standing snags. Leave red pine, white pine and oak.										
<u>Specs:</u>										
<u>Other</u> Follow BMP guidance to leave retention in riparian zones along rivers, near bogs and lowland shrub stands.										
<u>Comments:</u>										
<u>Next</u> Regenerate to jack pine using natural regeneration, followed by seeding or planting as needed. Acceptable regeneration species are jack pine, red pine, white pine, and oak. Follow up with regeneration surveys per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 06/22/2012										

66	42036_DLS_1 1	726.8	3302 - Low Density Conifer Trees				Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Fld. Tr. Bdy.
<u>Prescription</u> Following retention guidance and woody biomass guidance perform salvage of burned wood from the Duck Lake fire. Retention will include individual and patches of live trees, along with standing snags. Leave red pine, white pine and oak.										
<u>Specs:</u>										
<u>Other</u> Follow BMP guidance to leave retention in riparian zones along rivers, near bogs and lowland shrub stands.										
<u>Comments:</u>										
<u>Next</u> Regenerate to jack pine using natural regeneration, followed by seeding or planting as needed. Acceptable regeneration species are jack pine, red pine, white pine, and oak. Follow up with regeneration surveys per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 06/22/2012										

15	42036_DLS_4 a	119.6	3302 - Low Density Conifer Trees				Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Fld. Tr. Bdy.
<u>Prescription</u> Following retention guidance and woody biomass guidance perform salvage of burned wood from the Duck Lake fire. Retention will include individual and patches of live trees, along with standing snags. Leave red pine, white pine and oak.										
<u>Specs:</u>										
<u>Other</u> Follow BMP guidance to leave retention in riparian zones along rivers, near bogs and lowland shrub stands.										
<u>Comments:</u>										
<u>Next</u> Regenerate to jack pine using natural regeneration, followed by seeding or planting as needed. Acceptable regeneration species are jack pine, red pine, white pine, and oak. Follow up with regeneration surveys per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 06/22/2012										

15	42036_DLS_9	751.0	3302 - Low Density Conifer Trees				Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Fld. Tr. Bdy.
<u>Prescription</u> Following retention guidance and woody biomass guidance perform salvage of burned wood from the Duck Lake fire. Retention will include individual and patches of live trees, along with standing snags. Leave red pine, white pine and oak.										
<u>Specs:</u>										
<u>Other</u> Follow BMP guidance to leave retention in riparian zones along rivers, near bogs and lowland shrub stands.										
<u>Comments:</u>										
<u>Next</u> Regenerate to jack pine using natural regeneration, followed by seeding or planting as needed. Acceptable regeneration species are jack pine, red pine, white pine, and oak. Follow up with regeneration surveys per work instructions.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 06/11/2012										

**Total Treatment
Acreage Proposed: 2118.3**

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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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#Error

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Error

Limiting Factor and No
Treatment Reason

Total Treatment
Acreage Proposed: 0

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
Specs:

Other
Comments:

Next
Steps:

Proposed
Start Date: #Error

**Total Treatment
Acreage Proposed: 0**

Stand	Newberry Mgt. Unit		5 – Forested Stands			Compartment: 036	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2014	
1	42220 - Natural Jack Pine	Medium Density Pole	12.7	77	51-80	Duck Lake fire. Retention area of live trees within DLS #9 sale.	
2	42220 - Natural Jack Pine	Medium Density Pole	6.2	35	51-80	Duck Lake fire. Retention area of live trees within salvage sale.	
3	42220 - Natural Jack Pine	Medium Density Pole	3.2	76	51-80	Duck Lake fire. Retention area of live trees within salvage sale.	
5	42220 - Natural Jack Pine	Medium Density Pole	57.8	73	51-80	Duck Lake fire. Retention area of live trees.	
6	42220 - Natural Jack Pine	Medium Density Pole	5.9	39	51-80	Duck Lake fire area. Retention area of live trees.	
7	42220 - Natural Jack Pine	Medium Density Pole	2.6	39	51-80	Duck Lake fire area. Retention area of live trees.	
8	6122 - Black Spruce	Medium Density Pole	27.2	80		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.	
45	42220 - Natural Jack Pine	High Density Sapling	3.4	26			
51	42220 - Natural Jack Pine	High Density Sapling	6.0	33		TWO HEARTED RIVER MANAGEMENT ZONE. Scarified 10/1/79. JP seedlings are 20 - 25 feet in height (1994). Some WP,RP poles and PB saplings present in stand.	
54	42220 - Natural Jack Pine	High Density Pole	31.2	68	81-110	Stand is starting to degrade. Nice JP pole/logs.	
60	42290 - Natural Mixed Pine	High Density Log	14.7	90		Stand falls under Two-Hearted River Mgmt guidelines. Steep ridge down to river bottom; contains large diameter pine (some old RP 22" +). PB within stand is either dead or dying out of stand.	
62	42290 - Natural Mixed Pine	High Density Pole	6.9	Uneven Age		TWO HEARTED RIVER MANAGEMENT ZONE. Some of the WP regeneration is weeviled (trees are ~ 35 feet in height). Mixed softwoods include: spruce, red pine, white pine and jack pine. Stand was harvested t.sale #19-59? (MO = JP).	
63	42120 - Planted Jack Pine	High Density Sapling	23.7	12		Machine planted in May,2000 with 2-0 JP (FTP #42-442: 23 acres). Regeneration survey done on planting 10/23/2001 and found to be stocked with 642 trees/ac (includes 591 planted trees/ac jp + 51 "volunteer" trees/ac jp). 2012 - High quality trees and stocking. Trees are 3-6'.	
69	42260 - Natural Pine, Mixed Deciduous	Medium Density Pole	9.1	65		A few wet spots throughout. Old JP and Aspen is degrading.	
101	42220 - Natural Jack Pine	Low Density Sapling	6.3	25		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.	



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Newberry Mgt. Unit

5 – Forested Stands

Compartment: 036
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
102	42220 - Natural Jack Pine	Low Density Sapling	11.3	13		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.
103	6122 - Black Spruce	Low Density Sapling	2.6	62		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.
104	6122 - Black Spruce	Medium Density Pole	3.0	80		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.
105	42220 - Natural Jack Pine	Low Density Sapling	11.4	13		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.
106	42220 - Natural Jack Pine	Low Density Sapling	0.5	13		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.
107	6122 - Black Spruce	Medium Density	5.6	80		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.
108	6122 - Black Spruce	Low Density Sapling	2.1	82		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.
109	42220 - Natural Jack Pine	Medium Density	2.7	13		Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.
110	42210 - Natural Red Pine	High Density Log	12.8	89	111-140	Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.
111	42210 - Natural Red Pine	Low Density Pole	2.4	89	1-50	Duck Lake fire May 2012. Retention area for DLS#11. Area was excluded from the Duck Lake salvage sales; however it was burnt over. Some green trees remain from the original inventory.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	3302 - Low Density Conifer Trees	120.8	Natural Regen	Jack Pine	Duck Lake fire May 2012. Regenerate to jack pine through natural regeneration where possible, followed by planting where necessary.
28	3302 - Low Density Conifer Trees	1385.1	Natural Regen	Jack Pine	Duck Lake fire area. DLS#4, 6, & 9. Regenerate using natural regeneration where possible, and planting where necessary.
33	122 - Road/Parking Lot	15.2	No	Unspecified	
36	50 - Water	8.8	No	Unspecified	
53	3302 - Low Density Conifer Trees	35.8	Natural Regen	Jack Pine	**Harvested as Homestead Lake JP - 42-018-04-01** Regeneration results: 631 tpa is adequate.
59	6229 - Mixed lowland shrub	0.5	No	Low (NonForested)	Within the Duck Lake fire.
66	3302 - Low Density Conifer Trees	617.2	Natural Regen	Jack Pine	Duck Lake fire May 2012. Regenerate to jack pine with natural regeneration, followed by planting if needed.
75	629 - Mixed non-forested wetland	1.3	No	Low (NonForested)	Duck Lake fire area.
76	50 - Water	10.3	No	Unspecified	
81	50 - Water	6.0	No	Unspecified	
86	50 - Water	0.9	No	Unspecified	



7 – 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.

Stand	SCA Type	SCA Name	Acres	Comments



8 – DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

Conservation Area	Type	Description
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.
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.