



**Newberry Forest Management Unit
Compartment Review Presentation
Compartment 33 Entry Year: 2012
Compartment Acreage: 1318 County: Luce**

Revision Date: 9/21/10

Stand Examiner: Keith Magnusson

Legal Description: T49N R9W Sections 4, 5 & 6
T50N R9W Sections 32 & 33

Identified Planning Goals ('Management Area' or 'RMU'): Compartment 33 is located within the Deer Park Management Area. For further description of this management unit go to the following web site:
http://www.midnr.com/publications/pdfs/forestslandwater/Ecosystem/EUP/final-MAsummaries/09_Deer_Park_MA_summary.pdf

Management Goals: To maintain forest health, diversity and sustainability while considering wildlife, fisheries, recreation and environmental needs and concerns.

Soil and Topography: The soil type is predominately Rubicon sand. The topography is mostly level to rolling throughout the compartment with areas of steep sand banks along the Two Hearted River.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is entirely State owned and is almost entirely surrounded by State land. There are two private land parcels that are near the compartment. There is a private 40 acre parcel with a seasonal cabin to the southwest of the compartment. The other nearby private parcel is to the Northeast end of the compartment where the Rainbow Lodge (business) is located. The compartment is adjacent to the Two Hearted River which is designated as a Natural River. The area is used heavily for recreation activity such as camping, hiking, canoeing, fishing, ORV riding and some hunting. The area has also been historically used for timber production.

Unique, Natural Features: The Two Hearted River and its corridor is a unique and natural feature to the area. The Two Hearted River has been designated as a Natural River and there was a natural river plan adopted as to how to manage land around the river. Michigan Natural Features Inventory lists the potential for goshawk, merlin, eagle and osprey as well as moose, wolf and wood turtle to occur within the compartment.

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: Special considerations must be made for the timber management around the Two Hearted River corridor. Follow the Two Hearted River Natural River Plan as well as BMP guidelines.

Watershed and Fisheries Considerations: Excellent. The Two-Hearted River in this area is classified Type 4 for its excellent steelhead and salmon fisheries, plus occasional summer brook trout. Most brook trout fishing, however, is further upstream and in the tributaries. The East Branch Two-Hearted River (Type 1), in the southwest corner of the compartment contains an excellent native brook trout population. This branch is not part of the extended season section of river.

Wildlife Habitat Considerations: **Compartment 33** lies in north central Luce county and lies in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment is almost entirely jack pine in various age classes and the northern border is the Two-hearted River.

Species diversity of jack pine varied within the compartment and was generally low. Some managed stands will remain relatively pure while others will strive to retain species of low occurrence in the stands post harvest. Additionally, any mast producing species will be retained to provide wildlife food sources and nest and den trees. Wildlife species thought to use this compartment include white-tailed deer, black bear, coyote, mink, marten and possibly Kirtland's warbler.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel. An ancient shoreline runs through the compartment. 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: County Roads 500, 414 and 423 are the main access roads used to access this compartment. They are all regularly maintained by the Luce County Road Commission. All other roads are State forest roads and are mostly sand two tracks that receive minimal to no maintenance.

Survey Needs: None of any priority at this time.

Recreational Facilities and Opportunities: There are two State forest campgrounds near this compartment at the mouth of the Two Hearted River. There is also an ORV trail that traverses through the compartment as well as a nearby DNRE designated snowmobile trail. There are unofficial dog-sledding trails used within and nearby this compartment during the winter months. Fishing and canoeing opportunities exist in the Two Hearted River and it is a fairly popular destination for those users. The Rainbow Lodge is less than a mile from this compartment. It is a local business that offers a store, camping/lodging activities as well as a canoe livery service. Other recreational opportunities would be hunting, wildlife viewing and berry picking.

Fire Protection: This compartment is in the Two Hearted Zone Dispatch Area. Modified suppression tactics may need to be used in the corridor of the Two Hearted River riparian zone. The continuous Jack Pine fuel type lends this compartment to high potential for large fire growth. Risk to private properties in neighboring compartments would be high because of continuous fuel types and long response travel times.

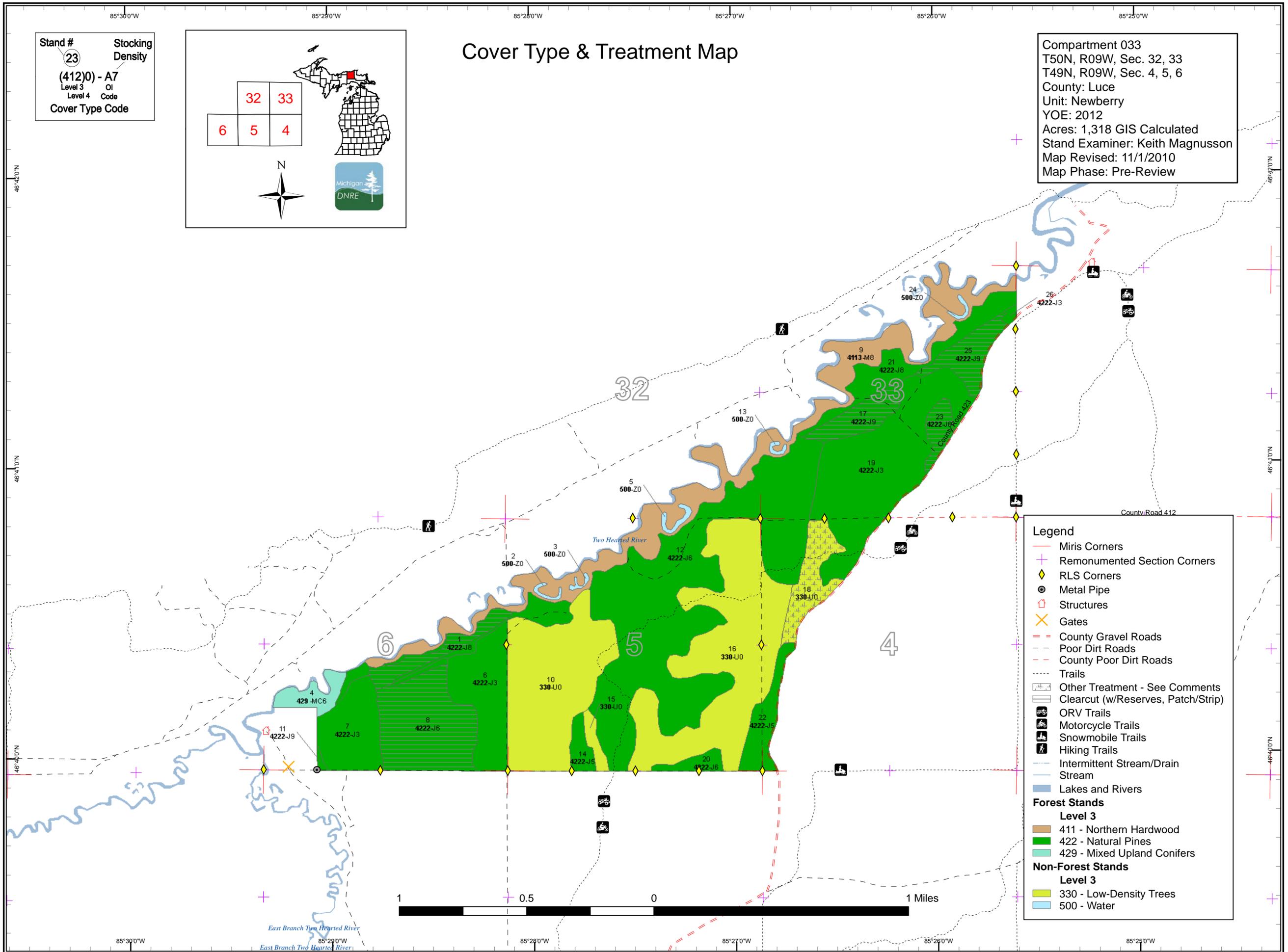
Additional Compartment Information: None

➤ **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:**

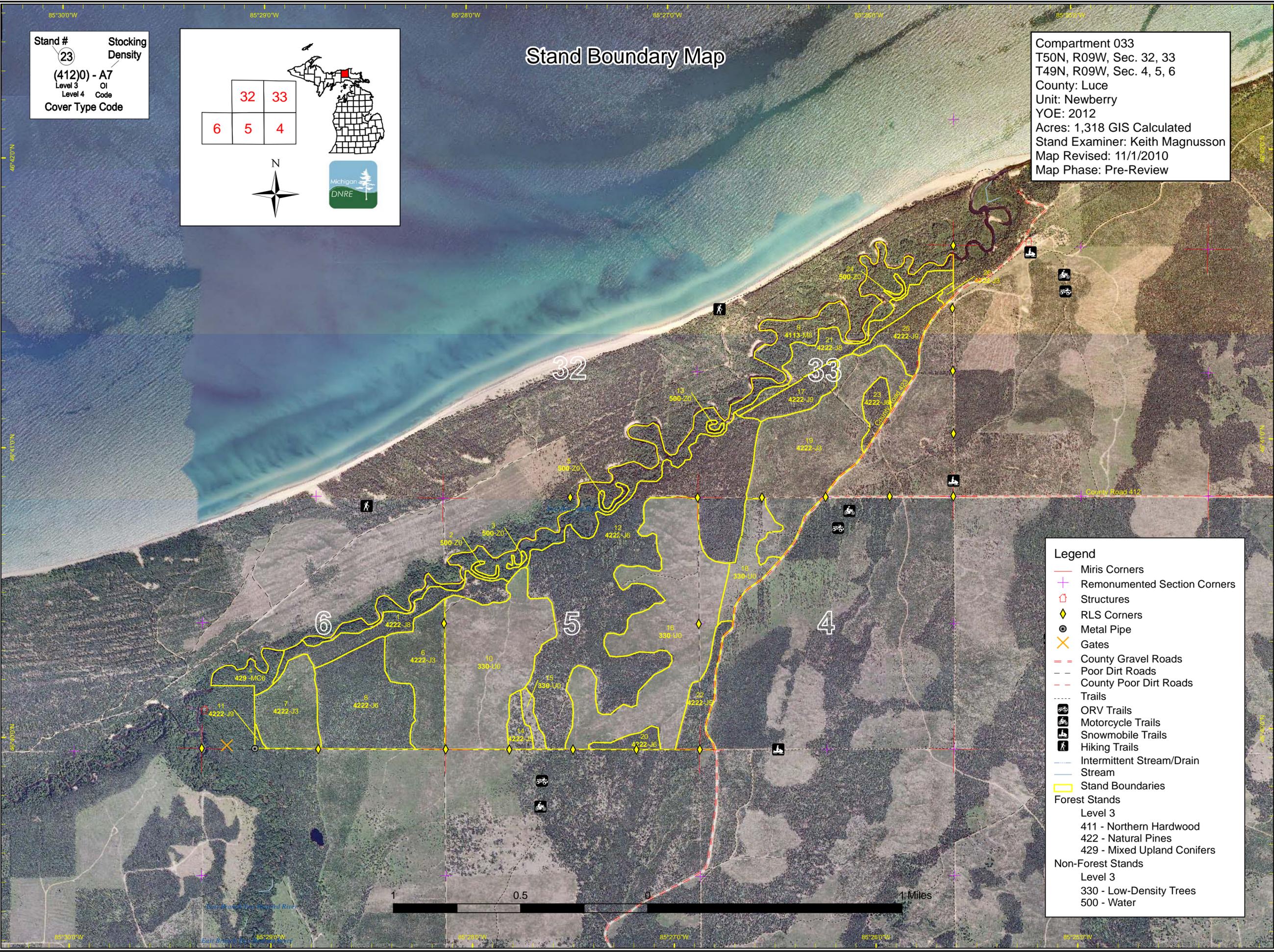
- ◆ **Base feature information, stand boundaries, cover types, and numbers**
- ◆ **Proposed treatments**
- ◆ **Details on the road access system**



Stand Boundary Map

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

Compartment 033
 T50N, R09W, Sec. 32, 33
 T49N, R09W, Sec. 4, 5, 6
 County: Luce
 Unit: Newberry
 YOE: 2012
 Acres: 1,318 GIS Calculated
 Stand Examiner: Keith Magnusson
 Map Revised: 11/1/2010
 Map Phase: Pre-Review



Legend

- Miris Corners
- + Remonumented Section Corners
- Structures
- ◆ RLS Corners
- Metal Pipe
- ✕ Gates
- == County Gravel Roads
- - Poor Dirt Roads
- - County Poor Dirt Roads
- Trails
- ORV Trails
- Motorcycle Trails
- Snowmobile Trails
- Hiking Trails
- Intermittent Stream/Drain
- Stream
- Stand Boundaries

Forest Stands

Level 3

- 411 - Northern Hardwood
- 422 - Natural Pines
- 429 - Mixed Upland Conifers

Non-Forest Stands

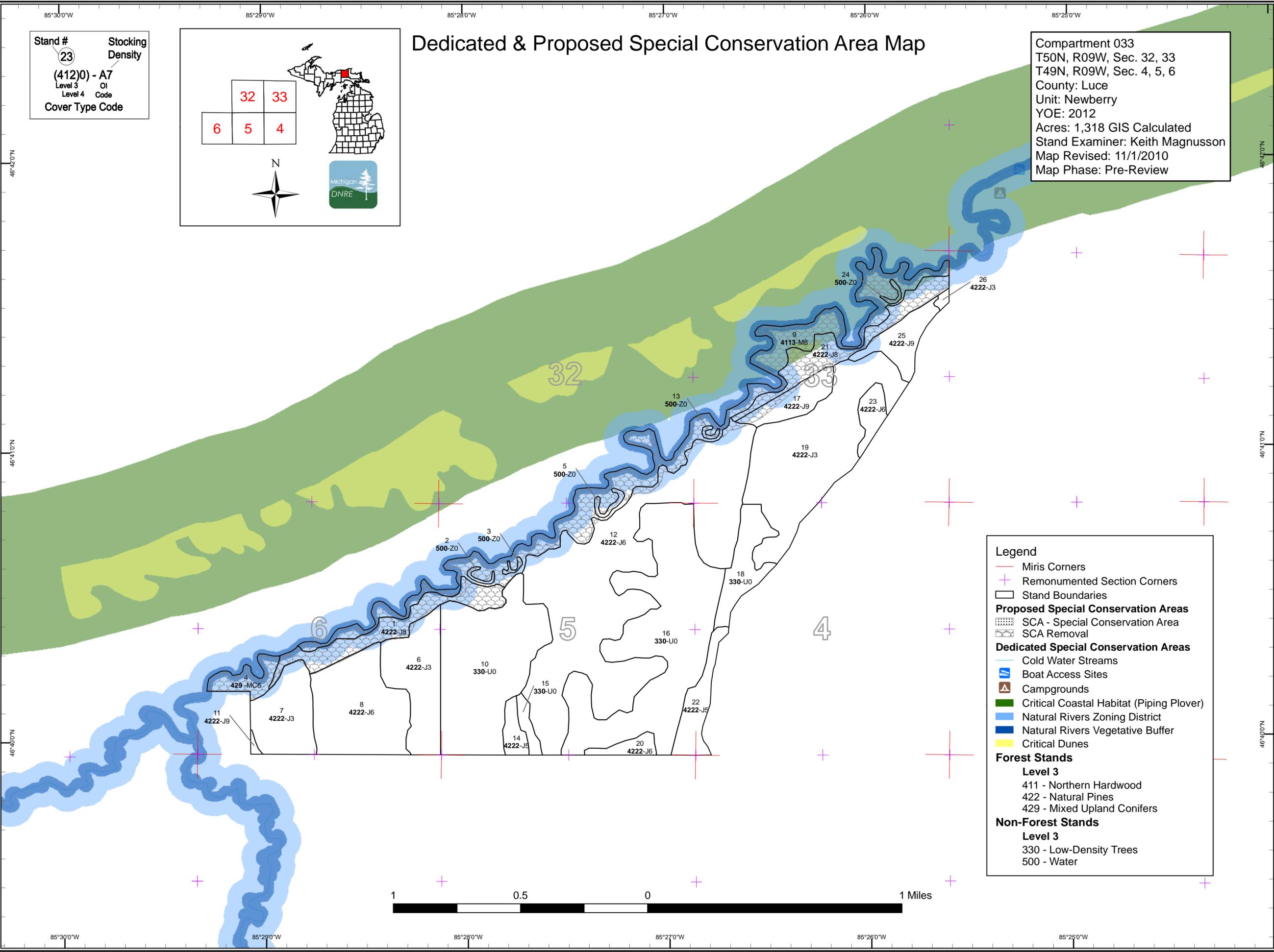
Level 3

- 330 - Low-Density Trees
- 500 - Water

Dedicated & Proposed Special Conservation Area Map

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

Compartment 033
 T50N, R09W, Sec. 32, 33
 T49N, R09W, Sec. 4, 5, 6
 County: Luce
 Unit: Newberry
 YOE: 2012
 Acres: 1,318 GIS Calculated
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Legend

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Proposed Special Conservation Areas**
- ▨ SCA - Special Conservation Area
- ▩ SCA Removal
- Dedicated Special Conservation Areas**
- Cold Water Streams
- ⚓ Boat Access Sites
- ⛺ Campgrounds
- Critical Coastal Habitat (Piping Plover)
- Natural Rivers Zoning District
- Natural Rivers Vegetative Buffer
- Critical Dunes
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- Non-Forest Stands**
- Level 3**
- 330 - Low-Density Trees
- 500 - Water



Table 1 – Total Acres by Cover Type and Age Class

Data updated yesterday after 6:00 PM



	Age Class														Total	
	Non-Forested	1-9	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	246	0	0	0	0	346	165	0	0	40	0	0	0	797
Low-Density Trees	356	0	0	0	0	0	0	0	0	0	0	0	0	0	0	356
Northern Hardwood	0	0	0	0	0	0	0	0	0	141	0	0	0	0	0	141
Upland Conifers	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16
Water	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Total	364	0	246	0	0	0	0	346	165	157	0	40	0	0	0	1318



Table 2 – Proposed Treatment Summaries

Data updated yesterday after 6:00 PM

Newberry Mgt. Unit
Year of Entry 2012

Compartment 033
Total Compartment Acres: 1318

Acres by Treatment Type

Commercial Harvest - 163	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 32
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
Jack Pine	163	0	0	0	0	0	163
Total	163	0	0	0	0	0	163

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Data updated yesterday after 6:00 PM

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1 42033001-Cut	20.1	42220 - Natural Jack Pine	Medium Density Log	75	Harvest	Clearcut with Reserves	Natural Jack Pine	Cmpt. Review Proposal

Prescription Cut all jack pine, leave any red, white pine and oak.

Specs:

Other Comments: Follow BMP and Natural River Plan Guidelines.

Next Steps:

Scarify site after harvest, plant to jack pine if scarification does not happen or if it fails. Acceptable regeneration would be red pine, white pine, jack pine and oak mix.

8 42033008-Cut	82.0	42220 - Natural Jack Pine	High Density Pole	70	Harvest	Clearcut with Reserves	Natural Jack Pine	Cmpt. Review Proposal
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Prescription Cut all jack pine. Leave all red pine, white pine, oak.

Specs:

Other Comments:

Next Steps: Scarify after harvest. Plant to jack pine if scarification does not happen or fails. Acceptable regeneration would be red pine, white pine, jack pine and oak mix.

17 42033017-Cut	23.2	42220 - Natural Jack Pine	High Density Log	68	Harvest	Clearcut with Reserves	Natural Jack Pine	Cmpt. Review Proposal
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Prescription Cut all jack pine, leave any red pine, white pine or oak.

Specs:

Other Comments:

Next Steps: Scarify after harvest. Plant to jack pine if scarification does not happen or fails. Acceptable regeneration would be red pine, white pine, jack pine and oak mix.

23 42033023-Cut	12.5	42220 - Natural Jack Pine	High Density Pole	76	Harvest	Clearcut with Reserves	Natural Jack Pine	Cmpt. Review Proposal
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Prescription Cut all jack pine. May have to mark some red pine for cutting for operability and also to silvicultural reasons.

Specs:

Other Comments:

Next Steps: Scarify after harvest. Plant to jack pine if scarification does not happen or fails. Acceptable regeneration would be jack pine, red pine, white pine or oak.

25 42033025-Cut	25.0	42220 - Natural Jack Pine	High Density Log	76	Harvest	Clearcut with Reserves	Natural Jack Pine	Cmpt. Review Proposal
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Prescription Cut all jack pine. May have to mark some red pine for operability or silvicultural reasons.

Specs:

Other Comments:

Next Steps: Scarify after harvest. Plant to jack pine if scarification does not happen or fails. Acceptable regeneration would be jack pine, red pine, white pine or oak.



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Data updated yesterday after 6:00 PM

	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
18	NF_42033018- Other	31.6	Non-Forested		0	Other	Unspecified	Natural Jack Pine	Cmpt. Review Proposal

Prescription. Conduct a regeneration survey to determine if there are acceptable stocking levels.

Specs:

Other

Comments:

Next Steps: If stocking levels are unacceptable, plant stand to jack pine.

**Total Treatment
Acreage Proposed: 194.4**

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Data updated yesterday after 6:00 PM

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
#Error								

Prescription
Specs:

Other
Comment:

Next
Steps:

Limiting Factor and No
Treatment Reason

Total Treatment
Acreage Proposed: 0

Data updated yesterday after 6:00 PM

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2012



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
Specs:

Other
Comments:

Next
Steps:

**Total Treatment
Acreage Proposed: 0**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42220 - Natural Jack Pine	Medium Density Log	41.8	75		
4	429 - Mixed Upland Conifers	High Density Pole	15.7	80		
6	42220 - Natural Jack Pine	High Density Sapling	58.0	16		
7	42220 - Natural Jack Pine	High Density Sapling	46.6	16		
8	42220 - Natural Jack Pine	High Density Pole	84.6	70		
9	4113 - R.Maple, Conifer	Medium Density Log	141.4	85		
11	42220 - Natural Jack Pine	High Density Log	1.3	73		
12	42220 - Natural Jack Pine	High Density Pole	278.4	62		
14	42220 - Natural Jack Pine	Medium Density Pole	10.1	62		
17	42220 - Natural Jack Pine	High Density Log	23.2	68		
19	42220 - Natural Jack Pine	High Density Sapling	139.2	16		
20	42220 - Natural Jack Pine	High Density Pole	9.2	61		
21	42220 - Natural Jack Pine	Medium Density Log	39.5	108		
22	42220 - Natural Jack Pine	Medium Density Pole	25.3	65		
23	42220 - Natural Jack Pine	High Density Pole	12.5	76		
25	42220 - Natural Jack Pine	High Density Log	25.0	76		
26	42220 - Natural Jack Pine	High Density Sapling	1.9	16		



Stand	Cover Type	Acres	Gen Cmts:
2	50 - Water	1.4	
3	50 - Water	1.1	
5	50 - Water	2.7	
10	3302 - Low Density Conifer Trees	131.9	
13	50 - Water	1.2	
15	3302 - Low Density Conifer Trees	6.9	
16	3302 - Low Density Conifer Trees	186.0	
18	3302 - Low Density Conifer Trees	31.6	
24	50 - Water	1.5	

**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.

Data updated yesterday after 6:00 PM

Stand	SCA Type	SCA Name	Acres	Comments
multiple - see	SCA Removal	42033_SCA_removals	212.1	
1	SCA Removal	42033001	41.8	Removed POG status, covered under Natural Rivers designation.



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.

Data updated yesterday after 6:00 PM

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	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.