



Newberry Forest Management Unit
Compartment Review Presentation
Compartment #42043 Entry Year: 2014
Compartment Acreage: 3,177 County: Luce

Revision Date: 09/14/2012

Stand Examiner: Jason Tokar

Legal Description: T50N R8W Sections 15-22, 27-30; T50N R9W Section 25

RMU (if applicable): This compartment is located within the Deer Park Management Area.

Management Goals: Maintain forest productivity, forest health, species diversification, and age class diversity through continued silvicultural and natural processes. Treatments prescribed will help ensure the sustainability of the forest resource, enhance age class diversity in the main forest cover types and continue to improve the quality of the wildlife habitat. Jack Pine and Red Pine management will continue with the current sustainable level of management to promote both age class and structural diversity.

Soil and Topography: The major soil type within the compartment is Rubicon sand. Deer Park sand, Au Gres-Dawson-Rubicon complex, Wallace sand, Croswell, and Kinross muck soils are also found within the compartment. Topography is mainly rolling hills with sand dunes along the Lake Superior shoreline and low wet areas around Culhane Lake and Bodi Lake.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is made up of a block of State ownership with private holdings around Little Lake and Bodi Lake. Private property also adjoins the compartment's east boundary.

Unique, Natural Features: MNFI lists the following Unique, Natural Features; Elymus mollis, Stichwort, Alternate-leaved water milfoil, American shore-grass, common loon, and Piping Plover. Potential for Incurvate Emerald, ebony boghaunter in bog and fen habitat. Potential for goshawk, merlin, osprey and eagle in red pine and white pine stands. Potential for rare plants of dry northern forest and dry mesic northern forest: Dalibarda repens, pine drops. Potential for wetland plants in v and n types such as Canada rice grass, autumnal water star wort, Wiegand's sedge, alga pondweed, english sundew, and moor rush.

Archeological, Historical, and Cultural Features: None known in the compartment.

Special Management Designations or Considerations: Critical Dunes designation throughout the northern tier of the compartment following the Lake Superior shoreline. Piping Plover habitat along the Lake Superior shoreline through the compartment.

Watershed and Fisheries Considerations: Fisheries Values: Excellent

Fisheries Concerns: Water-bodies associated with this compartment are the Little Two-Hearted River, Culhane Lake, Bodi Lake, and Three Mile Creek. The Little Two-hearted River and Three Mile Creek have excellent native brook trout populations and receive runs of steelhead. Both streams are designated trout streams. A buffer of 50' from the bluff along Three Mile Creek should be in place. If crossing the rivers for access, bank erosion should be minimized. Culhane and Bodi Lakes are excellent fisheries and will require a 100' buffer with only selective cuts allowed to within 75 feet of the lakes ordinary high water mark.

Wildlife Habitat Considerations: Compartment 43 lies in far north eastern Luce county in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment is bordered by Lake Superior to the north and it lies immediately east of the 2012 Duck Lake fire. The compartment is predominately red and jack pine with a component of mixed conifer, oak, and spruce stands. Culhane, Bodi and Little Lake are situated in the compartment.

The compartment lies in the Deer Park Management Area with red crossbill, Kirtland's warbler, piping plover, and american marten as designated featured species. In a predominantly pine forested ecosystem, maintaining a variety of age and size classes and maintaining as much structural and species diversity as possible in managed stands will be important to achieving wildlife objectives. For example, retaining soft and hard mast producing species where they exist in harvested stands will help provide food sources, nest and den trees, and improve structural diversity of the stands. Species diversity of the stands will increase wildlife use and thus a variety of species will be retained after final harvests. Creeks will be buffered providing important travel corridors and nest and den locations. Wildlife species thought to use this compartment include white-tailed deer, black bear, red crossbill, bald eagle, marten and coyote.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) clay, silt, sand and gravel. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrops below the glacial drift, and was used as a building stone in the past. Gravel pits are located two miles to the east, but potential appears to be limited. There is no economic oil and gas production in the UP.

Vehicle Access: Access to the compartment is primarily from County Roads 500, 503, 437 and 412. Additional access to most parts of the compartment can be obtained via a network of sand two track roads.

Survey Needs: The west 1/16 corner on south line of Section 20 and the southwest 1/16 corner of section 22 are needed for timber sale purposes.

Recreational Facilities and Opportunities: The North Country Pathway and Bodi Lake Pathway run through the compartment. In addition, The Pine Stump Snowmobile Trail runs along County Road 412. There are two State Forest Campgrounds within the compartment, one is located on Culhane Lake and the other is located on Bodi Lake. The main recreational opportunities within this compartment are camping, fishing, hiking, snowmobiling and sightseeing.

Fire Protection: This compartment is part of the Two Hearted Zone Dispatch Area. Large fire potential exists in the continuous Upland Pine fuel types. Response time is slow due to its distance from available resources in Newberry. Access by large wheeled suppression equipment is good through the network of roads in this area. The portions west of County Road 500 and most of stand 35 were burned during the Duck Lake Fire on 5/24/2012.

Additional Compartment Information:

➤ **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:**

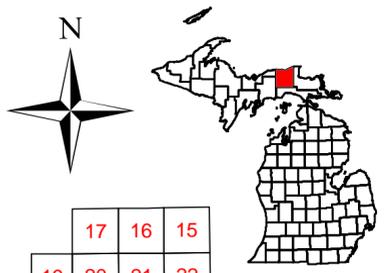
- ◆ **Base feature information, stand boundaries, cover types, and numbers**
- ◆ **Proposed treatments**
- ◆ **Details on the road access system**



Cover Type & Treatment Map

Compartment: 043
 T50N R08W Sec. 15-17, 19-22, 27-30
 T50N R09W Sec. 25
 County: Luce
 Unit: Newberry
 YOE: 2014
 Acres: 3,177 GIS Calculated
 Examiner: Jason Tokar
 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

N


	17	16	15	
19	20	21	22	
25	30	29	28	27



Legend

- Remonumented Section Corners
- Miris Corners
- Survey Grade
- GPS Point
- Gate
- Bridges
- Hiking Trails
- Snowmobile Trails
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Hiking Trail
- Snowmobile Trail
- Stream
- Intermittent Stream
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Shelter Wood (w/Reserves)
- Selection (Group, Single Tree)
- Other Treatment - See Comments

Forest Stands

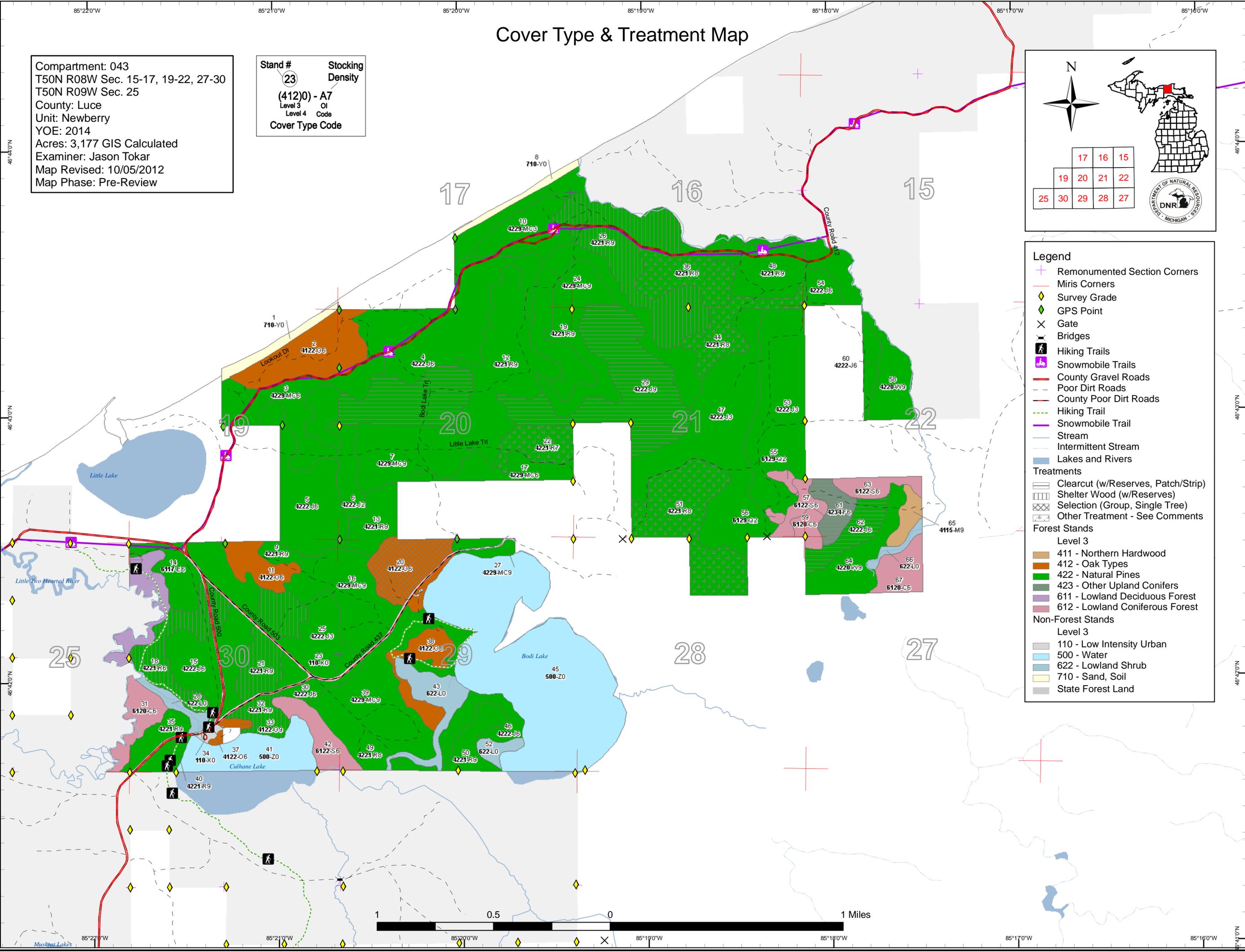
Level 3

- 411 - Northern Hardwood
- 412 - Oak Types
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 110 - Low Intensity Urban
- 500 - Water
- 622 - Lowland Shrub
- 710 - Sand, Soil
- State Forest Land



Dedicated & Proposed Special Conservation Area Map

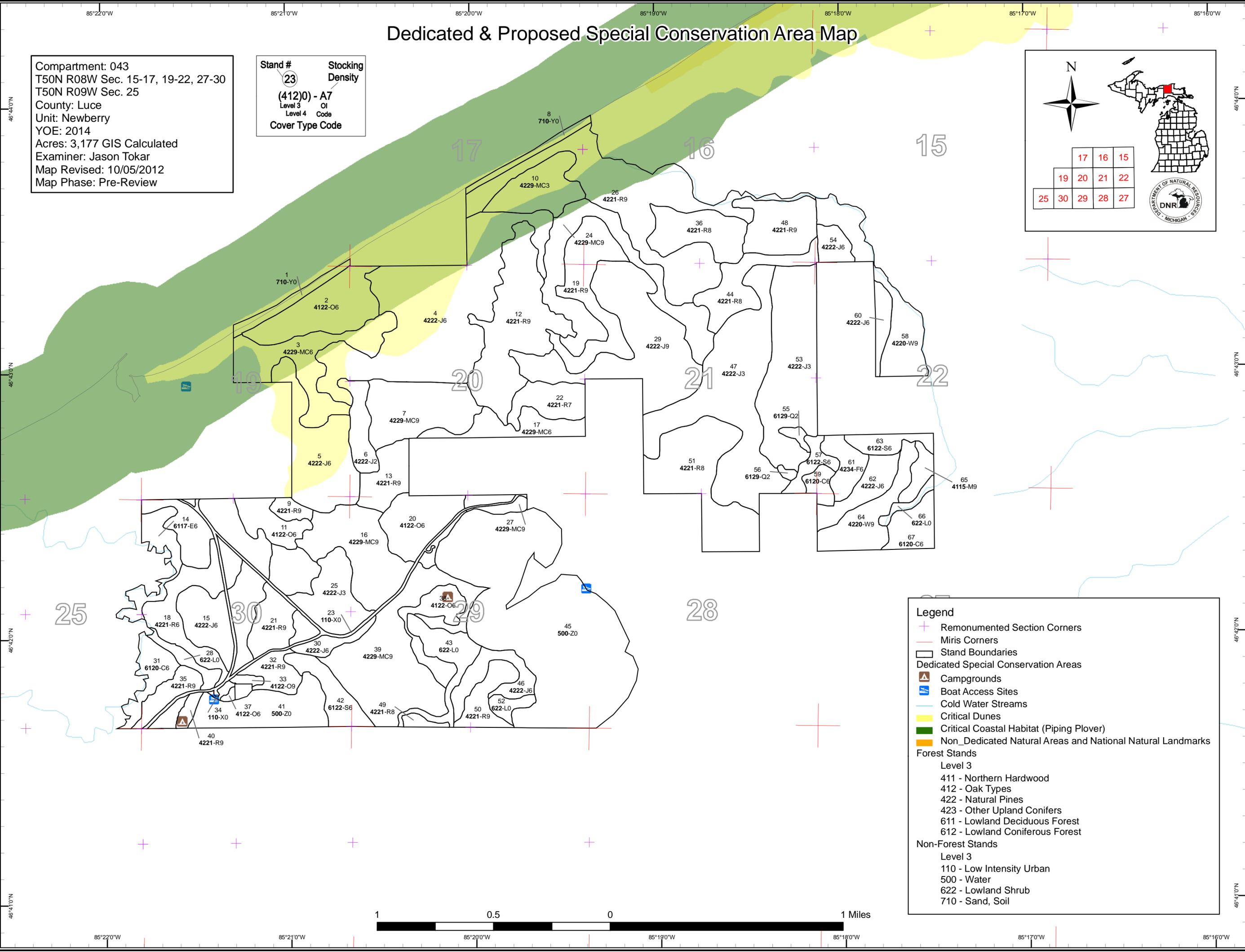
Compartment: 043
 T50N R08W Sec. 15-17, 19-22, 27-30
 T50N R09W Sec. 25
 County: Luce
 Unit: Newberry
 YOE: 2014
 Acres: 3,177 GIS Calculated
 Examiner: Jason Tokar
 Map Revised: 10/05/2012
 Map Phase: Pre-Review

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

A north arrow is located at the top left of the grid. To its right is a locator map of Michigan with a red square indicating the map's location in the western part of the state. Below these is a 3x3 grid of section numbers:

	17	16	15
19	20	21	22
25	30	29	28

The Michigan Department of Natural Resources (DNR) logo is at the bottom right of the grid.



Legend

- Remonumented Section Corners
- Miris Corners
- Stand Boundaries
- Dedicated Special Conservation Areas
- Campgrounds
- Boat Access Sites
- Cold Water Streams
- Critical Dunes
- Critical Coastal Habitat (Piping Plover)
- Non_Dedicated Natural Areas and National Natural Landmarks
- Forest Stands
 - Level 3
 - 411 - Northern Hardwood
 - 412 - Oak Types
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
- Non-Forest Stands
 - Level 3
 - 110 - Low Intensity Urban
 - 500 - Water
 - 622 - Lowland Shrub
 - 710 - Sand, Soil

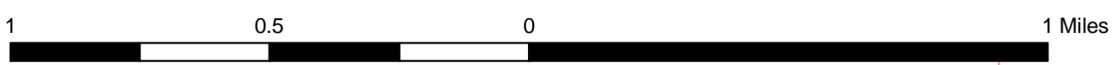


Table 1 – Total Acres by Cover Type and Age Class



	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
Cedar	0	0	0	0	0	0	0	0	0	24	0	0	35	0	59
Jack Pine	0	290	44	136	0	214	233	27	27	0	0	0	0	0	970
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6
Lowland Deciduous	0	0	0	0	0	0	0	0	0	28	0	0	0	0	28
Lowland Shrub	59	0	0	0	0	0	0	0	0	0	0	0	0	0	59
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	27	0	29	0	0	0	56
Natural Mixed Pines	0	0	44	0	0	0	0	0	32	264	85	84	0	0	507
Northern Hardwood	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12
Oak	0	0	0	0	0	0	0	0	49	25	97	0	0	0	171
Red Pine	0	0	0	0	0	0	39	123	29	347	234	19	0	0	793
Sand, Soil	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Upland Spruce/Fir	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21
Urban	28	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Water	344	0	0	0	0	0	0	0	0	0	0	0	0	0	344
White Pine	0	0	0	0	0	0	0	0	0	43	58	0	0	0	101
Total	454	290	87	136	0	214	272	162	164	752	509	103	35	0	3177



Table 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2014

Compartment 043
Total Compartment Acres: 3177

Acres by Treatment Type

Commercial Harvest - 522	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 208
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	226	0	0	0	0	0	226
Oak	0	43	0	0	0	0	43
Red Pine	0	0	0	232	0	0	232
Upland Spruce/Fir	21	0	0	0	0	0	21
Total	247	43	0	232	0	0	522



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
	42043_DLS_3 b	1.9					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										
4	42043004-Cut	69.8	42220 - Natural Jack Pine	High Density Pole	58	81-110	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with reserves. Areas with higher red pine BA will need to be marked through. Residual red pine and white pine BA not to exceed 10 sq ft. Retention pockets not to exceed 3% of harvest area (majority of the stand is not prescribed for harvest). Leave all oak and a component of white birch.										
<u>Specs:</u>										
<u>Other</u> Northern portion of the stand left for age class diversity as a result of Duck Lake Fire, as well as Critical Dunes concerns.										
<u>Comments:</u>										
<u>Next</u> Scarify stand to encourage natural jack pine regeneration. Monitor for jack pine regeneration. Acceptable regeneration would be jack pine with a component of red pine, white pine and oak. If natural regeneration fails, plant stand to jack pine.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
18	42043018-Cut	51.0	42210 - Natural Red Pine	High Density Pole	96	141-170	Harvest	Shelter Wood with Reserves	42210 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Shelterwood with reserves. Residual BA of 40-50 sq ft. Mark to create open areas in canopy to promote red pine regeneration. Leave scattered white pine for marten.										
<u>Specs:</u>										
<u>Other</u> Stand was thinned as sale #46-94.										
<u>Comments:</u>										
<u>Next</u> Scarify stand to encourage natural red pine regeneration. Monitor for red pine regeneration. Acceptable regeneration would be red pine with a component of jack pine and white pine.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
20	42043020-Cut	43.3	4122 - Oak, Pine	High Density Pole	86	141-170	Harvest	Single Tree Selection	4122 - Oak, Pine	Cmpt. Review Proposal
<u>Prescription</u> Selection harvest. Residual BA of 80-90 sq ft. Remove at least half of the red pine and white pine of all sizes. Remove the minimal amount of oak needed to offer maneuverability/operability and for the harvesting of red and white pine to occur. When marking oak, leave larger mast producing trees and mark the smaller less productive trees. Retain healthy, good form, straight bole oak as residual. Remove birch (dying out) to promote stump sprouting. Based on the thinning of the adjacent stand, the oak should respond nicely. Summer harvest to scarify the ground.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Monitor for success of desired regeneration. Acceptable regeneration of oak mixed with red pine, white pine, maple and birch.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	42043021-Cut	50.0	42210 - Natural Red Pine	High Density Log	100	141-170	Harvest	Shelter Wood with Reserves	42210 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Shelterwood with reserves. Residual BA of 40-50 sq ft. Mark to create open areas in canopy to promote red pine regeneration. Leave scattered										
<u>Specs:</u> white pine for marten.										
<u>Other</u> Stand was thinned as sale #46-94.										
<u>Comments:</u>										
<u>Next</u> Scarify stand to encourage natural red pine regeneration. Monitor for red pine regeneration. Acceptable regeneration would be red pine with a										
<u>Steps:</u> component of jack pine and white pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
26	42043026-Cut	111.6	42210 - Natural Red Pine	High Density Log	92	141-170	Harvest	Shelter Wood with Reserves	42210 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Shelterwood with reserves. Remove larger diameter red pine. Residual BA of 40-50 BA avg. Create open areas in the canopy to promote red										
<u>Specs:</u> pine regeneration. Remove all jack pine. Retain a component of other species where they occur. Buffer 3 mile creek 50 feet back from the bluff edge.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Follow the harvest with scarification to promote red pine regeneration. Acceptable regeneration of red pine, with a component of other species										
<u>Steps:</u> currently present in the stand.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
29	42043029-Cut	129.6	42220 - Natural Jack Pine	High Density Log	67	111-140	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Prescribe treatment. Clearcut with reserves. Mark white pine and red pine areas to reduce BA to maximum of 10 sq ft. Retention areas to										
<u>Specs:</u> concentrate on jack pine/spruce mix. Retention pockets not to exceed 3% of total harvest area. Leave a component of scattered white birch.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Scarify stand to encourage natural jack pine regeneration. Monitor for jack pine regeneration. Acceptable regeneration would be jack pine with a										
<u>Steps:</u> component of red pine, white pine and oak. If natural regeneration fails, plant stand to jack pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
32	42043032-Cut	19.0	42210 - Natural Red Pine	High Density Log	110	141-170	Harvest	Shelter Wood with Reserves	42210 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Shelterwood with reserves. Residual BA of 40-50 sq ft. Mark to create open areas in canopy to promote red pine regeneration. Leave a 100 ft										
<u>Specs:</u> buffer along the lakeshore to include white pine and spruce.										
<u>Other</u> Stand has been thinned in the past.										
<u>Comments:</u>										
<u>Next</u> Scarify stand to encourage natural red pine regeneration. Monitor for red pine regeneration. Acceptable regeneration would be red pine with a										
<u>Steps:</u> component of jack pine and white pine.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
61	42043061-Cut	20.8	42340 - Upland Spruce/Fir	High Density Pole	93	81-110	Harvest	Clearcut with Reserves	42340 - Upland Spruce/Fir	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with reserves. Retention to be left in pockets. Concentrate on diverse areas for retention pockets. Leave a component of large white										
<u>Specs:</u> pine but not all.										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Monitor for success of desired regeneration. Acceptable regeneration of spruce and balsam with aspen and hardwoods.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
62	42043062-Cut	26.9	42220 - Natural Jack Pine	High Density Pole	72	141-170	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Clearcut with reserves. Mark areas of thicker white and red pine, residual BA no higher than 10 sq ft. Retention areas not to exceed 3% of harvest area. Leave a component of white birch.</p> <p><u>Specs:</u></p> <p><u>Other</u></p> <p><u>Comments:</u></p> <p><u>Next</u> Scarify stand to encourage natural jack pine regeneration. Monitor for jack pine regeneration. Acceptable regeneration would be jack pine with a component of red pine, white pine and spruce. If natural regeneration fails, plant stand to jack pine.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
22	42043022-regen check	29.1	42210 - Natural Red Pine	Low Density Log	86	1-50	Other	Unspecified	42220 - Natural Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Regeneration check for success of jack pine regeneration. If regen check shows the stand to be less than fully stocked, prescribe stand for jack pine planting.</p> <p><u>Specs:</u></p> <p><u>Other</u> Stand harvested as sale #25-04. Unit 4 of the sale. No FTP scheduled for the stand, natural jack pine regeneration. Notes called for a regeneration check in 2010 but there are no comments about the regen check being completed.</p> <p><u>Comments:</u></p> <p><u>Next</u> If stand is not fully stocked, then plant to jack pine.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
36	42043036-regen check	45.5	42210 - Natural Red Pine	Medium Density Log	94	81-110	Other	Unspecified	42220 - Natural Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Regeneration check for success of jack pine regeneration. Western half of stand has better jack pine regeneration, eastern half of stand has very little jack pine regeneration.</p> <p><u>Specs:</u></p> <p><u>Other</u> Stand harvested as sale #49-94. Completed in summer of 1997. FTP #42-415 for scarification completed 5/98. Stocking survey in 2003 showed 398 tr/ac (102 jack pine). Stand is being held from harvest treatment this entry year due to large amount of harvest prescriptions as well as amount of salvage cutting done on Duck Lake Fire.</p> <p><u>Comments:</u></p> <p><u>Next</u> If regen check shows the stand to be less than fully stocked, make sure this stand is prescribed for a shelterwood/seed tree harvest next entry year in order to promote regeneration of red pine and possibly some jack pine.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
44	42043044-regen check	39.5	42210 - Natural Red Pine	Medium Density Log	60	1-50	Other	Unspecified	42220 - Natural Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Regeneration check for jack pine regeneration.</p> <p><u>Specs:</u></p> <p><u>Other</u> Stand harvested as sale #23-04. Completed 05/09. Scarification completed in 2009.</p> <p><u>Comments:</u></p> <p><u>Next</u> If regen check shows the stand to be less than fully stocked, prescribe stand for jack pine planting.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
51	42043051-regen check	93.7	42210 - Natural Red Pine	Medium Density Log	72	1-50	Other	Unspecified	42220 - Natural Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Regeneration check.</p> <p><u>Specs:</u></p> <p><u>Other</u> Stand was harvested as sale #22-04. Completed 06/05. Scarification completed 10/05 on FTP #42-612.</p> <p><u>Comments:</u></p> <p><u>Next</u> If regen check shows the stand to be less than fully stocked, prescribe stand for jack pine planting.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										

**Table 3 -- Treatments Prescribed
with No Limiting Factor**



S
t
a
n
d

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
Total Treatment Acreage Proposed:		731.8							



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
-----------------------	-------------------	-------	-----------	-----------------	--------------	-------------	-------------------	---------------------	-------------------------	--------------------

#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
----------------	-------	-----------	--------------	-----------	----------	----------------	------------------	----------------------	-----------------

Prescription
Specs:

Other
Comments:

Next
Steps:

Proposed
Start Date: #Error

**Total Treatment
Acreage Proposed: 0**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4122 - Oak, Pine	High Density Pole	63.3	108	81-110	Nice stand of oak with red pine, jack pine and some white pine. Also a component of white birch. Higher component of jack pine along Co Rd 412. Multi-stem oak with larger diameter red pine. Understory of various heights and densities. Lots of oak and white pine in the understory. Pockets thicker to large diameter red pine. Thick oak regeneration within 2 chains of the "ledge" down to Lake Superior beach. Many areas within the stand have a good layer of 1-2 ft tall oak seedlings.
3	42290 - Natural Mixed Pine	High Density Pole	71.5	92	81-110	Mixed stand of large diameter red pine and white pine with red oak, white birch and jack pine. Pockets thicker to jack pine, other areas thicker to red pine and/or white pine. Good diversity in the stand.
4	42220 - Natural Jack Pine	High Density Pole	214.0	58	81-110	Jack pine with red pine and a small component of white pine and red oak. Healthy stand. Age range from 55 to about 68 years old. Prescribed last inventory cycle to be harvested this entry year. Pockets of large diameter red pine throughout.
5	42220 - Natural Jack Pine	High Density Pole	76.7	60	111-140	Pole size jack pine with larger diameter red pine and some white pine. Jack pine appears to be healthy. Sparse understory of red pine and white pine. Pockets of higher red pine BA near adjacent stand.
6	42220 - Natural Jack Pine	Medium Density	23.3	12		Stand was harvested in 2000. Semi open stand still with jack pine, red pine, white pine regeneration. Large diameter residual red pine present.
7	42290 - Natural Mixed Pine	High Density Log	68.6	95	81-110	Stand was thinned in the past. Mainly red pine and white pine with nice oak component. Understory of variable heights and species, thick in areas. Good regeneration of all species from last harvest.
9	42210 - Natural Red Pine	High Density Log	8.4	95	81-110	Stand was thinned as sale #26-04. Completed 11/07. Mainly red pine with red oak and white pine. Understory of white pine and oak. Not much red pine regeneration at all.
10	42290 - Natural Mixed Pine	High Density Sapling	43.6	25		Mixed stand of young jack pine with white pine, red pine, white birch, red oak and red maple. Some residual red pine, white pine and oak following harvest in 1987.
11	4122 - Oak, Pine	High Density Pole	25.2	92	81-110	Multiple stem red oak with large diameter red pine and some white pine. Sub canopy is very diverse in species, density and height. Rolling ridges, very steep on west side of stand.
12	42210 - Natural Red Pine	High Density Log	108.3	100	81-110	Stand thinned as sale #25-04./ Completed 12/06. White pine mainly in the understory. Not much red pine regeneration at all. Southern portion is rolling topography with an oak component.
13	42210 - Natural Red Pine	High Density Log	29.5	78	111-140	Red pine with jack pine, white pine and some red oak. Stand borders private land. Prescribing two adjacent stands...hold this stand for 10 years.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	27.6	91		Lowland stand. River corridor.
15	42220 - Natural Jack Pine	High Density Pole	118.5	33	1-50	Stand was harvested in 1979. Young jack pine with residual red pine and white pine. Portion of the stand west of Co Rd 500 is slightly larger dbh jack pine. West of Co Rd 500 also was burned through by the Duck Lake Fire, mostly acted as an under burn.
16	42290 - Natural Mixed Pine	High Density Log	73.3	102	81-110	Very mixed stand of white pine, red pine, red oak, spruce, some white birch, red maple. Lots of diversity throughout. The south half of the stand was thinned as sale #26-04. Completed in 11/07. Good regeneration of all species, mainly white pine and red oak. Less red pine regeneration. North half of the stand was not harvested but is very similar.
17	42290 - Natural Mixed Pine	High Density Pole	31.9	89	81-110	Red pine stand with a good component of white pine and jack pine. Red Oak and black spruce also found within the stand. Lots of variability throughout the stand.
18	42210 - Natural Red Pine	High Density Pole	51.0	96	141-170	Stand was thinned as sale #46-94. Pole size and small sawlog red pine. High BA throughout most of stand. Duck Lake Fire burned through the stand, acting as an underburn. Canopy/mature trees survived. Reduced organic layer and all but eliminated the understory.
19	42210 - Natural Red Pine	High Density Log	62.9	90	111-140	Stand thinned as sale #25-04. Completed 12/06. Red pine with white pine.
20	4122 - Oak, Pine	High Density Pole	48.8	86	141-170	Nice red oak stand. Oak ranging from 6 to 14 inches dbh. Some nice straight boles. Large diameter red pine and white pine. Occasional white birch. Most of birch is dying out. Lots of 1-2 ft oak seedlings throughout.
21	42210 - Natural Red Pine	High Density Log	50.0	100	141-170	Stand was thinned as sale #46-94. Sawtimber size red pine with a component of white pine. Very little red pine in understory.
22	42210 - Natural Red Pine	Low Density Log	29.1	86	1-50	Stand harvested as sale #25-04. Unit 4 of the sale. No FTP scheduled for the stand, natural jack pine regeneration. Notes called for a regeneration check in 2010 but there are no comments about the regen check being completed. Jack pine regeneration is sparse to non-existent. Overstory of residual red pine and white pine with scattered oak and some birch.
24	42290 - Natural Mixed Pine	High Density Log	83.6	112	81-110	Mixed stand of white pine, red pine, with jack pine, white birch and spruce. Mainly a sawlog size stand. Thick understory in many spots. Pockets thicker to just white pine. Typed as a "W8" last entry year.
25	42220 - Natural Jack Pine	High Density Sapling	43.5	28	1-50	Stand was harvested in 1984. Residual red pine and white pine were left. Stand is transitioning from a jack pine sapling stand to a pole stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
26	42210 - Natural Red Pine	High Density Log	150.4	92	141-170	Red pine stand. Mainly large diameters. Runs of smaller diameter red pine. Component of jack pine and white pine. Southern portion of the stand has more jack pine and white pine mixed in. Slight hills in southern portions of the stand. Middle of the stand was thinned 20 yrs ago (sale #49-94). BA was left too high and very little regeneration except in areas where the stand was opened up.
27	42290 - Natural Mixed Pine	High Density Log	11.3	108	111-140	
29	42220 - Natural Jack Pine	High Density Log	129.6	67	111-140	Large diameter jack pine with white pine, red pine and spruce. Open in many areas. Substantial jack pine mortality throughout the stand (up to 50% of the BA in spots). Hills, rolling topography. Pockets of white pine. Large diameter jack pine throughout.
30	42220 - Natural Jack Pine	High Density Pole	17.9	35	1-50	Stand was harvested in 1977. Young jack pine 3-4 inch dbh. Stand is beginning to transition to a pole size stand. Some residual red pine and white pine.
31	6120 - Lowland Cedar	High Density Pole	24.3	90	81-110	
32	42210 - Natural Red Pine	High Density Log	19.0	110	141-170	Stand has been thinned in the past. Red pine stand with a component of white pine and some red oak. More white pine the closer Bodi Lake.
33	4122 - Oak, Pine	High Density Log	3.3	104	81-110	
35	42210 - Natural Red Pine	High Density Log	24.8	100	111-140	Stand was thinned as sale #026-04-01. Completed 11/16/07. BA of stand is high enough to prescribe for a shelterwood harvest this entry year. Duck Lake Fire burned through the stand. The fire acted as a nice underburn, the mature trees were not affected by the fire. Salvage cutting in adjacent stands to the south due to higher intensity fire. Hold the stand for 10 years and then shelterwood it due to the cutting to the south and the fact that the stand was burned through.
36	42210 - Natural Red Pine	Medium Density Log	45.5	94	81-110	Stand harvested as sale #49-94. Completed in summer of 1997. FTP #42-415 for scarification completed 5/98. Stocking survey in 2003 showed 398 tr/ac (102 jack pine). Most of the stand has too high a BA in the overstory to promote good jack pine regeneration. Better jack pine regeneration is in the western half of the stand.
37	4122 - Oak, Pine	High Density Pole	1.5	104	81-110	
38	4122 - Oak, Pine	High Density Pole	28.6	100	81-110	Multi stem red oak with large diameter red pine and white pine. Component of jack pine. Rolling topography.
39	42290 - Natural Mixed Pine	High Density Log	123.5	95	81-110	Larg diameter red pine and white pine. Mostly red pine. Good red oak component. Multi-aged stand. More white pine in the eastern poriton of the stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	42210 - Natural Red Pine	High Density Log	5.9	100	111-140	Red pine stand around the Culhane Lake campground.
42	6122 - Black Spruce	High Density Pole	27.1	88	81-110	Lowland black spruce with jack pine and large white pine. Northern portion of the stand is more open, smaller black spruce.
44	42210 - Natural Red Pine	Medium Density Log	39.5	60	1-50	Stand harvested as sale #23-04. Completed 05/09. Scarification yet to be done. Residual red pine and white pine.
46	42220 - Natural Jack Pine	High Density Pole	27.0	85	111-140	Mature jack pine with good red pine component. Occasional white pine. Difficult access. Borders Bodi Lake.
47	42220 - Natural Jack Pine	High Density Sapling	154.0	14		Stand harvested as sale #26-94. FTP #42-411; scarification completed 5/98. Stocking survey completed 5/2003 showed 869 tr/ac (JP). Stand is now 10-15 ft tall jack pine regeneration. Residual red pine and white pine throughout.
48	42210 - Natural Red Pine	High Density Log	45.4	105	111-140	Stand harvested via shelterwood as sale #024-04-01. Completed 06/06/08. RX burn was prescribed but not completed. Regeneration check - summer of 2012 showed TPA = 557.
49	42210 - Natural Red Pine	Medium Density Log	4.7	95	51-80	
50	42210 - Natural Red Pine	High Density Log	24.5	99	111-140	Stand of nice red pine with white pine and oak. Scattered aspen and jack pine. Large diameter red pine throughout. Access would be through abandoned road and crossing from the southwest. If we manage the stand to the south (Comp 44, stand 2) then continue north and manage this stand as well.
51	42210 - Natural Red Pine	Medium Density Log	93.7	72	1-50	Stand was harvested as sale #22-04. Completed 06/05. Jack pine was removed and all red and white pine were left as residual. Stand converted to red pine. Scarification completed 10/05 on FTP #42-612. Regeneration check needed.
53	42220 - Natural Jack Pine	High Density Sapling	112.5	14		Stand harvested as sale #26-94, completed winter 1996. Scarification on FTP #42-411 completed 5/1998. Stocking survey on 5/15/2003 showed 869 tr/ac (JP). Jack pine is now 10-15 ft tall.
54	42220 - Natural Jack Pine	High Density Pole	13.4	68	111-140	
55	6129 - Mixed Coniferous Lowland Forest	Medium Density	4.1	104		
56	6129 - Mixed Coniferous Lowland Forest	Medium Density	2.1	104		
57	6122 - Black Spruce	High Density Pole	13.0	103		

S
t
a
n
d

Newberry Mgt. Unit

5 – Forested Stands

Compartment: 043
Year of Entry: 2014

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	42200 - Natural White Pine	High Density Log	57.8	109	111-140	
59	6120 - Lowland Cedar	High Density Pole	10.4	148	141-170	
60	42220 - Natural Jack Pine	High Density Pole	13.0	68	111-140	
61	42340 - Upland Spruce/Fir	High Density Pole	20.8	93	81-110	Upland spruce/fir stand with red maple, white birch, aspen, and white pine. Spruce and balsam showing signs of decline and mortality. Pockets of higher BA of white pine (large dbh). Aspen is mature, white birch is starting to die out.
62	42220 - Natural Jack Pine	High Density Pole	26.9	72	141-170	Jack pine with a component of white pine and some red pine. Large diameter white pine and red pine.
63	6122 - Black Spruce	High Density Pole	16.1	103	51-80	
64	42200 - Natural White Pine	High Density Log	42.9	95	51-80	Large diameter white pine with mixture of species (red maple, birch, spruce).
65	4115 - Y.Birch, Hemlock NH	High Density Log	12.0	78	81-110	Large diameter red maple with hemlock and white pine. Some cedar near the river/creek.
67	6120 - Lowland Cedar	High Density Pole	24.2	148	141-170	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	710 - Sand, Soil	13.7	No	Unspecified	Lake Superior shoreline
8	710 - Sand, Soil	10.3	No	Unspecified	Lake Superior shoreline
23	11 - Low Intensity Urban	25.3	No	Unspecified	County Road ROW's within the compartment. County Roads 500, 503 and 437.
28	6229 - Mixed lowland shrub	11.1	No	Unspecified	
34	11 - Low Intensity Urban	2.3	No	Unspecified	Boat launch and parking area with grass.
41	50 - Water	56.3	No	Unspecified	Culhane Lake
43	6220 - Alder/willow	32.5	No	Unspecified	
45	50 - Water	288.0	No	Unspecified	Bodi Lake
52	6229 - Mixed lowland shrub	8.8	No	Unspecified	
66	6229 - Mixed lowland shrub	6.2	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.
SCA	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.
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.