



**NEWBERRY FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 51 ENTRY YEAR: 2010

Compartment Acreage: 1411 (GIS Calculated) County: Luce

Revision Date: 9/15/08

Stand Examiner: Jason Tokar

Legal Description: T50N R8W Sections 9-12, 15, 16 and 22

RMU (if applicable):

Management Goals: Timber management, wildlife habitat, and recreation are the main uses of the compartment. The overriding goal is to maintain or improve the forest health, productivity and diversity of the area to promote and enhance these uses. Treatments prescribed will help ensure the sustainability of the forest resource and continue to enhance the quality of the wildlife habitat. Protection of the natural communities associated with the sensitive dune systems and the Lake Superior shoreline is also an essential goal within the compartment.

Soil and Topography: The compartment is almost entirely upland soils and cover types. Soils consist primarily of Rubicon and Deer Park sands as well as areas of Wallace sand and Paquin-Finch sands. The major cover types associated with these soils are jack pine, red pine, white birch, upland spruce/fir, and northern hardwoods (maple-beech-hemlock). Much of the topography throughout the compartment is rolling to steep and a portion of the compartment has been identified as a Critical Dune Area. The areas near the shoreline consist of Lake Superior recessional beaches/shorelines. These are sensitive sandy soils on steep slopes and should be protected.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is a contiguous block of State land with the exception of one privately owned parcel in Section 16 as well as the land adjacent to Crisp Point Lighthouse. The compartment is bordered by State land to the west. To the south and east are large private ownerships of Heartwood Forestland Fund IV and Crisp Point Properties. Development around the area is low. Land Use consists of tourism associated with the lighthouse as well as general recreation of hunting, fishing, snowmobiling, sightseeing and berry picking.

Unique, Natural Features (include only non-site specific and non-sensitive information): MNFI lists occurrences associated with the shoreline within the compartment. Piping Plover, Lake Huron tansy, and Lake Huron Locust are among the documented occurrences.

MNFI also lists the potential for Lake Huron locust and piping plover along shoreline. Potential for eagle, osprey, merlin, great blue heron rookery, black-backed woodpecker, spruce grouse, and goshawk. Potential for moose and wolf. Potential for Lake Huron tansy, black crowberry, American dune wild-rye, stitchwort, American shore-grass, Douglas's hawthorn, and satiny willow along lakeshore. Potential for climbing fumitory, pine-drops, and false violet in pines. Canada rice-grass possible in jack pine openings.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): The Bureau of History does not list any historical features within the compartment.

Local history dictates that there is an old Coast Guard building along the shore in Section 16. This building was supposedly used for over night lodging when Coast Guard personnel were doing on-shore patrolling.

Special Management Designations or Considerations: The compartment includes a number of special management area designations, associated with the Lake Superior shoreline and adjacent areas. A Natural Area (L. Superior beach area), a Special Conservation Area (SCA - Critical Dunes) and a High Conservation Value Area (HCVA - Piping Plover Habitat). A recommendation has been made for expansion of the Natural Area to include stands adjacent to the Crisp Point Lighthouse area. All management within the compartment will follow all guidelines associated with those designations.

Watershed and Fisheries Considerations: Fisheries Values Moderate. Three Mile Creek, SQCW, borders the southwest edge of this compartment. Little else of fishery value is present, and Fisheries Division does not actively manage this small trout creek.

Wildlife Habitat Considerations: **Compartment 51** lies in northeastern Luce county in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. Critical dunes, plover habitat and biodiversity stewardship areas cover a fair bit of the northern part of the compartment which borders the Lake Superior shoreline. The compartment is a mix of northern hardwood and various conifer stands. Stands tend to contain a large array of tree species that add to overall diversity of the compartment.

Limited harvest will occur in the compartment and harvested stands will strive to maintain maximum species diversity by leaving a component of most species present. A spruce and large diameter white pine component will be preserved to maintain vertical structure. Birch and hardwoods occurring in pine stands will be retained to provide current and future snags. Wildlife species likely to use this compartment include white tailed deer, moose, black bear, fisher, marten, spruce grouse, and snowshoe hare.

Mineral Resource and Development Concerns and/or Restrictions:

Sections 9 – 12, 15 & 16, T50N-R8W, Luce County

Surface sediments consist of lacustrine (lake) clay, silt, sand and gravel and minor end moraine of coarse-textured till. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrops below the glacial drift. The Jacobsville has been used as a building stone in the past. A gravel pit is located one mile to the southeast and there should be some potential. There is no economic oil and gas production in the UP.

Vehicle Access: The compartment is located north of Newberry along the southern shoreline of Lake Superior, a few miles west of Little Lake Harbor. County Road 412 provides the main access to the area, transecting the entire length of the compartment. A network of two track roads provides additional access to the compartment.

Survey Needs: None at this time.

Recreational Facilities and Opportunities: Summer recreation is primarily linked to the Crisp Point Lighthouse, as well as berry picking. The Pine Stump Snowmobile Trail provides winter recreation. Recreational opportunities include hunting, fishing, wildlife/nature viewing, hiking, berry picking, snowmobiling.

Fire Protection: The compartment is within the Two Hearted Zone Dispatch Area Plan. Moderate fire runs could occur in the west side of the compartment where blocks of Pine types occur, which could put private property at risk. Access for heavy equipment is fair for suppression activities.

Additional Compartment Information:

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **Suggested potential old growth**

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Michigan Department of Natural Resources - Operations Inventory System
Individual Compartment Report

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 51

Table 3

(acres shown in boxes)

STAND AGE CLASS

COVER TYPE	Not	STAND AGE CLASS														All Aged	Total		
	Coded	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139			140-149	150-159
Hemlock																		31	31
Jack Pine		69	38	40			50	49	15	51									312
Marsh	26																		26
Paper Birch							30	67	108										205
Red Pine								17	10									11	38
Sand Dune	71																		71
Spruce Fir								140		16								38	194
Upland Hdwds																		456	456
White Pine											14							64	78
Total	97	69	38	40			80	273	133	67	14							600	1411

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: **51**

Table 3A

(acres shown in boxes)

MANAGEMENT OBJECTIVE TYPE

COVER TYPE	A	S	V	C	G	H	J	I	L	P	N	Q	X	O	B	R	K	Y	F	E	T	D	U	M	Z	W	Total
H Hemlock						31																					31
J Jack Pine							312																				312
N Marsh											26																26
B Paper Birch															205												205
R Red Pine																38											38
Y Sand Dune																		71									71
F Spruce Fir																			194								194
M Upland Hdwds																								456			456
W White Pine																										78	78
Total						31	312				26				205	38		71	194					456		78	1411

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: **51**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	9427 Cds	Hardwood	558 Cds
Hardwood	149 Mbf	Softwood	2249 Cds
Softwood	9381 Cds	Softwood	43 Mbf
Softwood	588 Mbf	Sum CutVol	2893 Cds
Sum TotVol	20282 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	
1411		172	

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 51

Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
9	J6	27	84	47	jack pine	mature	final harvest	2	natural regeneration	
<p>comnts Fmd : Mature jack pine, mostly 3-4 sticks merchantable, with large diameter red pine and white pine. Spruce throughout. Jack pine is old (avg 75-85 yrs). Prescribe stand for treatment. Clearcut with reserves. Leave a component of red pine and white pine. Mark some red pine and white pine to cut, reduce BA so as not to impede jack pine regeneration efforts. Harvest to be followed by scarification. MO of jack pine. If adjacent harvests have not fully regenerated by 2010, may have to hold this stand (5 years?) to make sure we meet certification guidelines (greenup requirements).</p> <p>Wld : leave a component of red and white pine and spruce (some small and some large preferably), and some birch.</p>										
12	J6	24	81	40	jack pine	mature	final harvest	6	natural regeneration	
<p>comnts Fmd : Stand is located at bottom of dune ridge. Currently under timber sale contract. "Three Mile Jack Pine" , sale #023-04-01. Expires on December 31, 2008. Not yet cut as of 8/28/08. Jack pine with scattered black spruce and white birch. Stand lies with the Critical Dunes SCA. DEQ permit was obtained for harvesting in Critical Dunes.</p> <p>Wld :</p>										
17	F6	65	67	40	spruce-fir (uplands- including upland black spruce)	two aged	final harvest	2		
<p>comnts Fmd : Mixed stand of basically everything. White spruce, black spruce, white pine, red pine, maple, white birch, scattered aspen, balsam, pockets of jack pine. Thick F3 understory throughout (balsam, spruce and maple). Dieback in the aspen and birch. Spruce and balsam are healthy. Large diameter white pine and red pine. Low quality maple. An occasional yellow birch. Prescribed for treatment. Clearcut with reserves. Leave red pine, white pine, and white birch and a few large spruce near the road for visuals.. Also leave any hemlock that may be present. Areas with higher BA of white pine will need to be marked through. MO of spruce and balsam with a mix of all species. Expect to get a mix of species to regenerate naturally (WP, RP, maple, aspen, spruce, balsam). Northern portion (northern 1/3) of the stand which falls in the Critical Dunes designation should not be treated and is now Stand 43.</p> <p>Wld : stand is very diverse in species. leave a few large diameter white pine for nest trees, some large red pine, some large birch (yellow and paper) and some scattered large spruce throughout. Leave leave hemlock that may occur in the stand</p>										
Total Acres.....		116								

NEWBERRY FOREST MGT UNIT

**Proposed Treatments
With Limiting Factors**

Compartment: 51

Entry Year: 2010

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
20	J6	27	66	45	jack pine	mature	final harvest	3	natural regeneration	

TREATMENT LIMITING FACTORS: Other Dept./Div. procedures or practices (describe in comment)
Rare or unique land forms

comnts Fmd : Stand is located on top of dune. Access is from the East only through stand 22. Mature jack pine with red pine, white pine, balsam, spruce and red maple. Also some white birch. Pockets of tall jack pine. Fair amount of variability to the stand. Prescribed for treatment. Clearcut with reserves. Leave a component of white pine, red pine and white birch as residual. May need to mark some red pine. Follow harvest with scarification for natural jack pine regeneration. Stand falls within the SCA for Critical Dunes. Limiting Factors on stand due to the cost of permits for harvesting in critical dunes area versus the amount of timber prescribed in this stand and adjacent stands (stands 21, 22). Low priority harvest. MO of jack pine.

Wld : Stand is diverse, leave a component of red and white pine, birch, spruce and maple for residual to retain species diversity.

21	F6	11	66	35	spruce-fir (uplands- including upland black spruce)	mature	final harvest	3		
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TREATMENT LIMITING FACTORS: Rare or unique land forms
Other Dept./Div. procedures or practices (describe in comment)

comnts Fmd : White spruce, balsam, red maple, white birch, some aspen. Pockets of mortality. Thick F3 understory 6 ft tall. Stand is mature. Prescribed for treatment. Clearcut with reserves. Leave a component of white spruce and white birch. Access is from the north through stand 22. Stand falls within the Critical Dunes SCA. Limiting factors on the stand due to the critical dunes designation. Low priority harvest. MO of balsam and spruce with red maple and aspen.

Wld : leave a component of spruce and birch in the stand

22	J6	18	58	50	jack pine	mature	final harvest	3	natural regeneration	
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TREATMENT LIMITING FACTORS: Other Dept./Div. procedures or practices (describe in comment)
Rare or unique land forms

comnts Fmd : Stand is located on stable ground on flat back side of dune ridge. Access is from the East only. Mature jack pine with occasional white pine. 3-5 stick jack pine. Prescribed for treatment. Clearcut with reserves. Leave white pine, red pine (if any) and white birch as residual. Follow harvest with scarification for natural jack pine regeneration. Stand falls within the SCA for Critical Dunes. Limiting Factors on stand due to the cost of permits for harvesting in critical dunes area versus the amount of timber prescribed in this stand and adjacent stands (stands 20, 21). Low priority harvest. MO of jack pine.

Wld : Stand is very diverse, leave white and red pine and birch in the stand, and a few large spruce to retain diversity.

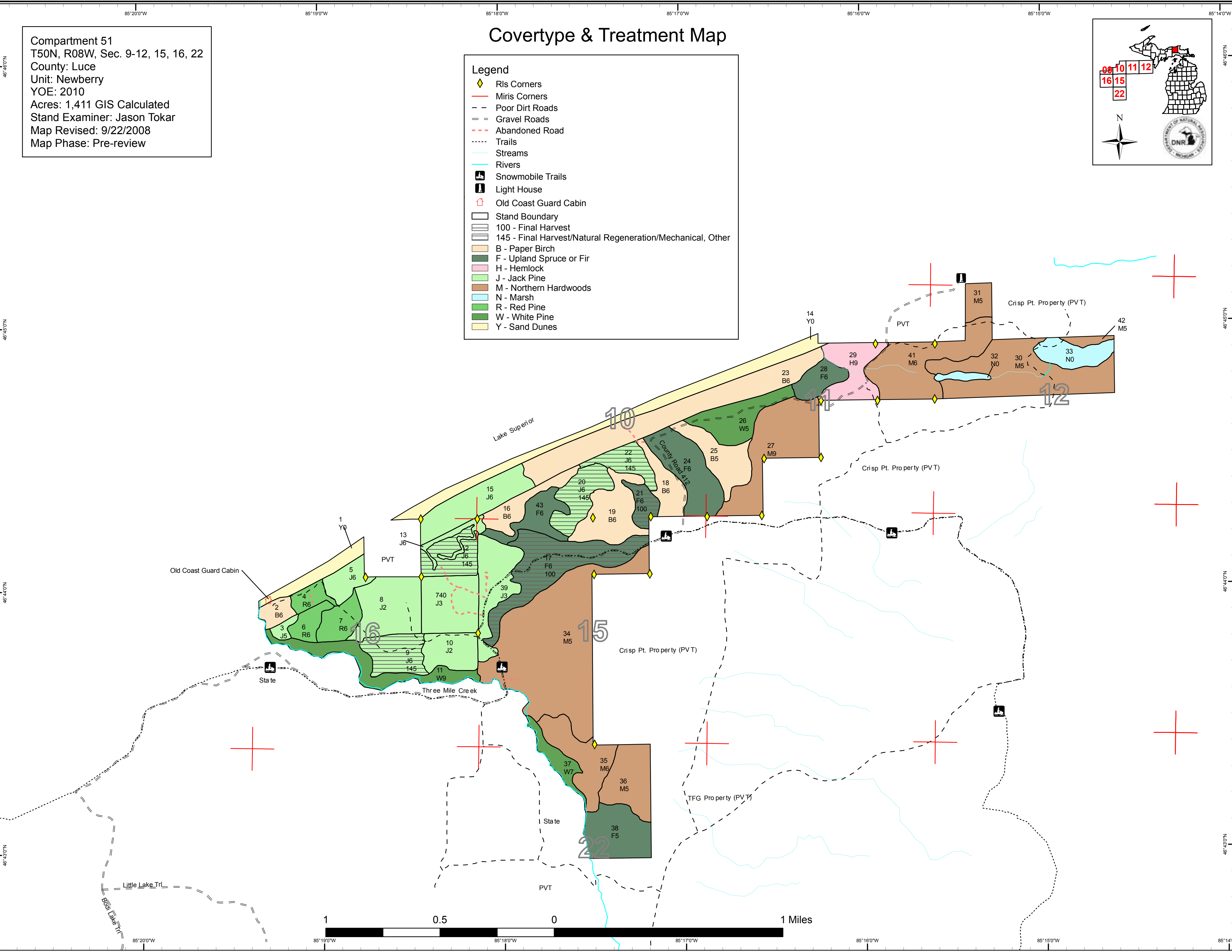
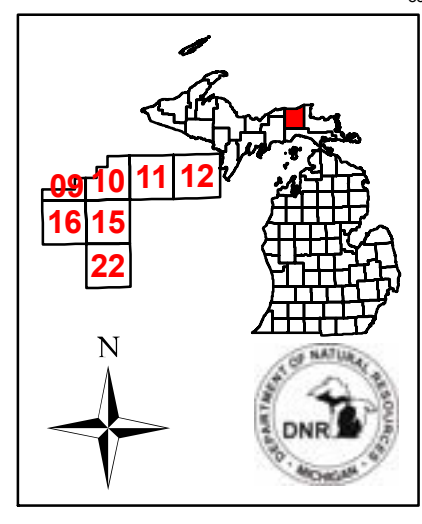
Total Acres..... 56

Compartment 51
 T50N, R08W, Sec. 9-12, 15, 16, 22
 County: Luce
 Unit: Newberry
 YOE: 2010
 Acres: 1,411 GIS Calculated
 Stand Examiner: Jason Tokar
 Map Revised: 9/22/2008
 Map Phase: Pre-review

Coverture & Treatment Map

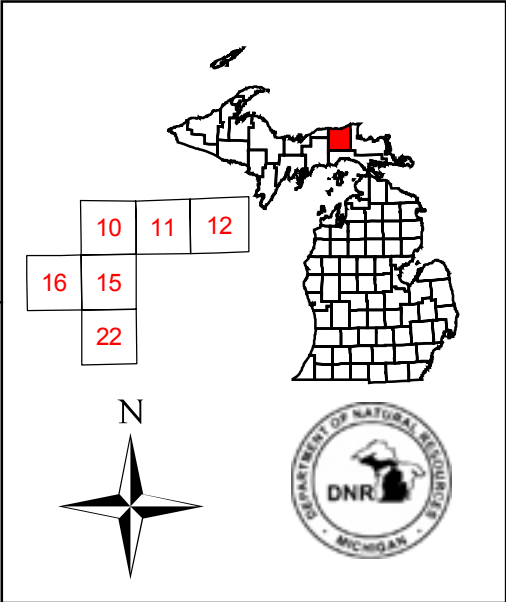
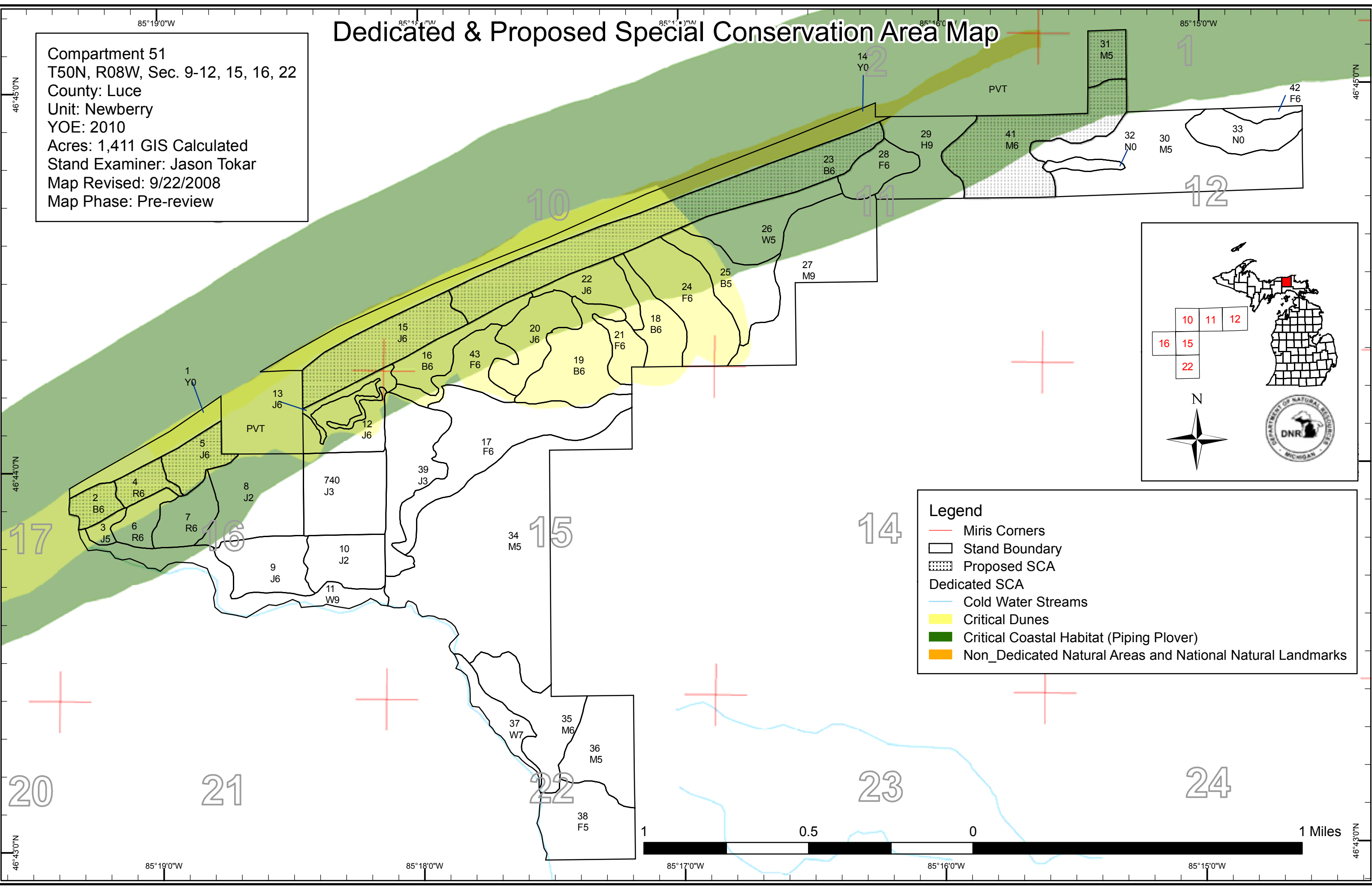
Legend

- ◆ Rls Corners
- Miris Corners
- - - Poor Dirt Roads
- - Gravel Roads
- - - Abandoned Road
- ⋯ Trails
- Streams
- Rivers
- ⊞ Snowmobile Trails
- ⊞ Light House
- ⊞ Old Coast Guard Cabin
- Stand Boundary
- ▨ 100 - Final Harvest
- ▨ 145 - Final Harvest/Natural Regeneration/Mechanical, Other
- B - Paper Birch
- F - Upland Spruce or Fir
- H - Hemlock
- J - Jack Pine
- M - Northern Hardwoods
- N - Marsh
- R - Red Pine
- W - White Pine
- Y - Sand Dunes



Dedicated & Proposed Special Conservation Area Map

Compartment 51
 T50N, R08W, Sec. 9-12, 15, 16, 22
 County: Luce
 Unit: Newberry
 YOE: 2010
 Acres: 1,411 GIS Calculated
 Stand Examiner: Jason Tokar
 Map Revised: 9/22/2008
 Map Phase: Pre-review



Legend

- Miris Corners
- Stand Boundary
- Proposed SCA
- Dedicated SCA**
- Cold Water Streams
- Critical Dunes
- Critical Coastal Habitat (Piping Plover)
- Non_Dedicated Natural Areas and National Natural Landmarks



85°19'0"W 85°18'0"W 85°17'0"W 85°16'0"W 85°15'0"W
 46°45'0"N 46°44'0"N 46°43'0"N



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
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.
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	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.