



Newberry Forest Management Unit
Compartment Review Presentation
Compartment #42004 Entry Year: 2014
Compartment Acreage: 1,736 County: Luce

Revision Date: 2/7/2012

Stand Examiner: Josh Wall

Legal Description: T49N R12W Sections 1 – 3, 10 and 11
T50N R12W Sections 33, 34 and 35

RMU (if applicable): Deer Park Management Area

Management Goals: Vegetative management for the Deer Park Management Area will emphasize balancing the age classes of jack pine and red pine, and provide various timber products. Management will maintain or enhance wildlife habitat.

Soil and Topography: This compartment is dominated by the Deer Park Sand and the Crowell-Spot soil complex. The Deer Park Sand has slopes ranging from 0-60% and is excessively drained with highly decomposed plant material. These soils consist of old sand beach ridges and dunes that support Jack Pine. The Crowell-Spot complex is moderately well drained with slopes varying from 0-6%. This soil holds more moisture and supports more white pine and spruce. The only other occurring soil found in this compartment is the Dawson Greenwood and Loxley complex that is very poorly drained with a mucky peat surface which supports Lowland Black Spruce and Tamarack.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment is entirely state-owned. There are many opportunities for recreation, including, but not limited to, hunting, fishing, ORV, snowmobiling, hiking, skiing, biking, and berry-picking, within and surrounding the compartment. Much of the surrounding land is also state-owned, which provides additional opportunities for timber harvests.

Unique, Natural Features: Michigan Natural Features Inventory (MNFI) notes numerous communities dry northern forest, dry-mesic northern forest, mesic northern forest, bog, muskeg, rich conifer swamp, hardwood-conifer swamp, and patterned fen. MNFI also lists potential for osprey, eagle, merlin, goshawk, great blue heron rookery, loon, Blanding's turtle, marsh birds including, yellow rail, American bittern, least bittern, marsh wren, and common moorhen. Potential for calypso, round-leaved orchid, ram's head lady's slipper, and limestone oak fern. Potential for pine-drops, auricled twayblade orchid, American shoregrass, moor rush, panicked srew-stem, Hill's pondweed, alternate-leaved water-milfoil, and autumnal water star-wort.

Archeological, Historical, and Cultural Features: None were noted during the check.

Special Management Designations or Considerations: Some of the plantations are mixed with white and red pine. The jack pine stands near Lake Superior are primarily of natural origin. Most of the jack pine occurs on the dry, sandy soils of outwash plains and beach ridges, with a PVE habitat type. Jack pine is well suited to these very dry, very poor nutrient sites, and provides a valuable timber resource in this MA. There are two State Forest Campgrounds located within this compartment and the Blind Sucker Pathway and North Country Pathway traverse the compartment. Most of the area is designated critical dunes with no cutting allowed on slopes steeper than 25% and cutting within the designation requiring a permit from DEQ. There is also a designated wildlife flooding within the compartment boundary.

Watershed and Fisheries Considerations: Fisheries Values: Good to Excellent

Fisheries Concerns: This compartment contains Blind Sucker Flooding and Blind Sucker River. No prescribed treatments are scheduled near either of these water-bodies, so Fisheries has no concerns at this time.

Wildlife Habitat Considerations: Compartment 4 lies in far northern Luce county and is in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment is bordered by Lake Superior to the north and the southern border lies near the Blind Sucker Wildlife flooding. The compartment is dominated by jack pine in various age classes with a few red pine, mixed conifer, and young spruce stands scattered throughout.

The compartment lies in the Deer Park Management Area with red crossbill, Kirtland's warbler, american marten and piping plover as designated featured species. Wildlife objectives will be achieved by retaining hard mast producing species in harvested pine stands and by leaving a component of non-pine species to provide food sources, nest and den trees, and improve within stand diversity. Hemlock will be retained in stands for species and structural diversity and to provide warbler nesting habitat and bear refuge trees. Scattered red and white pine will provide habitat needs of red crossbill, a featured species in this compartment. Wildlife species potentially using this compartment include white-tailed deer, black bear, marten, red crossbill, bald eagles, and coyote.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel and peat and muck deposits. There is insufficient data to determine the glacial drift thickness. The Precambrian Jacobsville Sandstone subcrop below the glacial drift. The Jacobsville has been used as a building stone in the past. The nearest gravel pit is located five miles to the southwest and potential appears to be limited. There is no economic oil and gas production in the UP.

Vehicle Access: This compartment can be accessed along the North using the Grand Marias Rd, also known as County Rd. 407 which is maintained by the Luce County Road Commission. There are a few two tracks and a half mile of state forest road that leads to the Blind Sucker #1 campground.

Survey Needs: None.

Recreational Facilities and Opportunities: The two state forest campgrounds located within the compartment, Lake Superior and Blind Sucker #1 provide a place for camping and jumping off for other activities in the area. The Blind Sucker Pathway and North Country Pathway provide miles of hiking and the Blind Sucker #1 campground has a boat launch. Lake Superior lies to the North and provides more fishing and boating opportunities when it is calm. Its sand beaches provide many more miles for hiking.

Fire Protection: This compartment is part of the Two Hearted Zone Dispatch Area. Wildfire response is covered by the Seney Field Office and assistance is provided by the Newberry MU. Large fire potential exists in the continuous Jack Pine fuel types. Response time is slow due to its distance from available resources in Newberry.

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**

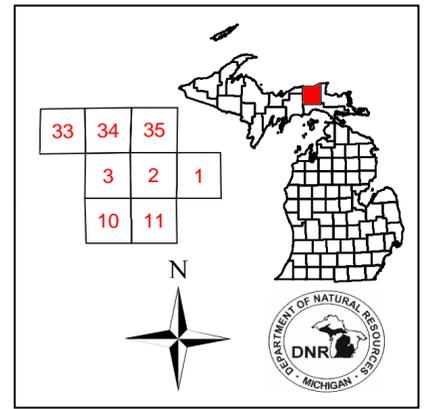
➤ **The following information is displayed, where pertinent, on the attached compartment maps:**

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

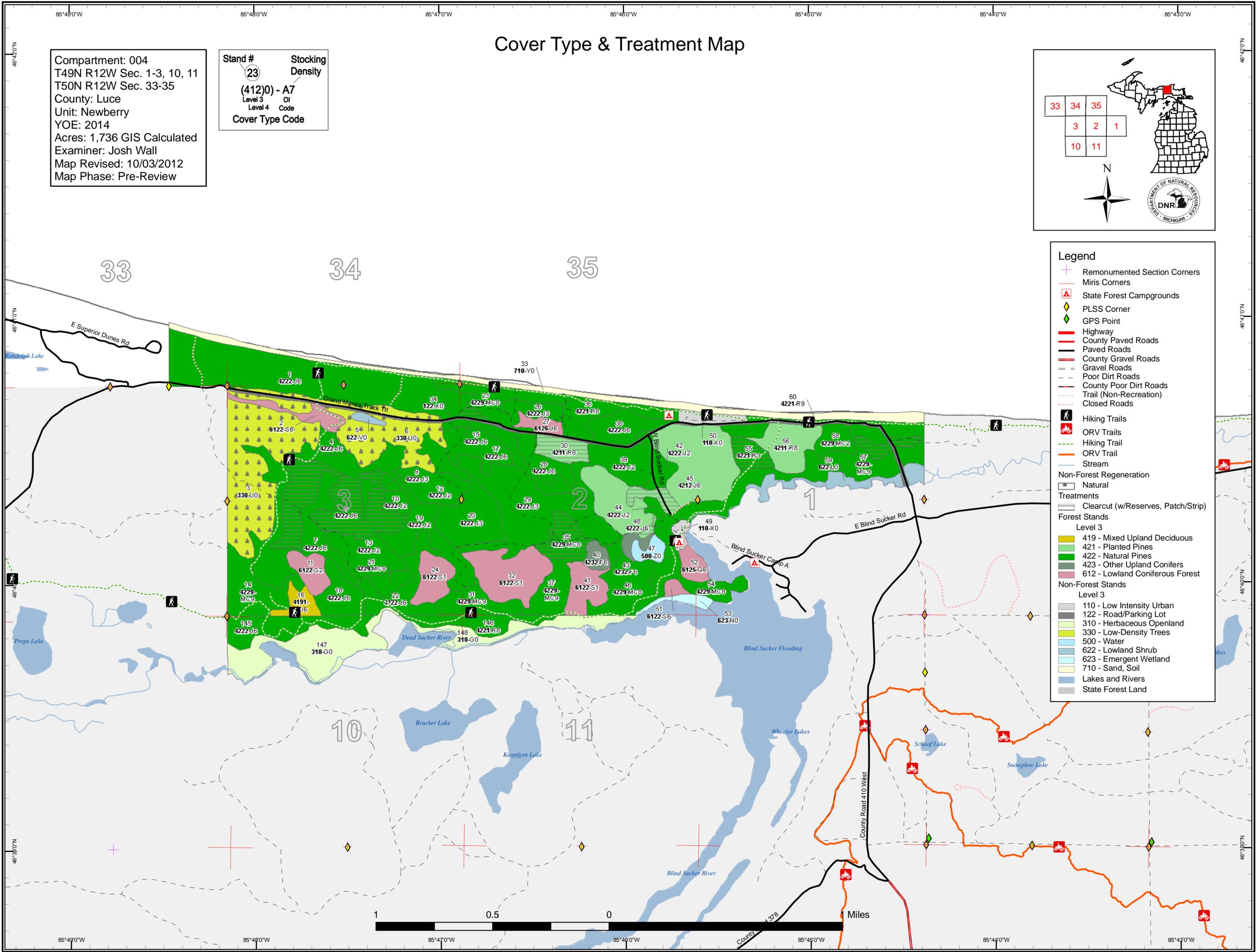
Cover Type & Treatment Map

Compartment: 004
 T49N R12W Sec. 1-3, 10, 11
 T50N R12W Sec. 33-35
 County: Luce
 Unit: Newberry
 YOE: 2014
 Acres: 1,736 GIS Calculated
 Examiner: Josh Wall
 Map Revised: 10/03/2012
 Map Phase: Pre-Review

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



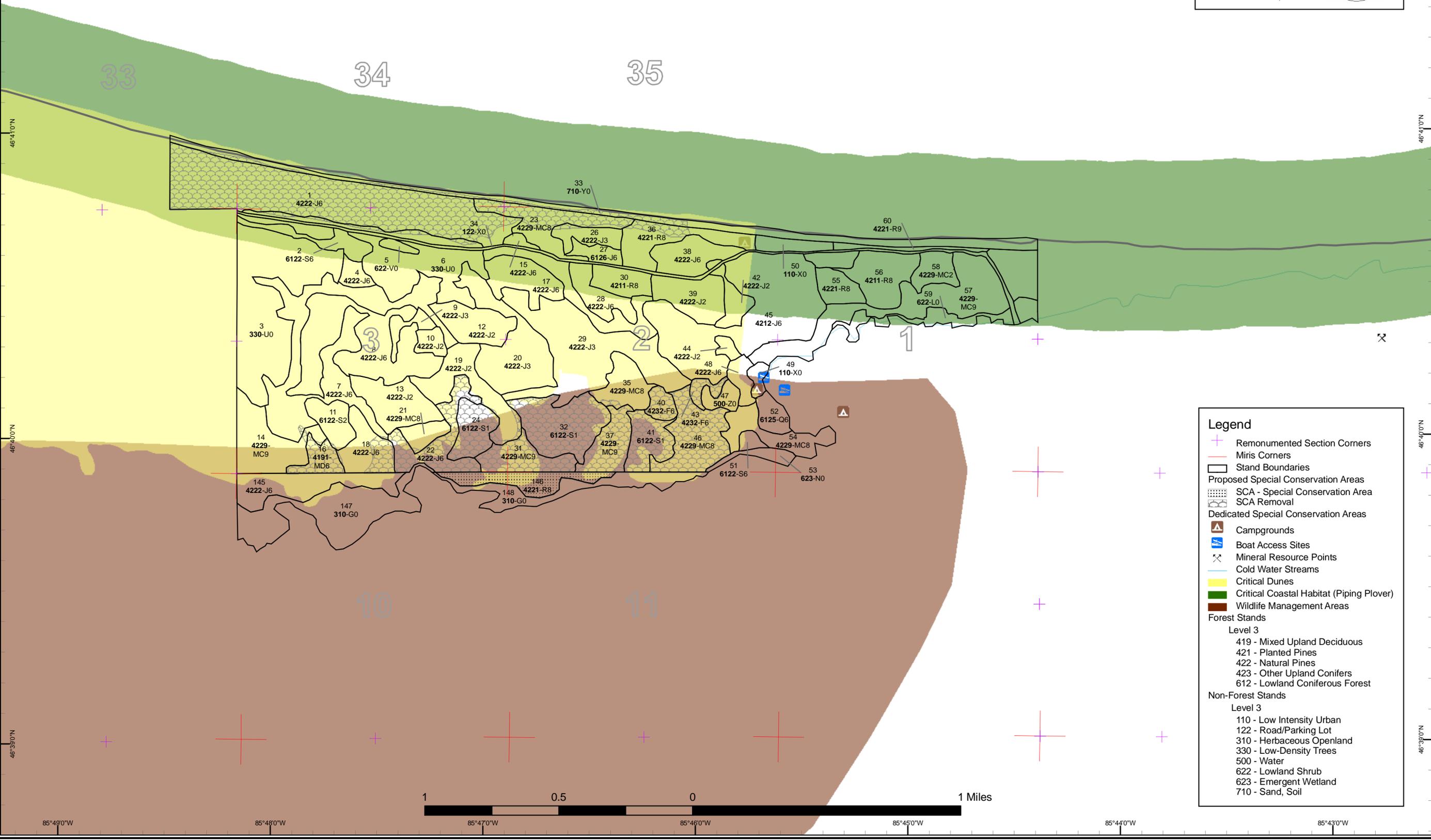
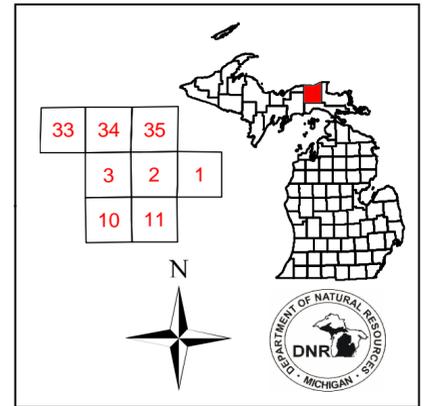
- ### Legend
- + Remonumented Section Corners
 - + Miris Corners
 - △ State Forest Campgrounds
 - ◇ PLSS Corner
 - ◇ GPS Point
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - Closed Roads
 - Hiking Trails
 - ORV Trails
 - Hiking Trail
 - ORV Trail
 - Stream
 - Non-Forest Regeneration
 - Natural
 - Treatments
 - Clearcut (w/Reserves, Patch/Strip)
 - Forest Stands
 - Level 3
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 612 - Lowland Coniferous Forest
 - Non-Forest Stands
 - Level 3
 - 110 - Low Intensity Urban
 - 122 - Road/Parking Lot
 - 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 710 - Sand, Soil
 - Lakes and Rivers
 - State Forest Land



Dedicated & Proposed Special Conservation Area Map

Compartment: 004
 T49N R12W Sec. 1-3, 10, 11
 T50N R12W Sec. 33-35
 County: Luce
 Unit: Newberry
 YOE: 2014
 Acres: 1,736 GIS Calculated
 Examiner: Josh Wall
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Stand #
23
 Stocking
 Density
(412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code



- Legend**
- ✚ Remonumented Section Corners
 - ✚ Miris Corners
 - ▭ Stand Boundaries
 - ▭ Proposed Special Conservation Areas
 - ▭ SCA - Special Conservation Area
 - ▭ SCA Removal
 - ▭ Dedicated Special Conservation Areas
 - ▲ Campgrounds
 - ⚓ Boat Access Sites
 - ⊗ Mineral Resource Points
 - Cold Water Streams
 - Critical Dunes
 - Critical Coastal Habitat (Piping Plover)
 - Wildlife Management Areas
 - Forest Stands**
 - Level 3
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 612 - Lowland Coniferous Forest
 - Non-Forest Stands**
 - Level 3
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85°49'0"W 85°48'0"W 85°47'0"W 85°46'0"W 85°45'0"W 85°44'0"W 85°43'0"W

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

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 +	Unseen Age	
Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Herbaceous Openland	84	0	0	0	0	0	0	0	0	0	0	0	0	0	84
Jack Pine	14	56	205	117	6	148	235	11	0	33	0	0	0	0	825
Low-Density Trees	156	0	0	0	0	0	0	0	0	0	0	0	0	0	156
Lowland Conifers	0	0	0	0	9	0	0	0	0	0	0	0	0	0	9
Lowland Shrub	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Lowland Spruce/Fir	0	0	0	0	14	78	13	0	4	0	0	0	0	0	108
Marsh	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Mixed Upland Deciduous	0	0	0	0	0	11	0	0	0	0	0	0	0	0	11
Natural Mixed Pines	0	0	12	0	0	34	35	20	70	54	0	0	0	77	302
Red Pine	0	0	0	0	0	0	0	14	76	0	0	0	21	0	110
Sand, Soil	50	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Upland Spruce/Fir	0	0	0	0	7	0	5	0	0	0	0	0	0	0	12
Urban	33	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Water	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Total	373	56	217	117	37	271	288	44	150	86	0	0	21	77	1736



Table 2 – Proposed Treatment Summaries

Newberry Mgt. Unit
Year of Entry 2014

Compartment 004
Total Compartment Acres: 1736

Acres by Treatment Type

Commercial Harvest - 136	Site Prep - 0	Tree Planting - 8	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Jack Pine	83	0	0	0	0	0	83
Natural Mixed Pines	27	0	0	0	0	0	27
Red Pine	26	0	0	0	0	0	26
Total	136	0	0	0	0	0	136

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8 42004008-Cut	70.3	42220 - Natural Jack Pine	High Density Pole	62	51-80	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal

Prescription Clear-cut Jack Pine and leave all other species and a couple Jack Pine per acre for retention and a seed source. Lop and scatter leaving cones on site for a seed source and tops for woody biomass to improve soils.

Other HCVA Critical Dunes
Comments:

Next Stand will be scarified after harvest to promote natural regeneration. Monitor stand with a natural regen check during next inventory cycle.
Steps: Acceptable regen will be mixed Pine species.

Proposed
Start Date: 10/01/2014

15 42004015-Cut	2.7	42220 - Natural Jack Pine	High Density Pole	70	81-110	Harvest	Clearcut	42220 - Natural Jack Pine	Cmpt. Review Proposal
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Prescription Clear-cut stand leaving no retention due to small stand size. Lop and scatter tops leaving cones for a seed source.

Specs:
Other HCVA Critical Dunes
Comments:

Next Stand will be scarified following harvest to promote natural regeneration. Stand will be monitored with a regen check 5 years post harvest. MO
Steps: Jack Pine acceptable regen will be Pine species.

Proposed
Start Date: 10/01/2014

30 42004030-Cut	13.7	42110 - Planted Red Pine	Medium Density Log	72	51-80	Harvest	Clearcut with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
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Prescription Clear-cut Red and Jack Pine leaving all other species, retention will be all White Pine/Spruce mix throughout stand and painted out pockets along the road. Cut will mainly consist of chasing individual Red Pine/Jack Pine sawtimber while avoiding damage to the conifer regeneration that is present.

Other HCVA Critical Habitat
Comments:

Next Site won't be scarified due to the advanced regen that is already present. Monitor stand with a natural regen check during next inventory cycle.
Steps:

Proposed
Start Date: 10/01/2014

35 42004035-Cut	18.8	42290 - Natural Mixed Pine	Medium Density Log	89	51-80	Harvest	Clearcut with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
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Prescription Remove the overstory/cut all merchantable Red and Jack Pine reserving all other species throughout the stand. Cut will mainly consist of chasing individual Red/Jack Pine sawtimber while avoiding damage to the conifer regeneration that is present. Retention will be individual White Pine and Spruce sawtimber.

Other HCVA Critical Dunes
Comments:

Next Stand won't be scarified due to the presence to advanced regen already. Monitor stand with a natural regen check during next inventory cycle.
Steps:

Proposed
Start Date: 10/01/2014



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
45	42004045-Cut	1.7	42120 - Planted Jack Pine	High Density Pole	20	51-80	Harvest	Clearcut	42220 - Natural Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Clear-cut part of the stand to remove the Scotch Pine that is present. Full tree chip to remove the seed source and plant to Red Pine to increase the diversity in the area.</p> <p><u>Specs:</u></p> <p><u>Other</u> HCVA Critical Habitat Small acreage and small diameter wood that can be lumped stand #35.</p> <p><u>Comments:</u></p> <p><u>Next</u> Area harvested will be scarified to promote natural regeneration from the cones and adjacent stands.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2014</p>										

45	42004045-Cut1	8.4	42120 - Planted Jack Pine	High Density Pole	20	51-80	Harvest	Clearcut	42220 - Natural Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Clear-cut part of the stand to remove the Scotch Pine that is present. Full tree chip to remove the seed source and plant to Red Pine to increase the diversity in the area. No retention.</p> <p><u>Specs:</u></p> <p><u>Other</u> HCVA Critical Habitat Small acreage and small diameter wood that can be lumped stand #35.</p> <p><u>Comments:</u></p> <p><u>Next</u> Area harvested will be scarified and a FTP will be needed. Acceptable regen will be Jack and Red Pine.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2014</p>										

55	42004055-Cut	11.9	42210 - Natural Red Pine	Medium Density Log	80	51-80	Harvest	Clearcut with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Remove the overstory by cutting all merchantable Red Pine and reserving all White Pine and Spruce throughout stand. Cut will mainly consist of chasing individual Red Pine sawtimber while avoiding damage the present conifer regeneration. Retention will consist of individual tree White Pine/Spruce sawtimber scattered throughout the stand.</p> <p><u>Specs:</u></p> <p><u>Other</u> HCVA Critical Habitat</p> <p><u>Comments:</u></p> <p><u>Next</u> Stand won't be scarified due the presence of advanced regen. Monitor stand with a natural regen check during next inventory cycle.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2014</p>										

57	42004057-Cut	8.2	42290 - Natural Mixed Pine	High Density Log	80	1-50	Harvest	Patch or Strip Clearcut	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Small clear-cut within stand 57 to capture sawlog material and mimic a small disturbance. Cut will promote natural regeneration within the opening so leave large White Pine seed trees along the red line and one per acre within the sale. Otherwise no other retention. Avoid damage to present regen during harvest.</p> <p><u>Specs:</u></p> <p><u>Other</u> HCVA Critical Habitat</p> <p><u>Comments:</u></p> <p><u>Next</u> Monitor stand with a natural regen check during next inventory cycle.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2014</p>										

**Total Treatment
Acreage Proposed: 135.8**

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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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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**



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42220 - Natural Jack Pine	High Density Pole	137.4	63	81-110	Stand falls along Lake Superior and contains old White Pine stumps. Jack Pine is becoming over mature and will start to fall apart and thus promoting longer lived conifers. North country trail runs through part of the stand and Black Spruce is found along narrow dune draws with more moisture. More hardwoods found along the shore. MO manage for long lived conifers, White Pine, Black Spruce, and Norway Pine.
2	6122 - Black Spruce	High Density Pole	12.7	63	51-80	North Country Trail runs through stand. MO Black Spruce
4	42220 - Natural Jack Pine	High Density Pole	6.3	40	51-80	North Country Trail runs through stand. MO Jack Pine
7	42220 - Natural Jack Pine	High Density Pole	81.6	57	81-110	Old Jack Pine with the North Country Trail running through most of the stand. Suggest extending the rotation to promote long lived conifers in the stand and some within stand diversity. Most of the stand was typed out to protect the steep dune slopes and won't ever be harvested.
8	42220 - Natural Jack Pine	High Density Pole	70.3	62	51-80	Old 4-5 stick Jack Pine that should be clear-cut. Reserve larger Norway along the edges of the stand otherwise cut Norway along with the the Jack Pine. Tops should be chipped to clear site for planting of Norway. FTP will be needed for the site prep and planting.
9	42220 - Natural Jack Pine	High Density Sapling	6.6	30	1-50	MO Jack Pine
10	42220 - Natural Jack Pine	Medium Density	6.5	15	1-50	Does have pockets of Black Spruce for diversity. MO Jack Pine and Black Spruce.
11	6122 - Black Spruce	Medium Density	14.1	41	1-50	Black Spruce with higher site index along edges. MO Black Spruce
12	42220 - Natural Jack Pine	Medium Density	22.4	15		MO Jack Pine
13	42220 - Natural Jack Pine	Medium Density	27.4	18		MO Jack Pine
14	42290 - Natural Mixed Pine	High Density Log	34.2	59	81-110	Unevenaged Pine with nice pockets of White Pine. North Country Trail runs through stand. Let Jack Pine, and Birch fall out of the stand and manage for Norway and White Pine. MO Norway and White Pine. Has old growth char.
15	42220 - Natural Jack Pine	High Density Pole	2.7	70	81-110	Clear-cut Jack Pine and reserve all Spruce. Plant back to Norway and White Pine without any site prep and consider using container stock. Chip tops to clear site for planting.
16	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	10.5	59	51-80	Steep dune slopes with 3 stick Red Oak. Nice White Pine regen. MO let stand convert to White Pine.
17	42220 - Natural Jack Pine	High Density Pole	22.9	51	81-110	Cut next inventory cycle, MO Jack Pine.

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Newberry Mgt. Unit

5 – Forested Stands

Compartment: 004
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	42220 - Natural Jack Pine	High Density Pole	20.4	58	51-80	Possible harvest of Jack Pine, better site index with nice pole and log Norway and White Pine. Would suggest holding off until next inventory cycle to stagger out the age classes because stand #8 will be cut.
19	42220 - Natural Jack Pine	Medium Density	31.6	33	1-50	MO Jack Pine and Norway Pine
20	42220 - Natural Jack Pine	High Density Sapling	46.6	36	1-50	MO Jack Pine
21	42290 - Natural Mixed Pine	Medium Density Log	8.7	80	81-110	Better soils/moisture with labtea in the understory. Stand was treated by taking all the Jack Pine and leaving everything else 10-20 yrs ago. Nice overstory of White and Norway Pine, Black Spruce. Manage for understory, MO White Pine, Black Spruce. and Norway Pine.
22	42220 - Natural Jack Pine	High Density Pole	27.2	63	81-110	Jack Pine on dune ridge with steep slopes, leave to protect slopes and move stand towards long lived conifers. This will allow Jack Pine to become overmature and fall apart releasing understory of White Pine and Black Spruce. MO Long lived conifers.
23	42290 - Natural Mixed Pine	Medium Density Log	53.5	90	1-50	Stand protects steep dune slopes and ridge with heavy Black Spruce regen. The stand should be managed for long lived conifers. MO White Pine, Norway Pine, and Black Spruce.
24	6122 - Black Spruce	Low Density Sapling	18.1	52	1-50	MO Black Spruce
26	42220 - Natural Jack Pine	High Density Sapling	11.4	30	1-50	MO Jack Pine
27	6126 - Lowland Jack Pine	High Density Pole	7.3	50	51-80	Look at cutting next inventory cycle. MO Jack Pine
28	42220 - Natural Jack Pine	High Density Pole	15.9	50	81-110	Look at cutting stand next inventory cycle. MO Jack Pine.
29	42220 - Natural Jack Pine	High Density Sapling	78.4	27	1-50	MO Jack Pine
30	42110 - Planted Red Pine	Medium Density Log	13.6	72	51-80	Open grown Norway Pine over a Jack Pine understory. Harvest all Norway and Jack Pine including saplings to prepare site to be planted back to Norway. Paint out/reserve pockets of White Pine and Black Spruce along the road. Plant back to Norway without doing any site prep.
31	42290 - Natural Mixed Pine	High Density Log	20.8	80	81-110	Unevenaged of mixed pine. MO White Pine/Long lived conifers.
32	6122 - Black Spruce	Low Density Sapling	40.4	52	1-50	MO Black Spruce



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	42290 - Natural Mixed Pine	Medium Density Log	18.8	89	51-80	Older White and Norway Pine. A good stand to increase White Pine acerage by harvesting Norway and promoting White Pine understory. MO Long lived conifers, White Pine mostly. Prescription- Harvest all Norway Pine and reserve all other species. Natural regen expected so no FTP needed, just a regen survey.
36	42210 - Natural Red Pine	Medium Density Log	26.1	80	1-50	Has a Black Spruce inclusion and buffers Lake Superior. Nice pockets of Jack Pine regen. MO lake/dune buffer and Norway Pine.
37	42290 - Natural Mixed Pine	High Density Log	20.0	75	81-110	Stand is a ridge that slopes down between two bogs and should be managed for long lived conifers. Trail runs through south end of it. MO White Pine and Norway Pine.
38	42220 - Natural Jack Pine	High Density Pole	20.8	30	1-50	MO Jack Pine
39	42220 - Natural Jack Pine	Medium Density	23.6	20	1-50	MO Jack Pine
40	42320 - Upland Spruce	High Density Pole	7.1	48	111-140	MO Black Spruce
41	6122 - Black Spruce	Low Density Sapling	19.6	52	1-50	MO Black Spruce
42	42220 - Natural Jack Pine	Medium Density	10.8	5		Natural Jack Pine regen. MO Jack Pine, averaged 400 trees per acre but probably missed a few trees due to the snow conditions.
43	42320 - Upland Spruce	High Density Pole	5.0	60	51-80	MO Black Spruce
44	42220 - Natural Jack Pine	Medium Density	3.6	7		MO Jack Pine averaged 400 trees per plot.
45	42120 - Planted Jack Pine	High Density Pole	103.0	20	51-80	Planted Jack Pine and Scotch Pine. Scotch Pine in the south end of stand and along stand #50 and along the road into campground. Consider chipping Scotch Pine and planting back to Norway Pine.
46	42290 - Natural Mixed Pine	Medium Density Log	35.1	63	51-80	Mixed pine on steep dune, stand won't be harvested due to slopes. MO White Pine and Norway Pine.
48	42220 - Natural Jack Pine	High Density Pole	7.9	70	51-80	Underplanting of White Pine 500 trees per acre. MO long lived conifers since this stand won't be cut due to campground, slopes, and trail running through stand. Let the Jack Pine continue to fall apart.
51	6122 - Black Spruce	High Density Pole	3.5	80	81-110	MO Black Spruce and White Cedar



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	6125 - Lowland Black Spruce, Jack Pine	High Density Pole	9.2	45	81-110	Unevenaged stand next to campground and flooding. Manage stand for long lived conifers with the MO being Black Spruce and White Pine.
54	42290 - Natural Mixed Pine	Medium Density Log	21.6	80	81-110	Un-evenaged stand that has a trail running through it, large open grown trees, thick pockets of Jack Pine regen in openings. MO long lived conifers White Pine and Norway Pine.
55	42210 - Natural Red Pine	Medium Density Log	11.9	80	51-80	Looks like the Jack Pine was cut 20 years ago and the Norway was left standing. The Norway responded to the release but now is open grown and should be cut before it gets to big. This will also release the understory of conifers. Cut all merchantable Norway and reserve the rest while avoiding as much damage as possible to the residual understory. Follow up with a natural regen check. MO White Pine, Norway Pine, and Black Spruce.
56	42110 - Planted Red Pine	Medium Density Log	26.3	85	111-140	Additional BA swings 90, 160, 100, and 100. Stand was thinned 5 years ago and runs up to Lake Superior. Consider clear-cutting and planting back to Norway the next inventory cycle. This will allow the Pine more time to respond to the thinning.
57	42290 - Natural Mixed Pine	High Density Log	76.9	Uneven Age	1-50	Unevenaged Pine that has Old Growth char. Create small regen gaps to mimic natural disturbances on the east end of the stand. These would be small clear-cuts of no more than 200 ft wide and can vary in length. Should be laid out in a western to eastern direction capturing some of the Norway volume before it gets to large for harvesting while helping keep the unevenaged char. MO White Pine, Norway Pine, and Black Spruce.
58	42290 - Natural Mixed Pine	Medium Density	12.0	22	1-50	Very nice White Pine/Jack Pine mix with a few large residual norway in the overstory. MO White Pine.
60	42210 - Natural Red Pine	High Density Log	11.8	89	111-140	Mixed stand of Pine across from Lake Superior campground. MO White Pine and Norway Pine.
145	42220 - Natural Jack Pine	High Density Pole	32.5	92		
146	42210 - Natural Red Pine	Medium Density Log	20.6	151		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	3302 - Low Density Conifer Trees	92.4	Natural Regen	Jack Pine	
5	6225 - Bog	2.9	No	Unspecified	
6	3302 - Low Density Conifer Trees	63.5	Natural Regen	Jack Pine	
33	710 - Sand, Soil	50.2	No	Unspecified	
34	122 - Road/Parking Lot	20.1	No	Unspecified	
47	50 - Water	7.0	No	Unspecified	
49	11 - Low Intensity Urban	4.3	Yes	Unspecified	
50	11 - Low Intensity Urban	8.6	Yes	Unspecified	
53	6239 - Mixed Emergent Wetland	6.4	No	Unspecified	
59	6229 - Mixed lowland shrub	19.0	No	Unspecified	
147	310 - Herbaceous Openland	57.0	N/A	Unspecified	
148	310 - Herbaceous Openland	27.2	N/A	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
146	Unique Site - SCA	42004146 SCA Unique Site	20.6	Many red pine are 150-200 years old. Some ridges are close to old growth red pine. Stand varies from low-moderately steep sand dunes to flat areas near the marsh.
multiple - see	SCA Removal	SCA 1	216.1	Already covered by critical dunes HCVA and deeryard SCA
multiple - see	SCA Removal	SCA 2	173.4	Area already covered by critical dunes and piping plover HCVA's



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.
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.