



Shingleton Forest Management Unit
Compartment Review Presentation
Compartment #110 Entry Year: 2013
Compartment Acreage: 3007 County: Schoolcraft

Revision Date: 8/2011

Stand Examiner: Mario Molin

Legal Description: T46N R13W Sections 4 - 8, 17 and 18

RMU (if applicable):

Management Goals: To provide multiple use benefits for the citizens of Michigan.

Soil and Topography: Flat to gently rolling terrain, except for the steep banks (up to 55% slope) above the floodplains of the Fox River and the East Branch Fox River. There are also several meandering eskers with relatively steep slopes.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment contains 1160 acres of private land within its boundaries, and one privately-owned structure. The state land is in two large blocks and two smaller parcels (one 40 acres, one 80 acres). There are large blocks of state-owned land on all sides of the compartment.

Unique, Natural Features: The compartment is bounded by the Fox River to the southwest, and the East Branch Fox River flows through the northeast corner.

Archeological, Historical, and Cultural Features: None known at this time.

Special Management Designations or Considerations: Both the Fox River and the East Branch Fox River are part of the Michigan Natural River System; management considerations are defined in the Fox River Plan.

Watershed and Fisheries Considerations: Excellent. The East Branch Fox River is classified First Quality Cold Water (FQCW). In fact, the stretch of the East Branch upstream from M-77 contains the largest average size brook trout in the Eastern Upper Peninsula. Fisheries Division maintains two sand traps, one just upstream from the M-77 bridge and one off the woods road just north of the plateau immediately north of the bridge. Gronden Creek is classified Second Quality Cold Water (SQCW).

Wildlife Habitat Considerations: This compartment lies within the Seney Sand Lake Plain ecological sub-subsection. The growing season in this area is less than 100 days with extreme minimum winter temperatures of -46 degrees F. Annual snowfall in this area averages between 120 and 140 inches. General Land Office (GLO) Surveyor notes indicate that the upland forest contained a mixture of hemlock, white pine, beech, and yellow birch. The lowland forest primarily consisted of cedar, black spruce, and tamarack. Windthrow, fire and beaver ponding along Gronden creek and the Fox River provided the primary sources of natural disturbance. Although not the dominant species, white pine is becoming reestablished within the compartment. Red pine plantations, aspen, and grassy opening provide the majority of the upland cover types within the compartment. Lowlands continue to contain cedar, black spruce, and to a lesser extent tamarack, and red pine and white pine. Wildlife habitat objectives include retaining space for openland

species, providing supercanopy pines within aspen cuttings, protecting oak and hemlock, providing a corridor along the Fox River, and maintaining closed canopy swamp conifer forest. Gray Wolves (Federal and Michigan endangered), moose (Michigan special concern) and sharp-tailed grouse (Michigan special concern) have all been known to utilize the habitat within this compartment. Other species of interest include brown thrasher, smooth green snake, kestrel, red squirrel, and porcupine.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium, peat and muck and minor lacustrine (lake) sand and gravel. There is 100 feet of local relief in the compartment, mostly on the north end. There is insufficient data to determine the glacial drift thickness. The Ordovician Utica and Collingwood Shales and Trenton Group subcrop below the glacial drift. The Trenton is used for dolomite/stone elsewhere in the UP. Gravel pits are not found in the general area and potential appears to be limited. There is no commercial oil and gas production in the UP.

Vehicle Access: Dutch Fred Lake Rd. and Sunken Lake Rd. provide good access to the north half of the compartment. Access to the smaller state-owned parcels is complicated by a lack of roads and difficult terrain. The southern block of state land is also difficult to reach because much of it consists of low, wet terrain, and reasonable access requires crossing private lands and/or placing a number of culverts etc.

Survey Needs: None known at this time.

Recreational Facilities and Opportunities: The travel routes to the public access site at Dutch Fred Lake and to Sunken Lake (dispersed recreational opportunities) pass through this compartment. The area is also subject to heavy hunting pressure during deer season.

Fire Protection: See comments under Vehicle Access.

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**

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Table 1 – Total Acres by Cover Type and Age Class



	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneven Age
Aspen	0	0	135	98	236	5	2	0	19	0	0	0	0	0	495	
Cedar	0	0	0	0	0	0	0	0	0	0	10	49	0	365	0	424
Herbaceous Openland	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	258
Jack Pine	0	0	19	5	16	5	5	4	4	2	0	0	0	0	0	59
Low-Density Trees	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
Lowland Conifers	0	23	0	0	15	20	0	105	0	0	3	0	0	0	0	166
Lowland Mixed Forest	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Shrub	138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138
Lowland Spruce/Fir	0	0	109	0	0	12	4	101	144	119	12	0	0	0	0	501
Marsh	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9
Natural Mixed Pines	0	0	0	0	0	3	43	0	0	43	39	0	0	0	0	128
Paper Birch	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
Red Pine	0	0	0	0	1	175	81	38	74	0	19	7	0	0	0	395
Sand, Soil	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Tamarack	0	0	0	0	5	19	57	11	0	0	0	0	0	0	0	93
Treed Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Upland Mixed Forest	0	0	0	0	0	0	114	0	0	0	0	7	0	0	0	121
Upland Spruce/Fir	0	0	0	0	0	0	7	0	5	0	0	0	0	0	0	12
Water	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
White Pine	0	0	0	0	2	0	0	4	0	0	35	3	0	0	0	44
Total	546	23	263	109	276	238	313	264	254	172	119	65	0	365	0	3007



Table 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit
Year of Entry 2013

Compartment 110
Total Compartment Acres: 3007

Acres by Treatment Type

Commercial Harvest - 445	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 106	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	19	0	0	0	0	0	19
Cedar	48	0	0	0	0	0	48
Herbaceous Openland	6	0	0	0	0	0	6
Jack Pine	5	0	0	0	0	0	5
Lowland Shrub	106	0	0	0	0	0	106
Lowland Spruce/Fir	73	0	0	0	0	0	73
Natural Mixed Pines	11	0	0	0	0	0	11
Paper Birch	0	0	3	0	0	0	3
Red Pine	127	0	0	0	147	0	274
Upland Mixed Forest	0	7	0	0	0	0	7
Total	394	7	3	0	147	0	550



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	41110001-Cut	68.0	42110 - Planted Red Pine	High Density Pole	40	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin to 80BA, cut all jack pine and open up around oak trees. <u>Specs:</u> <u>Other</u> <u>Comments:</u> <u>Next</u> Monitor according to work instructions. <u>Steps:</u>									
2	41110002-Cut	19.0	4130 - Aspen	Low Density Pole	76	Harvest	Clearcut with Reserves	3102 - Grass	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with oak reserved. <u>Specs:</u> <u>Other</u> Old G-type that has grown in with aspen, birch and pine. <u>Comments:</u> Talking with wildlife about consolidating/swaping these stands. <u>Next</u> In this entire sale area consolidate grass and forested, convert red pine to jack pine. Total area is approximately 165 cres, 95 forested and 70 <u>Steps:</u> grass based on 2003 Inventory. Create one large grass opening along road to north and have it match up with openings on north side of road. Plant the 95 acres to jack pine. Monitor according to work instructions.									
3	41110003-Cut	10.9	42260 - Natural Pine, Mixed Deciduous	Medium Density Log	93	Harvest	Clearcut with Reserves	42140 - Planted Mixed Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with oak reserved. <u>Specs:</u> <u>Other</u> Talking with wildlife about consolidating/swaping these stands. <u>Comments:</u> <u>Next</u> Scarify and plant alternate rows/ group of rows with red pine and white pine. <u>Steps:</u> Monitor according to work instructions.									
6	41110006-Cut	4.6	42220 - Natural Jack Pine	Medium Density Pole	41	Harvest	Clearcut with Reserves	3102 - Grass	Cmpt. Review Proposal
<u>Prescription</u> Clearcut, convert back to grass opening. <u>Specs:</u> <u>Other</u> Talking with wildlife about consolidating/swaping these stands. <u>Comments:</u> <u>Next</u> In this entire sale area consolidate grass and forested, convert red pine to jack pine. Total area is approximately 165 cres, 95 forested and 70 <u>Steps:</u> grass based on 2003 Inventory. Create one large grass opening along road to north and have it match up with openings on north side of road. Plant the 95 acres to jack pine. Monitor according to work instructions.									
8	41110008-Cut	84.3	42110 - Planted Red Pine	High Density Pole	42	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with oak reserved. <u>Specs:</u> <u>Other</u> Talking with wildlife about consolidating/swaping these stands. <u>Comments:</u> <u>Next</u> In this entire sale area consolidate grass and forested, convert red pine to jack pine. Total area is approximately 165 cres, 95 forested and 70 <u>Steps:</u> grass based on 2003 Inventory. Create one large grass opening along road to north and have it match up with openings on north side of road. Plant the 95 acres to jack pine. Monitor according to work instructions.									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
14	41110014-Cut	23.1	42110 - Planted Red Pine	Medium Density Pole	60	Harvest	Clearcut	3102 - Grass	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with oak reserved.									
<u>Specs:</u>									
<u>Other</u> Talking with wildlife about consolidating/swaping these stands.									
<u>Comments:</u>									
<u>Next</u> In this entire sale area consolidate grass and forested, convert red pine to jack pine. Total area is approximately 165 cres, 95 forested and 70									
<u>Steps:</u> grass based on 2003 Inventory. Create one large grass opening along road to north and have it match up with openings on north side of road. Plant the 95 acres to jack pine. Monitor according to work instructions.									
16	41110016-Cut	3.1	4140 - Other Upland Deciduous	High Density Pole	78	Harvest	Seed Tree	4193 - Birch, Aspen	Cmpt. Review Proposal
<u>Prescription</u> Seed tree cut to 30 BA and Rx burn. No reserve because of small acreage.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u> Monitor according to work instructions. Would like to have birch regenerate but any mix of species currently on site is acceptable.									
<u>Steps:</u>									
17	41110017-Cut	19.6	42110 - Planted Red Pine	Low Density Pole	40	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with oak reserved.									
<u>Specs:</u>									
<u>Other</u> Talking with wildlife about consolidating/swaping these stands.									
<u>Comments:</u>									
<u>Next</u> In this entire sale area consolidate grass and forested, convert red pine to jack pine. Total area is approximately 165 cres, 95 forested and 70									
<u>Steps:</u> grass based on 2003 Inventory. Create one large grass opening along road to north and have it match up with openings on north side of road. Plant the 95 acres to jack pine. Monitor according to work instructions.									
32	41110032-Cut	15.7	6122 - Black Spruce	High Density Pole	83	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with cedar reserved.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u> Monitor according to work instructions.									
<u>Steps:</u>									
54	41110054-Cut	13.5	6122 - Black Spruce	High Density Pole	87	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with cedar reserved.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u> Monitor according to work instructions.									
<u>Steps:</u>									



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
63	41110063-Cut	78.5	42110 - Planted Red Pine	High Density Pole	54	Harvest	Low Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription:</u> Thin to 90BA <u>Specs:</u> <u>Other Comments:</u> Density is very variable in the stand. <u>Next Steps:</u> Monitor according to work instructions.									
81	41110081-Cut	3.4	6122 - Black Spruce	High Density Pole	65	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<u>Prescription:</u> clearcut with cedar reserved. <u>Specs:</u> <u>Other Comments:</u> treatment area may be smaller than the stand due to trees being smaller on east side. <u>Next Steps:</u> monitor according to work instructions.									
130	41110130-Cut	7.0	4319 - Mixed Upland Forest	Medium Density Pole	102	Harvest	Single Tree Selection	4319 - Mixed Upland Forest	Cmpt. Review Proposal
<u>Prescription:</u> Cut all aspen and jack pine, mark the rest down to 40BA and Rx burn to promote birch regeneration. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> Monitor according to work instructions.									
164	41110164-Cut_small	47.8	6120 - Lowland Cedar	High Density Pole	123	Harvest	Clearcut	6120 - Lowland Cedar	Cmpt. Review Proposal
<u>Prescription:</u> Strip clearcuts of varying widths east/west with 2 block cuts of app. 3 and 5 acres. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> Monitor according to work instructions.									
175	41110175-Cut	40.1	6122 - Black Spruce	High Density Pole	68	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<u>Prescription:</u> Clearcut with cedar reserved. <u>Specs:</u> <u>Other Comments:</u> consider moving th redline inboard to possible reduce tag alder establishing. <u>Next Steps:</u> Monitor according to work instructions.									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
12	NF_41110012- Cut	2.3	Non-Forested		0	Harvest	Clearcut with Reserves	3102 - Grass	Cmpt. Review Proposal

Prescription Clear cut with oak reserved.

Specs:

Other

Comments:

Next Steps: In this entire sale area consolidate grass and forested, convert red pine to jack pine. Total area is approximately 165 cres, 95 forested and 70 grass based on 2003 Inventory. Create one large grass opening along road to north and have it match up with openings on north side of road. Plant the 95 acres to jack pine. Monitor according to work instructions.

18	NF_41110018- Cut	1.8	Non-Forested		0	Harvest	Clearcut with Reserves	3102 - Grass	Cmpt. Review Proposal
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Prescription clearcut with oak reserved.

Specs:

Other

Comments:

Next Steps: In this entire sale area consolidate grass and forested, convert red pine to jack pine. Total area is approximately 165 cres, 95 forested and 70 grass based on 2003 Inventory. Create one large grass opening along road to north and have it match up with openings on north side of road. Plant the 95 acres to jack pine. Monitor according to work instructions.

20	NF_41110020- Cut	1.9	Non-Forested		0	Harvest	Clearcut with Reserves	3102 - Grass	Cmpt. Review Proposal
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Prescription Clearcut with oak reserved.

Specs:

Other

Comments:

Next Steps: In this entire sale area consolidate grass and forested, convert red pine to jack pine. Total area is approximately 165 cres, 95 forested and 70 grass based on 2003 Inventory. Create one large grass opening along road to north and have it match up with openings on north side of road. Plant the 95 acres to jack pine. Monitor according to work instructions.

174	NF_41110174- Cut	105.7	Non-Forested		0	Harvest	Clearcut	622 - Lowland Shrub	Cmpt. Review Proposal
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Prescription Clearcut area. Clearcut tag alder if markets develope or treat non commercially.

Specs:

Other

Comments:

Next

Steps:

**Total Treatment
Acreage Proposed: 550.3**

Table 4 -- Treatments Prescribed with a Limiting Factor



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

Other Comment:

Next Steps:

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: 0

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

Year of Entry: 2013



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
41022_OutOfY OE-Cut	35.6				Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription:</u> 3rd row thinning. Cut all trees in designated rows. Rows can be spaced wider apart in areas with lower basal area. Do not cut hemlock and oak.								
<u>Specs:</u>								
<u>Other Comments:</u> Do not cut any trees within 50 feet of the West Branch Manistique River.								
<u>Next Steps:</u> Thin next year of entry.								
41049_OutOfY OE_1-Cut	4.7				Harvest	Single Tree Selection	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<u>Prescription:</u> Mark red pine and white pine to 30 sq. ft. Create gaps in canopy for regeneration where pine exists. Areas that have thicker young poles can be								
<u>Specs:</u> marked to 80. Cut all other species except hemlock and oak if present.								
<u>Other Comments:</u> Access to stand is too difficult for continuous thinning.								
<u>Next Steps:</u> Regeneration walkthrough during next inventory cycle. Acceptable regeneration includes any species mixture currently found onsite.								
41053_OutOfY OE-Cut	10.2				Harvest	Single Tree Selection	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<u>Prescription:</u> Mark red pine and white pine to 30 sq. ft. Create gaps in canopy for regeneration where pine exists. Areas that have thicker young poles can be								
<u>Specs:</u> marked to 80. Cut all other species except hemlock and oak if present.								
<u>Other Comments:</u> Access to stand is too difficult for continuous thinning.								
<u>Next Steps:</u> Regen walkthrough during next inventory cycle. Acceptable regeneration includes any species mixture currently found onsite.								
Total Treatment Acreage Proposed:		50.5						

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 110
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42110 - Planted Red Pine	High Density Pole	68.0	40	111-140	Has small pocket of natural Jack and Red Pine. Pine is 3-4 sticks tall. RP: 110 140 70 200 WP: 0 10 10 0
2	4130 - Aspen	Low Density Pole	19.0	76	1-50	Some oak in stand. BT.ASP: 20 20 RP: 20 0 OAK: 10 WP: 20
3	42260 - Natural Pine, Mixed Deciduous	Medium Density Log	10.9	93	1-50	Some oak in stand. WP; 10 10 PB; 10 20 OAK; 0 0 10
4	6122 - Black Spruce	Low Density Pole	3.5	96	1-50	Part of recent cut.
5	6122 - Black Spruce	Medium Density Pole	2.4	88	1-50	
6	42220 - Natural Jack Pine	Medium Density Pole	4.6	41	1-50	
8	42110 - Planted Red Pine	High Density Pole	84.3	42	81-110	Density is patchy in areas. RP: 150 150 70 80 70 Oak: 10 JP: 10
9	42210 - Natural Red Pine	Medium Density Log	13.2	73	1-50	Steep ridge.
11	42320 - Upland Spruce	High Density Pole	4.8	73	51-80	
13	42290 - Natural Mixed Pine	Medium Density Log	4.7	92	1-50	Older cut with spruce and white pine seedlings, red, white pine and birch reserved.
14	42110 - Planted Red Pine	Medium Density Pole	23.1	60	1-50	Spacious plantation, portions failed, next to grass openings that are filling in, would like to do some consolidating.
15	6122 - Black Spruce	Medium Density Pole	11.3	88	1-50	
16	4140 - Other Upland Deciduous	High Density Pole	3.1	78	1-50	
17	42110 - Planted Red Pine	Low Density Pole	19.6	40	1-50	Portion of stand is failed plantation and the rest is opening that is converting to forest, with red, white, jack pine and oak. Part of area where consolidating the stand types may be desirable.

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 110
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	42210 - Natural Red Pine	High Density Log	4.2	68	51-80	
22	6127 - Lowland Pine	High Density Log	3.4	98	1-50	
23	4130 - Aspen	High Density Sapling	8.3	30		
25	4133 - Aspen, Mixed Pine	High Density Sapling	89.5	11	1-50	Same as stand 23 (previous inventory had them as one)but with aspen tsi work done in 2000.
26	42260 - Natural Pine, Mixed Deciduous	Medium Density Log	23.3	94	1-50	
27	6129 - Mixed Coniferous Lowland Forest	Low Density Sapling	22.8	8		Pines were left as reserve.
29	6122 - Black Spruce	High Density Pole	2.3	63	51-80	
30	4130 - Aspen	High Density Sapling	39.5	30	1-50	
31	42200 - Natural White Pine	Low Density Log	1.0	100	1-50	ridge with few scattered trees.
32	6122 - Black Spruce	High Density Pole	15.7	83	111-140	Good cedar and balsam fir regeration in canopy gaps. Spruce is about 8 inches and 4-5 sticks tall.
33	42200 - Natural White Pine	Low Density Log	1.9	100	1-50	ridge with scattered trees.
34	4311 - Pine, Aspen Mix	High Density Log	113.6	52	1-50	
36	42220 - Natural Jack Pine	High Density Pole	1.0	20	1-50	
39	6122 - Black Spruce	High Density Pole	14.5	78	51-80	
40	6122 - Black Spruce	High Density Pole	8.2	76	51-80	
41	42220 - Natural Jack Pine	High Density Pole	1.3	35	51-80	
43	6122 - Black Spruce	Medium Density	2.1	47		Spruce bog.
44	4130 - Aspen	High Density Sapling	24.3	30		

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 110
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
47	6120 - Lowland Cedar	High Density Pole	6.1	98	1-50	Network of drainages in the stand.
48	6122 - Black Spruce	Medium Density Pole	3.0	78	1-50	Fairly open with mainly submerchutable spruce and red maple regen.
50	6122 - Black Spruce	Medium Density	4.0	58	1-50	
51	6122 - Black Spruce	High Density Pole	5.6	93	81-110	Meets criteria to be cut but small in acreage and is surrounded by non forested.
53	4130 - Aspen	High Density Sapling	90.2	30		Poor quality aspen- very stunted and diseased with black knot. same as 33 and 37
54	6122 - Black Spruce	High Density Pole	13.5	87	81-110	Mixed stand with good cedar regenerating in openings. More cedar and fir to the south. BS: 90 50 0 Ced:10 50 20 WP: 10 30 0 Hem:10 0 0 Tam:0 0 10
55	6122 - Black Spruce	Medium Density	1.5	76	1-50	Spruce bog.
56	4140 - Other Upland Deciduous	High Density Pole	5.2	79	51-80	
57	4134 - Aspen, Spruce/Fir	Low Density Pole	1.7	23	1-50	Small ridge.
58	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	8.5	81	81-110	Difficult access and very steep slopes.
59	6122 - Black Spruce	Medium Density	9.2	67	1-50	
60	6122 - Black Spruce	High Density Pole	2.4	81	51-80	
61	6121 - Tamarack	Low Density Sapling	6.7	45		Bog type.
62	6120 - Lowland Cedar	High Density Pole	4.7	130	81-110	
63	42110 - Planted Red Pine	High Density Pole	78.5	54	111-140	Varies for 2-4 sticks across the stand. RP: 110 90 100 170 100 WP: 10
65	42200 - Natural White Pine	High Density Pole	2.1	34	1-50	

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 110
Year of Entry: 2013

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42260 - Natural Pine, Mixed Deciduous	Low Density Sapling	2.6	48	1-50	Some scattered oak.
42290 - Natural Mixed Pine	Medium Density Log	42.9	89	81-110	Ridge system.
4130 - Aspen	High Density Sapling	1.1	25		
6122 - Black Spruce	Medium Density Pole	2.0	86	1-50	kettle hole wit spruce and pine, edges have some bigger trees.
6122 - Black Spruce	High Density Pole	15.9	86	51-80	Medium stocking.
4130 - Aspen	High Density Pole	2.0	54	51-80	
42220 - Natural Jack Pine	High Density Pole	1.7	21	1-50	Kettle hole with spruce and pine, edges have bigger trees.
42210 - Natural Red Pine	Medium Density Log	2.8	48	1-50	
4130 - Aspen	High Density Sapling	1.1	25	1-50	
6122 - Black Spruce	Medium Density	1.0	85		Spruce bog, trees all submerchantable and rings to close to count.
42220 - Natural Jack Pine	Medium Density Pole	1.7	82	81-110	
4130 - Aspen	Medium Density	1.1	25		
6122 - Black Spruce	High Density Pole	3.4	65	81-110	Old OI held till this entry, trees are not growing.
4130 - Aspen	High Density Sapling	33.2	25	51-80	
42210 - Natural Red Pine	Low Density Log	4.1	63	1-50	Recently seed tree cut.
42220 - Natural Jack Pine	Medium Density Pole	2.1	22	1-50	
4130 - Aspen	Medium Density	6.6	33		
4130 - Aspen	High Density Sapling	4.9	25		

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 110
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
88	6122 - Black Spruce	High Density Pole	2.9	97	1-50	Open stunted trees.
89	42110 - Planted Red Pine	High Density Pole	2.5	62	111-140	
90	4132 - Aspen, Jack Pine	Medium Density Pole	1.2	25	1-50	
91	42110 - Planted Red Pine	High Density Pole	2.0	54	111-140	
92	6124 - Lowland Spruce-Fir	High Density Pole	61.1	68	81-110	3-4 sticks trees cored are not showing much growth. Could cut but runs along the "Fox river buffer"
93	4130 - Aspen	High Density Pole	3.8	33	1-50	
94	6122 - Black Spruce	Low Density Sapling	6.8	71	1-50	Very wet stand trees are stunted, poorly stocked with trees 20-30 ft with 1 stick.
95	42110 - Planted Red Pine	High Density Pole	1.4	33	51-80	
96	6122 - Black Spruce	Medium Density	24.2	12	1-50	
97	6123 - Lowland Fir	Medium Density Pole	6.4	63	1-50	Low volume and quality.
99	4130 - Aspen	Low Density Sapling	7.1	25		
100	4130 - Aspen	Low Density Pole	22.5	25		
101	4130 - Aspen	High Density Sapling	7.1	17		
102	6122 - Black Spruce	High Density Pole	5.2	67	81-110	Cut next entry, trees cored show little growth.
104	4130 - Aspen	High Density Sapling	1.2	25		
107	4130 - Aspen	Medium Density	2.0	25		
108	4130 - Aspen	High Density Pole	4.6	47	1-50	
109	4130 - Aspen	High Density Pole	58.6	33	1-50	

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 110
Year of Entry: 2013

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6120 - Lowland Cedar	High Density Pole	37.3	100	51-80	Good cedar regeneration in open areas.
42220 - Natural Jack Pine	High Density Pole	10.7	32	1-50	
42220 - Natural Jack Pine	High Density Pole	3.9	32	51-80	
4130 - Aspen	High Density Pole	5.2	37	1-50	
6122 - Black Spruce	Low Density Pole	5.4	67		Spruce bog.
6122 - Black Spruce	High Density Pole	3.2	83	81-110	
4130 - Aspen	High Density Pole	4.1	28		
4130 - Aspen	High Density Sapling	6.9	25		
6122 - Black Spruce	High Density Pole	4.5	63	51-80	
6120 - Lowland Cedar	Medium Density Pole	40.2	134	1-50	
6120 - Lowland Cedar	High Density Pole	25.9	128	51-80	
6124 - Lowland Spruce-Fir	Medium Density Pole	15.1	34		Was not able to get to this stand, data is from previous OI
6120 - Lowland Cedar	High Density Pole	3.7	97	51-80	
42200 - Natural White Pine	High Density Log	35.3	94	51-80	
42210 - Natural Red Pine	High Density Log	5.9	73	81-110	
42210 - Natural Red Pine	High Density Pole	6.7	106	51-80	
4319 - Mixed Upland Forest	Medium Density Pole	7.0	102	81-110	Low density mixed stand. PB: 70 30 40 ASP:30 WP: 0 20 0 RO: 0 30 0 RM: 20 10 0



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
132	42290 - Natural Mixed Pine	High Density Pole	41.0	55	111-140	Mix of species, looks to be more all aged.
133	42210 - Natural Red Pine	Low Density Log	12.5	90	1-50	
135	4130 - Aspen	Low Density Sapling	37.4	10		
138	6121 - Tamarack	High Density Pole	10.9	65	1-50	
139	6121 - Tamarack	Medium Density Pole	9.9	51	1-50	
140	6122 - Black Spruce	High Density Pole	21.0	76	51-80	Edge is heavier with tamarack, with more spruce in the middle (3-4 sticks) Some cedar and birch on the north end.
141	42210 - Natural Red Pine	High Density Log	4.0	60	1-50	
142	6120 - Lowland Cedar	High Density Log	11.6	100	111-140	
143	4133 - Aspen, Mixed Pine	High Density Sapling	9.9	25	1-50	
144	42220 - Natural Jack Pine	High Density Sapling	5.4	10		
145	6122 - Black Spruce	Low Density Pole	34.8	75	1-50	Mostly sub merchantable and very difficult to access. cored trees but unable to count such dense rings.
146	42200 - Natural White Pine	Low Density Log	4.0	60	1-50	
147	6122 - Black Spruce	Medium Density Pole	8.3	78	1-50	Looks to have had all merchantable wood cut out. Some fingers of advanced regeneration with younger regeneration in between. Lots of jack pine regeneration. Stand gets denser to the north with pockets of aspen mixed in.
148	6122 - Black Spruce	Medium Density Pole	14.6	78	1-50	
149	6122 - Black Spruce	High Density Pole	52.0	86		Long strip along the Fox River. Fox river buffer eliminates cutting in this stand.
150	6121 - Tamarack	Medium Density	47.6	53		Must have high water table all small submerchantable trees that look like young trees but are around 50 years old.
151	42220 - Natural Jack Pine	High Density Pole	5.2	53	51-80	

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 110
Year of Entry: 2013

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
152	6139 - Mixed Lowland Forest	High Density Pole	6.3	20	1-50	
153	6122 - Black Spruce	Medium Density	76.7	10	1-50	Recently cut, Flipflops dominant densities between jack pine and black spruce.
154	6126 - Lowland Jack Pine	High Density Pole	3.7	72		
155	6122 - Black Spruce	High Density Pole	5.0	78	1-50	
156	42320 - Upland Spruce	High Density Pole	6.9	50	51-80	
157	42290 - Natural Mixed Pine	High Density Pole	2.2	57	51-80	
158	42210 - Natural Red Pine	High Density Log	55.2	73	51-80	
160	6122 - Black Spruce	High Density Pole	9.8	49	51-80	
161	42220 - Natural Jack Pine	High Density Sapling	13.5	10		Red pine superstory.
163	6122 - Black Spruce	High Density Pole	3.9	76	1-50	
164	6120 - Lowland Cedar	High Density Pole	294.4	123	111-140	Great regeneration on east side and in openings. Cedar: 90 110 80 80 190 130 170 BFir: 10 10 10 Spruce: 10 30 10
166	6122 - Black Spruce	Low Density Sapling	22.7	75		
167	6121 - Tamarack	High Density Pole	5.3	33		South end transitions to higher ground with fir and white pine. Too small to map out separate.
168	4130 - Aspen	High Density Sapling	1.4	10		
169	42210 - Natural Red Pine	High Density Log	6.9	91	51-80	
170	6128 - Lowland Coniferous, Mixed Deciduous	High Density Sapling	20.1	43	1-50	
171	6121 - Tamarack	High Density Pole	12.5	48		

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 110
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
172	6122 - Black Spruce	Low Density Sapling	8.0	17		
173	42220 - Natural Jack Pine	High Density Pole	4.3	68	51-80	Bleed over from next compartment where stand is under contract.
175	6122 - Black Spruce	High Density Pole	71.2	68	81-110	Trees are not growing, Varying size classes and heights some are 5 sticks tall. If 140 is going to be cut they will need to go through this stand.
176	6123 - Lowland Fir	Low Density Pole	37.5	65	1-50	Tag alder site that appears to be converting to fir and aspen.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
7	6224 - Treed Bog	0.7	No	Unspecified	
10	6224 - Treed Bog	2.2	No	Unspecified	
12	3102 - Grass	2.3	Yes	Low (NonForested)	
18	3102 - Grass	1.8	Yes	Low (NonForested)	
20	3102 - Grass	1.9	Yes	Low (NonForested)	
21	3102 - Grass	1.9	Yes	Low (NonForested)	
24	3102 - Grass	42.3	Yes	Low (NonForested)	
28	3102 - Grass	3.3	Yes	Low (NonForested)	
35	3102 - Grass	1.9	Yes	Low (NonForested)	
37	3102 - Grass	2.6	Yes	Low (NonForested)	
38	3102 - Grass	1.8	Yes	Low (NonForested)	
42	3102 - Grass	1.0	Yes	Low (NonForested)	
45	3102 - Grass	0.7	Yes	Low (NonForested)	
46	3102 - Grass	1.1	Yes	Low (NonForested)	
49	3102 - Grass	1.4	Yes	Low (NonForested)	
52	3102 - Grass	8.4	Yes	Low (NonForested)	
64	50 - Water	1.1	No	Unspecified	
74	50 - Water	4.2	No	Unspecified	Snow and ice covered pond.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
77	3102 - Grass	166.8	Yes	Low (NonForested)	lots of small aspen islands less then 1 acre so can not be typed out.
80	50 - Water	2.2	N/A	Unspecified	Snow and ice covered pond.
87	3102 - Grass	1.0	Yes	Low (NonForested)	
98	3102 - Grass	7.4	Yes	Low (NonForested)	
103	3102 - Grass	1.3	No	Unspecified	
105	6229 - Mixed lowland shrub	6.5	Yes	Low (NonForested)	Small white pine and black spruce
106	3301 - Low Density Deciduous Tree	1.6	Yes	Low (NonForested)	
110	6229 - Mixed lowland shrub	5.4	No	Unspecified	
113	3102 - Grass	3.6	Yes	Low (NonForested)	
118	3102 - Grass	4.7	Yes	Low (NonForested)	
124	6229 - Mixed lowland shrub	18.3	No	Unspecified	
131	3102 - Grass	1.0	No	Unspecified	
134	710 - Sand, Soil	3.3	Yes	Low (NonForested)	
136	3302 - Low Density Conifer Trees	39.0	No	Unspecified	
137	3303 - Mixed Low Density Trees	4.2	Yes	Low (NonForested)	
159	6239 - Mixed Emergent Wetland	90.1	No	Unspecified	
162	6229 - Mixed lowland shrub	1.9	No	Unspecified	
165	710 - Sand, Soil	1.1	No	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
174	6229 - Mixed lowland shrub	105.7	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.

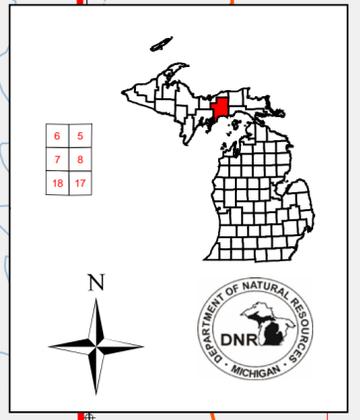
ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

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	Mineral Resource Area	Areas that are primarily managed for mineral resource extraction, on a permanent or temporary basis. They include both metallic and non-metallic mineral mines as well as oil and natural gas sites.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.

Cover Type & Treatment Map

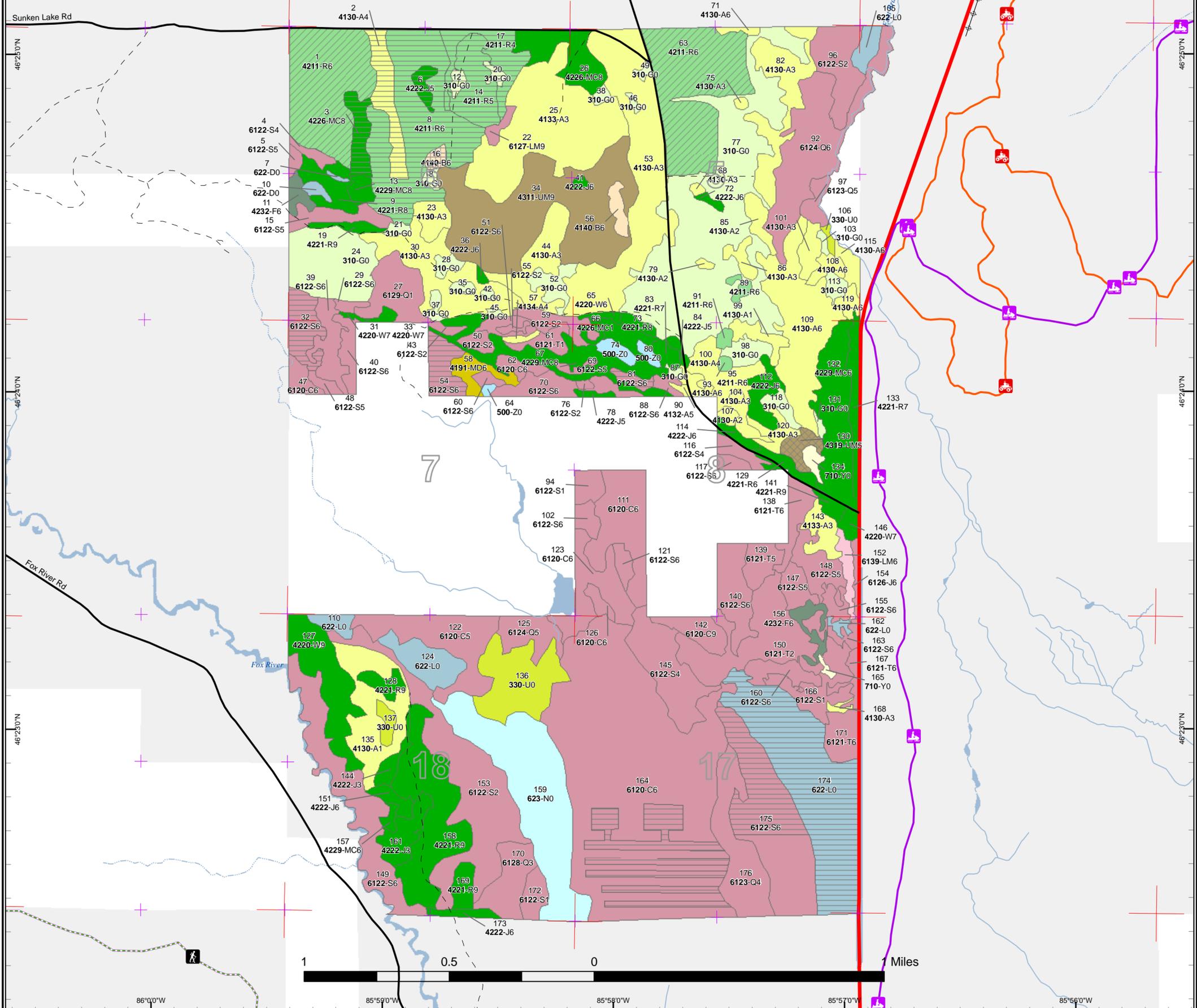
Compartment 110
 T46N, R13W, Sec. 5-8,17,18
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 3,007 GIS Calculated
 Stand Examiner: Mario Molin
 Map Revised: 9/15/2011
 Map Phase: Pre-Review

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



Legend

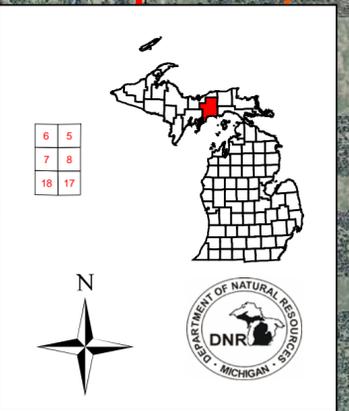
<ul style="list-style-type: none"> — Miris Corners ⊕ Remonumented Section Corners □ State Highway — Highway — Paved Roads — Poor Dirt Roads ⚡ Hiking Trails 🛵 ORV Trails 🛷 Snowmobile Trails ⋯ Hiking Trail — ORV Trail — Snowmobile Trail — Intermittent Stream/Drain — Stream 🌊 Lakes and Rivers ■ State Forest Land 	<p>Treatments</p> <ul style="list-style-type: none"> ▭ Clearcut (w/Reserves, Patch/Strip) ▭ Seed Tree (w/Reserves) ▭ Thinning (Crown, Low, Systematic) ▭ Selection (Group, Single Tree) 	<p>Forest Stands</p> <p>Level 3</p> <ul style="list-style-type: none"> 413 - Aspen Types 414 - Other Upland Deciduous 419 - Mixed Upland Deciduous 421 - Planted Pines 422 - Natural Pines 423 - Other Upland Conifers 431 - Upland Mixed Forest 612 - Lowland Coniferous Forest 613 - Lowland Mixed Forest 	<p>Non-Forest Stands</p> <p>Level 3</p> <ul style="list-style-type: none"> 310 - Herbaceous Openland 330 - Low-Density Trees 500 - Water 622 - Lowland Shrub 623 - Emergent Wetland 710 - Sand, Soil
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Stand Boundary Map

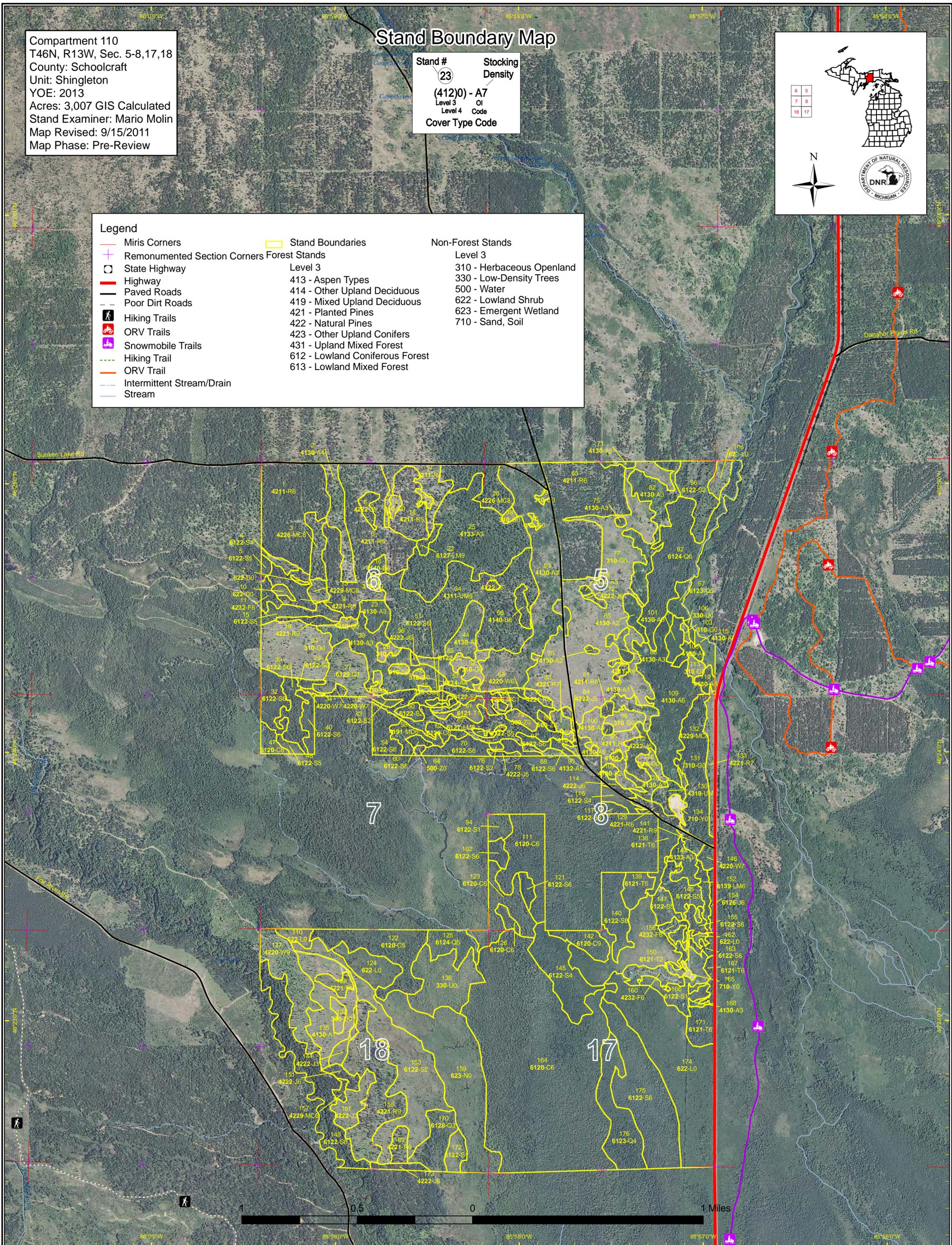
Compartment 110
 T46N, R13W, Sec. 5-8,17,18
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 3,007 GIS Calculated
 Stand Examiner: Mario Molin
 Map Revised: 9/15/2011
 Map Phase: Pre-Review

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



Legend

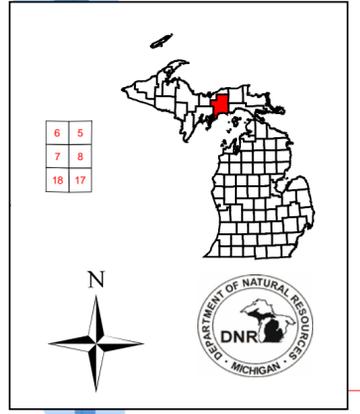
<ul style="list-style-type: none"> Miris Corners Remonumented Section Corners State Highway Highway Paved Roads Poor Dirt Roads Hiking Trails ORV Trails Snowmobile Trails Hiking Trail ORV Trail Intermittent Stream/Drain Stream 	<ul style="list-style-type: none"> Stand Boundaries <p>Forest Stands</p> <p>Level 3</p> <ul style="list-style-type: none"> 413 - Aspen Types 414 - Other Upland Deciduous 419 - Mixed Upland Deciduous 421 - Planted Pines 422 - Natural Pines 423 - Other Upland Conifers 431 - Upland Mixed Forest 612 - Lowland Coniferous Forest 613 - Lowland Mixed Forest 	<p>Non-Forest Stands</p> <p>Level 3</p> <ul style="list-style-type: none"> 310 - Herbaceous Openland 330 - Low-Density Trees 500 - Water 622 - Lowland Shrub 623 - Emergent Wetland 710 - Sand, Soil
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Compartment 110
 T46N, R13W, Sec. 5-8,17,18
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 3,007 GIS Calculated
 Stand Examiner: Mario Molin
 Map Revised: 9/15/2011
 Map Phase: Pre-Review

Dedicated & Proposed Special Conservation Area Map

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



Legend

— Miris Corners	Forest Stands	Non-Forest Stands
+ Remonumented Section Corners	Level 3	Level 3
▭ Stand Boundaries	413 - Aspen Types	310 - Herbaceous Openland
▨ Proposed Special Conservation Areas	414 - Other Upland Deciduous	330 - Low-Density Trees
▨ SCA - Special Conservation Area	419 - Mixed Upland Deciduous	500 - Water
▨ SCA Removal	421 - Planted Pines	622 - Lowland Shrub
Dedicated Special Conservation Areas	422 - Natural Pines	623 - Emergent Wetland
— Cold Water Streams	423 - Other Upland Conifers	710 - Sand, Soil
— Natural Rivers Zoning District	431 - Upland Mixed Forest	
— Natural Rivers Vegetative Buffer	612 - Lowland Coniferous Forest	
	613 - Lowland Mixed Forest	

