



**Shingleton Forest Management Unit
Compartment Review Presentation
Compartment #5 Entry Year: 2013
Compartment Acreage: 1672 County: Schoolcraft**

Revision Date: 8/22/2011

Stand Examiner: Jennifer Burnham

Legal Description: T45N R13W Sections 21 - 24

RMU (if applicable): N/A

Management Goals: To maintain a healthy; sustainable forest with special consideration to wildlife habitat, fisheries habitat, and recreational needs.

Soil and Topography: Newton sand and Wallace sand in the marsh/ridge areas. Blue Lake fine sand in the NE corner of Section 24. Terrain is generally flat to slightly rolling.

Ownership Patterns, Development, and Land Use in and Around the Compartment: There are four different private properties within the compartment. Their use is recreational/camp in nature. There is little development in the compartment. The Seney National Wildlife Refuge is adjacent to the west and Luce County is to the east

Unique, Natural Features: The compartment is divided several times by the Fox River which is listed as a Natural and Scenic River; Holland Creek and the Holland Ditch, which was dug to drain land to the north.

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: The Fox River runs through the compartment and has a natural river designation.

Watershed and Fisheries Considerations: Good. Waters in this compartment are all warm water, but the Fox during colder seasons does provide some quality trout fishing. In addition, the Spreads, or what used to be the spreads and is now well channelized, is still an area just upstream that local anglers target for trout. Some trout are also present within this compartment at all seasons. Although this stretch of the Fox River and both Holland Creek and Holland Ditch are all classified Second Quality Warm Water (SQWW), protection from sand erosion should be high priority. Sand entering the system here will take possibly several hundred years to migrate downstream and out into Lake Michigan. The Manistique River is so inundated with sand now that we should be trying to limit ALL new sources of erosion within this watershed. Eventually, the sand that is already in the river will move on through with help from spring floods.

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 F. Annual snowfall in this area averages between 120 and 140 inches. General Land Office (GLO) Surveyor notes show the hardwoods within the northeast corner of this compartment contained sugar maple, beech, hemlock, elm, and basswood. The lowland forests contained cedar, white birch, hemlock, and black spruce. The upland knobs within these areas likely contained hemlock, white pine, white birch, and red pine. Windthrow, fire and beaver ponds along the Fox River were likely the major source of

natural disturbance. Red pine and jack pine are the current dominant species on the knobs within the swamp complex. However, the remainder of the compartment is likely similar in species composition to the pre-settlement forests. The Holland ditch is a man-made water course on the western side of the compartment which likely has lowered the water table facilitating the jack pine in that area. Wildlife habitat objectives include maintaining diversity within the hardwood stands, protecting the Fox River corridor, and maintaining age and structural diversity between conifer stands. Although wolves and moose are assumed to utilize this area, there are no known occurrences of endangered, threatened, or special concern species within the compartment. Wood turtle might also be found associated with the Fox River and Holland Ditch. Other species of interest include great blue heron, black-backed woodpecker, water shrew, and mink.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel and peat and muck. Much of the State land appears to be wetlands. There is up to 70 feet of local relief in the compartment. There is insufficient data to determine the glacial drift thickness. The Silurian Manitoulin Dolomite and Ordovician Queenston Shale, Big Hill Dolomite and Stonington Formation subcrop below the glacial drift. Some of these rocks could be used for stone. Sandpits are located throughout this area and gravel potential appears to be limited. There is no commercial oil and gas production in the UP.

Vehicle Access: There are 3 main ways to access the compartment. East side access is from the Old Seney Road. The north and west sides are accessible through private.

Survey Needs: Surveying in this area is difficult because of the lack of corners to work from. Complete survey would be cost prohibitive.

Recreational Facilities and Opportunities: The Old Seney Road is a snowmobile trail in the winter time. Other main recreational uses would be hunters and people fishing the Fox River. Recreational vehicle access is restricted from the north and could easily be restricted from the west.

Fire Protection: Compartment does contain lots of acres of pine which can be a fire hazard, but the area is wet or snow-covered a large amount of the year.

Additional Compartment Information: No comment.

➤ **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**



	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	0	73	0	0	0	0	0	0	0	0	0	0	0	73
Cedar	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	30
Jack Pine	0	0	34	13	16	0	99	0	16	0	0	0	0	0	0	178
Lowland Conifers	0	28	102	0	0	0	31	0	0	0	215	0	0	0	0	376
Lowland Deciduous	0	0	12	0	0	0	0	0	0	23	0	0	0	0	0	35
Lowland Mixed Forest	0	22	0	0	17	0	56	0	0	13	152	0	0	0	0	260
Lowland Shrub	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	28
Natural Mixed Pines	0	0	0	0	0	0	7	0	0	13	0	0	0	0	0	20
Northern Hardwood	0	0	0	0	0	0	0	0	13	46	0	0	0	0	123	182
Red Pine	0	0	0	0	0	0	0	0	13	0	6	151	0	0	0	170
Tamarack	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
Treed Bog	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Upland Conifers	0	0	0	0	0	0	0	20	6	0	0	0	0	0	0	26
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12
Upland Spruce/Fir	0	0	8	0	0	0	0	5	0	0	0	0	0	0	0	13
Urban	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	243	51	155	86	33	0	193	25	56	107	449	151	0	0	123	1672



Table 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit
Year of Entry 2013

Compartment 005
Total Compartment Acres: 1672

Acres by Treatment Type

Commercial Harvest - 185	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Jack Pine	16	0	0	0	0	0	0	16
Lowland Spruce/Fir	4	0	0	0	0	0	0	4
Natural Mixed Pines	13	0	0	0	0	0	0	13
Northern Hardwood	0	17	0	0	0	0	0	17
Red Pine	0	0	0	129	0	0	0	129
Tamarack	7	0	0	0	0	0	0	7
Total	40	17	0	129	0	0	0	185



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	41005001-Cut	6.1	42220 - Natural Jack Pine	Medium Density Pole	71	Harvest	Clearcut	42221 - Natural Jack Pine, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all species except white pine. If needed, some of these pine could be marked for removal. There is less than 15 BA of WP. 1/2 of the stand will have to be accessed from the other side of the ditch. Place cut line on the bottom of the ditch spoils not the top. Small acreage WLD and FMD agree no retention is needed.</p> <p><u>Specs:</u></p> <p><u>Other</u> Access maybe difficult because of M-77 and the ditch. Stand 6 was recently cut and when setting up Stand 1 check to make sure green up guidelines will be met.</p> <p><u>Comments:</u></p> <p><u>Next</u> natural regeneration is expected, however scarification or other means for jack pine regeneration should occur if necessary. Jack pine with the current mix of species are acceptable.</p> <p><u>Steps:</u></p>									
7	41005007-Cut	7.1	6121 - Tamarack	High Density Pole	71	Harvest	Clearcut	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all species, place cut line on the bottom of the ditch spoils not the top. There are some scattered red maple and aspen with in the stand. Small acreage WLD and FMD agree on no retention.</p> <p><u>Specs:</u></p> <p><u>Other</u> Access maybe difficult because of M-77. Stand 6 was recently cut - check for green up issues before setting up sale.</p> <p><u>Comments:</u></p> <p><u>Next</u> Stand should come back naturally, if there are regeneration issues planting, trenching or other artificial means maybe needed. Jack pine with the mix of current species are acceptable.</p> <p><u>Steps:</u></p>									
8	41005008-Cut	10.0	6126 - Lowland Jack Pine	Medium Density Pole	71	Harvest	Clearcut with Reserves	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> Cut all species except white and red pine. If needed, some of these pine could be marked for removal. There is less than 15 BA of WP and RP. 1/2 of the stand will have to be accessed from the other side of the ditch. Cut line needs to be on the bottom of the ditch spoils and not the top.</p> <p><u>Specs:</u></p> <p><u>Other</u> Access maybe difficult because of M-77 and the ditch. Stand 6 was recently cut and when setting up Stand 1 check to make sure green up guidelines will be met.</p> <p><u>Comments:</u></p> <p><u>Next</u> Natural regeneration is expected, however scarification or other means for jack pine regeneration should occur if necessary. Jack pine with current mix of species are acceptable.</p> <p><u>Steps:</u></p>									
37	41005037-Cut	27.8	42210 - Natural Red Pine	Medium Density Log	100	Harvest	Shelter Wood with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Leave about 30 BA of red pine with some white pine mixed in. Some of the trees marked could be in patches or scattered through out the stand. BA should not go above 50 because it significantly hinders natural regeneration. Cutting on bare ground will increase the chances of natural regeneration.</p> <p><u>Specs:</u></p> <p><u>Other</u> There maybe areas where the residual already meets objectives- these areas may or may not be marked through again depending on how much regeneration has come up from the previous cutting. Some areas may be void of any trees because of low spots where tag alder persists.</p> <p><u>Comments:</u></p> <p><u>Next</u> Natural regeneration is expected - especially from what can be seen in the surrounding past cuts. If necessary follow up with scarification, planting and/or trenching for regeneration of red pine and other current species mix.</p> <p><u>Steps:</u></p>									
40	41005040-Cut	12.7	6127 - Lowland Pine	High Density Pole	85	Harvest	Clearcut with Reserves	6127 - Lowland Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Remove all species except pine and mark pine when necessary</p> <p><u>Specs:</u></p> <p><u>Other</u> Private line will need a survey -- some of the acreage could be reduced because of this.</p> <p><u>Comments:</u></p> <p><u>Next</u> Natural regeneration is expected for species that are currently present. If necessary scarify/trench/plant to get these spp back.</p> <p><u>Steps:</u></p>									

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
45 41005045-Cut	100.8	42210 - Natural Red Pine	High Density Pole	101	Harvest	Shelter Wood with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Remove all species leaving about 30 BA of red pine with some white pine mixed in. Some of the trees marked could be in patches or scattered through out the stand. BA should not go above 50 because it significantly hinders natural regeneration. Cutting on bare ground will increase the chances for natural regeneration.

Other Some areas may be void of any trees because of low spots where tag alder persists.

Comments:

Next Natural regeneration is expected - especially from what can be seen in the surrounding past cuts. If necessary follow up with scarification, planting and/or trenching for regeneration of red pine and other current species mix..

64 41005064-Cut	16.8	4119 - Mixed Northern Hardwoods	High Density Pole	86	Harvest	Group Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal
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Prescription Mark to promote regeneration. Residual BA should hit around 70.

Specs:

Other Not sure on the PVT line. Access can be gained through state lands.

Comments:

Next regeneration of current species is anticipated

Steps:

**Total Treatment
Acreage Proposed: 181.2**

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
43 41005043-Cut	4.2	6122 - Black Spruce	Medium Density Pole	98	Harvest	Clearcut with Reserves	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal

Prescription Remove all species, leave white pine that will probably not blow down.

Specs:

Other Comment: This stand may decrease greatly in size depending on the completed survey.

Next Steps:

Natural regeneration is expected of currently species is expected.

Limiting Factor and No Treatment Reason

2H: Survey needed

**Total Treatment
Acreage Proposed: 4.2**

**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						

Stand	Shingleton Mgt. Unit		5 – Forested Stands			Compartment: 005	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2013	
1	42220 - Natural Jack Pine	Medium Density Pole	6.1	71	81-110		
3	4110 - Sugar Maple Association	Medium Density Pole	13.5	71	51-80		
4	42390 - Mixed Non-Pine Upland Conifers	High Density Pole	6.2	70	81-110	9/28 tam 7-8'dbh, 1/5 wp 12dbh, 1/3jp 7dbh. Tam in undevstovy some sp/bf/cherry/same age that std3was. 8/20jp10dbh-fairly,healthy,3/16 tam-12dbh healthy Heavy tag alder understory.	
6	6124 - Lowland Spruce-Fir	Low Density Sapling	12.0	4			
7	6121 - Tamarack	High Density Pole	7.1	71	51-80		
8	6126 - Lowland Jack Pine	Medium Density Pole	10.0	71	51-80		
10	42320 - Upland Spruce	Medium Density Pole	5.3	68	51-80		
11	42260 - Natural Pine, Mixed Deciduous	High Density Pole	7.3	51	51-80	good regeneration of aspen, red pine, white pine with some fir and spruce. Red pine mainly in the more open areas. Treat when regen is ready for treatment.	
12	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	17.3	93		very wet ground. regeneration came back from cutting but slow b/c of high water table	
14	6130 - Fir, Aspen, Maple	Low Density Sapling	7.3	4			
15	429 - Mixed Upland Conifers	High Density Pole	19.6	64	81-110	treat b/c of age and BA - good mix of spp and will be able to regenerate this stand.	
16	6125 - Lowland Black Spruce, Jack Pine	Medium Density Pole	12.7	51	1-50		
18	42220 - Natural Jack Pine	High Density Pole	19.8	51	81-110		
20	6125 - Lowland Black Spruce, Jack Pine	High Density Pole	18.3	56	51-80		
21	6124 - Lowland Spruce-Fir	Medium Density Pole	22.8	92		same spp composition as pre std 24, however the water table is higher and the tree are not growing as fast and have more open areas in the canopy.	
22	6125 - Lowland Black Spruce, Jack Pine	Low Density Sapling	16.4	4			
23	6132 - Mixed Lowland Forest with Cedar	High Density Sapling	17.1	31		nice healthy regeneration	



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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 005
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	42220 - Natural Jack Pine	High Density Pole	16.0	37	51-80	
25	42220 - Natural Jack Pine	High Density Pole	78.7	56	81-110	would like to hold off on this to gain more diameter. Stand is healthy.
26	6122 - Black Spruce	Medium Density Pole	14.5	92	1-50	edges of stand are growing spruce but there are interior areas that are more treed bog like.
27	42210 - Natural Red Pine	Medium Density Pole	5.9	98	1-50	regen looks really good. Nice stand
28	6120 - Lowland Cedar	High Density Pole	10.3	98		nice stand
29	42220 - Natural Jack Pine	High Density Sapling	13.3	20		
30	42220 - Natural Jack Pine	High Density Sapling	33.8	14	1-50	
31	42320 - Upland Spruce	Medium Density	8.1	17		
33	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	27.8	98		buffer for the Holland Creek
35	42210 - Natural Red Pine	Low Density Pole	13.0	76	1-50	Stand cut winter of 2011. Will need regen check later on.
36	6120 - Lowland Cedar	High Density Pole	19.7	98		nice stand
37	42210 - Natural Red Pine	Medium Density Log	46.9	100	51-80	the west side of the stand where the BA is higher should be treated again to allow for better regeneration.
38	6127 - Lowland Pine	High Density Sapling	80.9	12		great regeneration off all spp.
40	42290 - Natural Mixed Pine	High Density Pole	12.7	85	81-110	
41	6127 - Lowland Pine	High Density Sapling	20.8	12		nice regeneration. stand could actually be combined with pre stand 34 maybe be slightly lower in elevation allowing for more spruce and less white pine regen.
43	6122 - Black Spruce	Medium Density Pole	4.2	98	1-50	S5 higher water table not allowing for good growth on the trees. falls off the red pine ridge from adjacent stand. aspen and white pine are found along the edges and a couple small knobs in the stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	42210 - Natural Red Pine	High Density Log	103.8	101	81-110	there are scattered black spruce mostly non- merchantable. Red and white pine thick with large diameter. needs to be opened up for regeneration. there are more areas of low ground that contain little or no pine that will not be a part of the treatment acreage. Treat with stands to the south in compartment 6
47	6139 - Mixed Lowland Forest	High Density Pole	151.7	98		
48	6139 - Mixed Lowland Forest	High Density Pole	28.9	50	51-80	Stand is still small diameter and gaining growth slowly. The spp remain the same through out the stand but has more aspen in some places and spruce in others. Maybe treat in 20 years. Ground is very wet and would only be possible with a winter cut.
50	6132 - Mixed Lowland Forest with Cedar	Medium Density Pole	26.9	50	51-80	very poor quality cedar, what they left from last cutting. the other spp have better quality. very wet soil.
52	4319 - Mixed Upland Forest	High Density Log	12.1	86		
53	4112 - Maple, Beech, Cherry Association	High Density Pole	29.0	86	111-140	100' set back from the Fox River
54	6118 - Lowland Deciduous with Cedar	Medium Density Pole	23.3	83	81-110	
55	6132 - Mixed Lowland Forest with Cedar	Medium Density	13.2	83		
56	6139 - Mixed Lowland Forest	Low Density Sapling	15.2	9		
57	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	175.0	95	111-140	Consider harvesting parts of this stand to help create age class diversity because of its large acreage.
58	4130 - Aspen	Medium Density Pole	44.1	27		
59	4110 - Sugar Maple Association	Medium Density Pole	118.3	Uneven Age	51-80	
60	4139 - Aspen, Mixed Deciduous	High Density Sapling	24.9	27		
61	4110 - Sugar Maple Association	High Density Pole	5.0	Uneven Age	51-80	
62	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	11.8	13		
63	4139 - Aspen, Mixed Deciduous	High Density Sapling	3.5	27		

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 005
Year of Entry: 2013



S t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
64	4119 - Mixed Northern Hardwoods	High Density Pole	16.8	86	81-110	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	122 - Road/Parking Lot	2.9	No	Unspecified	
5	6220 - Alder/willow	3.8	No	Unspecified	
9	6223 - Inundated Shrub Swamp	165.0	No	Unspecified	might need to add new std. just N of std 2. 9/22bc very poor quality.Tag alder heavy almost inOS.couple elm 10in 50/75-cover .30-90.BA old cut records 43'tam out 60'BS cut out this.what was.left.
13	6224 - Treed Bog	5.4	No	Unspecified	
17	122 - Road/Parking Lot	1.2	No	Unspecified	
19	6220 - Alder/willow	17.8	No	Unspecified	
32	6229 - Mixed lowland shrub	5.9	No	Unspecified	
34	6229 - Mixed lowland shrub	2.0	No	Unspecified	
39	6229 - Mixed lowland shrub	1.5	No	Unspecified	
42	6229 - Mixed lowland shrub	10.3	No	Low (NonForested)	
44	6229 - Mixed lowland shrub	2.2	No	Low (NonForested)	
46	6229 - Mixed lowland shrub	11.8	No	Low (NonForested)	
49	6224 - Treed Bog	4.9	No	Low (NonForested)	
51	6224 - Treed Bog	8.3	No	Low (NonForested)	

**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
multiple - see	Unique Site - SCA	41005_SCA	151.7	SCA for stand condition 8 is no longer needed, as the stand is covered with the Fox River HCVA



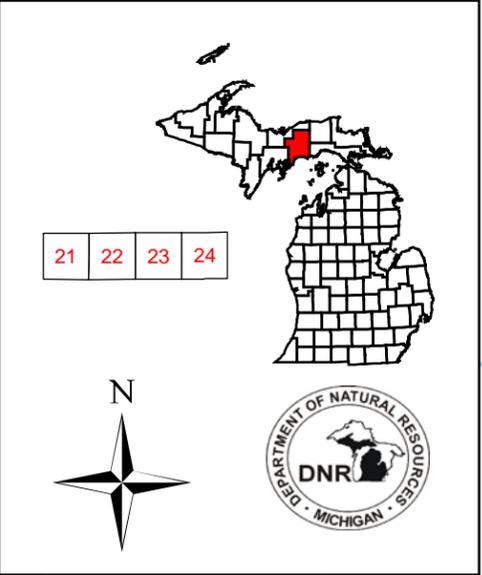
8 – DEDICATED CONSERVATION AREA DETAILS

* 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	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.
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.

Compartment 5
 T45N, R13W, Sec. 21-24
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 1,672 GIS Calculated
 Stand Examiner: Jennifer Burnham
 Map Revised: 9/14/2011
 Map Phase: Pre-Review



Cover Type & Treatment Map

Legend

- Miris Corners
- Remonumented Section Corners
- State Highway
- Highway
- Poor Dirt Roads
- Closed Roads
- Snowmobile Trails
- Snowmobile Trail
- Power
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- State Forest Land

Treatments

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

Forest Stands

Level 3

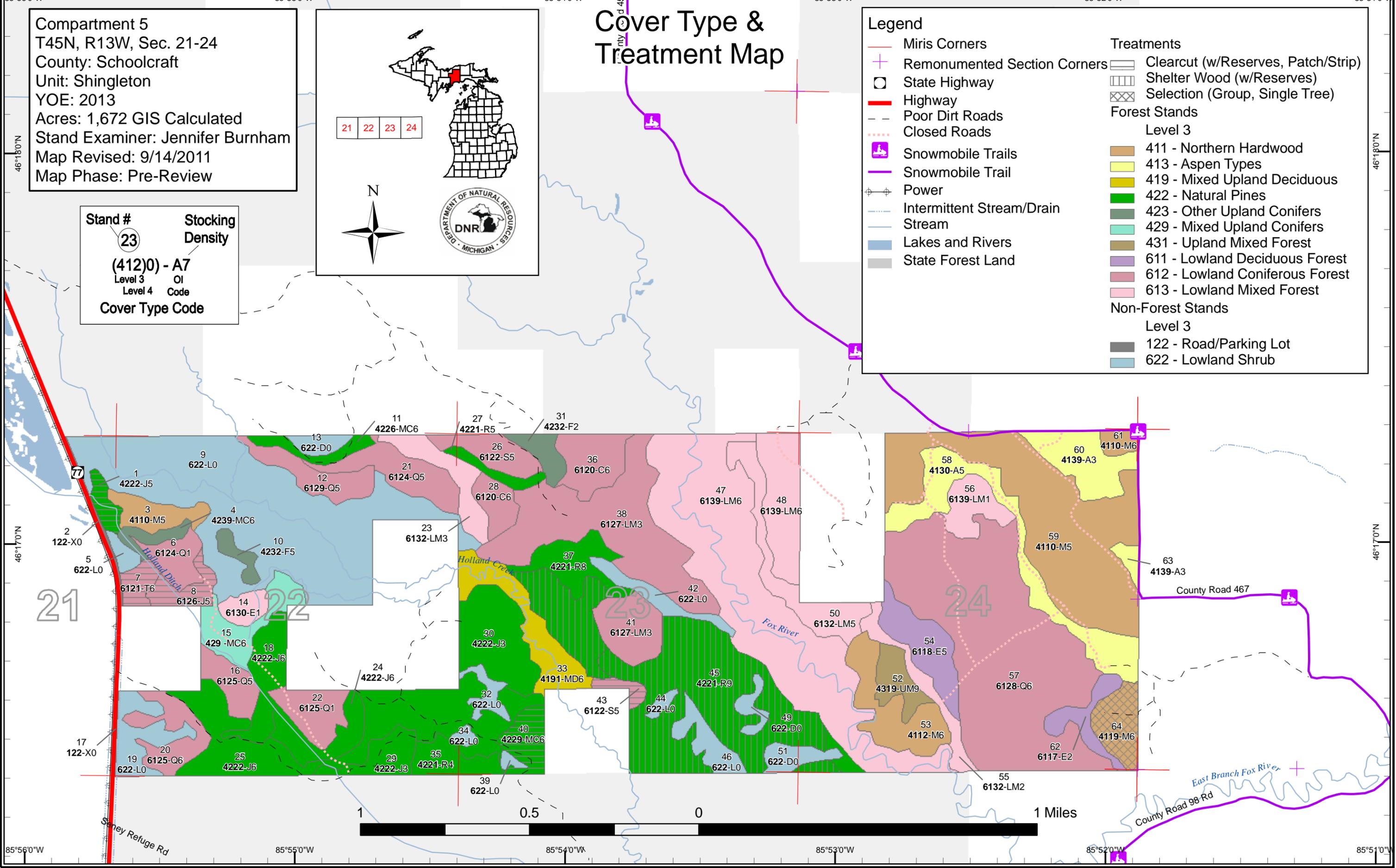
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

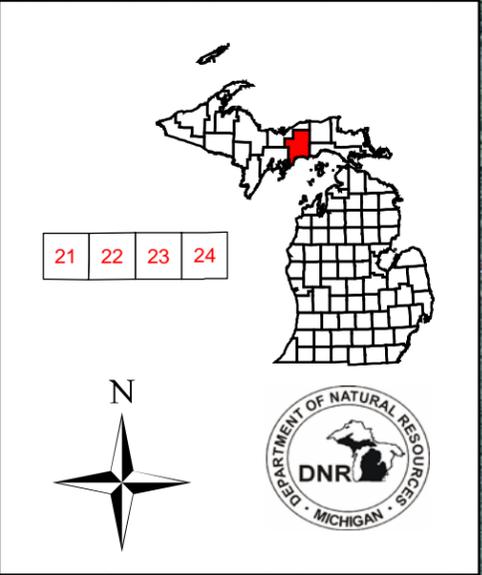
Level 3

- 122 - Road/Parking Lot
- 622 - Lowland Shrub

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



Compartment 5
 T45N, R13W, Sec. 21-24
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 1,672 GIS Calculated
 Stand Examiner: Jennifer Burnham
 Map Revised: 9/14/2011
 Map Phase: Pre-Review

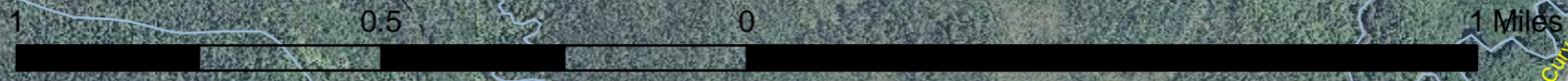
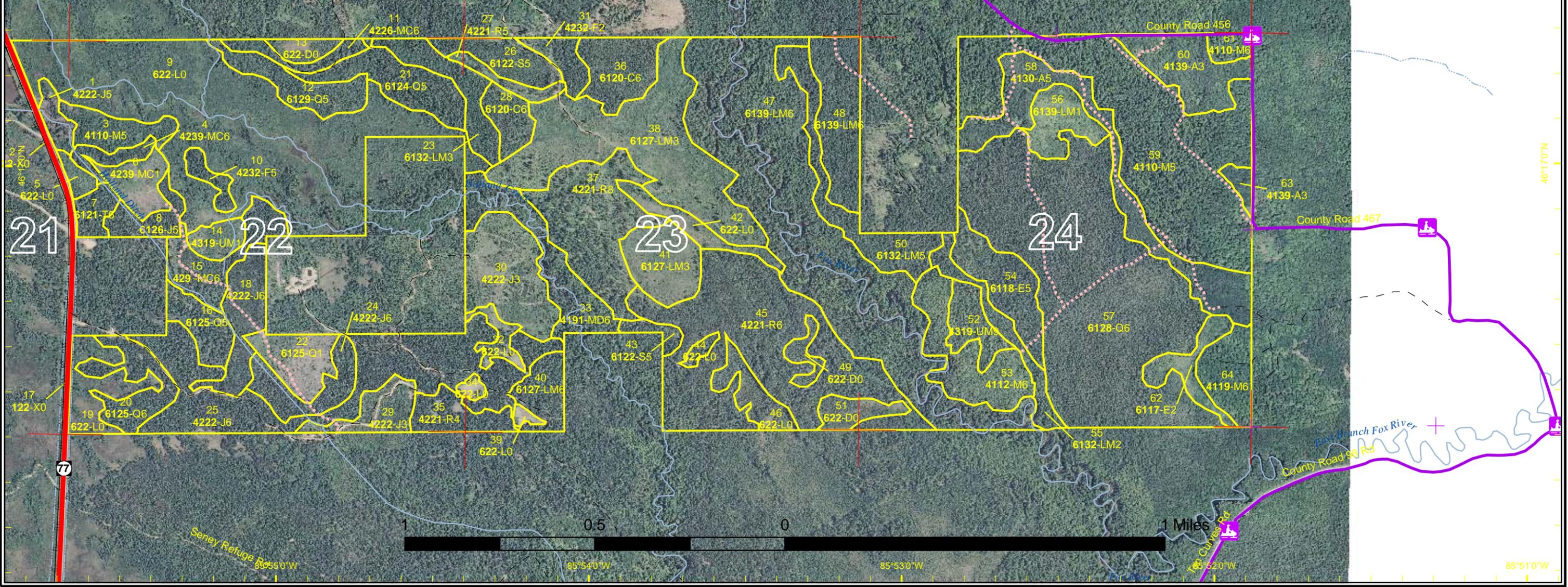


Stand Boundary Map

Legend

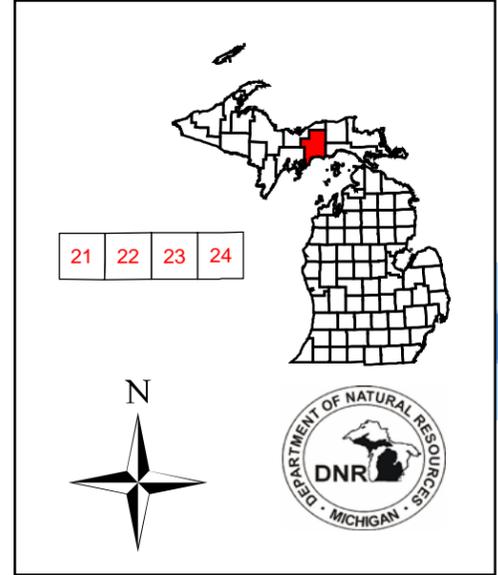
- Miris Corners
- + Remonumented Section Corners
- State Highway
- Highway
- - - Poor Dirt Roads
- ⋯ Closed Roads
- 🛷 Snowmobile Trails
- Snowmobile Trail
- Intermittent Stream/Drain
- Stream
- ▭ Stand Boundaries
- Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- Non-Forest Stands
- Level 3
- 122 - Road/Parking Lot
- 622 - Lowland Shrub

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



85°56'0"W 85°55'0"W 85°54'0"W 85°53'0"W 85°52'0"W

Compartment 5
 T45N, R13W, Sec. 21-24
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 1,672 GIS Calculated
 Stand Examiner: Jennifer Burnham
 Map Revised: 9/14/2011
 Map Phase: Pre-Review



Dedicated & Proposed Special Conservation Area Map

Legend

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- ▨ Proposed Special Conservation Areas
- ▤ SCA - Special Conservation Area
- ▥ SCA Removal
- Natural Rivers Zoning District
- Natural Rivers Vegetative Buffer
- Deer Wintering Areas

Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

- 122 - Road/Parking Lot
- 622 - Lowland Shrub

Stand # **Stocking Density**

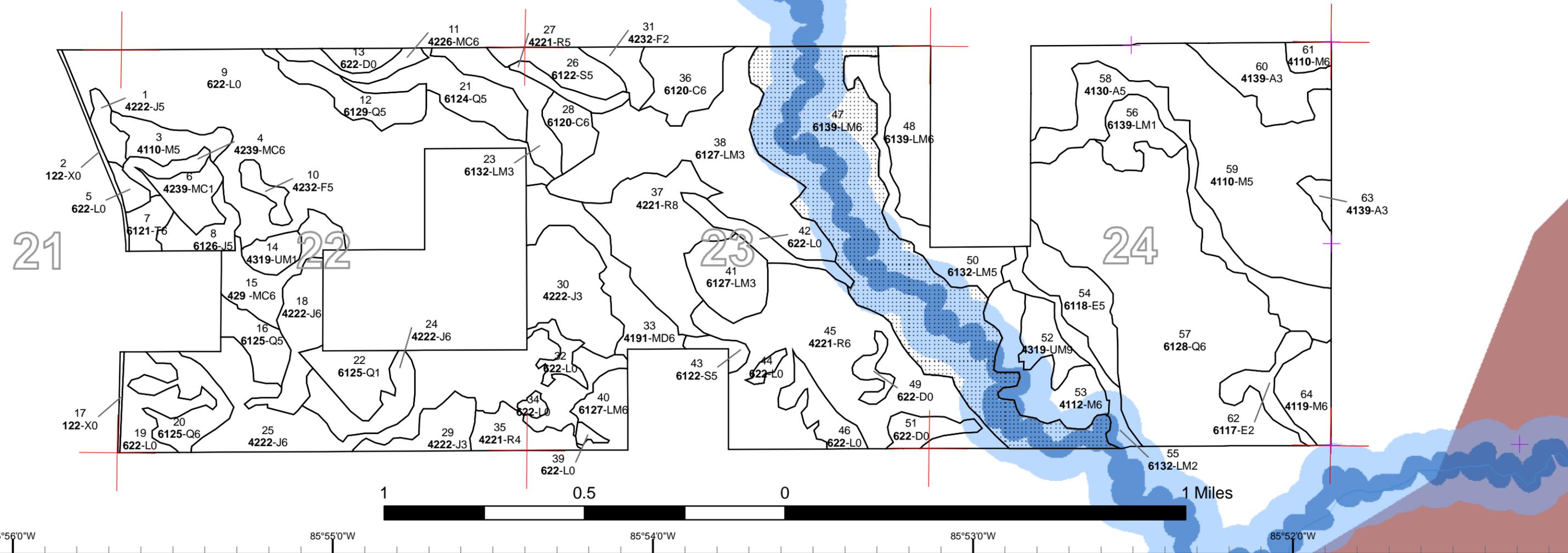
②③

(412)0 - A7

Level 3 OI

Level 4 Code

Cover Type Code



85°56'0"W 85°55'0"W 85°54'0"W 85°53'0"W 85°52'0"W

46°18'0"N

46°18'0"N

46°17'0"N

46°17'0"N