



## Shingleton Forest Management Unit Compartment Review Presentation

**Compartment #157**

**Entry Year: 2014**

**Compartment Acreage: 2588**

**County: Schoolcraft**

**Revision Date:** August 15, 2012

**Stand Examiner:** Mario Molin

**Legal Description:** T. 46N, R16W, Sections 21,22,23,26,27,28

**RMU (if applicable):** This compartment lies within the Seney Manistique Swamp Management Area.

**Management Goals:** The main goal in this compartment is to conduct sound multiple resource management for the good of the citizens of the State of Michigan.

**Soil and Topography:** Land is mainly level with scattered sandy knolls/rises. Many lowland areas are interspersed between uplands.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** An 80 acre private parcel is located within the Southeast corner of the Compartment. Additional private holdings are situated adjacent to the Compartment to the Northeast and Southeast. The Compartment is surrounded mainly by a large block of state property. Intensive forest cutting in a northern hardwoods type has occurred in the recent past on the private property setting immediately to the Northeast.

**Unique, Natural Features (include only non-site specific and non-sensitive information):** The rare northern blue butterfly (*Lycaeides idas nabokovi*, state threatened) has been recently documented in the compartment. This species typically occurs in open sandy or rocky habitats, including patches within jack pine or spruce forests and along right-of-ways. It is often associated with its larval host plant, dwarf bilberry (*Vaccinium cespitosum*, state threatened), which has been reported southwest of the compartment. Adults are typically active from early June through mid July, at which time eggs are laid on or near the host plant. This species does not migrate. Instead, eggs overwinter and hatch the following spring.

**Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):** None known.

**Special Management Designations or Considerations:**

**Watershed and Fisheries Considerations:** Streams are classified from First Quality Cold Water (FQCW) down to Second Quality Warm Water (SQWW). In this area, the FQCW means an excellent trout fishery, one that is supplemented by a Fisheries Division annual stocking program. These waters are generally the famous ones, but also include somewhat smaller waters that are capable of supporting the fish population density necessary to provide a superior angling experience. SQCW implies a cold stream that supports a natural trout population, but is limited by either physical size or lack of spawning/foraging habitat. Its limitations mean that it will never support a heavy angling pressure and harvest, so Fisheries Division does not publicize the water. Local anglers, however, know what the streams support, and do fish them quite a bit. In-stream habitat is usually in the form of large woody debris, or downed trees. Fish need them because they provide protection from overhead predators and because they force water currents to scour holes under and around them. The holes provide more water volume in the stream, keeping it cooler, as well as giving the fish more volume to "hide" in. The woody structure also forces more eddy currents, breaking the "solid"

water flow so that fish can get out of the current to rest. First Quality Warm Waters, (FQWW) are large, productive waters capable of supporting a good fishery for either warm-water species or cool-water species. In the Upper Peninsula, the designation generally applies to walleye, pike, musky or smallmouth bass waters. SQWW means small, possibly stagnant, warm streams that produce little to no actual fishery. Although small, their warm temperatures and generally high nutrient levels imply generally a higher productivity than the more “fishable” streams. Their value is attained from the production of forage that migrates downstream into areas of either cold-water or warm-water sports fish populations. For that reason, they are NOT useless waters, and they should be protected somewhat for the aquatic invertebrate and fish forage that they produce. Beaver populations in these streams could be a benefit, as their dams will increase productivity as well as inhibit sand bedload migration. Fisheries Values Poor-to-Good. Creighton River is classified as SQCW. We once surveyed with a backpack shocker and a canoe from the power line downstream to M-28. The most memorable part of the trip was dragging a 17-ft aluminum canoe up and over a huge logjam. We did not capture a single trout during that trip, despite angler reports to the contrary.

**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 approximately 150 inches. The compartment falls within the Seney Manistique Swamp Management Area which highlights the following Featured Species: Moose, sharp-tailed grouse, snowshoe hare and white-tailed deer. This compartment lies within the marsh/low pine ridge complex. The land form has a general NNW to SSE slope with upland islands surrounded by marsh and lowland coniferous forests. General Land Office (GLO) Surveyor notes show the circa 1850 upland forest was dominated by a mixture of hemlock, white pine, yellow birch, and red maple. Balsam fir, beech, cedar and spruce were also recorded. Tamarack and black spruce were by far the dominant lowland forest species. However, cedar, white pine, hemlock, jack pine, white birch, and tag alder were also present. Windthrow, fire, flooding, and beaver ponding all likely played major roles in the natural disturbance regime. Surveyors mentioned beaver ponding activity during their work in the township. Current forests in this compartment are substantially different from the circa 1850 conditions. Jack pine is by far the dominant tree species within the compartment. Aspen is more prevalent than before. Northern hardwood stands contain more deciduous and less hemlock/white pine component than during pre-settlement times. Spruce and tamarack are still the primary tree species in the lowland areas. Wildlife habitat objectives in this compartment include maintaining age and structural diversity between conifer stands, maintaining wildlife travel corridors across the landscape, promoting within stand diversity in the northern hardwood areas, and protection the integrity of the sheet flow of water across the compartment. Moose (Michigan special concern), and the northern blue butterfly (Michigan threatened) occur within this compartment. Other wildlife species of interest that may utilize this compartment include spring peepers, leopard frogs, great blue heron, northern harrier, red squirrel, and bobcat.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel and peat and muck. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River Group subcrops below the glacial drift. The Black River is used for stone/dolomite in the UP. Gravel pits are located three miles to the west and potential appears to be limited. There is no commercial oil and gas production in the UP.

**Vehicle Access:** Two primary 2-tracks provide access to the interior of the Compartment, West of the Creighton county road. Both are relatively drivable, though they also flood seasonally. One of the 2-tracks follows the East-West running powerline ROW. This road has many mucky, unstable areas which would pose access problems nearly year-round the further West you go. The 2-track becomes impassable at about the center of section 27, near the drain. The second 2-track is mainly a firm, sandy road which ends in unstable, mucky soil near the ¼ corner between sections 21 and 22. The Northwest corner of the Compartment is remote and inaccessible. A moderately hard-packed, passable 2-track provides loop access to the northern stands east of the Creighton road.

**Survey Needs:** Provide at least one survey monument and private property lines on private 80 acre parcel within southeast corner of Compartment.

**Recreational Facilities and Opportunities:** One dispersed campsite is situated along the northeast 2-track, near the Creighton River in section 22. This site is used by deer hunters. A second dispersed camping site is found near the Pines Powerline Substation, on the powerline ROW East of the Creighton road. This site is also used by deer hunters. ATV tracks are very numerous on the powerline ROW, especially during hunting seasons.

**Fire Protection:** Fire suppression equipment will have difficult access in most areas due to lack of roads and well-dispersed wetlands/drainages.

**Additional Compartment Information:**

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
  - ◆ **Cover Type by Age Class**
  - ◆ **Cover Type by Management Objective**
  - ◆ **Compartment Volume Summary**
  - ◆ **Proposed Treatments – No Limiting Factors**
  - ◆ **Proposed Treatments – With Limiting Factors**
  
- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - ◆ **Base feature information, stand numbers, cover types**
  - ◆ **Proposed treatments**
  - ◆ **Proposed road access system**
  - ◆ **Suggested potential old growth**

**Table 1 – Total Acres by Cover Type and Age Class**



	Age Class													Total	
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneven Age
Aspen	9	8	41	19	6	0	0	0	0	0	0	0	0	0	83
Hemlock	0	0	0	0	0	0	0	20	0	0	23	0	0	0	43
Jack Pine	0	247	471	56	0	59	174	132	39	8	0	0	0	0	1185
Low-Density Trees	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Lowland Aspen/Balsam Poplar	0	0	0	2	4	1	0	0	0	0	0	0	0	0	7
Lowland Conifers	40	0	10	7	0	0	0	0	3	0	2	0	0	0	62
Lowland Deciduous	0	36	20	2	44	16	3	0	0	0	0	0	0	0	120
Lowland Shrub	348	0	0	0	0	0	0	0	0	0	0	0	0	0	348
Lowland Spruce/Fir	0	0	0	10	0	6	4	64	25	8	0	0	0	0	118
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Natural Mixed Pines	0	0	0	0	0	0	2	7	0	0	0	0	0	0	9
Northern Hardwood	0	0	0	0	0	4	0	0	244	0	0	0	0	0	248
Paper Birch	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
Red Pine	0	0	12	0	0	0	30	37	5	0	0	0	0	0	85
Tamarack	0	0	0	9	34	0	3	0	0	0	0	0	0	0	47
Upland Conifers	0	0	0	0	0	0	11	0	0	6	0	0	0	0	17
Upland Mixed Forest	0	0	53	0	0	0	0	0	0	0	0	0	0	0	53
Upland Shrub	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Urban	23	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Water	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
White Pine	0	0	0	0	0	0	0	0	2	20	67	0	0	0	88
<b>Total</b>	<b>462</b>	<b>291</b>	<b>607</b>	<b>105</b>	<b>88</b>	<b>86</b>	<b>227</b>	<b>261</b>	<b>328</b>	<b>42</b>	<b>92</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2589</b>



## Table 2 – Proposed Treatment Summaries

**Shingleton Mgt. Unit**  
**Year of Entry 2014**

**Compartment 157**  
**Total Compartment Acres: 2589**

### Acres by Treatment Type

Commercial Harvest - 487	Site Prep - 14	Tree Planting - 29	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
<b>Jack Pine</b>	198	0	0	0	0	0		<b>198</b>
<b>Lowland Deciduous</b>	16	0	0	0	0	0		<b>16</b>
<b>Lowland Spruce/Fir</b>	39	0	0	0	0	0		<b>39</b>
<b>Northern Hardwood</b>	0	0	0	0	0	210		<b>210</b>
<b>Red Pine</b>	0	24	0	0	0	0		<b>24</b>
<b>Total</b>	<b>253</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>210</b>		<b>487</b>



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
2	41157002-Cut	29.4	6122 - Black Spruce	Medium Density Pole	78	51-80	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<u>Prescription:</u> Clearcut with red and white pine reserved. Retention will be edges and small fingers that run into the marsh.										
<u>Specs:</u>										
<u>Other Comments:</u> Cut Southern half, trying to break up age classes in the compartment. May also have green up issues with stand 1 if cutting all of stand.										
<u>Next Steps:</u> Prep site after cut with most appropriate method for the site; scafification for natural regeneration, trench and plant.... Monitor according to work instructions.										
<u>Proposed Start Date:</u> 10/01/2013										
4	41157004-Cut	10.0	6122 - Black Spruce	High Density Pole	81	51-80	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
<u>Prescription:</u> Clearcut with red and white pine reserved. Retention will be edges and small fingers that run into the marsh.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> Prep site after cut with most appropriate method for the site; scafification for natural regeneration, trench and plant. Monitor according to work instructions. Acceptable regeneration is any mix of current species on site.										
<u>Proposed Start Date:</u> 10/01/2013										
5	41157005-Cut	8.3	6126 - Lowland Jack Pine	Medium Density Pole	91	1-50	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription:</u> Clearcut with red and white pine reserved, retentin will edges along the marsh.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> Prep site after cut with most appropriate method for the site; scafification for natural regeneration, trench and plant. Monitor according to work instructions. Acceptable regeneration is any mix of current species on site.										
<u>Proposed Start Date:</u> 10/01/2013										
11	41157011-Cut	15.9	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	51	51-80	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<u>Prescription:</u> Clearcut with spruce and birch reserved. Retention will be minimal, only redline trees.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> Site will most likely be too wet for any cult work, should regenerate natulally. Monitor according to work instructions.										
<u>Proposed Start Date:</u> 10/01/2013										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
31	41157031-Cut	24.5	42210 - Natural Red Pine	High Density Log	77	81-110	Harvest	Group Selection	42210 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Room enough to cut only jack pine (can mark some red pine for access). Evidence of natural red pine regen.										
<u>Specs:</u>										
<u>Other</u> Unique site to the area, would like to maintain it.										
<u>Comments:</u>										
<u>Next</u> Manage with natural regeneration. 3rd year regen check, if regeneration not successful cut pine next entry to seed tree level. Monitor according										
<u>Steps:</u> to work instructions.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
43	41157043-Cut	17.1	6126 - Lowland Jack Pine	High Density Pole	83	81-110	Harvest	Clearcut with Reserves	6126 - Lowland Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with red pine reserved. Leave small retention pocket in middle of stand per WLD.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Prep site after cut with most appropriate method for the site; scafification for natural regeneration, trench and plant. Monitor according to work										
<u>Steps:</u> instructions. Acceptable regeneration is any mix of current species on site.										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
45	41157045-Cut	32.1	4112 - Maple, Beech, Cherry Association	High Density Log	85	81-110	Harvest	Other - Specify in Comments	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Salvage cut the beech.										
<u>Specs:</u>										
<u>Other</u>										
<u>Comments:</u>										
<u>Next</u> Herbicide if necessary.										
<u>Steps:</u> Underplant with oak per WLD										
<u>Proposed</u>										
<u>Start Date:</u> 11/02/2012										
47	41157047-Cut	65.7	42220 - Natural Jack Pine	High Density Pole	75	81-110	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Under contract 41-14-10-01										
<u>Specs:</u> FTP C41-1206										
<u>Other</u> Retention is unmarked red and white pine as well as redline trees.										
<u>Comments:</u>										
<u>Next</u> Acceptable regeneration is any mix of current species on site.										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 01/19/2012										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
48	41157048-Cut	35.0	42220 - Natural Jack Pine	High Density Pole	75	81-110	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Under contract 41-14-10-01 <u>Specs:</u> FTP C41-1206  <u>Other</u> Retention is unmarked red and white pine as well as redline trees. <u>Comments:</u>  <u>Next</u> Acceptable regeneration is any mix of current species on site. <u>Steps:</u>  <u>Proposed</u> <u>Start Date:</u> 01/19/2012										
56	41157056-Cut	178.2	4112 - Maple, Beech, Cherry Association	High Density Log	85	81-110	Harvest	Other - Specify in Comments	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Beech salvage, may need to mark other trees for operability. Green tree beech with signs of bear use. <u>Specs:</u>  <u>Other</u> <u>Comments:</u>  <u>Next</u> Herbicide if necessary. <u>Steps:</u> Underplant with oak per WLD  <u>Proposed</u> <u>Start Date:</u> 11/02/2011										
71	41157071- Cut_small	49.6	42220 - Natural Jack Pine	High Density Pole	64	81-110	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut with red and white pine reserved, leave small island internal for retention. <u>Specs:</u>  <u>Other</u> Consider a partial cut (35 acres) to break up age class. <u>Comments:</u>  <u>Next</u> Prep site after cut with most appropriate method for the site; scaification for natural regeneration, trench and plant. Monitor according to work <u>Steps:</u> instructions.  <u>Proposed</u> <u>Start Date:</u> 10/01/2013										
76	41157076-Cut	21.8	42220 - Natural Jack Pine	High Density Pole	84	51-80	Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
<u>Prescription</u> Under contract 41-14-10-01 <u>Specs:</u> FTP C41-1206  <u>Other</u> Retention is unmarked red and white pine as well as redline trees . <u>Comments:</u>  <u>Next</u> Acceptable regeneration is any mix of current species on site. <u>Steps:</u>  <u>Proposed</u> <u>Start Date:</u> 01/19/2012										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
123	41157123-Plant	20.0	42200 - Natural White Pine	Low Density Log	95	1-50	Tree Planting	Hand Plant	42200 - Natural White Pine	Cmpt. Review Proposal

Prescription Drop FTP C41-1212 for underplanting with white pine (coming in naturally) WLD is creating FTP for planting with oak saplings.  
Specs:

Other Comments:

Next Steps: Monitor according to work instructions.

Proposed Start Date: Unspecified

128	41157128-Plant	9.1	4130 - Aspen	High Density Sapling	3	1-50	Tree Planting	Hand Plant	4130 - Aspen	Cmpt. Review Proposal
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Prescription Drop FTP C41-1213 for planting white pine, coming in on its own. WLD is creating FTP for planting oak saplings.  
Specs:

Other Comments:

Next Steps: Monitor according to work instructions.

Proposed Start Date: Unspecified

120	41157120-NonFor_small	0.5	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Sapling	13	1-50	Non-Forest Management	Other - Specify	3102 - Grass	Cmpt. Review Proposal
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Prescription WLD FTP.....  
Specs: Opening maintenance with planting of hard/soft mast trees on edge.

Other Comments:

Next Steps:

Proposed Start Date: Unspecified

**Total Treatment Acreage Proposed: 517.0**

**Table 4 -- Treatments Prescribed with a Limiting Factor**



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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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#Error

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Error

Limiting Factor and No Treatment Reason

**Total Treatment Acreage Proposed: 0**

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

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<b>41009014-Cut1</b>	5.2	6120 - Lowland Cedar	High Density Pole	141		Harvest	Patch or Strip Clearcut	6120 - Lowland Cedar	Cmpt. Review Proposal - Incomplete

Prescription patch cut app. 5 acres, determined at time of prep  
Specs:

Other Comments:

Next Steps: Monitor according to work instructions.

Proposed Start Date: 10/01/2011

<b>41044_OutOfY OE-Cut</b>	0.9					Harvest	Crown Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal - Incomplete
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Prescription Mark red pine and white pine to 80 sq.ft. where densities are high enough. Cut all other species except hemlock, oak, and cedar.  
Specs:

Other Comments: Retention will be a portion of the red pine and white pine trees remaining.

Next Steps: Possible regeneration harvest next year of entry.

Proposed Start Date: 10/01/2013

<b>41172002-Cut</b>	4.4	4112 - Maple, Beech, Cherry Association	High Density Pole	49		Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
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Prescription Treatment=Thin stand down to 80 BA on average while putting in regen gaps to promote species diversity and Sugar Maple. Put stand up with adjacent hardwood in comp 169 in 2014.  
Specs: MO=Un-even aged hardwoods with quality Sugar Maple stems  
Retention=Residual BA

Other Comments:

Next Steps: Natural regen survey to follow harvest during the next inventory cycle.

Proposed Start Date: 10/01/2014

**Total Treatment  
Acreage Proposed: 10.5**



Stand	Shingleton Mgt. Unit			5 – Forested Stands		Compartment: 157 Year of Entry: 2014
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6122 - Black Spruce	Medium Density Pole	53.4	78	51-80	Stand is not growing (2-3 sticks tall)
3	42220 - Natural Jack Pine	High Density Pole	5.9	58	51-80	j.pine 60 30 40 tam 0 10 0 spruce 0 20 10
4	6122 - Black Spruce	High Density Pole	10.0	81	51-80	
5	6126 - Lowland Jack Pine	Medium Density Pole	8.3	91	1-50	Fairly open grown stand. Old OI shows the stand to be much older.  J.pine 10 30 10 Tamarack 10 20 0
6	6121 - Tamarack	High Density Pole	3.3	68	51-80	
7	42220 - Natural Jack Pine	High Density Pole	49.3	61	51-80	Small patch of spruce on the southwest end.  J.pine 60 40 90 Spruce 0 20 0 Tamarack 0 0 10
8	42220 - Natural Jack Pine	High Density Pole	18.5	50	81-110	
10	42290 - Natural Mixed Pine	Low Density Log	2.0	71	1-50	Old cut looks to have been a jack pine clear cut with red and white pine reserved.
11	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	15.9	51	51-80	Lots of deadwood, especially the tamarack, aspen is also very unhealthy looking.  Spruce 10 0 10 Red maple 40 40 30 Tamarack 0 30 0 Aspen 20 0 0 Birch 0 0 10
12	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	1.6	37	1-50	red maple 20 0 0 w pine 10 0 10
13	42220 - Natural Jack Pine	High Density Pole	5.8	56	81-110	j.pine 70 100 90 spruce 31 10 20
14	6121 - Tamarack	High Density Pole	3.3	48	51-80	
15	42210 - Natural Red Pine	High Density Log	12.6	73	51-80	FTP C41-1212 for scarification was cancelled due to cut be more like a shelterwood prep.
16	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	2.8	65	51-80	

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## Shingleton Mgt. Unit

## 5 – Forested Stands

Compartment: 157  
Year of Entry: 2014

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	6122 - Black Spruce	High Density Pole	3.4	68	51-80	
18	42120 - Planted Jack Pine	High Density Sapling	59.6	19		
19	6122 - Black Spruce	High Density Pole	3.7	52	51-80	Not growing, cut next entry.
20	42210 - Natural Red Pine	High Density Log	14.6	63	81-110	
21	6121 - Tamarack	Medium Density Pole	30.6	48	1-50	More spruce and tree density to the north.
22	42350 - Upland Hemlock	High Density Log	20.1	73	51-80	
24	6122 - Black Spruce	High Density Pole	8.1	96	111-140	Healthy, wait till next entry Surrounding was just cut in 2009. B.spruce 150 110 100
25	4130 - Aspen	High Density Sapling	8.3	14		
27	42120 - Planted Jack Pine	High Density Sapling	449.2	23		Fully stocked J2
28	429 - Mixed Upland Conifers	High Density Pole	6.0	97	51-80	w. pine 60 20 40 spruce 30 30 10 birch 10 0 0 maple 10 0 0
29	6122 - Black Spruce	High Density Pole	11.0	71	51-80	Spruce 30 30 50 j. pine 20 20 10 w pine 20 20 0 r. pine 10 0 10
31	42210 - Natural Red Pine	High Density Log	24.5	77	81-110	Next to no regeneration on site, and only a small portion of the compartment is red pine, I would like to maintain this red pine stand and also keep the "natural" look to it.
32	6122 - Black Spruce	High Density Pole	14.0	85	51-80	Consider holding till next entry or not cutting at all for habitat. Is only mature dense stand of timber in the immediate area along the power line.
33	42260 - Natural Pine, Mixed Deciduous	High Density Pole	1.8	63	81-110	Narrow ridge not mapped last time.
34	42220 - Natural Jack Pine	High Density Pole	1.8	76	51-80	Spruce 20 20 10 Red pine 10 0 0 J. Pine 20 40 60



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	42200 - Natural White Pine	High Density Log	66.7	107	1-50	Recently cut stand (5/10), with W. pine seed trees left.  W pine 50 30 50 P birch 0 10 0  Little if any sign of regeneration (seed tree/shelterwood)  FTP C41-1211 for RX burn cancelled, wait 2 years to see if regenerating.
36	42220 - Natural Jack Pine	High Density Pole	28.6	58	81-110	J pine 120 80 50 R pine 10 0 20 B spruce 0 0 30
38	42290 - Natural Mixed Pine	High Density Log	5.0	77	81-110	No signs of cutting in the past.  R pine 60 0 70 W pine 40 60 10 J pine 0 0 30
39	42220 - Natural Jack Pine	High Density Sapling	35.4	14		
41	6122 - Black Spruce	High Density Pole	2.5	57	111-140	Spruce 50 60 40 Fir 50 30 50 W pine 20 10 30 Tam 10 20 0 R pine 10 0 0
43	6126 - Lowland Jack Pine	High Density Pole	17.1	83	81-110	Ring count shows little growth over last 20 years. Was classified as spruce last entry, appears to have died out.  J pine 40 70 110 spruce 30 20 0 R pine 10 0 0
44	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	18.3	45	51-80	R maple 20 30 0 Spruce 10 20 30 Birch 20 0 10 W pine 10 20 10
45	4112 - Maple, Beech, Cherry Association	High Density Log	32.1	85	81-110	Beech scale in stand, enough BA of beech to justify a salvage cut.
46	6129 - Mixed Coniferous Lowland Forest	High Density Pole	2.6	85	81-110	Tamarack 20 40 30 Spruce 40 20 30 Birch 10 30 20 R pine 10 0 0 R Maple 0 10 10
47	42220 - Natural Jack Pine	High Density Pole	65.7	75	81-110	Under contract 41-14-10-01
48	42220 - Natural Jack Pine	High Density Pole	35.0	75	81-110	Under contract 41-14-10-01

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## Shingleton Mgt. Unit

## 5 – Forested Stands

Compartment: 157  
Year of Entry: 2014

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
49	42200 - Natural White Pine	Low Density Log	1.8	87	51-80	Recently cut (2009)  FTP C41-1206 cancelled prematurely for other stands...regenerating naturally no other work necessary.
50	42210 - Natural Red Pine	Low Density Log	14.0	63	1-50	FTP C41-1206 cancelled prematurely New FTP C41-1536  Cut in 2005
51	42220 - Natural Jack Pine	High Density Sapling	8.8	15		Was one stand in the past with 59 and 61, and still could be.... Made them separate from imagery and also for ease of breaking up age classes in future harvests.
52	42110 - Planted Red Pine	High Density Pole	12.1	26	81-110	Does have a small finger of aspen in the northwest end.
53	6121 - Tamarack	High Density Pole	9.4	34	51-80	
54	42350 - Upland Hemlock	High Density Log	23.3	102	111-140	Hemlock 40 140 140 R maple 40 20 30 Y birch 0 0 10  Scattered white pine and paper birch. Transitioning to multi storied.
55	4130 - Aspen	High Density Sapling	31.5	20		
56	4112 - Maple, Beech, Cherry Association	High Density Log	178.1	85	81-110	R.maple 90 40 70 80 Beech30 20 20 0 Pbirch0 20 0 0 Hemlock 0 10 0 0 Cherry 0 0 10 0
57	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	6.1	45	1-50	
60	42220 - Natural Jack Pine	High Density Sapling	25.0	15		
61	6122 - Black Spruce	High Density Pole	10.0	30	1-50	
62	42220 - Natural Jack Pine	High Density Sapling	28.6	15		
64	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	2.2	102	111-140	

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## Shingleton Mgt. Unit

## 5 – Forested Stands

Compartment: 157  
Year of Entry: 2014

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
65	42210 - Natural Red Pine	Medium Density Log	3.6	81	1-50	R.pine 30 0 60 P.birch 0 10 10  FTP C41-1213 was cancelled due to cut be more like a shelterwood prep.
67	6122 - Black Spruce	High Density Pole	1.1	84	81-110	small isolated stand  B.spruce 110 90 70 R maple 10 0 10 Tam 0 0 20
68	6112 - Lowland Aspen	High Density Pole	1.9	34	81-110	
69	4130 - Aspen	High Density Pole	6.8	33	51-80	
70	6116 - Lowland Birch	Low Density Pole	11.3	89	1-50	FTP C41-1213 cancelled for hand plant red and jack pine on knobs. Thinking spruce and jack pine will regenerate naturally, check in 2 years. If necessary in 2 years trench and plant jack pine.
71	42220 - Natural Jack Pine	High Density Pole	113.8	64	81-110	Break up age classes.
72	4311 - Pine, Aspen Mix	High Density Sapling	31.8	27		
73	6125 - Lowland Black Spruce, Jack Pine	Low Density Sapling	39.8	8		Lots of B spruce regen. FTP C41-1206 was prematurely cancelled for other stands, this stand is regenerating naturally and needs no other work.
74	6122 - Black Spruce	High Density Pole	0.7	61	51-80	
75	6119 - Mixed Lowland Deciduous Forest	High Density Pole	19.1	45	51-80	
76	42220 - Natural Jack Pine	High Density Pole	21.7	84	51-80	Under contract 41-14-10-01
77	42220 - Natural Jack Pine	High Density Sapling	33.3	14		
79	42210 - Natural Red Pine	High Density Log	1.3	81	51-80	FTP C41-1213 was cancelled due to cut be more like a shelterwood prep.
82	42220 - Natural Jack Pine	High Density Sapling	18.6	14		
83	4130 - Aspen	High Density Sapling	2.3	33	1-50	

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## Shingleton Mgt. Unit

## 5 – Forested Stands

Compartment: 157  
Year of Entry: 2014

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
42220 - Natural Jack Pine	High Density Pole	4.5	72	81-110	under contract 41-14-10-01
4311 - Pine, Aspen Mix	High Density Sapling	14.2	27		
42220 - Natural Jack Pine	High Density Sapling	15.6	14		
429 - Mixed Upland Conifers	High Density Pole	11.2	62	1-50	
4133 - Aspen, Mixed Pine	High Density Pole	9.1	27	1-50	
6123 - Lowland Fir	Medium Density Pole	3.4	34	1-50	
6127 - Lowland Pine	Medium Density Pole	10.0	27		
42220 - Natural Jack Pine	High Density Pole	6.9	65	51-80	narrow sliver in lowland
6112 - Lowland Aspen	Low Density Pole	1.1	50	1-50	
4130 - Aspen	High Density Pole	9.8	33	1-50	
42220 - Natural Jack Pine	High Density Pole	34.1	32	51-80	
42220 - Natural Jack Pine	High Density Pole	3.6	61	81-110	
42220 - Natural Jack Pine	High Density Sapling	21.9	14		
42220 - Natural Jack Pine	High Density Sapling	8.8	27		
42220 - Natural Jack Pine	High Density Pole	16.9	73	81-110	Cut next entry J pine 80 120 50 B spruce 10 0 20 W pine 0 0 10
4112 - Maple, Beech, Cherry Association	High Density Pole	19.9	85	51-80	R maple 40 50 40 aspen 10 0 0 birch 10 10 30
42220 - Natural Jack Pine	High Density Pole	12.7	22	51-80	Basically the same as stand 90, and was in pervious inventory. Shows up differently i the imagery, I think it is slightly higher ground.

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## Shingleton Mgt. Unit

## 5 – Forested Stands

Compartment: 157  
Year of Entry: 2014

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4112 - Maple, Beech, Cherry Association	High Density Log	13.7	85	81-110	
4113 - R.Maple, Conifer	High Density Pole	3.6	50	1-50	
42220 - Natural Jack Pine	High Density Sapling	22.1	32	1-50	J pine 20 40 10 Aspen 0 0 30 Spruce 0 0 10
42220 - Natural Jack Pine	High Density Pole	4.0	72	81-110	under contract 41-14-10-01
42220 - Natural Jack Pine	High Density Pole	4.4	73	51-80	J. pine 60 80 90 B. spruce 10 0 0  Consider cutting for age class dstrubtion
6123 - Lowland Fir	High Density Pole	3.7	33	51-80	
6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	18.7	29	1-50	
6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	1.6	29	1-50	
6112 - Lowland Aspen	High Density Pole	4.1	41	1-50	
6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	25.9	13	1-50	Patchwork site, aspen,fir, with pockets of open ground more in the south. Has scattered jack pine and black cherry.
4319 - Mixed Upland Forest	High Density Sapling	6.8	27		
42210 - Natural Red Pine	High Density Log	1.8	62	51-80	
42200 - Natural White Pine	Low Density Log	20.0	95	1-50	Change FTP Wildlife Div. to plant oak White pine is coming in naturally  C41-1212
6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	10.2	14	51-80	
4130 - Aspen	High Density Pole	6.1	49	81-110	Poor stocking, if in need of acres.....

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 157  
Year of Entry: 2014



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
128	4130 - Aspen	High Density Sapling	9.1	3	1-50	Change FTP per WLD. Would like to plant oak White pine and aspen coming in naturally.  C41-1213



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	3302 - Low Density Conifer Trees	5.8	Yes	High (NonForested)	
9	622 - Lowland Shrub	105.7	NVA	Unspecified	
23	622 - Lowland Shrub	56.7	NVA	Unspecified	
26	3303 - Mixed Low Density Trees	7.6	No	Unspecified	
30	622 - Lowland Shrub	5.2	NVA	Unspecified	
37	622 - Lowland Shrub	34.1	NVA	Unspecified	
40	3303 - Mixed Low Density Trees	5.8	No	Unspecified	
42	623 - Emergent Wetland	4.3	NVA	Unspecified	
58	622 - Lowland Shrub	54.5	NVA	Unspecified	
59	622 - Lowland Shrub	3.1	NVA	Unspecified	
63	622 - Lowland Shrub	7.7	NVA	Unspecified	
66	320 - Upland Shrub	4.8	NVA	Unspecified	
78	50 - Water	2.4	No	Unspecified	
80	3302 - Low Density Conifer Trees	4.6	Yes	Low (NonForested)	
81	122 - Road/Parking Lot	9.8	NVA	Unspecified	
85	50 - Water	1.3	No	Unspecified	
89	622 - Lowland Shrub	25.6	NVA	Unspecified	
90	122 - Road/Parking Lot	11.2	No	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
93	50 - Water	1.9	No	Unspecified	
101	622 - Lowland Shrub	17.0	N/A	Unspecified	
102	6220 - Alder/willow	3.8	No	Unspecified	
103	6220 - Alder/willow	6.6	No	Unspecified	
107	50 - Water	1.2	No	Unspecified	
114	50 - Water	0.6	N/A	Unspecified	
118	6229 - Mixed lowland shrub	13.7	No	Unspecified	
125	122 - Road/Parking Lot	2.4	N/A	Unspecified	
127	6229 - Mixed lowland shrub	14.2	No	Unspecified	
129	50 - Water	1.1	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.

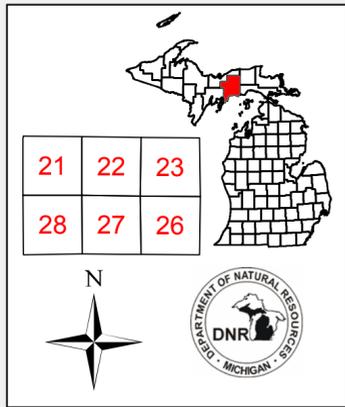
ERA = Ecological Reference Area  
HCVA = High Conservation Value Area  
SCA = Special Conservation Area

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.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.

# Cover Type & Treatment Map

Stand # **23** Stocking Density  
**(4120) - A7**  
 Level 3 OI  
 Level 4 Code  
 Cover Type Code

Compartment: 157  
 T46N R16W Sec. 21-23, 26-28  
 County: Schoolcraft  
 Unit: Shingleton  
 YOY: 2014  
 Acres: 2,589 GIS Calculated  
 Examiner: Mario Molin  
 Map Revised: 09/12/2012  
 Map Phase: Pre-Review



**Legend**

- ◆ DNR Survey Corner
- ◇ DNR Field Corner
- ✚ Remonumented Section Corners
- Miris Corners
- State Highway
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Powerline
- Railroads
- Stream
- Intermittent Stream
- Lakes and Rivers

**Treatments**

- ▨ Clearcut (w/Reserves, Patch/Strip)
- ▩ Selection (Group, Single Tree)
- ▧ Other Harvest - See Comments
- ▭ Planting (tree species)
- ▭ Opening Maintenance

**Forest Stands**

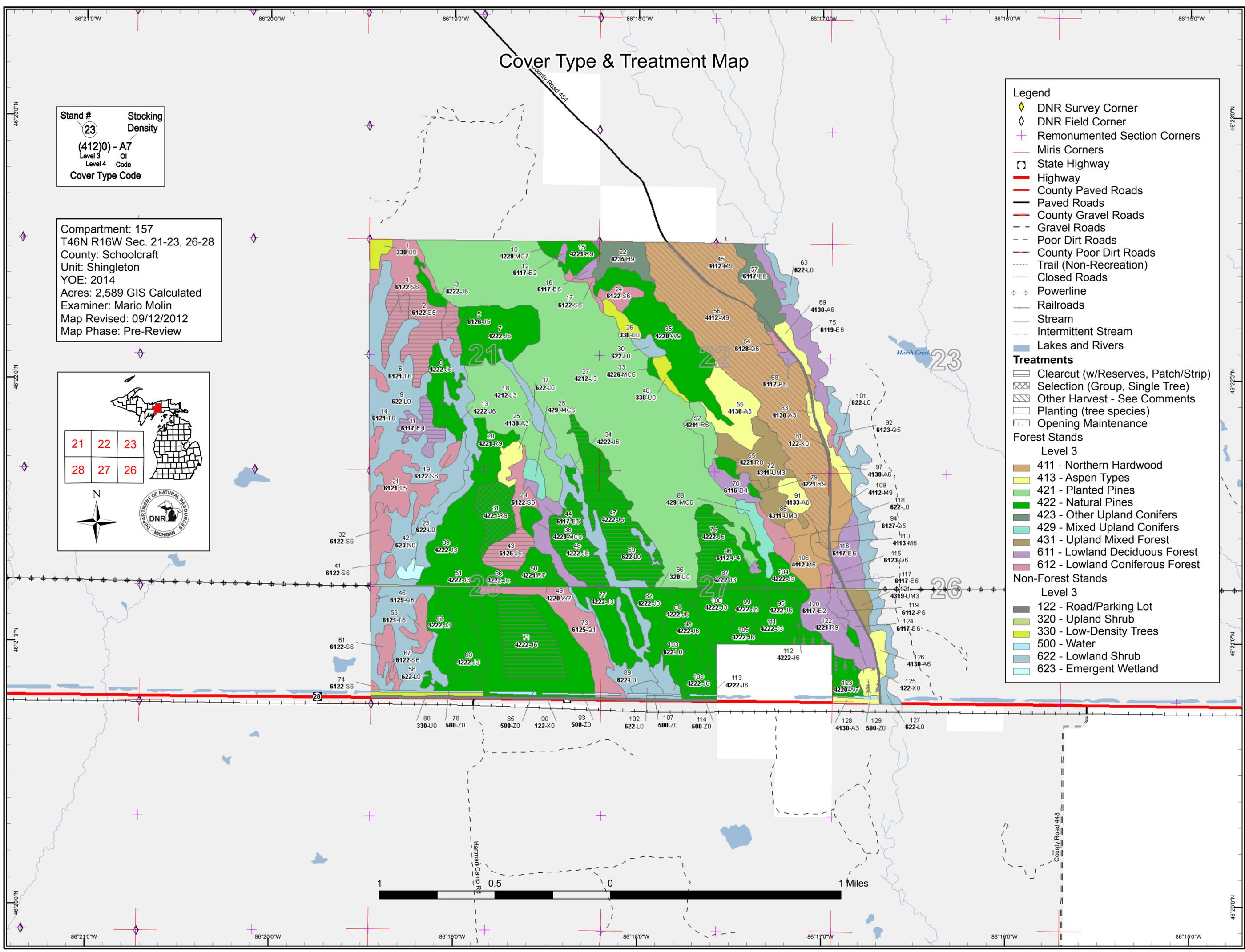
Level 3

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

**Non-Forest Stands**

Level 3

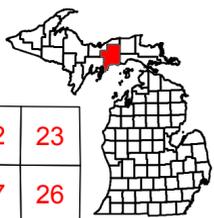
- 122 - Road/Parking Lot
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



# Stand Boundary Map

Stand # **23**  
 Stacking Density  
**(4120) - A7**  
 Level 3 OI  
 Level 4 Code  
 Cover Type Code

Compartment: 157  
 T46N R16W Sec. 21-23, 26-28  
 County: Schoolcraft  
 Unit: Shingleton  
 YOE: 2014  
 Acres: 2,589 GIS Calculated  
 Examiner: Mario Molin  
 Map Revised: 09/12/2012  
 Map Phase: Pre-Review



21	22	23
28	27	26

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### Legend

- DNR Survey Corner
- DNR Field Corner
- Remonumented Section Corners
- Miris Corners
- State Highway
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Railroads
- Powerline
- Stream
- Intermittent Stream
- Stand Boundaries

### Forest Stands

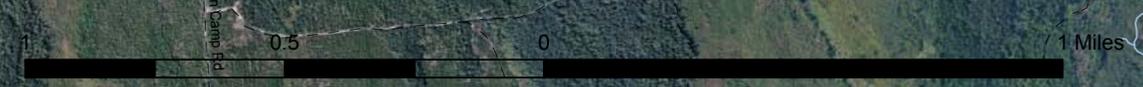
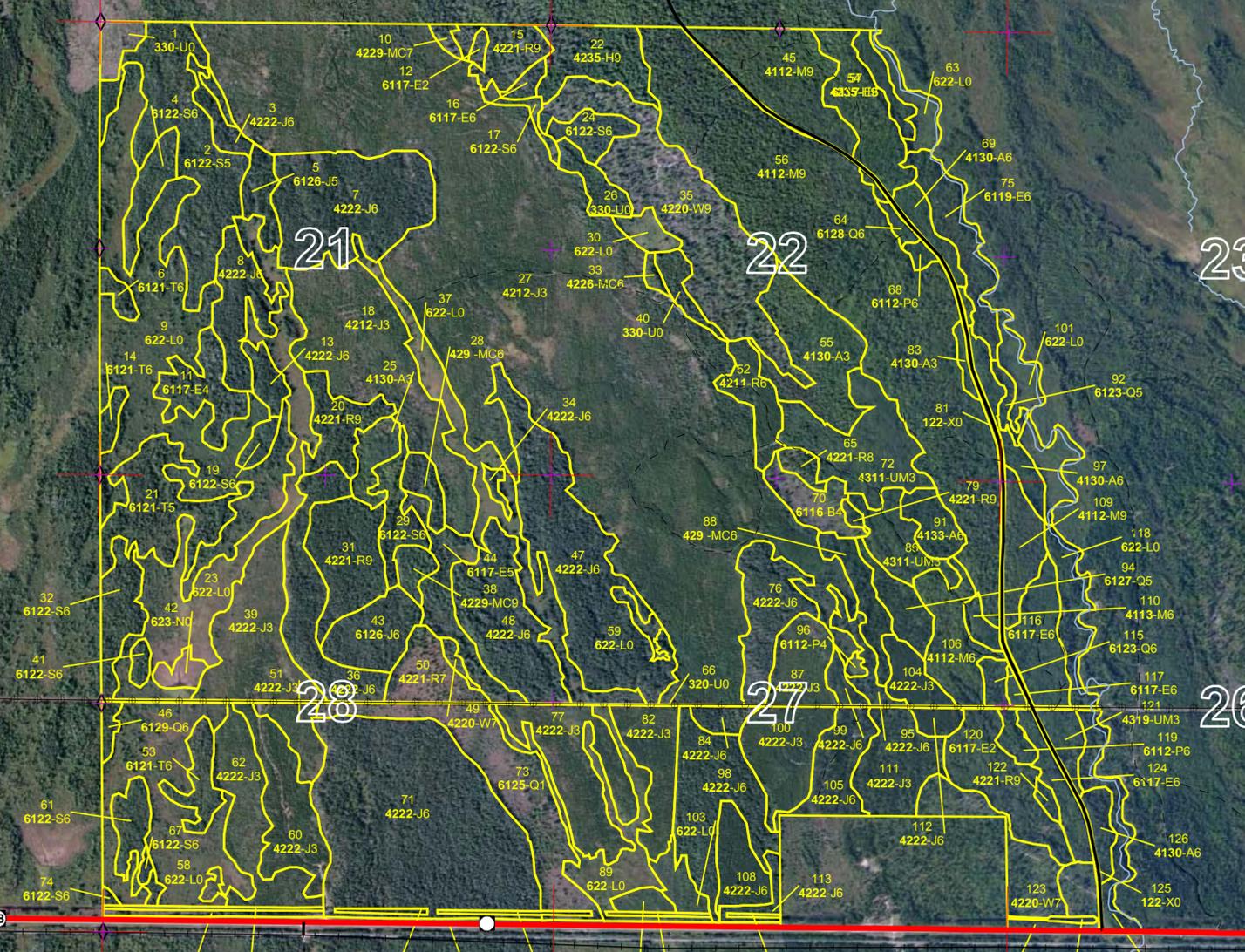
Level 3

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

### Non-Forest Stands

Level 3

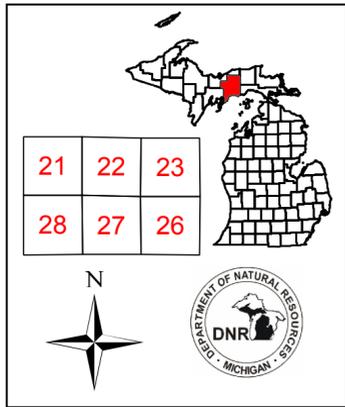
- 122 - Road/Parking Lot
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



# Dedicated & Proposed Special Conservation Area Map

Stand # **23** Stacking Density  
**(4120) - A7**  
 Level 3 OI  
 Level 4 Code  
 Cover Type Code

Compartment: 157  
 T46N R16W Sec. 21-23, 26-28  
 County: Schoolcraft  
 Unit: Shingleton  
 YOE: 2014  
 Acres: 2,589 GIS Calculated  
 Examiner: Mario Molin  
 Map Revised: 09/12/2012  
 Map Phase: Pre-Review



- Legend**
- + Remonumented Section Corners
  - Miris Corners
  - Stand Boundaries
  - Forest Stands**
  - Level 3
    - 411 - Northern Hardwood
    - 413 - Aspen Types
    - 421 - Planted Pines
    - 422 - Natural Pines
    - 423 - Other Upland Conifers
    - 429 - Mixed Upland Conifers
    - 431 - Upland Mixed Forest
    - 611 - Lowland Deciduous Forest
    - 612 - Lowland Coniferous Forest
  - Non-Forest Stands**
  - Level 3
    - 122 - Road/Parking Lot
    - 320 - Upland Shrub
    - 330 - Low-Density Trees
    - 500 - Water
    - 622 - Lowland Shrub
    - 623 - Emergent Wetland
  - Dedicated Special Conservation Areas**
  - Ecological Reference Areas
  - Cold Water Streams

