



**Shingleton Forest Management Unit
Compartment Review Presentation
Compartment #147 Entry Year: 2013
Compartment Acreage: 1574 County: Schoolcraft**

Revision Date: 8/15/2011

Stand Examiner: Rick-James Hill

Legal Description: T47N R15W Sections 30 - 34

RMU (if applicable): Cusino Complex

Management Goals: To manage the compartment in accordance with the principles of sustainable forest ecosystem management, with emphasis on timber production, maintaining & enhancing wildlife habitat, and protection of riparian areas.

Soil and Topography: This compartment is relatively level with elevation changes of a few feet changing vegetation types from lowland fen to lowland forest to upland hardwood soils are generally composed of sands and organic peat soil types.

Ownership Patterns, Development, and Land Use in and Around the Compartment: There is no development other than one primitive camp and the roads through this compartment. The private lands mostly belong to The Forest Land Group.

Unique, Natural Features: The Driggs River lies just east of this compartment.

Archeological, Historical, and Cultural Features: The Seney Fire (1976) burned areas in the west end of the compartment.

Special Management Designations or Considerations: The Creighton Marsh patterned fen ERA as well as the Negro Creek patterned fen ERA are on the west end of this compartment.

Watershed and Fisheries Considerations: Fisheries Values Excellent. The streams above the Wide Waters are classified as First Quality Cold Water (FQCW), while the Driggs River itself and its tributaries are Second Quality Cold Water (SQCW). Fisheries Division has spent considerable time and money on streambank protection in the Driggs. A minimum no-clearcut buffer of 300 feet should be implemented along the Driggs River, consistent with BMP's.

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 a mixed conifer/deciduous forest type dominated the uplands. Hemlock, white pine, beech, birch (presumably yellow birch) appeared to be the most common species. Balsam fir, red maple, and sugar maple were also common. Lowlands contained cedar, black spruce, tamarack, and some red pine. The Seney fire burned across the western portion of this compartment in. Windthrow and beaver ponding along the Driggs River and Negro Creek undoubtedly impacted the local ecology as well.

Except for those areas affected by the Seney fire, today's forest (on State land) within this compartment still contains the species diversity that was mentioned in the 1851 survey. Areas affected by the Seney fire have

regenerated to jack pine and black spruce. On the remaining uplands, there has been a shift in that deciduous species have become dominant over the conifers. Private lands within this compartment have experienced intensive cutting in recent years and have shifted even further toward young deciduous forest.

Wildlife habitat objectives are centered upon attempting to return the upland forest to a condition similar while maintaining some closed canopy coniferous and deciduous forests. Northern hardwood stands, scheduled to be thinned, will be done so in such a manner as to promote yellow birch, white pine, and hemlock. Due to concern for the potential impacts of beech snap, oak will also be planted in these areas. The intent is to maintain hard mast within the stand. Areas that contain substantial hemlock in the understory will not be treated. This will allow the hemlock to over-take the stand and become the dominant species. Gray wolves (Federal and Michigan endangered) and moose (Michigan special concern) are known to utilize this area. Other species of interest include Phoebe, broad-winged hawk, marten, and fisher.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel and peat and muck. There is minor local relief in the compartment. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River Group and Prairie du Chien (PdC) subcrop below the glacial drift. The Black River is used for stone/dolomite 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: There is good access up the Walsh grade some areas of the compartment have poor access due to a lack of roads and marshy ground

Survey Needs: None at this time

Recreational Facilities and Opportunities: The area is popular for both hunting and fishing.

Fire Protection: The north edge of the Seney fire burned here in 1976 there is much black spruce and jack pine in the old fire area access for fire control is moderately difficult.

Additional Compartment Information: None

➤ **The following reports from the Inventory are attached:**

- ◆ **Total Acres by Cover Type and Age Class**
- ◆ **Proposed Treatment Summary**
- ◆ **Proposed Treatments – No Limiting Factors**
- ◆ **Proposed Treatments – With Limiting Factors**
- ◆ **Stand Details (Forested and Nonforested)**
- ◆ **Dedicated and Proposed Special Conservation Areas**

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

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

➤

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 +		Unretn Age
Aspen	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	9
Cedar	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	52
Hemlock	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16
Herbaceous Openland	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Jack Pine	0	0	0	0	190	0	0	0	0	0	0	0	0	0	0	190
Lowland Conifers	0	0	0	0	0	30	0	16	16	24	0	0	0	0	0	86
Lowland Deciduous	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	22
Lowland Mixed Forest	0	0	0	0	0	0	0	0	12	3	0	0	0	0	0	14
Lowland Shrub	427	0	0	0	0	0	0	0	0	0	0	0	0	0	0	427
Lowland Spruce/Fir	0	0	0	0	3	0	22	0	0	63	0	0	0	0	0	89
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
Northern Hardwood	0	0	0	0	0	0	0	0	0	484	0	0	0	0	0	484
Upland Conifers	0	0	0	0	9	0	0	10	0	5	0	0	0	0	0	24
Upland Mixed Forest	0	0	0	0	0	0	0	0	139	9	0	0	0	0	0	148
Total	430	0	0	0	211	30	22	78	188	614	0	0	0	0	0	1574



Table 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit
Year of Entry 2013

Compartment 147
Total Compartment Acres: 1574

Acres by Treatment Type

Commercial Harvest - 428	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
Lowland Deciduous	22	0	0	0	0	0	0	22
Lowland Spruce/Fir	54	0	0	0	0	0	0	54
Northern Hardwood	0	343	0	0	0	0	0	343
Upland Mixed Forest	9	0	0	0	0	0	0	9
Total	85	343	0	0	0	0	0	428



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
22	41147022-Cut	280.6	4112 - Maple, Beech, Cherry Association	High Density Log	81	Harvest	Group Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Beach bark disease has affected this stand; the stand needs a thin regardless of the beech. To maintain the diversity of the stand the residual <u>Specs:</u> BA should be 70 sf. There should be regen gaps scattered around to promote mid and intolerant species regen. Mesic conifers should be encouraged through tree selection. Beech can be designated to be cut with any healthy ones reserved or be marked to cut at forester's discretion.</p> <p><u>Other</u> <u>Comments:</u> Access is up the Walsh through FLG there may be existing easements. Group with other hardwood stands in area. Due to Walsh road conditions this stand will most likely be cut in winter</p> <p><u>Next</u> <u>Steps:</u> Acceptable regeneration will include a current mix of species on the site excluding beech. Beech brush is impeding regeneration in the area it should be treated with herbicide or be controlled though some other means wildlife wishes this area to be planted with any one of or combination of BBD resistant beech, oak.</p>									
26	41147026-Cut	29.7	4115 - Y.Birch, Hemlock NH	High Density Pole	81	Harvest	Group Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> There is less beech in this stand then the one surrounding as well as more mesic conifers. Basil areas should be left around 80 SF. There <u>Specs:</u> should be regen gaps scattered around to promote mid and intolerant species regen. Mesic conifers should be encouraged through tree selection. Beech can be designated to be cut with any healthy ones reserved or be marked to cut at forester's discretion.</p> <p><u>Other</u> <u>Comments:</u> Access is up the Walsh through FLG there may be existing easements. Group with other hardwood stands in area. Due to Walsh road conditions this stand will most likely be cut in winter</p> <p><u>Next</u> <u>Steps:</u> Acceptable regeneration will include a current mix of species on the site excluding beech. beech brush is impeding regeneration in the area it should be treated with herbicide or be controlled though some other means wildlife wishes this area to be planted with any one of or combination of BBD resistant beech, oak.</p>									
28	41147028-Cut	32.7	4119 - Mixed Northern Hardwoods	High Density Log	81	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Mark this stand to 80 sf mark to increase the diversity of diameters and species. Increase mesic confer component where practical. Create <u>Specs:</u> regeneration gaps in areas of mid to low tolerance species to improve there regeneration.</p> <p><u>Other</u> <u>Comments:</u> Access is up the Walsh through FLG there may be existing easements. Group with other hardwood stands in area. Due to Walsh road conditions this stand will most likely be cut in winter</p> <p><u>Next</u> <u>Steps:</u> cceptable regeneration will include a current mix of species on the site excluding beech. If beech brush is impeding regeneration in the area it should be treated with herbicide or be controlled though some other means if wildlife wishes this area could be planted with any one of or combination of BBD resistant beech, oak, hemlock, white pine.</p>									
32	41147032-Cut	11.4	6122 - Black Spruce	High Density Pole	81	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Clearcut this spruce stand reserve red pine and white pine as well as hemlock and cedar. <u>Specs:</u></p> <p><u>Other</u> <u>Comments:</u> Access is up the Walsh through FLG there may be existing easements. Specific access will be through the Big Rack Sale (410220701) Unit 1 in c151. There will be a number of marsh crossings and much winter road and trail building needed to cut these stands. Due to the amount of work needed to cut these stands the sale should be sold with spruce in c151 in 2016 this will increase the marketability of a potential sale.</p> <p><u>Next</u> <u>Steps:</u> Acceptable regeneration will be a mix of swamp conifer species. If regeneration fails spruce should be seeded in cut area.</p>									
33	41147033-Cut	22.0	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	71	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Clearcut this stand reserve red pine, cedar, and hemlock. The Driggs River needs a 300 foot buffer this area will be retention and may exceed <u>Specs:</u> 10% of sale area</p> <p><u>Other</u> <u>Comments:</u> Access is up the Walsh through FLG there may be existing easements. Specific access will be through the Big Rack Sale (410220701) Unit 1 in c151. There will be a number of marsh crossings and much winter road and trail building needed to cut these stands. Due to the amount of work needed to cut these stands the sale should be sold with spruce in c151 in 2016 this will increase the marketability of a potential sale.</p> <p><u>Next</u> <u>Steps:</u> Acceptable regeneration will be a mix of current species. If regeneration fails spruce should be seeded in cut area.</p>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35	41147035-Cut	13.0	6122 - Black Spruce	High Density Pole	81	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Clearcut this stand reserve red pine, white pine, cedar, and hemlock. The Driggs River needs a 300 foot buffer this area will be retention and may exceed 10% of sale area</p> <p><u>Specs:</u></p> <p><u>Other</u> Access is up the Walsh through FLG there may be existing easements. Specific access will be through the Big Rack Sale (410220701) Unit 1 in c151. There will be a number of marsh crossings and much winter road and trail building needed to cut these stands. Due to the amount of work needed to cut these stands the sale should be sold with spruce in c151 in 2016 this will increase the marketability of a potential sale.</p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable regeneration will consist of assorted swamp conifer. If regeneration fails seed black spruce on the site.</p> <p><u>Steps:</u></p>									
36	41147036-Cut	8.8	4319 - Mixed Upland Forest	High Density Pole	71	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Clearcut this stand reserve red pine, white pine, cedar, and hemlock. The Driggs River needs a 300 foot buffer this area will be retention and may exceed 10% of sale area</p> <p><u>Specs:</u></p> <p><u>Other</u> Access is up the Walsh through FLG there may be existing easements. Specific access will be through the Big Rack Sale (410220701) Unit 1 in c151. There will be a number of marsh crossings and much winter road and trail building needed to cut these stands. Due to the amount of work needed to cut these stands the sale should be sold with spruce in c151 in 2016 this will increase the marketability of a potential sale.</p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable regeneration will be a mix of current species. If regeneration fails spruce should be seeded in cut area.</p> <p><u>Steps:</u></p>									
38	41147038-Cut	23.2	6122 - Black Spruce	High Density Pole	81	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Clearcut this stand reserve red pine, white pine, cedar, and hemlock.</p> <p><u>Specs:</u></p> <p><u>Other</u> Access is up the Walsh through FLG there may be existing easements. Specific access will be through the Big Rack Sale (410220701) Unit 1 in c151. There will be a number of marsh crossings and much winter road and trail building needed to cut these stands. Due to the amount of work needed to cut these stands the sale should be sold with spruce in c151 in 2016 this will increase the marketability of a potential sale.</p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable regeneration will be a mix of swamp conifer species. If regeneration fails spruce should be seeded in cut area.</p> <p><u>Steps:</u></p>									
41	41147041-Cut	6.4	6122 - Black Spruce	High Density Pole	81	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal - Incomplete
<p><u>Prescription</u> Clearcut this stand reserve red pine, white pine, cedar, and hemlock.</p> <p><u>Specs:</u></p> <p><u>Other</u> Access is up the Walsh through FLG there may be existing easements. Specific access will be through the Big Rack Sale (410220701) Unit 1 in c151. There will be a number of marsh crossings and much winter road and trail building needed to cut these stands. Due to the amount of work needed to cut these stands the sale should be sold with spruce in c151 in 2016 this will increase the marketability of a potential sale.</p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable regeneration will be a mix of swamp conifer species. If regeneration fails spruce should be seeded in cut area.</p> <p><u>Steps:</u></p>									
Total Treatment									
Acreage Proposed:		427.7							

S
t
a
n
d

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
----------------	-------	------------------	--------------	-----------	----------------	------------------	----------------------	-----------------

#Error

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						



Stand	Shingleton Mgt. Unit			5 – Forested Stands		Compartment: 147 Year of Entry: 2013	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
1	6120 - Lowland Cedar	Medium Density Pole	11.0	65			
3	6120 - Lowland Cedar	High Density Pole	40.8	65	51-80		
4	4319 - Mixed Upland Forest	High Density Pole	22.4	76	81-110		
5	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	11.3	81	51-80		
6	6122 - Black Spruce	High Density Pole	6.9	50			
7	4130 - Aspen	High Density Pole	5.8	34			
8	6131 - Hemlock, White Pine, Maple, Birch	High Density Pole	2.6	81			
9	42350 - Upland Hemlock	High Density Pole	16.0	86			This was a birch stand its now moving toward a hemlock stand it should be factor limited due to wildlife.
11	6122 - Black Spruce	High Density Pole	9.6	51			
12	6126 - Lowland Jack Pine	High Density Sapling	173.9	34			This is a jack pine and spruce stand; it is a result of the seney fire.
13	6127 - Lowland Pine	Low Density Sapling	16.1	75			Cut in 2009-2010 in Walsh softwood. The current forest cover is residual left after the cut.
14	429 - Mixed Upland Conifers	High Density Log	3.9	81			
15	4130 - Aspen	High Density Sapling	3.1	37			
16	6122 - Black Spruce	High Density Pole	5.8	51			
17	6126 - Lowland Jack Pine	Medium Density	16.1	34			An area burned by Walsh ditch fire in 1976 coming back to jack pine and spruce.
19	6122 - Black Spruce	High Density Sapling	3.2	36			spot fire during the seney fire of 1976
20	6127 - Lowland Pine	Low Density Pole	23.6	81			This stand was clearcut in the winter of 2010 the timber present is residual pine and hemlock no regeneration was apparent yet.
21	6131 - Hemlock, White Pine, Maple, Birch	High Density Pole	11.7	71			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4112 - Maple, Beech, Cherry Association	High Density Log	280.6	81	111-140	<p>This stand is a diverse hardwood stand with red maple being dominant. The stand has a lot of beech that all is being adversely affected by BBD. There is a fair amount of hemlock and other mesic conifer present in the stand.</p> <p>Old stand comments Stand was cut by corrections to promote yellow birch and hemlock reproduction. Stand was scarified by bulldozer after cut. Initial findings appear to be successful. In NWSW two small wandering clearcuts were made on south side of the trail road. [8/14/03 RFT] 3000 acorns and 500 oak from 6" pots were planted by inmates under FTP #W41-1064.</p>
23	429 - Mixed Upland Conifers	Low Density Pole	1.0	81	1-50	Cut with walsh softwoods
24	4319 - Mixed Upland Forest	High Density Pole	9.0	81		
25	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	29.7	42		
26	4115 - Y.Birch, Hemlock NH	High Density Pole	29.7	81	111-140	
27	4319 - Mixed Upland Forest	High Density Log	107.4	76		
28	4119 - Mixed Northern Hardwoods	High Density Log	32.7	81	81-110	d
29	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	16.2	61		This stand is lowland conifer in the transition area between the fen and hardwood in the compartment.
30	4119 - Mixed Northern Hardwoods	High Density Pole	138.8	81		<p>This stand was cut last entry period. Beach is in poor shape with much of dying.</p> <p>Old stand comments Stand was cut by corrections to promote yellow birch and hemlock reproduction. Stand was scarified by bulldozer after cut. Initial findings appear to be successful. In NWSW two small wandering clearcuts were made on south side of the trail road. [8/14/03 RFT] 3000 acorns and 500 oak from 6" pots were planted by inmates under FTP #W41-1064.</p>
32	6122 - Black Spruce	High Density Pole	11.4	81		
33	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	22.0	71		
35	6122 - Black Spruce	High Density Pole	13.0	81		
36	4319 - Mixed Upland Forest	High Density Pole	8.7	71		

S
t
a
n
d

Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 147
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	6122 - Black Spruce	Medium Density Pole	8.9	80		This area was a D type in previous inventory it is a low SI spruce and tamarack site
38	6122 - Black Spruce	High Density Pole	23.2	81		
39	429 - Mixed Upland Conifers	High Density Pole	8.6	31		
40	4115 - Y.Birch, Hemlock NH	High Density Pole	2.0	81	111-140	
41	6122 - Black Spruce	High Density Pole	6.4	81		
42	429 - Mixed Upland Conifers	High Density Pole	10.2	60		This area is a composite stand that borders the Driggs River and is surrounded by private and forest land group lands.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	6221 - Fen	375.5	No	Low (NonForested)	
10	6221 - Fen	50.0	N/A	Unspecified	
18	6221 - Fen	2.0	N/A	Unspecified	
31	310 - Herbaceous Openland	1.3	N/A	Unspecified	
34	310 - Herbaceous Openland	1.3	N/A	Unspecified	



7 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Stand	SCA Type	SCA Name	Acres	Comments



8 – DEDICATED CONSERVATION AREA DETAILS

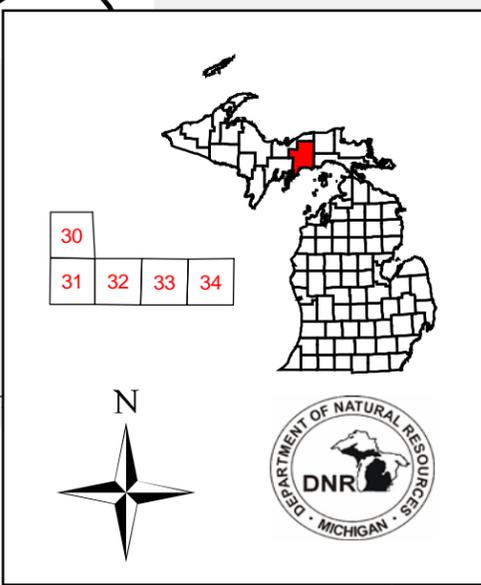
* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

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

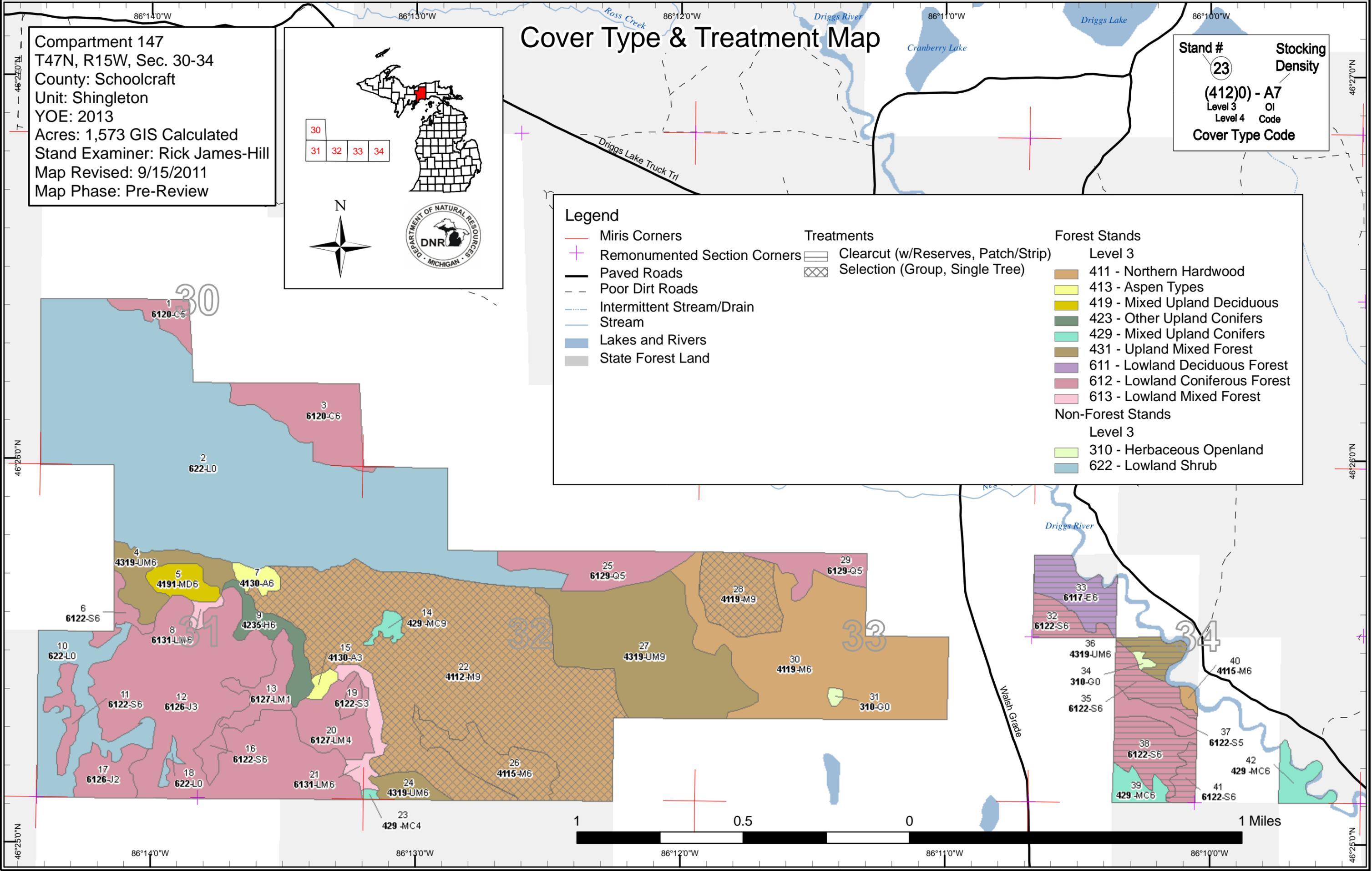
Compartment 147
 T47N, R15W, Sec. 30-34
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 1,573 GIS Calculated
 Stand Examiner: Rick James-Hill
 Map Revised: 9/15/2011
 Map Phase: Pre-Review



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

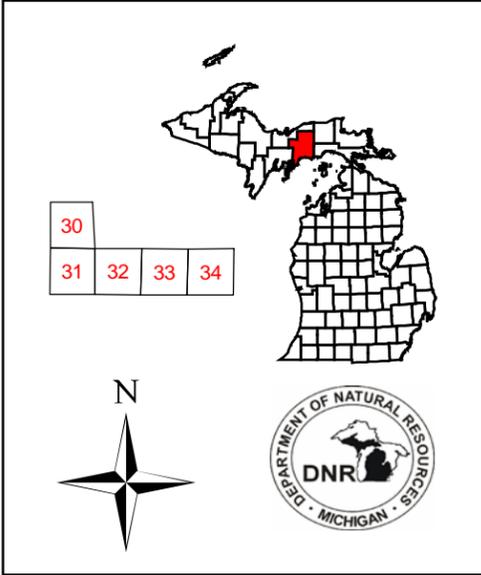
Legend

<ul style="list-style-type: none"> — Miris Corners + Remonumented Section Corners — Paved Roads - - - Poor Dirt Roads — Intermittent Stream/Drain — Stream — Lakes and Rivers — State Forest Land 	<p>Treatments</p> <ul style="list-style-type: none"> □ Clearcut (w/Reserves, Patch/Strip) ▨ Selection (Group, Single Tree) 	<p>Forest Stands</p> <p>Level 3</p> <ul style="list-style-type: none"> 411 - Northern Hardwood 413 - Aspen Types 419 - Mixed Upland Deciduous 423 - Other Upland Conifers 429 - Mixed Upland Conifers 431 - Upland Mixed Forest 611 - Lowland Deciduous 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 622 - Lowland Shrub
---	---	---



Dedicated & Proposed Special Conservation Area Map

Compartment 147
 T47N, R15W, Sec. 30-34
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2013
 Acres: 1,573 GIS Calculated
 Stand Examiner: Rick James-Hill
 Map Revised: 9/15/2011
 Map Phase: Pre-Review



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

Legend

- | | |
|--|---------------------------------|
| — Miris Corners | Forest Stands |
| + Remonumented Section Corners | Level 3 |
| □ Stand Boundaries | 411 - Northern Hardwood |
| ▨ Proposed Special Conservation Areas | 413 - Aspen Types |
| ▤ SCA - Special Conservation Area | 419 - Mixed Upland Deciduous |
| ▥ SCA Removal | 423 - Other Upland Conifers |
| ▧ Dedicated Special Conservation Areas | 429 - Mixed Upland Conifers |
| — Cold Water Streams | 431 - Upland Mixed Forest |
| ■ Ecological Reference Areas | 611 - Lowland Deciduous Forest |
| | 612 - Lowland Coniferous Forest |
| | 613 - Lowland Mixed Forest |
| | Non-Forest Stands |
| | Level 3 |
| | 310 - Herbaceous Openland |
| | 622 - Lowland Shrub |

