



## Shingleton Forest Management Unit Compartment Review Presentation

**Compartment #165**

**Entry Year: 2014**

**Compartment Acreage: 3779**

**County: Schoolcraft**

---

**Revision Date:** 7-27-12

**Stand Examiner:** Robert Tylka

**Legal Description:** T47N R16W Sections 19, 20, and 29 - 33

**Management Area:** This compartment is located with the Cusino Complex Management Area.

**Management Goals:** To provide users with a variety of benefits commonly associated with publicly-owned forest lands. This compartment is located adjacent to primary winter deer range (northeast of the Petrel Deer Yard) and is considered to be part of the old Cusino Deer Yard. Long term wildlife management goals for the area include restoration of the winter deer habitat.

**Soil and Topography:** This area features medium-to-heavy textured soils. The topography is generally flat to gently rolling, with minor changes in elevation. The hardwood corridor along the west edge of the compartment is somewhat higher than the lowlands that comprise most of the area.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** The Forestland Group owns 80 acres in section 32, while the state owns the rest of the land in these sections and the vast majority of the surrounding lands as well. Snowmobile Trail 8 enters the compartment from the southwest and runs to the north.

**Unique, Natural Features:** There is a Patterned Fen Ecological Reference Area located on the east side of the compartment.

**Archeological, Historical, and Cultural Features:** The old Cusino DNR facilities were in this compartment at the junction of the Melstrand Truck Trail and Schoolcraft County Roads 454 & 450, in section 30.

**Special Management Designations or Considerations:** This compartment lies within the old Cusino Deeryard, and a large portion of the area supports lowland cedar/mixed conifer habitat. Timber management activities will be coordinated with Wildlife Division to support their long-term goal of winter deer habitat restoration.

**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 sportfish 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 in this compartment are relatively unknown. The Creighton River and Stoner Creek are both classified as Second Quality Warm Water, but we have little information about any fishery that they might support. There are also several smaller drainages that flow into these two streams. There are reports of anglers catching trout in this vicinity, but angling pressure is light.

**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 Cusino Complex Management Area which highlights the following Featured Species: American marten, moose, black bear, grey jay, northern goshawk and white-tailed deer. The Creighton River forms the eastern boundary of this compartment. The majority of the compartment is lowland coniferous forest. General Land Office Surveyor notes show that conifer swamps circa 1850 consisted of primarily cedar, tamarack, and spruce. Other species present include balsam fir, white birch, red pine, and aspen. Upland forest were predominantly hemlock and yellow birch with sugar maple, white pine, balsam fir, red maple, beech, spruce, elm, and tamarack mixed in. While windthrow, fire, flooding, and beaver ponding were all likely contributors to the natural disturbance regime, beaver ponding is the one mentioned by the surveyors. Current forests in this compartment are quite similar in species composition to the circa 1850 conditions. Uplands contain a mix of hemlock, red maple, white pine, beech, and sugar maple. Lowlands are dominated by cedar, but also contain spruce and tamarack. Wildlife habitat objectives in this compartment include maintaining closed canopy conifer forest and promoting species and structural diversity within hardwood stands. Moose (Michigan special concern) are the only known rare species within this compartment. Other wildlife species of interest that may utilize this compartment include mink frog, wood frog, black-capped chickadee and fisher.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of coarse-textured glacial till, glacial outwash sand and gravel, post-glacial alluvium and peat & muck. There is insufficient data to determine the glacial drift thickness. The Ordovician Prairie du Chien (PdC) subcrop is below the glacial drift. The PdC could be used for stone. The nearest gravel pit is about eight miles to the south, but there appears to be gravel potential in the southwestern area of this compartment. There is no commercial oil and gas production in the UP.

**Vehicle Access:** Access to the uplands on the west side of the compartment is good via county roads 454, 450 and the Melstrand Truck Trail, but the vast majority of the area has very poor access. Roads to be used for timber harvest are winter-only, and even this may be difficult.

**Survey Needs:** None at this time.

**Recreational Facilities and Opportunities:** The area is locally popular for trapping and hunting deer & small game. Snowmobile Trail 8 is used very heavily every season and is on the east side of the compartment.

**Fire Protection:** Difficulties with fire suppression may arise due to the nature of soils and slow drainage associated with them. Access across the large lowland conifer stands is highly problematic.

**Additional Compartment Information:** The uneven aged upland hardwood stands in this area are capable of producing high quality wood products, and are intensively managed to do so. The lowland conifer stands are relatively slow to regenerate.

- **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 +		Unrepen Age
Aspen	0	7	0	0	4	0	0	0	0	0	0	0	0	0	11
Cedar	0	0	0	0	62	0	14	0	4	1161	59	0	0	0	1300
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Conifers	0	0	47	0	7	11	0	0	54	750	31	0	0	57	958
Lowland Deciduous	0	6	0	0	0	0	33	0	0	2	106	0	0	22	169
Lowland Mixed Forest	8	0	0	0	0	0	6	0	0	0	0	0	0	31	45
Lowland Shrub	675	0	0	0	0	0	0	0	0	0	0	0	0	0	675
Lowland Spruce/Fir	0	16	0	0	0	0	0	0	3	0	14	0	0	0	33
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	325	325
Paper Birch	0	0	0	0	0	0	0	111	0	0	0	0	0	0	111
Treed Bog	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Upland Conifers	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	0	0	0	26	26
Upland Spruce/Fir	0	0	0	0	4	0	0	0	0	0	0	0	0	4	8
Urban	21	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Water	29	0	0	0	0	0	0	0	0	0	0	0	0	0	29
White Pine	0	0	0	0	0	0	0	0	0	29	0	0	0	0	29
<b>Total</b>	<b>763</b>	<b>29</b>	<b>47</b>	<b>0</b>	<b>77</b>	<b>11</b>	<b>53</b>	<b>111</b>	<b>61</b>	<b>1942</b>	<b>218</b>	<b>0</b>	<b>0</b>	<b>466</b>	<b>3779</b>



## Table 2 – Proposed Treatment Summaries

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

**Compartment 165**  
**Total Compartment Acres: 3779**

### Acres by Treatment Type

Commercial Harvest - 667	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
<b>Cedar</b>	115	0	0	0	0	0	<b>115</b>
<b>Herbaceous Openland</b>	0	0	0	0	0	5	<b>5</b>
<b>Lowland Conifers</b>	19	18	0	13	0	0	<b>51</b>
<b>Lowland Deciduous</b>	48	0	0	0	0	0	<b>48</b>
<b>Lowland Mixed Forest</b>	0	0	0	31	0	0	<b>31</b>
<b>Lowland Spruce/Fir</b>	17	0	0	0	0	0	<b>17</b>
<b>Northern Hardwood</b>	4	314	0	0	0	0	<b>319</b>
<b>Paper Birch</b>	45	0	0	0	0	0	<b>45</b>
<b>Upland Conifers</b>	0	7	0	0	0	0	<b>7</b>
<b>White Pine</b>	0	29	0	0	0	0	<b>29</b>
<b>Total</b>	<b>249</b>	<b>368</b>	<b>0</b>	<b>45</b>	<b>0</b>	<b>5</b>	<b>667</b>



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3	41165003-Cut	4.5	4112 - Maple, Beech, Cherry Association	High Density Log	100	111-140	Harvest	Clearcut with Reserves	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription:</u> Low-quality mix of maple and cherry - lots of black knot. Clearcut to regenerate or the cherry component will die out. reserve the Yellow birch. No winter cutting - the snowmobile trail runs through this stand. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> Natural regeneration - black cherry is desirable, but all species presently on site are acceptable for regeneration. <u>Proposed Start Date:</u> 10/01/2013										
4	41165004-Cut	154.5	4110 - Sugar Maple Association	High Density Log	100	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription:</u> Selection cut in high-quality northern hardwood stand. No winter cutting - the snowmobile trail runs through this stand. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> Natural regeneration - all species present are acceptable. <u>Proposed Start Date:</u> 10/01/2013										
5	41165005-Cut	21.8	6120 - Lowland Cedar	High Density Pole	98	111-140	Harvest	Clearcut with Reserves	6120 - Lowland Cedar	Cmpt. Review Proposal
<u>Prescription:</u> Clearcut to regenerate cedar - reserve any hemlock and white pine. <u>Specs:</u> <u>Other Comments:</u> Provide a 100' buffer along Stoner Creek and a 50' buffer along the drainage that flows through the stand into Stoner Creek - this will effectively split the stand into two cutting blocks. <u>Next Steps:</u> Natural regeneration - cedar is desirable, but all species present are acceptable. <u>Proposed Start Date:</u> 10/01/2013										
6	41165006-Cut	26.3	4112 - Maple, Beech, Cherry Association	High Density Log	100	111-140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription:</u> Selection cut in northern hardwoods - beech bark disease is present in stand. Follow BBD guidelines and retain 70-90 sq.ft. of basal area. Do not cut hemlock, cedar or white pine. No winter cutting - the snowmobile trail runs through this stand. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> Natural regeneration - all species present except beech are acceptable. <u>Proposed Start Date:</u> 10/01/2013										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
10	41165010-Cut	13.5	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	100	171-200	Harvest	Shelterwood	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal

Prescription Cut all red maple, spruce and fir. Retain all hemlock, birch and cedar. Mark white pine as needed for access.

Specs:

Other This stand will ultimately be managed for winter deer habitat.

Comments:

Next Natural regeneration is expected - hemlock, white pine and cedar are desirable, and all other conifer spp. are acceptable.

Steps:

Proposed

Start Date: 10/01/2013

11	41165011-Cut	2.8	6122 - Black Spruce	Medium Density Pole	83	81-110	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal
----	--------------	-----	---------------------	---------------------	----	--------	---------	------------------------	---------------------	-----------------------

Prescription Clearcut with reserves - retain all cedar, hemlock and white pine. Due to the small size of this stand, no other retention is needed.

Specs:

Other

Comments:

Next Natural regeneration is expected - all conifer spp. are acceptable.

Steps:

Proposed

Start Date: 10/01/2013

15	41165015-Cut	18.0	6127 - Lowland Pine	High Density Log	100	111-140	Harvest	Group Selection	6127 - Lowland Pine	Cmpt. Review Proposal
----	--------------	------	---------------------	------------------	-----	---------	---------	-----------------	---------------------	-----------------------

Prescription Cut all spruce, fir & red maple, and mark some white pine to be cut. Retain all hemlock, cedar and birch.

Specs:

Other This stand will ultimately be managed for winter deer habitat.

Comments:

Next Natural regeneration is expected - hemlock, white pine and cedar are desirable, and other conifer spp. are acceptable as well.

Steps:

Proposed

Start Date: 10/01/2013

17	41165017-Cut	19.5	6124 - Lowland Spruce-Fir	Medium Density Pole	83	81-110	Harvest	Clearcut with Reserves	6124 - Lowland Spruce-Fir	Cmpt. Review Proposal
----	--------------	------	---------------------------	---------------------	----	--------	---------	------------------------	---------------------------	-----------------------

Prescription Clearcut with reserves - retain all white pine, hemlock, cedar and birch. Leave retention patches/strips along the county road on the north edge of the stand.

Specs:

Other Adjacent to Co. Rd. 450

Comments:

Next Natural regeneration is expected - all conifer spp. are acceptable.

Steps:

Proposed

Start Date: 10/01/2013



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
19	41165019-Cut	14.3	6122 - Black Spruce	Medium Density Pole	100	81-110	Harvest	Clearcut with Reserves	6122 - Black Spruce	Cmpt. Review Proposal

Prescription: Clearcut w/reserves - retain all white pine, cedar, hemlock and birch.

Specs:

Other

Comments:

Next Steps: Natural regeneration is expected.

Proposed

Start Date: 10/01/2013

35	41165035-Cut	7.6	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	67	51-80	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
----	--------------	-----	--	---------------------	----	-------	---------	------------------------	--	-----------------------

Prescription: Clearcut w/reserves - retain all white pine, hemlock and cedar. This stand is on a somewhat intermediate site that displays characteristics of both upland and lowland habitats. Cherry and aspen are the most prevalent species, but the cherry is in very poor condition (heavily infested w/black knot) and the aspen is mature.

Specs:

Other Comments: The county road is adjacent to this stand - the reserve spp. should provide initial values for aesthetics. and regeneration is likely to provide acceptable stocking very quickly. Consider leaving a few clumps of younger red maple in sight of the road to augment the visuals.

Next Steps: Natural regeneration is expected. Aspen and cherry are likely to be dominant, but any mix of the species currently present will be acceptable.

Proposed

Start Date: 10/01/2013

36	41165036-Cut	17.3	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	60	51-80	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
----	--------------	------	--	---------------------	----	-------	---------	------------------------	--	-----------------------

Prescription: CC w/reserves - aspen is decadent and the cherry has a lot of black knot. Reserve any hemlock, cedar and white pine. No winter cutting due to the stand's location along the snowmobile trail.

Specs:

Other Comments: The snowmobile trail runs through this stand.

Next Steps: Natural regeneration is expected - black cherry, aspen and all conifers are acceptable.

Proposed

Start Date: 10/01/2013

38	41165038-Cut	6.0	6118 - Lowland Deciduous with Cedar	High Density Pole	67	141-170	Harvest	Clearcut with Reserves	6118 - Lowland Deciduous with Cedar	Cmpt. Review Proposal
----	--------------	-----	-------------------------------------	-------------------	----	---------	---------	------------------------	-------------------------------------	-----------------------

Prescription: Clearcut w/reserves - retain all cedar, hemlock and white pine.

Specs:

Other Comments: This stand will eventually be managed for winter deer habitat along with the adjacent cedar stand. Consider aesthetics near the county road.

Next Steps: Natural regeneration is expected. Cedar is desirable, but any mix of conifers and deciduous spp. is acceptable.

Proposed

Start Date: 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
58	41165058-Cut	93.0	6120 - Lowland Cedar	Medium Density Pole	91	111-140	Harvest	Clearcut	6120 - Lowland Cedar	Cmpt. Review Proposal
<u>Prescription:</u> Clearcut - Harvest the areas around/between the old strip cuts that were harvested in 1965. Retention other than hemlock and white pine is not desirable due to the narrow areas being harvested. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> Natural regeneration is expected. <u>Proposed Start Date:</u> 10/01/2013										
67	41165067-Cut	9.9	4115 - Y.Birch, Hemlock NH	High Density Log	83	111-140	Harvest	Single Tree Selection	4115 - Y.Birch, Hemlock NH	Cmpt. Review Proposal
<u>Prescription:</u> Selection cut to improve stand quality and increase the amount of conifers, especially hemlock. Retain/release all hemlock and any white pine or cedar encountered, but avoid marking trees if harvesting them is likely to result in damage to the hemlock etc. Beech is also present, as is beech bark disease - follow BBD guidelines as needed. <u>Specs:</u> <u>Other Comments:</u> <u>Next Steps:</u> Natural regeneration is expected - Consider herbiciding to eliminate beech brush if necessary, and underplant oak (bur oak if available.) <u>Proposed Start Date:</u> 11/01/2012										
68	41165068-Cut	31.1	6131 - Hemlock, White Pine, Maple, Birch	High Density Pole	83	111-140	Harvest	Shelterwood	6131 - Hemlock, White Pine, Maple, Birch	Cmpt. Review Proposal
<u>Prescription:</u> Remove the red maple, spruce, fir and scattered beech/other hardwoods. Reserve the hemlock, white pine, birch and any cedar encountered in the stand. <u>Specs:</u> <u>Other Comments:</u> The scattered beech all show evidence of beech bark disease. Managing for hemlock/white pine fits in with the long-term goal of restoring winter deer habitat in this area. <u>Next Steps:</u> Natural regeneration - hemlock and white pine are desirable, but all conifers are acceptable. Consider herbiciding to eliminate beech brush if necessary, and underplant oak (bur oak if available.) <u>Proposed Start Date:</u> 11/01/2012										
70	41165070-Cut	33.6	4110 - Sugar Maple Association	Medium Density Log	100	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription:</u> Beech salvage - BBD is present. <u>Specs:</u> <u>Other Comments:</u> This stand was last select cut in 2005. <u>Next Steps:</u> Natural (sugar maple) regeneration is likely to develop. Consider herbiciding to eliminate beech brush if necessary, and underplant oak (bur oak if available.) <u>Proposed Start Date:</u> 11/01/2012										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
71	41165071-Cut	89.8	4110 - Sugar Maple Association	Medium Density Log	100	81-110	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Beech salvage - BBd is present in this stand.										
<u>Specs:</u>										
<u>Other Comments:</u> Stand was last select cut in 2005.										
<u>Next Steps:</u> Natural (sugar maple) regeneration is likely to develop. Consider herbiciding to eliminate beech brush if necessary, and underplant oak (bur oak if available.)										
<u>Proposed Start Date:</u> 11/01/2012										
72	41165072-Cut	17.2	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	100	111-140	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<u>Prescription</u> Lowland hardwood mix on gently rolling terrain - this stand is a transition between the upland hardwoods adjacent to north & east and the lowland conifers to the southwest. Clearcut w/reserves - retain all hemlock, cedar, white pine and birch. Beech bark disease is highly visible throughout the stand.										
<u>Specs:</u>										
<u>Other Comments:</u> The southeast portion of the stand is adjacent to a seasonal drainage corridor - consider buffering the drainage by removing this from the treatment area.										
<u>Next Steps:</u> Natural regeneration is expected - all species present except beech and ash are acceptable. Consider herbiciding to eliminate beech brush if necessary, and underplant oak (bur oak if available.)										
<u>Proposed Start Date:</u> 11/01/2012										
76	41165076-Cut	29.1	42200 - Natural White Pine	High Density Log	90	111-140	Harvest	Single Tree Selection	42200 - Natural White Pine	Cmpt. Review Proposal
<u>Prescription</u> Recommend a selection cut to thin the white pine and encourage natural regeneration of same - some wp regen is already present. Retain all hemlock & cedar, but cut the merchantable spruce, fir and red maple.										
<u>Specs:</u>										
<u>Other Comments:</u> The long-term objective here is to manage this stand for winter deer habitat.										
<u>Next Steps:</u> Natural regeneration is expected. White pine, hemlock and cedar are desirable, but all species present are acceptable.										
<u>Proposed Start Date:</u> 10/01/2013										
81	41165081-Cut	7.0	429 - Mixed Upland Conifers	High Density Log	100	111-140	Harvest	Group Selection	429 - Mixed Upland Conifers	Cmpt. Review Proposal
<u>Prescription</u> Group selection to remove the red maple and other hardwoods. Retain and manage for hemlock, white pine & other conifers. May retain any birch encountered, and cut any log-sized spruce.										
<u>Specs:</u>										
<u>Other Comments:</u>										
<u>Next Steps:</u> Natural regeneration - all conifers are acceptable.										
<u>Proposed Start Date:</u> 10/01/2013										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
83	41165083-Cut	45.1	6116 - Lowland Birch	Low Density Pole	72		Harvest	Clearcut with Reserves	6116 - Lowland Birch	Cmpt. Review Proposal

Prescription: Under contract for final harvest - timber sale 41-028-10-01. CC w/reserves - retaining hemlock, cedar, white pine & oak if present.

Specs:

Other

Comments:

Next Natural regeneration is expected.

Steps:

Proposed

Start Date: 12/16/2011

37	NF_41165037-Cut	4.8	3102 - Grass				Harvest	Other - Specify in Comments	3102 - Grass	Cmpt. Review Proposal
----	-----------------	-----	--------------	--	--	--	---------	-----------------------------	--------------	-----------------------

Prescription: Opening maintenance for wildlife - Include this area in a commercial timber sale along with the adjacent stands that are prescribed in order to harvest the scattered merchantable trees. Also cut all non-merchantable stems to facilitate further habitat work. No winter cutting due to the stand's location along the snowmobile trail.

Specs:

Other

The snowmobile trail runs through this stand.

Comments:

Next Consider planting wildlife forage crops.

Steps:

Proposed

Start Date: 10/01/2013

**Total Treatment  
Acreage Proposed: 666.7**

Table 4 -- Treatments Prescribed with a Limiting Factor



S  
t  
a  
n  
d

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

#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
----------------------------	-----	--	--	--	--	---------	----------------	--------------------------	------------------------------------

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
---------------------	-----	---	-------------------	----	--	---------	-----------------------	--------------------------------	-----------------------

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**



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	6115 - Lowland Ash	High Density Pole	2.3	66	1-50	Black ash swale with a drainage running through it. A few spots have significantly higher basal area, but overall this stand is a mix of small poles and saplings. Ash and elm dominate the understory.
3	4112 - Maple, Beech, Cherry Association	High Density Log	4.5	Uneven Age	111-140	Primarily a medium-quality red maple/black cherry mix with sugar maple also present. Both the red maple and cherry are becoming decadent, with significant volume being lost to disease (black knot) and various agents of decay.
4	4110 - Sugar Maple Association	High Density Log	154.5	Uneven Age	111-140	Hardwood stand ready for a selection cut.
5	6120 - Lowland Cedar	High Density Pole	21.8	98	111-140	This stand occupies somewhat higher ground than the wetter stand adjacent to the south, resulting in more volume per acre. Almost all of the balsam fir and most of the paper birch have died out, and unevenaged characteristics are beginning to develop. Site indices appear to be noticeably better here than in the nearby mixed conifer stand. The age given here reflects data from earlier inventory cycles, but the presence of 12-14" DBH spruce and cedar indicate that components of the stand may be older.
6	4112 - Maple, Beech, Cherry Association	High Density Log	26.3	Uneven Age	111-140	Hardwood stand ready for a selection cut. Scattered pockets of beech are present and are heavily infected with BBD.
7	6120 - Lowland Cedar	Medium Density Pole	20.9	106	51-80	Cedar and a few spruce over a well-stocked understory that includes mixed conifers and ash. Stand density varies significantly. Stoner Creek flows through this stand.
8	6124 - Lowland Spruce- Fir	Medium Density	4.3	25	1-50	Primarily conifer regeneration, but red maple, black ash and paper birch are also significant. A few residual cedar, spruce and white pine account for the basal area shown here.
9	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density	19.8	25	1-50	Numerous partial (selection) cuttings have occurred in this area, leaving residual cedar and spruce that have matured into 1-2 stick trees that now account for the basal area shown here. The featured stand is a mix of cedar and spruce regeneration, with other species and lowland brush scattered throughout. The age given here reflects the most recent timber harvest activity, but there is actually more than one age class of regeneration present.
10	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	13.5	100	171-200	Mature stand featuring large hemlock plus a mix of red maple, spruce, fir, cedar and white pine. A few birch and cherry are also present. The understory is fully-stocked with balsam fir and hemlock regeneration, along with scattered red maple. Operable in winter.
11	6122 - Black Spruce	Medium Density Pole	2.8	83	81-110	Black spruce/cedar mix with a few other lowland timber spp. mixed in. Harvest now - winter cut only. Emphasize protection of the existing regeneration, which should provide a fully-stocked stand of mixed conifers.
12	4130 - Aspen	High Density Sapling	5.4	14	1-50	Young aspen stand - a few trees are now merchantable.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
13	6122 - Black Spruce	Low Density Sapling	16.1	13	1-50	Cut in 1999, this stand is fully-stocked with a mix of lowland species. Black spruce is the dominant species. A few residual white pine are also present.
15	6127 - Lowland Pine	High Density Log	18.0	100	111-140	Shown here as lowland habitat, but this stand is actually features slightly elevated ground and gently rolling terrain. The white pine/hemlock association is dominant, with pockets of black spruce scattered throughout. A few cedar, fir and birches are also present. The well-stocked understory features a mix of fir, hemlock, red maple and spruce.
16	42340 - Upland Spruce/Fir	High Density Pole	4.0	Uneven Age	51-80	Mix of upland spruce-fir, hardwoods and small semi-open areas surrounding a pond.
17	6124 - Lowland Spruce- Fir	Medium Density Pole	19.5	83	81-110	Spruce/fir with pockets of white pine. Old enough to harvest now.
18	4130 - Aspen	High Density Sapling	1.6	14	1-50	Young aspen.
19	6122 - Black Spruce	Medium Density Pole	14.3	100	81-110	This stand features primarily black spruce and tamarack, with a few white pine, cedar and red maple mixed in. The age given is from previous inventory, but there is evidence (timber sale records) that the stand was partially cut during the latter part of the winter of 1957-58. As a result, age class diversity is present.
21	4110 - Sugar Maple Association	High Density Pole	2.1	Uneven Age	81-110	Sugar maple with a few red maple, basswood & balsam fir. Last thinned in the mid-1990's.
23	4130 - Aspen	Medium Density Pole	4.0	42	111-140	Site of Old Cusino. Showing signs of maturity - cut next entry.
24	42320 - Upland Spruce	Medium Density Pole	4.0	42	81-110	Semi-open upland aspen/spruce-fir - cut next entry.
25	6130 - Fir, Aspen, Maple	High Density Pole	5.9	60	111-140	This stand is a mix of red maple, fir and spruce on a transitional site between the upland hardwoods to the west and the lowland conifer complex to the east. The understory is dominated by balsam fir and various lowland brush species, including dogwood.
26	6120 - Lowland Cedar	Low Density Pole	38.2	106	51-80	Slow-growing cedar stand with a variety of other lowland timber species mixed in. The understory is well-stocked and reflects the overstory spp., which indicates that unevenaged characteristics are developing.
27	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	9.4	83	141-170	This stand features large whitepine, pockets of mature hemlock, and areas where a mix of red maple and spruce/fir dominate. Balsam fir and red maple are the most common species in the understory, but cedar and spruce are also present in significant amounts.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	6123 - Lowland Fir	Medium Density	15.0	25	1-50	This is primarily a lowland conifer stand, with balsam fir being the dominant species at this time. The basal area shown consists of 1-3 stick spruce, fir and red maple that were presumably submerchantable trees when the stand was harvested in 1987, and a few white pine that were reserved.
30	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	5.9	14	1-50	Cut in 1998. Residual white spruce and fir are located primarily near the road on the eastern end of the stand, but are scattered throughout. The basal area figures shown represent these residuals.
32	6120 - Lowland Cedar	Medium Density	28.9	47		August 2011 - Strips are fully regenerated - cedar etc. approx. 2" DBH.
33	6124 - Lowland Spruce- Fir	Low Density Pole	17.1	Uneven Age	1-50	Semi-open lowland timber; evidence of age class diversity is present. Crown closure varies significantly throughout the stand. In places lowland brush (willow & tag alder) are dominant.
35	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	7.6	67	51-80	This stand is located on a transitional site, and crown closure is extremely variable. Black knot is killing the cherry. In many places, regeneration (heavy to balsam fir and red maple) is becoming the dominant cohort as the early-successional spp. die out.
36	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	17.3	60	51-80	Aspen/red maple/black chery mix on a transitional site between the upland hardwoods to the west and the lowland conifers to the east. In some places, and age-class diversity is present. The understory features a mix of red maple, elm, ash and balsam fir regeneration. There are also semi-open areas within this stand.
38	6118 - Lowland Deciduous with Cedar	High Density Pole	6.0	67	141-170	Fairly wet lowland stand featuring a mix of poor-quality red maple and conifers plus paper birch. Unevenaged characteristics are rapidly developing as the red maple becomes dominant. The age shown here was taken from a sample of the red maple, but there are older trees present - particularly in the cedar.
39	6120 - Lowland Cedar	High Density Pole	14.7	96	171-200	
40	6124 - Lowland Spruce- Fir	High Density Pole	10.9	52	51-80	This stand is generally a mix of black spruce and balsam fir poles with other conifers, red maple and a few ash & birch mixed in. The size class diversity is a result of residuals and advanced regeneration left over from the last stand. Some pockets of regeneration are just reaching merchantable size. The snowmobile trail runs along the north edge of this stand.
41	6120 - Lowland Cedar	High Density Sapling	4.3	60		Block cuts harvested in 1951; visited August 2011 for a regeneration check. Approximately 2-4" average DBH saplings over another layer of saplings less than 3' tall. Overall the stocking is extremely dense.
43	6129 - Mixed Coniferous Lowland Forest	High Density Pole	21.7	Uneven Age	111-140	2-storied stand as a result of partial cutting that left white pine, hemlock and cedar residuals. The white pine and hemlock are generally large diameter trees (16-20" DBH) while the rest are poles in the 6" DBH class; a few cedar and white spruce are larger, and were probably advanced regeneration when the stand was last cut.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
44	6130 - Fir, Aspen, Maple	Low Density Sapling	8.4	7	1-50	Cut in 2005; white pine seedlings planted in 2006. The basal area shown consists of residuals (mainly white pine) left from the last stand. The stand is located on an intermediate site that is neither a true upland nor a wet lowland.
45	6120 - Lowland Cedar	High Density Pole	5.1	91	111-140	Cedar with other conifers plus red maple & paper birch. The understory is fully stocked with cedar & balsam fir regeneration.
46	6120 - Lowland Cedar	High Density Sapling	2.5	60		Block cuts harvested in 1951; visited August 2011 for a regeneration check. Approximately 2" average DBH saplings over another layer of saplings less than 3' tall. Overall the stocking is extremely dense.
48	6129 - Mixed Coniferous Lowland Forest	High Density Log	9.7	83	111-140	This stand sits on a transitional site that displays characteristics of both upland and lowland habitats. It includes quite a few very large (20"+ DBH) white pine and hemlock that are relicts from the previous stand. These large trees are still generally healthy and provide outstanding wildlife values to this stand. The age given here is from previous inventory, but age class variation is evident when you include the relicts and minor disturbances/gap-phase dynamics that are now diversifying the vertical structure of the stand.
49	6120 - Lowland Cedar	High Density Sapling	33.4	46		Strip cuts harvested in 1965; visited August 2011 for a regeneration check. Approximately 2" average DBH saplings over another layer of saplings less than 3' tall. Overall the stocking is extremely dense.
50	6120 - Lowland Cedar	High Density Sapling	2.8	60		Block cuts harvested in 1951; visited August 2011 for a regeneration check. Approximately 2" average DBH saplings over another layer of saplings less than 3' tall. Overall the stocking is extremely dense.
51	6120 - Lowland Cedar	High Density Sapling	1.9	60		Block cut harvested in 1951; visited August 2011 for a regeneration check. Approximately 2" average DBH saplings over another layer of saplings less than 3' tall. Overall the stocking is extremely dense.
52	6120 - Lowland Cedar	Medium Density Pole	4.1	83	81-110	
53	6129 - Mixed Coniferous Lowland Forest	High Density Log	28.7	91	111-140	This stand of lowland mixed conifers features approximately equal amounts of cedar, spruce and tamarack. The first cohort of balsam fir appears to have died out, but the next generation of it is reaching into the general canopy level.
54	6124 - Lowland Spruce- Fir	Medium Density	3.9	26		Mixed conifer regeneration.
55	6129 - Mixed Coniferous Lowland Forest	Medium Density Log	15.8	83	81-110	Age class diversity is beginning to develop as a second cohort of balsam fir and red maple develop into poles beneath the larger white pine and hemlock logs. These larger trees provide excellent wildlife habitat for birds and other animals that prefer a mature but somewhat more open forest canopy.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	6120 - Lowland Cedar	High Density Sapling	2.3	60		Block cuts harvested in 1951; visited August 2011 for a regeneration check. Approximately 2-4" average DBH saplings over another layer of saplings less than 3' tall. Overall the stocking is extremely dense.
58	6120 - Lowland Cedar	Medium Density Pole	1116.1	91	111-140	Mix of cedar and spruce with scattered white pine, tamarack, birches and ash. The understory is well-stocked with cedar and balsam fir regeneration, and a mix of lowland hardwood species plus tag alder and willow.
59	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	698.9	98	51-80	Slow-growing mix of lowland spp. on very wet ground, but primarily cedar & black spruce. Most of the first cohort of balsam fir and paper birch have already fallen out of this stand. Stand density and crown closure are becoming highly variable as natural disturbances (cedar blowdown, dying fir/birch) create a more uneven-aged condition. Some areas support little more than lowland brush.
62	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density	6.5	45	1-50	Dense regeneration - mix of cedar, fir, spruce, red maple & ash, plus a few birch and white pine. The basal area shown here represents residual white pine and cedar from the last stand. Sapling heights are quite variable, but generally up to 15'.
63	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	3.0	Uneven Age	81-110	Unevenaged mix of primarily red maple/hemlock with a few other hardwood & conifer species mixed in.
64	6124 - Lowland Spruce- Fir	Medium Density	4.2	26	1-50	Stand was cut in 1986 - now fully stocked with regeneration of variable heights and diameters up to 4" DBH. The basal area shown here represents residuals (primarily white pine) left from the previous stand. Overall, the stand is fully stocked.
65	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	1.7	91	51-80	Lowland hardwood stand with cedar, fir, spruce and hemlock - density is highly variable. Very wet site. Age class diversity is developing.
66	4115 - Y.Birch, Hemlock NH	High Density Log	4.7	Uneven Age	111-140	Unevenaged hemlock/red maple mix on a transitional site between the upland hardwoods to the south and the lowland conifer stand to the north.
67	4115 - Y.Birch, Hemlock NH	High Density Log	9.9	Uneven Age	111-140	This stand consists of red maple with significant amounts of hemlock, spruce, fir and other hardwoods mixed in on rolling upland/transitional terrain. A few white pine and cedar are also present. This stand was previously classified as unevenaged, so a rough estimate of the age of the red maple is shown here. A selection cut to improve the quality of the hardwoods and increase the amount of hemlock & white pine regeneration is recommended. At present the understory is generally a mix of maple, fir and beech, with a few hemlock, spruce & white pine thrown in.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
68	6131 - Hemlock, White Pine, Maple, Birch	High Density Pole	31.1	Uneven Age	111-140	This stand consists primarily of red maple and hemlock with numerous other spp. mixed in on a transitional site between high-quality upland hardwoods to the west and a true lowland timber complex to the east. It was previously classified as unevenaged; a rough estimate of the age of the red maple is shown here. Many of the hemlock and the scattered white pine are considerably older. Cutting the hardwoods, spruce and fir will promote increased hemlock and white pine regeneration along with a mix of the other species. At present the understory is dominated by balsam fir, but hemlock, spruce and white pine are also present.
69	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	106.2	109	111-140	Factor Limit 2G: Too Wet This stand consists of approximately 2/3 hardwoods (red maple & black ash dominant) and 1/3 conifers. The site is extremely wet, with black ash swales separating hummocks and slight ridges where the other timber species occur. A few hemlock and pockets of somewhat denser cedar are also present. The understory is a mix of ash, red maple, balsam fir and lowland brush spp.
70	4110 - Sugar Maple Association	Medium Density Log	33.6	Uneven Age	81-110	High-quality sugar maple in an unevenaged stand - last selection cut completed in 2005.
71	4110 - Sugar Maple Association	Medium Density Log	89.8	Uneven Age	81-110	High-quality sugar maple in an unevenaged stand - last selection cut completed in 2005.
72	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	17.2	Uneven Age	111-140	Lowland hardwood mix on gently rolling terrain - this stand is a transition between the upland hardwoods adjacent to north & east and the lowland conifers to the southwest. Unevenaged characteristics are evident.
73	4319 - Mixed Upland Forest	High Density Pole	26.5	Uneven Age	81-110	Red maple - white pine - hemlock mix; partially cut in 1975.
74	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	18.5	Uneven Age	111-140	Gently rolling terrain supporting a lowland mix where cedar is gradually becoming dominant. Crown closure is generally tight but there are areas of lower density, particularly through a corridor that is somewhat lower and seasonally wetter than the rest of the stand. The understory varies widely throughout the stand, but cedar and fir are the most prevalent components.
76	42200 - Natural White Pine	High Density Log	29.1	90	111-140	White pine is heavily dominant on the uplands, with a mix of white pine-spruce-fir-hemlock-cedar on the wetter inclusions; tag alder is present in the understory on the wettest sites.
77	6116 - Lowland Birch	Low Density Pole	3.6	72		Scattered paper birch and aspen on very wet ground. Extensive windthrow was noted during the last inventory.
78	6113 - Lowland Maple	Medium Density Log	2.0	Uneven Age	81-110	Transitional site - residual mixed maple logs/poles over dense hardwood regeneration 1-5" DBH. Thinned in 1984. Definitely an unevenaged stand.
81	429 - Mixed Upland Conifers	High Density Log	7.0	100	111-140	Mixed conifers/red maple on a transitional site. Some partial cutting was done around 1975, resulting in a pole-sized cohort of red maple and balsam fir that now reaches into the main canopy level.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
82	6116 - Lowland Birch	Low Density Pole	2.9	72		Scattered paper birch and aspen on very wet ground.
83	6116 - Lowland Birch	Low Density Pole	45.1	72		Under contract for final harvest - timber sale 41-028-10-01.
85	6116 - Lowland Birch	Low Density Pole	6.2	72		Scattered paper birch and aspen on very wet ground. Extensive windthrow was noted during the last inventory.
86	6116 - Lowland Birch	Low Density Pole	25.5	72		Factor limit = too wet (inoperable) and low volume.
87	6116 - Lowland Birch	Low Density Pole	4.1	72		Scattered paper birch and aspen on very wet ground. Extensive windthrow was noted during the last inventory.
88	6116 - Lowland Birch	Low Density Pole	7.4	72		Scattered paper birch and aspen on very wet ground. Extensive windthrow was noted during the last inventory.
89	6120 - Lowland Cedar	Medium Density Pole	3.1	96		Cedar stand surrounded by lowland brush/marsh complex. Data shown here is from the last inventory.
91	6116 - Lowland Birch	Low Density Pole	5.3	72		Scattered paper birch and aspen on very wet ground. Extensive windthrow was noted during the last inventory.
92	6116 - Lowland Birch	Low Density Pole	11.3	72		Scattered paper birch etc. on wet ground. Access is extremely difficult.
93	6124 - Lowland Spruce- Fir	Medium Density Pole	1.7	92		Mixed lowland conifers with red maple and paper birch also present. A few white pine and black ash are also scattered through the stand.
95	6124 - Lowland Spruce- Fir	Medium Density Pole	20.8	92		Mixed lowland conifers with red maple and paper birch also present. A few white pine and black ash are also scattered through the stand.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	629 - Mixed non-forested wetland	1.6	No	Unspecified	Seasonally flooded area featuring a variety of lowland plant associations and flood-killed timber around a drainage.
14	50 - Water	2.4	No	Unspecified	Maintain a buffer around the pond to protect wildlife and aesthetic values.
20	3102 - Grass	3.1	Yes	Medium (NonForested)	Open upland with a few scattered trees adjacent to County Rd. 454 and the Melstrand Truck Trail.
22	3102 - Grass	1.2	No	Unspecified	
29	6220 - Alder/willow	3.5	No	Unspecified	Wet brushy area along Stoner Creek with a few scattered trees
31	50 - Water	1.2	No	Unspecified	Pond along Stoner Creek - the size and depth vary seasonally.
34	6220 - Alder/willow	74.5	No	Unspecified	
37	3102 - Grass	4.8	Yes	Medium (NonForested)	Grassy opening with scattered submerchantable trees and a pocket of merchantable timber as well. The snowmobile trail crosses through this stand.
42	123 - Other High Intensity Urban	21.5	N/A	Unspecified	
47	6220 - Alder/willow	1.2	No	Unspecified	Back-flooded area on the west side of Co.Rd. 454 - Tag alder/willow with a few cedar/spruce trees on the tallest hummocks. Cattails are abundant along the edges of hummocks as well. Scattered spruce, fir and cedar saplings are also present.
57	6220 - Alder/willow	5.1	No	Unspecified	
60	622 - Lowland Shrub	2.4	N/A	Unspecified	
61	50 - Water	1.1	No	Unspecified	Pond draining into the Creighton River
75	6224 - Treed Bog	19.3	No	Unspecified	
79	50 - Water	9.8	No	Unspecified	Creighton River up to the high water mark
80	6220 - Alder/willow	303.2	No	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
84	50 - Water	7.6	No	Unspecified	
90	6229 - Mixed lowland shrub	284.0	No	Unspecified	
94	50 - Water	1.1	No	Unspecified	Pond out in the marsh
96	50 - Water	6.2	No	Unspecified	Pond out in the marsh



**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.

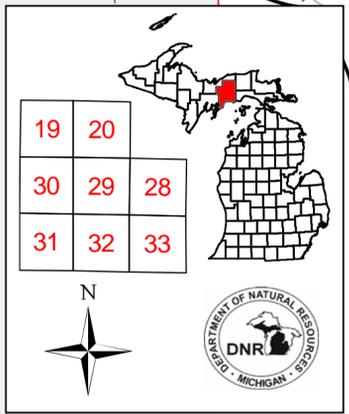
ERA = Ecological Reference Area  
HCVA = High Conservation Value Area  
SCA = Special Conservation Area

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: 165  
 T47N R16W Sec. 19, 20, 28-33  
 County: Schoolcraft  
 Unit: Shingleton  
 YOY: 2014  
 Acres: 3,779 GIS Calculated  
 Examiner: Bob Tylka  
 Map Revised: 09/12/2012  
 Map Phase: Pre-Review

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



**Legend**

- ◆ DNR Survey Corner
- ◇ DNR Field Corner
- + Remonumented Section Corners
- Miris Corners
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- 🚲 Bike Trails
- 👤 Hiking Trails
- 🛷 Ski Trails
- 🚙 Snowmobile Trails
- Bike Trail
- Ski Trail
- Hiking Trail
- Snowmobile Trail
- Pipeline
- Stream
- Lakes and Rivers

**Treatments**

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

**Forest Stands**

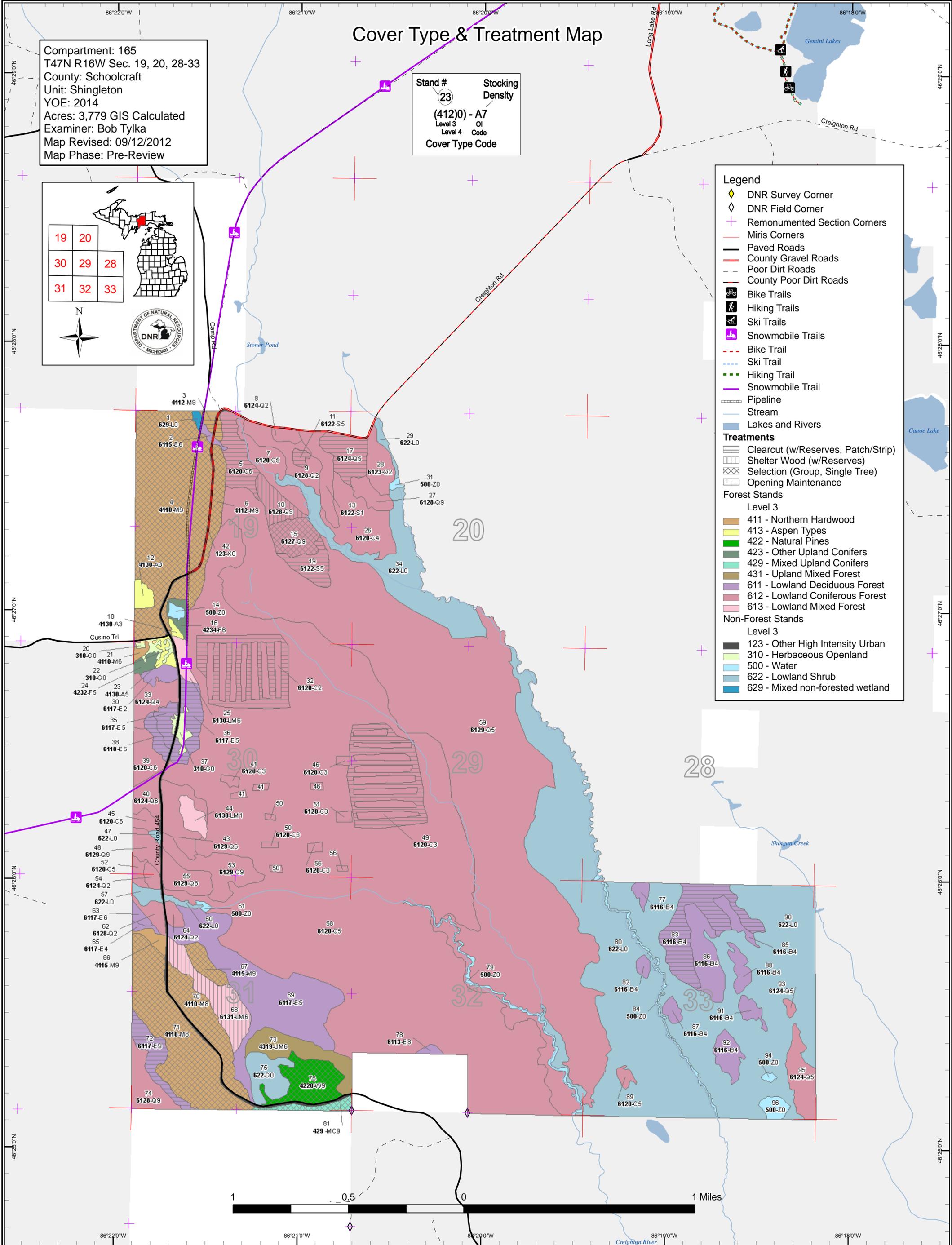
Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 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

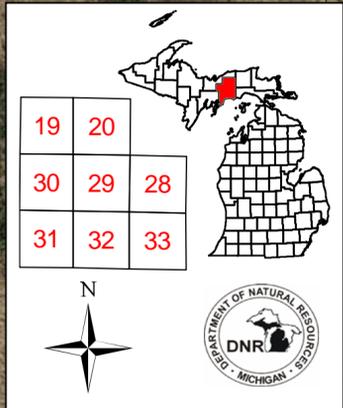
- 123 - Other High Intensity Urban
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland



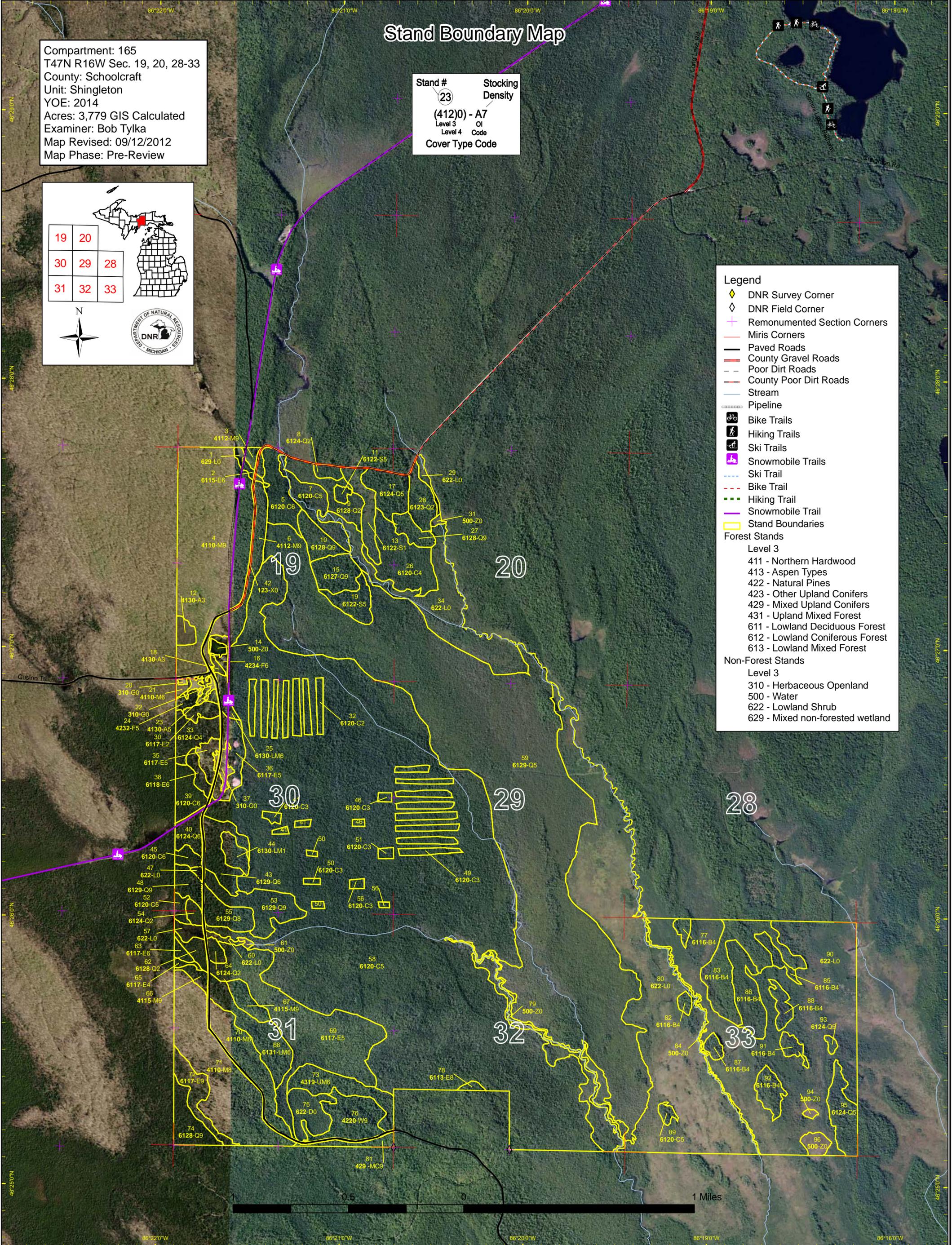
# Stand Boundary Map

Compartment: 165  
 T47N R16W Sec. 19, 20, 28-33  
 County: Schoolcraft  
 Unit: Shingleton  
 YOY: 2014  
 Acres: 3,779 GIS Calculated  
 Examiner: Bob Tylka  
 Map Revised: 09/12/2012  
 Map Phase: Pre-Review

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



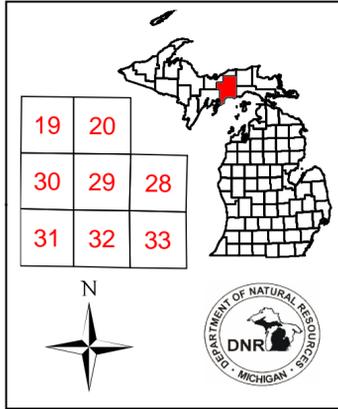
- Legend**
- ◆ DNR Survey Corner
  - ◇ DNR Field Corner
  - ✦ Remonumented Section Corners
  - Miris Corners
  - Paved Roads
  - County Gravel Roads
  - Poor Dirt Roads
  - County Poor Dirt Roads
  - Stream
  - Pipeline
  - 🚲 Bike Trails
  - 👤 Hiking Trails
  - 🎿 Ski Trails
  - 🚙 Snowmobile Trails
  - Ski Trail
  - Bike Trail
  - Hiking Trail
  - Snowmobile Trail
  - ▭ Stand Boundaries
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 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**
- 310 - Herbaceous Openland
  - 500 - Water
  - 622 - Lowland Shrub
  - 629 - Mixed non-forested wetland



# Dedicated & Proposed Special Conservation Area Map

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

Compartment: 165  
 T47N R16W Sec. 19, 20, 28-33  
 County: Schoolcraft  
 Unit: Shingleton  
 YOE: 2014  
 Acres: 3,779 GIS Calculated  
 Examiner: Bob Tylka  
 Map Revised: 08/06/2012  
 Map Phase: Pre-Review



**Legend**

- ✦ Remonumented Section Corners
- Miris Corners
- ▭ Stand Boundaries

**Forest Stands**

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 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

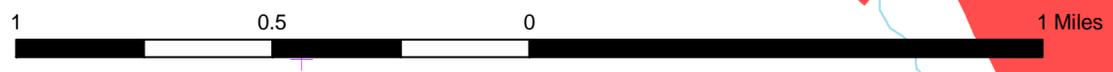
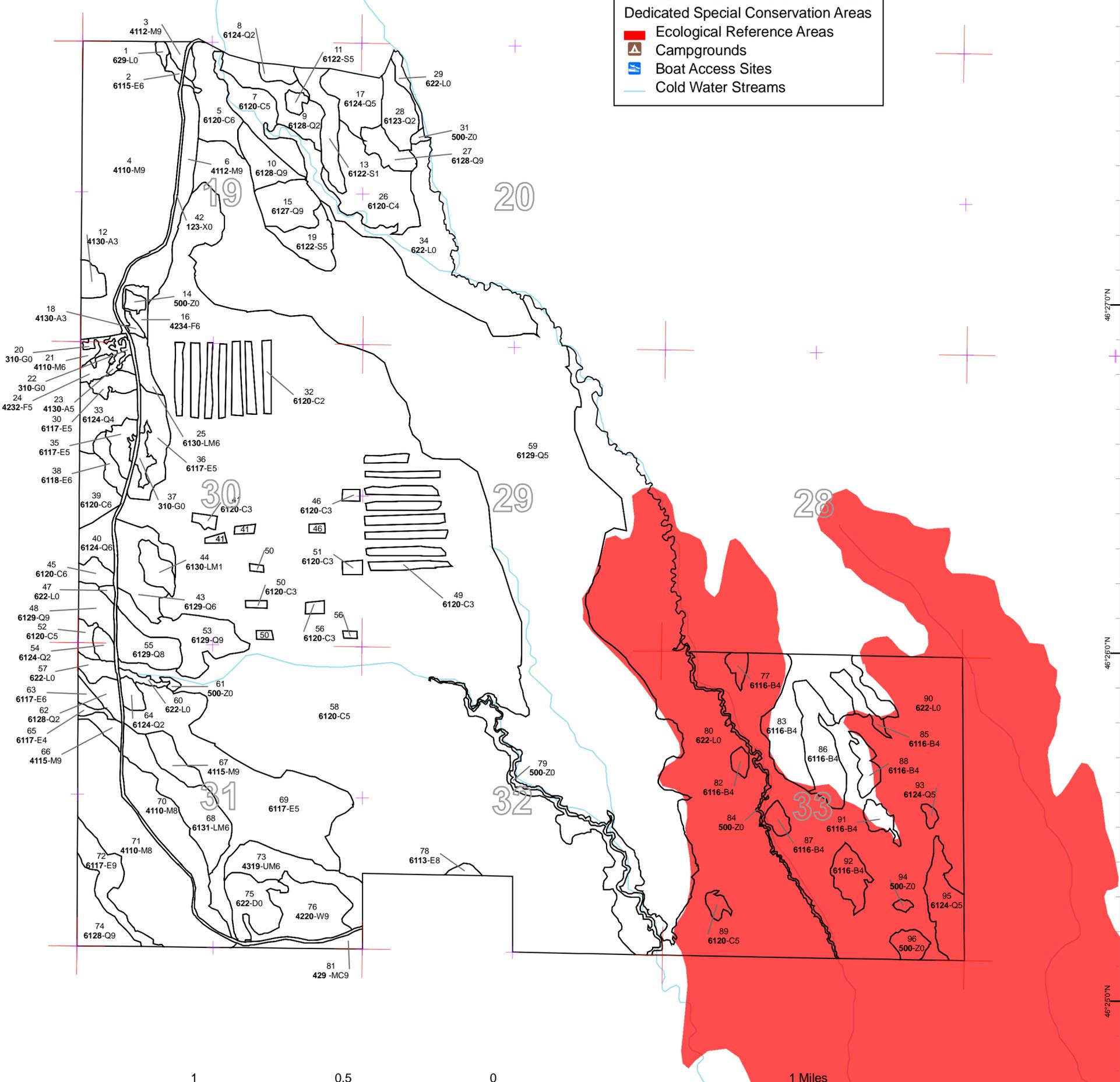
**Non-Forest Stands**

Level 3

- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 629 - Mixed non-forested wetland

**Dedicated Special Conservation Areas**

- Ecological Reference Areas
- ▲ Campgrounds
- ⚓ Boat Access Sites
- Cold Water Streams



86°22'0"W 86°21'0"W 86°20'0"W 86°19'0"W 86°18'0"W

46°23'0"N  
46°22'0"N  
46°21'0"N  
46°20'0"N  
46°19'0"N  
46°18'0"N

46°23'0"N  
46°22'0"N  
46°21'0"N  
46°20'0"N  
46°19'0"N  
46°18'0"N