



Shingleton Forest Management Unit Compartment Review Presentation

Compartment #169

Entry Year: 2014

Compartment Acreage: 1388

County: Alger

Revision Date: 8/12/2012

Stand Examiner: Josh Wall

Legal Description: T48N R17W Sections 26,33-35

RMU (if applicable): This compartment is located within the Pictured rocks Buffer Management Area.

Management Goals: Provide for the protection, integrated management, and responsible use of a healthy, productive, forest and mineral resource base for the social, recreational, environmental, and economic benefit of the people of the State of Michigan

Soil and Topography: The hardwoods timber types in this compartment are growing on Saugatuck sand, Ogemaw sandy loam or Munising loam. The conifer timber types are growing on Carbondale peat. The terrain ranges greatly from very steep hills to rolling areas to the flats in the conifer types.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment has broken ownership of private and commercial private lands. The entire compartment is within the Pictured Rocks National Lake Shore Boundary.

Unique, Natural Features (include only non-site specific and non-sensitive information): Currently under review by Michigan Natural Features inventory.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): This area was logged at the turn of the century like many of the areas in the Shingleton Management Unit. There are traces of old grades and winter roads.

Special Management Designations or Considerations: The compartment is located within the dedicated Pictured Rocks National Lakeshore Buffer Zone.

Watershed and Fisheries Considerations: Fisheries Values Moderate-to-Good. This compartment borders Spray Creek in the Northeastern portion. Spray Creek is a coldwater stream which contains native brook trout in certain reaches. Angling pressure is minimal with poor access through the Pictured Rocks National Lakeshore. No treatments are proposed near Spray Creek, so Fisheries Division has no concerns at this time.

Wildlife Habitat Considerations: This compartment is located in the Grand Marias Sandy End Moraine Outwash sub-subsection. The average growing season is approximately 120 days. The extreme winter temperature generally reaches approximately -35° F. Snowfall in this compartment averages 200 inches or more annually. The compartment falls within the Pictured Rocks Buffer Management Area which highlights the following Featured Species: American Marten, Blackburnian warbler, northern goshawk and pileated woodpecker. General Land Office (GLO) Surveyor notes show a fairly even distribution of sugar maple, beech, hemlock, yellow birch and balsam fir in the uplands. Spotted maple (presumed to be striped maple), red maple, cedar, and spruce were also present in lesser amounts. Lowlands were dominated by cedar, but also contained hemlock, black ash, beech, tamarack, and balsam fir. Beaver ponding and wind throw were

likely the major forms of natural disturbance. Current upland forests appear to be much less diverse than those recorded during the first survey. Sugar maple dominates, while beech, hemlock, yellow birch, and balsam fir probably occur at lower densities. Lowland conifer forests appear to be similar in species composition to those found in the 1850s. Wildlife habitat objectives include maintaining closed canopy conifer forests, protecting the Spray Creek stream corridor, and promoting species and structural diversity within and between hardwood stands. Common loon (Michigan threatened) is the only rare species recorded within this compartment. Moose (Michigan special concern) utilize this compartment at various times. Other wildlife species of interest may include spotted salamander, American toad, scarlet tanager, red-backed vole and northern flying squirrel.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of an end moraine of medium-textured till and glacial outwash sand and gravel and postglacial alluvium. There is insufficient data to determine the glacial drift thickness. The Cambrian Trempealeau and Munising Formations subcrop below the glacial drift. The Trempealeau could be used for stone. The nearest gravel pit is several miles to the south, but there should be potential on the uplands. There is no commercial oil and gas production in the UP.

Vehicle Access: Access into the south part of the compartment is on good dirt roads. There are a fair number of skid trails and old logging roads that are in and around the compartment. Access to the north is on good dirt roads until the location of a portable bridge at Spray Creek, which will be removed after sale completion. Access can be poor due to heavy soils.

Survey Needs: None

Recreational Facilities and Opportunities: There are no recreational facilities within the compartment however opportunities include hunting, fishing and hiking.

Fire Protection: The timber types are mainly hardwood and lowland conifers reducing the chances of any large wildland fire occurrences.

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 +		Unrepen Age
Cedar	0	0	0	0	0	0	57	0	0	0	0	0	0	0	57
Hemlock	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Herbaceous Openland	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Lowland Conifers	57	0	0	0	0	215	56	0	0	0	0	0	0	0	328
Lowland Deciduous	22	0	0	0	0	2	9	0	0	0	0	0	0	0	33
Lowland Mixed Forest	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
Lowland Shrub	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Marsh	60	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Mixed Upland Deciduous	11	0	0	0	0	15	20	0	0	0	0	0	0	0	46
Northern Hardwood	5	0	0	0	11	0	746	59	0	0	0	0	0	0	821
Paper Birch	0	0	0	0	0	22	0	0	0	0	0	0	0	0	22
Upland Spruce/Fir	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	168	1	0	0	11	255	895	59	0	0	0	0	0	0	1389



Table 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit
Year of Entry 2014

Compartment 169
Total Compartment Acres: 1389

Acres by Treatment Type

Commercial Harvest - 255	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 Conifers	5	0	0	0	0	0	5
Lowland Deciduous	9	0	0	0	0	0	9
Lowland Mixed Forest	5	0	0	0	0	0	5
Northern Hardwood	4	232	0	0	0	0	236
Total	23	232	0	0	0	0	255



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
7	41169007-Cut	3.9	4112 - Maple, Beech, Cherry Association	High Density Log	72	81-110	Harvest	Patch or Strip Clearcut	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription</u> Treatment=Clear-cut small pockets 1/2 to 1 acre in size to create regen gaps. Old trail runs through stand that should be used for access to <u>Specs:</u> these pockets. Depending on season marked pockets can be redlined or marked orange. MO= Un-even aged hardwoods with quality Sugar Maple stems Retention= Residual BA <u>Other</u> <u>Comments:</u> <u>Next</u> Natural regen survey to follow harvest during next inventory cycle. <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2013										
9	41169009-Cut	8.9	6118 - Lowland Deciduous with Cedar	High Density Log	66	51-80	Harvest	Clearcut with Reserves	6118 - Lowland Deciduous with Cedar	Cmpt. Review Proposal
<u>Prescription</u> Treatment=Final Harvest Winter Harvest Cut all merchantable trees <u>Specs:</u> MO=Regenerate Paper Birch and White Cedar Retention=5% in pockets <u>Other</u> <u>Comments:</u> <u>Next</u> Natural regen survey to follow harvest during next inventory cycle. <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2013										
13	41169013-Cut	14.9	4110 - Sugar Maple Association	High Density Log	68	111-140	Harvest	Single Tree Selection	4111 - S.Maple, Hard Mast Association	Cmpt. Review Proposal
<u>Prescription</u> Treatment= Winter Harvest Thin stand down to an average of 80BA creating regen pockets to promote species diversity and Sugar Maple regen. <u>Specs:</u> Pockets of Sugar Maple regen present to avoid. Winter Harvest MO=Un-even aged hardwoods with quality Sugar Maple stems Retention=Residual BA <u>Other</u> <u>Comments:</u> <u>Next</u> Natural regen survey to follow harvest during next inventory cycle. <u>Steps:</u> <u>Proposed</u> <u>Start Date:</u> 10/01/2013										
15	41169015-Cut	12.3	4112 - Maple, Beech, Cherry Association	High Density Log	68	81-110	Harvest	Group Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription</u> Treatment=Winter Harvest Thin stand down 80 BA on average in areas heavy to Sugar Maple otherwise create large gaps/small clear-cuts 1/2 to <u>Specs:</u> 1 acre in size in lower quality and areas heavy to Cherry. MO=Regenerate Black Cherry (sprouting), Sugar Maple, Paper Birch, and promote more conifers Spruce and Hemlock. Retention=Pockets of Hemlock on the east end of stand along with all Yellow Birch,White Spruce, and a few Black Cherry along gap edges for seed trees. <u>Other</u> Lots of older Black Cherry pulp trees <u>Comments:</u> <u>Next</u> Natural regen survey to follow harvest during next inventory cycle <u>Steps:</u> <u>Proposed</u> <u>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
20	41169020-Cut	10.3	4110 - Sugar Maple Association	High Density Pole	68	111-140	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<u>Prescription:</u> Treatment=Winter Harvest Thin stand to an average of 80 BA creating regn gaps to promote species diversity and Sugar Maple regen. Winter harvest. <u>Specs:</u> MO=Un-even aged hardwoods with quality Sugar Maple stems Retention=Residual BA <u>Other Comments:</u> Wet crossing to getting to stand <u>Next Steps:</u> Natural regen survey to follow harvest during next inventory cycle. <u>Proposed Start Date:</u> 10/01/2013										
28	41169028-Cut	4.8	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	58	51-80	Harvest	Clearcut with Reserves	6128 - Lowland Coniferous, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription:</u> Treatment=Final Harvest Winter Harvest Cut all merchantable species <u>Specs:</u> MO=Regenerate White Cedar Retention=5% of acerage in pockets <u>Other Comments:</u> <u>Next Steps:</u> Natural regen survey to follow harvest during next inventory cycle. <u>Proposed Start Date:</u> 10/01/2013										
30	41169030-Cut	6.2	4112 - Maple, Beech, Cherry Association	High Density Pole	68	111-140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription:</u> Treatment=Winter Harvest Thin stand to 80 BA on average removing the larger Red Maple while putting in regen gaps to promote Sugar Maple and species diversity. Winter Harvest <u>Specs:</u> MO=Un-even aged hardwoods with quality Sugar Maple stems Retention=Residual BA <u>Other Comments:</u> <u>Next Steps:</u> Natural regen survey to follow harvest during next inventory cycle. <u>Proposed Start Date:</u> 10/01/2013										
33	41169033-Cut	15.9	4112 - Maple, Beech, Cherry Association	High Density Log	70	111-140	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<u>Prescription:</u> Treatment=Thin stand down to 80 BA on average while putting in regen gaps to promote species diversity and Sugar Maple. Avoid seeps. <u>Specs:</u> MO=Un-even aged hardwoods with quality Sugar Maple stems Retention=Residual BA <u>Other Comments:</u> <u>Next Steps:</u> Natural regen survey to follow harvest during next inventory cycle. <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
36	41169036-Cut	5.2	6132 - Mixed Lowland Forest with Cedar	High Density Pole	60	51-80	Harvest	Clearcut with Reserves	6132 - Mixed Lowland Forest with Cedar	Cmpt. Review Proposal

Prescription: Treatment=Final Harvest, Winter Harvest, Blue line in check for accuracy
Specs: MO=Regenerate White Cedar
 Retention=Pockets of Hemlock and trees to protect them

Other Comments:

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

Proposed Start Date: 10/01/2013

38	41169038-Cut	34.1	4110 - Sugar Maple Association	High Density Log	68	111-140	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.
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 next inventory cycle.

Proposed Start Date: 10/01/2013

43	41169043-Cut	138.7	4111 - S.Maple, Hard Mast Association	High Density Log	68	141-170	Harvest	Single Tree Selection	4111 - S.Maple, Hard Mast Association	Cmpt. Review Proposal
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Prescription: Treatment=Thin stand down to 80BA on average while putting in regen gaps to promote species diversity and Sugar Maple. Blue lines are in check for accuracy.
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 next inventory cycle.

Proposed Start Date: 10/01/2013

**Total Treatment
Acreage Proposed: 255.1**

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
41009014-Cut1	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

41044_OutOfY OE-Cut	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

41172002-Cut	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**



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6119 - Mixed Lowland Deciduous Forest	Low Density Sapling	3.2	5		Stand was cut 5-6 yrs ago, MO Paper Birch
2	4191 - Mixed Upland Deciduous with Conifer	High Density Log	18.7	60	81-110	Clear-cut stand next inventory cycle when the hardwood is thinned again, stand was sold and they started harvesting 5-6yrs ago but must have pulled out due to weather conditions. MO Paper Birch
3	4110 - Sugar Maple Association	Medium Density Log	20.5	70	81-110	Thinned 5-6 yrs ago, MO Sugar Maple
4	6119 - Mixed Lowland Deciduous Forest	Low Density Sapling	15.1	5		Cut last inventory cycle, stand gets wetter as you go south. MO Maple on ridges and Paper Birch/Cedar in wet areas.
5	4110 - Sugar Maple Association	Medium Density Log	3.4	72	51-80	Thinned 5-6 yrs ago, MO Sugar Maple
6	4191 - Mixed Upland Deciduous with Conifer	High Density Log	1.3	62	81-110	Island of upland hardwoods, leave due to access and size. MO long lived conifers.
7	4112 - Maple, Beech, Cherry Association	High Density Log	18.9	72	81-110	Mixed aged stand, create small clear-cuts 1/2 to 1 acre in size and not more than 5 acres total to mimick natural disturbance. Trail runs through stand that should be used for access and for tying clear-cut pockets together. Depending on season marked pockets can be red lined or individual tree orange.
9	6118 - Lowland Deciduous with Cedar	High Density Log	8.9	66	51-80	Clear-cut stand to promote Cedar and Paper Birch regen. Winter Harvest due to soil conditions. MO Cedar/P Birch
10	4112 - Maple, Beech, Cherry Association	Low Density Sapling	4.7	5		Cut 5-6 years ago, MO Red Maple
11	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density	18.4	5		Cut 5-6 years ago, some nice cedar regen in pockets. MO Cedar and Black Spruce
12	4140 - Other Upland Deciduous	High Density Log	22.0	58	81-110	Clear-cut next inventory cycle when the adjacent hardwood stands get thinned again. MO Mix deciduous and conifers.
13	4110 - Sugar Maple Association	High Density Log	14.9	68	111-140	Thin stand down to 80 BA on average while creating regen gaps to promote Sugar Maple regen. Pockets of Sugar Maple regen already present.
15	4112 - Maple, Beech, Cherry Association	High Density Log	12.3	68	81-110	Clear-cut stand extending into the Fir/Cedar to the north. Nice component of Black Cherry, leave Hemlock by painting out pocket or trees around them on the east end. MO Black Cherry stomp sprouts, HM and RM, P Birch.
16	4110 - Sugar Maple Association	Medium Density Log	121.7	68	81-110	Thinned 5-6 yrs ago, pockets of HM regen. MO HM
17	4112 - Maple, Beech, Cherry Association	Medium Density Log	76.7	68	81-110	Nice pockets of HM regen, stand was thinned 5- 6 years ago. MO HM



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Log	210.3	57	51-80	Wet, many seeps empty into the stand with pockets of straight Birch and Cedar.
20	4110 - Sugar Maple Association	High Density Pole	10.3	68	111-140	Thin stand down to 80 ba creating regen gaps to promote HM regen and diversity. Pockets of HM regen already presnt. Limit factor stand due to stream crossing on southeast side.
21	4110 - Sugar Maple Association	Medium Density Log	17.8	68	81-110	Nice HM regen, thinned 5-6 years ago, MO HM
22	6120 - Lowland Cedar	Medium Density Pole	31.3	60	1-50	MO Cedar
23	4110 - Sugar Maple Association	Medium Density Log	61.7	68	81-110	Awesome HM regen. Thinned 5-6 years ago. MO HM
24	4199 - Other Mixed Upland Deciduous	Low Density Sapling	10.5	5		Clear-cut 5-6 yrs ago, Wet inclusions of cedar cut along with the rest but not regenerating back to Cedar. MO Aspen
25	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Sapling	38.7	5		Stand was clear cut 5-6 yrs ago, very nice Cedar regen with over 300 trees/ ac on the eastside
26	6118 - Lowland Deciduous with Cedar	High Density Pole	2.4	50	51-80	Clear-cut next inventory cycle when the hardwood in the area is thinned again. Pockets of pure Birch and Cedar.
27	42360 - Upland Cedar	Medium Density Log	23.1	65	51-80	Put in regen gaps the next time the hardwood around the stand gets thinned. MO Cedar
28	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	4.8	58	51-80	Clear-cut stand, winter harvest due to soil conditions, access will be from the adjacent hardwood stand that will also be thinned. Retain any hemlock and white pine. MO cedar and paper birch.
29	6118 - Lowland Deciduous with Cedar	Low Density Sapling	3.9	5		Clear-cut 5-6 yrs ago, MO Maple
30	4112 - Maple, Beech, Cherry Association	High Density Pole	6.2	68	111-140	Remove large cherry and Red Maple while thinning HM poles. Include harvest with clear-cut of stand 32, winter harvest due to access.
32	6120 - Lowland Cedar	High Density Pole	2.6	60	111-140	Nice pole stand of Cedar, MO Cedar
33	4112 - Maple, Beech, Cherry Association	High Density Log	15.9	70	111-140	Thin stand down to 80 BA by favoring the Sugar Maple since the stand is heavy to Red Maple. Create regen gaps to promote diversity and encourage more Sugar Maple regen. Factor Limit Stand.
35	4113 - R.Maple, Conifer	Medium Density Pole	11.0	45	51-80	Seep running through stand, MO seep buffer
36	6132 - Mixed Lowland Forest with Cedar	High Density Pole	5.2	60	51-80	MO W Cedar and gaining access to the stands to the north.

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Shingleton Mgt. Unit

5 – Forested Stands

Compartment: 169
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4190 - Mixed Upland Deciduous with Cedar	High Density Pole	15.4	50	51-80	Clear-cut next inventory cycle giving the adjacent stand more time to become stocked. Pockets of pure P Birch and Cedar.
38	4110 - Sugar Maple Association	High Density Log	34.1	68	111-140	Thin down to 70-80 BA putting in regen gaps to promote HM regen and species diversity.
39	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	52.7	60		Seeps run through stand towards the North on the east and west sides. MO long lived conifers.
40	4112 - Maple, Beech, Cherry Association	Medium Density Log	7.0	68	51-80	Thinned last inventory cycle, didn't see much for HM regen.
43	4111 - S.Maple, Hard Mast Association	High Density Log	158.4	68	141-170	Thin stand to 80 BA while creating gaps to promote Sugar Maple regeneration and stand/species diversity. MO Sugar Maple.
44	6129 - Mixed Coniferous Lowland Forest	High Density Pole	1.0	60	81-110	MO long lived conifers
45	6129 - Mixed Coniferous Lowland Forest	High Density Pole	2.0	60	81-110	MO long lived conifers
46	4111 - S.Maple, Hard Mast Association	Medium Density Log	225.3	68	81-110	Thinned 5-6 yeras ago. Thick pockets of Red Maple in the understory, MO Sugar Maple
47	42320 - Upland Spruce	Medium Density Pole	1.0	19	1-50	MO Conifer cover, planted White Spruce, was a opening.
50	42350 - Upland Hemlock	High Density Pole	2.3	60	81-110	MO Long Lived Conifers



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
8	6239 - Mixed Emergent Wetland	33.6	No	Unspecified	
14	3102 - Grass	1.7	Yes	Low (NonForested)	
18	629 - Mixed non-forested wetland	10.2	No	Unspecified	
31	6239 - Mixed Emergent Wetland	11.3	No	Unspecified	
34	6239 - Mixed Emergent Wetland	4.5	No	Unspecified	
41	6239 - Mixed Emergent Wetland	6.4	No	Unspecified	
42	6239 - Mixed Emergent Wetland	2.4	No	Unspecified	
48	3102 - Grass	1.4	Yes	Low (NonForested)	
49	6233 - Wet Meadow	1.8	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
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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 Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.
SCA	Contiguous Resource Area	These are DNR-owned lands that are directly contiguous to adjacent ownerships, where there is potential for coordination of landscape-level management for similar purposes. Such lands include distinct but contiguous DNR-owned lands, such as State Parks, State Forest and Wildlife Areas. Such lands also include DNR-owned lands that are adjacent to other ownerships such as Federal Parks, National Forest wilderness areas, National Wildlife Refuges, conservancy lands, and private lands such as the Huron Mountain Club.
SCA	Visual Management Area	An area of general social appreciation that is managed to recognize and preserve a particular visual value. Examples of these areas include scenic vistas, scenic or natural beauty roads, and lakeshore areas.

Cover Type & Treatment Map

Compartment: 169
 T48N R17W Sec. 26, 27, 33-35
 County: Alger
 Unit: Shingleton
 YOE: 2014
 Acres: 1,389 GIS Calculated
 Examiner: Jesse Bramer
 Map Revised: 09/12/2012
 Map Phase: Pre-Review

Legend

- ◆ DNR Survey Corner
- ◇ DNR Field Corner
- + Remonumented Section Corners
- Miris Corners
- Highway
- County Paved Roads
- Paved Roads
- County Gravel Roads
- == Gravel Roads
- - Poor Dirt Roads
- - County Poor Dirt Roads
- - - Trail (Non-Recreation)
- ⋯ Closed Roads
- ⚡ Hiking Trails
- ⋯ Hiking Trail
- Stream
- - Intermittent Stream
- Lakes and Rivers

Treatments

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

Forest Stands

Level 3

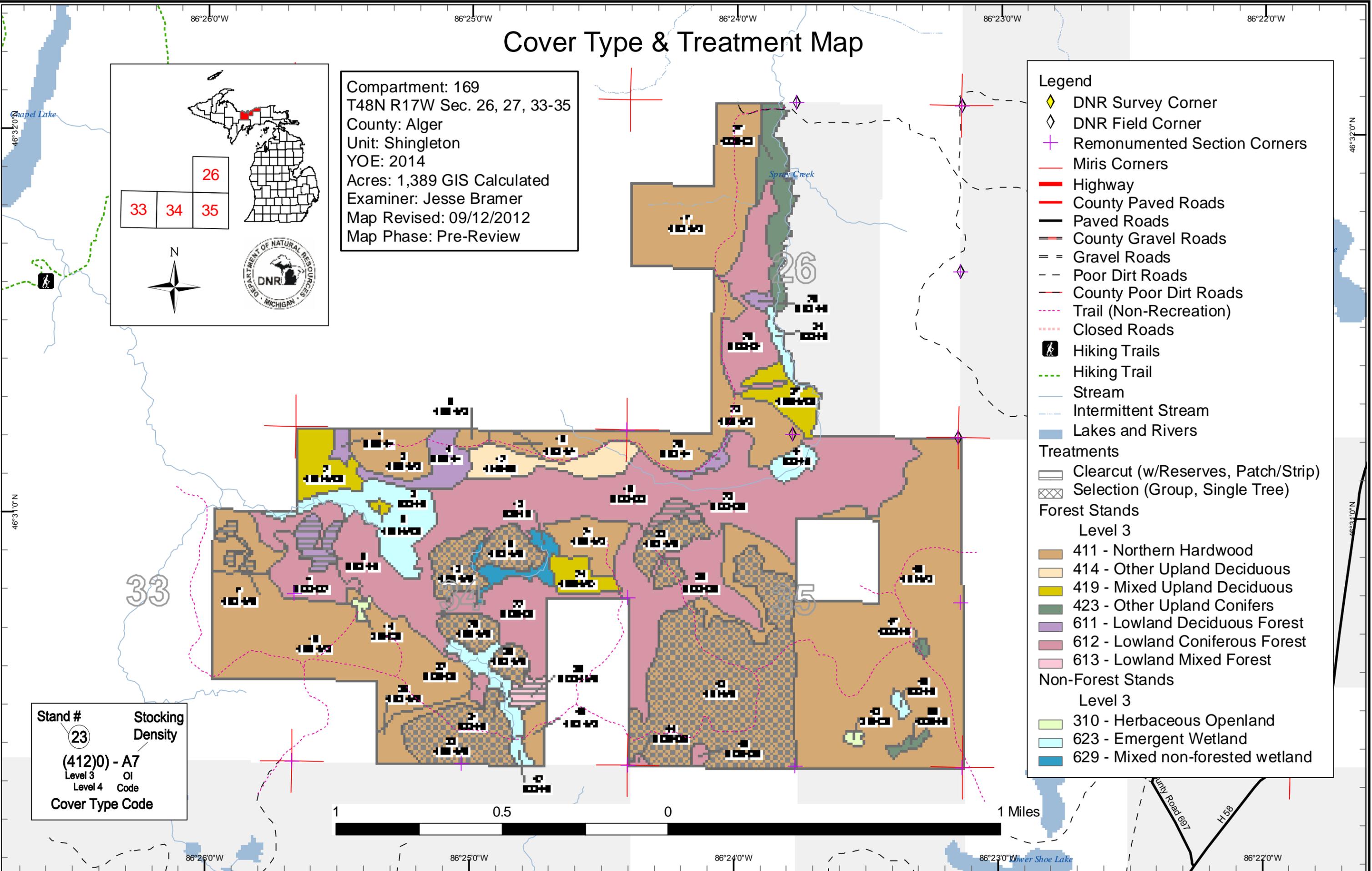
- 411 - Northern Hardwood
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

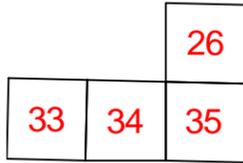
- 310 - Herbaceous Openland
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland

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



Stand Boundary Map

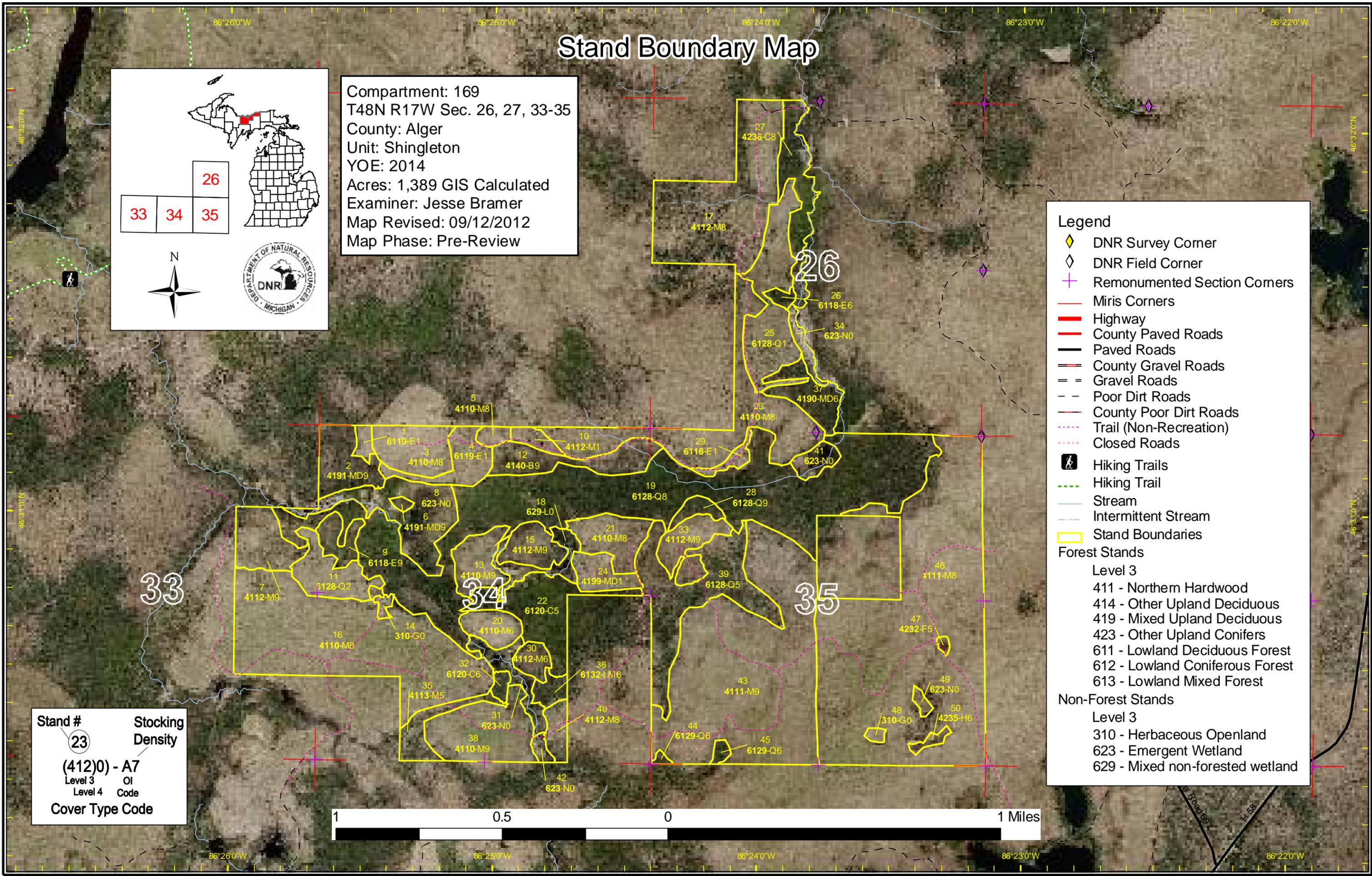
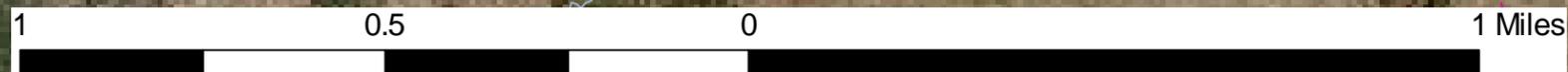
Compartment: 169
 T48N R17W Sec. 26, 27, 33-35
 County: Alger
 Unit: Shingleton
 YOE: 2014
 Acres: 1,389 GIS Calculated
 Examiner: Jesse Bramer
 Map Revised: 09/12/2012
 Map Phase: Pre-Review



Legend

- DNR Survey Corner
 - DNR Field Corner
 - Remonumented Section Corners
 - Miris Corners
 - Highway
 - County Paved Roads
 - Paved Roads
 - County Gravel Roads
 - Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Trail (Non-Recreation)
 - Closed Roads
 - Hiking Trails
 - Hiking Trail
 - Stream
 - Intermittent Stream
 - Stand Boundaries
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
 - 414 - Other Upland Deciduous
 - 419 - Mixed Upland Deciduous
 - 423 - Other Upland Conifers
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
- 310 - Herbaceous Openland
 - 623 - Emergent Wetland
 - 629 - Mixed non-forested wetland

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



Dedicated & Proposed Special Conservation Area Map

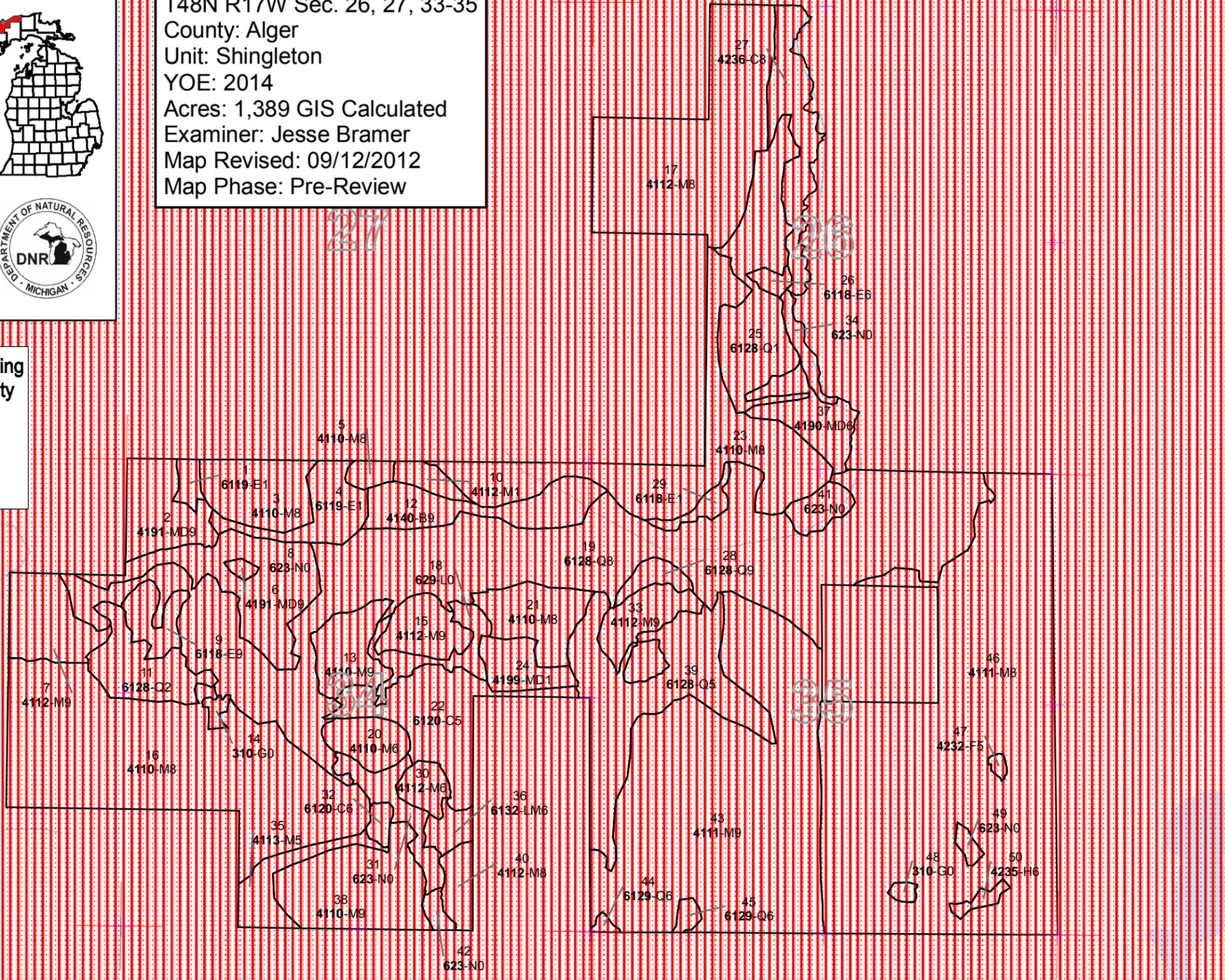
86°25'0"W 86°25'0"W 86°24'0"W 86°23'0"W 86°22'0"W

Compartment: 169
 T48N R17W Sec. 26, 27, 33-35
 County: Alger
 Unit: Shingleton
 YOE: 2014
 Acres: 1,389 GIS Calculated
 Examiner: Jesse Bramer
 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

- ✚ Remonumented Section Corners
- Miris Corners
- ▭ Stand Boundaries
- Forest Stands
- Level 3
 - 411 - Northern Hardwood
 - 414 - Other Upland Deciduous
 - 419 - Mixed Upland Deciduous
 - 423 - Other Upland Conifers
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands
- Level 3
 - 310 - Herbaceous Openland
 - 623 - Emergent Wetland
 - 629 - Mixed non-forested wetland
- Dedicated Special Conservation Areas
 - ▨ Visual Management Areas
 - ▤ Contiguous Resource Areas
 - Cold Water Streams
 - ▭ Cold Water Lakes



86°25'0"W 86°25'0"W 86°24'0"W 86°23'0"W 86°22'0"W

46°32'0"N

46°31'0"N

46°32'0"N

46°31'0"N