

Revision Date: 8/13/2012

Stand Examiner: Jennifer Burnham

Legal Description: T43N R14W Sections 33-36

RMU (if applicable): Compartment 64 lies within Seney Manistique Swamp 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: Soil types found in this compartment are Saugetuck sand, AuTrain loamy sand, Wallace fine sand, Carbondale peat and Greenwood peat. The sands will grow the poor quality hardwoods and the pine types. The peat soils will have the spruce and associated conifer types growing on them. There is some rolling terrain mainly near the Manistique River and Floodwood Road. The remainder of the compartment is low ground with poor drainage.

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment has broken ownership of private land and some commercial private around the area.

Unique, Natural Features: Currently under review by Michigan Natural Features inventory.

Archeological, Historical, and Cultural Features: 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 winter roads in some of the stands.

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: Poor-to-Good. Bear Creek is classified as SQCW. Even so, we know very little about its natural trout production or angler success when fishing it. However, Cub Bear Creek is classified SQWW. There is no need to protect Cub Bear Creek from encroachment by beaver, but protection from increased sand bedload is still a high priority.

Wildlife Habitat Considerations: This compartment lies within the St. Ignace sub-subsection. The growing season last approximately 130 days. Extreme winter low temperature approaches -46^{0} F. Annual snowfall averages 100 inches. The compartment falls within the Seney Manistique Swamp Management Area which highlights the following Featured Species: Moose, sharp-tailed grouse, snowshoe hare and white-tailed deer. Pre-settlement forests in the lowlands were likely dominated by cedar, tamarack, balsam fir, and black spruce. Upland forest probably contained hemlock, sugar maple, beech, yellow birch, white birch, and basswood. Fire and windthrow were likely the major forms of natural disturbance. This compartment contains a substantial amount of open wetlands. Current vegetation in lowland forest is similar in species composition as would have been expected pre-settlement. On the uplands, however, has shifted more toward early successional species such as jack pine and aspen. Wildlife habitat objectives in this

compartment include maintaining closed canopy conifer stands, promoting hemlock in the uplands, and protecting the Bear Creek Stream corridor. Wood turtles (Michigan special concern) are known to utilize this compartment. Other wildlife species of interest that may utilize this compartment include northern redbelly snake, garter snake, Blackburnian warbler, saw-whet owl, fisher, and red fox.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of peat and muck and thin to discontinuous glacial till over bedrock. There is insufficient data to determine the glacial drift thickness. The Silurian Burnt Bluff Group and Cabothead Shale subcrop below the glacial drift. The Burnt Bluff is quarried for stone. The nearest gravel pit is one-half mile to the south and there appears to be some potential in Sections 33 & 34. There is a clay pit 8 miles to the west. There is no commercial oil and gas production in the UP.

Vehicle Access: Access for vehicle traffic is poor unless using the Floodwood Road. There are only a couple trail roads that can be used all year. Old winter roads are of limited quantity also

Survey Needs: None at this time.

Recreational Facilities and Opportunities: Snowmobile Trail number 2, which is maintained by Schoolcraft County Snowmobile Club, runs through the top portion of sections 33 and 34 of the compartment part of which is on a county road.

Fire Protection: The majority of the compartment is lowland conifers so fire danger is low. However there are scattered islands of pine which have the potential for lightening strikes were access would be poor.

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

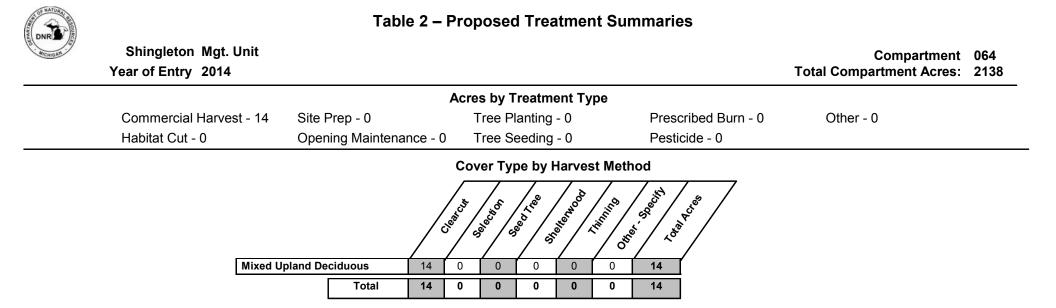
Shingleton Mgt. Unit Jennifer Burnham : Examiner

Compartment 064 Year of Entry 2014



Age	Class
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		6.0	0 ^{.7} 0	12 ⁵²	61. 63	10 ⁻¹³	in an	00.00 00		40 ¹ 80 5	67.05	001.001 	611.0L	NO JIN	ASS A	, o th
Aspen	48	0	44	0	0	0	0	0	0	0	0	0	0	0	92	
Cedar	0	0	0	13	6	19	0	0	14	141	0	0	0	0	193	
Hemlock	0	0	0	0	0	0	0	29	0	0	0	0	0	0	29	
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Jack Pine	0	0	28	0	0	0	0	0	0	0	0	0	0	0	28	
Low-Density Trees	151	0	0	0	0	0	0	0	0	0	0	0	0	0	151	
Lowland Conifers	0	0	0	0	0	117	0	104	12	50	0	0	0	0	283	
Lowland Deciduous	0	0	0	0	0	42	0	0	0	0	0	0	0	0	42	
Lowland Mixed Forest	0	0	0	0	0	0	0	0	33	0	0	0	0	0	33	
Lowland Shrub	292	0	0	0	0	0	0	0	0	0	0	0	0	0	292	
Lowland Spruce/Fir	0	0	0	0	0	39	0	302	7	31	9	0	0	0	389	
Marsh	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Mixed Upland Deciduous	0	51	0	0	0	7	0	14	13	0	0	0	0	0	86	
Northern Hardwood	0	0	0	0	0	3	0	117	19	0	0	0	0	11	149	
Red Pine	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7	
Sand, Soil	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Treed Bog	270	0	0	0	0	0	0	0	0	0	0	0	0	0	270	
Upland Conifers	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16	
Upland Mixed Forest	35	0	0	0	0	0	0	0	0	0	0	0	0	0	35	
Urban	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Water	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26	
Total	839	51	72	13	6	228	0	573	115	222	9	0	0	11	2138	



Shingleton Mgt. Unit

Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 064 Year of Entry 2014



a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
7	41064007-Cut	14.0	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	74	81-110	Harvest	Clearcut with Reserves	4116 - Mixed N. Hardwood - Aspen	Cmpt. Review Proposal

Prescription Final harvest- do not cut hemlock, oak or cedar in the stand. Regeneration is expected for aspen, fir, spruce and other spp already present in the stand. Retention pockets would best be placed near OX bows or the areas that hold water longer.

 Other Comments:
 100 ft buffer along the river and 50 ft buffer for the Ox bows. Winter cut for deer yard.

 Next Steps:
 Monitor for regeneration

 Proposed Start Date:
 10/01/2013

S t

> Total Treatment Acreage Proposed: 14.0

S t a		Shingleton	Mgt. Unit	Table 4		atments imiting	s Prescribed Factor	with	Compartment: 064 Year of Entry 2014	OF NATURAL PRODUCTS
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error							
Presc Spece	ription <u>s:</u>									
<u>Other</u> Comr										
<u>Next</u> Steps	<u>:</u>									
<u>Propos</u> Start D										
	ng Factor and N ment Reason	0_								
Ac	Total Treatme creage Propose									

							eatments miting Facto		Year of Entry: 2014	OF NATURAL PRODUCT
	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
<u>Prescrip</u> Specs:	o <u>tion</u> patch cu	t app. 5 acr	es, determined at tim	ne of prep						
<u>Other</u> Comme	nts:									
<u>Next</u> Steps:	Monitor	according to	o work instructions.							
Propose Start Da)11								
41	I044_OutOfY OE-Cut	0.9					Harvest	Crown Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal - Incomplete
Prescrip Specs:	otion Mark red	I pine and w	white pine to 80 sq.ft.	where dens	ities are	high enoug	h. Cut all other	species except hem	llock, oak, and cedar.	
<u>Other</u> Comme		n will be a p	portion of the red pine	e and white p	oine trees	s remaining].			
<u>Next</u> Steps:	Possible	regeneratio	on harvest next year o	of entry.						
Propose Start Da)13								
4	1172002-Cut	4.4	4112 - Maple, Beech, Cherry Association	High Density Pole	49		Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
	adjacent	hardwood i even aged	in comp 169 in 2014. hardwoods with quali	-			gaps to promote	e species diversity a	ind Sugar Maple. Put s	tand up with
<u>Specs:</u>		n=Residual	Dirt							
<u>Specs:</u> <u>Other</u> <u>Comme</u>	Retentio	n=Residual								
Other_	Retentio <u>nts:</u>		y to follow harvest du	iring the nex	t invento	ry cycle.				

Acreage Proposed: 10.5

S t	Shingleton Mgt. Unit			5 – Foi	rested Sta	nds Compartment: 064 Year of Entry: 2014
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4	4119 - Mixed Northern Hardwoods	High Density Pole	94.5	74	81-110	There is some ash in the stand however not harvesting it is a low percentage of the spp mix.
5	4119 - Mixed Northern Hardwoods	High Density Pole	7.9	87	81-110	the Bur Oak is found near the river and the green ash is fairly prevalant through the enitre stand. Deer browse only on the maple not ash.
7	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	14.3	74	81-110	
10	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	13.3	87	51-80	
12	42350 - Upland Hemlock	High Density Pole	29.0	78	111-140	
13	4119 - Mixed Northern Hardwoods	High Density Pole	2.5	87		
17	4130 - Aspen	High Density Sapling	11.6	26		
19	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	7.1	56	1-50	
20	4191 - Mixed Upland Deciduous with Conifer	Medium Density	51.1	14		
21	6120 - Lowland Cedar	High Density Sapling	12.8	33		
23	4116 - Mixed N. Hardwood - Aspen	High Density Pole	2.8	56	51-80	
24	6120 - Lowland Cedar	High Density Pole	6.0	45		
26	4133 - Aspen, Mixed Pine	High Density Sapling	32.6	26		
27	4115 - Y.Birch, Hemlock NH	High Density Pole	17.7	76	81-110	
28	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	64.3	76	111-140	comments for old stand along creeknice mature cedar with a mix of mature maple, ash, fir, spruce would be nice to treat stand for regeneration purposes but because of the river much of the acreage would be reduced.
 29	4115 - Y.Birch, Hemlock NH	Medium Density Pole	10.7	Uneven Age	51-80	
31	6122 - Black Spruce	Medium Density Pole	7.3	76	1-50	

S t	Shingleton Mgt. Unit			5 – Fo	prested Star	nds Compartment: 064 Year of Entry: 2014
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
35	6122 - Black Spruce	High Density Pole	5.6	76	51-80	
36	6122 - Black Spruce	Medium Density Pole	3.1	76	1-50	
39	6122 - Black Spruce	High Density Pole	4.6	106	51-80	
41	42220 - Natural Jack Pine	High Density Sapling	13.3	27		
42	4115 - Y.Birch, Hemlock NH	High Density Log	4.4	76	81-110	
43	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	39.4	78	81-110	
46	6122 - Black Spruce	High Density Pole	4.4	106	51-80	
48	4319 - Mixed Upland Forest	Low Density Sapling	35.1	4	1-50	Stand was cut in 2008 under contract 42-04- regen good, close off of time clock.
49	6122 - Black Spruce	High Density Pole	25.7	59	51-80	
50	6126 - Lowland Jack Pine	High Density Pole	14.5	27		
52	4134 - Aspen, Spruce/Fir	Low Density Sapling	8.3	4	1-50	Stand was cut in 2008 under contract 42-04- regen good, close off of time clock.
53	6124 - Lowland Spruce- Fir	High Density Pole	117.4	57	51-80	
54	42210 - Natural Red Pine	Medium Density Log	6.5	73	1-50	
55	6122 - Black Spruce	High Density Pole	128.6	73	1-50	
56	4134 - Aspen, Spruce/Fir	Low Density Sapling	14.3	4	1-50	Stand was cut in 2008 under contract 42-04- regen good, close off of time clock.
57	6122 - Black Spruce	High Density Pole	2.3	88	81-110	
58	6129 - Mixed Coniferous Lowland Forest	High Density Pole	49.8	96	51-80	
59	6122 - Black Spruce	High Density Pole	3.3	73	1-50	

S t	Shingleto		5 – Fo	prested Sta	nds Compartment: 064 Year of Entry: 2014	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
60	6122 - Black Spruce	High Density Pole	2.8	72		
61	6122 - Black Spruce	High Density Pole	4.9	88	81-110	
62	6122 - Black Spruce	Medium Density Pole	5.8	73	1-50	
64	6122 - Black Spruce	High Density Sapling	31.0	98		
66	6122 - Black Spruce	High Density Pole	8.1	72	1-50	
67	4139 - Aspen, Mixed Deciduous	Low Density Sapling	9.2	7		
68	6120 - Lowland Cedar	High Density Pole	141.0	96	81-110	
70	6132 - Mixed Lowland Forest with Cedar	High Density Log	33.0	89	81-110	
71	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Pole	15.9	82	51-80	
72	6122 - Black Spruce	High Density Pole	137.9	72	1-50	
73	4112 - Maple, Beech, Cherry Association	Medium Density Log	8.3	80	51-80	Lots.of raspb. Scattered fir.ce.yb.wb in understory- nice regen with some deer browse. Hemlock areas that were left from cut are still standing and look healthy.
74	4137 - Aspen, Birch	Medium Density	16.4	7		More conifer near swamp edges-stand was cut under contract 30-04-close off of time clock
75	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	12.4	89	51-80	
76	6122 - Black Spruce	Medium Density	13.7	56		
77	6118 - Lowland Deciduous with Cedar	Medium Density Pole	42.0	56		
78	6120 - Lowland Cedar	Medium Density Pole	19.3	57		
79	6120 - Lowland Cedar	High Density Pole	14.3	82		

Shingleton Mgt. Unit

6 – Nonforested Stands

Compartment: 064



Year of Entry: 2014

			Managed	Management Priority	Менкова
Stand	Cover Type	Acres	Site	(Objective)	General Comments:
1	730 - Mud Flats	1.2	No	Unspecified	
2	50 - Water	15.3	No	Unspecified	
3	730 - Mud Flats	1.1	No	Unspecified	
6	50 - Water	1.9	No	Unspecified	
8	50 - Water	6.1	No	Unspecified	
9	6230 - Cattail	1.1	No	Unspecified	old ox bow that has water present even in winter
11	730 - Mud Flats	2.4	No	Unspecified	
14	3302 - Low Density Conifer Trees	14.2	No	Unspecified	
15	50 - Water	3.1	No	Unspecified	
16	3303 - Mixed Low Density Trees	30.9	No	Unspecified	
18	3102 - Grass	4.9	No	Unspecified	
22	11 - Low Intensity Urban	6.0	No	Unspecified	
25	6224 - Treed Bog	4.3	No	Unspecified	
30	6224 - Treed Bog	4.6	No	Unspecified	
32	3302 - Low Density Conifer Trees	56.3	Planted	Red Pine	
33	3302 - Low Density Conifer Trees	17.9	Planted	Red Pine	
34	6224 - Treed Bog	2.4	No	Unspecified	
37	6224 - Treed Bog	108.0	No	Unspecified	

Shingleton Mgt. Unit

6 – Nonforested Stands

Compartment: 064

Year of Entry: 2014



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:	MICHIGAN
38	6224 - Treed Bog	11.7	No	Unspecified		
40	3302 - Low Density Conifer Trees	31.3	Planted	Red Pine		
44	6229 - Mixed lowland shrub	3.6	No	Unspecified		
45	6224 - Treed Bog	4.0	No	Unspecified		
47	6224 - Treed Bog	1.0	No	Unspecified		
51	6229 - Mixed lowland shrub	57.7	No	Unspecified		
63	6224 - Treed Bog	118.2	No	Unspecified		
65	6229 - Mixed lowland shrub	230.3	No	Low (NonForested)		
69	6224 - Treed Bog	16.3	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
4	SCA Removal	41064004	94.5	Does not meet Type 1 or Type 2 old growth.
5	SCA Removal	41064005	7.9	Does not meet Type 1 or Type 2 old growth.
7	SCA Removal	41064007	14.3	Does not meet Type 1 or Type 2 old growth.
10	SCA Removal	41064010	13.3	Does not meet Type 1 or Type 2 old growth.
12	SCA Removal	41064012	29.0	Does not meet Type 1 or Type 2 old growth.
13	SCA Removal	41064013	2.5	Does not meet Type 1 or Type 2 old growth.
17	SCA Removal	41064017	11.6	Does not meet Type 1 or Type 2 old growth.
21	SCA Removal	41064021	12.8	Does not meet Type 1 or Type 2 old growth.
23	SCA Removal	41064023	2.8	Does not meet Type 1 or Type 2 old growth.
24	SCA Removal	41064024	6.0	Does not meet Type 1 or Type 2 old growthonly a part of the stand was within the old SCA layer
26	SCA Removal	41064026	32.6	Does not meet Type 1 or Type 2 old growthOnly the West side of the road needs to be removed
1	SCA Removal	NF_41064001	1.2	Does not meet Type 1 or Type 2 old growth.
3	SCA Removal	NF_41064003	1.1	Does not meet Type 1 or Type 2 old growth.
6	SCA Removal	NF_41064006	1.9	Does not meet Type 1 or Type 2 old growth.
8	SCA Removal	NF_41064008	6.1	Does not meet Type 1 or Type 2 old growth.



7 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

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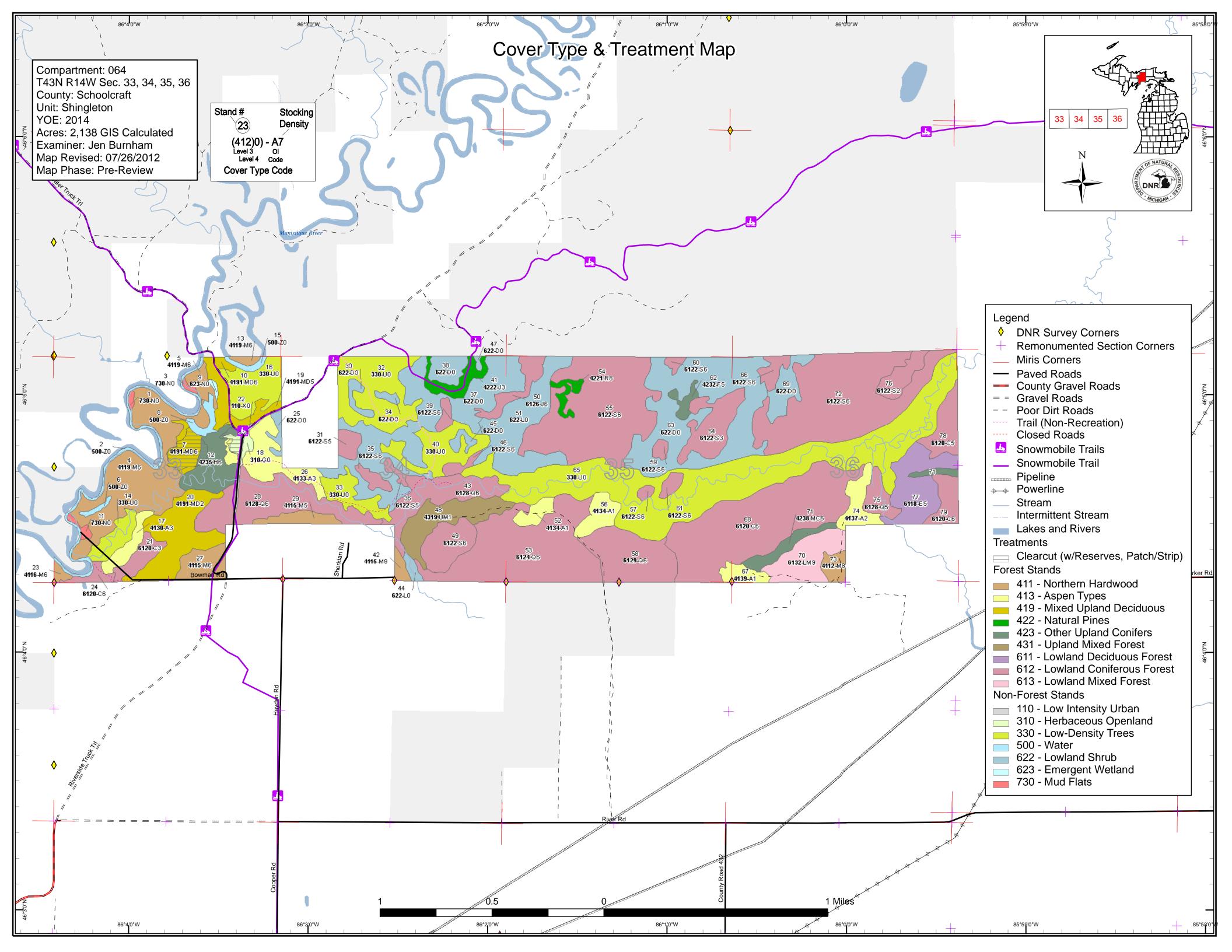
Stand	SCA Type	SCA Name	Acres	Comments
9	SCA Removal	NF_41064009	1.1	Does not meet Type 1 or Type 2 old growth.
11	SCA Removal	NF_41064011	2.4	Does not meet Type 1 or Type 2 old growth.
14	SCA Removal	NF_41064014	14.2	Does not meet Type 1 or Type 2 old growth.
15	SCA Removal	NF_41064015	3.1	
16	SCA Removal	NF_41064016	30.9	only a couple acres in the stand were part of the old SCA layer. Does not meet Type 1 or Type 2 old growth.
18	SCA Removal	NF_41064018	4.9	Does not meet Type 1 or Type 2 old growthonly the West side of the road needs to be removed

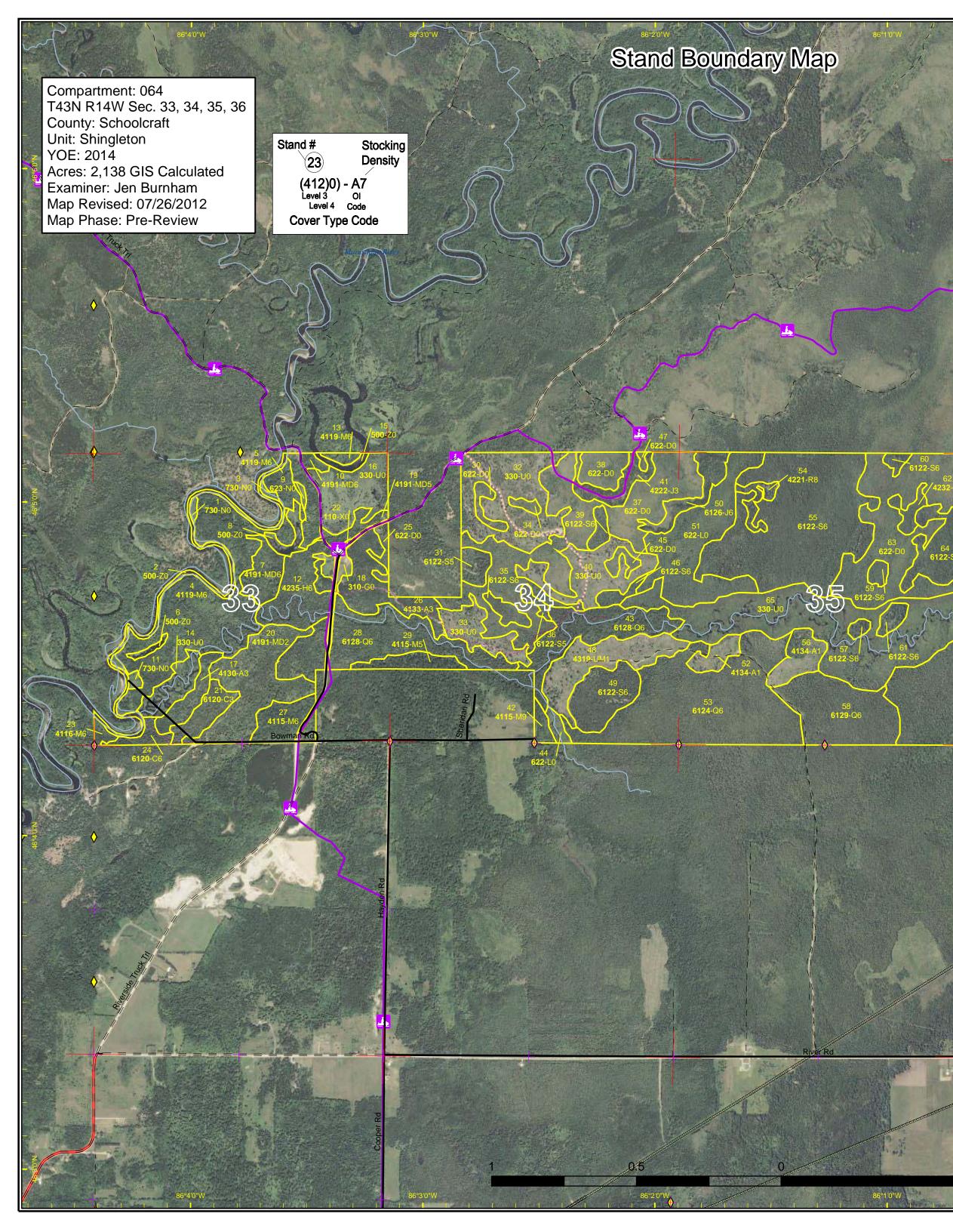


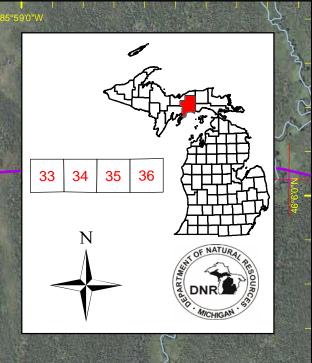
8 – DEDICATED CONSERVATION AREA DETAILS

* 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.

Conservation Area	Туре	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.	
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.	







Legend

- Remonumented Section Corners
- Miris Corners
- Paved Roads
- County Gravel Roads Gravel Roads ____
- = =
- Poor Dirt Roads
- Trail (Non-Recreation) Closed Roads
- Pipeline Powerline
- ↔_ •
- Snowmobile Trails Snowmobile Trail
- Stream
- Intermittent Stream
- Stand Boundaries

Forest Stands

- 411 Northern Hardwood
- 413 Aspen Types
 419 Mixed Upland Deciduous
 422 Natural Pines
 423 Other Upland Conifers

- 431 Upland Mixed Forest 611 Lowland Deciduous Forest
- 612 Lowland Coniferous Forest
- 613 Lowland Mixed Forest

Non-Forest Stands

- 110 Low Intensity Urban
- 310 Herbaceous Openland
- 330 Low-Density Trees
 500 Water
 622 Lowland Shrub
 623 Emergent Wetland
 730 Mud Flats

36

