

**Revision Date:** 8/10/2012

Stand Examiner: Tori Irving

Legal Description: T43N R14W Sections 4, 5, 6, 7, 8, 9

RMU (if applicable): Compartment 49 lies within Seney Manistique Swamp Management Area.

**Management Goals:** Timber, wildlife, recreation, and fisheries are the main uses of this area. The goal is to manage for all uses simultaneously and to provide, enhance and perpetuate their uses through proper management. Proposed forest treatments will help ensure the sustainability of the forest resource and continue to enhance the quality of the wildlife habitat.

**Soil and Topography:** The entire compartment lies within the Channel Fens South Land Type Association, the soils in the compartment are well drained sands and the topography is a matrix of ridges surrounded by marshes. Soil types include: Markey Muck Peat, Nechonish, Kinross, Wainola Complex, Histols and Aquents, Rousseau, Neconish, Finch Complex, and AuGres, Deford Complex.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** This compartment and the surrounding land is fairly contiguous state ownership. There are a few private parcels within the compartment boundary. Most of the parcels are used seasonally. The Seney Wildlife Refuge is along the northern border of the compartment. The snowmobile trails runs through the west side of the compartment on the Highwater Truck Trail.

Unique, Natural Features: The area is currently under review by the Michigan Natural Features Inventory.

Archeological, Historical, and Cultural Features: None known.

Special Management Designations or Considerations: None.

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

First Quality Warm Waters, (FQWW) are large, productive waters capable of supporting a good fishery for either warm-water species or cool-water species. In the Upper Peninsula, the designation generally applies to walleye, pike, musky or smallmouth bass waters. SQWW means small, possibly stagnant, warm streams that produce little to no actual fishery. Although small, their warm temperatures and generally high nutrient levels imply generally a higher productivity than the more "fishable" streams. Their value is attained from the production of forage that migrates downstream into areas of either cold-water or warm-water sports fish populations. For that reason, they are NOT useless waters, and they should be protected somewhat for the aquatic invertebrate and fish forage that they produce. Beaver populations in these streams could be a benefit, as their dams will increase productivity as well as inhibit sand bedload migration. Fisheries Values Poor. The Duck Creek system is classified SQWW. We know little about these small, warm water creeks. However, BMP protection from sand bedload is still a high priority.

Wildlife Habitat Considerations: This compartment lies within the Seney Sand Lake Plain ecological subsubsection. 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 130 inches. The compartment falls within the Seney Manistique Swamp Management Area which highlights the following Featured Species: Moose, sharp-tailed grouse, snowshoe hare and white-tailed deer. This compartment lies within the marsh/low pine ridge complex. General Land Office (GLO) Surveyor notes show the circa 1850 upland forest contained species such as jack pine, hemlock, white pine, red pine, and birch. Lowland forest included tamarack, spruce, cedar and balsam fir. A large portion of the compartment is open wetland. Windthrow, fire, flooding, and beaver ponding all likely played major roles in the natural disturbance regime. Current forests conditions in the eastern portion of the compartment are similar to circa 1850 conditions. In the western portion of the compartment, much of the uplands have shifted from a mixture of jack and red pine to fairly monotypic jack pine. The marsh lands remain relatively unchanged from pre-settlement times. Wildlife habitat objectives in this compartment include maintaining the integrity of the marsh/low pine ridge complex, providing natural functioning systems on the ridges in the eastern portion of the compartment, protecting the Duck Creek corridor, and promoting age class and structural diversity in the upland coniferous community of the western portion of the compartment. Moose (Michigan special concern) and wood turtle (Michigan special concern) utilize the compartment. Other wildlife species of interest that may utilize this compartment include spring peepers, leopard frogs, marsh wren, northern harrier, mink, and water shrew.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Ordovician Stonington Formation and Big Hill Dolomite subcrop below the glacial drift and could be used for stone. The nearest gravel pit is 4 miles to the south and potential appears to be limited. There is a clay pit 8 miles to the west. There is no commercial oil and gas production in the UP.

**Vehicle Access:** Vehicle access to this compartment is limited. The west side of the compartment can be accessed via the Highwater Truck Trail. The east side of the compartment has very limited access due to numerous small creeks and drainage areas.

**Survey Needs:** Corners will be needed in Section 6 in order to conduct timber sale preparation and harvesting operations.

**Recreational Facilities and Opportunities:** The Highwater Truck Trail is also Snowmobile Trail Number 2 in the winter. There are several other recreational opportunities including, but not limited to, hunting, fishing, horseback riding, and ORV.

**Fire Protection:** This area was historically prone to catastrophic, large-scale fires prior to large-scale fire suppression efforts of the last century; however, suppression efforts in the late seventies could not stop the raging Seney fire that scorched the northeast portion of the compartment. This area can be very wet in the

spring and early summer but due to well-drained soils, the area and subsequently the fuels, can dry out quickly with the right weather. Access to the compartment is poor and response times will be lengthy due to the distance and poor roads.

# **Additional Compartment Information:**

- > The following reports from the Inventory are attached:
  - Total Acres by Cover Type and Age Class
  - Proposed Treatment Summary
  - ♦ Proposed Treatments No Limiting Factors
  - Proposed Treatments With Limiting Factors
  - Stand Details (Forested and Nonforested)
  - Dedicated and Proposed Special Conservation Areas
- > The following information is displayed, where pertinent, on the attached compartment maps:
  - Base feature information, stand boundaries, cover types, and numbers
  - Proposed treatments
  - Details on the road access system

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

Shingleton Mgt. Unit

Tori Irving : Examiner

### Compartment 049 Year of Entry 2014



Age Class

	/	60	0 <sup>7</sup> 0	10 <sup>2</sup>	0 <sup>2</sup> 0	AD AD	95. 15	0.00 .00	R. D.	00 40 40		100'100'	10°.179	NOX JUS	ASS ASS	10,00
Jack Pine	111	0	69	206	0	22	80	74	97	0	0	0	0	0	660	·
Low-Density Trees	133	0	0	0	0	0	0	0	0	0	0	0	0	0	133	
Lowland Conifers	0	0	0	0	0	0	21	0	0	0	0	0	0	0	21	
Lowland Mixed Forest	0	0	0	0	0	0	46	0	0	0	0	0	0	0	46	
Lowland Shrub	2302	0	0	0	0	0	0	0	0	0	0	0	0	0	2302	
Natural Mixed Pines	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	
Red Pine	0	0	0	0	0	13	57	280	0	0	0	0	0	0	350	
Water	61	0	0	0	0	0	0	0	0	0	0	0	0	0	61	
Total	2606	0	69	206	0	35	204	361	97	0	0	0	0	0	3579	



Shingleton Mgt. Unit

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#### Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 049 Year of Entry 2014 FNATUR

t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
	41049_OutOfY OE_1-Cut	4.7					Harvest	Single Tree Selection	42290 - Natural Mixed Pine	Fld. Tr. Bdy Incomplete
<u>Presci</u> Specs	ription_Mark rec :: marked	l pine and w to 80. Cut a	hite pine to 30 sq. ft. Il other species excep	Create gap ot hemlock	s in cano and oak i	py for reg f present.	eneration where	pine exists. Areas tl	hat have thicker youn	g poles can be
<u>Other</u> Comm	Access t	to stand is to	oo difficult for continu	ous thinning	<b>g</b> .					
<u>Next</u> Steps:	Regener	ation walkth	rough during next inv	entory cycl	e. Accep	table rege	neration includes	any species mixtur	re currently found ons	te.
Propos Start D	<u>ed</u> ate: 10/01/201	12								
	41049_OutOfY OE-Cut	14.1					Harvest	Single Tree Selection	42210 - Natural Red Pine	Fld. Tr. Bdy.
Presci Specs	<u>ription</u> Adam I <u>::</u>	Petrelius : 0	1/25/2012 comments	:						
	Cut all s available	pecies exce and thin th	pt red pine ,oak, white icker areas of poles.	e pine, and	hemlock	. Red pin	e and white pine	should be marked.	Create regeneration h	oles where
<u>Other</u> Comm	See MN	FI comment of spoils. Pro	s. Winter harvest wil ptect existing red pine	I be needed and white	l due to r pine rege	oad condi	tions into treatme	nt area. Buffer on V	Valsh Ditch should be	placed at the
<u>Next</u> Steps:	Natural	regeneratio	n of red pine, jack pin	ie, and whit	e pine is	acceptabl	e. Plant red pine	if regeneration fails		
<u>Propos</u> Start D	<u>ed</u> ate: 10/01/201	11								
2	41049002-Cut	96.8	42220 - Natural Jack Pine	High Density Pole	87		Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
<u>Presci Specs</u>	<u>ription</u> Harvest <u>::</u>	all jack pine	. Leave some red pin	e.						
<u>Other</u> Comm	This star nents: require a	nd was pres a major road	cribed and during the I project to access the	last entry y timber, ind	vear. Sale	e was set i iree culver	up as East Side I ts and two bridge	Duck Sale#41-011-0 s.	04-01 but was never s	old. Stand will
<u>Next</u> <u>Steps:</u>	Accepta	ble regenera	ation includes current	canopy spo	ecies. Sc	arify stand	l after harvest is o	complete. If scarific	ation fails, trench and	plant jack pine.
<u>Propos</u> Start D	<u>ed</u> ate: 10/01/201	13								
7	41049007-Cut	52.4	42220 - Natural Jack Pine	High Density Log	73 g		Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
Presci Specs	<u>ription</u> Harvest <u>::</u>	all jack pine	. Cut red pine if need	ed for man	euverabil	lity.				
<u>Other</u> Comm	No winte	er harvesting	].							
<u>Next</u> <u>Steps:</u>	Scarify s	tand after h	arvest is complete. If	scarificatio	n fails, tr	ench and	plant jack pine. A	cceptable regenera	tion species includes	current canopy
<u>Propos</u> Start D	<u>ed</u> ate: 10/01/201	13								

S t		Shingle	eton Mgt. Unit	Tab	le 3 with	Treatm No Limi	ents Prescril ting Factor	bed	Compartment: 049 Year of Entry 2014	DNR DNR
a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
29	41049029-C	ut 22.3	6126 - Lowland Jack Pine	High Density Pole	54		Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
Preso Spec:	<u>cription</u> Harve <u>s:</u>	est all jack pin	e and leave some red	pine.						
<u>Other</u> Comr	rThis : <u>ments:</u> requi	stand was pre re a major roa	escribed and during the ad project to access th	e last entry y e timber, inc	vear. Sale	e was set i hree culver	up as East Side I ts and two bridge	Duck Sale#41-011- es.	04-01 but was never so	old. Stand will
<u>Next</u> Steps	Acce	ptable regene	ration includes curren	t canopy spe	ecies. Sc	arify stanc	d after harvest is	complete. If scarifi	cation fails, trench and	plant jack pine.
Propos Start [	<u>sed</u> Date: 10/01/	2013								
46	41049046-C	ut 12.8	42220 - Natural Jack Pine	High Density Pole	74		Harvest	Clearcut with Reserves	42220 - Natural Jack Pine	Cmpt. Review Proposal
Preso Spec	<u>cription</u> Harve <u>s:</u>	est all jack pin	e and leave some of t	he red pine.						
<u>Other</u> Comr	<u>r</u> This : <u>ments:</u> requi	stand was pre re a major roa	escribed and during the ad project to access th	e last entry y e timber, inc	vear. Sale	e was set i nree culver	up as East Side I ts and two bridge	Duck Sale#41-011- es.	04-01 but was never so	old. Stand will
<u>Next</u> Steps	Acce	ptable regene	ration includes curren	t canopy spe	ecies. Sc	arify stand	d after harvest is	complete. If scarifi	cation fails, trench and	plant jack pine.
<u>Propo</u> Start [	<u>sed</u> <u>Date:</u> 10/01/	2013								
	Total Treatr	nent	5 A							

Acreage Proposed: 203.1

S t		Shingleton	Mgt. Unit	Table 4	Tre a L	with	Compartment: 049 Year of Entry 2014	DNR MATURAL		
n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error							
Prescr Specs	<u>iption</u> :									
<u>Other</u> Comm	ient:									
<u>Next</u> <u>Steps:</u>										
Propos Start Da	<u>ed</u> <u>ate:</u> #Error									
<u>Limitin</u> <u>Treatn</u>	ig Factor and No nent Reason	<u>)</u>								
Aci	Total Treatmen reage Proposed	nt d: O								

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				Ou Prescr	t of YC ibed w	)E Tro ith No Li	eatments miting Facto	or	Year of Entry: 2014	DNR DNR
Tre N	atment Iame	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
410	09014- Cut1	5.2	6120 - Lowland Cedar	High Density Pole	141		Harvest	Patch or Strip Clearcut	6120 - Lowland Cedar	Cmpt. Review Proposal - Incomplete
Prescription Specs:	<u>n</u> patch cut	app. 5 ac	res, determined at time	e of prep						
<u>Other</u> Comments:										
<u>Next</u> <u>Steps:</u>	Monitor a	iccording t	o work instructions.							
Proposed Start Date:	10/01/20	11								
41044 O	4_OutOfY E-Cut	0.9					Harvest	Crown Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal - Incomplete
Prescription Specs:	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:									
<u>Other</u> <u>Comments:</u>	Retentior	n will be a j	portion of the red pine	and white p	oine trees	s remaining	].			
<u>Next</u> <u>Steps:</u>	Possible	regenerati	on harvest next year o	f entry.						
Proposed Start Date:	10/01/20	13								
4117	2002-Cut	4.4	4112 - Maple, Beech, Cherry Association	High Density Pole	49		Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
Prescriptior Specs:	n_ Treatmen adjacent MO=Un-e Retentior	nt=Thin sta hardwood even aged n=Residua	and down to 80 BA on a in comp 169 in 2014. hardwoods with quality I BA	average wh y Sugar Ma	ile puttin ple stem	g in regen s	gaps to promote	e species diversity a	and Sugar Maple. Put s	tand up with
<u>Other</u> Comments:										
<u>Next</u> <u>Steps:</u>	Natural r	egen surve	ey to follow harvest dur	ing the nex	t invento	ry cycle.				
Proposed Start Date:	<u>bosed</u> <u>t Date:</u> 10/01/2014									
Total	Treatmen	t	_							

Acreage Proposed: 10.5

S t	Shingleton Mgt. Unit			5 – Fo	prested Stands	Compartment: 049 Year of Entry: 2014
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	42220 - Natural Jack Pine	High Density Pole	96.8	87		
5	6126 - Lowland Jack Pine	High Density Sapling	39.0	37		
6	6139 - Mixed Lowland Forest	High Density Pole	45.9	64		
7	42220 - Natural Jack Pine	High Density Log	52.4	73		
9	42210 - Natural Red Pine	High Density Log	4.5	79		
10	6126 - Lowland Jack Pine	High Density Pole	1.9	37		
11	6126 - Lowland Jack Pine	High Density Pole	8.3	37		
12	6126 - Lowland Jack Pine	Medium Density	110.8	8		
13	42210 - Natural Red Pine	High Density Log	4.2	79		
14	42210 - Natural Red Pine	High Density Log	2.4	79		
15	6126 - Lowland Jack Pine	Medium Density	69.2	25		
16	42220 - Natural Jack Pine	High Density Sapling	9.7	37		
17	42210 - Natural Red Pine	High Density Log	12.3	79		
19	42210 - Natural Red Pine	High Density Log	12.7	56	111-140	
21	42210 - Natural Red Pine	High Density Log	4.7	79		
22	42220 - Natural Jack Pine	High Density Sapling	5.7	37		
25	42210 - Natural Red Pine	High Density Log	5.0	68	111-140	
26	42220 - Natural Jack Pine	High Density Log	9.0	79		

S t	Shingleton Mgt. Unit			5 – Fo	prested Stands	Compartment: 049 Year of Entry: 2014		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	and MICHIGAN	
27	6126 - Lowland Jack Pine	High Density Sapling	53.6	37				
28	42210 - Natural Red Pine	High Density Log	33.6	68	111-140			
29	6126 - Lowland Jack Pine	High Density Pole	22.3	54				
30	6129 - Mixed Coniferous Lowland Forest	High Density Pole	20.6	60				
32	42210 - Natural Red Pine	High Density Log	5.5	79				
33	42210 - Natural Red Pine	High Density Log	27.7	79				
35	42210 - Natural Red Pine	High Density Log	14.2	79				
38	42210 - Natural Red Pine	High Density Log	18.8	68				
39	42210 - Natural Red Pine	High Density Log	12.3	79				
40	42220 - Natural Jack Pine	High Density Pole	80.1	62				
43	42210 - Natural Red Pine	High Density Log	4.6	79				
44	42210 - Natural Red Pine	High Density Log	3.2	79				
45	42210 - Natural Red Pine	High Density Log	13.6	79				
46	42220 - Natural Jack Pine	High Density Pole	12.8	74				
47	42220 - Natural Jack Pine	High Density Sapling	87.9	37				
49	42210 - Natural Red Pine	High Density Log	1.9	79				
50	42210 - Natural Red Pine	High Density Log	16.8	79				
51	42210 - Natural Red Pine	High Density Log	6.8	79				

S t	Shingleton Mgt. Unit			5 – Fo	prested Stands	Compartment: 049 Year of Entry: 2014		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	AICHIGAN .	
52	42210 - Natural Red Pine	High Density Log	12.4	79				
53	42210 - Natural Red Pine	High Density Log	12.2	79				
55	42210 - Natural Red Pine	High Density Log	2.9	79				
56	42210 - Natural Red Pine	High Density Log	9.3	79				
57	42210 - Natural Red Pine	High Density Log	7.3	79				
58	42210 - Natural Red Pine	High Density Log	10.6	79				
59	42210 - Natural Red Pine	High Density Log	4.5	79				
60	42210 - Natural Red Pine	High Density Log	3.2	79				
61	42210 - Natural Red Pine	High Density Log	3.9	79				
62	42210 - Natural Red Pine	High Density Log	18.1	79				
63	42210 - Natural Red Pine	High Density Log	1.7	79				
64	42210 - Natural Red Pine	High Density Log	3.0	79				
65	42210 - Natural Red Pine	High Density Log	6.3	79				
66	42290 - Natural Mixed Pine	High Density Log	7.7	79				
67	42210 - Natural Red Pine	High Density Log	4.6	79				
68	42210 - Natural Red Pine	High Density Log	1.8	79				
69	42210 - Natural Red Pine	High Density Log	15.7	79				
70	42210 - Natural Red Pine	High Density Log	6.3	79				

S t	Shingleto		5 – Fo	prested Stands	Compartment: 049 Year of Entry: 2014	DNR DNR	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN
71	42210 - Natural Red Pine	High Density Log	20.0	79			
72	42210 - Natural Red Pine	High Density Log	1.3	79			

Shingleton Mgt. Unit

#### 6 – Nonforested Stands

Compartment: 049

Year of Entry: 2014



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	6229 - Mixed lowland shrub	21.8	N\A	Unspecified	
3	622 - Lowland Shrub	53.1	No	Unspecified	East Duck Creek Goes throught the middle of the shrub.
4	622 - Lowland Shrub	5.1	No	Unspecified	
8	50 - Water	4.3	No	Unspecified	
18	6229 - Mixed lowland shrub	195.2	No	Unspecified	
20	50 - Water	30.5	No	Unspecified	
23	50 - Water	25.9	No	Unspecified	
24	3302 - Low Density Conifer Trees	113.3	Yes	Jack Pine	
31	3302 - Low Density Conifer Trees	19.3	Natural Regen	Red Pine	Stand was approved for treatment at the 205 review and was treated with Compartment 53 as part of the Frozen Paint Sale. Sale was cut in 2010. Monitor the regeneration.
34	6229 - Mixed lowland shrub	3.4	No	Unspecified	
36	6229 - Mixed lowland shrub	140.0	No	Unspecified	
37	622 - Lowland Shrub	4.5	No	Unspecified	
41	622 - Lowland Shrub	1.9	No	Unspecified	
42	622 - Lowland Shrub	3.5	No	Unspecified	
48	6229 - Mixed lowland shrub	1861.3	No	Unspecified	
54	6229 - Mixed lowland shrub	12.2	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
multiple - see	SCA Removal	41049_SCARemoval	2084.9 Area does no	ot meet old growth criteria.



#### **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
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