



**SHINGLETON FOREST MANAGEMENT UNIT  
COMPARTMENT REVIEW PRESENTATION**

**COMPARTMENT # 017**

**ENTRY YEAR: 2008**

**Compartment Acreage: 1412**

**County: Schoolcraft**

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**Revision Date: 10/16/06**

**Stand Examiner: R. Tylka**

**Legal Description: T45N R16W Sections 19, 20 and 21**

**RMU (if applicable):**

**Management Goals:** Management activities that coordinate multiple uses and benefits for the people of Michigan including recreation, timber production and protection/enhancement of wildlife habitat are desirable.

**Soil and Topography:** Generally flat to slightly rolling terrain. Most of the compartment is wet ground featuring lowland cover, including open marshland on muck soils.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** There is a significant block of private land within the compartment boundaries in section 19 & 20 that separates the eastern portion of the compartment from the western, and the Hickey Creek Truck Trail runs through these private lands. In addition to this, both the Hickey Creek Truck Trail (from the northwest) and the 19 Creek Road (from the southeast) are legally blocked by gates on other private lands, making access an issue.

**Unique, Natural Features (include only non-site specific and non-sensitive information):**

**Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information):**

**Special Management Designations or Considerations:** The USDA Forest Service will not permit commercial activities (hauling logs) over their portion of the Hickey Creek Truck Trail outside of the winter (December 1 thru March 31) season. Therefore any timber sales east of Hickey Creek must be winter-only sales. The condition of the bridge crossing Hickey Creek in section 20 is a major issue – although public access to it is blocked by gated roads, the bridge itself is unsafe and should be either removed entirely or removed and replaced.

**Watershed and Fisheries Considerations:** The Hickey Creek is found in this compartment and is designated cold-water. Encroachment by beaver is a concern and standard BMP's should be implemented to control sediment sources from adjacent uplands. Fine sediments such as silt and sand negatively affect natural reproduction of fish, decrease the diversity of aquatic invertebrate and fish taxa, and result in lower overall fish populations.

**Wildlife Habitat Considerations:** The geography in this compartment is quite flat and very near the ground water table. During pre-settlement times, the higher areas supported a mixed deciduous/coniferous forest

comprised primarily of hemlock, white pine, yellow birch, red maple, balsam fir, and black ash. The wetland areas primarily supported coniferous swamps containing tamarack, cedar, and spruce. Hickey creek passes through the central portion of this compartment. Although aspen has certainly increased from presettlement times, the rest of the vegetative community appears to be fairly similar in species composition. The wildlife habitat management regime consists of providing early successional deciduous habitat, promoting hemlock, and creating age and structural diversity of the forest within the compartment. Variable retention guidelines will be followed in all prescribed final harvests.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel and peat & muck. There is insufficient data to determine the glacial drift thickness. The Ordovician Trenton and Black River Groups subcrop below the glacial drift. The Trenton and Black River are quarried for stone/dolomite elsewhere in the UP. Gravel pits are not found in the area and potential appears to be limited. There is no commercial oil and gas production in the UP.

**Vehicle Access:** Access from both directions (from the northwest via the Hickey Creek Truck Trail, and from the southeast via the 19 Creek Road) is blocked by locked gates on private lands.

**Survey Needs:** To facilitate timber sales and reforestation activities, additional interior corners are needed in the southeast quarter of section 19.

**Recreational Facilities and Opportunities:** None in this compartment. The area receives relatively light hunting pressure due to the access issues.

**Fire Protection.** Access issues would make fire suppression efforts difficult due to the limited road access, the condition of the bridge crossing Hickey Creek and the wet terrain.

**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**

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Michigan Department of Natural Resources - Operations Inventory System  
Individual Compartment Report

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

SCHOOLCRAFT COUNTY

COMPARTMENT: 17

Table 3

(acres shown in boxes)

STAND AGE CLASS

COVER TYPE	Not Coded	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150-159	All Aged	Total
Aspen			30					185			11								226
Black Spruce										9	3								12
Cedar								7	6	50	145			48	4			17	277
Hemlock															10			1	11
LowInd Brush	412																		412
LowInd Poplr										2									2
Marsh	264																		264
Mx Swmp Cnfr									50		11	22	5						88
Paper Birch								5											5
Red Pine											2	4							6
Swamp Hrdwds										7	10							33	50
Upland Hdwds																		29	29
Water	14																		14
White Pine										1	12	3							16
<b>Total</b>	<b>690</b>		<b>30</b>					<b>197</b>	<b>56</b>	<b>69</b>	<b>194</b>	<b>29</b>	<b>5</b>	<b>48</b>	<b>14</b>			<b>80</b>	<b>1412</b>

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Michigan Department of Natural Resources - Operations Inventory System  
Individual Compartment Report

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

SCHOOLCRAFT COUNTY

COMPARTMENT: 17

Table 3A

(acres shown in boxes)

MANAGEMENT OBJECTIVE TYPE

COVER TYPE	A	S	V	C	G	H	J	I	L	P	N	Q	X	O	B	R	K	Y	F	E	T	D	U	M	Z	W	Total
A Aspen	226																										226
S Black Spruce		12																									12
C Cedar				277																							277
H Hemlock						11																					11
L LowInd Brush									412																		412
P LowInd Poplr																			2								2
N Marsh											264																264
Q Mx Swmp Cnfr												88															88
B Paper Birch															5												5
R Red Pine																6											6
E Swamp Hrdwds																			10	40							50
M Upland Hdwds																								29			29
Z Water																									14		14
W White Pine																										16	16
<b>Total</b>	<b>226</b>	<b>12</b>		<b>277</b>		<b>11</b>			<b>412</b>		<b>264</b>	<b>88</b>			<b>5</b>	<b>6</b>			<b>12</b>	<b>40</b>				<b>29</b>	<b>14</b>	<b>16</b>	<b>1412</b>

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

SCHOOLCRAFT COUNTY

COMPARTMENT: 17

**Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS**

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	5116 Cds	Hardwood	3547 Cds
Hardwood	8 Mbf	Softwood	1193 Cds
Softwood	6686 Cds	Softwood	53 Mbf
Softwood	337 Mbf	Sum CutVol	4846 Cds
Sum TotVol	12492 Cds		
<b>Total Cmpt Acres</b>		Acres Proposed For Cut.....	262
1412			

## SHINGLETON FOREST AREA

Proposed Treatments  
With NO Limiting Factors

Compartment: 17

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
100	A6	3	89	51	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : Soils - Deford Muck										
[6-15-04] JS - TS 027-99 has been closed and this stand was not cut.										
YOE 2008 Inventory: Aspen & p.birch are breaking up, and the first generation of balsam fir is gone. If this is cut soon aspen regeneration should still be possible - If not, natural succession to red maple/balsam fir is underway and will probably be completed during the next 10-year interval. At present the surviving aspen is 12"+ DBH, while the red maple is 6-8" DBH and the conifers are generally submerchantable. Cultural work (TSI w/hand tools) to remove the F3 understory will also be necessary to regenerate aspen.										
For retention guidelines:The present stand has scattered hemlock and cedar; these should be retained, along with any white pine, to diversify the next stand. Also leave-tree mark a few paper birch.										
Aspen regeneration is highly desirable, but a mix of the aforementioned species is also acceptable.										
Wld : The habitat goal is to provide aspen regeneration with structural and species diversity. White pine, hemlock, and scattered white birch will be retained with the stand										
102	A6	2	89	51	aspen (upland)	mature	final harvest	1	natural regeneration	
comnts Fmd : Soils - Deford Muck										
[6-15-04] JS - TS 027-99 has been closed and this stand was not cut.										
YOE 2008 Inventory: Aspen is breaking up, and the first generation of balsam fir and paper birch are just about gone. If this is cut soon aspen regeneration should still be possible - If not, natural succession to red maple/balsam fir is underway and will probably be completed during the next 10-year interval. At present the surviving aspen is 12"+ DBH, while the red maple is 6-8" DBH and the conifers are generally submerchantable. Cultural work (TSI w/hand tools) to remove the F3 understory will also be necessary to regenerate aspen.										
For retention guidelines:The present stand has scattered hemlock and cedar; these should be retained, along with any white pine, to diversify the next stand. Also leave-tree mark a few paper birch.										
Aspen regeneration is highly desirable, but a mix of the aforementioned species is also acceptable.										
Wld : The habitat goal is to provide aspen regeneration with structural and species diversity. White pine, hemlock, and scattered white birch will be retained with the stand										
104	S6	3	89	45	black spruce-swamp	mature	final harvest	1		
comnts Fmd : Soils - Deford Muck										
[6-15-04] JS - TS 027-99 has been closed and this stand was not cut.										
YOE 2008 Inventory: Spruce stand that is ready to cut. Other commercial species includes paper birch and aspen. Retain all white pine and hemlock, leave-tree mark a few paper birch, and protect the understory if possible.										
All conifers, aspen and birch are acceptable for regeneration.										
Wld : Retain any hemlock that might be found within this stand										
119	S5	6	79	40	black spruce-swamp	mature	final harvest	3		
comnts Fmd : Soils - Augres-Deford complex at 0-3% slope										
Habitat type - PArVAa										
Semi-open spruce etc. on a very wet site - this was part of a timber sale (27-99) that was never cut. The understory is a mix of lowland brush and conifer regeneration.										
Operability is questionable. If this stand is cut, retain all hemlock and cedar. Regeneration of any commercial species is acceptable, so all existing conifer regen should be protected.										
Wld : The habitat goal for this stand is to promote a young swamp conifer stand with a diversity of species. Leaving cedar and hemlock will promote structural diversity while providing seed source to encourage species diversity with the regeneration.										
120	Q6	14	73	29	mixed swamp conifer	immature	final harvest	3		
comnts Fmd : Soils - Augres-Deford complex at 0-3% slope										
Habitat type - PArVAa										
Cedar mix on wet ground - this was part of a timber sale (27-99) that was never cut. A few larger white pine are also present.										
Harvest now along with the adjacent stands that are scheduled. Acceptable regeneration includes all commercial timber species. Reserve the paper birch & scattered white pine.										

**SHINGLETON FOREST AREA**

**Proposed Treatments  
With NO Limiting Factors**

**Compartment: 17**

**Entry Year: 2008**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
125	A6	6	89	51	aspen (upland)	mature	final harvest	1	natural regeneration	

comnts Fmd : Soils - Paquin sand (Habitat type ATFD) grading down into Deford muck at 0-3% slopes.  
 Cut this now or lose the aspen - many are already dead and down. Retention guidelines: Do not cut any hemlock, cedar or white pine, and leave-tree mark a few paper birch.  
 TSI with handtools to eliminate most of the conifer understory (except hemlock, cedar and white pine) or aspen regeneration will be severely hampered.

Wld : The habitat goal is to provide aspen regeneration with structural and species diversity. White pine, hemlock and scattered white birch will be retained with the stand.

**Total Acres..... 34**

## SHINGLETON FOREST AREA

Proposed Treatments  
With Limiting Factors

Compartment: 17

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
23	B6	5	58	50	paper birch	mature	final harvest	3		
TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate)										
comnts Fmd : Soils - Rubicon sand, 15-35% slopes Habitat type - PArV Stand of paper birch with some red maple and red & white pine logs. The understory is primarily black spruce. The birch are overmature and starting to break up, but access across Hickey Creek is not presently available. Succession to spruce is likely to continue.										
32	Q6	15	102	30	mixed swamp conifer	mature	seed tree	3		
TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate) Blocked by other physical obstacle										
comnts Fmd : Soils & habitat - This stand features Rubicon sand/PArV habitat on the southeast and northwest ends (higher ground) and Spot-Finch complex/PArVAa habitat in the middle. Slopes vary from 0-35%.  This stand is mostly cedar but also features red & white pine logs & pulp on the higher ground. Because of the rolling terrain, the site indices and understory are both variable; the figures shown represent the areas where cedar is predominant. Mixed softwood pulp includes red pine and tamarack. This stand was classified as a pine stand and prescribed during the last entry, but barriers to access (crossing Hickey Creek and wet ground in the marsh) are unchanged.										
33	R9	4	102	52	red pine	mature	shelterwood-seed	3		
TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate) Blocked by other physical obstacle										
comnts Fmd : Soils - Deford muck, but this timber is probably on elevated inclusions of soils with better drainage such as Paquin-Finch sands. Site indices vary somewhat throughout the stand area. Red pine stand that was prescribed during last entry, but difficulties with access are still a problem.										
37	A6	12	66	62	aspen (upland)	mature	final harvest	3		
TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate)										
comnts Fmd : Soils - most of the stand area is mapped as Ausable-Deford-Tawas mucks, but this stand is on an elevated ridge that is most likely an inclusion of the Rubicon-Deford complex with slopes of 0-35%. Site indices appear to be quite variable - the figure shown here represents the very best potential for the area. This is a mixed stand of aspen/paper birch/red maple on flat-to-rolling terrain. The understory is primarily balsam fir. The aspen & birch are overmature and starting to break up, but access across Hickey Creek is not presently available. Succession to lowland conifers (fir/spruce) is likely to continue.										
40	A6	2	66	62	aspen (upland)	mature	final harvest	3		
TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate)										
comnts Fmd : Soils - the stand area is mapped as Ausable-Deford-Tawas mucks, but this stand is on slightly elevated ground that is most likely an inclusion of better-drained soil such as the Rubicon-Deford complex. This is a mixed stand of aspen/paper birch/red maple. The understory is primarily balsam fir and red maple. The aspen & birch are overmature and starting to break up, but access across Hickey Creek is not presently available. Succession to lowland conifers (fir/spruce/cedar/red maple mix) is likely to continue.										
44	A6	166	66	62	aspen (upland)	mature	final harvest	3		
TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate)										
comnts Fmd : Soils - the stand area is mapped as Deford muck with areas of better-drained soil such as Rubicon sands at various slopes, and habitat types of PArV on the sand. Based on observation, the areas mapped as muck soils also display numerous inclusions of sandier ground with better drainage.  This is a large mixed stand of aspen/paper birch/red maple on rolling terrain. The understory is primarily balsam fir. Pockets of cedar and/or black ash occupy the lower ground, plus scattered hemlock, spruce & white pine are also present. Site indices vary with changes in elevation - the figure shown here represents the areas with better drainage. The aspen & birch are overmature and starting to break up, but access across Hickey Creek is not presently available - a bridge is needed. Succession to lowland conifers (fir/spruce/cedar/red maple mix) is likely to continue. If cutting does occur, retain all hemlock and the scattered red & white pine. Acceptable regeneration includes all commercial timber species. Wld : The habitat goal for this stand is to develop a young stand of aspen containing the structural diversity of mature conifer scattered throughout. Clearcutting the stand while leaving some red and white pine and all hemlock will accomplish this objective.										

**SHINGLETON FOREST AREA**

**Proposed Treatments  
With Limiting Factors**

**Compartment: 17**

**Entry Year: 2008**

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
<b>51</b>	<b>W9</b>	3	102	52	white pine	mature	shelterwood-seed	3		
<p>TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate) Blocked by other physical obstacle</p> <p>comnts Fmd : Soils - Rubicon-Deford complex with slopes of 0-35%. Habitat - PArV Large white pine over cedar poles and scattered conifer regeneration. Mixed pulpwood volume includes scattered aspen and paper birch. Access problems make harvest unlikely.</p>										
<b>55</b>	<b>R6</b>	2	90	52	red pine	mature	shelterwood-seed	3		
<p>TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate) Blocked by other physical obstacle</p> <p>comnts Fmd : Soils - Rubicon-Deford complex with slopes of 0-35%. Habitat - PArV Very heavily stocked, but this has left very little room for diameter growth. The understory is a mix of fir and white pine. Ready to harvest, but access issues make this unlikely.</p>										
<b>58</b>	<b>Q6</b>	2	102	30	mixed swamp conifer	two aged	seed tree	3		
<p>TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate) Blocked by other physical obstacle</p> <p>comnts Fmd : Soils - Augres-Deford complex, 0-3% slope Habitat type - PArVAa This stand is a mix of conifers that also features large (18"+ DBH) red &amp; white pine logs, some of which which should be kept to fulfill retention guidelines. A few jack pine, paper birch and white pine poles are also present. Because of the rolling terrain, the site indices and understory are both variable. Barriers to access (crossing Hickey Creek and wet ground in the marsh) are likely to make harvest impossible. The site index shown is from cedar stands nearby .</p>										
<b>61</b>	<b>A6</b>	5	66	62	aspen (upland)	mature	final harvest	3		
<p>TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate)</p> <p>comnts Fmd : Soils - mapped as Deford muck, but this stand is probably located on an inclusion of soils with better drainage such as a Rubicon-Deford complex. Site indices are variable; the figure shown here represents the best potential. This is a mixed stand of aspen/paper birch/red maple on rolling terrain. The understory is primarily balsam fir. Pockets of cedar and/or black ash, plus a few scattered hemlock, spruce &amp; white pine, are also present. The aspen &amp; birch are overmature and starting to break up, but access across Hickey Creek is not presently available. Succession to lowland conifers (fir/spruce/cedar/red maple mix) is likely to continue.</p>										
<b>105</b>	<b>E6</b>	10	89	46	spruce-fir (uplands- including upland black spruce)	mature	final harvest	3		
<p>TREATMENT LIMITING FACTORS: Too wet</p> <p>comnts Fmd : Soils - Deford Muck, Markey muckey peat, and Augres-Deford complex at 0-3% slope Lowland hardwoods on a very wet site. Stand density and site indices are highly variable. This area may have had more aspen and birch, but those species are quickly disappearing. Red maple is dominant, but generally slow-growing. The volume listed under other commercial species represents black ash and the surviving paper birch &amp; aspen. Mixed softwood is balsam fir plus a few spruce and cedar. The understory features a mix of conifers, red maple, black ash and lowland brush. Cutting would regenerate a similar mix of species, which is acceptable. If the stand is cut, retain all hemlock and cedar and leave-tree mark a few paper birch.</p> <p>Wld : The habitat goal for this stand is to promote a young swamp conifer stand with a diversity of species. Leaving cedar and hemlock will promote structural diversity while providing seed source to encourage species diversity with the regeneration.</p>										
<b>122</b>	<b>P6</b>	2	87	46	spruce-fir (uplands- including upland black spruce)	mature	final harvest	3		
<p>TREATMENT LIMITING FACTORS: Too wet</p> <p>comnts Fmd : Soils - Augres-Deford complex at 0-3% slope Habitat type - PArVAa Slow-growing lowland aspen on a very wet site. Stand density and site indices are variable. This area may have had more natural disturbance, but seasonally high water appears to be the major problem. The understory varies between dense young conifers and pure lowland brush, with some small marsh openings. Operability is questionable. If the stand is cut, retain all white pine, hemlock and cedar.</p>										

**Total Acres..... 228**

