



**SHINGLETON FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 157 ENTRY YEAR: 2003

Compartment Acreage: 2585 County: Schoolcraft

Revision Date: 10/30/2002

Stand Examiner: B. Travis

Legal Description: T. 46N, R16W, Sections 21,22,23,26,27,28

RMU (if applicable):

Management Goals: The main goal in this compartment is to conduct sound multiple resource management for the good of the citizens of the State of Michigan.

Soil and Topography: Land is mainly level with scattered sandy knolls/rises. Many lowland areas are interspersed between uplands.

Ownership Patterns, Development, and Land Use in and Around the Compartment: An 80 acre private parcel is located within the Southeast corner of the Compartment. Additional private holdings are situated adjacent to the Compartment to the Northeast and Southeast. The Compartment is surrounded mainly by a large block of state property. Intensive forest cutting in a northern hardwoods type has occurred in the recent past on the private property setting immediately to the Northeast.

Unique, Natural Features (include only non-site specific and non-sensitive information): The area is currently under review by the Michigan Natural Features Inventory.

Archeological, Historical, and Cultural Features (include only non-site specific and non-sensitive information): None known.

Special Management Designations or Considerations:

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-to-Good. Creighton River is classified as SQCW. We once surveyed with a backpack shocker and a canoe from the power line downstream to M-28. The most memorable part of the trip was dragging a 17-ft aluminum canoe up and over a huge logjam. We did not capture a single trout during that trip, despite angler reports to the contrary.

Wildlife Habitat Considerations: This compartment lies within the Seney Sand Lake Plain ecological sub-subsection. The growing season in this area is less than 100 days with extreme minimum winter temperatures of -46° F. Annual snowfall in this area averages approximately 150 inches.

This compartment lies within the marsh/low pine ridge complex. The land form has a general NNW to SSE slope with upland islands surrounded by marsh and lowland coniferous forests. General Land Office (GLO) Surveyor notes show the circa 1850 upland forest was dominated by a mixture of hemlock, white pine, yellow birch, and red maple. Balsam fir, beech, cedar and spruce were also recorded. Tamarack and black spruce were by far the dominant lowland forest species. However, cedar, white pine, hemlock, jack pine, white birch, and tag alder were also present.

Windthrow, fire, flooding, and beaver ponding all likely played major roles in the natural disturbance regime. Surveyors mentioned beaver ponding activity during their work in the township.

Current forests in this compartment are substantially different from the circa 1850 conditions. Jack pine is by far the dominant tree species within the compartment. Aspen is more prevalent than before. Northern hardwood stands contain more deciduous and less hemlock/white pine component than during pre-settlement times. Spruce and tamarack are still the primary tree species in the lowland areas.

Wildlife habitat objectives in this compartment include maintaining age and structural diversity between conifer stands, maintaining wildlife travel corridors across the landscape, promoting within stand diversity in the northern hardwood areas, and protection the integrity of the sheet flow of water across the compartment.

Gray wolves (Michigan threatened; Federal endangered), moose (Michigan special concern), and the northern blue butterfly (Michigan threatened) occur within this compartment

Other wildlife species of interest that may utilize this compartment include spring peepers, leopard frogs, great blue heron, northern harrier, red squirrel, and bobcat.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel and peat and muck. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River Group subgroups below the glacial drift. The Black River is used for stone/dolomite in the UP. Gravel pits are located three miles to the west and potential appears to be limited. There is no commercial oil and gas production in the UP.

Vehicle Access: Two primary 2-tracks provide access to the interior of the Compartment, West of the Creighton county road. Both are relatively drivable, though they also flood seasonally. One of the 2-tracks follows the East-West running powerline ROW. This road has many mucky, unstable areas which would pose access problems nearly year-round the further West you go. The 2-track becomes impassable at about the center of section 27, near the drain. The second 2-track is mainly a firm, sandy road which ends in

unstable, mucky soil near the $\frac{1}{4}$ corner between sections 21 and 22. The Northwest corner of the Compartment is remote and inaccessible. A moderately hard-packed, passable 2-track provides loop access to the northern stands east of the Creighton road.

Survey Needs: Provide at least one survey monument and private property lines on private 80 acre parcel within southeast corner of Compartment.

Recreational Facilities and Opportunities: One dispersed campsite is situated along the northeast 2-track, near the Creighton River in section 22. This site is used by deer hunters. A second dispersed camping site is found near the Pines Powerline Substation, on the powerline ROW East of the Creighton road. This site is also used by deer hunters. ATV tracks are very numerous on the powerline ROW, especially during hunting seasons.

Fire Protection: Fire suppression equipment will have difficult access in most areas due to lack of roads and well-dispersed wetlands/drainages.

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: 157

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			142	51	11	7													211
Black Spruce							5	20	18	68	17		4						132
Grass	18																		18
Hemlock									1		18								19
Jack Pine		194	482	87	2	11	227	112	66			6							1187
LowInd Brush	279																		279
Marsh	78																		78
Mx Swmp Cnfr										7								17	24
Non Stocked	17																		17
Paper Birch				1															1
Red Pine			21			2		43		5								14	85
Spruce Fir				3															3
Swamp Hrdwds							10											62	72
Tamarack		5		61		8	4					9							87
Upland Hdwds			15			5												229	249
Water	15																		15
White Pine			12		9			22			65								108
Total	407	199	672	203	22	33	246	197	85	80	100	15	4					322	2585

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

SCHOOLCRAFT COUNTY

COMPARTMENT: 157

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	211																										211
S Black Spruce		132																									132
G Grass					18																						18
H Hemlock						19																					19
J Jack Pine							1187																				1187
L Lowlnd Brush									279																		279
N Marsh											78																78
Q Mx Swmp Cnfr												24															24
X Non Stocked													17														17
B Paper Birch															1												1
R Red Pine															85												85
F Spruce Fir																			3								3
E Swamp Hrdwds																				72							72
T Tamarack																					87						87
M Upland Hdwds																								244	5	249	
Z Water																									15	15	
W White Pine																										108	108
Total	211	132			18	19	1187		279		78	24	17		1	85			3	72	87			244	15	113	2585

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

SCHOOLCRAFT COUNTY

COMPARTMENT: **157**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	7343 Cds	Hardwood	2056 Cds
Hardwood	185 Mbf	Hardwood	72 Mbf
Softwood	16723 Cds	Softwood	5615 Cds
Softwood	989 Mbf	Softwood	405 Mbf
Sum TotVol	26414 Cds	Sum CutVol	8625 Cds
Total Cmpnt Acres		Acres Proposed For Cut.....	414
2585		Acres Meeting Silv Criteria.....	462
		Acres Not Meeting Silv Criteria.....	2123
		Acres Unable to Determine Silv Criteria For.....	

SHINGLETON FOREST AREA

Proposed Treatments
With NO Limiting Factors

Compartment: 157 Entry Year: 2004

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
17	J2	22	4	48	jack pine	immature		0	planting	
comnts Fmd : STAND VISIBLE FROM ROAD. [1/17/01] c41-707 completed. Stand is fully stocked with jp and spruce in areas to north. Areas of marsh and lowland brush. J. pine .5 to 2 ft. tall. Clumps of aspen whips.										
19	J6	26	65	57	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Illegal ATV trails. Interspersed uplands with bracken and low-lying areas with dense chokeberry mat. Leave most red and white pine. Leave 30-50% of white birch. Tamarack and black spruce to harvest.										
20	J6	66	75	48	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : May cut some red and white pine. Leave 30-50% of white birch.										
21	J3	415	13	50	jack pine	immature		0	planting	
comnts Fmd : Plant oak on three small knolls (approximately 2 acres total), located at east side of stand. J. pine 3-8 ft. tall.										
22	R9	14		52	red pine	mature	selection	1	natural regeneration	
comnts Fmd : May leave scattered white birch.										
25	W6	65	95	48	white pine	two aged	thinning	2	natural regeneration	
comnts Fmd : DO NOT CUT ANY HEMLOCK. M2 layer is mainly beech that is 16-20 feet tall. Site prep must follow cutting in order to avoid converting stand to beech/soft maple type. Clumps of jack pine to harvest. High quality red maple poles. Remove black spruce, white birch and fir in overstory.										
28	R9	3	81	50	red pine	mature	selection	1	planting	
comnts Fmd : Scattered 5-stick jack pine. Well-distributed 2-4 inch caliper red pine saplings. Small diameter (< 5 inch dia.) red pine poles in midstory to release.										
31	J6	19	64	49	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Leave 30-50% of white birch. Leave most red and white pine. Standing and broken/fallen mortality at south end of stand (1/2 of trees dead here).										
33	J6	21	63	50	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Leave 30-40% of white birch. Leave most red and white pine. Small hill in stand. Maintain black spruce component of stand. Will need to confer with MNFI about special concern species (see locked box).										
35	W6	22	58	50	white pine	mature	thinning	1	natural regeneration	
comnts Fmd : Leave 30-50% of White birch. A diverse mixed stand. Want to perpetuate this association. Use individual tree selection for red and white pine. Remove black spruce.										
36	M6	5	41	47	white pine	low quality	seed tree	1	planting	
comnts Fmd : Leave several white birch for visual considerations. Underplant white pine.										
44	M6	37		50	northern hardwood	unevenaged	selection	1		
comnts Fmd : Moderate quality hardwoods. Promote hemlock retention and recruitment. Promote yellow birch in stand. Leave white pine supercanopy trees. When creating small openings, make large enough to favor white pine and cherry. Do not cut white spruce.										
68	J6	12	61	47	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Leave 30-50% of white birch. Leave most red and white pine.										
70	Q6	3	85	45	mixed swamp conifer	mature	final harvest	1	natural regeneration	
comnts Fmd : Leave 30-50% of white birch. Leave most red and white pine. Wld : Do not use herbicides for site prep to maintain deciduous brush and saplings for moose browse.										
71	Q6	4	85	45	mixed swamp conifer	mature	final harvest	1	natural regeneration	
comnts Fmd : Leave 30-50% of white birch. Leave most red and white pine. Wld : Do not use herbicides for site prep to maintain deciduous brush and saplings for moose browse.										
75	J6	28	64	48	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Leave most red and white pine. Leave 30-50% of white birch. Handplant red pine from south edge of stand along M-28 in a 4 chain wide strip.										

SHINGLETON FOREST AREA

Proposed Treatments
With NO Limiting Factors

Compartment: 157 Entry Year: 2004

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
76	J1	29	4	48	jack pine	immature		0	planting	
comnts Fmd : STAND VISIBILE FROM ROAD. [1/17/01] c41-707 completed. Stand is fully stocked with jp and spruce in spots to north (J. pine .5 to 2ft tall). Area to south needs to be regenerated. Plant mix of jack and red pine in one chain-wide width across south part of stand. Areas of marsh and lowland brush. Clumps of aspen whips.										
77	J1	2	4	48	jack pine	immature		0	planting	
comnts Fmd : STAND VISIBILE FROM ROAD. [1/17/01] c41-707 completed. Areas of marsh and lowland brush. Need to plant jack pine and red pine.										
78	T1	5	4	48	tamarack	immature		0	planting	
comnts Fmd : STAND VISIBILE FROM ROAD. [1/17/01] c41-707 completed. Areas of marsh and lowland brush with standing dead jack pine poles. Some tamarack saplings 4-12 feet tall. Also some spruce saplings. Need to plant additional trees. Thick marsh grass present.										
80	J2	7	4	48	jack pine	immature		0	planting	
comnts Fmd : [1/17/01] c41-707 completed. Stand is fully stocked with jp and spruce in areas. Areas of marsh and lowland brush. J. pine .5 to 2 ft. tall. Clumps of aspen whips.										
81	J6	4	62	47	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Leave white birch, white pine, and red pine.										
82	J3	22	4	50	jack pine	immature		0	planting	
comnts Fmd : J. pine 3-5 ft. tall.										
97	J3	14	4	50	jack pine	immature		0	planting	
comnts Fmd : Plant oak on small knoll (approximately 1 acre in size), located at north end of stand. J. pine 3-5 ft. tall.										
100	S6	11	85	45	black spruce-swamp	mature	final harvest	1	planting	
comnts Fmd : May mark some red and white pine. Handplant red and jack pine on scattered upland knobs. Leave 30-50% of white birch.										
101	R9	2	81	50	red pine	mature	selection	1	planting	
comnts Fmd : Scattered 5-stick jack pine. Well-distributed 2-4 inch caliper red pine saplings. Small diameter (< 5 inch dia.) red pine poles in midstory to release.										
103	A2	25	10	47	aspen (upland)	in process of regeneration		0	planting	
comnts Fmd : Handplant scattered oak in some of the areas of lower stocking. Aspen is 8-16 feet tall. Plant road with red pine.										
124	J6	2	61	48	jack pine	mature	final harvest	1	natural regeneration	
comnts Fmd : Leave most red and white pine.										
129	M6	66		50	northern hardwood	unevenaged	selection	1		
comnts Fmd : Nice yellow birch within M3 layer. Mark to release/promote yellow birch and hemlock. Nice clumps of hemlock poles. Ancient pine/hemlock stumps which are very rotten. Other hemlock stumps which still have bark intact as cut more recently. Leave all white pine.										
130	G0	2			grass	nonstocked		0	cleaning & weeding	
comnts Fmd : HIGHWAY R. O. W.										
141	R6	4	64	47	red pine	immature	selection	1	natural regeneration	
comnts Fmd : Leave 30-50% of white birch. May mark some white pine.										
Total Acres.....		957								

**Proposed Treatments
With Limiting Factors**

Compartment:

Entry Year:

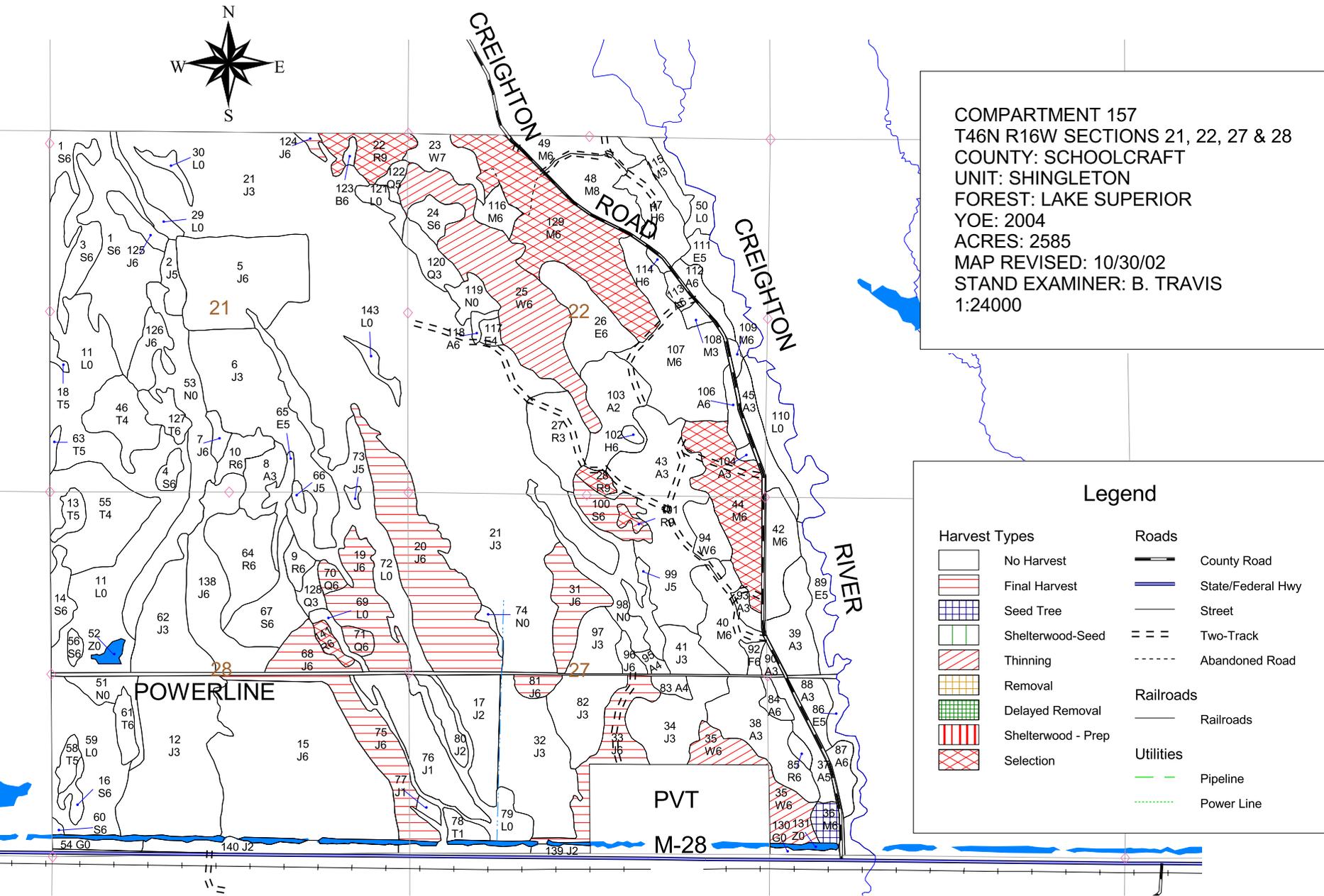
Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FD Status
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TREATMENT LIMITING FACTORS:

Total Acres..... None



COMPARTMENT 157
T46N R16W SECTIONS 21, 22, 27 & 28
COUNTY: SCHOOLCRAFT
UNIT: SHINGLETON
FOREST: LAKE SUPERIOR
YOE: 2004
ACRES: 2585
MAP REVISED: 10/30/02
STAND EXAMINER: B. TRAVIS
1:24000



Legend

Harvest Types		Roads	
	No Harvest		County Road
	Final Harvest		State/Federal Hwy
	Seed Tree		Street
	Shelterwood-Seed		Two-Track
	Thinning		Abandoned Road
	Removal	Railroads	
	Delayed Removal		Railroads
	Shelterwood - Prep	Utilities	
	Selection		Pipeline
			Power Line

