



**SHINGLETON FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 31 ENTRY YEAR: 2008

Compartment Acreage: 2390 County: Schoolcraft

Revision Date: 10/11/2005

Stand Examiner: Robert Burnham

Legal Description: T44N R15W Sections 21-23, 28

RMU (if applicable):

Management Goals: The goals in this compartment include conducting multiple resource management for current and future generations. Forest Health, Recreation, Biodiversity Stewardship, Wildlife and Timber Management are some of the key management components within this compartment.

Soil and Topography: The soils in Schoolcraft County are currently being mapped by the Soil Survey. Preliminary soils information including Habitat Types can be found in the specific stand comments. In general, the soils are moderately drained sandy soils on the uplands and poorly drained organic soils on the low ground. The terrain in the area is flat to rolling. The compartment lies within the Seney Lake Plain Subsection under Cleland's Ecological Land Classification System which is being used in the Eastern Upper Peninsula Eco-Regional Planning Process.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Ownership within the compartment is mostly a contiguous block of State land; however there is a minor component of private fragmentation, including corporate land. The private land is either forest or marsh and it is currently used mainly for hunting. The Seney National Wildlife Refuge lies directly east of the compartment.

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

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

Special Management Designations or Considerations: A large block of land in Sections 22 and 23 was designated as Potential Old Growth in 1998 when the compartment was last inventoried. These areas are now termed Biodiversity Stewardship Areas. This area has since expanded in size and is termed an Ecological Reference Area (ERA). ERA's are designated by Michigan Natural Resources Inventory (MNFI) and are high quality examples of functioning ecosystems that are primarily influenced by ecological processes. In this case the designation is for a Patterened Fen.

Watershed and Fisheries Considerations: Duck Creek is found within this compartment and is classified as warm-water. 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: This compartment lies with the larger marsh/low pine ridge complex of Schoolcraft County. Surveyor notes showed the pre-settlement vegetation within the wetland to be a mixture of open grassy marsh and tamarack/black spruce swamp. The ridges were fairly well dominated by conifers including hemlock, white pine, red pine and, to a lesser extent, jack pine. The deciduous species recorded included beech, red maple, sugar maple, white birch and aspen. Current conditions show the marshes to be fairly well intact. However, the dominant tree species on the ridges has shifted to jack pine. The wildlife habitat management goals in this compartment include providing travel corridors, protecting the remaining closed canopy hemlock stands, and enhancing the early successional conifer habitat for potential use by species such as Kirtland's warbler. Additionally, the clearcut areas will be temporally usable by openland species. Variable retention principles will be utilized to enhance species and structural diversity within and between stands.

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 Utica Shale subcrop below the glacial drift. The Stonington could be used for stone. Gravel pits are not located in the area and potential appears to be limited. There is no commercial oil and gas production in the UP.

Vehicle Access: Access to the compartment is limited to the Highwater Truck Trail which is the only road running through the compartment. The Highwater Truck Trail is also a snowmobile trail. The lands east of Duck Creek were roaded following the Seney Fire of 1976 for salvage operations. Since that time the roads have grown over and the bridge crossing Duck Creek has dilapidated. The Department is in the process of getting a Director's Order to formally close the bridge and subsequently that old road system. There is another closed road system in section 28 which was constructed for timbersale operations during the last entry period.

Survey Needs: None at this time.

Recreational Facilities and Opportunities: The Highwater Truck Trail is a snowmobile trail and is the only recreational facility in the compartment. The other recreational opportunities include hunting, fishing and trapping. Duck Creek is considered warm water therefore fishing opportunities are limited but it does have a fair amount of beaver activity for trapping. Due to the lack of roads in the compartment there is good potential for remote deer and bear hunting. The area does receive a fair amount of dispersed camping during the firearm deer season.

Fire Protection: Response times to fires within the compartment will be relatively slow due to its location. Fire operations will be challenging in some areas due to the lack of roads and the number of creeks present as well as the organic soils in these areas. The compartment is comprised mainly of jack pine in varying age classes which could potentially lead to some larger fires due to response times, location and this volatile fuel type given the proper weather conditions. As mentioned earlier the area east of Duck Creek burned in 1976 during the great Seney Fire which was caused by a lightning strike and burned for over a month.

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: 31

Table 3

(acres shown in boxes)

STAND AGE CLASS

COVER TYPE	Not	STAND AGE CLASS																Total	
	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
Black Spruce					6	55		9	5										75
Hemlock											22								22
Jack Pine		213	21		376	54	4	16	296										980
Lowlnd Brush	130																		130
Marsh	825																		825
Red Pine						5	10		62	67	8	47							199
Upland Hdwds																		17	17
Water	54																		54
White Pine		17					4	6		31	30								88
Total	1009	230	21		382	114	18	31	363	98	60	47						17	2390

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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: 31

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
S Black Spruce		75																									75
H Hemlock						22																					22
J Jack Pine							980																				980
L Lowlnd Brush									130																		130
N Marsh											825																825
R Red Pine																199											199
M Upland Hdws																										17	17
Z Water																									54		54
W White Pine																										88	88
Total		75				22	980		130		825					199									54	105	2390

LAKE SUPERIOR STATE FOREST

SHINGLETON FOREST AREA

SCHOOLCRAFT COUNTY

COMPARTMENT: **31**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	651 Cds	Hardwood	187 Cds
Hardwood	6 Mbf	Hardwood	6 Mbf
Softwood	10297 Cds	Softwood	5575 Cds
Softwood	1760 Mbf	Softwood	375 Mbf
Sum TotVol	14480 Cds	Sum CutVol	6524 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	428
2390			

SHINGLETON FOREST AREA

Proposed Treatments
With NO Limiting Factors

Compartment: 31

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
7	R9	15	85	58	red pine	mature	shelterwood-seed	2		
comnts Fmd : Road was put through stand to access Setion 28 Marsh Sale. Sit and manage the stand much the same as the stands to the south. Cut evrything but the red and white pine and mark them heavy enough to provide but not hinder regen. Regen will be a mix of the current species on site. However, if red and white pine do not regenerate in sufficient stocking compared to other species handplant with inmates. Soils are Rubicon Croswell Deford Complex and the Habitat tYpe is PVE.										
9	R9	13	85	56	red pine	mature	shelterwood-seed	2		
comnts Fmd : Stand was partially cut through in the 60's but there are some beautiful knobs/ridges of red pine. If access can be obtained through private cut stand in such a way that the very heavy areas of red pine are thinned enough to provide regeneration and the llower ground will regenerate to spruce and other species that are in place. If access can't be obtained through private hold 1 more entry and cut with adjacent stands. The thick S3/S4 regen from the 60's can be excluded if possible. The Soils are Niconish Kinross Wainola Complex and the Habitat type is PVE.										
14	J6	5	72	52	jack pine	mature	final harvest	2	natural regeneration	
comnts Fmd : South end of stand was cut through in 60's if stand is prepared lop south end off. The north end was not cut through in 60's and jack pine is over-mature. Leave some red and white pine for seed. Soils are Neconish-Kinross-Wainola Complex and the Habitat type is PVE. Retention will be met by leaving red pine and white pine as well as the exclusions of spruce on the fringes.										
15	J5	113	74	54	jack pine	mature	final harvest	2	natural regeneration	
comnts Fmd : Stand has had portions that were cut through in the 60's but its difficult to type out exactly where those spots are, the remaining timber especially the jack pine is over-mature and needs to be cut. Old road through stand. Cut entire stand and if there is a patch of younger stuff especially spruce it can be excluded. Very few red pine showed up on plots, leave most of them unless there are thick patches. Acceptable regen will be a mix of jack pine and black spruce. Soils are Rosseau Neconish Spot Complex and the Habitat type is PVE. Retention will be met by leaving red pine where it occurs as well as the exclusions of spruce and younger jack pine.										
17	J6	50	76	57	jack pine	mature	final harvest	2	natural regeneration	
comnts Fmd : Stand is a mix of ridges and leatherleaf flats. Plots showed mostly jack pine but there will be fringes of spruce as well. Jack pine will not hold another decade. Soils are Kinross-Augress-Rubicon Complex and the Habitat type is PArV. Acceptable regen is jack pine but also spruce where it occurs within current stand. Retention will be met by leaving red pine as well as exclusions of spruce along the fringes, in addition all trees not having at least one pulpwood stick will be left.										
19	J6	16	61	55	jack pine	mature	final harvest	2	natural regeneration	
comnts Fmd : Stand has some drainages that will need to be protected as well as proper river buffers. Red and white pine are present but not showing up on plots as a large component, leave most of near the creek buffer to provide diversity. Stand could hold if needed. Soils are Kinross-Augress-Rubicon Complex and habitat type is PArV. Retention will be met by leaving the red and white pine.										
21	J6	116	71	48	jack pine	mature	final harvest	2	natural regeneration	
comnts Fmd : Stand is an intricated mix of jack pine ridges connected with black spruce on the lower ground. There is a lot of marsh types webbed within stand as well, to small to type out. Jack pine is over-mature and cannot hold another decade and spruce is even showing some mortality. Acceptable regeneration will be a comparable mix of jack pine and spruce as is on-site now. Soils are Kinross-Augress-Rubicon Complex and the Habitat Type is PArV. Retention will be met by leaving red pine where it occurs as well as exclusions of spruce where the diameter peters out on the fringes. In addition, all trees not containing at least 1 pulpwood stick will be left un-cut. There will be plenty of small diameter black spruce left due to this spec to meet retention.										
43	R9	20	86	60	red pine	mature	shelterwood-seed	2		
comnts Fmd : There is an access road running in to stand from older Section 28 Marsh Sale. Treat stand much the same as Section 28 Marsh species thin and mark pine heavy enough to provide seed but not shade seedlings out. Do not cut oak in stand. Soils are Rubicon Croswell Deford Complex and the Habitat type is PVE.										
48	R8	6	90	52	red pine	mature	shelterwood-seed	3		
comnts Fmd : Stand has nice pockets of pine which need to be cut as well as a lot of water stressed trees. Scheduling stand to harvest with stands 9 and 51 which is dependent on private access. Drop areas of regen where they exist if needed. Regen will be a mix of current species. Soils are Proper Fine Sand and the Habitat type is PVE										
51	R9	10	85	56	red pine	mature	shelterwood-seed	2		
comnts Fmd : Stand was partially cut through in the 60's but there are some beautiful knobs/ridges of red pine. If access can be obtained through private cut stand in such a way that the very heavy areas of red pine are thinned enough to provide regeneration and the llower ground will regenerate to spruce and other species that are in place. If access can't be obtained through private hold 1 more entry and cut with adjacent stands. The thick S3/S4 regen from the 60's can be excluded if possible. The Soils are Niconish Kinross Wainola Complex and the Habitat type is PVE.										
80	M6	17		55	white pine	two aged	shelterwood-seed	2		
comnts Fmd : Stand is poor quality red maple with pockets of hemlock. There is excellent white pine regen throughout. Cut stand and manage for white pine. Thin stand heavy enough to enhance white pine regen but not to heavy to scald it. Protect the pockets of hemlock where they occur by not thinning within them and leave the beech mast trees. Soils are Duck Crowell and the habitat type is PArVAa										

Total Acres..... 381

SHINGLETON FOREST AREA

**Proposed Treatments
With Limiting Factors**

Compartment: 31

Entry Year: 2008

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
26	R9	7	100	54	red pine	old growth (potential or actual)	shelterwood-seed	3		

TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate)

comnts Fmd : ERA - Patteredned Fen Delineated by MNFI

This stand was delineated by MNFI as a patteredned fen and discovered via the certification layers. This stand is actually an upland island of pine. A plan is currently being written for the ERA which will give guidance to this stand.

Stand was prepared in 1998, 2 Chains Short Sale but was never cut because the purchaser was responsible for installing a portable bridge across Duck Creek. Stand was originally cut after Seney Fire but not heavy enough. Regen is a mix of white pine and advanced E. Pine near the fringes has now died and again will likely not warrant the cost of a bridge. This is not enough wood to tie up one of the department's portable bridges. White pine will do ok with the amount of shade present. Soils are Neconish-Kinross-Wainola Complex and the Habitat tYpe is PVE.

28	R9	40	100	54	red pine	mature	shelterwood-seed	3		
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TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate)

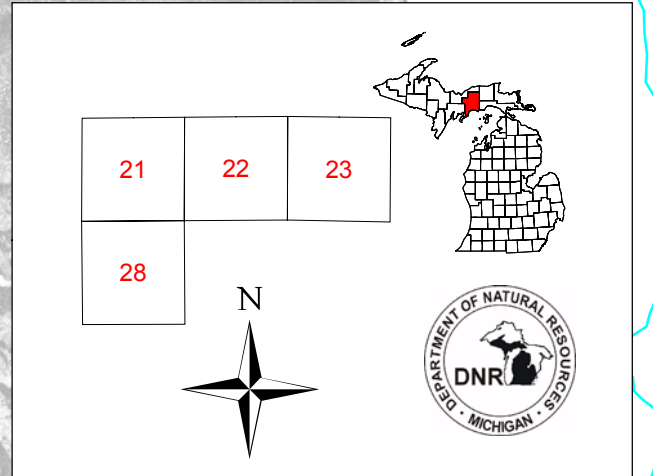
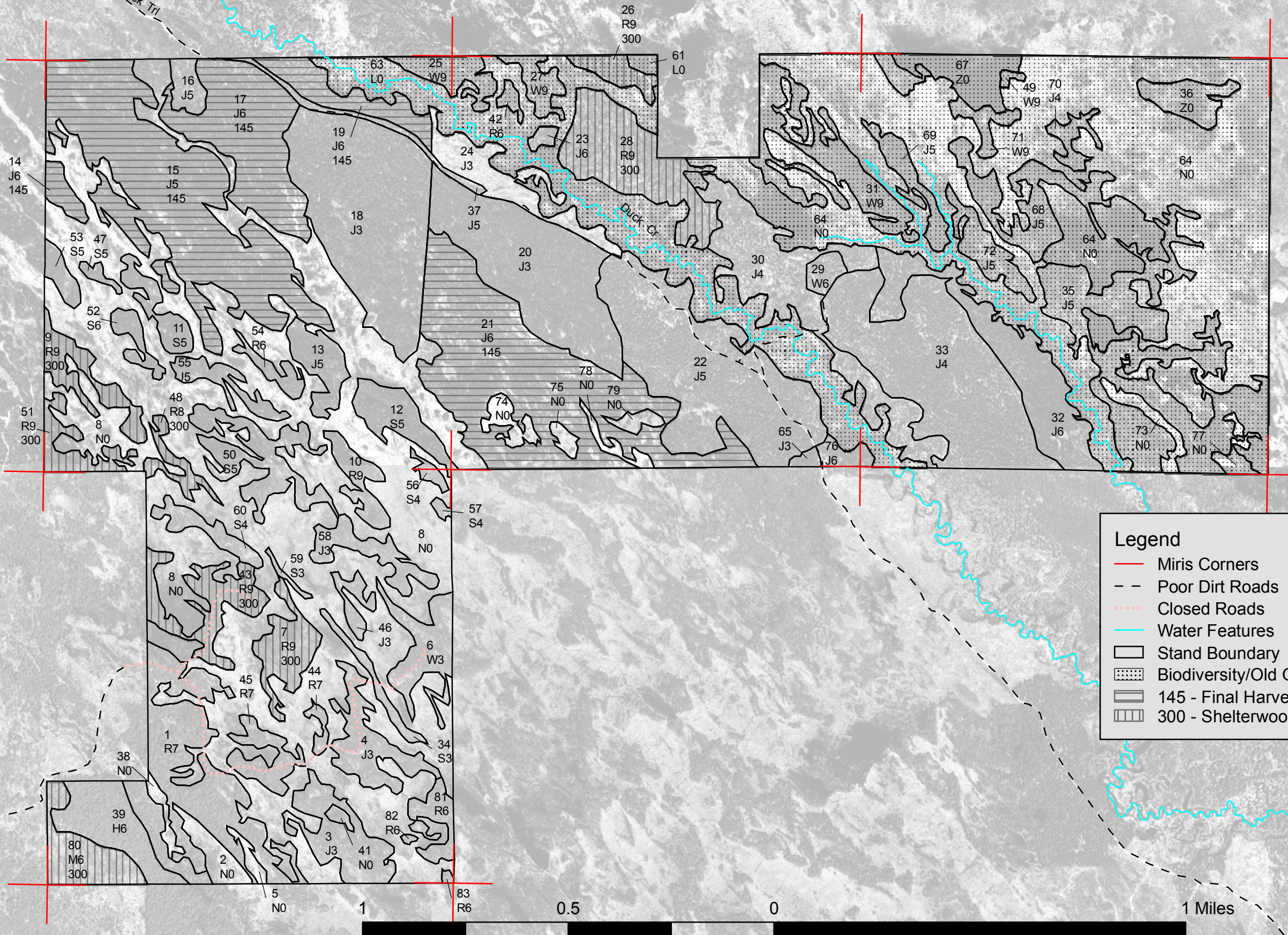
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across Duck Creek. Stand was originally cut after Seney Fire but not heavy enough. Regen is a mix of white pine and advanced E. Pine near the fringes has now died and again will likely not warrant the cost of a bridge. This is not enough wood to tie up one of the department's portable bridges. White pine will do ok with the amount of shade present. Soils are Neconish-Kinross-Wainola Complex and the Habitat tYpe is PVE.

Total Acres..... 47

Field Map

Compartment 31
 T44N, R15W, Sec. 19, 20, 29, 30-32
 County: Schoolcraft
 Unit: Shingleton
 YOE: 2008
 Acres: 2,390 GIS Calculated
 Stand Examiner: Robert Burnham
 Map Revised: 10/13/2006
 Map Phase: Pre-review



Legend

- Miris Corners
- - - Poor Dirt Roads
- ⋯ Closed Roads
- Water Features
- Stand Boundary
- ▤ Biodiversity/Old Growth Area
- ▨ 145 - Final Harvest/Natural Regeneration/Mechanical, Other
- ▧ 300 - Shelterwood-Seed

