



**PIGEON RIVER COUNTRY MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 33 ENTRY YEAR: 2012

Compartment Acreage: 1856 County: Otsego

Revision Date:

August 25, 2010

Stand Examiner:

Don Mittlestat

Legal Description:

T32N R01W Sections 1, 2, and 3

RMU (if applicable):

Management Goals:

Maintain current species mix and apply appropriate management techniques to mature stands of timber that are in need of treatment.

Soil and Topography:

The east half of the compartment is dominated by loamy soils with the exception of an area of wet organics that lies primarily east of Little McMasaters Creek Trail. The west portion of the compartment is generally well drained, sandy soils. Most of the topography is flat or gently rolling. The only steep slopes are those that lie adjacent to the Sink Hole Lakes.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

This compartment is a solid block of state land, which is also surrounded by state land.

Unique, Natural Features:

Lost Lake, West Lost Lake and the Devil's Bowl Lake are located in sections 2 and 3 of this compartment. These lakes have been used by Fisheries Division for research in the past, but are now open to fishing.

Archeological, Historical, and Cultural Features:

Stand 402 may be an old homestead or logging camp location

Special Management Designations or Considerations:

See attached MNFI notes.

Watershed and Fisheries Considerations:

Lost Lake, West Lost Lake and the Devil's Bowl Lake are located in sections 2 and 3 of this compartment. These lakes have been used by Fisheries Division for research in the past, but are now open to fishing. West Lost Lake is presently stocked with trout by Fisheries Div.

Wildlife Habitat Considerations:

See attached wildlife comment sheet.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium, and coarse textured glacial till (high ground). The glacial drift thickness varies between 200 and 600 feet, thickening to the west. Beneath the glacial drift is the Devonian Antrim Shale, quarried for clay/shale elsewhere in the State. The nearest gravel pit is located six miles to the northwest. The thick glacial moraine deposits, in Sections 1 and 2, are considered to have good gravel potential. No oil and gas leases remain in effect after 2001. This area may have Guelph (Niagaran) reef trend potential and also the Antrim Shale may have some potential in this compartment, but will not be developed under the Management Plan.

Vehicle Access:

Access is adequate at this time

Survey Needs:

There are no survey needs at this time.

Recreational Facilities and Opportunities:

Most of the Elk Hill trail Camp is located in section 1. The Shore to Shore Riding and Hiking trail and other riding loops are in sections 1 and 2.

Fire Protection:**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**
 - ◆ **Biodiversity Stewardship**

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

MACKINAW STATE FOREST

PIGEON RIVER COUNTRY MGT UNIT

OTSEGO COUNTY

COMPARTMENT: 33

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		14		40	42	49	22			5									172
Cedar										3									3
Grass	24																		24
Hemlock																		74	74
Jack Pine			86	18	67					17									188
Lowlnd Brush	6																		6
Marsh	11																		11
Mx Swmp Cnfr									14		80								94
Oak										13	5							9	27
Red Pine										227								75	302
Spruce Fir				15															15
Upland Brush	3				2														5
Upland Hdwds			15	15						15	60							766	871
Water	7																		7
White Pine				19		17				5								16	57
Total	51	14	101	107	111	66	22		14	285	145							940	1856

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

MACKINAW STATE FOREST

PIGEON RIVER COUNTRY MGT UNIT

OTSEGO COUNTY

COMPARTMENT: 33

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	172																										172
C Cedar				3																							3
G Grass					24																						24
H Hemlock						74																					74
J Jack Pine							102									86											188
L Lowlnd Brush									6																		6
N Marsh											11																11
Q Mx Swmp Cnfr												94															94
O Oak														27													27
R Red Pine																165								56	81	302	
F Spruce Fir																								15		15	
U Upland Brush																							5			5	
M Upland Hdwds																								871		871	
Z Water																									7	7	
W White Pine																								3	54	57	
Total	172			3	24	74	102		6		11	94		27		251							5	945	7	135	1856

MACKINAW STATE FOREST

PIGEON RIVER COUNTRY MGT UNIT

OTSEGO COUNTY

COMPARTMENT: **33**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	13752 Cds	Hardwood	1167 Cds
Hardwood	3974 Mbf	Hardwood	499 Mbf
Softwood	4584 Cds	Softwood	742 Cds
Softwood	3625 Mbf	Softwood	1308 Mbf
Sum TotVol	33534 Cds	Sum CutVol	5523 Cds
Total Cmpt Acres		Acres Proposed For Cut.....	475
1856		Acres Meeting Silv Criteria.....	454
		Acres Not Meeting Silv Criteria.....	1402
		Acres Unable to Determine Silv Criteria For.....	

PIGEON RIVER COUNTRY MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 33

Entry Year: 2012

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
8	A5	22	48	60	ASPEN (UPLAND)	IMMATURE	FINAL HARVEST	1		
comnts Fmd : 2010 MARK A FEW WHITE PINE TO LEAVE AND AN AREA OF RETENTION. ASPEN PINE AND RED MAPLE WOULD BE EXPECTED TO REGENERATE THE STAND										
20	W9	3	82	60	WHITE PINE	IMMATURE	THINNING	1		
comnts Fmd : 2010 LEAVE ASPEN FOR FUTURE AND PRESENT WILDLIFE TREES										
22	W9	12	0	60	WHITE PINE	UNEVENAGE D	THINNING	1		
23	R9	81	82	60	WHITE PINE	IMMATURE	SHELTERWOOD-SEED	6	PLANTING	
comnts Fmd : 2008 RRP PROJECT TWO STAND. TAKE THE BA DOWN TO BETWEEN 30 AND 40 BA. RRETAIN SOME SMALL POCKETS OF MATURE PINE IN THE STAND. PLANT ACORNS IN STAND TO HELP ESTABLISH AN OAK PINE STAND. IF ANY ASPEN IS LEFT HERE LEAVE IT FOR WILDLIFE. SEEE COOMMENTS FROM STAND 29 FOR REGEN. 2010 COMBINED OLD STANDS 31 AND 29 INTO THIS ONE										
54	M9	83	0	65	NORTHERN HARDWOOD	UNEVENAGE D	SELECTION	2		
comnts Fmd : 2010 THIN THE STAND TO BETWEEN 75 AND 80 BA. NORTHERN HARDWOODS WOULD BE EXPECTED TO REGENERATE THE STAND										
57	R9	24	82	60	RED PINE	TWO AGED	SHELTERWOOD-SEED	1		
comnts Fmd : 2010 Use the area of the stand west of the road for retention and buffer the east side (leave the ba higher along the road) along Twin Lakes RD. RED AND WHITE PINE AS WELL AS SOME REDMAPLE AND ASPEN AND OAK WOULD BE EXCECTED TO REGENERATE THE STAND										
66	R9	37	0	70	NORTHERN HARDWOOD	UNEVENAGE D	REMOVAL	1	PLANTING	
comnts Fmd : 2010 LEAVE ABOUT 4 OR 5 RED PINE IN CLUMPS EVERY 2 ACRES. UNDERSTORY VARIES FORM M2 TO M3. LOTS OF THE UNDERSTORY IS IRONWOOD. BRIAN WOULD LLIKE TO TRY PLANTING OAK SAPS IN THE STAND AFTER CUTTING IS COMPLETE.										
67	R9	11	82	65	NORTHERN HARDWOOD	TWO AGED	FINAL HARVEST	6		
74	R9	8	82	60	NORTHERN HARDWOOD	TWO AGED	DELAYED REMOVAL	1	PLANTING	
comnts Fmd : 2010 LEAVE ABOUT 2 CLUMPS OF 3 OR 4 RED PINE IN THE STAND. BRIAN WOULD LIKE TO PLANT OAK SAPS AFTER THE HARVEST IS DONE.										
78	M9	186	0	60	NORTHERN HARDWOOD	UNEVENAGE D	SELECTION	2		
comnts Fmd : 2010 THIS STAND IS PART OF A BIGGER HARDWOOD STAND WHICH WAS SPLIT OUT TO START TREATING. THE BA AND QUALITY FALL OFF ON THE NORTHERN END OF THE STAND. THIN THE STAND TO 75 TO 80 BA. NORTHERN HARDWOODS WOULD BE EXPECTED TO REGENERATE THE STAND.										
404	G0	2	0		GRASS	NONSTOCKE D		0	OPENING MAINTENANCE	
comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.										
405	G0	8	0		GRASS	NONSTOCKE D		0	OPENING MAINTENANCE	
comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.										
406	G0	1	0		GRASS	NONSTOCKE D		0	OPENING MAINTENANCE	
comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.										
407	G0	1	0		GRASS	NONSTOCKE D		0	OPENING MAINTENANCE	
comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.										

PIGEON RIVER COUNTRY MGT UNIT

Proposed Treatments
With NO Limiting Factors

Compartment: 33

Entry Year: 2012

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
408	G0	6	0		GRASS	NONSTOCKE D		0	OPENING MAINTENANCE	

comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.

Total Acres..... 485

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
4	J5	8	84	50	JACK PINE	MATURE	FINAL HARVEST	1		

TREATMENT LIMITING FACTORS: Retention of stand for regeneration purposes (ie. shelterwood)

comnts Fmd : 2010 LEAVE RED AND WHITE PINE WITH AN AREA OF RETENTION. RED, WHITE AND JACK PINE AS WELL AS ASPEN WOULD BE ACCEPTABLE FOR REPRODUCTION

72	R7	3	82	60	RED PINE	TWO AGED		0	PLANTING	
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TREATMENT LIMITING FACTORS: Scenic values/visual values

comnts Fmd : 2010 COMBINED OLD STANDS 402 AND 61. OLD 402 HAS PRETTY MUCH FILLED IN WITH PINE AND HARDWOODS AND U. I WOULD LET THE RED PINE HERE DIE OUT ON ITS OWN. QUALITY IS POOR. BRIAN WOULD LIKE TO PLANT OAK SAPS IN THIS STAND.

Total Acres..... 11

* See "Compartment Packets Glossary of Terms" document link on web site for further descriptions and code definitions.

Stand	Cover Type-Dnsty	Under Story-Stkng Level	Acrs	Age	avg.		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					D B H	Tot. BA								
1	J 5	G 0	9	84	9	50	50	jack pine	mature	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Recreational site</p> <p>comnts Fmd : THIS IS THE ELK HILL STATE FOREST CAMPGROUND.</p>														
2	R 6	J 1	4	84	10	70	60	red pine	immature	N		40-49 years	0	
3	J 4	G 0	22	34	4	30	50	jack pine	immature	N		30-39 years	0	
4	J 5	W 1	8	84	9	50	50	jack pine	mature	Y	final harvest	within 0-9 years	1	
<p><u>Treatment Limiting Factors:</u> Retention of stand for regeneration purposes (ie. shelterwood)</p> <p>comnts Fmd : 2010 LEAVE RED AND WHITE PINE WITH AN AREA OF RETENTION. RED, WHITE AND JACK PINE AS WELL AS ASPEN WOULD BE ACCEPTABLE FOR REPRODUCTION</p>														
5	J 4	G 0	45	34	5	40	50	jack pine	immature	N		30-39 years	0	
<p>comnts Fmd : 2010 THERE ARE SCATTERED RED AND WHITE PINE IN THE STAND</p>														
6	A 3	G 0	2	36	3	20	65	aspen (upland)	immature	N		10-19 years	0	
<p>comnts Fmd : 2010 THE STAND IS JUST MOVING TO A POLE STAND.</p>														
7	R 8	W 2	16	83	10	70	60	red pine	two aged	Y		10-19 years	0	
<p><u>Treatment Limiting Factors:</u> Delayed treatment for age/size class diversity</p>														
8	A 5	A 1	22	48	8	70	60	aspen (upland)	immature	Y	final harvest	within 0-9 years	1	
<p>comnts Fmd : 2010 MARK A FEW WHITE PINE TO LEAVE AND AN AREA OF RETENTION. ASPEN PINE AND RED MAPLE WOULD BE EXPECTED TO REGENERATE THE STAND</p>														
9	U 0	G 0	2	36	0	0	60	upland brush	nonstocked	N		not scheduled	0	
<p>comnts Fmd : 2010 WHITE PINE AND CHERRY ARE FILLING IN THE STAND</p>														
10	W 9	M 2	4		14	170	60	white pine	unevenaged	N		not scheduled	0	
<p>comnts Fmd : 2010 USED OLD DATA. UNIQUE STAND DO NOT CUT</p>														
11	W 9	W 1	2	80	12	140	60	white pine	immature	N		10-19 years	0	
<p>comnts Fmd : 2010 MOST OF THIS STAND IS IN COMP TO THE WEST. STAND HAS STEEP SLOPES TO THE WEST.</p>														
12	W 2	G 0	5	20	1	0	65	white pine	immature	N		40-49 years	0	
<p>comnts Fmd : 2010 STAND HAS ALMOST NO ASPEN. SOME HARDWOOD STEMS MOSTLY IRONWOOD AND SOME RED PINE SAPS TOO</p>														
13	M 4	G 0	2	83	9	30	60	northern hardwood	sparse	N		not scheduled	0	
<p>comnts Fmd : 2010 THE STAND IS GRADUALLY FILLING IN</p>														

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Stand	Cover Type-Dnsty	Under Story-Stkng Level	Acres	Age	avg. D B H	Tot. BA	Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
14	M 6	M 2	4		9	70	60	northern hardwood	unevenaged	N		not scheduled	0	
15	M 4	G 0	2	83	9	30	60	northern hardwood	sparse	N		not scheduled	0	
16	M 9	M 2	58		10	100	60	northern hardwood	unevenaged	N		10-19 years	0	
comnts Fmd : 2010 THE STAND IS HAS A HIGHER BASAL AREA AS YOU GO SOUTH AND WEST														
17	H 9	U 0	9		15	120	60	hemlock	mature	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u> Cedar or Hemlock cutting restraints														
18	H 9	M 1	49		12	110	60	hemlock	unevenaged	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u> Cedar or Hemlock cutting restraints														
19	A 2	W 1	2	27	3	0	60	aspen (upland)	immature	N		20-29 years	0	
20	W 9	M 1	3	82	10	130	60	white pine	immature	N	thinning	within 0-9 years	1	
comnts Fmd : 2010 LEAVE ASPEN FOR FUTURE AND PRESENT WILDLIFE TREES														
21	W 2	M 1	3	27	2	0	60	white pine	immature	N		60-69 years	0	
comnts Fmd : 2010 ONE CLONE OF ASPEN THE REST IS WHITE PINE AND MOSTLY IRONWOOD														
22	W 9	M 1	12		12	130	60	white pine	unevenaged	N	thinning	within 0-9 years	1	
23	R 9	M 1	81	82	10	160	60	white pine	immature	Y	shelterwood-seed	within 0-9 years	6	planting
comnts Fmd : 2008 RRP PROJECT TWO STAND. TAKE THE BA DOWN TO BETWEEN 30 AND 40 BA. RRETAIN SOME SMALL POCKETS OF MATURE PINE IN THE STAND. PLANT ACORNS IN STAND TO HELP ESTABLISH AN OAK PINE STAND. IF ANY ASPEN IS LEFT HERE LEAVE IT FOR WILDLIFE. SEE COOMMENTS FROM STAND 29 FOR REGEN. 2010 COMBINED OLD STANDS 31 AND 29 INTO THIS ONE														
24	A 4	G 0	3	27	3	20	55	aspen (upland)	immature	N		30-39 years	0	
25	U 0	G 0	3			0		upland brush	nonstocked	N		not scheduled	0	
comnts Fmd : 2010 CHERRY AND SCATTERED PINE. CHERRY IS BEING HEAVILY BROWSED. PART OF STAND IS AN OLD LANDING														
26	W 3	G 0	8	27	2	0	55	white pine	sparse	N		40-49 years	0	
comnts Fmd : 2000 HEAVY ELK BROWSE DAMAGE. 2010 W3 TO W2 WITH M AND A LITTLE SCATTERED ASPEN														

* See "Compartment Packets Glossary of Terms" document link on web site for further descriptions and code definitions.

Stand	Cover Type-Dnsty	Under Story-Stkng Level	Acrs	Age	avg. D		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					B	Tot. BA								
27	H 9	M 1	10		14	140	65	hemlock	unevenaged	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u>														
Cedar or Hemlock cutting restraints														
comnts Fmd : 2000THIS STAND HAS A LARGE REPRESENTATION OF HEMLOCK. FUTURE MANAGEMENT SHOULD REFLECT THE UNIQUENESS OF THIS CHARACTERISTIC. 2010 THIS STAND HAS A DRY SINK HOLE IN IT														
28	M 9	M 1	14		10	100	65	northern hardwood	unevenaged	N		10-19 years	0	
29	H 9	M 1	6		14	140	65	hemlock	unevenaged	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u>														
Cedar or Hemlock cutting restraints														
comnts Fmd : 2000 THIS STAND HAS A LARGE REPRESENTATION OF HEMLOCK. FUTURE MANAGEMENT SHOULD REFLECT THE UNIQUENESS OF THIS CHARACTERISTIC. 2010 THIS STAND HAS A DRY SINK HOLE IN IT														
30	R 9	M 2	8	82	14	70	60	red pine	immature	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u>														
Influence zones														
comnts Fmd : 2010 LET THIS STAND NATURALLY CONVERT TO HARDWOODS ALONG OSMUN ROAD														
31	A 6	G 0	3	36	5	80	65	aspen (upland)	immature	N		20-29 years	0	
comnts Fmd : 2000 AN ELK EXCLOSURE IS LOCATED IN THIS STAND.														
32	A 3	A 3	14	5		0	65	aspen (upland)	immature	N		40-49 years	0	
comnts Fmd : 2000 Some Oak residual left after cut. 2010 THE FRONT PART OF THE STAND LOOKS PRETTY GOOD. THE BACK PART HAS BEEN HEAVILY BROWSED, THE ELK ARE STILL QUITE OFTEN IN THIS STAND.														
33	R 9	M 1	26	82	10	120	60	red pine	immature	Y		20-29 years	0	
<u>Treatment Limiting Factors:</u>														
Delayed treatment for age/size class diversity														
34	R 9	M 1	3	82	10	120	60	red pine	immature	Y		20-29 years	0	
<u>Treatment Limiting Factors:</u>														
Influence zones														
comnts Fmd : 2010 THIS STAND BUFFERS THE LAKE. IT IS BASICALLY THE SAME STAND AS 33, ALTHOUGH A GOOD PORTION OF THE STEEP SLOPE AROUND THE LAKE IN THIS STAND IS OAK														
35	Z 0	Z 0	3					water	nonstocked	N		not scheduled	0	
comnts Fmd : LOST LAKE.														
36	R 9	W 1	6		14	110	55	red pine	unevenaged	N		not scheduled	0	
<u>Treatment Limiting Factors:</u>														
Influence zones														
Too steep														
Water quality/bmps														
comnts Fmd : THIS STAND OCCUPIES THE STEEP SLOPES AND RIDGETOPS THAT SURROUND LOST LAKE. NO MANAGEMENT POSSIBLE DUE TO TERRAIN LIMITATIONS.														
37	R 9	M 1	4	82	10	120	60	red pine	immature	Y		20-29 years	0	
<u>Treatment Limiting Factors:</u>														
Influence zones														
comnts Fmd : 2010 THIS IS THE SAME STAND AS STAND 33, BUT IT PRETTY MUCH BORDERS OSMUN RD. AND THE LAKE.														

* See "Compartment Packets Glossary of Terms" document link on web site for further descriptions and code definitions.

Stand	Cover Type-Size Dnsty	Under Story-Stkng Level	Acrs	Age	avg. DBH	Tot. BA	Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
38	A 3	W 1	3	18	1	0	55	aspen (upland)	immature	N		40-49 years	0	
comnts Fmd : 2000 HEAVY ELK BROWSE DAMAGE. 2010 STAND IS A LITTLE THIN ON THE EAST SIDE.														
39	R 9	M 1	7	82	10	160	60	red pine	immature	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u> Too steep Influence zones														
comnts Fmd : 2010 THIS STAND IS A BUFFER AROUND AND ON THE STEEP SLOPES OF THE LAKE														
40	Z 0	Z 0	3		0	0		water	nonstocked	N		not scheduled	0	
comnts Fmd : WEST LOST LAKE.														
41	J 2	J 1	86	15	10	40	60	red pine	two aged	N		40-49 years	0	
comnts Fmd : 2010 MANAGE THIS STAND FOR JACK PINE.														
42	J 4	U 0	12	27	4	30	55	jack pine	immature	N		50-59 years	0	
comnts Fmd : 2000 HEAVY ELK BROWSE DAMAGE. AN ELK EXCLOSURE IS LOCATED IN THIS STAND. 2010 THIS STAND IS JUST BEGINNING TO MOVE INTO A POLE STAND. QUALITY OF JACK PINE DOESN'T LOOK TOO GOOD														
43	A 4	G 0	7	27	3	10	55	aspen (upland)	immature	N		40-49 years	0	
comnts Fmd : 2010 STAND JUST BEGINNING TO MOVE INTO A POLE STAND														
44	A 6	M 1	5	81	9	110	55	aspen (upland)	mature	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u> Influence zones Too steep Water quality/bmps														
comnts Fmd : 2000 THIS STAND OCCUPIES THE STEEP SLOPES THAT SURROUND DEVIL'S BOWL LAKE. NO MANAGEMENT POSSIBLE DUE TO TERRAIN LIMITATIONS. 2010 PART OF THIS STAND IS ASPEN AND THE OTHER PART PINE														
45	Z 0	Z 0	1		0	0		water	nonstocked	N		not scheduled	0	
comnts Fmd : DEVIL'S BOWL LAKE.														
46	A 2	U 0	15	18	1	0	55	aspen (upland)	sparse	N		40-49 years	0	
comnts Fmd : 2010 OVER HALF OF THE STAND IS W1 OR 2, A1, J1 AND U. THE OTHER PART IS PRETTY GOOD ASPEN. THERE ARRE OCCASIONAL OAK THRU OUT														
47	R 6	W 2	2	85	10	90	55	red pine	immature	Y		40-49 years	0	
<u>Treatment Limiting Factors:</u> Inadequate volume due to small acreage														
48	R 6	A 2	27	82	10	80	55	red pine	two aged	Y		20-29 years	0	
<u>Treatment Limiting Factors:</u> Delayed treatment for age/size class diversity														
49	J 3	W 1	6	18	2	0	55	jack pine	sparse	N		30-39 years	0	

* See "Compartment Packets Glossary of Terms" document link on web site for further descriptions and code definitions.

Stand	Cover Type-Dnsty	Under Story-Stkng Level	Acrs	Age	avg.		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					D	B								
50	A 2	U 0	2	23	2	0	60	aspen (upland)	immature	N		40-49 years	0	
comnts Fmd : 2000 THIS STAND WAS REGENERATING NICELY FROM A 1974 HARVEST WHEN IT WAS BURNED HARD DURING THE 1987 FIRE. IT IS TRYING TO COME BACK BUT IT IS STRUGGLING. 2010 MIGHT BE AN A3 STAND														
51	M 1	G 0	15	23	1	0	60	northern hardwood	sparse	N		50-59 years	0	
comnts Fmd : 2000 THIS STAND WAS CUT IN 1974. THE RESULTING REGEN WAS BURNED HARD IN THE 1987 FIRE. AN ELK EXCLOSURE IS LOCATED IN THIS STAND. 2010 THERE ARE A FEW ACRES OF GOOD ASPEN IN THE SOUTHEAST CORNER. THE REST OF THE STAND RANGES FROM U TO M1, W2, A1 AND G														
52	O 8	M 1	5	91	12	60	60	oak	two aged	Y		10-19 years	0	
<u>Treatment Limiting Factors:</u>														
Retention of stand for regeneration purposes (ie. shelterwood)														
Other special wildlife habitat consideration (desc. In comments)														
comnts Fmd : 2000 STAND WAS SEVERELY BURNED DURING THE 1987 FIRE. MOST RESIDUAL TREES HAVE DEEP FIRE SCARS. LEAVE THE OVERSTORY TO SHELTER THE DEVELOPING UNDERSTORY UNTIL IT HAS DEVELOPED SUFFICIENTLY.														
53	M 9	M 3	11	81	10	70	65	northern hardwood	two aged	N		20-29 years	0	
comnts Fmd : THIS STAND WAS MODERATELY BURNED DURING THE 1987 FIRE. FIRE KILLED TREES WERE SALVAGED WHICH OPENED UP THE OVERSTORY RESULTING IN A FLUSH OF REGENERATION.														
54	M 9	M 1	83		11	110	65	northern hardwood	unevenaged	N	selection	within 0-9 years	2	
comnts Fmd : 2010 THIN THE STAND TO BETWEEN 75 AND 80 BA. NORTHERN HARDWOODS WOULD BE EXPECTED TO REGENERATE THE STAND														
55	M 9	M 2	18		10	90	60	northern hardwood	unevenaged	N		10-19 years	0	
comnts Fmd : 2010 this stand was broke out from stand 54. It has a significant ba of oak. The slope tends to face more westerly with other hardwoods of smaller dia.														
56	A 5	M 1	27	36	4	60	65	aspen (upland)	immature	N		20-29 years	0	
<hr/>														
57	R 9	M 1	24	82	12	110	60	red pine	two aged	Y	shelterwood-seed	within 0-9 years	1	
comnts Fmd : 2010 Use the area of the stand west of the road for retention and buffer the east side (leave the ba higher along the road) along Twin Lakes RD. RED AND WHITE PINE AS WELL AS SOME REDMAPLE AND ASPEN AND OAK WOULD BE EXCECTED TO REGENERATE THE STAND														
58	O 5	M 1	13	78	9	50	60	oak	two aged	Y		10-19 years	0	
<u>Treatment Limiting Factors:</u>														
Retention of stand for regeneration purposes (ie. shelterwood)														
Delayed treatment for age/size class diversity														
comnts Fmd : 2000 A LOT OF THE WHITE BIRCH RESIDUAL IS DEAD OR DYING.														
59	W 9	M 1	17	45	12	80	60	white pine	two aged	N		10-19 years	0	
comnts Fmd : 2010 STAND WAS PREVIOUSLY CUT. APPARENTLY MOST OF THE PINE WAS LEFT. IF ASPEN IS GOING TO BE THE MANAGEMENT OBJECTIVE MORE OF THE PINE WILL HAVE TO BE CUT WHEN THE ASPEN IS READY TO CUT.														
60	W 3	M 1	3	27	3	10	55	northern hardwood	immature	N		40-49 years	0	
comnts Fmd : 2010 MIXED STAND WITH WHITE PINE, HARDWOODS, A FEW ASPEN STEMS AND U-TYPE														

* See "Compartment Packets Glossary of Terms" document link on web site for further descriptions and code definitions.

Stand	Cover Type-Dnsty	Under Story-Stkng Level	Acrs	Age	avg. DBH		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					D	B								
61	A 6	M 1	8	45	6	90	60	aspen (upland)	two aged	N		10-19 years	0	
62	O 9	M 2	9		10	100	60	oak	unevenaged	Y		10-19 years	0	
<p><u>Treatment Limiting Factors:</u> Retention of stand for regeneration purposes (ie. shelterwood) Other special wildlife habitat consideration (desc. In comments)</p> <p>comnts Fmd : LEAVE THE OAK OVERSTORY TO SHELTER THE DEVELOPING MAPLE UNDERSTORY. ANY HARDWOOD REGENERATION THAT RESULTED FROM AN ATTEMPT TO REGENERATE THE STAND WOULD BE SEVERELY BROUSED. LET THE STAND DEVELOPE NATURALLY.</p>														
63	R 9	M 2	2	82	14	120	70	red pine	immature	Y		10-19 years	0	
<p><u>Treatment Limiting Factors:</u> Scenic values/visual values</p> <p>comnts Fmd : 2010 CONSIDER LEAVING THIS STAND UNTREATED</p>														
64	A 6	A 1	10	36	5	100	65	aspen (upland)	two aged	N		40-49 years	0	
<p>comnts Fmd : 2010 WHEN THIS STND WAAS CUT ALL THE PINE WAS APPARENTLY LEFT. I CHANGED THE MGT OBJECTIVE TO ASPEN, BUT IT COULD BE PINE IF SO DESIRED. THE LOG SIZED WHITE PINE PRETTY BRANCHY. IF ASPEN IS THE OBJECTIVE MOST OF THE PINE SHOULD BE CUT. I BELIEVE THIS STAND WAS CUT AT THE SAME TIME STAND 31 WAS</p>														
65	R 9	M 2	32		12	80	70	red pine	unevenaged	N		10-19 years	0	
<p>comnts Fmd : 2010 UNDERSTORY VARIES FORM M2 TO M3. LOTS OF THE UNDERSTORY IS IRONWOOD</p>														
66	R 9	M 2	37		14	100	70	northern hardwood	unevenaged	N	removal	within 0-9 years	1	planting
<p>comnts Fmd : 2010 LEAVE ABOUT 4 OR 5 RED PINE IN CLUMPS EVERY 2 ACRES. UNDERSTORY VARIES FORM M2 TO M3. LOTS OF THE UNDERSTORY IS IRONWOOD. BRIAN WOULD LLIKE TO TRY PLANTING OAK SAPS IN THE STAND AFTER CUTTING IS COMPLETE.</p>														
67	R 9	M 2	11	82	14	100	65	northern hardwood	two aged	Y	final harvest	within 0-9 years	6	
68	M 9	M 1	11	88	10	100	55	northern hardwood	low quality	N		20-29 years	0	
<p>comnts Fmd : 2010 THERE IS SOME VERY POOR ASPEN IN THE STAND MOST IS PROVIDING WILDLIFE HABITAT OR SOON WILL BE</p>														
69	M 9	M 2	7		12	100	65	northern hardwood	unevenaged	N		10-19 years	0	
<p>comnts Fmd : 2010 NICE LOOKING HARDWOOD STAND. THERE IS HARDLY ANY RED PINE IN THIS STAND.</p>														
70	M 3	G 0	15	16	0	0	45	northern hardwood	sparse	N		not scheduled	0	
<p>comnts Fmd : STAND WAS ORIGINALLY PRESCRIBED FOR PLANTING FOLLOWING THE 1994 HARVEST. APPARANTLY WILDLIFE DIVISION WANTED TO KEEP IT IN A BRUSH STATE SO IT WAS NOT PLANTED. 2010 STAND HAS FILLED IN WITH HARDWOODS. QUITTE A BIT OF CHERRY AND U TYPE MIXED IN.</p>														
71	R 9	M 1	1	82	12	130	60	red pine	two aged	N		not scheduled	0	
<p>comnts Fmd : 2010 CONSIDER LETTING THIS STAND UNTREATED</p>														

* See "Compartment Packets Glossary of Terms" document link on web site for further descriptions and code definitions.

Stand	Cover Type-Dnsty	Under Story-Stkng Level	Acrs	Age	avg. D		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					B	Tot. BA								
72	R 7	M 2	3	82	10	40	60	red pine	two aged	Y		within 0-9 years	0	planting
<p><u>Treatment Limiting Factors:</u> Scenic values/visual values</p> <p>comnts Fmd : 2010 COMBINED OLD STANDS 402 AND 61. OLD 402 HAS PRETTY MUCH FILLED IN WITH PINE AND HARDWOODS AND U. I WOULD LET THE RED PINE HERE DIE OUT ON ITS OWN. QUALITY IS POOR. BRIAN WOULD LIKE TO PLANT OAK SAPS IN THIS STAND.</p>														
73	M 9	M 1	41		12	100	60	northern hardwood	unevenaged	N		10-19 years	0	
<p>comnts Fmd : 2010 THERE IS SOME VERY NICE LOOKING BEECH IN THE STAND. I AM ALMOST CERTAIN I FOUND BEECH BARK SCALE ON SOME OF THE TREES. DEFINITELY FOUND IN THE HADRWWOD STAND TO THE EAST. IN BOTH CASES I FOUND IT ABOUT 5 TO 7 CHAINS NORTH OF THE SECTION LINE.</p>														
74	R 9	M 3	8	82	12	100	60	northern hardwood	two aged	Y	delayed removal	within 0-9 years	1	planting
<p>comnts Fmd : 2010 LEAVE ABOUT 2 CLUMPS OF 3 OR 4 RED PINE IN THE STAND. BRIAN WOULD LIKE TO PLANT OAK SAPS AFTER THE HARVEST IS DONE.</p>														
75	M 4	G 0	3	88	9	30	55	northern hardwood	sparse	N		20-29 years	0	
<p>comnts Fmd : 2000 THIS STAND HAS HAD THE BEECH RELEASED TO STIMULATE MAST PRODUCTION. 2010 ABOUT HALF OF THE MIXED HDWD LOGS ARE BEECH. HEAVY BEECH UNDERSTORT. BEARS HAVE BEEN HERE A LOT.</p>														
76	M 6	M 2	46	88	9	80	55	northern hardwood	low quality	N		20-29 years	0	
<hr/>														
77	M 8	M 1	110		10	70	60	northern hardwood	unevenaged	N		20-29 years	0	
<p>comnts Fmd : 2000 STAND WAS MANUALLY TS'D IN THE 1970'S. THIS STAND OFFERS THE BEST POTENTIAL FOR THINNING DURING THE NEXT YEAR OF ENTRY. PURCHASED LAND SO IT DOES NOT QUALIFY FOR FDF. WATCH FOR RED SHOULDERED HAWK NESTS WHEN MARKING THIS STAND. 2010 THE NORTHERN PART OF THE STAND IS MUCH BETTER THAN THE SOUTHERN PORTION.</p>														
78	M 9	M 1	186		10	110	60	northern hardwood	unevenaged	N	selection	within 0-9 years	2	
<p>comnts Fmd : 2010 THIS STAND IS PART OF A BIGGER HARDWOOD STAND WHICH WAS SPLIT OUT TO START TREATING. THE BA AND QUALITY FALL OFF ON THE NORTHERN END OF THE STAND. THIN THE STAND TO 75 TO 80 BA. NORTHERN HARDWOODS WOULD BE EXPECTED TO REGENERATE THE STAND.</p>														
79	C 6	M 2	3	85	9	90	40	cedar	immature	N		not scheduled	0	
<hr/>														
80	N 0	N 0	5		0	0	40	marsh	nonstocked	N		not scheduled	0	
<p>comnts Fmd : THIS IS AN ACTIVE BEAVER FLOODING. DEAD TIMBER WAS SALVAGED IN 1994 - 1996.</p>														
81	N 0	N 0	5		0	0		marsh	nonstocked	N		not scheduled	0	
<hr/>														
82	Q 6	F 1	14	77	9	100	40	mixed swamp conifer	immature	N		not scheduled	0	
<hr/>														
83	A 6	G 0	34	38	5	90	65	aspen (upland)	immature	N		20-29 years	0	
<p>comnts Fmd : 2010 STAND VARIES FROM ASPEN TO NICE HARDWOODS (SOME CHERRY) POLES WITH FIR AND HEMLOCK MIXED IN</p>														

* See "Compartment Packets Glossary of Terms" document link on web site for further descriptions and code definitions.

Stand	Cover Type-Size Dnsty	Under Story-Stkng Level	Acrs	Age	avg.		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					D B	Tot. BA								
84	M 9	M 1	4		12	110	60	northern hardwood	unevenaged	N		not scheduled	0	
<u>Treatment Limiting Factors:</u> Too wet Deer yards comnts Fmd :														
85	N 0	N 0	1		0	0	65	marsh	nonstocked	N		not scheduled	0	
comnts Fmd : 2000 THIS IS AN OLD, INACTIVE BEAVER FLOODING. STANDING WATER STILL EXISTS.														
86	L 0	L 0	6		0	0	65	lowland brush	nonstocked	N		not scheduled	0	
comnts Fmd : 2000 STAND WAS KILLED IN YEARS PAST BY FLOODING DUE TO BEAVER ACTIVITY. IT HAS DRIED OUT SOME AND IS BEGINNING TO FILL BACK IN WITH LOWLAND BRUSH.														
87	F 4	G 0	15	25	3	20	65	northern hardwood	immature	N		40-49 years	0	
comnts Fmd : 2010 PARTS OF THE STAND ARE WET														
88	A 4	G 0	8	25	4	40	65	aspen (upland)	immature	N		30-39 years	0	
comnts Fmd : HARVEST ALONG WITH STAND #3 IN COMPARTMENT #51 ADJACENT TO THE EAST.														
89	M 6	F 1	3		9	90	60	northern hardwood	unevenaged	N		10-19 years	0	
90	M 6	M 1	103		10	90	60	northern hardwood	unevenaged	N		10-19 years	0	
91	M 9	M 1	128		10	100	60	northern hardwood	unevenaged	N		10-19 years	0	
92	A 5	F 1	7	42	6	60	65	aspen (upland)	immature	N		10-19 years	0	
93	Q 6	F 1	80	88	10	140	50	mixed swamp conifer	immature	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u> Too wet Deer yards comnts Fmd : 2010 COMBINED OLD STANDS 90, 91 AND 93 FROOM WHAT I SAW THIS IS PRETTY WET...WHERE IT IS A LITTLE HIGHER THE HEMLOCK GROWS WITH SOME LOWLAND HDWDS.														
94	M 6	F 1	7		9	130	60	northern hardwood	unevenaged	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u> Too wet Deer yards														
400	G 0	G 0	1		0	0		grass	nonstocked	N		not scheduled	0	

* See "Compartment Packets Glossary of Terms" document link on web site for further descriptions and code definitions.

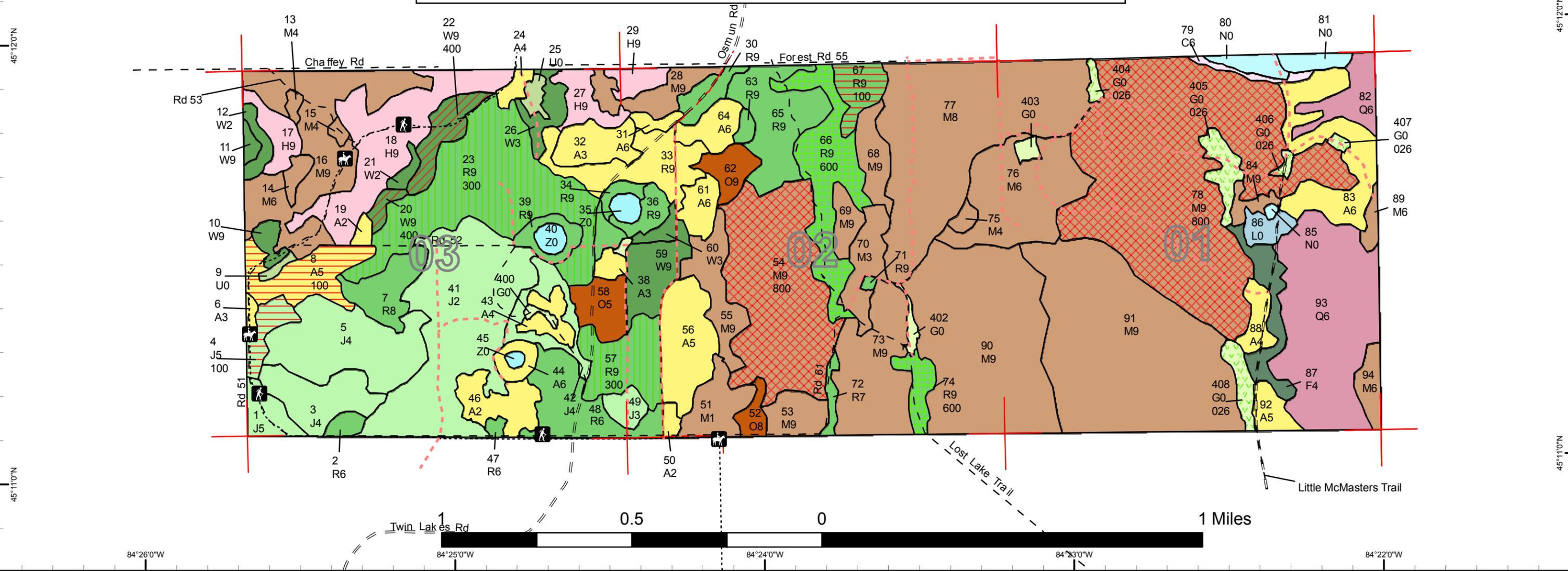
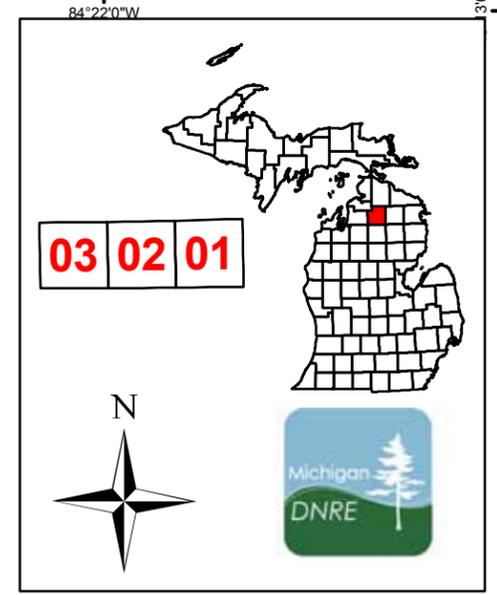
Stand	Cover Type-Dnsty	Under Story-Stkng Level	Acres	Age	avg. DBH	Tot. BA	Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
401	G 0	G 0	1		0	0		grass	nonstocked	N		not scheduled	0	
comnts Fmd : STAND MAY HAVE BEEN AN OLD HOME SITE OR LOGGING CAMP. SEVERAL APPLE TREES ARE GROWING IN THE SOUTH PORTION OF THE STAND. WILDLIFE DIVISION WILL TRY TO PRUNE THESE TREES.														
403	G 0	G 0	2		0	0		grass	nonstocked	N		not scheduled	0	
comnts Fmd : THIS IS A DRY HOLE WELL SITE LOCATION. IT HAS BEEN REVEGETATED QUITE WELL. NO EROSION PROBLEMS. THIS WILL SERVE AS A LANDING SITE FOR FUTURE TIMBER SALES.														
404	G 0	G 0	2		0	0		grass	nonstocked	N		within 0-9 years	0	opening maintenance
comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.														
405	G 0	G 0	8		0	0		grass	nonstocked	N		within 0-9 years	0	opening maintenance
comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.														
406	G 0	G 0	1		0	0		grass	nonstocked	N		within 0-9 years	0	opening maintenance
comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.														
407	G 0	G 0	1		0	0		grass	nonstocked	N		within 0-9 years	0	opening maintenance
comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.														
408	G 0	G 0	6		0	0		grass	nonstocked	N		within 0-9 years	0	opening maintenance
comnts Fmd : WILDLIFE OPENING. THIS WILL BE MAINTAINED BY FARMING OR PRESCRIBED BURNING.														
Total Acres..... 1856														

Covertypes & Treatment Map

Compartment 33
 T32N, R01W, Sec. 01, 02, 03
 County: Otsego
 Unit: Pigeon River Country
 YOE: 2012
 Acres: 1,856 GIS Calculated
 Stand Examiner: Don Mittlestat
 Map Revised: 6/24/2010
 Map Phase: Pre-review

Legend

- | | |
|--|--------------------------|
| — Miris Corners | A - Aspen |
| == Gravel Roads | C - Northern White Cedar |
| - - Open Forest Roads | F - Upland Spruce or Fir |
| - - - Closed Roads | G - Grass |
| - - - Buried Electric Lines | H - Hemlock |
| - - - North Spur- Shore to Shore | J - Jack Pine |
| 🚶 Hiking Trails | L - Lowland Brush |
| 🐎 Horse Trails | M - Northern Hardwoods |
| ▭ Stand Boundary | N - Marsh |
| 🌱 026 - Opening Maintenance | O - Oak |
| 🏠 100 - Final Harvest | Q - Mixed Swamp Conifers |
| 🌳 300 - Shelterwood - seed | R - Red Pine |
| 🌳 311 - Shelterwood - seed/Planting/Hand Tools | U - Upland Brush |
| 🌳 400 - Thinning | W - White Pine |
| 🌳 600 - Delayed Removal | Z - Water |
| 🌳 800 - Selection | |



Compartment 33
 T32N, R01W, Sec. 01, 02, 03
 County: Otsego
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 Map Revised: 6/24/2010
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Stand Boundary Map

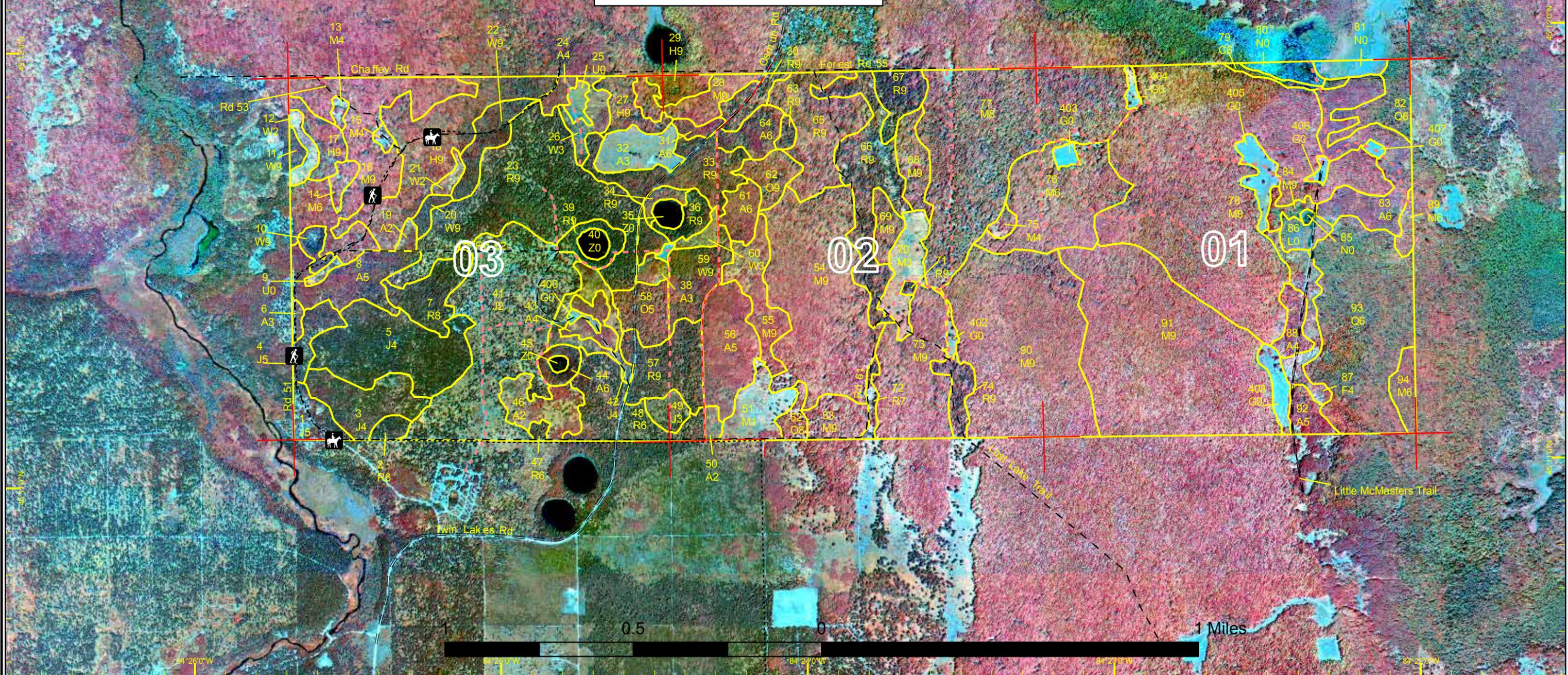
- Legend
- Miris Corners
 - = Gravel Roads
 - - Open Forest Roads
 - - - Closed Roads
 - - - - Buried Electric Lines
 - - - - - North Spur- Shore to Shore
 -  Hiking Trails
 -  Horse Trails
 - Stand Boundary



03 02 01

N





Dedicated & Proposed Special Conservation Area Map

Compartment 33
 T32N, R01W, Sec. 01, 02, 03
 County: Otsego
 Unit: Pigeon River Country
 YOE: 2012
 Acres: 1,856 GIS Calculated
 Stand Examiner: Don Mittlestat
 Map Revised: 6/23/2010
 Map Phase: Pre-review

Legend

- Miris Corners
- ▭ Stand Boundary
- Dedicated Special Conservation Areas**
- Cold Water Streams
- █ Natural Rivers Zoning District
- █ Natural Rivers Vegetative Buffer
-  Campgrounds

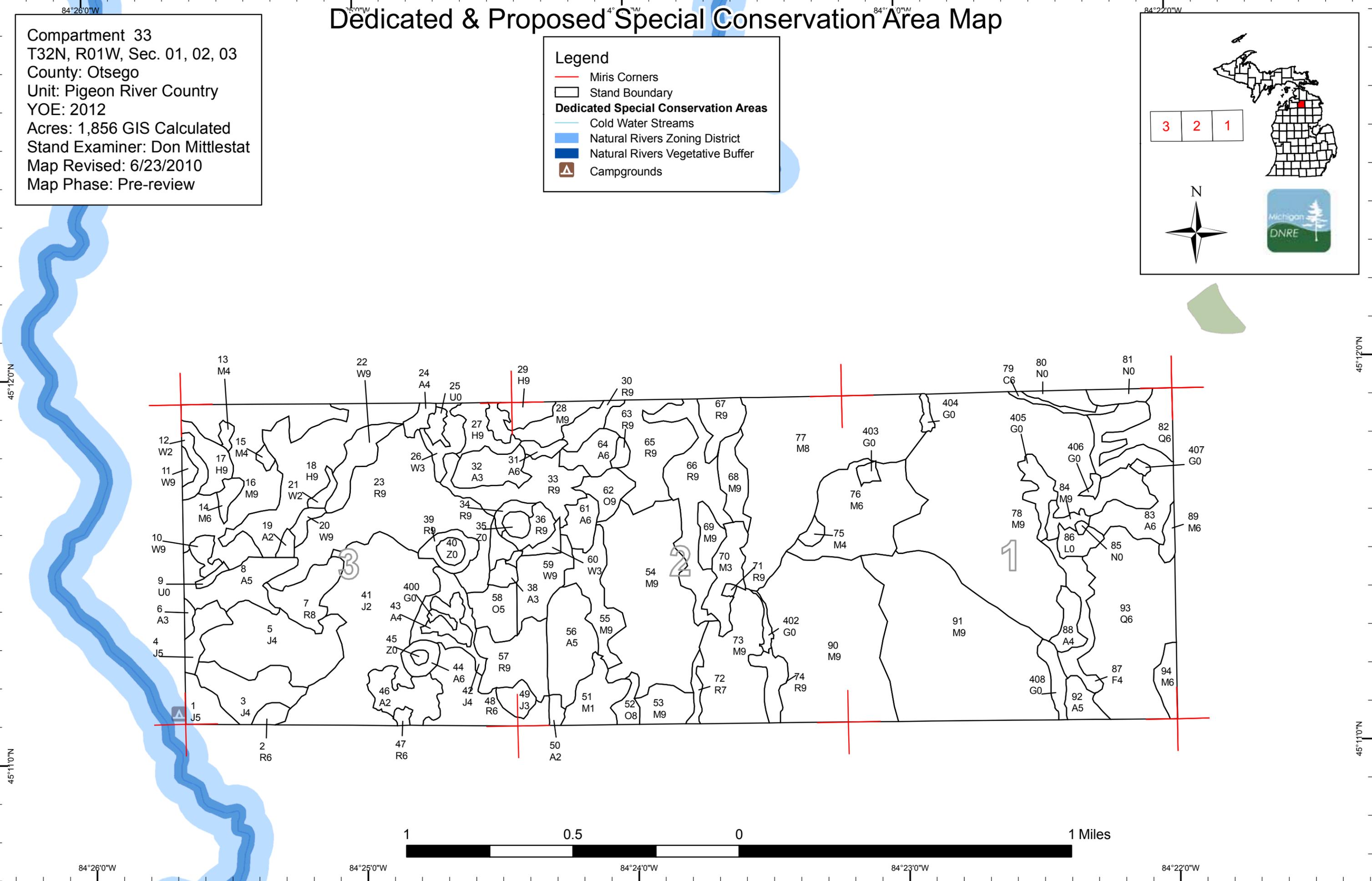
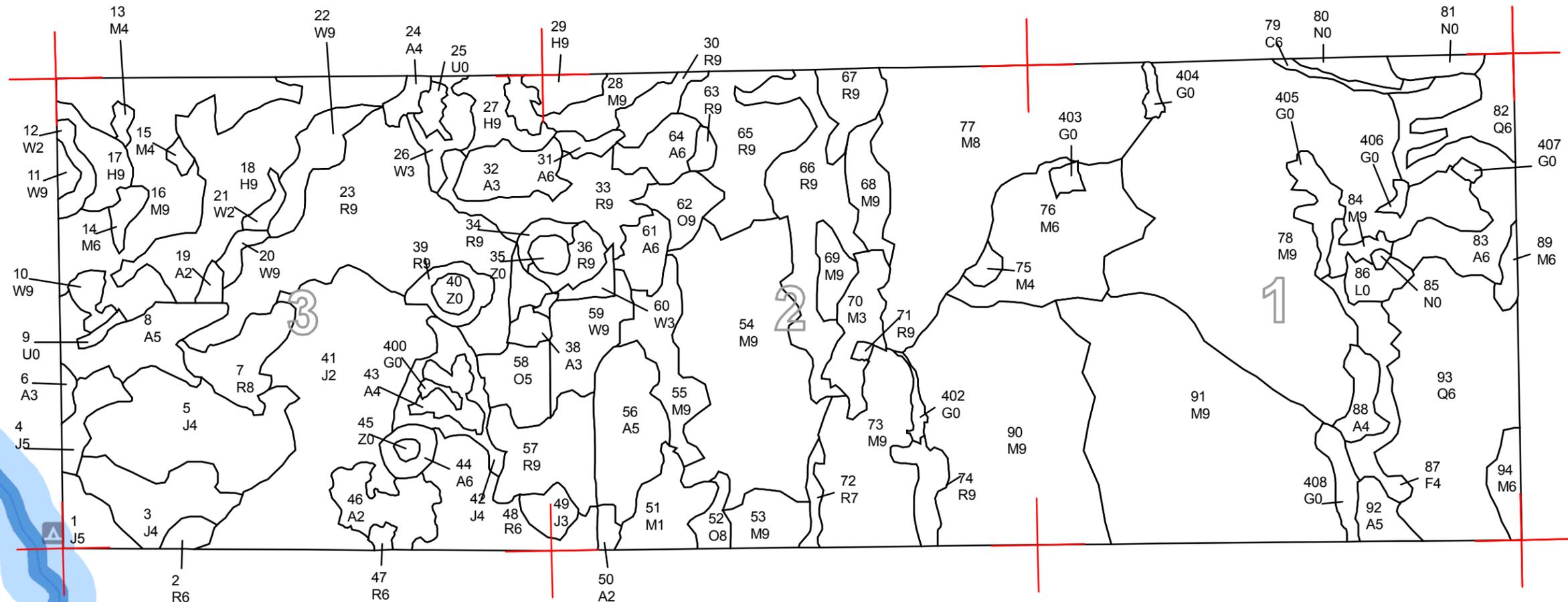


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DEDICATED CONSERVATION AREA DETAILS

* 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.

ERA = Ecological Reference Area
 HCVA = High Conservation Value Area
 SCA = Special Conservation Area

Conservation Area	Type	Description
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.
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	Concentrated Recreation Area	Facilities that are designed and maintained for routine or heavy recreational use, including State Parks, State Forest campgrounds, motorized and non-motorized trails, trailheads, staging areas and public access sites.
SCA	Potential Old Growth Areas	This category contains stands were identified for a broad range of reasons and were coded in the OI database as stand condition 8 as potential old growth (POG). Approximately 310,000 acres have been identified through the Operations Inventory (OI)/Compartment Review process. For stands in Year of Entry 2008 and forward, potential old growth is managed for the identified objective until it is: 1) vetted through the Biodiversity Conservation Planning Process (BCPP) and given a specific designation and objective (as an ERA, HCVA, or other type of SCA) and is released from the potential old growth designation; or 2) it is released from the potential old growth designation via the Compartment Review process.