



**Gwinn Forest Management Unit
Compartment Review Presentation
Compartment #081 Entry Year: 2012
Compartment Acreage: 2,004 County: Marquette**

Revision Date: July 13, 2010

Stand Examiner: Theresa Sysol

Legal Description: T43N R24W Section(s) 28 - 33

Identified Planning Goals ('Management Area' or 'RMU', if applicable):

Management Goals: To maintain forest health, diversity and sustainability while considering wildlife, fisheries, recreational and environmental needs and concerns.

Soil and Topography: Uplands are sandy loams and silt loams. Lowlands are poorly drained organic peat or mucks. The topography is flat to gently rolling, with some steeper river banks.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Large dairy and potato farms on SW boundary, SE contains some hay production, but most farms are being used just for residences or hunting camps. Hunting camps to the north.

Unique, Natural Features: Escanaba River. Nice flowing spring within stand. Potential for northern goshawk and red-shouldered hawk. Potential for eagle, osprey, and great blue heron rookery. Potential for moose and wolf. Potential for wood turtle. Potential for auricled tway-blade, veiny meadow rue, western dock, Farwell's water-milfoil, alternate leaved water-milfoil, and linear-leaved gentian along riparian areas. Potential for calypso orchid, rayless mountain ragwort, and ram's head lady's-slipper in conifer swamps. MNFI concern identified.

Archeological, Historical, and Cultural Features: None identified with HAL

Special Management Designations or Considerations: Special Conservation areas along the Escanaba River, Swimming Hole Creek and Leisner Creek. Large cedar swamp complex also.

Watershed and Fisheries Considerations: Escanaba River, Swimming Hole Creek and Leisner Creek

Wildlife Habitat Considerations: This compartment lies within the Ralph Ground Moraine Management Area. For all SCA, biodiversity maintenance stands-maintain or protect movement corridors along riparian areas near the Escanaba River, Leisner Creek, and Swimming Hole Creek for wildlife. Maintain and/or protect mature conifer for snow intercept and thermal values associated with this deer wintering complex. Promote biological legacies such as old forest characteristics in the form of snags, coarse woody debris, and intact nutrient cycles. Maintain or increase biodiversity in northern hardwood stands through retention of associate species.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of medium-textured glacial till, peat and muck and an end moraine of medium-textured till. There is less than 10 feet of glacial drift or insufficient data to determine the glacial drift thickness. The Ordovician Trenton and Black River Groups subcrop below the glacial drift. These rocks are quarried for stone/dolomite

elsewhere in the UP. Gravel pits are located in the south half of the compartment, where there is good potential. Abandoned iron mines are located twelve miles to the north, but this compartment has never been leased. There is no economic oil and gas production in the UP.

Vehicle Access: Generally good along the east side of the Escanaba River, although the Escanaba River Road could use some repairs and routine grading. West of the Escanaba River access is blocked by private lands and Leisner Creek.

Survey Needs: Need corners around private 40 in Section 29. Also need corners for boundary of private land in Section 32.

Recreational Facilities and Opportunities: Stand 48 is the old Escanaba River SFCG, which was closed in 1995. It still sees significant use for swimming and boating, as well as camping. Several other locations can be found along the river, also, where people have camped. High use for hunting and fishing in general throughout compartment.

Fire Protection: Considerable response time would be needed, and most likely any natural occurring wildfires here would require a lot of suppression efforts due to inaccessibility and heavy soil types.

Additional Compartment Information: This compartment receives a lot of use for hunting deer and grouse. Access for the Escanaba River is good in this compartment, so fishing opportunities are high also.

➤ **The following reports from the Inventory are attached:**

- ◆ **Total Acres by Cover Type and Age Class**
- ◆ **Proposed Treatment Summary**
- ◆ **Proposed Treatments – No Limiting Factors**
- ◆ **Proposed Treatments – With Limiting Factors**
- ◆ **Stand Details (Forested and Nonforested)**
- ◆ **Dedicated and Proposed Special Conservation Areas**

➤ **The following information is displayed, where pertinent, on the attached compartment maps:**

- ◆ **Base feature information, stand boundaries, cover types, and numbers**
- ◆ **Proposed treatments**
- ◆ **Details on the road access system**

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

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: 81

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		24	57	253	51			27	102										514
Black Spruce										37		20							57
Cedar										39	789	19	40						887
Grass	16																		16
Hemlock												7							7
LowInd Brush	73																		73
LowInd Poplr				1							27								28
Mx Swmp Cnfr					3				4	30		32	119						188
Spruce Fir							2	7	13		11								33
Swamp Hrdwds											8							6	14
Upland Hdwds																		147	147
Water	40																		40
Total	129	24	57	254	54		2	34	119	106	835	78	159					153	2004

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

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: 81

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	514																										514
S Black Spruce		57																									57
C Cedar				887																							887
G Grass					16																						16
H Hemlock						7																					7
L LowInd Brush									73																		73
P LowInd Poplr										28																	28
Q Mx Swmp Cnfr											188																188
F Spruce Fir																			33								33
E Swamp Hrdwds																				14							14
M Upland Hdwds																								147		147	
Z Water																									40	40	
Total	514	57		887	16	7			73	28		188							33	14				147	40	2004	

ESCANABA RIVER STATE FOREST

GWINN FOREST MGT UNIT

MARQUETTE COUNTY

COMPARTMENT: **81**

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY			
TOTAL VOLUME		CUT VOLUME	
Hardwood	8400 Cds	Hardwood	2720 Cds
Hardwood	359 Mbf	Hardwood	11 Mbf
Softwood	17822 Cds	Softwood	843 Cds
Softwood	81 Mbf	Sum CutVol	3585 Cds
Sum TotVol	27102 Cds		
Total Cmpt Acres		Acres Proposed For Cut.....	208
2004		Acres Meeting Silv Criteria.....	440
		Acres Not Meeting Silv Criteria.....	1564
		Acres Unable to Determine Silv Criteria For.....	

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
11	M6	7	0	56	NORTHERN HARDWOOD	IMMATURE	THINNING	3		

TREATMENT LIMITING FACTORS: Blocked by other physical obstacle
Inadequate volume due to small acreage

comnts Fmd : 2000: PARTIALLY CUT 1989. CLOSED SALE. 2010: Fairly steep ridge of hardwoods which was partially cut in 1989. Low quality - contains stain, cankers, seams and forks. Low ground surrounds stand, creating difficult access. Old blue lines are in place from private corporate harvest, though. State hardwood stand to north (C. 80 stand 11 - 2016 YOE) was already treated, but is scheduled for possible treatment next entry. This stand should be treated along with that stand, if possible, to create a more marketable sale. There is still a low swale of conifers which will have to be crossed to reach stand, though. Otherwise, stand will have insufficient volume on it's own to treat, unless negotiated, and should be dropped for now. Soils are Shoepac - Ensley. 2002: stand 20

18	A6	73	76	68	ASPEN (UPLAND)	MATURE	FINAL HARVEST	2		
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TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate)
Road needed (resources not presently available)

comnts Fmd : 2000: would need a bridge and access through private land or use a long winter snowplow over snowmobile trail. 2010: Area will need further evaluation for feasibility of bridge and construction of new road to access timber across Leisner Creek. Crossing private property would also need to be granted, and this would be a long winter snowplow. Includes small F stand from last entry. Try and include C. 72 stands 5,6,8,9 when set-up, if possible. Soils are a mix, including Emmet, Kalkaska, and Paquin-Finch. 2002: stand 67,68

57	M9	5	0	56	NORTHERN HARDWOOD	UNEVENAGE D	SELECTION	3		Prescribed for FDF treatment
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TREATMENT LIMITING FACTORS: Land survey needed

comnts Fmd : 2000: Ready to thin but need a property line. Small acreage. 2010: Last thinned under t. sale #012-71. Possible access through private to south. Private lines have been run by adjacent landowners? (unregistered stakes/pipes in ground used for line establishment - marked timber to cut in NESW). Very little regeneration established at this time. Sedge, leatherwood, maidenhair fern noted. Basswood mainly in clumps - target some of these for selection. Maple mostly smaller diameter. Some ironwood, YB, cherry. Ground blind within stand. Treat with stand 59 when cut. Soils are Emmet-Escanaba. 2002: stand 26

59	A6	20	36	65	ASPEN (UPLAND)	IMMATURE	FINAL HARVEST	1		
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TREATMENT LIMITING FACTORS: Land survey needed

comnts Fmd : 2000: Good growth occurring on this stand 3-5 stick in spots.. Patches of M3 1"dbh. Larger softwoods mixed in also. 2010: Sale # 012-71 Quite a bit of blowdown fir and aspen in the stand - esp. along the G edge and on low ground. Good M regeneration coming in on the higher ground where the stand transitions into M9 type (1-2" dbh and 25" hts). Should try and protect this regeneration when A is cut, with MO being acceptable as mix of A/M. Lower ground in the NW - drops into ash swale and tamarack/cedar. Private N/S line recently established (run from unregistered stakes, although old blaze was noted) and could be used, based on GPS data (although formal survey would be desirable). Mixed spps are: basswood, maple, cherry, YB, ironwood, S, C - leave all cherry, YB, cedar - mark other spps as leave trees only. Soils are Emmet-Solona and Mashek. 2002: stand 29

Total Acres..... 105

GWINN FOREST MGT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 81

Entry Year: 2012

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	fdf Status
19	F5	7	60	65	SPRUCE-FIR (UPLANDS-INCLUDING UPLAND BLACK SPRUCE)	TWO AGED	FINAL HARVEST	2		
comnts Fmd : Older aspen to remove from very narrow road stand (hazard tree removal along roadway). Leave smaller S/F (1 stick and less). Stand MO can either be for A or F. Soils are Nadeau-Mancelona. 2002: stand 65										
21	A5	7	37	65	ASPEN (UPLAND)	TWO AGED	FINAL HARVEST	2		
comnts Fmd : 2000: 2-3 stick well-stocked. 2010: Stand has some smaller aspen (3 stick), but overall remainder of stand is ready to treat, due to dieback, breakage (older condition) - slight knob. Some small elm, cherry within - conifer patch - which can be retained. Ground cover of leek, trout lily, spring beauties, hazel noted. Soils are Garlic-Alcona-Voelker. 2002: stand 64										
33	A6	19	70	70	ASPEN (UPLAND)	MATURE	FINAL HARVEST	1		
comnts Fmd : 2000: Hold this side of the road for diversity. 2010: Road influence stand (~ 3 - 4 chains in width along the Escanaba River Road) which was held last entry for diversity. Aspen is breaking up/dying and is ready to be removed. Some portions have already had salvage cuts in the past (#031-85-2 - cut 1985-86), but are not worthwhile to separate out of the stand. Most of the smaller regeneration will end up being left in the stand after treatment, so retention should not be an issue. Most small conifers will be left (1 stick and less), as well as all cedar and sugar maple. Depending upon the amount and quality found, all paper birch may be left, or otherwise will have a few marked to leave. Some basswood clumps will be marked to leave and the remainder harvested. Sale cut boundary line will not drop into adjacent low/cedar/Q type - fairly defined topography. Soils are Nadeau-Mancelona. 2002: stand 39										
44	S6	33	82	26	BLACK SPRUCE-SWAMP	TWO AGED	FINAL HARVEST	3		
comnts Fmd : FROM 73 DATA NO NEEDS CHECK 10 YEARS MOST IS LOW MOSS GROUND. 2010: Nice spruce/tamarack interior, but some areas are smaller (only 2" dbh and 20' ht) - part of old cut from 1962?? Some sparser, wetter areas also, as stand transitions into cedar and springs may be present. Ground cover of sphagnum, lab tea and leatherleaf. Would need to be winter cut only (with good winter conditions) and stand size may be greatly reduced by eliminating unmerchantable areas. Soils are both Croswell-Deford and Paquin-Finch. 2002: stand 41										
45	A6	27	60	60	ASPEN (UPLAND)	MATURE	FINAL HARVEST	1		
comnts Fmd : FIR SALVAGED 1985. FAIR STOCKING OF ASPEN ALL SIZES. CUT IN 10 YEARS. 2010: Fair amount of blowdown occurring in stand - treat now. Several salvage cuts previously in the 1980's. Leave any YB, C, WP and large diameter WS for diversity - good conifer edge along east side of stand. Some smaller maple within to cut - low quality. There is a fairly large wet (ash mixed with cedar) swale (at the south end of stand near road) which will be excluded from sale boundary when stand is set-up. Soils are Croswell-Deford and Mashek. 2002: stand 38										
63	A5	10	70	65	ASPEN (UPLAND)	MATURE	FINAL HARVEST	1		
comnts Fmd : Narrow stand along road. 2010: Good mix of F and A; aspen starting to break-up. Should selective remove/mark overmature A,F to cut, which are a hazard along road, but also visually manage for adjacent private property. Mixed hardwood includes basswood, maple, PB, ash; ash and smaller PB should be left, and may need to mark a few leave tree maple,basswood. MO of A or F is acceptable. Soils are Nadeau-Mancelona. 2002: stand 42										
Total Acres.....		103								

* 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		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					D	Tot. BA								
1	C 6	Q 1	674	90	7	120	27	cedar	old growth (potential or actual)	N		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Cedar or Hemlock cutting restraints Potential or designated old growth</p> <p>comnts Fmd : SCA: deer wintering area. Large cedar complex, which contains Swimming Hole creek. Interior cedar is smaller diameter than areas adjacent to more upland stands. Stand contains occasional spruce, maple, yellow and paper birch, and balsam fir. Tagalder, sphagnum ground cover noted. Some cutting done pre-1939. Some ash regeneration was noted, and heavily browsed - no cedar regeneration seen. Soils are Carbondale/Tawas. 2002: stands 1,3,9,24</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>														
2	Q 6	X 0	30	82	7	120	27	mixed swamp conifer	low quality	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Cedar or Hemlock cutting restraints</p> <p>comnts Fmd : Transition stand. Records indicate larger BF (3 stick +) and cedar (12" +) were cut under permit #1-70 - a little ash regeneration was noted, but heavily browsed. No cedar regen. Some dead aspen, BF within. Mixed hardwood of YB, RM. Soils are Ensly-Solona complex. 2000: stand 2,11</p>														
3	M 6	X 0	7		8	80	65	northern hardwood	low quality	N		10-19 years	0	
<p>comnts Fmd : 2000: THINNED 1979. Need access through private. 2010: Low quality stand against Q/C type and PVT, which has been thinned also. Large diameter wildlife trees and 6-8" poles which are forked, defective, stained. No seedling/sapling regeneration noted. Several blinds located on property edges. Best access to stand is through private land (E-W road from stand 6 into private, and then along swale running NE into stand)- wait and treat (if access is granted) when stand 6 is prescribed again, due to small acreage. Soils are Emmet-Solona. 2002: stand 4</p>														
4	S 6	S 2	20	98	6	70	31	black spruce-swamp	immature	Y		20-29 years	0	
<p><u>Treatment Limiting Factors:</u> Too wet</p> <p>comnts Fmd : 2000: BOG-TYPE SMALL SPRUCE. 2010: Extremely wet site - limby spruce. Lab tea, sphagnum, snowberry, tagalder ground cover noted. Presence of deer runways. Some of the more open areas contain pitcher plants and small 1" saplings of T,S. Soils are Ensley - Solona and Carbondale - Tawas. Would require frozen ground to operate; long snowplow. 2002: stand 11</p>														
5	A 5	M 2	24	30	5	40	63	aspen (upland)	immature	N		20-29 years	0	
<p>comnts Fmd : Stand contains some mixed-aged cuttings, which is not worth separating out as different stands. The majority was cut from 1977-80 (#025-76A "Ewing Block), but sale was incomplete and then finished as t. sale #005-85-2 (cut Feb/March, 1985). The interior aspen is thicker than edges, which also incorporates an old G stand (stand 402) which contains some small spruce, fir and cherry. Old residual aspen and maple can be found within the stand also, as well as conifer patch at south end. Soils are Emmet - Escanaba. 2002: stand 13, 402</p>														
6	M 9	X 0	80		12	90	65	northern hardwood	unevenaged	N		10-19 years	0	
<p>comnts Fmd : 2000: THINNED 1979. Coming into log size. Excellent regeneration. Thinned 2004 Kanerva permit # 017-02-01 "Old Campground sale". 2010: The second select cut is showing very little/no regeneration - heavily browsed. Raspberry brush understory, with leeks, trout lily, dutchman breeches. A small cedar inclusion falls within stand. Roads are winter access only. No cut should be prescribed until some advanced regeneration becomes established. Soils are Emmet - Solona. 2002: stand 12</p>														
7	A 3	F 1	24	25	4	10	65	aspen (upland)	immature	N		30-39 years	0	
<p>comnts Fmd : 2000: A3 20-35' TALL 2-4" DBH WELL-STOCKED CUT 1985. 2010: "Swimming Hole Creek South" sale #021-82 - cut 12/1984. Aspen is now 35 - 50' tall - coming into merchantability. Access to stand is winter only - need to cross swale w/marsh, tagalder, and stand does contain some wetter ground. Some PB and T regeneration within. Soils are Crowell - Deford and some Emmet - Escanaba. 2002: stand 7</p>														

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Stand	Cover Type-Size 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	Tot. BA								
8	Q 1	F 1	3	31	0	0	30	mixed swamp conifer	old growth (potential or actual)	N		not scheduled	0	
<p>comnts Fmd : SCA - falls within deer wintering area - cutting experiment to obtain cedar regeneration. 2000: strip cut in 70s. Mostly alder, some fir and spruce. 2010: Tagalder is 10 - 16' hts and 1-2" dbh; no cedar regeneration was noted. 2002: stand 5</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>														
9	E 6	F 1	6		11	100	57	swamp hardwoods	low quality	N		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Land survey needed Inferior quality</p> <p>comnts Fmd : 2000: poor quality hardwood with a large component of cedar, hemlock. Above average DBH. 2010: same comment as 2000. Some dead cedar within stand, and quite a bit of blowdown balsam fir. Salvage/improvement cut only would be prescribed as there is not much here to remove. Some private cut lines have been established, although there are no known corners present, and cutting has occurred. MO of either E or Q would be acceptable. Ground cover of princess pine, club moss. Mixed hardwood includes: SM, YB, Blk Ash, PB and mixed softwoods include WS, H. Soils are Shoepac - Ensley. 2002: stand 25</p>														
10	Q 6	F 1	32	105	9	90	28	mixed swamp conifer	mature	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Cedar or Hemlock cutting restraints Too wet Inadequate volume due to low stocking/small diameter/etc.</p> <p>comnts Fmd : 2000: not checked this time, mostly good cedar. 2010: Stand is slightly higher than adjacent cedar, and has a good mix of hemlock within. Also contains mixed hardwood of RM, YB, ash and overstory WS, WP. Blowdown timber within, and also some WP, H with dead tops. Soils are Shoepac - Ensley. 2002: stand 19</p>														
11	M 6	M 1	7		9	100	56	northern hardwood	immature	N	thinning	within 0-9 years	3	
<p><u>Treatment Limiting Factors:</u> Blocked by other physical obstacle Inadequate volume due to small acreage</p> <p>comnts Fmd : 2000: PARTIALLY CUT 1989. CLOSED SALE. 2010: Fairly steep ridge of hardwoods which was partially cut in 1989. Low quality - contains stain, cankers, seams and forks. Low ground surrounds stand, creating difficult access. Old blue lines are in place from private corporate harvest, though. State hardwood stand to north (C. 80 stand 11 - 2016 YOE) was already treated, but is scheduled for possible treatment next entry. This stand should be treated along with that stand, if possible, to create a more marketable sale. There is still a low swale of conifers which will have to be crossed to reach stand, though. Otherwise, stand will have insufficient volume on it's own to treat, unless negotiated, and should be dropped for now. Soils are Shoepac - Ensley. 2002: stand 20</p>														
12	H 9	M 1	7	100	12	100	34	hemlock	mature	N		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Cedar or Hemlock cutting restraints</p> <p>comnts Fmd : 2000: Big hemlock seems to be dying, with porky damage. Mixed with hardwood. Hemlock too overmature for site index. Cutover E type some E2 coming in 1" dbh. Overstory is residual. Cedar more representative of site index as ash hardwood was residual and suppressed. 2010: "Hungry Deer Sale" #028-82A - cut Jan-March, 1983 - with some E2 pockets. Private land to N and W of trail has been cut. Soils are mix of Cathro - Ensley mucks and Ensley - Solona. 2002: stands 60,61</p>														
13	M 6	M 1	9		9	90	65	northern hardwood	unevenaged	N		10-19 years	0	
<p>comnts Fmd : Some limited regeneration 1-2" dbh, 16-20' height, but not much. Edges contain a little thicker regeneration. Ground cover of leatherwood, trout lily, leeks, dutchman breeches. 2002: stand 62</p>														
14	A 3	F 1	2	26	3	0	60	aspen (upland)	immature	N		30-39 years	0	
<p>comnts Fmd : T. sale #017-83 - cut July, August, 1983. Small patch of residual Sp/BF within (near pvt line). West side of road contains a thicker fir understory. Aspen is ~ 35-40' in ht. Soils are Nadeau - Mancelona. 2002: stands 77,78</p>														

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Stand	Cover Type-Size Dnsty	Under Story-Stkng Level	A c r e s	Age	avg. D B	Tot. BA	Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
15	Q 6	F 3	108	108	9	100	35	mixed swamp conifer	old growth (potential or actual)	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Potential or designated old growth Too wet Influence zones</p> <p>comnts Fmd : SCA - riparian corridor along Escanaba River. Could be called a cedar stand also. Natural spring located in stand with small campsite adjacent. Sphagnum ground cover; perched roots. Soils are Carbondale - Tawas. 2002: stand 59</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>														
16	Z 0	Z 0	19			0		water	nonstocked	N		not scheduled	0	
<p>comnts Fmd : Escanaba River</p>														
17	P 6	F 1	27	89	8	70	54	balsam poplar & swamp aspen and swamp white birch	old growth (potential or actual)	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Potential or designated old growth Influence zones</p> <p>comnts Fmd : SCA: riparian corridor - wetter site along Escanaba River. Pure ash and areas of w. birch and balm. Birch is large, rest small. E type north, P type to south. 2010: site not re-checked; sufficient data from last inventory. Protect riparian zone. Soils are Evart-Pelkie-Sturgeon. 2002: stand 66</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>														
18	A 6	F 1	73	76	10	80	68	aspen (upland)	mature	Y	final harvest	within 0-9 years	2	
<p><u>Treatment Limiting Factors:</u> Bridge needed (portable bridge not available or inadequate) Road needed (resources not presently available)</p> <p>comnts Fmd : 2000: would need a bridge and access through private land or use a long winter snowplow over snowmobile trail. 2010: Area will need further evaluation for feasibility of bridge and construction of new road to access timber across Leisner Creek. Crossing private property would also need to be granted, and this would be a long winter snowplow. Includes small F stand from last entry. Try and include C. 72 stands 5,6,8,9 when set-up, if possible. Soils are a mix, including Emmet, Kalkaska, and Paquin-Finch. 2002: stand 67,68</p>														
19	F 5	F 3	7	60	7	60	65	spruce-fir (uplands-including upland black spruce)	two aged	Y	final harvest	within 0-9 years	2	
<p>comnts Fmd : Older aspen to remove from very narrow road stand (hazard tree removal along roadway). Leave smaller S/F (1 stick and less). Stand MO can either be for A or F. Soils are Nadeau-Mancelona. 2002: stand 65</p>														
21	A 5	X 0	7	37	9	60	65	aspen (upland)	two aged	N	final harvest	within 0-9 years	2	
<p>comnts Fmd : 2000: 2-3 stick well-stocked. 2010: Stand has some smaller aspen (3 stick), but overall remainder of stand is ready to treat, due to dieback, breakage (older condition) - slight knob. Some small elm, cherry within - conifer patch - which can be retained. Ground cover of leek, trout lily, spring beauties, hazel noted. Soils are Garlic-Alcona-Voelker. 2002: stand 64</p>														
24	A 3	U 2	46	21	4	0	65	aspen (upland)	immature	N		20-29 years	0	
<p>comnts Fmd : 2000: Well-stocked 2" 25-30' tall. 2010: Aspen now 3 - 6" dbh and 32-40' hts. Cut fall, 1988 under t. sale #018-84. Some small cherry, as well as residual F, within. Soils are mix of Onaway, Nadeau, Mashek and Garlic-Alcona-Voelker. 2002: stand 63,65</p>														

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Stand	Cover Type-Size Dnsty	Under Story-Stknng Level	Acrs	Age	avg. D		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					B	Tot. BA								
25	A 3	F 1	24	7	2	0	70	aspen (upland)	immature	N		40-49 years	0	
<p>comnts Fmd : 2000: Stand was cut by St. John under permit # 016-02-01 - "Swimming Hole Aspen" (in Oct-Nov, 2002). Small patches of hardwood were left for visual aesthetics. SI from original A6 stand. 2010: Some marked leave trees (hardwood, spruce) also left along Escanaba River Road; hardwood patch (knob) thinned contains maple and basswood. Some small BF/S (2' ht) and PB regeneration noted. Aspen regen is 24 - 35' ht. Soils are Onaway and Nadeau-Mancelona. 2002: stand 37</p>														
26	L 0	L 0	5				0	lowland brush	nonstocked	N		not scheduled	0	
<p>comnts Fmd : LOWLAND BRUSH. Soils are Ensley-Solona. 2002: stand 23</p>														
27	S 5	S 2	4	80	7	60	60	black spruce-swamp	immature	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Blocked by other physical obstacle Inadequate volume due to low stocking/small diameter/etc.</p>														
<p>comnts Fmd : 2000: Black spruce and tamarack 4-6" dbh. 2010: Various sizes of S/T; occasional A, C noted. Stand access is blocked by wet crossing. Tagalder within. Soils are Cathro-Ensley mucks, Emmet-Solona. 2002: stand 36</p>														
28	M 6	F 1	10		8	80	57	northern hardwood	unevenaged	N		10-19 years	0	
<p>comnts Fmd : 2000: thinned when adjacent aspen was cut. 2010: Part of "Rock Campground Block" #023-92 - cut Su/F, 1995 (unit 2 - selection cut). Not much regeneration started yet; some 6-10' (browsed) ash noted. Some larger diameter hardwoods, H within also. Soils are Onaway-Nadeau. 2002: stand 79</p>														
29	M 6	A 1	5		8	70	58	northern hardwood	unevenaged	N		10-19 years	0	
<p>comnts Fmd : 2000: POOR QUALITY, spots of M5 sparse areas of aspen regen 10-15' tall. Nice vernal pond with hemlock. Thinned under permit 23-92-01. 2010: "Rock Campground Block" - select cut Su/F, 1995. Soils are Emmet-Solona. 2002: stand 35</p>														
30	A 3	X 0	16	14	2	0	65	aspen (upland)	immature	N		40-49 years	0	
<p>comnts Fmd : 2000: cut permit #23-92-01. Mostly well-stocked 1"dbh 10-15 foot tall. 2010: Part of "Rock Campground Block" #023-92 (unit 1) - cut Su/F, 1995. Aspen is now 2-3" dbh and 25-30' hts. Some F understory. Stand also includes a small spruce/bog retention stand (old stand 58). Soils are Cathro-Ensley and Emmet-Solona. 2002: stand 30</p>														
32	M 6	F 1	1		7	70	58	northern hardwood	unevenaged	N		10-19 years	0	
<p>comnts Fmd : 2000: POOR QUALITY, spots of M5 sparse areas of aspen regen 10-15' tall. Thinned under permit 23-92-01. 2010: Part of "Rock Campground Block" sale, thinned Su/F, 1995. Adjacent to low ground and Swimming Hole Creek. Soils are Paquin-Finch. 2002: stand 57</p>														
33	A 6	F 2	19	70	10	70	70	aspen (upland)	mature	Y	final harvest	within 0-9 years	1	
<p>comnts Fmd : 2000: Hold this side of the road for diversity. 2010: Road influence stand (~ 3 - 4 chains in width along the Escanaba River Road) which was held last entry for diversity. Aspen is breaking up/dying and is ready to be removed. Some portions have already had salvage cuts in the past (#031-85-2 - cut 1985-86), but are not worthwhile to separate out of the stand. Most of the smaller regeneration will end up being left in the stand after treatment, so retention should not be an issue. Most small conifers will be left (1 stick and less), as well as all cedar and sugar maple. Depending upon the amount and quality found, all paper birch may be left, or otherwise will have a few marked to leave. Some basswood clumps will be marked to leave and the remainder harvested. Sale cut boundary line will not drop into adjacent low/cedar/Q type - fairly defined topography. Soils are Nadeau-Mancelona. 2002: stand 39</p>														
34	L 0	L 0	25		0	0		lowland brush	old growth (potential or actual)	N		not scheduled	0	
<p>comnts Fmd : SCA: riparian corridor which includes lowland brush and beaver flooding/pond along Leisner Creek. 2002: stands 70,71</p>														

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Stand	Cover Type-Size 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								
35	F 6	F 2	9	90	8	80	40	spruce-fir (uplands-including upland black spruce)	old growth (potential or actual)	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Potential or designated old growth Influence zones</p> <p>comnts Fmd : SCA - Riparian buffer - Leisner Creek. 2000: Overstory of birch with some big spruce, fir coming in 2 - 4 sticks. Birch mortality; overall F5/F6 - patches of F3 2" and smaller. Need big culvert. 2010: Stand best left for creek protection at this time. Soils are Tawas-Deford mucks. 2002: stand 72</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>														
36	F 5	F 1	7	75	8	50	46	spruce-fir (uplands-including upland black spruce)	old growth (potential or actual)	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Potential or designated old growth Influence zones</p> <p>comnts Fmd : SCA - riparian buffer along creek past beaver activity. Some F3. 2002: stand 69</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>														
37	A 4	A 3	47	26	5	30	70	aspen (upland)	immature	N		20-29 years	0	
<p>comnts Fmd : 2000: Almost 2-stick. 4" average dbh. 2010: "Liesner Creek Block" sale #035-82 - cut Su, 1983. Access is through PVT (Tree Farm lands) only. Some F, BC in understory. Princess pine ground cover noted. 2002: stand 76</p>														
38	C 6	F 1	39	87	8	120	26	cedar	immature	N		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Cedar or Hemlock cutting restraints Too wet</p> <p>comnts Fmd : 2010: Mainly cedar with some lowland aspen, maple, YB, S/F and H present. Sphagnum, club moss ground cover - perched root system -very wet. No cedar regeneration noted. Soils are Carbondale-Tawas. 2002: stands 73,74</p>														
39	A 3	F 1	12	13	2	0	63	aspen (upland)	immature	N		30-39 years	0	
<p>comnts Fmd : 2000: well-stocked 1"dbh. 2010: "Krinkle Kut Block" sale #024-92-1 - cut winter 1995-96. Hazel brush in understory. Aspen is now 2 - 3" dbh and 16 - 30' hts. Some residual hardwood along property line/field edge. Access can be/is from adjacent compartment. Soils are Emmet-Solona and Mashek. 2002: stand 75</p>														
41	F 5	F 3	2	56	6	60	40	spruce-fir (uplands-including upland black spruce)	two aged	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Inadequate volume due to small acreage</p> <p>comnts Fmd : Stand was originally part of adjacent cedar stand; cedar, mixed softwood were removed by piece cut in Feb., 1984 under sale #005-84-2 (for deer). No cedar regeneration established, only fir. Soils are Carbondale-Tawas. 2002: (part of) stand 74</p>														
42	L 2	L 2	16					lowland brush	old growth (potential or actual)	N		not scheduled	0	
<p>comnts Fmd : SCA - riparian corridor. Lowland brush along Swimming Hole Creek and buffer edges. Soils are aquents and histosols, ponded. 2002: stand 22</p>														

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Stand	Cover Type-Size Dnsty	Under Story-Stkng Level	Age	Ave. D B	Tot. BA	Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
43	M 5	F 1	10	7	50	46	northern hardwood	low quality	N		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Water quality/bmps Influence zones</p> <p>comnts Fmd : FROM 73 DATA, left for stream buffer. 2010: Stand was previously F, but most of the mature balsam fir has already blowdown down; now mostly low-quality maple clumps and small fir. Some aspen along stand transition edge to leave here. Soils are Tawas-Deford mucks. Would be good to maintain as buffer stand for creek (~ 2 chains wide). 2002: stand 33</p>													
44	S 6	S 2	33	82	7	80	26	black spruce-swamp	two aged	Y	final harvest	within 0-9 years	3
<p>comnts Fmd : FROM 73 DATA NO NEEDS CHECK 10 YEARS MOST IS LOW MOSS GROUND. 2010: Nice spruce/tamarack interior, but some areas are smaller (only 2" dbh and 20' ht) - part of old cut from 1962?? Some sparser, wetter areas also, as stand transitions into cedar and springs may be present. Ground cover of sphagnum, lab tea and leatherleaf. Would need to be winter cut only (with good winter conditions) and stand size may be greatly reduced by eliminating unmerchantable areas. Soils are both Crosswell-Deford and Paquin-Finch. 2002: stand 41</p>													
45	A 6	M 2	27	60	9	80	60	aspen (upland)	mature	Y	final harvest	within 0-9 years	1
<p>comnts Fmd : FIR SALVAGED 1985. FAIR STOCKING OF ASPEN ALL SIZES. CUT IN 10 YEARS. 2010: Fair amount of blowdown occurring in stand - treat now. Several salvage cuts previously in the 1980's. Leave any YB, C, WP and large diameter WS for diversity - good conifer edge along east side of stand. Some smaller maple within to cut - low quality. There is a fairly large wet (ash mixed with cedar) swale (at the south end of stand near road) which will be excluded from sale boundary when stand is set-up. Soils are Crosswell-Deford and Mashek. 2002: stand 38</p>													
46	E 5	F 3	8	88	9	60	56	swamp hardwoods	old growth (potential or actual)	Y		not scheduled	0
<p><u>Treatment Limiting Factors:</u> Potential or designated old growth Influence zones</p> <p>comnts Fmd : SCA: riparian corridor for Swimming Hole Creek and Escanaba River. Stand was previously F, but there is quite a bit of dead BF in stand now. Could also be MO of Q. Mixed softwoods noted are WS, H and hardwoods include YB, BC and SM. Soils are Paquin-Finch. 2002: stand 40</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>													
47	C 9	X 0	2	90	12	200	30	cedar	old growth (potential or actual)	N		not scheduled	0
<p><u>Treatment Limiting Factors:</u> Cedar or Hemlock cutting restraints Potential or designated old growth Influence zones</p> <p>comnts Fmd : SCA: big cedar, small patch. Stream. 2010: Soils are Paquin-Finch. 2002: stand 32</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>													
48	F 5	F 2	2	88	8	40	56	spruce-fir (uplands-including upland black spruce)	old growth (potential or actual)	Y		not scheduled	0
<p><u>Treatment Limiting Factors:</u> Potential or designated old growth Recreational site Influence zones</p> <p>comnts Fmd : SCA: old SF campground and picnic area, which are still being used by locals. Swimming Hole creek buffer. Soils are Evart-Pelkie-Sturgeon. 2002: stand 405,40</p>													

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Stand	Cover Type-Size 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								
49	M 8	F 1	5	14	60	60	northern hardwood	immature	N		20-29 years	0		
comnts Fmd : 2000: Area treated under timber sale # 023-92-1.big trees, no regen., poor quality, along road. 2010: Part of "Rock Campground Block" (unit 2), which was cut Su/F, 1995. Contains H,S inclusion at road. Low quality timber. Leatherwood in understory. Soils are Nadeau-Mancelona. 2002: stand 34														
50	A 3	F 1	121	25	4	10	65	aspen (upland)	immature	N		30-39 years	0	
comnts Fmd : 2000: A3 30' TALL 3-5"dbh WELL-STOCKED. CUT 1985 2010: "Swimming Hole Creek South" sale #021-82 - cut 12/1984. Portion of stand and access is low ground, so winter cut is advisable. Pockets of conifers were left (S,T, C with tagalder). Some tamarack regeneration within in small open areas, including old stand 400. (Some of these conifer areas are from previous treatments.) Soils are Croswell - Deford and Emmet - Escanaba. 2002: stand 31														
51	C 6	F 1	67	97	7	80	30	cedar	immature	N		not scheduled	0	
<u>Treatment Limiting Factors:</u> Too wet Inferior quality Cedar or Hemlock cutting restraints														
comnts Fmd : FROM 73 DATA. 2010: Wet ground with mainly cedar and some mixed species; thick and thin areas, depending on soil moisture. Soils are Carbondale-Tawas. 2002: (part of) stand 6,10,16														
52	L 2	L 2	15		0	0		lowland brush	nonstocked	N		not scheduled	0	
comnts Fmd : Some small S/C mixed within. Soils are Carbondale-Tawas. 2002: stand 18														
53	Q 4	Q 1	11	117	5	30	23	mixed swamp conifer	low quality	Y		not scheduled	0	
<u>Treatment Limiting Factors:</u> Cedar or Hemlock cutting restraints Inadequate volume due to low stocking/small diameter/etc.														
comnts Fmd : 2000: sparse with areas of alder. Small trees. 2010: Old ice road within. Part of "West Rock No. 2" sale #035-92-2 (5 acs only) - cut F/W, 1991. Soils are Cathro-Ensley and Carbondale-Tawas mucks. 2002: stand 14														
54	A 3	F 1	13	18	3	0	61	aspen (upland)	immature	N		40-49 years	0	
comnts Fmd : 2000: A3 1-2" 20' tall well-stocked except edges are M1F1 cherry,fir. 2010: T. sale #034-92-2 "West Rock No. 1" - cut F/W, 1991. A3 now ~30-40' hts and 3 - 5" dbh. Some cherry regeneration and also thicker S/F in understory, in places. Need private access to get into stand. Soils are Emmet-Escanaba. 2002: stand 27														
55	Q 5	F 1	4	75	7	50	40	mixed swamp conifer	mature	N		not scheduled	0	
<u>Treatment Limiting Factors:</u> Blocked by other physical obstacle Inadequate volume due to low stocking/small diameter/etc. Inadequate volume due to small acreage														
comnts Fmd : not visited 2000. 2010: Difficult to access with surrounding low ground and small aspen. Mixed softwood of C,T. Sparse areas. More like a retention patch within low. Soils are Carbondale-Tawas. 2002: stand 17														
56	L 0	L 0	12		0	0		lowland brush	nonstocked	N		not scheduled	0	
comnts Fmd : LOWLAND BRUSH. Raspberry, black ash, P and cedar/tagalder - very wet! Soils are Carbondale-Tawas and Cathro-Ensley mucks. 2002: stand 28,15														
57	M 9	M 1	5		12	120	56	northern hardwood	unevenaged	Y	selection	within 0-9 years	3	
<u>Treatment Limiting Factors:</u> Land survey needed														
comnts Fmd : 2000: Ready to thin but need a property line. Small acreage. 2010: Last thinned under t. sale #012-71. Possible access through private to south. Private lines have been run by adjacent landowners? (unregistered stakes/pipes in ground used for line establishment - marked timber to cut in NESW). Very little regeneration established at this time. Sedge, leatherwood, maidenhair fern noted. Basswood mainly in clumps - target some of these for selection. Maple mostly smaller diameter. Some ironwood, YB, cherry. Ground blind within stand. Treat with stand 59 when cut. Soils are Emmet-Escanaba. 2002: stand 26														

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Stand	Cover Type-Size Dnsty	Under Story-Stkng Level	A c r e s	Age	avg.		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					D B H	Tot. BA								
59	A 6	M 3	20	36	9	80	65	aspen (upland)	immature	N	final harvest	within 0-9 years	1	
<u>Treatment Limiting Factors:</u>														
Land survey needed														
comnts Fmd : 2000: Good growth occurring on this stand 3-5 stick in spots.. Patches of M3 1"dbh. Larger softwoods mixed in also. 2010: Sale # 012-71 Quite a bit of blowdown fir and aspen in the stand - esp. along the G edge and on low ground. Good M regeneration coming in on the higher ground where the stand transitions into M9 type (1-2" dbh and 25" hts). Should try and protect this regeneration when A is cut, with MO being acceptable as mix of A/M. Lower ground in the NW - drops into ash swale and tamarack/cedar. Private N/S line recently established (run from unregistered stakes, although old blaze was noted) and could be used, based on GPS data (although formal survey would be desirable). Mixed spps are: basswood, maple, cherry, YB, ironwood, S, C - leave all cherry, YB, cedar - mark other spps as leave trees only. Soils are Emmet-Solona and Mashek. 2002: stand 29														
60	C 6	Q 1	19	100	7	90	29	cedar	immature	N		not scheduled	0	
<u>Treatment Limiting Factors:</u>														
Cedar or Hemlock cutting restraints Too wet														
comnts Fmd : 2010: Wet and brushy - includes some T,S, ash swales. Sphagnum, lab tea, tagalder. Soils are Tawas-Deford. 2002: stand 16														
62	M 6	F 1	8		9	80	57	northern hardwood	unevenaged	N		10-19 years	0	
comnts Fmd : 2000: POOR LIMBY STEMS NO NEEDS 20YRS LOGS VERY POOR, elm dead M5F4. 2010: Private property thinned to the south; survey wood slates on-line - no visible paint, though. Little hardwood regeneration. Contains an interior H patch - no regeneration here. Low, wet vernal edges with small ash (30-35' ht) and a few 4" dbh H. Numerous swales, drains interlaced - many defects to M;clumps. Overmature A and some dead BF. Some YB, basswood, WS, C. Sedge within. Check again in 10 years; still may not be ready to treat. Soils are Nadeau-Mancelona and Paquin-Finch. 2002: stand 53														
63	A 5	F 3	10	70	9	60	65	aspen (upland)	mature	Y	final harvest	within 0-9 years	1	
comnts Fmd : Narrow stand along road. 2010: Good mix of F and A; aspen starting to break-up. Should selective remove/mark overmature A,F to cut, which are a hazard along road, but also visually manage for adjacent private property. Mixed hardwood includes basswood, maple, PB, ash; ash and smaller PB should be left, and may need to mark a few leave tree maple,basswood. MO of A or F is acceptable. Soils are Nadeau-Mancelona. 2002: stand 42														
64	C 6	F 1	40	116	7	150	27	cedar	old growth (potential or actual)	N		not scheduled	0	
<u>Treatment Limiting Factors:</u>														
Potential or designated old growth Cedar or Hemlock cutting restraints Influence zones														
comnts Fmd : SCA: riparian corridor. 2000: cedar stand along river. 2010: Overmature aspen within which will end up dying out of stand. Some black ash. Campsite found right along the rivers edge. Soils are Chippeny-Nahma muck. 2002: stand 44,45														
Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.														
65	Z 0	Z 0	21			0		water	nonstocked	N		not scheduled	0	
comnts Fmd : Escanaba River														

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Stand	Cover Type-Size Dnsty	Under Story-Stknng Level	Acrs	Age	avg. DBH		Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
					B	Tot. BA								
66	C 6	C 1	46	88	8	140	32	cedar	old growth (potential or actual)	N		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Potential or designated old growth Cedar or Hemlock cutting restraints Influence zones</p> <p>comnts Fmd : SCA: riparian corridor for Escanaba River. 2000: Cedar well-stocked with a few balm and fir. Along river. 2010: pocket of mature aspen within (old stand 51) included. Soils are Carbondale-Tawas and Evart-Pelkie-Sturgeon. 2002: stands 50,51,52</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>														
67	F 6	F 1	6	75	8	80	46	spruce-fir (uplands-including upland black spruce)	old growth (potential or actual)	Y		not scheduled	0	
<p><u>Treatment Limiting Factors:</u> Potential or designated old growth Influence zones</p> <p>comnts Fmd : SCA: riparian buffer for Escanaba River. 2000: South has some mortality in fir so some sparse rubus areas. North has well stocked cedar upland. 2010: stand not visited this entry, due to OG designation - agree. Soils are Pelissier gravelly sandy loam and Evart-Pelkie-Sturgeon. 2002: stand 54</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>														
68	A 3	F 1	19	16	3	0	60	aspen (upland)	immature	N		40-49 years	0	
<p>comnts Fmd : 2000: A3 1" dbh 15' tall well stocked. Some larger hardwood left for aesthetics last cut. F1F2 area down on flat part away from road. 2010: "Rock Dump Block" sale #025-92 - cut Sp/ Su, 1993. Aspen is now 2 - 4" dbh and 30' ht. South end contains higher concentration of F regeneration. Soils are Emmet-Escanaba. 2002: stand 46</p>														
69	A 3	F 1	10	16	3	0	60	aspen (upland)	immature	N		40-49 years	0	
<p>comnts Fmd : 2000: A3 well stocked 1"dbh 15 ' tall along road with bigger hardwood residual left for aesthetics. 2010: "Rock Dump Block" sale #025-92 - cut Sp/Su, 1993. Leatherwood, bracken fern, raspberry ground cover noted. Soils are Emmet-Escanaba. 2002: stand 47</p>														
70	P 3	X 0	1	24	2	0	32	balsam poplar & swamp aspen and swamp white birch	old growth (potential or actual)	N		not scheduled	0	
<p>comnts Fmd : SCA - riparian zone near Escanaba River. 2000: P3F2 fir, tamarack,Balm well-stocked. Birch also. 2-10' tall. Site tree is fom an adjacent stand as no trees large enough to core in this stand. Long term MO is Q 2010: Site not visited at this time. Soils are Carbondale-Tawas. 2002: stands 48,49</p> <p>Wld : SCA-Potential Old Growth Stand and part of a deer wintering complex. Recommend no harvest to maintain wildlife corridors and protect riparian area, allow for natural processes to occur, protect mature conifer for snow intercept and thermal protection for wildlife, and increase forest structure in the form of down woody debris for mammals, amphibians, birds, and insects.</p>														
420	G 0	U 1	1			0	65	grass	nonstocked	N		not scheduled	0	
<p>comnts Fmd : Grass/upland brush area along private line. Soils are Nadeau-Mancelona. 2002: N/A</p>														
422	G 0	X 0	1			0	68	grass	nonstocked	N		not scheduled	0	
<p>comnts Fmd : Grass opening/landing site along road. Some encroachment. Will probably be re-used as landing for adjacent prescribed stand. Soils are Nadeau-Mancelona. 2002: stand 407</p>														
423	G 0	X 0	3			0	68	grass	nonstocked	N		not scheduled	0	
<p>comnts Fmd : Soils are Onaway-Nadeau. 2002: stand 408</p>														

GWINN FOREST MGT UNIT

Stand Level Information

Compartment: 81

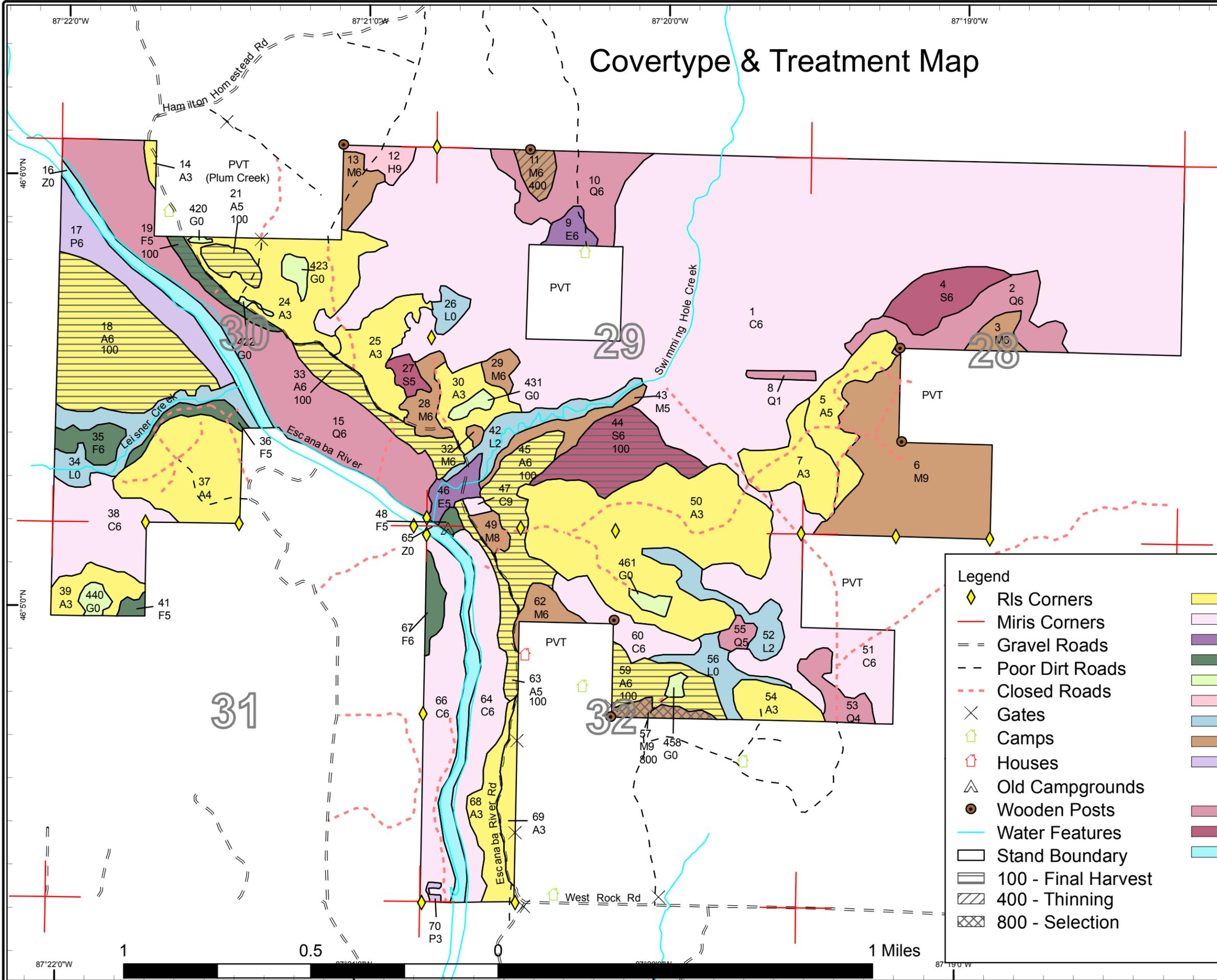
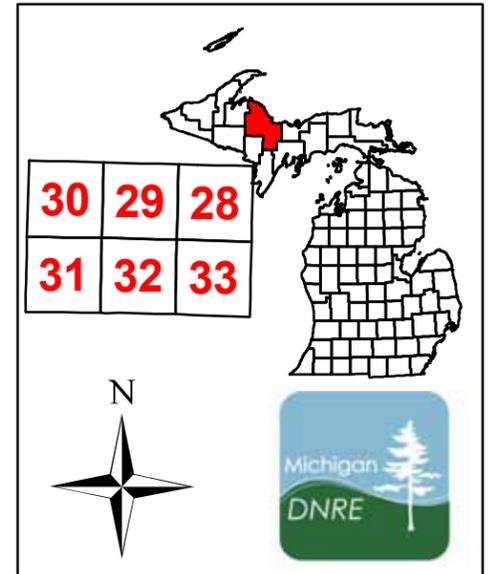
Entry Year: 2012

* 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
431	G 0	X 0	3			0	65	grass	nonstocked	N		not scheduled	0	
comnts Fmd : Opening with small F/S encroachment (~ 5' hts). Soils are Mashek. 2002: stand 410														
440	G 0	F 1	3			0	63	grass	nonstocked	N		not scheduled	0	
comnts Fmd : 2010: Old trail into stand still blocked by berm. 2002: stand 404														
458	G 0	X 0	2			0	53	grass	nonstocked	N		not scheduled	0	
comnts Fmd : 2010: still open G-type - some cherry on edges. FTP W32-529: 3 acs disked and re-seeded to grasses, legumes in 8/1995. Soils are Emmet-Escanaba. 2002: stand 403														
461	G 0	G 0	3			0	60	grass	nonstocked	N		not scheduled	0	
Total Acres..... 2004														

Covertime & Treatment Map

Compartment 81
 T43N, R24W, Sec. 28-33
 County: Marquette
 Unit: Gwinn
 YOE: 2012
 Acres: 2,004 GIS Calculated
 Stand Examiner: Theresa Sysol
 Map Revised: 8/27/2010
 Map Phase: Pre-review



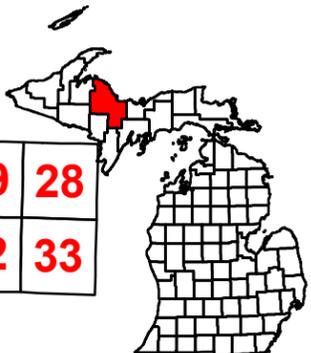
Legend

- ◆ RIs Corners
- Miris Corners
- == Gravel Roads
- - Poor Dirt Roads
- - - Closed Roads
- × Gates
- 🏠 Camps
- 🏠 Houses
- △ Old Campgrounds
- Wooden Posts
- 🌊 Water Features
- Stand Boundary
- ▨ 100 - Final Harvest
- ▩ 400 - Thinning
- ▧ 800 - Selection
- A - Aspen
- C - Northern White Cedar
- E - Swamp Hardwoods
- F - Upland Spruce or Fir
- G - Grass
- H - Hemlock
- L - Lowland Brush
- M - Northern Hardwoods
- P - Balsam Poplar, Swamp Aspen, Swamp White Birch
- Q - Mixed Swamp Conifers
- S - Black Spruce Swamp
- Z - Water



Stand Boundary Map

Compartment 81
 T43N, R24W, Sec. 28-33
 County: Marquette
 Unit: Gwinn
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 Acres: 2,004 GIS Calculated
 Stand Examiner: Theresa Sysol
 Map Revised: 8/27/2010
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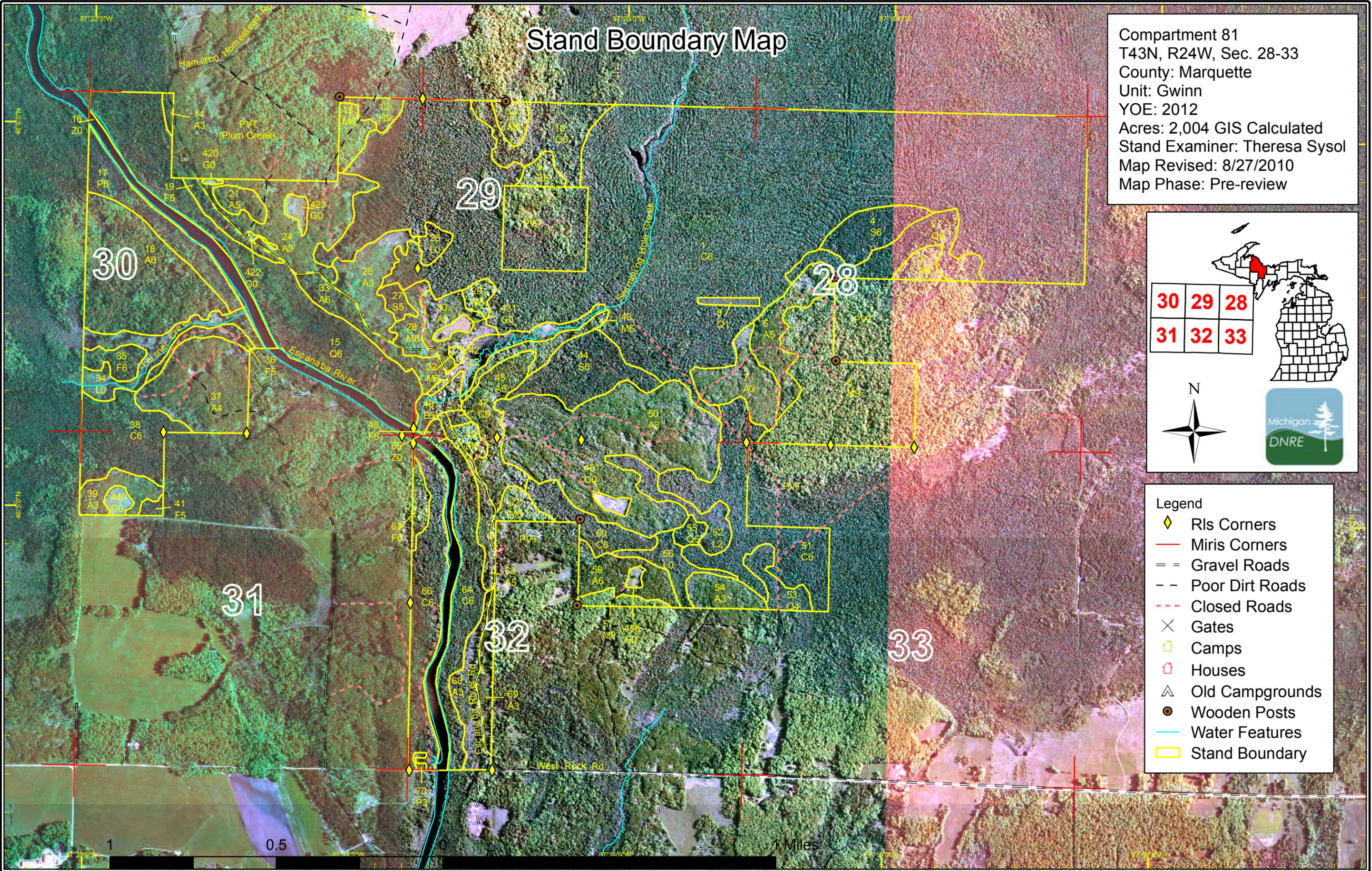


30	29	28
31	32	33



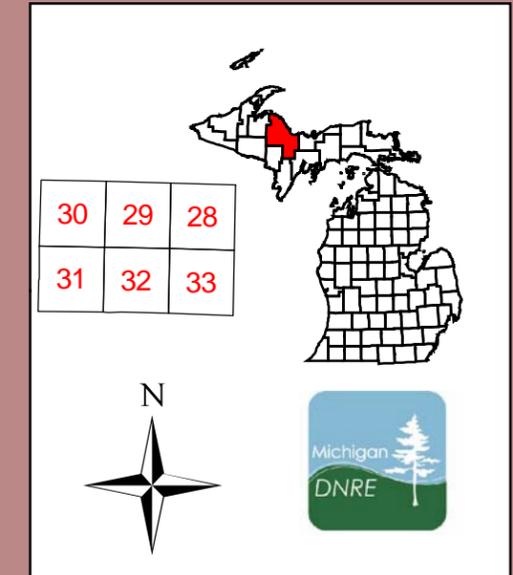
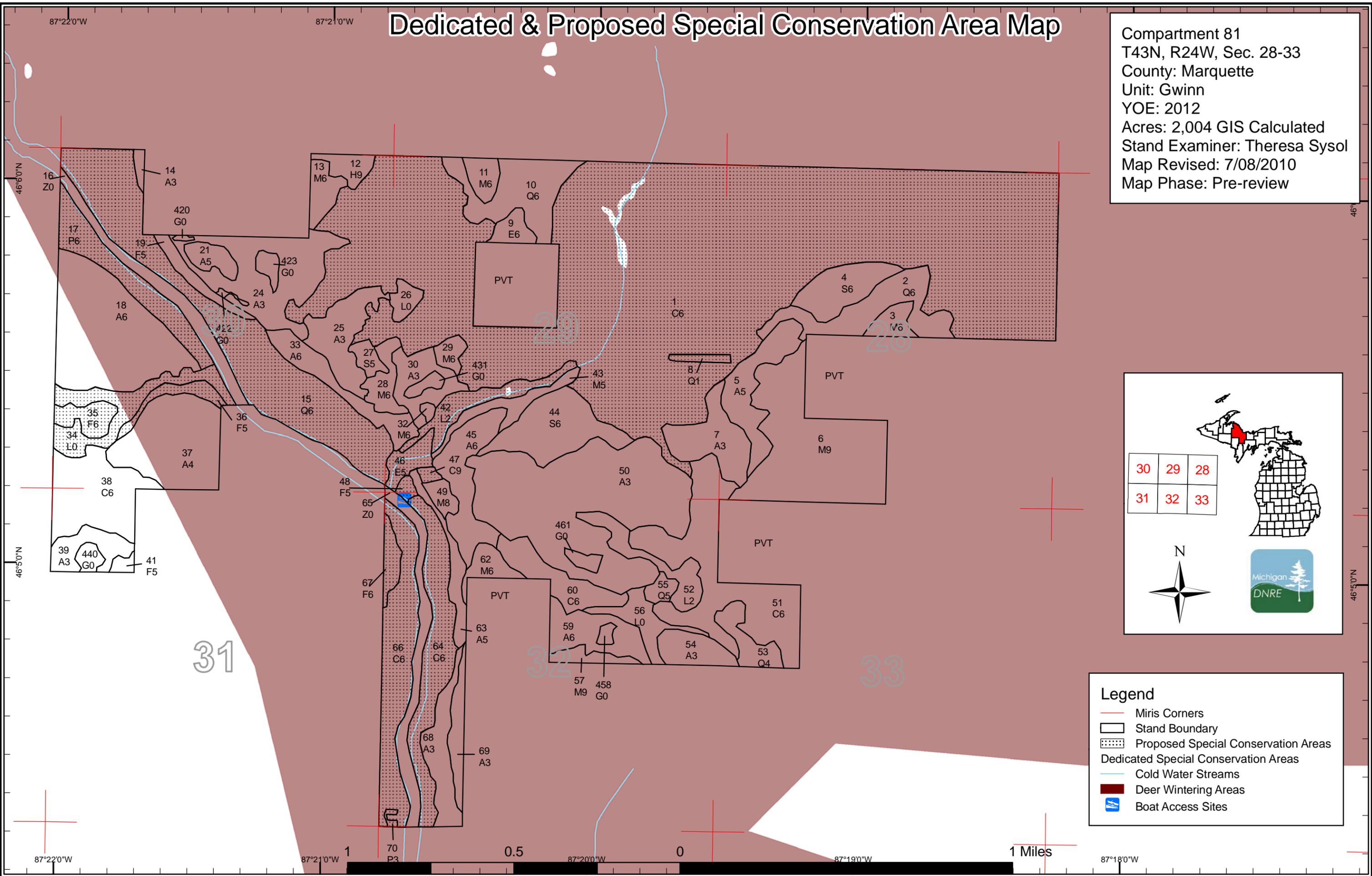

Legend

-  RIs Corners
-  Miris Corners
-  Gravel Roads
-  Poor Dirt Roads
-  Closed Roads
-  Gates
-  Camps
-  Houses
-  Old Campgrounds
-  Wooden Posts
-  Water Features
-  Stand Boundary



Dedicated & Proposed Special Conservation Area Map

Compartment 81
 T43N, R24W, Sec. 28-33
 County: Marquette
 Unit: Gwinn
 YOE: 2012
 Acres: 2,004 GIS Calculated
 Stand Examiner: Theresa Sysol
 Map Revised: 7/08/2010
 Map Phase: Pre-review



- Legend**
- Miris Corners
 - Stand Boundary
 - Proposed Special Conservation Areas
 - Dedicated Special Conservation Areas
 - Cold Water Streams
 - Deer Wintering Areas
 - Boat Access Sites





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
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	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.
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.