



**Escanaba Forest Management Unit
Compartment Review Presentation
Compartment # 47 Entry Year: 2013
Compartment Acreage: 1185 County: Menominee**

Revision Date: July 18, 2011

Stand Examiner: Joe Durbin, FMD; Bill Rollo, Wildlife Division

Legal Description: T36N R25W, Sections 28 and 33

Management Goals: This compartment is part of the Green Bay Lake Plain Management Area and is located about 15 miles northeast of Stephenson, Michigan. It is a mixture of upland and lowland types. Upland types are about 64 % of the compartment and include mostly aspen with northern hardwood, red and white pine and mixed conifer forest types. Lowland types are about 36% and include mostly cedar and lowland brush with mixed conifer timber types. The water type is the Big Cedar River and a small pond called Kessler Lake. Several unnamed streams flow through the compartment.

Approximately 280 acres comprising 16 stands are proposed for treatment. Of the proposed treatments, approximately 138 acres (8 stands) are clearcut with reserves, 80 acres (5 stands) are partial cuts and 62 acres (3 stands) are proposed for treatment of invasive species—not the entire stands are to be treated, only the infested areas.

Soil and Topography: Topography is level to gently rolling. The soils are primarily well-drained sands, loams and mucks/peats. The major soil series include the complexes of Deford-Wainola-Rousseau and Tawas-Deford and series of Rousseau.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is part of a mostly contiguous block of state ownership with a few private holdings mainly along the Big Cedar River. Most private ownership is recreational for hunting, fishing and trapping and only seasonally occupied with access through state-owned land. One parcel has a permanent residence located on the east bank of the river on a portion of the old logging camp known as “Camp B”.

Unique, Natural Features: The Big Cedar River flows north to south through the east portion of the compartment.

Archeological, Historical, and Cultural Features: Site of the former logging camp known as “Camp B” and associated dam site lies in the northeastern portion of the compartment. Part of the site lies on state land and part on private.

Special Management Designations or Considerations: Portions of the compartment along the Big Cedar River are proposed SCA riparian corridor.

Watershed and Fisheries Considerations: The Big Cedar River flows north to south through the eastern portion of the compartment. Several unnamed tributaries flow to the river. A small pond called Kessler Lake lies near Schuster Road.

Wildlife Habitat Considerations: This compartment is within the Green Bay Lake Plain Management Area. This area demonstrates a natural propensity to grow white pine and balsam fir--species which are

found in the understory of many aspen and maple stands. These mesic conifer species will be encouraged where appropriate. Aspen forest comprises a large percentage of this compartment, and about 87 acres will be harvested and regenerated which will provide habitat for early successional species, including many of the most popular game species. Cedar and hemlock provide important wildlife habitat in this area, but regeneration of both species has been problematic. Management will be aimed at maintaining these stands because they are of modest age. The Big Cedar River riparian corridor continues to be designated a special conservation area where natural processes will be allowed to operate. This designation will eventually provide mature wildlife habitat with large diameter trees, abundant snags, cavity trees, and dead woody debris on the forest floor.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of lacustrine (lake) sand and gravel. There is approximately 50 feet of relief in the compartment. The glacial drift thickness varies between 10 and 50 feet. The Ordovician Trenton Group underlies the glacial drift and is quarried for dolomite/stone west of Escanaba. Gravel pits are located less than one mile to the north and east of the compartment, however, none are developed within the compartment. No economic oil and gas production has been found in the UP.

Vehicle Access: Access into the western portion of the compartment is via the Westman Road and the Schuster Road. The portion east of the Big Cedar River is accessed from County Road 551—Cedar River Road. Access from the south is through a locked gated forest road which is used by the Forest Islands ORV Trail. A locked gate at the Schuster Road near the center of section 33 closes the road to non-ORV traffic.

Survey Needs: For the proposed treatments, potentially six survey corners maybe needed.

Recreational Facilities and Opportunities: Forest Island ORV Trail utilizes Schuster Road and an unnamed forest road through the southern portion of section 33. The site of the old state forest Cedar River campground lies on the east bank of the Big Cedar River in the NESE of section 28. Local equestrian groups have expressed interest in utilizing this site for trail camping. The site should have some hazard trees removed particularly over-mature short-lived species such as aspen and balsam fir as well as some of the high risk spruce, pine and/or hardwoods. This maintenance might be accomplished through a timber sale.

Other recreational opportunities include hunting, fishing, trapping and horseback riding.

Fire Protection: Access is very good throughout most of this compartment and the timber types in the area are generally low risk for fire hazard. Some of the interior more remote areas may present a greater fire hazard.

Additional Compartment Information:

- **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**



	Age Class														Total	
	Non-Forested	1-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +		Uneven Age
Aspen	0	100	81	80	61	35	40	0	13	6	0	0	0	0	0	415
Cedar	0	0	0	0	0	0	0	0	0	0	20	11	0	102	0	133
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	10
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Low-Density Trees	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Lowland Aspen/Balsam Poplar	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	18
Lowland Conifers	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	18
Lowland Deciduous	0	0	12	0	0	0	0	0	11	19	13	0	0	0	0	55
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	0	49	0	0	0	0	49
Lowland Shrub	124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	124
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	20	0	43	0	0	0	0	63
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21
Northern Hardwood	0	0	0	0	0	0	0	23	26	36	0	0	0	0	0	84
Red Pine	0	0	11	0	0	0	0	0	48	0	0	0	0	0	0	59
Upland Conifers	0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	41
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
Upland Spruce/Fir	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	38
Water	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
White Pine	0	0	0	0	0	0	0	0	10	6	0	0	0	0	0	17
Total	149	100	201	98	61	35	40	23	128	81	146	11	0	112	0	1185



Table 2 – Proposed Treatment Summaries

Escanaba Mgt. Unit
Year of Entry 2013

Compartment 047
Total Compartment Acres: 1185

Acres by Treatment Type

Commercial Harvest - 218	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 4	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 57	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	76	5	0	0	0	0	81
Herbaceous Openland	4	0	0	0	0	0	4
Lowland Deciduous	29	0	0	0	0	0	29
Northern Hardwood	23	27	0	0	0	0	50
Red Pine	10	0	0	0	38	0	48
White Pine	0	10	0	0	0	0	10
Total	142	43	0	0	38	0	223



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	33047001-SC	11.7	4112 - Maple, Beech, Cherry Association	High Density Log	81	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal
<p><u>Prescription</u> Treat with adjacent compartment 46 when adjacent hardwood stand is treated. Select cut to 70-80 residual basal area. Retain cedar, hemlock and beech. Create some canopy gaps to encourage regeneration. Maintain species diversity.</p> <p><u>Specs:</u></p> <p><u>Other</u> Follow in stand retention guidelines.</p> <p><u>Comments:</u></p> <p><u>Next</u> Check next inventory visit following treatment for regeneration success. Acceptable regeneration will be a mixture of current species as stump sprouts and/or seedlings.</p> <p><u>Steps:</u></p>									
3	33047003-CC	11.0	6118 - Lowland Deciduous with Cedar	High Density Pole	70	Harvest	Clearcut with Reserves	6118 - Lowland Deciduous with Cedar	Cmpt. Review Proposal
<p><u>Prescription</u> Clear-cut with Reserves. Cut all hardwood species, balsam fir, spruce and tamarack. Retain hemlock, cedar and pine and mark to retain scattered trees for seed source.</p> <p><u>Specs:</u></p> <p><u>Other</u> Treat with hardwood stand to the west and compartment 46.</p> <p><u>Comments:</u></p> <p><u>Next</u> Check next inventory for regeneration success. Acceptable regeneration will be a mixture of current species as suckers, stump sprouts and/or seedlings.</p> <p><u>Steps:</u></p>									
13	33047013_SC	4.7	4130 - Aspen	High Density Pole	56	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Cmpt. Review Proposal
<p><u>Prescription</u> Selectcut. Selectcut to 70-80 residual basal area. Follow in-stand retention guidelines.</p> <p><u>Specs:</u></p> <p><u>Other</u> The west boundary of the polygon is approximate and will be determined at the time the sale is setup.</p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable regeneration includes includes a mixture of stump sprouts and seed origin seedlings of current species. Check for regeneration success next entry OI.</p> <p><u>Steps:</u></p>									
13	33047013- CCw/R	34.9	4130 - Aspen	High Density Pole	56	Harvest	Clearcut with Reserves	4136 - Aspen, Mixed Conifer	Cmpt. Review Proposal
<p><u>Prescription</u> Clear-cut with Reserves. Cut all trees except hemlock, pine and cedar. Also, a portion of the stand west of the ORV trail should be select cut to a residual basal area of 70-80.</p> <p><u>Specs:</u></p> <p><u>Other</u></p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable regeneration includes a mixture of aspen suckers and stump sprouts and seed origin seedlings of current species. Check for regeneration success next entry OI.</p> <p><u>Steps:</u></p>									
14	33047014-CC	12.6	6115 - Lowland Ash	High Density Pole	90	Harvest	Clearcut with Reserves	6115 - Lowland Ash	Cmpt. Review Proposal
<p><u>Prescription</u> Clear cut with Reserves--Cut all trees except cedar, hemlock and pine. Also, mark scattered (green tree) trees to retain for seed source.</p> <p><u>Specs:</u></p> <p><u>Other</u></p> <p><u>Comments:</u></p> <p><u>Next</u> Acceptable regeneration includes a mixture of suckers, stump sprouts and seed origin seedlings of current species. Check for regeneration success next entry OI.</p> <p><u>Steps:</u></p>									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
18	33047018-CC	5.6	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	84	Harvest	Clearcut with Reserves	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<u>Prescription</u> Clear-cut with Reserves. Cut all trees except hemlock, cedar and mark scattered trees for seed source.									
<u>Specs:</u>									
<u>Other</u> Fix culvert in the road into stands 18 and 20.									
<u>Comments:</u>									
<u>Next</u> Acceptable regeneration will be a mixture of suckers, stump sprouts and seed origin trees of the current species. Check next entry for									
<u>Steps:</u> regeneration success.									
23	33047023-CC	22.6	4113 - R.Maple, Conifer	Medium Density Pole	62	Harvest	Clearcut with Reserves	4113 - R.Maple, Conifer	Cmpt. Review Proposal
<u>Prescription</u> Clear-cut with reserves. Last stage of shelter-wood cut. Cut all trees except hemlock, cedar, pine, beech and yellow birch. Mark some of the									
<u>Specs:</u> white pine for cutting.									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u> Follow harvest treatment with scarification using anchor chains to encourage pine regeneration. Acceptable regeneration includes a mixture of									
<u>Steps:</u> stump sprouts and seed origin seedlings of current species. Check for regeneration success next entry OI.									
26	33047026-SC	15.8	4119 - Mixed Northern Hardwoods	High Density Pole	70	Harvest	Single Tree Selection	4119 - Mixed Northern Hardwoods	Cmpt. Review Proposal
<u>Prescription</u> Select-cut to residual basal area of 70-80. Retain hemlock, cedar, beech and pine. Maintain species diversity.									
<u>Specs:</u>									
<u>Other</u> Exclude the northwest portion of the stand from treatment beginning where the drainage/swale begins. Western boundary of treatment polygon									
<u>Comments:</u> is only approximate.									
<u>Next</u> Acceptable regeneration includes a mixture of stump sprouts and seed origin seedlings of current species. Check for regeneration success next									
<u>Steps:</u> entry OI.									
36	33047036-CC	28.3	4133 - Aspen, Mixed Pine	High Density Pole	49	Harvest	Clearcut with Reserves	4133 - Aspen, Mixed Pine	Cmpt. Review Proposal
<u>Prescription</u> Clear-cut with Reserves. Cut all aspen, balm, paper birch, maple, ash, balsam fir and spruce. Mark white and red pine to be cut. Retain cedar,									
<u>Specs:</u> hemlock and beech.									
<u>Other</u> Exclude portions of the stand that were treated in the 2006 treatment. Also, maintain a buffer along the creek near the south boundary of the									
<u>Comments:</u> stand. Leave appropriate buffer along the stream south of the stand.									
<u>Next</u> Acceptable regeneration includes a mixture of suckering, stump sprouts and seed origin seedlings of current species. Check for regeneration									
<u>Steps:</u> success next entry OI.									
38	33047038-SC	10.4	42200 - Natural White Pine	Medium Density Log	74	Harvest	Single Tree Selection	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Select-cut red and white pine to 80-90 square feet of residual basal area. Cut all aspen, maple, balm, ash, birch, spruce and balsam fir. Retain									
<u>Specs:</u> hemlock, cedar and beech.									
<u>Other</u> Leave appropriate buffer along the stream north of the stand.									
<u>Comments:</u>									
<u>Next</u> Acceptable regeneration includes a mixture of suckering, stump sprouts and seed origin seedlings of current species. Check for regeneration									
<u>Steps:</u> success next entry OI.									



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
43	33047043_CC w/R	9.9	42210 - Natural Red Pine	High Density Log	76	Harvest	Clearcut with Reserves	42210 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clear-cut with reserves. Cut all trees except leave a few scattered trees for seed source.									
<u>Specs:</u>									
<u>Other</u>									
<u>Comments:</u>									
<u>Next</u> Scarify with anchor chains post-harvest. Write FTP for scarification at time the timber sale is setup. Acceptable regeneration includes red pine									
<u>Steps:</u> with a mixture of white pine, aspen, maple and balsam fir.									
43	33047043- Thin	37.9	42210 - Natural Red Pine	High Density Log	76	Harvest	Crown Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin red pine to 100-110 residual basal area. Follow in-stand retention guidelines.									
<u>Specs:</u>									
<u>Other</u> West boundary of treatment is approximate and will be determined when the sale is setup. Forest Islands ORV Trail is to be well signed for									
<u>Comments:</u> logging activity and logger must use extreme care when operating in the stand to avoid ORV users. No decking is allowed along the trail and hauling is restricted to week days only during the ORV season--weekend hauling (high ORV use) is not allowed.									
<u>Next</u> Regeneration is not expected.									
<u>Steps:</u>									
58	33047058-CC	13.2	4133 - Aspen, Mixed Pine	Medium Density Pole	71	Harvest	Clearcut with Reserves	4133 - Aspen, Mixed Pine	Cmpt. Review Proposal
<u>Prescription</u> Clear-cut with Reserves. Cut all species except mark to leave a few pine of various size classes for seed source and diversity. Also, mark a few									
<u>Specs:</u> decadent aspen and birch for snags.									
<u>Other</u> East and west portions of the stand are on slopes of a ridge but should be operable. Forest Islands ORV Trail is to be well signed for logging									
<u>Comments:</u> activity and logger must use extreme care when operating in the stand to avoid ORV users. No decking is allowed along the trail and hauling is restricted to week days only during the ORV season--weekend hauling (high ORV use) is not allowed.									
<u>Next</u> Acceptable regeneration includes a mixture of suckering, stump sprouts and seed origin seedlings of current species. Check for regeneration									
<u>Steps:</u> success next entry OI.									
20	NF_33047020- Cut	4.4	Non-Forested		0	Harvest	Clearcut	3102 - Grass	Cmpt. Review Proposal
<u>Prescription</u> Pest control. Cut and remove all scotch pine trees. Also, remove and treat any autumn/Russian olive shrubs.									
<u>Specs:</u>									
<u>Other</u> Several dozen plant of Russian/autumn olive found along the perimeter on the east, west and south boundaries. Scotch pine scattered									
<u>Comments:</u> throughout. Also, olive plants found on old RR grade east of stand toward river and along the road south of the stand.									
How will pest treatments be funded?									
<u>Next</u> Check and monitor for new regeneration of scotch pine and non-native olive plants. Treat appropriately if new plants are found.									
<u>Steps:</u>									
10	33047010- Spray	46.0	4134 - Aspen, Spruce/Fir	Low Density Sapling	12	Pesticide	Hand Sprayer	4134 - Aspen, Spruce/Fir	Cmpt. Review Proposal
<u>Prescription</u> Treat spotty occurrence of phragmites before it enlarges.									
<u>Specs:</u>									
<u>Other</u> Phragmites found along ORV trail/N-S road, north of E-W road along south boundary of stand, center of stand and along the west side of stand.									
<u>Comments:</u> Use combination of Glyphosate and imazapyr as outlined in literature. How will pest treatments be funded?									
<u>Next</u> Periodically check for treatment success.									
<u>Steps:</u>									

**Table 3 -- Treatments Prescribed
with No Limiting Factor**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
53 33047053-Spray	11.5	6120 - Lowland Cedar	Medium Density Pole	105	Pesticide	Hand Sprayer	6132 - Mixed Lowland Forest with Cedar	Cmpt. Review Proposal

Prescription Treat spotty occurrence of phragmites before it enlarges. Pest control. Phragmites in pockets observed in several areas of the stand. Also, high density observed in understory in the central portion of the stand. Spray to eliminate from the stand. Treatment to be determined. The stand is not far from ORV trail.

Other How will pest treatments be funded?

Comments:

Next Steps: Monitor annually for treatment effectiveness and repeat treatments as necessary.

**Total Treatment
Acreage Proposed: 280.3**

Table 4 -- Treatments Prescribed with a Limiting Factor



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription Specs:

Other Comment:

Next Steps:

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: 0

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2013



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
33002_OutOfY OE-Cut	0.7				Harvest	Clearcut with Reserves	6129 - Mixed Coniferous Lowland Forest	Cmpt. Review Proposal

Prescription Final harvest this stand, leaving some seed trees. Harvest this stand with stand 13 in comp 1.

Specs:

Other Decent quality tamarack and spruce stand.

Comments:

Next Steps: Manage this stand for a mix of tamarack and spruce primarily, but a mix with other lowland species is acceptable.

**Total Treatment
Acreage Proposed: 0.7**



Stand	Escanaba Mgt. Unit			5 – Forested Stands		Compartment: 047 Year of Entry: 2013
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4112 - Maple, Beech, Cherry Association	High Density Log	11.7	81	141-170	Many poor quality red maple log- and pole-sized trees. Some red and white pine seedlings in understory--not tall enough or abundant enough to tally. Other species found include cedar, paper and yellow birch, basswood, hard maple, beech and balsam fir. Other species observed include: cedar, paper and yellow birch, basswood, hard maple, beech and balsam fir.
2	6111 - Lowland Balsam Poplar	High Density Sapling	18.0	17		Mostly low ground with NE-SW low ridges of high ground. Cedar and hemlock residual from last treatment in 1994 are mostly in clumps. Some cedar and hemlock are scattered individuals. Some blow down. Lots of deer browse of black ash seedlings. Other species observed include: tamarack, hemlock, red and white pine and ash.
3	6118 - Lowland Deciduous with Cedar	High Density Pole	11.0	70	171-200	Mostly ash, birch, maple and some aspen over topping cedar. Some areas mostly E-type and other areas more cedar type. In some areas cedar very good quality posts and bolts; in other areas sweep and blow down. Other species observed include red maple.
4	6120 - Lowland Cedar	Medium Density Pole	7.8	120		Stand is slightly upland with some slope rising to the south. Nice quality cedar. Stand is a good travel corridor and seems to be well used by deer with lots of tracks through this area. Many large diameter balm trees and snags. Other species observed: red pine.
6	4130 - Aspen	High Density Sapling	32.4	3		Ground is mostly slightly upland with some lower ground in swales. Stand last treated in 2008--final harvest with reserves. Regeneration is patchy but mostly well stocked and dense with some sparse and more open. Nice annual height growth with 3-4 feet last year. More open area have red raspberries. Cedar poles are residual from last treatment. Also some scattered red and white pine and hemlock sawlog-sized trees.
7	6120 - Lowland Cedar	High Density Pole	29.0	121		Most of stand is cedar with overstory including ash/paper birch mix. Some areas are heavier to E-type but small areas. Many blow downs. Tamarack is mostly dead and going down. Where overstory has blown over, black ash and balsam fir are regenerating.
8	42340 - Upland Spruce/Fir	High Density Sapling	7.1	16		Mostly upland with some low ground with tag alder. Some areas are old strip cuts treated in 1960' or 1970's.
9	42350 - Upland Hemlock	High Density Log	10.4	139		Stand of mature hemlock on ridge. Also, a few old strip cuts in northern portion of stand that were treated in 1966. E-W road through stand.
10	4134 - Aspen, Spruce/Fir	Low Density Sapling	46.0	12		Stand is about 60% high land and 40% low land. Scattered hemlock and cedar trees and pockets. Also, scattered beech seedlings/saplings. Stand last treated in 1998. Other species observed: tamarack, red maple.
12	42340 - Upland Spruce/Fir	High Density Sapling	14.5	17		Mostly upland but some lowland with black ash and tag alder in lower areas. Nice mix of upland conifer with balm and red maple. Cedar is residual from last treatment in 1994.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
13	4130 - Aspen	High Density Pole	39.7	56	111-140	Mostly high ground. Aspen is overmature and declining. Other species observed: hemlock, white spruce.
14	6115 - Lowland Ash	High Density Pole	12.6	90	111-140	Lowland swale and low areas.
15	42110 - Planted Red Pine	High Density Pole	11.4	18	141-170	Trees 1 to 1.5 sticks/tree. Thin next entry when trees are 2 to 3 sticks/tree.
17	6120 - Lowland Cedar	High Density Pole	64.9	140		The majority of the stand is mature cedar with some sweep and windthrow. Much of the southern portion has overstory of deciduous trees and in places is nearly all E-type. The E-types are too small to map. North portion has old strip cuts from treatments in 1960's. Cut strips are mainly 30 % balm, 30% black ash, 30% paper birch and 10% balsam fir with some balsam fir regen in the understory. Central portion has a couple of 1-2 acre islands that were treated in 1983 and have regenerated to aspen which are 2-3" dbh. Other species observed: yellow birch, black spruce, balsam fir, red maple.
18	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	5.6	84	141-170	Stand has some high land but mostly lowland. Some trees are blowing over.
19	4130 - Aspen	High Density Sapling	22.7	4		Nice regen, 10-20 feet tall, mostly well-stocked but some areas are medium stocked. White pine residual are mostly limby wolf trees. Other species observed: ironwood, cedar and hemlock. C and H are residual from last treatment.
21	4319 - Mixed Upland Forest	High Density Log	13.4	81	141-170	Mostly upland with a drain through it. Most of stand is Mr/H type but some areas are more red maple type while others are E-type and others are nearly pure hemlock type. Understory species are in the E-type pockets. Other species observed: white pine.
22	4191 - Mixed Upland Deciduous with Conifer	High Density Log	19.7	73		SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat. Mostly high ground but some areas are low--flood plain. Also, an old river channel runs along a portion of the stand.
23	4113 - R.Maple, Conifer	Medium Density Pole	22.6	62	81-110	Other species found: paper birch, white spruce, beech
24	4199 - Other Mixed Upland Deciduous	High Density Pole	0.3	25		Two small islands in Big Cedar River. Observed from west bank of river. Not previously inventoried. Observed wood duck boxes on south end of south island. SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.
26	4119 - Mixed Northern Hardwoods	High Density Pole	24.1	84	81-110	Birch is dying out. NW portion of stand is wetter with some upland with paper birch/red maple type and some black ash type with tag alder in understory. Stand also wetter along the western boundary near lowland brush type.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
27	4133 - Aspen, Mixed Pine	High Density Pole	6.1	86	111-140	Old state forest campground is in this stand. Other species observed: white spruce. SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.
28	4112 - Maple, Beech, Cherry Association	High Density Log	0.4	80		Island in Big Cedar River not previously inventoried. Might also have silver maple. SCA riparian corridor.
29	4130 - Aspen	High Density Sapling	28.1	32		Stand mostly upland but some lowland and swales with ash, tag alder and Michigan holly. Main stand growing well and well stocked. Stand has several pockets of hemlock and cedar. Also, scattered individuals of hemlock, cedar, super-canopy white pine/red pine and beech. Other species observed Hemlock log, cedar poles, paper birch saplings and beech saplings/poles.
31	4113 - R.Maple, Conifer	High Density Log	19.0	76	111-140	Stand encompasses portions of the old state forest campground. Mostly upland but also contains an ash swale in the middle of the stand. Other species observed: red pine, green ash, hemlock. SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.
32	6123 - Lowland Fir	Medium Density	17.7	25		Mostly lowland with some upland. Occasional low stocked areas. A grassy old beaver pond (?)/vernal pool in the east central portion of the stand that is dry now--perimeter with willow. A red/white pine upland area in the southeastern portion of the stand.
33	4133 - Aspen, Mixed Pine	High Density Sapling	16.6	4		Nice regen. Residual white pine in good shape.
34	4112 - Maple, Beech, Cherry Association	High Density Pole	6.6	79	81-110	Other species observed: white spruce log, aspen pole.
35	429 - Mixed Upland Conifers	High Density Pole	41.2	16		Mostly upland (65%) but some lowland. Last treated in 1994. Scattered pockets of mature hemlock and cedar as well as scattered individuals of log/pole red maple, hemlock, cedar, white/red pine and beech.
36	4133 - Aspen, Mixed Pine	High Density Pole	34.6	49	81-110	Portions of stand treated in 2006. Creek near south border of stand. Other species observed: white spruce.
38	42200 - Natural White Pine	Medium Density Log	10.4	74	111-140	Stand variable--some areas mostly white pine, others are more mixed upland deciduous/conifer and some mostly red pine. Last treated in 1984 except eastern portion treated in 2006.
39	4130 - Aspen	High Density Pole	68.7	27		Mostly upland (65%) with lowland (35%). Lowland has black ash, balm and tag alder. Other species observed: paper birch, white spruce.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	42200 - Natural White Pine	Low Density Log	6.3	85		East portion of stand white pine with some red pine. West portion is M6 with red maple, paper birch and some quaking aspen and white pine. Stand last treated in 2006. Most of stand is about 50% canopy closer but some is more and some is less.
41	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	43.0	90	141-170	Northern hardwood type in the south and central portions but more hemlock/white pine and cedar types in the northern portion. Some portions are flood plain. Other species observed: red pine. SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.
42	4130 - Aspen	Medium Density	11.5	4		Generally decent regen. Mostly well stocked but lighter in some areas. Mostly upland but some lowland, too. Scatter white pine log and beech pole trees. Red maple and black ash stump sprouts are browsed but some will make it above the deer this year. Other species observed: red pine.
43	42210 - Natural Red Pine	High Density Log	47.7	76		Very nice quality poles. More white pine in northeastern portion of stand. ORV trail runs through north and eastern portions of stand. Trees are dying in the northwestern portion of the stand and should be examined by pathologist.
44	4139 - Aspen, Mixed Deciduous	Medium Density	16.6	5	1-50	Stand shelterwood cut in 2005. Mostly aspen suckers and red maple stump sprouts--nice growth. Also, some beech regeneration scattered through the stand. Residual hemlock, cedar, red maple and ash poles and white and red pine logs. Some areas are heavy to w/r pine sawlog trees.
46	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	12.0	14		Most of stand is lowland but some is upland. Most of stand is medium stocking density but patches are well stocked and some are low density. Some residual cedar poles have blown over. Stand last treated in 1995-96. Other species observed: white spruce.
47	6132 - Mixed Lowland Forest with Cedar	Low Density Pole	49.3	95	81-110	Most of stand e-type with cedar. More cedar in northern portion of stand. Lots of tag alder and holly in understory throughout.
48	4133 - Aspen, Mixed Pine	High Density Sapling	11.2	26		Stand is variable but most of stand is A3/R7 with some areas heavier to red and white pine logs and some mostly red pine.
50	4136 - Aspen, Mixed Conifer	Medium Density	34.8	11		Mostly slightly upland with patches of upland and lowland/swales. Scattered white/red pine logs, hemlock logs and cedar poles. Swales of black ash and cedar and tag alder. Other species observed paper birch poles and white pine seedlings/saplings.
51	4130 - Aspen	High Density Pole	33.3	39		Approx 70% upland and 30% lowland. Some lowland areas are green/black ash swales with balsam fir, others are black ash and tag alder. The N-S road goes between what appears to be two vernal pools in the central portion of the stand. Other species observed: cedar, paper birch.

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Escanaba Mgt. Unit

5 – Forested Stands

Compartment: 047
Year of Entry: 2013

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	6120 - Lowland Cedar	Low Density Pole	20.2	95		Mostly scattered cedar poles and saplings with 1-2 sticks/tree. Many leaners with sweep. Smaller trees in northern portion and bigger trees with more black ash and black spruce in the southern portion. Lots of tag alder and holly throughout stand.
53	6120 - Lowland Cedar	Medium Density Pole	11.5	105		Found several pockets of phragmites throughout the stand. Largest area is in the central portion of the stand. This area may be most difficult to remove since it is growing in the understory of the cedar poles. Observed blown-over cedar through the stand.
54	6115 - Lowland Ash	Low Density Pole	13.7	80		Mostly scattered trees but occasional pockets of well stocked poles. Heavy to tag alder throughout.
55	42340 - Upland Spruce/Fir	Low Density Sapling	16.1	16		Mostly upland but lowland, too. Most of stand is low stocked but pockets are well-stocked. Other species observed: red and white pine.
57	42290 - Natural Mixed Pine	High Density Log	20.6	95	51-80	Stand variable. SE corner of stand is lowland spruce.
58	4133 - Aspen, Mixed Pine	Medium Density Pole	13.2	71	111-140	Most of stand is on N-S ridge. ORV trail uses N-S road through stand. Big-toothed aspen is over-mature. West and east edges of stand steep slope but operable.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	3301 - Low Density Deciduous Tree	9.8	No	Unspecified	
11	6220 - Alder/willow	53.8	No	Unspecified	
16	3102 - Grass	2.2	No	Unspecified	old abandoned field on 1925 maps. A few conifers are starting to grow along the perimeter.
20	3104 - Degraded	4.4	No	Medium (NonForested)	
25	50 - Water	9.0	No	Unspecified	Big Cedar River
30	6220 - Alder/willow	13.7	No	Low (NonForested)	Previous inventory notes mention beaver ponds.
37	6220 - Alder/willow	2.6	No	Low (NonForested)	
45	6220 - Alder/willow	35.5	No	Unspecified	
49	6220 - Alder/willow	11.7	No	Unspecified	
56	6220 - Alder/willow	6.5	No	Unspecified	



7 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Stand	SCA Type	SCA Name	Acres	Comments
22	Unique Site - SCA	33047022	19.7	SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.
24	Unique Site - SCA	33047024	0.3	SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.
27	Unique Site - SCA	33047027	6.1	SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.
28	Unique Site - SCA	33047028	0.4	SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.
31	Unique Site - SCA	33047031	19.0	SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.
41	Unique Site - SCA	33047041	43.0	SCA--Big Cedar River riparian corridor. Mature forest conditions will be maintained to promote large diameter trees, cavities, snags and dead woody debris for wildlife habitat.



8 – 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.

Cover Type & Treatment Map

Compartment 47
 T36N, R25W, Sec. 28, 33
 County: Menominee
 Unit: Escanaba
 YOE: 2013
 Acres: 1169 GIS Calculated
 Stand Examiner: Joe Durbin
 Map Revised: 7/28/2011
 Map Phase: Pre-Review

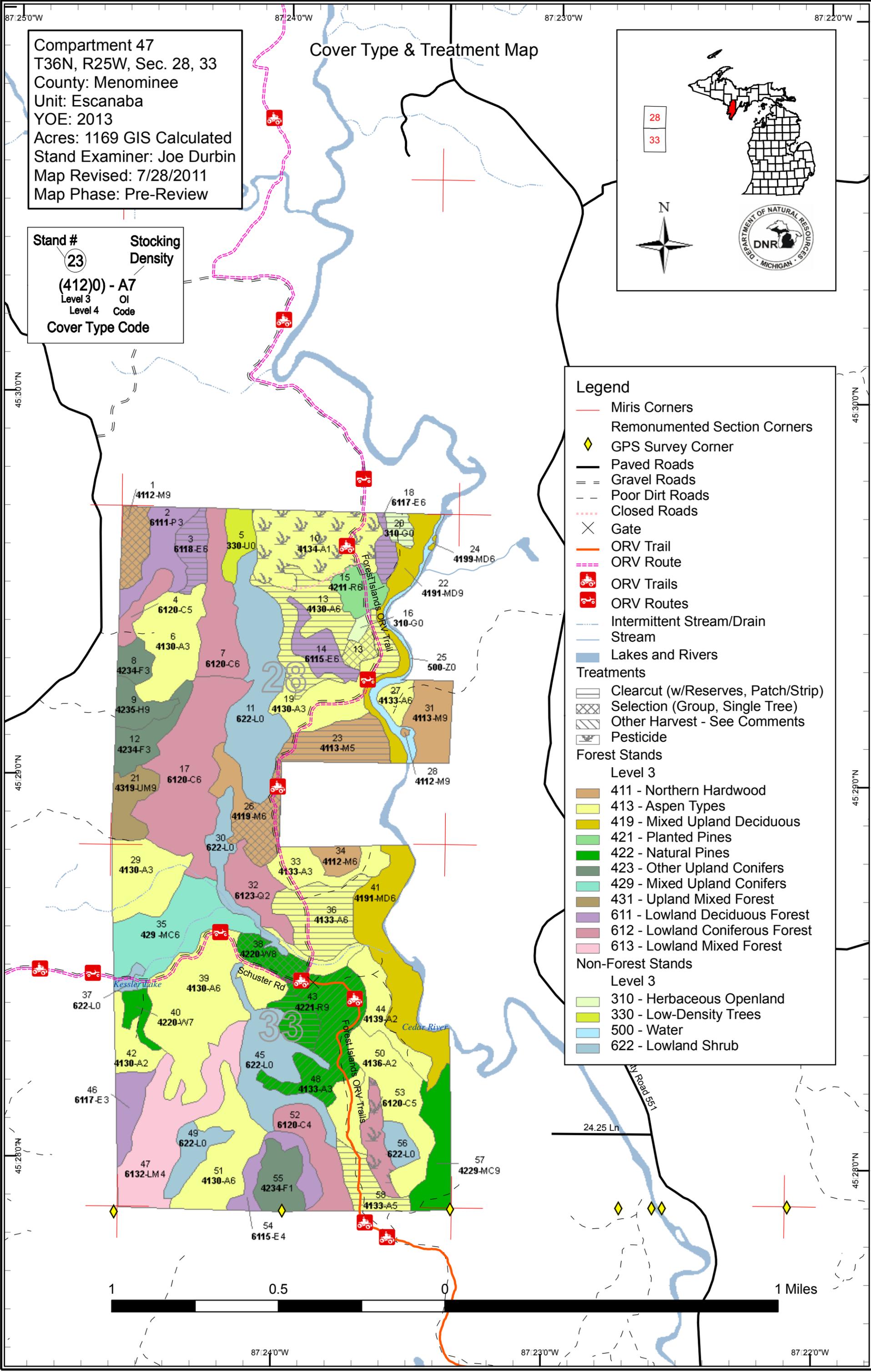
Stand #
 23
Stocking Density
 (4120) - A7
 Level 3 OI
 Level 4 Code
Cover Type Code

28
33



Legend

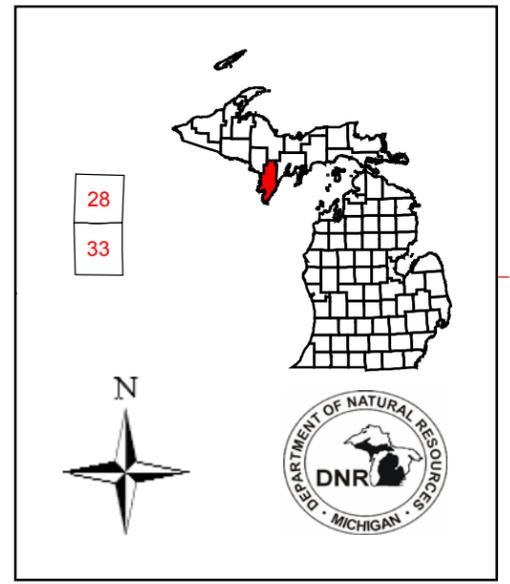
- Miris Corners
- Remonumented Section Corners
- ◆ GPS Survey Corner
- Paved Roads
- - Gravel Roads
- - Poor Dirt Roads
- - Closed Roads
- ⊗ Gate
- ORV Trail
- ORV Route
- ORV Trails
- ORV Routes
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
- Selection (Group, Single Tree)
- Other Harvest - See Comments
- Pesticide
- Forest Stands**
- Level 3**
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3**
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub



87:25:0"W 87:24:0"W 87:23:0"W 87:22:0"W

Compartment 47
T36N, R25W, Sec. 28, 33
County: Menominee
Unit: Escanaba
YOE: 2013
Acres: 1169 GIS Calculated
Stand Examiner: Joe Durbin
Map Revised: 7/28/2011
Map Phase: Pre-Review

Dedicated & Proposed Special Conservation Area Map



Stand # **Stocking Density**
②③
(412)0 - A7
Level 3 OI
Level 4 Code
Cover Type Code

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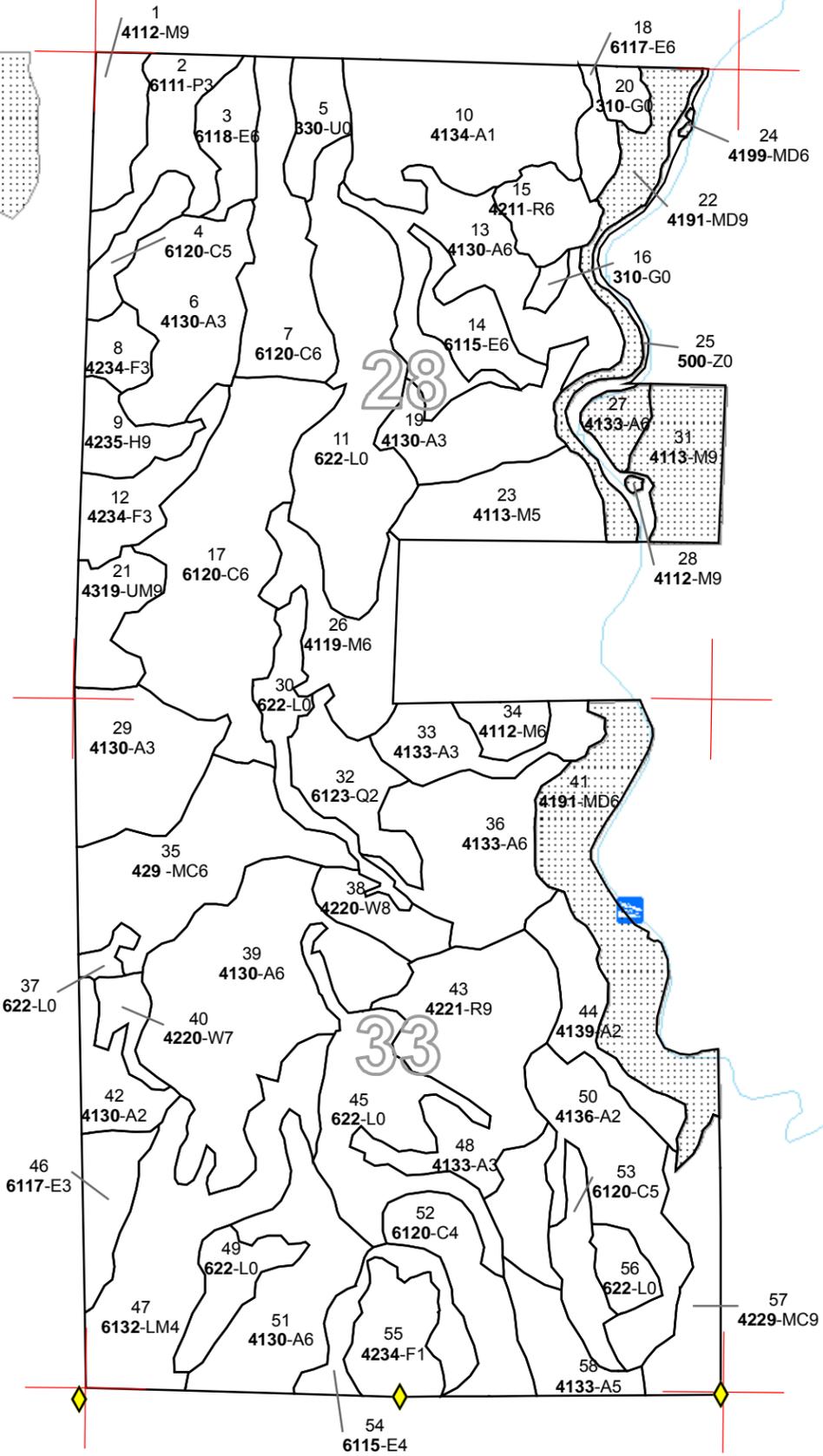
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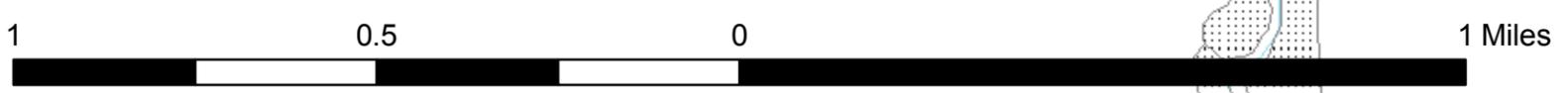
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45:28:0"N



Legend

- Miris Corners
- Remonumented Section Corners
- ◆ GPS Survey Corner
- Stand Boundaries
- Proposed Special Conservation Areas
- ▤ SCA - Special Conservation Area
- ▥ SCA Removal
- Dedicated Special Conservation Areas
- Boat Access Sites
- ▲ Campgrounds
- Cold Water Streams
- Forest Stands
- Level 3
- 411 - Northern Hardwood
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
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87:25:0"W 87:24:0"W 87:23:0"W 87:22:0"W