



**Escanaba Forest Management Unit  
Compartment Review Presentation  
Compartment 48 Entry Year: 2012  
Compartment Acreage: 2,216 County: Menominee**

---

**Revision Date:** August 25, 2010

**Stand Examiner:** Joe Durbin, Forester, FMD; Bill Rollo and Craig Albright, Wildlife Division

**Legal Description:** T36N R25W Sections 29, 30, 31, and 32.

**Identified Planning Goals:** Green Bay Lake Plain

**Management Goals:** This compartment is part of a large block of state-owned land located about 9 miles northeast of Stephenson, Michigan in central Menominee County. The northwest portion of the compartment lies within Eco-Region 8.3—Menominee End Moraine, while the southeast portion lies within Eco-Region 8.1—Green Bay Lake Plain. A large wetland complex, Durow Marsh, lies in the northwestern portion of the compartment.

The compartment is a mix of lowland and upland forest types and non-forested types. Lowland types are primarily cedar, swamp conifer, lowland hardwoods and lowland brush. Upland types are aspen and northern hardwoods. Approximately 246 acres of 10 stands are proposed for treatment. No prescribed stands are factor limited. Of the proposed treatments, approximately 10 acres (2 stands) are select-cut, 231 acres (7 stands) are final harvest with reserves and 5 acres (1 stand) are thinning. Several of the stands which are proposed final harvest with reserves are mixed deciduous/red maple cover-types. They are proposed for treatment at this time because the deer populations in this area are low and regeneration of nearby similarly treated stands has been successful. Elwood Creek flows through the western portion of the compartment.

The US Forest Service North-Central Forest Experiment Station in Grand Rapids, Minnesota has hardwood regeneration research plots in Stand 60. At this time, the research station has not indicated if they wish to continue their study or to retreat their plots.

**Soil and Topography:** The topography is mostly level to gently rolling with some eskers. The soils are primarily poorly-drained muck and peat, poorly-drained sands and well-drained sands. The major soil series are Loxley, Dawson, Lupton, Tawas, Onaway and Rousseau.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** This compartment is well blocked with no private in-holdings. Elwood Creek flows through the western portion of the compartment. Private land west and north of this compartment is used mainly for farming and recreation--mainly hunting, trapping, ORV riding and fishing. Several private landowners reside near the compartment; however, there are also many absentee owners.

The state owns a narrow strip of land 33 feet wide for a road right-of-way in the NWSW section 31 T36N R25W. The strip is the present location of an unused, very wet, winter-only trail to access the main block of state ownership and has private land north and south of it. It is located on very poor soils for a road and better access has been developed in the SWSW of section 31, 1/8 mile south to the south to access the same block of land. This strip serves no useful purpose and could be disposed.

**Unique, Natural Features:** The compartment contains a large portion of the Durow marsh and portions of Elwood Creek. Most of the proposed Elwood Creek Northern Non-Forested Wetland (NNFW), a Biodiversity Stewardship Area (BSA) lies within the western portion of the compartment. The Michigan Natural Features Inventory GIS layer indicates that no known threatened or endangered element occurrences are within this compartment, but a survey of the marsh could be useful to locate additional T&E species. An animal element occurrence may exist east of the compartment.

**Archeological, Historical, and Cultural Features:** None are known within the compartment.

**Special Management Designations or Considerations:** None at this time. However, stands within and near the Durow Marsh in the northwest portion of the compartment are proposed for the Elwood Creek NNFW BSA.

**Watershed and Fisheries Considerations:** Elwood Creek flows north to south in the western portion of the compartment. The Little Cedar River flows north to south about one mile east of the compartment.

**Wildlife Habitat Considerations:** The most notable habitat feature in this area is a large complex of treed bog, cedar, swamp conifer, and spruce which makes up the western 2/3 of the compartment. Little is possible in the way of timber or habitat treatments in this sector, so the lowland complex will be maintained as a Special Conservation Area in which natural processes will be allowed to operate. The predominant treatment being proposed this decade is final harvest of red maple dominated stands on the east edge of the compartment to regenerate red maple via stump sprouting or release established regeneration. Un-harvested residual of cedar and hemlock trees will add diversity and wildlife cover to the developing stands.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of medium-textured glacial till in drumlins and lacustrine (lake) sand and gravel. There is approximately 70 feet of relief in the compartment. The glacial drift thickness varies between 10 and 50 feet. The Ordovician Trenton and Black River Formations underlie the glacial drift. These formations are used for stone/dolomite near Escanaba. The closest gravel pit is located about a mile north of the compartment. There appears to be potential for additional gravel in some of the uplands in this compartment. No economic oil and gas production has been found in the UP.

**Vehicle Access:** Access into this compartment from the west is from County Road 358, from the north through compartment 46 and from the east through compartment 47 using the Schuster Road. The Westman Road, a county gravel road, traverses north-south through the eastern portion of the compartment.

**Survey Needs:** Sections 30 and 31 have some unusual east-west lines and few registered corners. Eight survey corners along the western boundary of the compartment are needed for the recommended treatments.

**Recreational Facilities and Opportunities:** Popular recreation includes ATV and snowmobile riding, hunting, trapping, and fishing. Portions of the Forest Islands Trail use the Westman and Schuster Roads in the eastern and southeastern portions of the compartment. This is a very popular trail used by ATVs and snowmobiles.

**Fire Protection:** The compartment has a low risk for wildfire due to the current timber types and extent of poorly drained soils. However, if wildfires do occur, access into the eastern portion is excellent using Westman and Schuester Roads and other forest roads. If wildfire occurs west of Westman Road and east of Elwood Creek, limited access is available. If this area is designated as Elwood Creek NNFW BSA, wildfire control might be adjusted by the wildfire plan for the BSA.

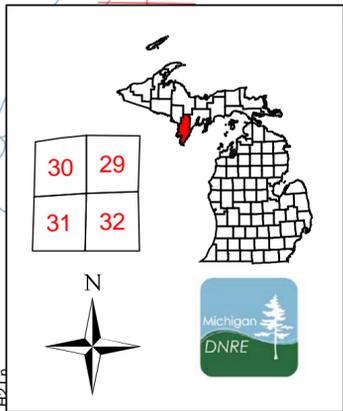
**Additional Compartment Information:** A narrow strip of ownership in NWSW section 31 should be considered for disposal.

- **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**

# Cover Type & Treatment Map

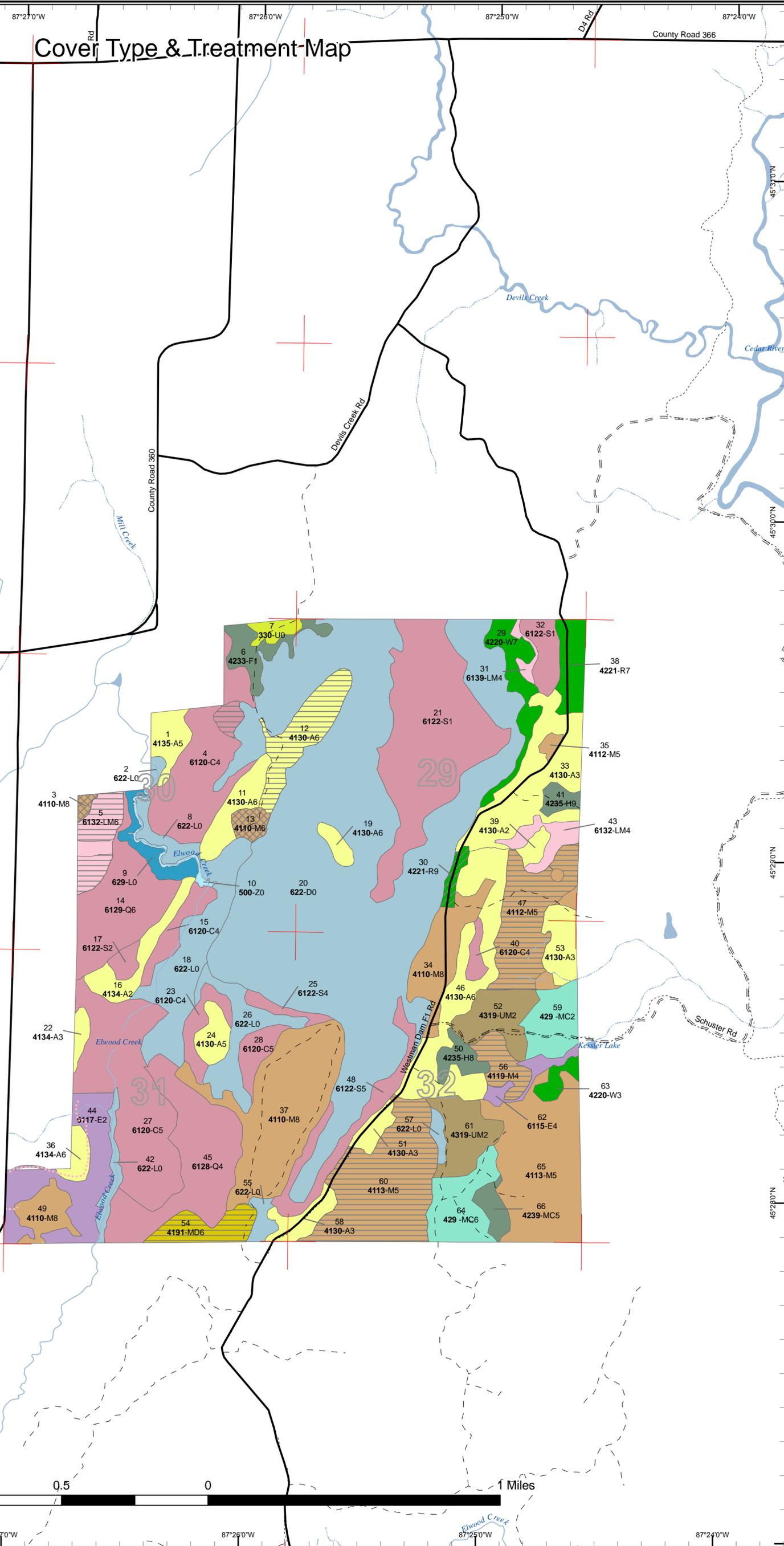
Compartment 48  
 T36N, R25W, Sec. 29-32  
 County: Menominee  
 Unit: Escanaba  
 YOY: 2012  
 Acres: 2,216 GIS Calculated  
 Stand Examiner: Joe Durbin  
 Map Revised: 8/26/2010  
 Map Phase: Pre-Review

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



## Legend

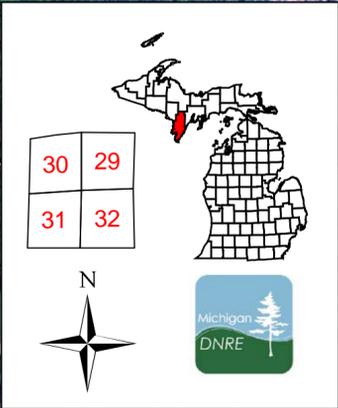
- Miris Corners
  - Paved Roads
  - - Gravel Roads
  - - Poor Dirt Roads
  - ... Closed Roads
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
  - ▨ Thinning (Crown, Low, Systematic)
  - ▩ Selection (Group, Single Tree)
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 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
- 330 - Low-Density Trees
  - 500 - Water
  - 622 - Lowland Shrub
  - 629 - Mixed non-forested wetland



# Stand Boundary Map

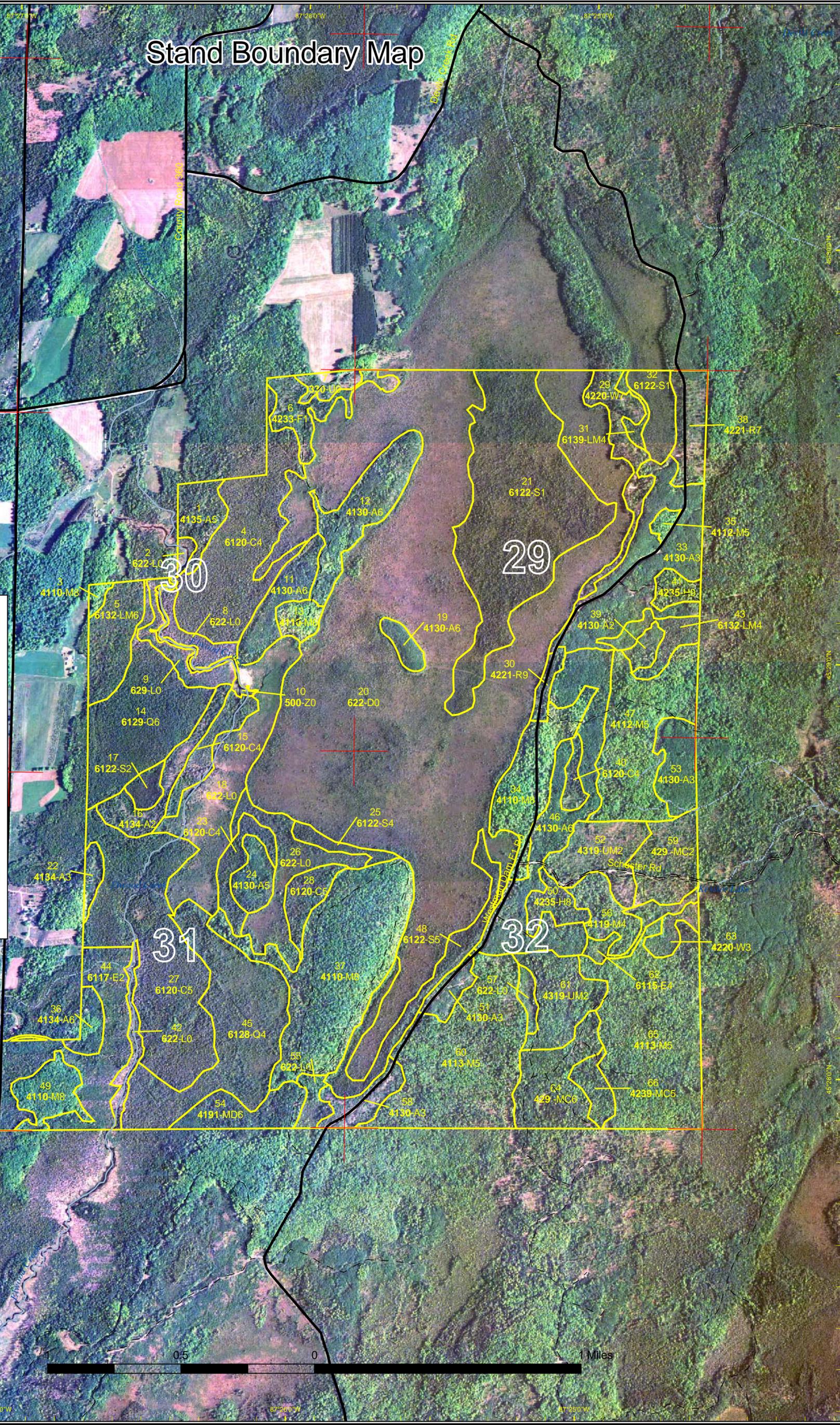
Compartment 48  
 T36N, R25W, Sec. 29-32  
 County: Menominee  
 Unit: Escanaba  
 YOE: 2012  
 Acres: 2,216 GIS Calculated  
 Stand Examiner: Joe Durbin  
 Map Revised: 8/26/2010  
 Map Phase: Pre-Review

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



## Legend

- Miris Corners
- Paved Roads
- == Gravel Roads
- - Poor Dirt Roads
- Stand Boundaries
- Non-Forest Stands
  - Level 3
  - 330 - Low-Density Trees
  - 500 - Water
  - 622 - Lowland Shrub
  - 629 - Mixed non-forested wetland
- Forest Stands
  - Level 3
  - 411 - Northern Hardwood
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 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







## 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.

*Data updated before 10:00 AM*

Stand	SCA Type	SCA Name	Acres	Comments
1	Unique Site - SCA	33048001-sca	14.2	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional forest.
4	Unique Site - SCA	33048004-sca	67.7	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional forest.
14	Unique Site - SCA	33048014-sca	58.5	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional forest.
15	Unique Site - SCA	33048015-sca	13.8	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional forest.
19	Unique Site - SCA	33048019-sca	5.8	SCA-Durow marsh. Manage for late successional forest.
21	Unique Site - SCA	33048021-sca	130.4	SCA-Durow marsh. Manage for late successional forest.
23	Unique Site - SCA	33048023-sca	12.6	SCA-Durow marsh. Manage for late successional wetland forest.
24	Unique Site - SCA	33048024-sca	11.5	SCA-Durow marsh. Manage for late successional forest.
27	Unique Site - SCA	33048027-sca	73.6	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional wetland forest.
31	Unique Site - SCA	33048031-sca	3.7	SCA-Durow marsh. Manage for late successional wetland forest.
32	Unique Site - SCA	33048032-sca	14.6	SCA-Durow marsh. Manage for late successional wetland forest.
45	Unique Site - SCA	33048045-sca	77.1	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional wetland forest.
2	Unique Site - SCA	NF_33048002	2.4	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional forest.
8	Unique Site - SCA	NF_33048008-sca	9.4	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional forest.



## 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.

*Data updated before 10:00 AM*

Stand	SCA Type	SCA Name	Acres	Comments
9	Unique Site - SCA	NF_33048009-sca	11.9	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional forest.
10	Unique Site - SCA	NF_33048010-sca	4.7	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for water and wetlands.
18	Unique Site - SCA	NF_33048018-sca	59.2	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for late successional forest.
20	Unique Site - SCA	NF_33048020-sca	529.0	SCA-Durow marsh. Manage for non-forested wetland.
26	Unique Site - SCA	NF_33048026-sca	29.3	SCA-Durow marsh. Manage for non-forested wetland.
42	Unique Site - SCA	NF_33048042-sca	9.0	SCA-Elwood Creek riparian corridor and Durow marsh. Manage for water and wetlands.



Stand	Cover Type	Acres	Gen Cmts:
2	6229 - Mixed lowland shrub	2.4	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Elwood Creek flows N to S through stand. Up to the creek the stand is scattered dead and down cedar with some live cedar poles. Probably beaver activity flooded the area and killed the trees in the past. Dam gone now.
7	3303 - Mixed Low Density Trees	6.6	Low density trees. About 1/4 acres appears to be tilled by neighbor--check during no-snow conditions this spring. About 0.8-1.0 acres has been trespassed by the adjacent neighbor to the north. The opening is tilled and planted with the adjacent field.
8	6220 - Alder/willow	9.4	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Stand once flooded by beaver dam on Elwood Creek. Dead cedar pole-sized trees killed by high water levels years ago. Tag alder starting to grow with scattered tamarack seedlings.
9	629 - Mixed non-forested wetland	11.9	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Mostly grasses with low shrubs. Edges are tag alder with lots of dead cedar killed by beaver from past activity. Dam now gone.
10	50 - Water	4.7	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Elwood Creek.
18	6220 - Alder/willow	59.2	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh.
20	6224 - Treed Bog	529.0	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Durow Marsh. Area was FTP to be prescribed burned in 1980 but was not completed. Maybe part of Elwood Creek NNFWS BSA.
26	6220 - Alder/willow	29.3	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Some areas are mostly holly while other areas are mostly tag alder. Portions have more trees (mostly tamarack) but these areas only have 30-35% crown closure.
42	6229 - Mixed lowland shrub	9.0	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. very wet site. Elwood Creek flows from N to S through stand. Stand is mostly sedges/grass with trees and shrubs around the perimeter.
55	6220 - Alder/willow	6.3	Tag Alder
57	6229 - Mixed lowland shrub	4.4	Most of area is tag alder and holly but some areas are open water.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4135 - Aspen, Cedar	Medium Density Pole	14.2	70	81-110	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Stand is variable--dense and sparse. It is a mixture of high and low ground but mostly higher ground. Stand is over-mature and starting to deteriorate. Best access is through private to the north or west. If not treated, it will probably succeed to fir/spruce/cedar and eventually pine/hemlock/red maple and discourage beaver from nearby Elwood Creek.
3	4110 - Sugar Maple Association	Medium Density Log	2.4	80	51-80	Mostly poor quality sugar maple due to defect and rot.
4	6120 - Lowland Cedar	Low Density Pole	67.7	120		SCA--Elwood Creek Lowland/Riparian Corridor. Most of stand is 1-2 stick cedar with many leaning, tip-over or down trees. A few areas are larger diameter taller trees with higher crown closure and one area about 7-8 acres of tamarack.
5	6132 - Mixed Lowland Forest with Cedar	High Density Pole	23.6	87	141-170	Lots of blown-over and leaning trees in the south part. North part is more balm-type.
6	42330 - Upland Fir	Low Density Sapling	17.4	30		Stand is variable. Scattered pockets of cedar/fir/spruce poles and pockets of aspen/balm/fir regen. In spring 2007, 9M white spruce seedlings planted in openings. Need to check during no-snow conditions to determine survival.
11	4130 - Aspen	High Density Pole	19.1	32		Southern portion of stand has many aspen stems cut by beaver approx 4-5 years ago but no recent activity.
12	4130 - Aspen	High Density Pole	32.9	62	111-140	Stand is mature to over-mature and should be treated now. North portion is deteriorating. Pockets of smaller diameter aspen scattered in stand.
13	4110 - Sugar Maple Association	High Density Pole	7.4	80	111-140	Mostly fair to good quality hard maple. Some areas have dense fir sub-canopy. Other species found: quaking aspen, black cherry, white ash.
14	6129 - Mixed Coniferous Lowland Forest	High Density Pole	58.5	91	171-200	SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Fairly wet site. Tamarack and black spruce over cedar mostly. Some areas more birch and ash than tamarack and spruce. Some areas more sparse and trees are shorter. Some areas with more blow-down and leaner trees.
15	6120 - Lowland Cedar	Low Density Pole	13.8	60		SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Tag alder throughout the stand and very dense in more open areas. Beaver runways from aspen stand to the west toward stream to the east. Scattered wind-throw. Some areas are standing dead cedar due to high water in places.
16	4134 - Aspen, Spruce/Fir	Medium Density	18.7	13		Old beaver activity on the aspen regen. Cedar poles are residual from final harvest.
17	6122 - Black Spruce	Medium Density	5.8	85		wet bog type area. bigger trees at the perimeter where ground is better drained. ground cover is mainly sphagnum and leatherleaf.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	4130 - Aspen	High Density Pole	5.8	32		SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Nice stand of big-toothed aspen on island in treed bog. Lots of braken fern ground cover. Scattered balsam understory with occasional black cherry and scattered white pine poles. Reason for AOI: there is very little pine or hemlock on this island--ask WLD if they would like to underplant the stand with pine, hemlock and/or red oak?
21	6122 - Black Spruce	Low Density Sapling	130.4	101		SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. and S/D varies--pockets of poles, saplings and seedlings scattered throughout stand. Ground cover is labrador tea and leatherleaf. Very wet and boggy site.
22	4134 - Aspen, Spruce/Fir	High Density Sapling	5.0	14		quaking aspen more abundant along the eastern portion of the stand while balsam fir is more abundant along the western portion. cedar poles are residual from last treatment--final harvest.
23	6120 - Lowland Cedar	Low Density Pole	12.6	78		SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Some portions are high density cedar. North and south portions of stand are mostly tamarack and black ash with tag alder medium density in understory.
24	4130 - Aspen	Medium Density Pole	11.5	39		SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Mostly and island of high ground with low ground along the perimeter.
25	6122 - Black Spruce	Low Density Pole	6.3	47		Mostly b spruce 1-3 s/t and some tam. Lots of holly brush. Other species found: white pine, black ash.
27	6120 - Lowland Cedar	Medium Density Pole	97.0	101		SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Quality of timber varies--some areas very nice, straight dense poles and others on wetter sites more blowdown, windthrown and leaning trees. Occasional low ridge east of Elwood Creek.
28	6120 - Lowland Cedar	Medium Density Pole	11.7	85		Stand mostly uncut cedar strips. Cut strips were treated in 1960's and today are mostly black ash, paper birch, aspen and fir sapling/poles. Also, pockets of hemlock/red maple. Other species found: hemlock, white pine.
29	42200 - Natural White Pine	Low Density Log	22.0	98		Stand last treated on contract 027-02-01 in 2003. A pocket of hemlock lies in east tip near middle of stand.
30	42210 - Natural Red Pine	High Density Log	5.3	82	111-140	Westman Dam Rd runs N-S through stand. NE portion of stand is Mr and C poles with Sb and asp regen.
31	6139 - Mixed Lowland Forest	Low Density Pole	3.7	60		SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh.
32	6122 - Black Spruce	Low Density Sapling	14.6	62		SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Spruce bog with leatherleaf ground cover. Other species found: white pine, red pine.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
33	4130 - Aspen	High Density Sapling	58.7	23		Stand last treated in 1978-1980--final harvest. Scattered R & W pine sawlog/super-canopy trees. Most of BTA is west of the county road or along the east side of the road. Most of the stand is on higher ground but some lower wetter areas are included. Other species found: balsam fir, hemlock, red pine, tamarack, white pine.
34	4110 - Sugar Maple Association	Medium Density Log	34.2	80	81-110	Stand last treated in 1993 on contract 020-92-01. About 10-12 acres located west of county road was treated in 2002 on contract 033-02-01. Other species found: quaking aspen, balsam fir, beech, cedar.
35	4112 - Maple, Beech, Cherry Association	Medium Density Pole	2.8	70	51-80	Generally good quality HM and BW poles with some small log trees. Stand last treated on contract 033-02-01 in 2002.
36	4134 - Aspen, Spruce/Fir	High Density Pole	7.9	35	51-80	trees are bigger in the northern portion with higher percent of aspen but smaller trees and more balsam in the southern portion. most of stand has dense understory of balsam. A 1-2 acre northern hardwood stand is included near the central area of the stand. it is mostly pole-sized hard maple with white ash and scattered aspen and paper birch. the cedar poles are residual from last treatment in 1974.
37	4110 - Sugar Maple Association	Medium Density Log	95.8	80	81-110	The hill on which this stand lies is locally known as Basswood Hill. The long narrow portion of the stand extending to the NW is mostly a low ridge with red maple, paper birch, balsam, cedar and some white pine and pockets of hemlock.
38	42210 - Natural Red Pine	Low Density Log	18.1	64		Most of red pine (R7) is along both sides of the county road. East of R7 is A3 cut in 2002. A 2 acre patch of the stand located along the north compartment boundary and east of the county road was harvested in 1984. Other species found: Quaking aspen, balsam fir, Big tooth aspen.
39	4130 - Aspen	Medium Density	5.2	31		Middle of stand higher ground with lower ground to the N and E. Balm is more to the perimeter of stand.
40	6120 - Lowland Cedar	Low Density Pole	5.5	74		Most of the remaining cedar is generally poor quality--had to bore 4 trees to count a solid core to the center. Balm, black ash and white spruce regen mainly in more open areas.
41	42350 - Upland Hemlock	High Density Log	6.6	99		Stand varies. Most of stand has hemlock. Some areas are mostly hemlock but other areas are more cedar and/or red maple. Some areas are fully stocked and other areas are more open. Other species found: white pine, white ash, yellow birch.
43	6132 - Mixed Lowland Forest with Cedar	Low Density Pole	12.9	68		Mostly E-type swale with C, P, F and Mr. A stand of A3 in eastern portion of stand on high ground--about 1 acre in size.



Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	51.3	35		Stand is a conglomerant of cedar stripcuts of various ages. About 19% (9.5 acres) is still the original uncut C6 type with YOO about 1904-1910. The remainder of the stand is Q3, Q2, E3 or P3 regeneration following the strip final harvests. About half (25 acres) was harvested in 1974 and about one third (16.5 acres) was harvested in 1987. The eastern portions of the stand seem to have more tag alder and fewer trees. Islands of higher ground with F3 are scattered within the stand. The cedar pole volume in the canopy species is residual from the final harvests. Other species found: tamarack.
6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	77.1	89		SCA--Elwood Creek Lowland/Riparian Corridor/Durow marsh. Other species found: red maple
4130 - Aspen	High Density Pole	62.9	29		Some portions of stand are low ground but most of stand is higher. Stand last treated over a period of year between 1978- 1980. Other species found: big-toothed aspen, white spruce, cedar (residual poles).
4112 - Maple, Beech, Cherry Association	Medium Density Pole	56.3	75	81-110	Mostly higher ground but several swales, too. Other species found cedar, black ash, yellow birch, white pine, beech (seedlings). Red maple age 71-75+ and is very poor quality--lots of defect. Some trees are breaking-off or tip-overs.
6122 - Black Spruce	Medium Density Pole	28.7	58		Stand varies--some areas nearly pure black spruce but along road is more white pine super canopy. Tag alder along edges.
4110 - Sugar Maple Association	Medium Density Log	16.8	80	81-110	upland island of northern hardwoods mostly maple. scattered wind-blown or damaged trees--mostly white ash and basswood. hemlock and cedar are mostly near the perimeter transition into the surrounding lowlands. Slash is from last treatment in 2005- 2006. Stand also treated in 1985. May 2010--Revisited stand to check hardwood regeneration but there is none. The residual basal area maybe too high and the forest floor is carpeted with sedge and/or grass.
42350 - Upland Hemlock	Medium Density Log	10.0	51		Most of stand is hemlock but sw portion is cedar. Most of stand has very little regeneration so far; wait and check next entry. Other species found: cedar, black ash, yellow birch.
4130 - Aspen	High Density Sapling	8.4	17		Westman Dam Rd runs NE-SW through stand. Other species found: tamarack, balsam fir, white pine, paper birch, pin cherry.
4319 - Mixed Upland Forest	Medium Density	26.4	11		Other species found: hemlock, white pine, tamarack, cedar
4130 - Aspen	High Density Sapling	17.5	31		Super canopy white pine and pockets of hemlock present. Other species present: cedar.
4191 - Mixed Upland Deciduous with Conifer	High Density Pole	19.5	51	141-170	Stand is variable. Mostly higher ground with some lower wetter ground. Some parts of the higher ground are starting to blow over. Heavy understory of balsam in some areas. Final harvest now.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	4119 - Mixed Northern Hardwoods	Low Density Pole	15.3	51	51-80	A few red maple stump sprouts are regenerating but residual BA may be too high for them to survive. Some areas have raspberries. Balsam, white spruce and white pine are regenerating in pockets. Mostly high ground but some lower areas, too. Mostly higher ground but some lower, too.
58	4130 - Aspen	High Density Sapling	12.9	17		Nicely regenerated stand. Lots of red raspberry and black berry throughout stand. Beaked hazel present. Tamarack seedlings mostly near low ground edge of stand. Occasional beech and white pine pole/log trees scattered in stand, also pockets of hemlock. Other species found: beech, tamarack, white pine.
59	429 - Mixed Upland Conifers	Medium Density	24.7	11		Mostly high ground but some lower wetter areas included too small to map. Other species found: hemlock, quaking aspen, balm of Gilead, tamarack
60	4113 - R.Maple, Conifer	Medium Density Pole	87.0	83	81-110	Stand is mostly higher ground but low areas included. Hemlock and cedar are in scattered patches too small to map. Stand recently treated but residual BA is too high for stump sprouts and regeneration to survive. Stump sprouts are generally 5-10 feet tall. Residual red maple and most of the ash poles are poor/very poor quality. Should do over-story removal before regen is any taller and is damaged during treatment. Other species found: white pine, yellow birch, paper birch. Along the Westman Road this stand contains US Forest Service Research plots for red maple regeneration. Current contact person is Christel Kern @ 218-326-7134 at the USFS, Northern Research Station Grand Rapids, MN 55744
61	4319 - Mixed Upland Forest	Medium Density	26.6	36		Stand varies. Some high ridges but also lower swales with tag alder and holly. Some ground is not wet ground but could have impeded drainage.
62	6115 - Lowland Ash	Low Density Pole	8.6	60		Mostly a black ash swale and about 30-35% forest canopy closure.
63	42200 - Natural White Pine	High Density Sapling	6.8	22		Stand has regenerated well. Regeneration is mostly very dense and 20-30 feet tall. Other species found: white spruce.
64	429 - Mixed Upland Conifers	High Density Pole	31.3	48		Mostly higher ground but there are some smaller pockets of lower ground too small to map. Other species found: big-toothed aspen, paper birch, hemlock.
65	4113 - R.Maple, Conifer	Medium Density Pole	90.5	47	81-110	Stand is mostly poor quality red maple poles with balsam and white pine saplings in understory. Should be treated to regenerate maple by encouraging stump sprouts and release conifer regen.
66	42390 - Mixed Non-Pine Upland Conifers	Medium Density Pole	9.1	100		Stand is variable with pockets of E-type, Q-type, cedar and hemlock. Hemlock seems to be the most prevalent with some areas nearly pure hemlock. Some areas are on a high ground ridge but some areas are lower wetter ground.



S  
t  
a  
n  
d

Data updated before 10:00 AM

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
----------------	-------	------------------	--------------	-----------	----------------	------------------	----------------------	-----------------

#Error

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Limiting Factor and No  
Treatment Reason

---

**Total Treatment  
Acreage Proposed: 0**

S  
t  
a  
n  
d

Data updated before 10:00 AM

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<b>3 33048003-SC</b>	2.4	4110 - Sugar Maple Association	Medium Density Log	80	Harvest	Single Tree Selection	Mixed Northern Hardwoods	Cmpt. Review Proposal
<u>Prescription</u> Selection cut to 60-70 residual BA. Retain some of the yellow birch and larger beech. Retain all hemlock and pine, if present. After Pre-Review: treat as Rx.								
<u>Other Comments:</u>								
<u>Next Steps:</u> Primary goal is to improve the quality of residual stems but if some natural regeneration starts, northern hardwood species with conifer would be accepted.								
<b>4 33048004-CCw/R</b>	5.2	6120 - Lowland Cedar	Low Density Pole	120	Harvest	Clearcut with Reserves	Mixed Coniferous Lowland Forest	Cmpt. Review Proposal
<u>Prescription</u> Only small tamarack stand is intended to be treated. Final harvest. Clearcut with Reserves. Cut all except retain clumps of seed trees of present species within the stand and along the perimeter of the stand. After Pre-Review: treat as Rx.								
<u>Other Comments:</u> Approximately 50 cords of cedar will be cut.								
<u>Next Steps:</u> Acceptable regeneration includes a mixture of conifer and deciduous species.								
<b>5 33048005-CCw/R</b>	19.9	6132 - Mixed Lowland Forest with Cedar	High Density Pole	87	Harvest	Clearcut with Reserves	Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<u>Prescription</u> Final harvest. Clearcut with Reserves. Cut all except retain a buffer along the E-W stream near the middle of the stand and clumps of seed trees of present species within the stand and along the perimeter. After Pre-Review: treat as Rx.								
<u>Other Comments:</u> The stream apparently originates at a pond on the private ownership to the west and flows east to Elwood Creek. The buffer width will probably vary but be approximately 3 acres. Approximately 140 cords of cedar will be cut.								
<u>Next Steps:</u> Acceptable regeneration includes a mixture of the current species.								
<b>12 33048012-CCw/R</b>	32.9	4130 - Aspen	High Density Pole	62	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
<u>Prescription</u> Final harvest. Clearcut with Reserves. Retain cedar, hemlock and pine and some pockets of aspen and balsam fir regeneration. After Pre-Review: treat as Rx.								
<u>Other Comments:</u> The stand line with the adjacent hardwood stand is approximate and will be determined in the field when the sale is setup.								
<u>Next Steps:</u> Acceptable regeneration includes aspen or a mixture of aspen, hardwood and conifer species.								
<b>13 33048013-SC</b>	7.4	4110 - Sugar Maple Association	High Density Pole	80	Harvest	Single Tree Selection	Mixed Northern Hardwoods	Cmpt. Review Proposal
<u>Prescription</u> Selection cut to residual basal area of 70-80 square feet. Cut all aspen and balsam fir. Follow in-stand retention guidelines. After Pre-Review: treat as Rx.								
<u>Other Comments:</u> The stand line with the adjacent aspen stands is approximate and will be determined in the field when the sale is setup.								
<u>Next Steps:</u> Acceptable regeneration includes a mixture of northern hardwood and conifer species.								
<b>30 33048030-Thin</b>	5.3	42210 - Natural Red Pine	High Density Log	82	Harvest	Low Thinning	Planted Mixed Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Thin stand to about 70-80 residual basal area. Remove aspen, balsam fir, spruce and paper birch. Mark to cut pine and hardwood. Follow in-stand retention guidelines. After Pre-Review: treat as Rx.								
<u>Other Comments:</u>								
<u>Next Steps:</u>								

S  
t  
a  
n  
d

Data updated before 10:00 AM

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<b>47</b> 33048047- CCw/R	51.2	4112 - Maple, Beech, Cherry Association	Medium Density Pole	75	Harvest	Clearcut with Reserves	R.Maple, Conifer	Cmpt. Review Proposal
<u>Prescription</u> Final Harvest. Clearcut with Reserves. Cut all trees except retain all hemlock, cedar, pine, yellow birch and beech. Also, retain all ash less than 5 inches dbh, except within the lowland ash swales individual trees will be marked to leave (green treed) to maintain a higher basal area. Retention also includes a stand of red maple/hemlock/white pine in the southeastern corner of the stand approximately 2 acres. After Pre-Review: see other comments.								
<u>Other Comments:</u> Advise that this stand should be treated during winter or possibly dry weather conditions at the discretion of the sale administrator. It seems to be susceptible to rutting. Haul roads into the stand are winter roads unless substantial improvements are made on some portions. After Pre-Review: treat as Rx, except retain a one acres island around super-canopy white pine.								
<u>Next Steps:</u> Acceptable regeneration will include a mixture of maple and ash seedlings and stump sprouts with pine and balsam fir.								
<b>54</b> 33048054- CCw/R	19.5	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	51	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
<u>Prescription</u> Final harvest. Clearcut with Reserves. Cut all trees except hemlock, pine and cedar. After Pre-Review: treat as Rx.								
<u>Other Comments:</u> Most of the stand is on high ground except near the west and north boundaries and a swale near the middle.								
<u>Next Steps:</u> Acceptable regeneration will include a mixture of the current species.								
<b>56</b> 33048056- CCw/R	15.3	4119 - Mixed Northern Hardwoods	Low Density Pole	51	Harvest	Clearcut with Reserves	R.Maple, Conifer	Cmpt. Review Proposal
<u>Prescription</u> Final harvest. Clearcut with reserves. This is an over-story removal from the previous treatment. Cut all merchantable trees except hemlock, pine, cedar and yellow birch. Avoid damage to advanced regeneration, as possible. After Pre-Review: treat as Rx.								
<u>Other Comments:</u> Portions of this stand could be treated during dry weather conditions, but most of the stand should probably be best logged during winter.								
<u>Next Steps:</u> Acceptable regeneration includes a mixture of seedlings and stump sprouts of the current species.								
<b>60</b> 33048060- CCw/R	87.0	4113 - R.Maple, Conifer	Medium Density Pole	83	Harvest	Clearcut with Reserves	R.Maple, Conifer	Cmpt. Review Proposal
<u>Prescription</u> Final harvest. Clearcut with reserves. This is an over-story removal from the previous treatment. Cut all merchantable trees except hemlock, pine, cedar and yellow birch. Avoid damage to advanced regeneration where possible. After Pre-Review: treat as Rx.								
<u>Other Comments:</u> Portions of this stand could be treated during dry weather conditions, but probably most of the stand should be logged during winter. This stand includes a set of red maple regeneration study plots maintained by the USFS in Grand Rapids, MN. They are located east of the Westman Dam Road. This study area has iron pipes at the corners and is bordered by blue/green paint. The area will be excluded from the treatment unless the USFS decides to treat the plots again, in which case the study plots could be included in the timber sale or the USFS decides to terminate their study and abandon the plots.								
<u>Next Steps:</u> Acceptable regeneration includes a mixture of seedlings and stump sprouts of the current species.								

**Total Treatment  
Acreage Proposed: 246.3**



## Table 2 – Proposed Treatment Summaries

*Data updated before 10:00 AM*

**Escanaba Mgt. Unit**  
**Year of Entry 2012**

**Compartment 048**  
**Total Compartment Acres: 2216**

### Acres by Treatment Type

Commercial Harvest - 246	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

### Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
<b>Aspen</b>	33	0	0	0	0	0	<b>33</b>
<b>Cedar</b>	5	0	0	0	0	0	<b>5</b>
<b>Lowland Mixed Forest</b>	20	0	0	0	0	0	<b>20</b>
<b>Mixed Upland Deciduous</b>	20	0	0	0	0	0	<b>20</b>
<b>Northern Hardwood</b>	154	10	0	0	0	0	<b>163</b>
<b>Red Pine</b>	0	0	0	0	5	0	<b>5</b>
<b>Total</b>	<b>231</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>246</b>

**Table 1 – Total Acres by Cover Type and Age Class**

Data updated before 10:00 AM



	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	0	45	122	67	0	0	33	14	0	0	0	0	0	0	281
Cedar	0	0	0	0	0	0	0	14	18	12	0	97	0	68	0	208
Hemlock	0	0	0	0	0	0	10	0	0	0	7	0	0	0	0	17
Low-Density Trees	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Conifers	0	0	0	0	0	0	0	0	0	77	59	0	0	0	0	136
Lowland Deciduous	0	0	0	0	51	0	0	9	0	0	0	0	0	0	0	60
Lowland Mixed Forest	0	0	0	0	0	0	0	17	0	24	0	0	0	0	0	40
Lowland Shrub	132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	132
Lowland Spruce/Fir	0	0	0	0	0	6	29	15	0	6	0	130	0	0	0	186
Mixed Upland Deciduous	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	19
Northern Hardwood	0	0	0	0	0	91	15	0	59	244	0	0	0	0	0	409
Red Pine	0	0	0	0	0	0	0	18	0	5	0	0	0	0	0	23
Treed Bog	529	0	0	0	0	0	0	0	0	0	0	0	0	0	0	529
Upland Conifers	0	0	25	0	0	31	0	0	0	0	0	9	0	0	0	65
Upland Mixed Forest	0	0	26	0	27	0	0	0	0	0	0	0	0	0	0	53
Upland Spruce/Fir	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	17
Water	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
White Pine	0	0	0	7	0	0	0	0	0	0	22	0	0	0	0	29
<b>Total</b>	<b>672</b>	<b>0</b>	<b>96</b>	<b>128</b>	<b>162</b>	<b>128</b>	<b>74</b>	<b>105</b>	<b>91</b>	<b>367</b>	<b>87</b>	<b>236</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>2216</b>



**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.

*Data updated before 10:00 AM*

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.