

Compartment Review Presentation

Escanaba Forest Management Unit

Compartment 33036 Entry Year 2017 Acreage: 680

County Menominee

Management Area: Green Bay Lake Plain

Revision Date: 2015-07-10 Stand Examiner: Dan Racine

Legal Description:

T37N R25W, Sections 28 and 33.

Identified Planning Goals:

The major cover types within this compartment are cedar and aspen with a smaller component of lowland deciduous with conifer/cedar and northern hardwood. The majority of the aspen stands were treated within the last two ten year treatment periods. The majority of the stands prescribed for this treatment period are within the lowland hardwood stands with an ash component due to potential emerald ash borer (EAB) concerns and lowland conifer stands with tamarack currently with eastern larch beetle (ELB) infestation in some portions of the tamarack. The lowland stands treated on the southern boundary continue into compartment 42 within the 2017 entry year.

Soil and topography:

The majority of soils in this compartment are comprised of Lupton-Cathro, Tawas-

Deford, Onaway fine sandy loam, and Onaway Rousseau. In the lowland forest types the Lupton Cathro and Tawas Deford comprise the majority of these timber types. These soils are very poorly drained and level in depressions. The major limitations of these soils are severe wetness. The majority of upland soils consist of Onaway fine sandy loam. These soils are on ridges and knolls and well drained. The limitation of

equipment in these soils is in the spring and wet times of the year.

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

This compartment is surrounded to the south by state land and north, east, and west by private land. The compartment is state land with private interspersed. The private land is non-industrial private landowners.

Unique Natural Features:

None Known.

Archeological, Historical, and Cultural Features:

None Known.

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

This compartment is a near equal mix of upland versus lowland forest types. Uplands are chiefly aspen, northern hardwoods and balsam fir. Lowlands are cedar or mixed swamp conifer. A mix of forest types will be harvested this decade including hardwoods, mixed upland deciduous, and lowland conifers. These treatments will promote age and cover type diversity and provide valuable habitat for early successional wildlife species.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine sand and gravel and medium-textured glacial till. The glacial drift thickness varies between 10 and 50 feet. The Ordovician Trenton Formation underlies the glacial drift. The Trenton is guarried for stone near Escanaba. There is no history of leasing of State land for mineral exploration in the area. Small gravel pits are located in Section 27 and a larger pit is to the north in Section 11. Sand and gravel potential in the compartment appears to be good on the uplands. No economic oil and gas production has been found in the UP.

Vehicle Access:

The vehicle access to the north is off No.32 road and the Mack road. The access to the south is off E-1 lane. Access to the proposed treatments is through these roads. Road work and maintenance will be necessary for hauling purposes to main roads.

Survey Needs:

Recreational Facilities and Opportunities:

There are no developed facilities within this compartment. The major recreation in this compartment is hunting, viewing, and ORV use

Fire Protection:

There are no special needs for fire protection within this compartment. The water sources are Collard Creek and the Big Cedar River.

Additional Compartment Information:

**** Cover type details, proposed treatments and stands designated as FDF are listed in the attached reports:

Cover Type by Age Class

Cover Type by Management Objective

Compartment Volume Summary

Proposed Treatments – No Limiting Factors

Proposed Treatments – With Limiting Factors

**** The following information is displayed on the attached compartment maps:

Base feature information, stand numbers, cover types

Proposed treatments

Proposed road access system

Suggested potential old growth

The following reports from the Inventory are attached:

Total Acres by Cover Type and Age Class

Cover Type by Harvest Method

Proposed Treatments - No Limiting Factors

Proposed Treatments – With Limiting Factors

Stand Details (Forested and Nonforested)

Dedicated and Proposed Special Conservation Areas

Site Condition Details

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

Base feature information, stand boundaries, cover types, and numbers

Proposed treatments

Site condition boundaries

Details on the road access system

Escanaba Mgt. Unit

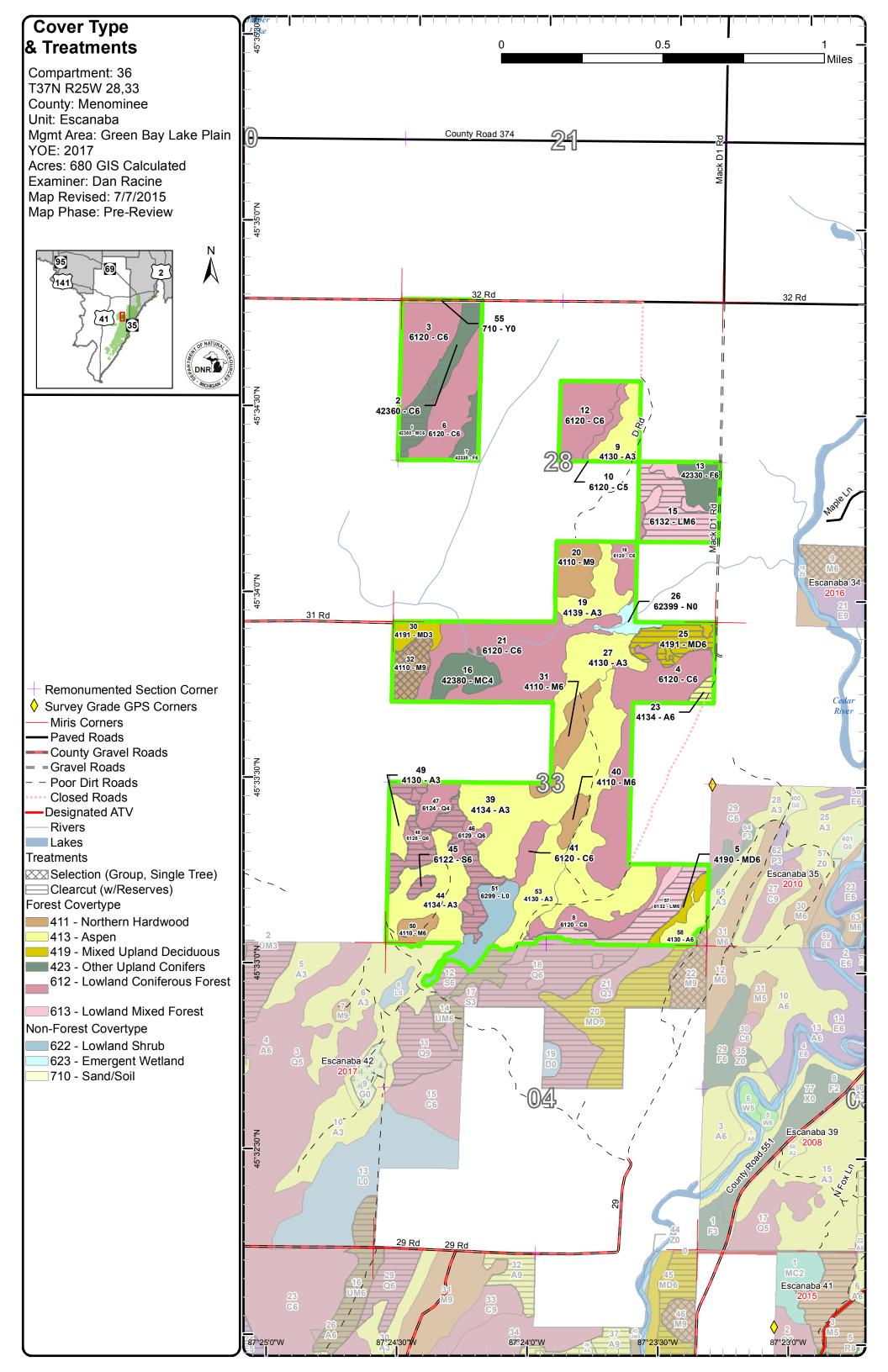
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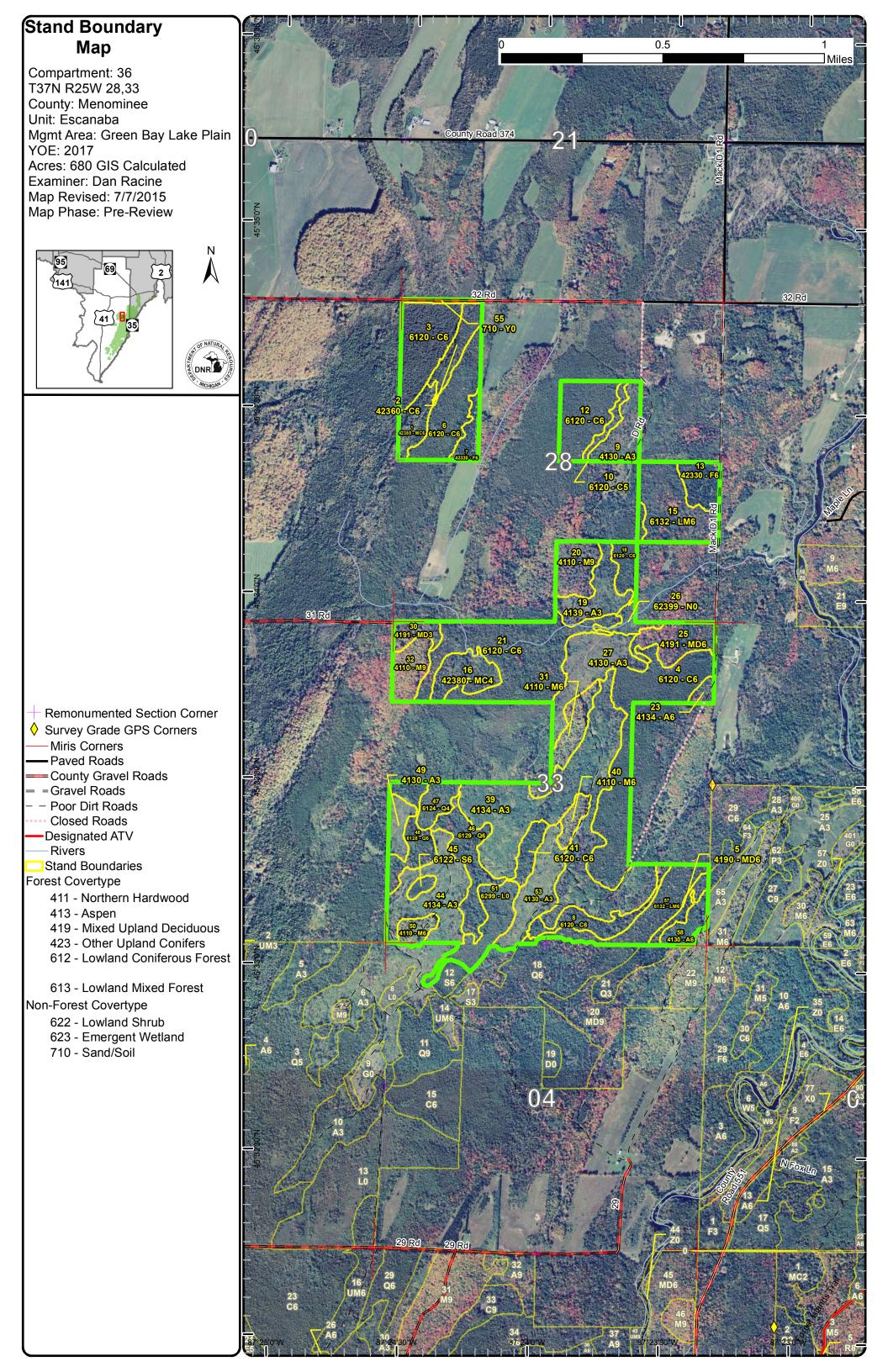
Compartment 36 Year of Entry 2017

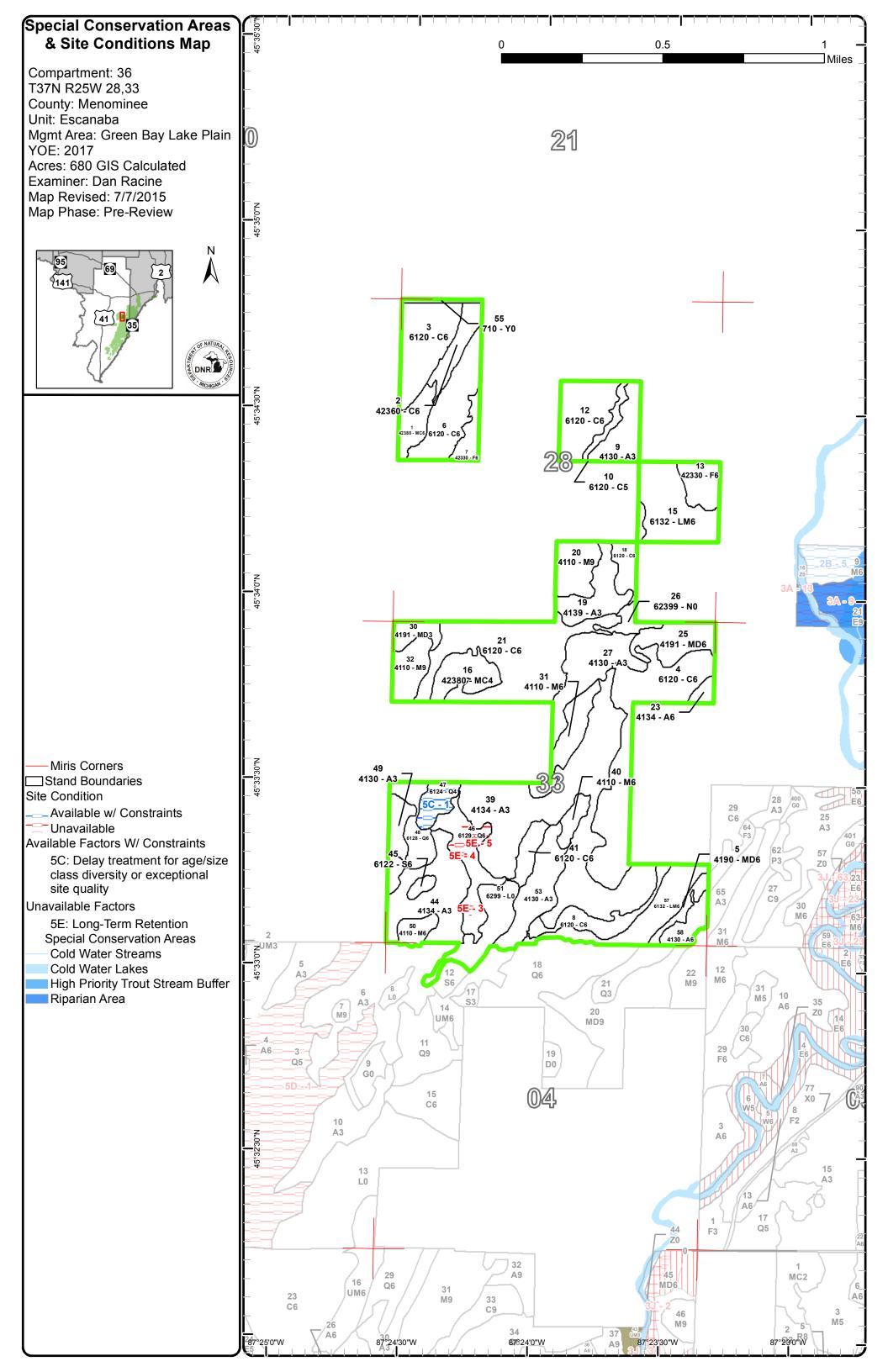


Age Class

	No.	Kos /	\$ \ <u>\</u>	\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	, & &	§ / §	S. S.	, % /%		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	80,00		70,	8 <u>,</u> /4 <u>,</u>	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$5.75 B1	84.5 S.	Bx Jue	O NO.
Aspen	0	83	125	8	0	3	0	0	0	0	0	0	0	0	0	0	0	0	219
Cedar	0	0	0	0	0	0	0	0	0	4	139	36	47	0	0	0	0	0	226
Lowland Conifers	0	0	0	0	0	0	0	0	0	28	0	0	14	0	0	0	0	0	42
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	22	28	0	0	0	0	0	0	0	50
Lowland Shrub	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Marsh	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Mixed Upland Deciduous	0	0	6	0	0	0	0	0	15	0	5	0	0	0	0	0	0	0	26
Northern Hardwood	0	0	0	0	0	0	0	0	35	13	0	0	0	0	0	0	0	0	48
Sand, Soil	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Upland Conifers	0	0	0	0	0	0	0	0	0	0	14	10	0	0	0	0	0	0	24
Upland Spruce/Fir	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Total	24	83	131	25	0	3	0	0	50	67	188	46	61	0	0	0	0	0	678









Report 2 - Treatment Summary

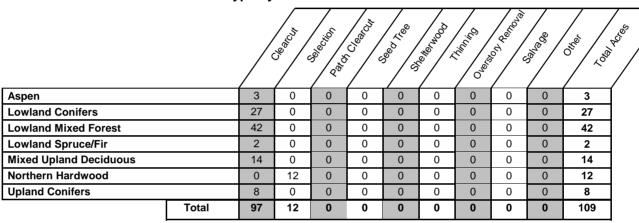
Escanaba Mgt. Unit Year of Entry: 2017

Acres of Harvest

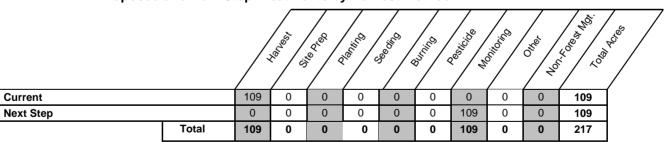
Compartment 36
Total Compartment Acres: 680

Commercial Harvest - 0 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method



Proposed and Next Step Treatments by Harvest Method



Treatments:

Acceptable Lowland mixed dediduous with aspen. Acceptable regeneration mix of balsam fir and mixed conifer species.

Regen:

Other The retention areas on the map are approximate. The retention will be closer to 10% or more of the stand acreage. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

23 33036023-Cut 4134 - Aspen, 3.1 Poletimber 48 81-110 Harvest Clearcut 413 - Aspen Even-Aged Proposal

> Spruce/Fir Well

Habitat Cut: No Site Condition:

Prescription Clearcut- Leave some spruce and fir trees along the edge and within the stand.

Specs:

Next Step

Treatments:

Acceptable Aspen and red maple. Alternative acceptable regeneration of mixed upland conifer species.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

33036025-Cut 13.6 4191 - Mixed 72 81-110 Clearcut with 4199 - Other Poletimber Harvest Even-Aged Proposal **Upland Deciduous** Well Retention Mixed Upland

with Conifer

Deciduous

Habitat Cut: No Site Condition:

Prescription Clearcut with retention- Leave retention areas around any heavy cedar volume areas incorporating a mix of the existing stand species.

Specs:

Next Step **Treatments:**

Acceptable Mixed deciduous species of red maple, aspen, and ash. Alternative acceptable regeneration mix of upland conifer species.

Regen: Other

The retention areas on the map are approximate. Follow in-stand retention guidelines at the time of sale prep. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Compartment: 36 Year of Entry: 2017



n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status	
32	33036032-Cut	11.7 4	110 - Sugar Maple Association	Sawtimber Well	78	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal	

Site Condition: Habitat Cut: No

Prescription Single tree selection- Retain approximately 70-80BA throughout the stand and favor to leave minor component species of cedar and yellow birch along the edge of stand 21. Follow EAB guidelines for ash. Create canopy gaps where feasible. Specs:

Next Step **Treatments:**

Acceptable Regeneration of a mix of northern hardwood species. Alternative acceptable regeneration of balsam fir and white spruce.

Regen:

Other The BA swings within this stand were 80, 120, 130, and 110 with an average of 110. Last completed in 2003. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

45 33036045-Cut 2.4 6122 - Black Spruce Poletimber 51-80 Clearcut 6122 - Black Even-Aged Proposal Harvest Well Spruce

Habitat Cut: No Site Condition:

Prescription Clearcut: Cut all trees. No retention due to small stand size.

Specs:

Next Step **Treatments:**

Acceptable Black Spruce, acceptable alternate regeneration of tamarack.

Regen:

Small diameter stand with with 6-8 inch older black spruce. Old next step comments: Other

Comment:

Proposed Start Date: 10/1 /2016

33036046-Cut 6129 - Mixed 612 - Lowland Proposal 15.1 Poletimber 89 81-110 Harvest Clearcut with Even-Aged Coniferous Lowland Coniferous Well Retention

Forest

Forest

Habitat Cut: No Site Condition:

Prescription Clearcut with retention- Leave retention patches in the heaviest cedar volume areas with a mix of species. Leave some spruce, fir, and Specs:

potentially good quality tamarack seed trees.

Next Step

Treatments:

Acceptable Mix of lowland conifer species. Acceptable regeneration of aspen, maple, birch, and balm.

Regen: Other

The retention areas on the map are approximate. Follow in-stand retention guidelines. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

33036048-Cut 12.1 6128 - Lowland Poletimber 115 81-110 Harvest Clearcut with 612 - Lowland Even-Aged Proposal Coniferous, Mixed Well Retention Coniferous

Deciduous Forest

Habitat Cut: No Site Condition:

Prescription Clearcut with retention- Leave retention patches around the cedar pockets with a mix of species. Leave some seed trees of spruce, fir and

Specs: potential good quality tamarack.

Next Step **Treatments:**

Acceptable Mix of lowland conifer species including spruce, fir, and tamarack. Acceptable alternative regeneration of lowland deciduous species.

Regen:

Other The tamarack has porcupine damage and appears to have ELB. The retention areas on the map are approximate. Follow in-stand retention

Comment: guidelines. Old next step comments:

Proposed Start Date: 10/1 /2016 Escanaba Mgt. Unit

Report 4 -- Treatments

Compartment: 36 Year of Entry: 2017

a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
57	33036057-Cut		6132 - Mixed Lowland Forest with Cedar	Poletimber Well	85	81-110	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Even-Aged	Proposal

Habitat Cut: No Site Condition:

Prescription Clearcut with retention- Retention in the highest cedar volume areas. Retain any poor quality and very wet sites. Specs:

S

Next Step Treatments:

Acceptable Lowland mixed deciduous including red maple, ash, birch and balm. Acceptable alternative regeneration of lowland mixed conifer species.

Regen:

Combine with any treatment in stand 4 to the south in compartment 42. Old next step comments: <u>Other</u>

Comment:

10/1 /2016 **Proposed Start Date:**

Total Treatment Acreage Proposed:

108.6

Escanaba Mgt. Unit

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Compartment: 36 Year of Entry: 2017

Dominant Site Conditions

5E

Aspen	
Cedar	
Lowland Conifers	6
Lowland Mixed Forest	
Lowland Shrub	
Lowland Spruce/Fir	
Marsh	
Mixed Upland Deciduous	
Northern Hardwood	
Sand, Soil	
Upland Conifers	
Upland Spruce/Fir	
Total Forested Acres	6
Relative Percent	

*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Poor quality site with	n sparse timber areas.					
3	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Approximate area fo	or retention within stand 46.					
4	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Approximate area fo	or retention for stand 46.					

Report 5 – Site Conditions

Escanaba Mgt. Unit

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Compartment: 36
Year of Entry: 2017

5 Unavailable 5E: Long-Term Retention 3 Unspecified Unspecified Unspecified Unspecified

Comments:

Approximate area for retention for stand 46.

Mgt. Unit

Compartment: #Type! Year of Entry:



Report 6 - 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.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Escanaba Mgt. Unit Compartment: 36
Year of Entry 2017



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

Conservation Area	on Type	Description	HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxyg stocked trout populations and those of other coldwater conditions for coldwater fishes may occur in Michigan groundwater inflows, or are located in colder (norther Director's action and designated as trout resources by	er fish species to persist from year to year. Suitable n lakes if they are relatively deep, have substantial rn) areas of the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved of stocked trout populations and those of other coldwater year to year. Coldwater streams in Michigan typically contributions of groundwater to their stream flows. So designated as trout resources by Fisheries Order 210	er fish species (e.g., slimy sculpin) to persist from provide these conditions due to substantial uch streams are established by Director's action and

S	Escanaba	a Mgt. Unit		Report 8	- Forested	Stands Compartment: 36 Year of Entry: 2017
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Well	9.7	100	111-140	Trace amounts of black cherry, ironwood, and black spruce. Upland portion of ridge with cedar and a mix of species.
2	42360 - Upland Cedar	Poletimber Well	10.1	100	141-170	BA ranges from 100-240. Trace amounts of tamarack an red maple. This is an upland cedar site with a mix of short lived species.
3	6120 - Lowland Cedar	Poletimber Well	26.2	105	111-140	Poor quality with cedar, black ash, tag alder and small cedar. Trace amounts of spruce and fir and other minor species.
4	6120 - Lowland Cedar	Poletimber Well	53.6	95	111-140	Areas with poor quality and small diameter.
5	4190 - Mixed Upland Deciduous with Cedar	Poletimber Well	5.0	90	81-110	OPIC - FMD: OI Stand Year Origin was 1988. Mixed stand that was cut previously. Manage with stand 58 to the east.
6	6120 - Lowland Cedar	Poletimber Well	25.0	117	171-200	Hollow cedar, no current age. Tag alder in low places and areas of black ash. Trace amount of paper birch.
7	42330 - Upland Fir	Poletimber Well	6.7	25	Immature	This stand was cut under the Line Sale (10-87-01) completed in 1992. All trees were cut except cedar, hemlock, beech, and red pine. There is some scattered pockets of mature timber.
8	6120 - Lowland Cedar	Poletimber Well	12.5	90	111-140	Some areas of poor quality and tag alder.
9	4130 - Aspen	Sapling Well	13.8	10	Immature	This stand was cut under the Collard Creek sale completed in 2005. All merchantable trees were cut except hemlock, pine, yellow birch, and cedar. Trace amounts of hemlock, pine and yellow birch. This stand is a3/a2 to the south and balm in the low pockets with aspen on the ridge.
10	6120 - Lowland Cedar	Poletimber Medium	3.9	85	51-80	Scattered Cedar with lots of tag alder in area. Difference between aspen and lowland cedar to the east and less canopy to the west.
12	6120 - Lowland Cedar	Poletimber Well	21.9	117	171-200	Mostly cedar.
13	42330 - Upland Fir	Poletimber Well	10.3	24	Immature	I had 28 years old on an increment borer. This stand was cut under the Line Sale (10-87-01) completed in 1992. All trees were cut except cedar, hemlock, beech, and red pine.
15	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	28.0	97	81-110	This stand is a mix of Q/E type with some upland ridges.
16	42380 - Non Pine Upland Conifer, Mixed Deciduous	Poletimber Poor	13.6	95	Immature	THIS STAND WAS CUT IN THE COLLARD CREEK SALE completed in 2003. All trees were cut except cedar, hemlock, and trees marked with green paint.

6120 - Lowland Cedar

18

Poletimber Well

8.7

95

141-170

The cedar was hollow inside for age. The BA ranges from 150 to 190.

S t	Escanaba	Mgt. Unit		Report 8	- Forested	Stands Compartment: 36 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	4139 - Aspen, Mixed Deciduous	Sapling Well	16.0	10	Immature	This stand was cut under the Collard Creek Sale unit 3. All trees cut except sugar maple, hemlock, yellow birch, white pine, spruce, and cedar. Completed in 2005. Trace amount of red maple.
20	4110 - Sugar Maple Association	Sawtimber Well	13.2	88	51-80	This stand was unit 2 of the Collard creek sale (44-02-01) completed in 2005.
21	6120 - Lowland Cedar	Poletimber Well	57.2	95	111-140	Potential for island cuts. The Collard creek runs through the northern portion of the stand. Areas of poor quality cedar and tag alder.
23	4134 - Aspen, Spruce/Fir	Poletimber Well	3.1	48	81-110	The previous inventory age was 42.
25	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	15.2	72	81-110	The aspen is at least 50-60 years old.
27	4130 - Aspen	Sapling Well	24.0	6	Immature	This stand was cut under the Firry Mix in 36 sale completed in 2009. Trace amounts of cedar, balm and paper birch and tag alder in the understory along the low edges of stand.
30	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	6.1	11	Immature	THIS STAND WAS CUT UNDER THE COLLARD CREEK SALE. UNIT 4 AND COMPLETED. THE LONG TERM MO OF THIS STAND IS A/F TYPE. BOTH A AND F ARE REGENERATING. Trace amount of black ash. Apple tree within the stand. Very similar to stand 16 however the regenerating stand is the canopy in this stand.
31	4110 - Sugar Maple Association	Poletimber Well	13.0	78	51-80	This stand was cut under the Firry Mix in 36 sale unit 2. All orange marked and merchantable aspen, balsam poplar, and balsam fir cut except those trees with an orange x.
32	4110 - Sugar Maple Association	Sawtimber Well	11.7	78	81-110	THIS STAND WAS THINNED UNDER THE COLLARD CREEK CONTRACT AND COMPLETE IN 2003. Some cedar and yellow birch along the transition zone into stand 21.
39	4134 - Aspen, Spruce/Fir	Sapling Well	95.3	15	Immature	This stand was cut under the Hot Dog timber sale (35-97-01) completed in 2000. All trees were cut except;, cedar, hemlock, elm, beech, and pine.
40	4110 - Sugar Maple Association	Poletimber Well	5.2	75	51-80	This stand was cut under the Firry Mix in 36 sale completed in 2009. Previous inventory has 1914 year of origin. Look at treatment next treatment period.
41	6120 - Lowland Cedar	Poletimber Well	6.9	90	171-200	Hollow cedar for age.
44	4134 - Aspen, Spruce/Fir	Sapling Well	31.1	4	Immature	This stand was cut under the Big Mack Sale completed in 2011. Access was from the south through E-1 Lane. Along the steep hillsides some larger aspen left.
45	6122 - Black Spruce	Poletimber Well	2.4	91	51-80	Pockets of S4 and bordering on S3 type.

S t	Escanaba	a Mgt. Unit		Report 8	- Forested	Stands Compartment: 36 Year of Entry: 2017
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
46	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	20.1	89	81-110	Previous inventory was 1925 year of origin. Trace amount of paper birch. Appears to be ELB and porcupine damage within this stand.
47	6124 - Lowland Spruce- Fir	Poletimber Poor	7.9	81	Unspecified	Poor quality 25-50% cover type or less. Trace amounts of black ash. Mix of lowland brush and Q4 type stand.
48	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	14.4	115	81-110	Mix of Q/E with a couple of C pockets. Some tamarack mixed in this stand.
49	4130 - Aspen	Sapling Well	7.1	4	Immature	This stand was cut under the big mack sale in 2011. The private landowner to the west had the contractor cut some timber on the private side. Phragmites on the edge of the stand and into private.
50	4110 - Sugar Maple Association	Poletimber Well	5.6	78	81-110	This stand was cut under the Big Mack sale completed in 2009. No age obtained on the sugar maple. No current regeneration post harvest.
53	4130 - Aspen	Sapling Well	20.9	6	Immature	Trace amounts of black ash, cherry, hemlock, elm, and white spruce. This stand was cut under the Firry Mix in 36 sale completed in 2009. All trees cut except cherry, cedar, hemlock, beech, elm, and yellow birch.
57	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	22.0	85	81-110	Trace amount of yellow birch, white pine, balm, and paper birch.
58	4130 - Aspen	Poletimber Well	8.1	27	81-110	The stand is starting to thin itself with timber on the ground. Consider treatment next treatment.

Compartment: 36 Year of Entry: 2017



Stand	Cover Type	Acres	Managed Site	General Comments:
26	62399 - Marsh (OI)	4.8	No	Marsh area of Collard Creek. Areas with lowland brush and scattered cedar, spruce, fir, and paper birch trees. Creek runs through the stand.
51	6299 - Lowland Shrub (OI)	17.5	No	Lowland trees and shrubs. Scattered white spruce, paper birch, black spruce, tamarack on edge of stand. Some areas 25-50% cover type.
55	710 - Sand, Soil	1.6	No	NO.32 ROAD AND R-O-W