



Compartment Review Presentation

Escanaba Forest Management Unit

Compartment 33024

Entry Year 2018

Acreage: 439

County Menominee

Management Area: Menominee End Moraine

Revision Date: 2016-06-24

Stand Examiner: Dan Beaudou

Legal Description:

Township 35 North Range 28 West Sections 19, 20, and 21.

Identified Planning Goals:

This compartment consists primarily of upland sites with a few drainages and lowland conifer swamps mixed in. The upland areas consist primarily of oak and poor quality aspen and a couple hardwood stands.

There are a number of stands that have been treated in the past for oak wilt disease. Stand 2 had multiple oak wilt epicenters identified in 2014. It was decided to remove all mature oak from the stand and treat the epicenters by vibratory plowing. The healthy oak responded well with vigorous stump sprouting. Stands 5 and 7 are not recovering that well from oak wilt treatment. Oak is not filling in by either stump sprouting or seedlings. Aspen did root sprout but there is several dead patches of aspen that are 5-10 feet tall. Within the Menominee End Moraine Management Area plan, in oak stands affected by oak wilt, convert to pine types or oak barrens. The surrounding private property is dominated by mature oak with oak wilt present thus providing oak barrens. Historically, this area was dominated by pine. The red pine present in stands 5 and 7 are growing very well, in better form than the jack pine. The compartment and surrounding area does not have much of a pine presence. Due to these reasons, it is proposed to treat stands 5 and 7 for the planting of red pine. The Eastern Larch Beetle is causing mortality in stand 10 therefore treat to regenerate. Stand 18 is dominated by mature red maple so use of clearcut treatment to maximize stump sprouting. Treat stand 19 to reduce effects of EAB. Poor regeneration in Stand 22 so would like to scarify with power trencher, dozer root rake, or pulverize.

Soil and topography:

This compartment contains Grayling sand, Amasa very fine sandy loam, Onaway-Rousseau complex, Lupton-Tawas association, Cathro-Ensley complex, among a few other minor soil types. The majority of the compartment contains upland soil types. The terrain is level with some gently rolling hills. These areas are excessively to well drained. The soils are primarily sand and sandy loam over loamy sand. The lowland areas are level and poorly drained primarily consisting of black muck over sand and sandy loam.

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

This compartment does not border any other State land. There are a number of other compartments in this general area. There are a number of individual private forties around and within the state forest boundaries for this compartment. There is a private hunting club that owns approximately 800 acres on the West side of this compartment. There are a few cabins and residences in very close proximity to this compartment.

Unique Natural Features:

None known.

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

The Shakey River flows through a forty along the North end of the compartment. The Shakey Creek flows into the Shakey River through three different forties of this compartment.

Wildlife Habitat Considerations:

This very small, fragmented compartment lies in a landscape that had been shaped by fire prior to settlement. Relict plants with a prairie affinity (such as big bluestem) can still be found here. The west half of the compartment contains savannah properties (grass, blueberry, upland brush, scattering of trees). This habitat is valuable to wildlife including the more popular game species (deer, wild turkey). During this year of entry, several stands in the central portion of this

compartment will be treated using standard forestry methods. In addition, a poor quality aspen and mixed deciduous stand will be final harvested and planted with red pine. The central portion of the area being planted to red pine will be retained in its current condition (upland brush/savannah) to benefit wildlife.

Mineral Resource and Development Concerns and/or Restrictions

There are no developed sand or gravel pits within this compartment.

Vehicle Access:

Vehicle access is very good through most of the compartment. X-1 Lane runs through part of this compartment with a number of two-track roads branching off of it. There is eighty acres of this compartment that is separated from the rest of the compartment and is only accessible through private property.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

There are no recreational facilities within this compartment. The primary uses of this compartment are hunting, orving, snowmobiling and berry picking.

Fire Protection:

There is the potential to have a large fire in this area. The majority of this area is very dry with quite a bit of dead oak on the ground along with some jack pine mixed in. There are some water resources within the compartment as well as nearby.

Additional Compartment Information:

Yearly oak wilt monitoring has detected oak wilt epicenters within the compartment. Any oak wilt identification that occurs during this 10 year inventory period can be treated by using oak wilt treatment guidelines. The oak wilt epicenters will be identified and the appropriate distance away from the center will be cleared for vibratory plow operations, harvested and/or herbicide to minimize the spread of oak wilt.

The following reports from the Inventory are attached:

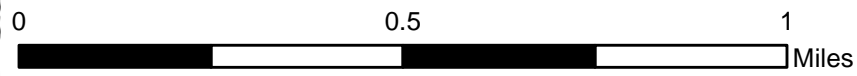
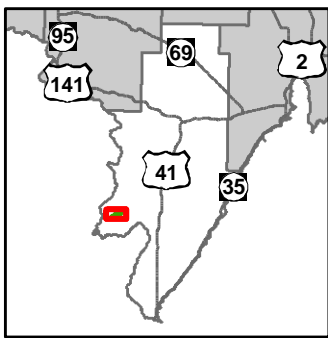
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

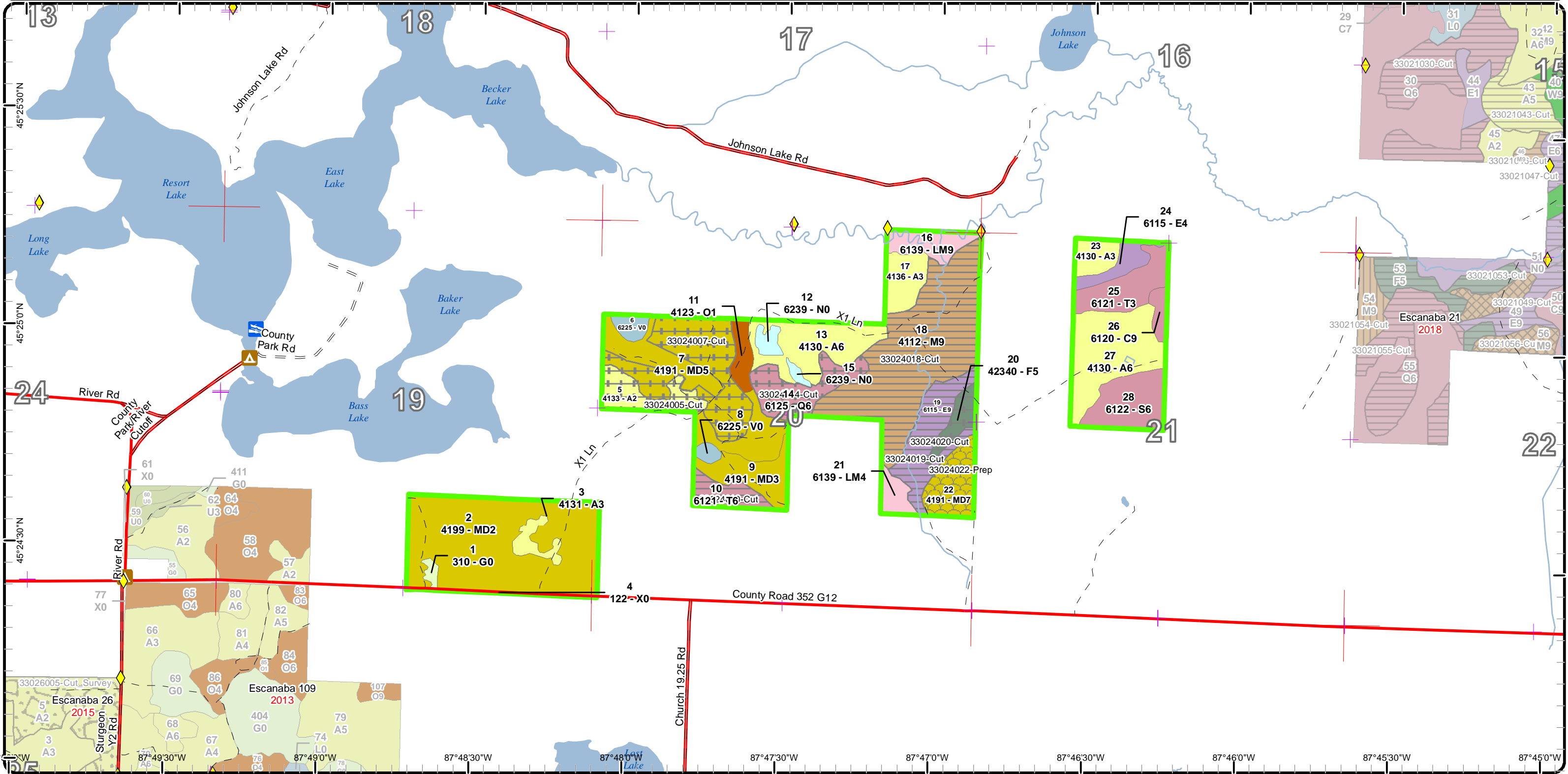
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 24
 T35N R28W Sec. 19-21
 County: Menominee
 Unit: Escanaba
 Mgmt Area: Menominee End Moraine
 YOE: 2018
 Acres: 439 GIS Calculated
 Examiner: Dan Beaudou
 Map Revised: Web-Post

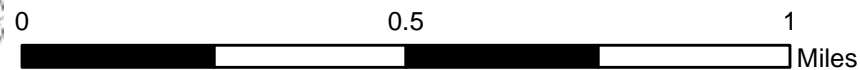
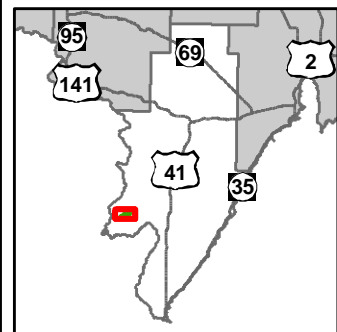


- Miris Corners
- + Remonumented Section Corners
- ◆ Survey Grade GPS Corners
- Boating Access Site
- Campground
- County Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Rivers
- Compartment Boundary
- Site Prep
- Clearcut (w/Reserves)
- Harvest, Overstory Removal
- 411 - Northern Hardwood
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- Lakes

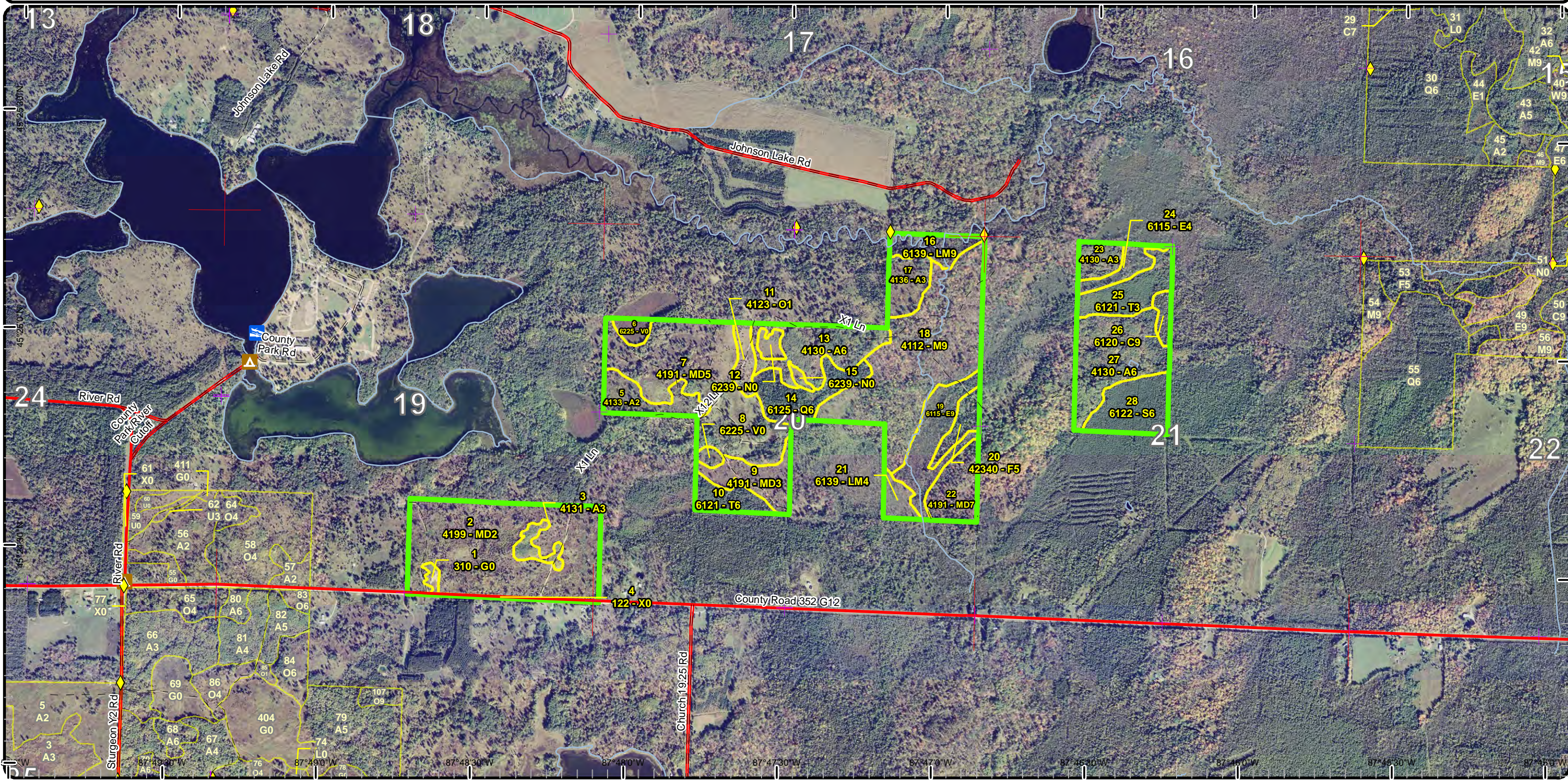


Stand Boundary Map

Compartment: 24
 T35N R28W Sec. 19-21
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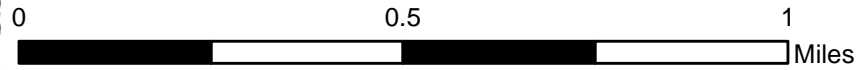
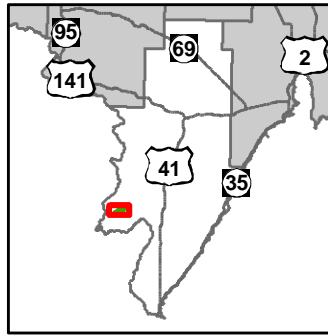


- Miris Corners
 - + Remonumented Section Corners
 - ◆ Survey Grade GPS Corners
 - ▢ Boating Access Site
 - ▲ Campground
 - County Paved Roads
 - County Gravel Roads
 - Gravel Roads
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 - Rivers
 - Compartment Boundary
 - Stand Boundaries
- 413 - Aspen Types
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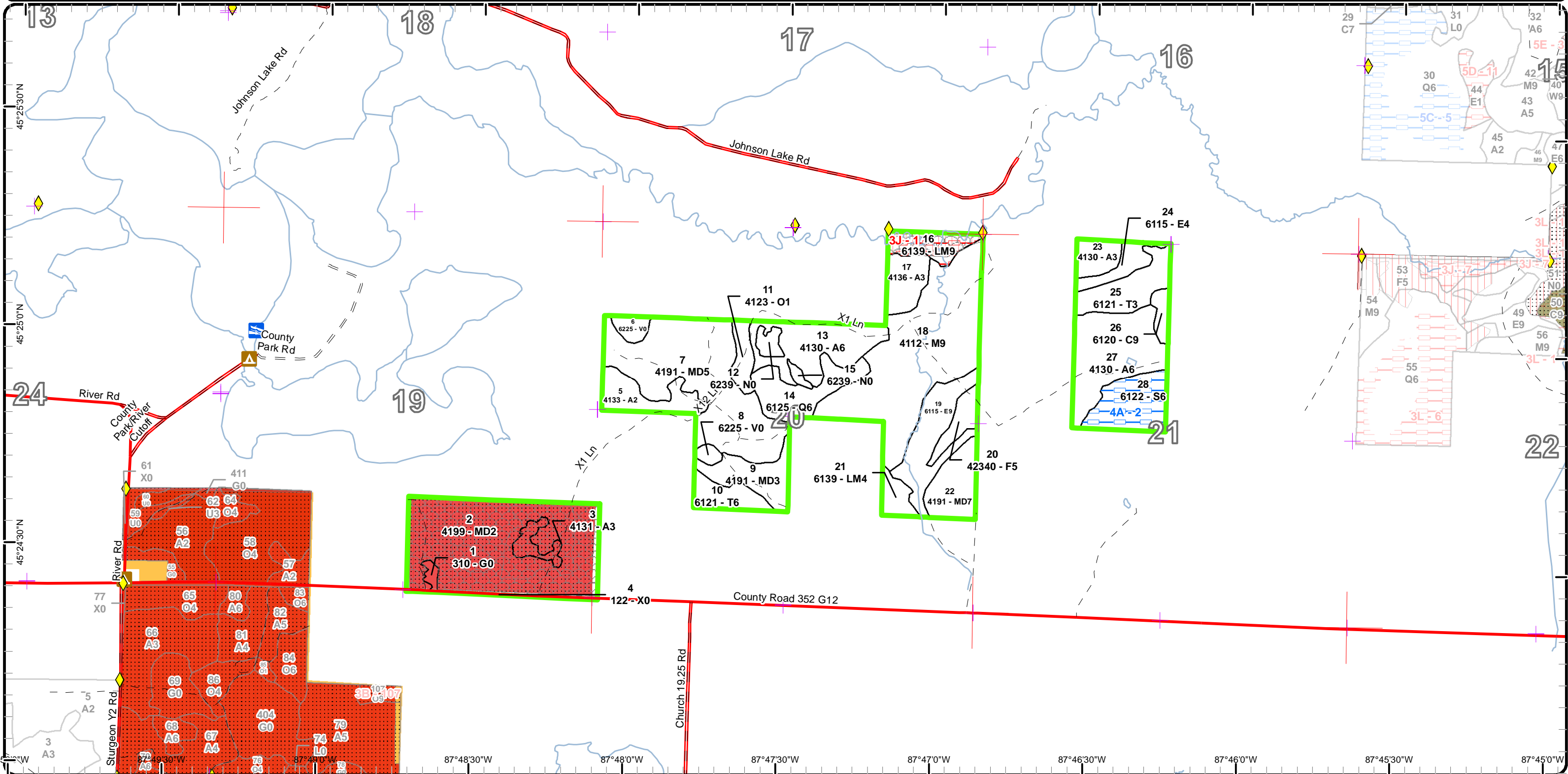


Special Conservation Areas & Site Conditions Map

Compartment: 24
 T35N R28W Sec. 19-21
 County: Menominee
 Unit: Escanaba
 Mgmt Area: Menominee End Moraine
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- Miris Corners
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- ⚓ Boating Access Site
- ▲ Campground
- County Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- Rivers
- Compartment Boundary
- SCA Removal
- Available w/ Constraints
- Unavailable
- 4A: No Markets Available for these Forest Products
- 3J: Water quality / BMPs (stream, river, or lake)
- Stand Boundaries
- Ecological Reference Areas
- Non-Dedicated Natural Areas and National Natural Landmarks
- Potential Old Growth
- Other SCA (No Category Assigned)



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	10	5	37	0	0	0	0	0	0	0	0	0	0	0	0	0	35	86
Bog	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Herbaceous Openland	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lowland Conifers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
Lowland Deciduous	0	0	0	0	6	0	0	20	0	0	0	0	0	0	0	0	0	0	26
Lowland Mixed Forest	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	5	14
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	18
Marsh	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Mixed Upland Deciduous	0	13	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	133	159
Northern Hardwood	0	0	0	0	0	0	0	0	0	69	0	0	0	0	0	0	0	0	69
Oak	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Tamarack	0	0	0	15	0	0	0	8	0	0	0	0	0	0	0	0	0	0	23
Upland Spruce/Fir	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
Urban	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	11	29	5	52	6	0	0	0	28	0	92	0	0	22	0	0	0	195	438



Report 2 – Treatment Summary

Escanaba Mgt. Unit
Year of Entry: 2018

Acres of Harvest

Compartment 24
Total Compartment Acres: 439

Commercial Harvest - 165
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	0	0	0	0	0	12	0	0		12
Lowland Conifers	0	0	0	0	0	16	0	0		16
Lowland Deciduous	20	0	0	0	0	0	0	0		20
Mixed Upland Deciduous	0	0	0	0	0	33	0	0		33
Northern Hardwood	69	0	0	0	0	0	0	0		69
Tamarack	8	0	0	0	0	0	0	0		8
Upland Spruce/Fir	0	0	0	0	0	6	0	0		6
Total	97	0	0	0	0	68	0	0		165

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	165	14	0	0	0	0	0	0		178
Next Step	0	90	45	0	45	178	0	0		359
Total	165	104	45	0	45	178	0	0		537



Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
5	33024005-Cut	12.0	4133 - Aspen, Mixed Pine	Sapling Medium	7	Immature	Harvest	Overstory Removal	42110 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: No Site Condition:

Prescription Cut all trees 3" dbh and greater.

Specs:

Next Step SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)

Treatments:

Acceptable Red pine according to regeneration standards.

Regen:

Other Previous harvest produced some aspen regeneration but of poor quality. Historically, this area consisted of pine. Propose to return better quality red pine to this site and increase pine presence in the Menominee End Moraine.

Proposed Start Date: 10/01/2017

7	33024007-Cut	33.1	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	85	1-50	Harvest	Overstory Removal	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No Site Condition:

Prescription Cut all trees 3" dbh and greater.

Specs:

Next Step SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr)

Treatments:

Acceptable Red pine

Regen:

Other Oak wilt epicenters were treated within this stand winter of 2015. Some scattered aspen clones. Red pine doing well on this site. Recommend planting red pine to return this stand to its historical pine presence and increase pine component in the Menominee End Moraine.

Proposed Start Date: 10/01/2017

10	33024010-Cut	8.4	6121 - Tamarack	Poletimber Well	78	111-140	Harvest	Clearcut	6121 - Tamarack	Even-Aged	Proposal
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Habitat Cut: No Site Condition:

Prescription Treat to reduce ELB and SBW impact on stand. Cut all trees greater than 3" dbh. Due to forest health guidance for spruce budworm and eastern larch beetle infected stands, no seed trees are to be left standing to minimize moth inception into regeneration. Limit harvest, due to lowland conditions, to occur during winter or allow administrator to approve with dry summer conditions.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable Acceptable regeneration may include tamarack, black spruce, white pine and cedar.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

14	33024014-Cut	16.2	6125 - Lowland Black Spruce, Jack Pine	Poletimber Well	65	Unspecified	Harvest	Overstory Removal	612 - Lowland Coniferous Forest	Uneven-Aged	Proposal
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Habitat Cut: No Site Condition:

Prescription Treat to reduce ELB and SBW impact on stand. Cut all merchantable trees greater than 4" dbh leaving advanced regeneration. Do not leave seed trees due to forest health recommendation to remove all moth inceptor trees. Limit harvest, due to lowland conditions, to occur during winter or allow administrator to approve with dry summer conditions.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable This is an overstory removal with advanced regeneration currently in place. Check for acceptable regeneration in open areas produced by the harvest.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017



S t 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
18	33024018-Cut	68.6	4112 - Maple, Beech, Cherry Association	Sawtimber Well	96	111-140	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Two-Aged	Proposal

Habitat Cut: No

Site Condition:

Prescription Cut all trees 3" and greater dbh leaving hemlock and some large pine seed trees. Mark the perimeter of the hemlock patch to exclude from the sale, Specs: this will provide a retention patch. Protect the drainage running through the stand.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: Acceptable regeneration will produce a mixed upland stand that may contain ash, maple, oak, cherry, pine, fir, spruce and hemlock

Other Comment:

Proposed Start Date: 10/01/2017

19	33024019-Cut	20.1	6115 - Lowland Ash	Sawtimber Well	75	111-140	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Even-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Cut all trees 3" and greater dbh. Buffer the drainage which will provide the retention. Limit harvest, due to lowland conditions, to occur during winter or Specs: allow administrator to approve with dry summer conditions.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: Acceptable regeneration will produce a mixed lowland forest which may include ash, maple, fir, spruce and pine.

Other Comment:

Proposed Start Date: 10/01/2017

20	33024020-Cut	6.2	42340 - Upland Spruce/Fir	Poletimber Medium	52	Unspecified	Harvest	Overstory Removal	4319 - Mixed Upland Forest	Uneven-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Cut all trees over 4" dbh leaving advanced regeneration and elm. Do not leave large seed trees due to forest health recommendation that seed trees Specs: intercept the moths.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: There is advance regeneration from a previous harvest. Further regeneration for this harvest may include spruce, fir, ash, maple, oak and pine.

Other Comment:

Proposed Start Date: 10/01/2017

22	33024022-Prep	13.7	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Poor	96	51-80	SitePrep	Scarification	4199 - Other Mixed Upland Deciduous	Uneven-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Scarify surface to expose soil for seed germination. This should occur after seed/acorn drop in the fall to help mix current acorn/seed production in Specs: with soil. Exposed soil will be available for future seed drop. Scarify preferably with root rake on dozer. If root rake not available then use dozer blade to expose soil and feather out surface litter.

Next Step Monitoring, Natural Regen (Re-Inventory)
Treatments:

Acceptable Regen: Acceptable regeneration will produce a mixed upland forest that may contain oak, maple, ash, fir, spruce and pine.

Other Comment:

Proposed Start Date: 10/01/2017

Total Treatment Acreage Proposed: 178.3

Report 4 – Site Conditions

Escanaba Mgt. Unit
Dan Beudo : Examiner

Compartment: 24
Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	4A	3J
		With Condition	Not Available			
86	86	0	0	Aspen		
5	5	0	0	Bog		
4	4	0	0	Cedar		
1	1	0	0	Herbaceous Openland		
16	16	0	0	Lowland Conifers		
26	26	0	0	Lowland Deciduous		
14	5	0	9	Lowland Mixed Forest		9
18	0	18	0	Lowland Spruce/Fir	18	
4	4	0	0	Marsh		
159	159	0	0	Mixed Upland Deciduous		
69	69	0	0	Northern Hardwood		
6	6	0	0	Oak		
23	23	0	0	Tamarack		
6	6	0	0	Upland Spruce/Fir		
1	1	0	0	Urban		
439	413	18	9	Total Forested Acres	18	9
	94%	4%	2%	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	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This stand provides a buffer to the Shakey River.							
2	Available	4A: No Markets Available for these Forest Products	18	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Most of the trees are too small of a diameter for pulpwood and the chip market has been shut down indefinitely. Hold until market becomes available.							



Report 5 – 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
	Potential Old Growth		SCA Removal	4
Comments				
Does not meet SCA criteria.				
	Potential Old Growth		SCA Removal	9
Comments				
Does not meet SCA criteria.				
Unspecified	Other SCA		SCA Removal	3
Comments				
This stand was originally part of stand 7, but this area was cut to prevent the spread of oak wilt from the Epicenter that formed here. This stand was cut in 2004. There are a couple of small patches of aspen, but overall mostly upland brush. This sta				
Unspecified	Other SCA		SCA Removal	9
Comments				
Shakey River Flows through this stand. This stand is a buffer to the river. Steep banks on the transition from the upland to this stand. This stand was placed back in SCA status after the compartment review.				
Unspecified	Other SCA		SCA Removal	21
Comments				
This stand was originally part of stand 7, but over the past 15 to 20 years this area has been cut to prevent the spread of oak wilt disease. This stand is primarily an upland brush stand, but there are pockets of A, Mr, and oakstump sprouts mixed in.				
Unspecified	Other SCA		SCA Removal	54
Comments				
This stand was final harvested in 2009 on contract 026-08-01. All pine was retained along with clumps of mature oak. This stand is to be burned with stands 2 and 8 after it is cut. Do not plant. If the stand does not regenerate to oak, we will manage				



Report 6 – 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.

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

Conservation Area	Type	Description
SCA	Non-Dedicated Natural Areas and National Natural Landmarks	This category is comprised of those Natural, Wilderness and Wild Areas that have been nominated or proposed for legal dedication, but for which legal dedication by legislature has not occurred. The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
HCVA	Legally dedicated Natural Areas, Wilderness or Wild Areas	The nomination process is defined by Part 351, Wilderness and Natural Areas, of the Natural Resources and Environmental Protection Act, 1994 PA 451. The program is administered by the DNR. Nominations require the submittal of a Natural Areas Nomination Packet to the DNR. This is an active program, with proposed sites in various stages of review. Final dedication of nominated Natural, Wilderness and Wild Areas is accomplished through legislative action.
ERA	Ecological Reference Areas	Ecological Reference Areas (ERAs) are high quality examples of natural communities that have been identified as Element Occurrences (EOs) by the Michigan Natural Features Inventory (MNFI) within the context of their natural community classification system. Element Occurrences with viability ranks of A (Excellent) or B (Good) and a Global (G) or State (S) element (rarity) ranking of endangered (1), threatened (2), or rare (3) serve as an initial base of ERAs. They may be located upon any ownership in the State. The system is comprised of individual or associations of natural community types that are managed for restoration and maintenance of natural ecological processes and values. The public may submit recommendations for lands as ERAs using the DNR Conservation Area Recommendation Form.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
2	4199 - Other Mixed Upland Deciduous	Sapling Medium	73.8	7	Immature	Stand was final harvested in 2009 on contract 026-08-01 where clumps of oak and all pine were retained. Oak wilt surveillance in 2014 found scattered epicenters throughout the stand. Out of entry year approval was received to treat complete stand for oak wilt, removing all large oak trees. This oak wilt treatment was added as a supplement to contract 027-13-01 and cut winter 2015. Stand is regenerating well with 15' oak stump sprouts and aspen regeneration from 2009 harvest. Some open areas giving the lower canopy closure but close to 75%.
3	4131 - Aspen, Oak	Sapling Well	4.5	15	Immature	Clones of aspen in proximity to each other filling in old grass opening.
5	4133 - Aspen, Mixed Pine	Sapling Medium	12.0	7	Immature	Stand was cut in 2009 under contract 026-08-01. All pine and some of the oak was marked to leave. Poor quality aspen is filling in but there is still open areas of mostly shrub. Aspen regen on the west side appears to be dying out. This site more suitable for pine, especially by the looks of the current red pine.
7	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	58.7	85	1-50	Oak wilt epicenters were identified in the past and during the 2014 oak wilt surveillance. Treatment of the epicenters occurred most recently during winter 2015 as a supplement to contract 027-13-01. This stand is modeled with clumps of aspen, mature oaks and jack pine dispersed about. Nice quality red pine growing in middle of stand. Previous prescribed burns have not helped pine regeneration.
9	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	13.0	6	Immature	Stand was cut in 2010 under contract 027-08-01. Good regeneration of aspen, oak, maple, pine and spruce is taking place.
10	6121 - Tamarack	Poletimber Well	8.4	78	111-140	Tamarack mortality starting along the edge. Possible ELB and SBW starting on edge of this stand. Recommend harvesting while still healthy.
11	4123 - Red Oak	Sapling Poor	5.7	9	Immature	There is both stump sprouts and seedlings growing. Seedlings are about half the height of the stump sprouts.
13	4130 - Aspen	Poletimber Well	22.8	22	51-80	Stand was cut in 1994 under contract 049-90-01. Nice aspen regeneration with larger residual species throughout the stand.
14	6125 - Lowland Black Spruce, Jack Pine	Poletimber Well	16.2	65	Unspecified	This is a mixed stand with a variety of size classes. Some of the stand had been previously cut where the residual trees are to be harvested this cycle. Some large tamarack and black spruce that appear to have ELB and SBW signs. Protect the regeneration pockets while harvesting merchantable timber.
16	6139 - Mixed Lowland Forest	Sawtimber Well	9.0	97	111-140	The south stand line follows a draw that drops down to lowland and is a buffer to the Shakey River. Upland species on this downhill slope.
17	4136 - Aspen, Mixed Conifer	Sapling Well	9.8	6	Immature	Stand was cut in 2010 under contract 027-08-01. Good aspen regeneration with the larger diameter species being retention during the harvest.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	4112 - Maple, Beech, Cherry Association	Sawtimber Well	68.6	96	111-140	Stand was thinned in 2010 under contract 027-08-01. Final harvest this cycle to regenerate stand. There is a patch of hemlock to be retained.
19	6115 - Lowland Ash	Sawtimber Well	20.1	75	111-140	This is a mature ash dominated stand. Recommend to treat before EAB enters the stand.
20	42340 - Upland Spruce/Fir	Poletimber Medium	6.2	52	Unspecified	Stand was cut in 1993 under contract 053-90-01. The residual from that cut is merchantable and has SBW in the balsam and spruce. Treat this cycle due to SBW presence.
21	6139 - Mixed Lowland Forest	Poletimber Poor	5.2	35	Unspecified	Stand was cut in 2012 under contract 027-08-01. What appears right now is marsh grass, other wetland grasses, tag alder and the seed trees that were retained during the harvest. Some stump sprouts, white pine seedlings and small tamarack seedlings are barely visible.
22	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Poor	13.7	96	51-80	Stand was thinned in 2010 under contract 027-08-01. Not much for regeneration at this time. Stump sprouts appear to have been browsed on. Sedge is growing over a large percentage of the stand. Scarify with root rake on dozer or just blade if root rake not available.
23	4130 - Aspen	Sapling Well	6.6	20	Immature	Stand was cut in 1996 under contract 012-93-01. Nice aspen regeneration and growth with some open, grassy areas.
24	6115 - Lowland Ash	Poletimber Poor	6.3	35	Unspecified	Lowland drainage area with some tree species and mostly wetland grass.
25	6121 - Tamarack	Sapling Well	14.8	20	Immature	Stand was cut in 1996 under contract 012-93-01. Tamarack has regenerated back really thick. Cedar in east end of stand.
26	6120 - Lowland Cedar	Sawtimber Well	3.5	120	Unspecified	Nice cedar stand with some minor species. Hold for Wildlife winter cover.
27	4130 - Aspen	Poletimber Well	30.2	20	Immature	Stand was cut in 1996 under contract 012-93-01. Nice regeneration and growth of aspen and other mixed species. There is a nice patch of hemlock in southern part of stand.
28	6122 - Black Spruce	Poletimber Well	17.5	120	Unspecified	The majority of this stand is marginal for marketability with the chip market being closed. Looks like a healthy black spruce stand. Could not detect SBW at this time. Leave for another cycle if market turns around.



Stand	Cover Type	Acres	Managed Site	General Comments:
1	310 - Herbaceous Openland	1.4	No	This is an old sand pit that is growing in with grass and some seedlings.
4	122 - Road/Parking Lot	1.4	No	This is Menominee County road right of way for G-12, a blacktop road with grass on the shoulder and ditch.
6	6225 - Bog	3.4	No	Stand is a bog with short shrubs.
8	6225 - Bog	1.9	No	Stand is a small bog.
12	6239 - Mixed Emergent Wetland	2.8	No	Lowland grass and shrub.
15	6239 - Mixed Emergent Wetland	1.2	No	Lowland stand with mostly a swamp grass growing in it.