Compartment Review Presentation

Escanaba Forest Management Unit

Compartment 33065
Entry Year 2024
Acreage: 1,238
County Menominee
Management Area: North Menominee Moraines

Stand Examiner: Dan Beaudo

Legal Description:

T41N R25W, Sections 7, 8, 17 and 18; T41N R26W, Section 13

Identified Planning Goals:

This compartment is part of the Menominee-Marquette Management Area. It is a little over 4 miles north of LaBranche in the northern portion of Menominee County. There is a mix of lowland and upland cover types. Cedar is the most abundant lowland cover type with northern hardwood being the most abundant upland cover type. The West Branch of the Ford River flows easterly through the southern portion of the compartment.

Despite higher deer populations in the area during yarding periods, hardwood regeneration including sugar and red maple was found inside and outside the compartment on adjacent corporate ownership. The regeneration success appears to be due to leaving lower residual basal area levels through heavier cuts such as shelterwood and seed-tree harvests. These harvest practices are not normally used in hardwood management in the western Upper Peninsula but may be the best means to regenerate the timber type due to high populations of deer and thick coverings on the forest floor by sedges.

Forest Health concerns consist of Spruce Budworm(SBW) with active defoliation/mortality and the increased activity of woodpeckers on ash trees resembling the Emerald Ash Borer (EAB) presence. Mortality in spruce/fir suggests the presence of SBW has been here for a few years. EAB may have just showed up last growing season with larvae now attracting woodpeckers. No sighs of ash mortality at this point.

There is 191 acres proposed to be treated via harvest this inventory cycle. Of this is 123 upland acres that are primarily northern hardwood thinning and a couple stands being treated for SBW. Two semi lowland stands are being treated to regenerate aspen and balm while the third has a component of ash showing signs of EAB activity. Another 128 acres that were harvested in 2020 have monitor treatments on them.

Soil and topography:

Topography is level to gently rolling. The soils are primarily mucks/peats in the lowlands and loams and sandy loams in the uplands. The major soil series include complexes of Tawas,Deford, Onaway, Solona and Sundell.

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

The compartment is part of a mostly contiguous block of state ownership with large corporate industrial and non-industrial private (NIP) holdings surrounding the block. The corporate lands are managed for timber products and most of the NIP ownership is multi-use mainly recreational hunting, fishing and trapping and some timber production. Dwellings are seasonally occupied with access via county roads over private ownership or corporate land or extensive woods roads over corporate lands. A large hunting club with new owners controls the land south of the compartment.

Unique Natural Features:

The West Brach of the Ford River flows west to east through the southern portion of the compartment. The main branch of the Ford River lies north of the compartment.

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

Special considerations include the Guidance for Management of Conditional Deer Winter Range in the Southern U.P.

Watershed and Fisheries Considerations:

This compartment contains the West Branch Ford River. The West Branch Ford River is a non-designated stream less than 50’ width with a predicted mean July temperature of 68.2 °F (cool stream). A 100’ plus 5’ per 1% increase in slope; buffer is recommended for the West Branch Ford River to protect these areas in accordance with Best Management Practices.

Wildlife Habitat Considerations:

-comments from Wildlife Division-

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of medium textured glacial till. There is insufficient data to determine the glacial drift thickness. The Ordovician Prairie du Chien Group underlies the glacial drift. The PdC could be used for stone and may overlap Precambrian aged rocks, which may have metallic and nonmetallic mineral potential. Gravel pits are located in the area and there appears to be potential, especially the upland drumlins. No economic oil and gas production has been found in the UP.

Vehicle Access:

Two county gravel roads, the Bergman and North Gaber, come close to the southern compartment boundary. The North Gaber dead ends at private ownership adjacent to the state on the south east side. The Bergman gets close to the west compartment boundary with gate at the West Branch Ford River that is open most of the time except during hunting season. Beyond the private is corporate land two track road system that goes to Marquette County Road SD coming out south of Watson.

Survey Needs:

For the proposed treatments, potentially eighteen survey corners maybe needed. Last YOE survey request contained fifteen corner requests but did not get initiated. It appears the section and quarter corners are monumented but few 1/16 corners have been set.

Recreational Facilities and Opportunities:

There are no developed recreational facilities within the compartment. Several old roads are used for orv and snowmobile recreation by local landowners and clubs. Corporate and private landowners cooperate to allow recreational use of roads. Other recreational opportunities include hunting, fishing, trapping and horseback riding.

Fire Protection:

Access is fairly good throughout most of this compartment and the timber types in the area are generally low risk for fire hazard. Some of the interior more remote areas may present a greater fire hazard. During dry times of the year most of the compartment is accessible using four-wheel drive vehicles.
The roads need maintenance and have low wet portions that may prohibit some vehicles.

Additional Compartment Information:

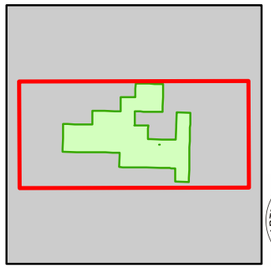
The following reports from the Inventory are attached:

- **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

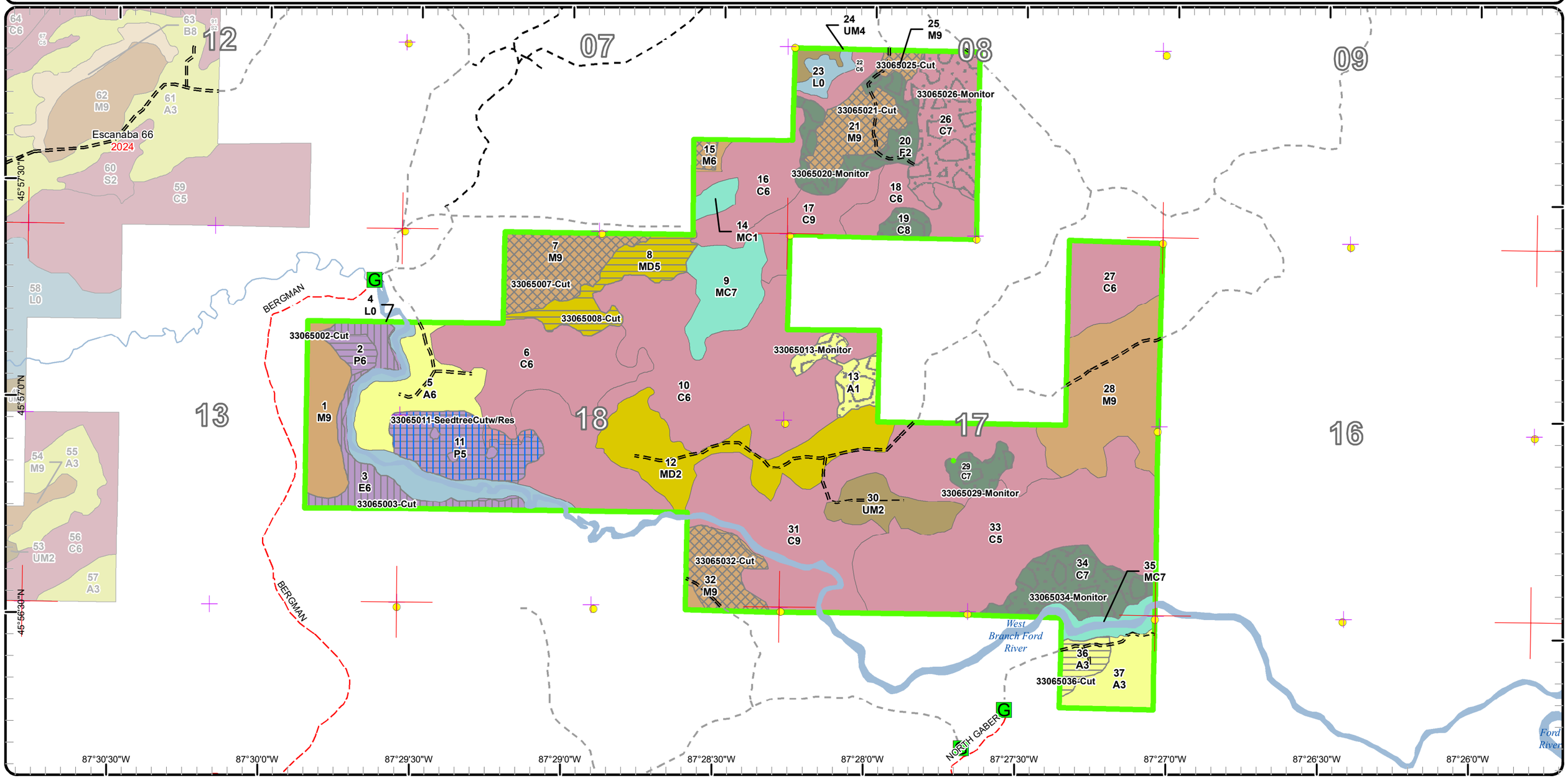


Compartment: 65
T41N-R25W Sec. 07,08,17,18
County: Menominee
Unit: Escanaba
Mgmt Area: North Menominee Moraines
YOE: 2024
Acres: 1238.3 GIS Calculated
Examiner: Dan Beaudo
Map Revised: 6/27/2022
Map Phase: Web-Post

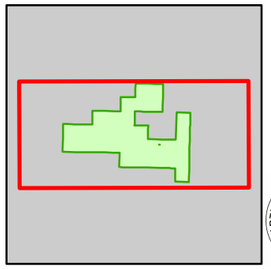
N

0 0.5 1 Miles

- Miris Corners
- Remonumented Section Corners
- Survey Grade Corners
- Counties
- DNR - Forest Access Route
- Federal / State - Dirt / Gravel Road
- County - Dirt Road (Seasonal)
- Private - Dirt / Gravel Road
- Gate
- Bridges
- Island in Lake or River
- Perennial River
- Lakes and Rivers
- Compartment Boundary
- Selection (Group, Single Tree)
- Clearcut (w/Reserves)
- Seed Tree (w/Reserves)
- Regeneration Survey
- Shelter Wood (w/Reserves)
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 622 - Lowland Shrub



Stand Boundary Map



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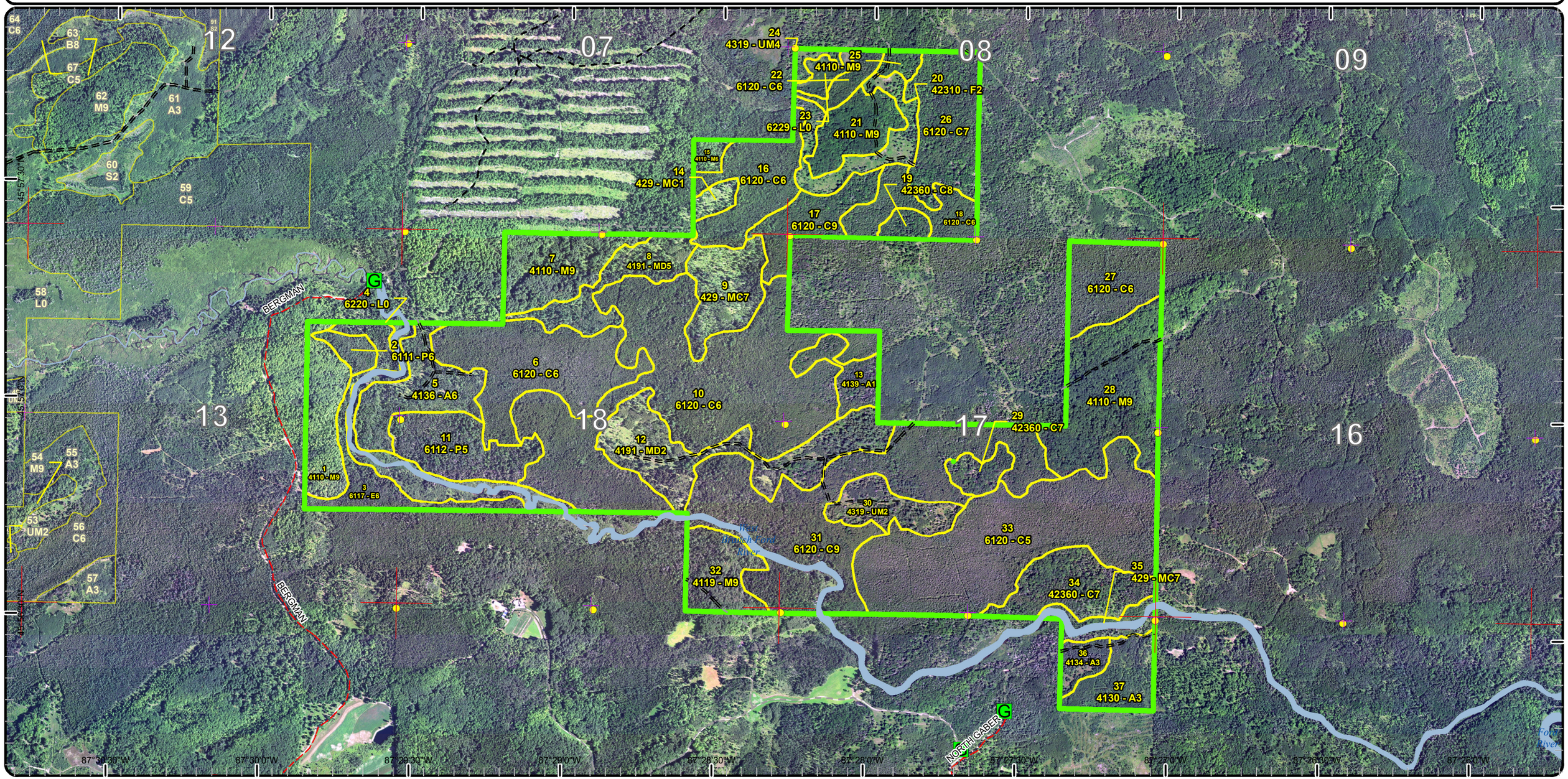
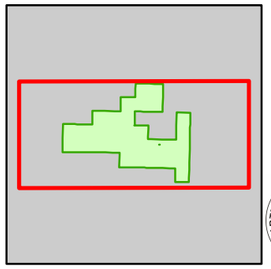


Special Conservation Areas



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- Private - Dirt / Gravel Road
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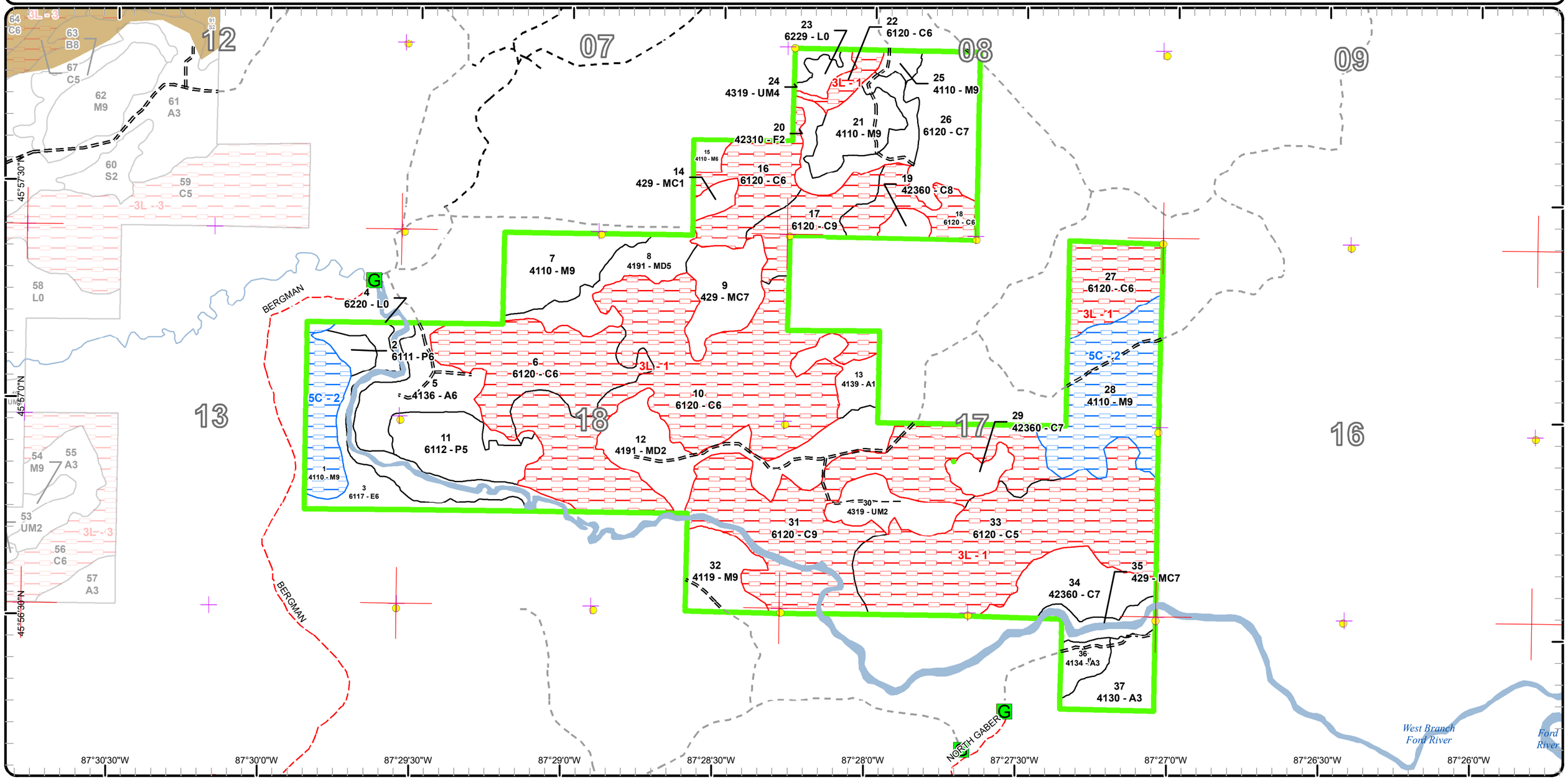
- Perennial River
- Lakes and Rivers
- Compartment Boundary
- Available w/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable
- 3L: Other wildlife concerns
- Stand Boundaries
- Forest Habitat Core Interior



Report 1 – Total Acres by Cover Type and Age Class

Escanaba Mgt. Unit **Compartment 65** **Year of Entry 2024**

Dan Beaudo : Examiner

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	15	0	30	0	33	0	0	0	0	0	0	0	0	0	0	0	0	**78**
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	99	222	347	32	0	0	**700**
Lowland Aspen/Balsam Poplar	0	0	0	0	0	0	7	0	0	33	0	0	0	0	0	0	0	0	**40**
Lowland Deciduous	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	**28**
Lowland Shrub	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**35**
Mixed Upland Deciduous	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	56	**82**
Northern Hardwood	0	0	0	0	0	0	0	0	0	177	5	0	0	0	0	0	0	0	**181**
Upland Conifers	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	34	**46**
Upland Mixed Forest	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	**25**
Upland Spruce/Fir	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**23**
Total	**35**	**38**	**0**	**30**	**25**	**59**	**35**	**0**	**0**	**222**	**5**	**0**	**99**	**222**	**347**	**32**	**0**	**90**	**1238**

Report 2 – Treatment Summary

Escanaba Mgt. Unit

Year of Entry: 2024

Acres of Harvest

Compartment 65

Total Compartment Acres: 1,238

Commercial Harvest - 167

Harvests with Site Condition - 0

Next Step Harvest - 7

Habitat Cut - 7

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	9	0	0	0	0	0	0	0	0	**9**
Lowland Aspen/Balsam Poplar	7	0	0	34	0	0	0	0	0	**41**
Lowland Deciduous	0	0	0	0	26	0	0	0	0	**26**
Mixed Upland Deciduous	26	0	0	0	0	0	0	0	0	**26**
Northern Hardwood	0	64	0	0	0	0	0	0	0	**64**
Total	**42**	**64**	**0**	**34**	**26**	**0**	**0**	**0**	**0**	**167**

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	167	0	0	0	0	0	128	0	0	**295**
Next Step	7	0	0	0	0	0	160	0	0	**167**
Total	**173**	**0**	**0**	**0**	**0**	**0**	**288**	**0**	**0**	**462**

Proposed Treatments:

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
2	33065002-Cut	6.8	6111 - Lowland Balsam Poplar	Poletimber Well	55	51-80	Harvest	Clearcut	6112 - Lowland Aspen	Even-Aged	No

Prescription Specs: Cut all trees greater than 3" dbh except leave hemlock. Dense cedar along stand 3 is to be placed in stand 3 treatment to leave cedar.

Next Step Treatments: Harvest, Clearcut

Acceptable Regen: Species in the canopy layers.

Other Comment: Stand has reached maturity with some aspen and balm dying out. Regenerate stand to promote aspen for greater diversity in the compartment. Also, harvest due to forest health concerns with EAB presence.

It has been agreed upon between FRD and WD to harvest the cedar within this stand because of the minimal amount of cedar and to promote maximum aspen regeneration to increase the diversity within this compartment.

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch and jack pine require full sunlight.

Site Condition

Proposed Start Date: 10/1 /2023

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
3	33065003-Cut	26.4	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	50	111-140	Harvest	Shelterwood	613 - Lowland Mixed Forest	Uneven-Aged	No

Prescription Specs: Cut all species greater than 3" dbh except leave cedar, hemlock and some large seed trees. Buffer river accordingly leaving some large trees along the cut line of mixed species for wildlife cavities and roosting. Cedar may be cut for operational purposes.

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

Acceptable Regen: Species in the canopy layers.

Other Comment: The amount of cedar and leave trees will produce the canopy more associated to a shelterwood harvest. This treatment will utilized species affected by SBW and EAB forest health concerns providing for regeneration opportunity in mature species.The shelterwood system lies somewhere in between the visual extremes of clearcutting and selection management. The parent forest is removed in several stages, with each stage successively establishing optimum environmental conditions for tree regeneration and then nursing the regeneration along to a point where the remaining parent forest can be harvested. Red oaks and white pine stands will often benefit from shelterwood harvesting.

Site Condition

Proposed Start Date: 10/1 /2023

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
7	33065007-Cut	33.7	4110 - Sugar Maple Association	Sawtimber Well	85	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	No

Prescription Specs: Selection thin stand to 50-70 basal area. Cut all ash, aspen, balm, balsam fir, ironwood and spruce that are 3" dbh and greater.

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

Acceptable Regen: Species in the canopy layers.

Other Comment: Recommendations to thin Northern Hardwood stands every 15 years. It was last treated in 1983. Stand has spruce budworm and potential for EAB forest health concerns.

Forests require disturbance to regenerate. How, what, when and why can be management decisions with a purpose, or they can be subject to random natural events.

Selection harvesting may be the most misunderstood system and is certainly the most complex. When stands of trees become overly dense, forest health risks increase. Removing the higher-risk trees and leaving the trees with higher potential improves the quality and character of the forest. The partially-opened canopy allows enough light to accelerate individual tree health, vigor and allows seedlings to grow. The young trees eventually replace the older trees as the older trees either die or are harvested.

Site Condition

Proposed Start Date: 10/1 /2023

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
8	33065008-Cut	26.4	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	40	1-50	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	No

Prescription Specs: Cut all trees greater than 3" except leave hemlock and some scattered large pine for seed trees.

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

Acceptable Regen: Species in the canopy layers.

Other Comment: Stand has forest health issues present. Salvage from SBW and EAB activity while promoting regeneration from vigorous root systems. This treatment will also increase the diversity of aspen within the Compartment.

I has been agree upon between FRD and WD to harvest the cedar due to the minimal amount, adjacent to a large high quality cedar stand and to promote aspen diversity within the compartment.

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch and jack pine require full sunlight.

Site Condition

Proposed Start Date: 10/1 /2023

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
21	33065021-Cut	22.3	4110 - Sugar Maple Association	Sawtimber Well	85	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	No

Prescription Specs: Selection thin stand according to Compleat Marker bringing stand down to approximately 70 basal area.

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

Acceptable Regen: Species in the canopy layers.

Other Comment: Recommendations to thin Northern Hardwood stands every 15 years. It was last thinned in 1984. Forests require disturbance to regenerate. How, what, when and why can be management decisions with a purpose, or they can be subject to random natural events.

Selection harvesting may be the most misunderstood system and is certainly the most complex. When stands of trees become overly dense, forest health risks increase. Removing the higher-risk trees and leaving the trees with higher potential improves the quality and character of the forest. The partially-opened canopy allows enough light to accelerate individual tree health, vigor and allows seedlings to grow. The young trees eventually replace the older trees as the older trees either die or are harvested.

Site Condition

Proposed Start Date: 10/1 /2023

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
25	33065025-Cut	4.6	4110 - Sugar Maple Association	Sawtimber Well	80	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	No

Prescription Specs: Selection thin stand according to Compleat Marker bringing stand down to 60-80 basal area. Cut all balsam, spruce and ironwood.

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

Acceptable Regen: Species in the canopy layers.

Other Comment: Recommendations to thin Northern Hardwood stands every 15 years. Stand was last treated in 1984. Forests require disturbance to regenerate. How, what, when and why can be management decisions with a purpose, or they can be subject to random natural events.

Selection harvesting may be the most misunderstood system and is certainly the most complex. When stands of trees become overly dense, forest health risks increase. Removing the higher-risk trees and leaving the trees with higher potential improves the quality and character of the forest. The partially-opened canopy allows enough light to accelerate individual tree health, vigor and allows seedlings to grow. The young trees eventually replace the older trees as the older trees either die or are harvested.

Site Condition

Proposed Start Date: 10/1 /2023

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
32	33065032-Cut	22.3	4119 - Mixed Northern Hardwoods	Sawtimber Well	88	141-170	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	No

Prescription Specs: Selection thin stand according to the Compleat Marker bringing stand down to approximately 70 basal area. Cut all ash, balsam, spruce and ironwood 3" dbh and greater. All other species can be cut except hemlock. Retain small dense cedar patch in the south west portion of the stand. Other areas of cedar can be thinned to promote regeneration conditions.

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

Acceptable Regen: Species of the canopy layers.

Other Comment: Recommendations to thin Northern Hardwood stands every 15 years. Removal of ash due to emerald ash borer in the area. There are large ash trees that will be left in the buffer to the river.Selection harvesting may be the most misunderstood system and is certainly the most complex. When stands of trees become overly dense, forest health risks increase. Removing the higher-risk trees and leaving the trees with higher potential improves the quality and character of the forest. The partially-opened canopy allows enough light to accelerate individual tree health, vigor and allows seedlings to grow. The young trees eventually replace the older trees as the older trees either die or are harvested.

Site Condition

Proposed Start Date: 10/1 /2023

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
36	**33065036-Cut**	9.0	4134 - Aspen, Spruce/Fir	Sapling Well	24	Immature	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	No

Prescription Specs: Clear cut with retention. Cut all merchantable trees except hemlock. Avoid/protect small diameter aspen patches.

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

Acceptable Regen: Species in the canopy layers.

Other Comment: Spruce budworm has infected the balsam fir and spruce in this stand. The treatment will utilize merchantable trees before mortality sets in addressing the current forest health issue.

Clearcutting is the solution to forest types whose seedlings or sprouts require full sunlight. Seeds and buds respond well to the warmed ground. The abundance of light produces excellent growth, some of the fastest we have. Species such as aspen, paper birch and jack pine require full sunlight.

Site Condition

Proposed Start Date: 10/1 /2023

Approved Treatments:

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
15	**33065007-SCw/Res**	3.1	4110 - Sugar Maple Association	Poletimber Well	95	141-170	Harvest	Single Tree Selection	4110 - Sugar Maple Association	Uneven-Aged	No

Prescription Specs: Selectcut with reserves. Thin to 70-90 residual basal area. Reserve hemlock, yellow birch and pine, if present.

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

Acceptable Regen: Regeneration of sugar maple and associated northern hardwood species.

Other Comment: Stand last treated in 1984 on contract 014-84-01.

Site Condition

Proposed Start Date: 10/1 /2013

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
11	**33065011-SeedtreeCutw/Res**	34.3	6112 - Lowland Aspen	Poletimber Medium	80	81-110	Harvest	Seed Tree with Retention	6112 - Lowland Aspen	Two-Aged	No

Prescription Specs: Scattered seed tree cut w/ reserves. Cut all except leave scattered seed tree clumps with clumps including pine and cedar and leave all hemlock, beech and yellow birch, if present. Also, leave 2 or 3 patches of 1/2 acre size containing mostly cedar.

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

Acceptable Regen: Management objective of aspen, balm and mixed conifer.

Other Comment: Leave a 100' buffer along West Branch of Ford River. Retention will include the buffer along river. Old next step comments: Check next entry for regeneration.

Site Condition

Proposed Start Date: 10/1 /2013

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
13	33065013-Monitor	14.7	4139 - Aspen, Mixed Deciduous	Sapling Poor	2	Immature	Monitoring	Natural Regen (Re-Inventory)	4319 - Mixed Upland Forest	Even-Aged	No

Prescription Specs: Management of aspen, balm and mixed conifer.

Next Step Treatments:

Acceptable Regen: Management objective of aspen, balm and mixed conifer.

Other Comment: Percent to Treat = 100%

Site Condition

Proposed Start Date: 10/1 /2022

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
19	33065019-Monitor	5.8	42360 - Upland Cedar	Sawtimber Medium	135	51-80	Monitoring	Natural Regen (Re-Inventory)	4113 - R.Maple, Conifer	Even-Aged	No

Prescription Specs: Management objective of red maple, aspen, spruce, fir.

Next Step Treatments:

Acceptable Regen: Management objective of red maple, aspen, spruce, fir.

Other Comment: Percent to Treat = 100%

Site Condition

Proposed Start Date: 10/1 /2022

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
20	33065020-Monitor	23.2	42310 - Planted Spruce	Sapling Medium	5	Immature	Monitoring	Artificial Regen(3yr)	42320 - Upland Spruce	Even-Aged	No

Prescription Specs: Monitor per work instructions

Next Step Treatments:

Acceptable Regen: Spruce, fir, maple, pine, and birch.

Other Comment:

Site Condition

Proposed Start Date: 10/1 /2020

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
26	33065026-Monitor	41.9	6120 - Lowland Cedar	Sawtimber Poor	128	1-50	Monitoring	Natural Regen (Re-Inventory)	4113 - R.Maple, Conifer	Even-Aged	No

Prescription Specs: Management objective is red maple and mixed conifer.

Next Step Treatments:

Acceptable Regen: Management objective is red maple and mixed conifer.

Other Comment: Percent to Treat = 100%

Site Condition

Proposed Start Date: 9 /30/2022

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
29	33065029-Monitor	9.4	42360 - Upland Cedar	Sawtimber Poor	136	51-80	Monitoring	Natural Regen (Re-Inventory)	4113 - R.Maple, Conifer	Even-Aged	No

Prescription Specs: Management objective of red maple and conifer.

Next Step Treatments:

Acceptable Regen: Management objective of red maple and conifer.

Other Comment: Percent to Treat = 100%

Site Condition

Proposed Start Date: 10/1 /2022

Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
34	33065034-Monitor	33.4	42360 - Upland Cedar	Sawtimber Poor	134	1-50	Monitoring	Natural Regen (Re-Inventory)	4113 - R.Maple, Conifer	Even-Aged	No

Prescription Specs: Management objective of red maple and conifer.

Next Step Treatments:

Acceptable Regen: Management objective of red maple and conifer.

Other Comment: Percent to Treat = 100%

Site Condition

Proposed Start Date: 10/1 /2022

Total Treatment Acreage Proposed: **317.3**

Report 4 – Site Conditions

Escanaba Mgt. Unit

Dan Beaudo : Examiner

Compartment: 65

Year of Entry: 2024

Availability for Management

Total Acres	Acres Available	*Acres Avail With Condition*	Acres Not Available		Dominant Site Conditions *5C*	3L
78	78	***0***	0	**Aspen**		
699	93	***0***	606	**Cedar**		606
40	40	***0***	0	**Lowland Aspen/Balsam Poplar**		
28	28	***0***	0	**Lowland Deciduous**		
35	35	***0***	0	**Lowland Shrub**		
83	83	***0***	0	**Mixed Upland Deciduous**		
181	89	***92***	0	**Northern Hardwood**	***92***	
47	47	***0***	0	**Upland Conifers**		
24	24	***0***	0	**Upland Mixed Forest**		
23	23	***0***	0	**Upland Spruce/Fir**		
1,238	541	***92***	606	Total Forested Acres	***92***	606
	44%	***7%***	49%	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**	**3L: Other wildlife concerns**	606	1C: Other dept or div proc/practices	1D: Interest Group / Neighbor	Unspecified	Unspecified
	Comments: Stands having larger quantities of cedar that are not available for harvest due to political and social restrictions in regards to deer wintering habitat.							
2		**Available**	**5C: Delay treatment for age/size class diversity or exceptional site quality**	92	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Hold these stands until next cycle to create a thinning rotation of the M-type within this compartment so as not to treat all M-type in the same cycle. These stands had the most recent thinning's on them.							

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

Comments

Mgt. Unit **Compartment:**

Year of Entry

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

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
1	4110 - Sugar Maple Association	Sawtimber Well	26.8	80	111-140	N/A	This stand was thinned in 1996 under contract 33-003-96-01 Bergman Road Block timber sale. It is a northern hardwood ridge with good quality trees. Good regeneration of maple and ash are responding to the thinning but a fair amount shows browse damage.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	5	Log	12	
White Ash	5	Log	13	
Basswood	10	Log	14	
Sugar Maple	80	Log	12	80

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	Medium	5 - 10 feet	Sapling
White Ash	Medium	< 5 feet	Sapling
Sugar Maple	High	< 5 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
2	6111 - Lowland Balsam Poplar	Poletimber Well	6.8	55	51-80	N/A	Stand looks fairly healthy with some of the aspen and balm dying out. Most of the ash looks like the woodpeckers are leaving them alone but in the next stand along the river there is lots of woodpecker activity on the ash trees. About a quarter of the stand is ash so treat stand to utilize before the emerald ash borer causes complete mortality. Trace amounts of balsam fir, hemlock, white spruce, red maple, and birch.

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	25	Pole	9	
Balsam Poplar	45	Pole	8	55
Black Ash	5	Pole	6	
Green Ash	20	Pole	8	
Northern White Cedar	5	Log	10	

Sub-Canopy Species	Density	Avg. Height	Size
Ash (spp.)	Medium	10 - 20 feet	Sapling
White Spruce	Low	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
3	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	28.4	50	111-140	N/A	This is a mixed stand that is mostly lowland with some upland areas. Tag alder present in open areas of the stand. Scattered blowdowns and the appearance of SBW and EAB activity. Trace amounts of white ash, yellow birch, red maple, aspen, hemlock and pine.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Poplar	25	Log	10	
White Spruce	10	Pole	8	
Balsam Fir	5	Pole	6	
Northern White Cedar	15	Log	12	138
Black Ash	30	Pole	6	50
Green Ash	10	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Black Ash	Low	< 5 feet	Sapling
Tag Alder	Medium	5 - 10 feet	Tall Shrub
Balsam Poplar	Low	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
4	6220 - Alder/willow	Nonstocked	28.6		Unspecified	No	West Branch of the Ford River runs through this stand. Shoreline is composed of tall grasses with some scattered clumps of ash, cedar and other mix conifer. Ash has woodpecker activity tearing off the bark looking for larva similar to emerald ash borer infestation.

Sub-Canopy Species	Density	Avg. Height	Size
Tag Alder	High		Tall Shrub

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
5	4136 - Aspen, Mixed Conifer	Poletimber Well	33.2	42	Unspecified	N/A	A mixed stand with majority being aspen and balm. Past beaver activity along the river has promoted balm/fir/spruce and cedar type. Scattered large white pine. SBW appearing in spruce/fir. Trace amounts of cherry, hemlock, maple and birch. Past open areas are filling in with mixed regeneration.

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	50	Pole	7	42
Balsam Poplar	25	Pole	6	
Balsam Fir	5	Sapling/Pole	4	
White Spruce	5	Pole/Sapling	6	
White Pine	5	XLog	18	
Northern White Cedar	5	Log/Pole	10	
Red Maple	5	Sapling/Pole	4	

Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	Low	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
6	6120 - Lowland Cedar	Poletimber Well	64.6	111	171-200	N/A	Most of stand is nearly pure cedar with occasional patches of black spruce with some tamarack. Ground is very wet in some portions. Trace amounts of balsam fir, white spruce and white pine. Mixed quality of cedar seems dependent upon areas of variable wetness.

Canopy Species	% Cover	Size Class	DBH	Age
Black Spruce	5	Pole	8	
Northern White Cedar	95	Pole	8	111

Sub-Canopy Species	Density	Avg. Height	Size
Tag Alder	Low	5 - 10 feet	Tall Shrub
Northern White Cedar	Low	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
7	4110 - Sugar Maple Association	Sawtimber Well	33.7	85	111-140	N/A	This stand was treated in 1983 on contract 33-014-82-01 Bergman Bridge Sale. Open areas within a hardwood stand where short lived species were removed in the past and slow to regenerate. High density of sedge present. Trace amounts of hemlock, cherry, aspen, balm, balsam fir and white pine.

Canopy Species	% Cover	Size Class	DBH	Age
Basswood	5	Log/Pole	12	
Northern White Cedar	5	Pole	8	
Sugar Maple	80	Log	12	85
Balsam Fir	5	Pole	8	
White Ash	5	Log/Pole	13	

Sub-Canopy Species	Density	Avg. Height	Size
Sugar Maple	Low	>20 feet	Sapling
Ironwood	Low	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
8	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	26.4	40	1-50	N/A	Stand was treated in 1982 under contract 33-014-82-01 Bergman Bridge Sale. There is a variable density and size to the regeneration. Spruce budworm is in the stand with emerald ash borer in the area. Trace amounts of ash, cedar, hemlock, sugar maple, white spruce, and pine. Salvage spruce fir while harvesting at good vigor will help aspen and balm fill in open areas.

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	15	Log	15	
Balsam Fir	10	Pole	6	
Balsam Poplar	25	Pole	6	40
Black Cherry	15	Sapling	3	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	5 - 10 feet	Sapling
White Spruce	Low	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
9	429 - Mixed Upland Conifers	Sawtimber Poor	28.7	135	1-50	N/A	Stand was shelterwood treated in 1999 by the Bunchberry (33-040-96-01) timber sale. Residual trees included cedar, hemlock, pine, white spruce and cherry. Stand is filling in with a variety of species. Trace amounts of hemlock, maple, red pine, black spruce and yellow birch.

Canopy Species	% Cover	Size Class	DBH	Age
Black Cherry	5	Pole	8	
Balsam Fir	5	Pole	6	
Northern White Cedar	35	Log/Pole	10	
White Pine	40	XLog/Log	18	135
Paper Birch	5	Pole	8	
White Spruce	10	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Paper Birch	Low	10 - 20 feet	Sapling
White Pine	Low	< 5 feet	Seeding
Red Maple	Low	>20 feet	Sapling
White Spruce	Medium	< 5 feet	Seeding
Balsam Fir	Low	5 - 10 feet	Sapling
Balsam Poplar	Medium	>20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
10	6120 - Lowland Cedar	Poletimber Well	172.0	126	Unspecified	N/A	This is a large stand that is dominated by cedar. Other species are in patches that tend to be a little upland. Trace amounts of ash, aspen, yellow birch, hemlock, white spruce and pine.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	5	Pole	6	
Red Maple	5	Pole	8	
Black Spruce	5	Pole	6	
Paper Birch	10	Pole	7	
Balsam Poplar	15	Pole	8	
Northern White Cedar	60	Log	10	126

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	10 - 20 feet	Sapling
Northern White Cedar	Low	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
11	6112 - Lowland Aspen	Poletimber Medium	33.1	80	81-110	N/A	This stand is part of the West Branch Ford River (33-024-15-01) timber sale. The spruce budworm is in the stand and has caused mortality. Ash trees are also having woodpecker activity similar to the Emerald Ash Borer being present. Trace amounts of mixed species including ash, hemlock and maple.

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	35	Pole/Log	8	80
Balsam Poplar	10	Pole	8	
Balsam Fir	5	Pole	7	
Northern White Cedar	15	Log	10	120
White Pine	5	XLog	18	
White Spruce	5	Pole	8	
Paper Birch	25	Pole/Log	9	80

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
12	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	56.2	31	Immature	N/A	Long narrow low ridge. White spruce seedlings in more open areas. Slowly filling in with variable age to stand. Stand was treated in 1991 under contract 33-017-86-01. All balm, aspen, balsam and mixed hardwood was harvested with cedar, hemlock and some pine seed trees being retained.

Canopy Species	% Cover	Size Class	DBH	Age
White Spruce	10	Sapling	2	
Balsam Fir	5	Sapling	2	
Red Maple	10	Pole	8	
Balsam Poplar	40	Sapling	3	31
Northern White Cedar	15	Log	10	140
White Pine	5	XLog	18	
Black Cherry	5	Sapling	2	

Sub-Canopy Species	Density	Avg. Height	Size
Blackberry/Raspberry	Low	< 5 feet	Tall Shrub

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
13	4139 - Aspen, Mixed Deciduous	Sapling Poor	14.7	2	Immature	N/A	Stand was treated 1/2020 under contract 33-024-15-01 West Branch Ford River. All trees 3" dbh and greater were harvested except hemlock, pine and yellow birch. Aspen, balm and some other mixed species regeneration is present. Two retention patches were also retained from harvest. This is two upland areas connected by the logging access trail.

Canopy Species	% Cover	Size Class	DBH	Age
Northern White Cedar	5	Log	12	
Hemlock	5	Log	12	
White Pine	5	XLog	22	
Balsam Poplar	35	Sapling	1	
Quaking Aspen	50	Sapling	1	2

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
14	429 - Mixed Upland Conifers	Sapling Poor	5.5	38	1-50	N/A	Stand was treated by the Bergman Bridge Sale (33-014082-01) in the mid 80's. All merchantable trees were cut except hemlock and pine. Stand is slowly filling in with spruce, pine and fir. Some balm along the wetter edge of the stand. Maple, cherry and ironwood in the higher portions.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	15	Sapling	4	
Balsam Fir	20	Sapling	4	
Ironwood	25	Sapling	3	
White Spruce	25	Sapling	4	38
White Pine	15	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	Medium	< 5 feet	Seeding
White Pine	Medium	< 5 feet	Seeding
Pin Cherry	Low	5 - 10 feet	Seeding
Balsam Poplar	Low	10 - 20 feet	Pole

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
15	4110 - Sugar Maple Association	Poletimber Well	4.6	95	141-170	N/A	This is a thick hardwood stand that is currently on the West Branch Ford River (33-024-15-01 timber sale. A small stand with corporate lands on west and north side. Good quality sugar maple logs and poles. Trace amounts of ash, basswood, yellow birch, balsam and spruce.

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	95	Pole	9	95
Northern White Cedar	5	Pole	7	

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	Medium	< 5 feet	Tall Shrub

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
16	6120 - Lowland Cedar	Poletimber Well	34.3	114	Unspecified	N/A	Quality of cedar products is variable--portions are good quality bolts and posts, wetter portions poor timber products with blowdown and leaners. Trace amounts of ash, balm, birch, hemlock, white spruce, maple and pine..

Canopy Species	% Cover	Size Class	DBH	Age
Tamarack	5	Pole	7	
Northern White Cedar	90	Log	10	114
Black Spruce	5	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
Tag Alder	Low	5 - 10 feet	Tall Shrub
Northern White Cedar	Low	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
17	6120 - Lowland Cedar	Sawtimber Well	24.2	135	171-200	N/A	This is a mixed stand with cedar being overtopped by short lived species. Balm, birch, fir, maple and spruce are at maturity with mortality setting in. Trace amounts of spruce, ash, sugar maple and aspen.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	15	Log	12	
Paper Birch	15	Pole	8	
Balsam Poplar	5	Log	10	
Northern White Cedar	55	Log	12	135
Balsam Fir	10	Pole	6	

Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	Medium	>20 feet	Pole

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
18	6120 - Lowland Cedar	Poletimber Well	22.9	135	141-170	N/A	Lowland cedar swamp with trace amounts of maple, hemlock, spruce, balsam fir, tamarack and pine.

Canopy Species	% Cover	Size Class	DBH	Age
Northern White Cedar	95	Pole	8	135
Paper Birch	5	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	10 - 20 feet	Sapling
Northern White Cedar	Low	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
19	42360 - Upland Cedar	Sawtimber Medium	5.8	135	51-80	N/A	Stand was treated in 12/2019 under contract 33-024-15 West Branch Ford River timber sale. All trees 3" and greater were harvested except cedar and some maple, birch, hemlock, pine seed trees.

Canopy Species	% Cover	Size Class	DBH	Age
Northern White Cedar	100	Log	12	135

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
20	42310 - Planted Spruce	Sapling Medium	23.2	5	Immature	N/A	This stand was clearcut, except leave hemlock, in 1984 under contract 33-047-82-01. Stand was not regenerating so it was planted on 5/13/16 on FTP#33-689, with 14,000 white spruce and 1,000 white pine 3-0 seedlings. The residual overstory was not cut, the seedlings were planted in the open areas. The spruce are noticeable through the snow cover. Not as much of the white pine are sticking up

Canopy Species	% Cover	Size Class	DBH	Age
Hemlock	5	Log	12	
White Spruce	80	Sapling	1	5
White Pine	5	Sapling	1	
Black Cherry	10	Sapling	2	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
21	4110 - Sugar Maple Association	Sawtimber Well	22.3	85	111-140	N/A	This stand was thinned in 1984 on the Five Doe Sale 33-047-82-01. Nice quality hardwoods looking healthy with higher basal area. Trace amounts of ash, balsam fir, basswood, cedar, hemlock and birch.

Canopy Species	% Cover	Size Class	DBH	Age
Red Maple	20	Log	10	
Sugar Maple	80	Log	12	85

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	Low	< 5 feet	Sapling
Balsam Fir	Low	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
22	6120 - Lowland Cedar	Poletimber Well	7.9	125	171-200	N/A	Mostly a buffer of cedar along the transition to the upland hardwood type. Trace amounts of balm, balsam, maple and hemlock.

Canopy Species	% Cover	Size Class	DBH	Age
Black Ash	10	Pole	5	
White Spruce	5	Log	13	
Northern White Cedar	75	Pole	8	125
Balsam Poplar	5	Log	10	
Paper Birch	5	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	Low	10 - 20 feet	Sapling
Black Ash	Low	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
23	6229 - Mixed lowland shrub	Nonstocked	6.5		Unspecified	No	Wet area with tall grass and some trees scattered like ash, cedar and spruce.

Sub-Canopy Species	Density	Avg. Height	Size
Michigan Holly	Medium		Tall Shrub
Tag Alder	Medium		Tall Shrub

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
24	4319 - Mixed Upland Forest	Poletimber Poor	3.5	32	1-50	N/A	Stand was cut in 1984 under contract 33-047-82-01. Mixed upland and lowland along property line. Old grassy opening previously described is slowly filling in by a mix of seedlings.

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	10	Log	10	
Black Ash	15	Pole	5	
White Spruce	20	Pole	6	32
Black Spruce	5	Pole	5	
Balsam Poplar	10	Sapling	4	
Tamarack	10	Pole	6	
Northern White Cedar	10	Pole	8	
Red Maple	20	Pole	6	32

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	< 5 feet	Seeding
Balsam Poplar	Low	5 - 10 feet	Sapling
White Spruce	Low	< 5 feet	Seeding

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
25	4110 - Sugar Maple Association	Sawtimber Well	4.6	80	111-140	N/A	Hardwood stand that was last thinned in 1984 under contract 33-047-82-01. Some low areas in the stand producing a lower quality of hardwood. Trace amounts of other species such as cedar, balsam fir, spruce, white pine, and yellow birch.

Canopy Species	% Cover	Size Class	DBH	Age
Hemlock	5	Log	12	
Basswood	5	Log	12	
Red Maple	15	Log	14	
Sugar Maple	75	Log	14	80

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	Low	5 - 10 feet	Sapling
Northern White Cedar	Low	>20 feet	Pole

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
26	6120 - Lowland Cedar	Sawtimber Poor	41.9	128	1-50	N/A	Stand was treated in 12/2019 under contract 33-024-15-01 West Branch Ford River timber sale. All trees 3" dbh and greater were harvested except cedar, hemlock, yellow birch and some seed trees. Mostly lowland with some slight upland. Trace amounts of maple, birch, spruce and balsam.

Canopy Species	% Cover	Size Class	DBH	Age
Hemlock	10	Log	10	
Yellow Birch	5	Log	10	
White Pine	5	XLog	18	
Northern White Cedar	80	Log	12	128

Sub-Canopy Species	Density	Avg. Height	Size
Quaking Aspen	Low	5 - 10 feet	Sapling
Balsam Poplar	Medium	5 - 10 feet	Sapling
Balsam Fir	Low	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
27	6120 - Lowland Cedar	Poletimber Well	31.7	147	Unspecified	N/A	Poor quality cedar characteristic of wetter site. Some slight higher elevation have better quality. Tamarack and black spruce mixed in with some areas with higher concentrations. Areas of blown over balsam fir and black spruce.

Canopy Species	% Cover	Size Class	DBH	Age
White Pine	5	XLog	18	
Black Spruce	5	Pole	8	
Northern White Cedar	85	Pole	8	147
Tamarack	5	Pole	8	

Sub-Canopy Species	Density	Avg. Height	Size
Tag Alder	Low	< 5 feet	Tall Shrub
Black Ash	Low	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
28	4110 - Sugar Maple Association	Sawtimber Well	64.9	84	111-140	N/A	Good quality sugar maple stand with small amounts of other species. Regeneration has been browsed but signs of good regeneration for a Menominee County northern hardwood stand. Some tall knolls with steep slopes. Trace amounts of cedar, balsam fir, spruce, white pine, hemlock, paper birch, yellow birch, white ash, and black cherry.

Canopy Species	% Cover	Size Class	DBH	Age
Sugar Maple	90	Log	12	84
Red Maple	5	Log	12	
Basswood	5	Log	12	

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	High	5 - 10 feet	Sapling
Maple (spp.)	Medium	5 - 10 feet	Sapling
White Ash	Medium	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
29	42360 - Upland Cedar	Sawtimber Poor	9.4	136	51-80	N/A	Upland island in swamp that was treated on 3/2020 under contract 33-024-15 West Branch Ford River timber sale. All trees greater than 3" dbh were cut except cedar and some seed trees. Good maple sprouting with some making it past deer browsal. Trace seed tree species of pine, spruce and maple.

Canopy Species	% Cover	Size Class	DBH	Age
Hemlock	5	Log	12	
Northern White Cedar	95	Log	12	136

Sub-Canopy Species	Density	Avg. Height	Size
Maple (spp.)	Medium	< 5 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
30	4319 - Mixed Upland Forest	Sapling Medium	21.0	30	Immature	N/A	Stand was treated in 1990 under contract 33-017-86-01. Cedar, pine with some spruce and fir seed trees were retained. Balm, cherry with some birch, maple spruce and fir regeneration is slowly filling in the stand.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	5	Pole	6	
Black Cherry	10	Sapling	3	
White Spruce	10	Pole	6	
Balsam Poplar	45	Sapling	3	30
Northern White Cedar	20	Log	10	
White Pine	10	XLog	18	

Sub-Canopy Species	Density	Avg. Height	Size
Blackberry/Raspberry	Medium	< 5 feet	Tall Shrub
Pin Cherry	Low	5 - 10 feet	Sapling
White Spruce	Low	5 - 10 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
31	6120 - Lowland Cedar	Sawtimber Well	125.8	134	Unspecified	N/A	Very nice cedar stand with trees straight and tall. Ocassional XL white pine. Other species observed: basswood, sugar/red maple, fir, white pine.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Poplar	5	Log	12	
White Spruce	5	Log	13	
Northern White Cedar	85	Log	12	134
Paper Birch	5	Log	10	

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
32	4119 - Mixed Northern Hardwoods	Sawtimber Well	24.2	88	141-170	N/A	This stand is a mixed quality with a variety of hardwood species. It is mostly upland with low areas containing ash, cedar, hemlock and red maple. Several dead trees on the ground with a high basal area. Unknown if this stand was ever thinned. Remove ash due to emerald ash borer in the area.

Canopy Species	% Cover	Size Class	DBH	Age
Green Ash	15	Log	12	
Red Maple	15	Log/Pole	12	
Basswood	5	Log	13	
Sugar Maple	60	Log/Pole	12	88
Northern White Cedar	5	Log	13	

Sub-Canopy Species	Density	Avg. Height	Size
Ironwood	Low	5 - 10 feet	Sapling
Sugar Maple	Low	10 - 20 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
33	6120 - Lowland Cedar	Poletimber Medium	124.9	137	81-110	N/A	Poor quality cedar appearing like minimal wintering cover due to low wet site. Cedar is 1-2 sticks with sweep and lots of blow down is areas. Trace amounts of white pine, black ash, red maple and balm.

Canopy Species	% Cover	Size Class	DBH	Age
Black Spruce	5	Pole	6	
Tamarack	5	Pole	5	
Northern White Cedar	90	Pole	6	137

Sub-Canopy Species	Density	Avg. Height	Size
Tag Alder	Medium	5 - 10 feet	Tall Shrub

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
34	42360 - Upland Cedar	Sawtimber Poor	33.4	134	1-50	N/A	This stand was treated in 3/2020 under contract 33-024-15 West Branch Ford River timber sale. All species greater than 3" were cut except cedar, hemlock, yellow birch and some seed trees. Red maples sprouting good but heavily browsed. Some sprouts have made it 5' tall.

Canopy Species	% Cover	Size Class	DBH	Age
White Spruce	5	Log	14	
White Pine	15	XLog	22	
Northern White Cedar	80	Log	10	134

Sub-Canopy Species	Density	Avg. Height	Size
Balsam Fir	Low	5 - 10 feet	Sapling
Red Maple	Low	< 5 feet	Sapling

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
35	429 - Mixed Upland Conifers	Sawtimber Poor	12.4	87	1-50	N/A	This stand contains the West Branch of the Ford River and approximately 100 feet of buffer on each side. The buffer on the west end of the stand is almost 100% canopy where as the east portion being old beaver meadow with cedar trees. Scattered ash, spruce, balsam, balm and pine. Higher upland bank going down to the river on the south side. North side of the river not as high with more low areas.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Poplar	20	Log	14	
White Spruce	25	Log	14	87
Northern White Cedar	20	Log	12	
Black Ash	10	Pole	6	
Balsam Fir	10	Pole	6	
Green Ash	10	Pole	8	
White Pine	5	XLog	20	

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
36	4134 - Aspen, Spruce/Fir	Sapling Well	9.0	24	Immature	N/A	This portion was delineated out of the larger stand because of the higher concentration of spruce and fir in this area containing Spruce Budworm infestation. Some trees are showing signs of mortality. Aspen is variable in diameter with patches containing smaller diameters. Larger diameter trees around the open area.

Canopy Species	% Cover	Size Class	DBH	Age
Balsam Fir	15	Pole	8	
White Spruce	20	Pole	8	
Black Cherry	5	Pole	8	
Balsam Poplar	10	Pole	8	
Quaking Aspen	50	Sapling	4	24

Sub-Canopy Species	Density	Avg. Height	Size
White Spruce	Low		Seeding

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
37	4130 - Aspen	Sapling Well	21.4	24	Immature	N/A	Stand was clearcut leaving hemlock, pine, cherry in 1998-99 under contract 33-038-96-01. Predominantly aspen with ash and balm in the lower areas of the stand. There is a high ridge along the east line with some sugar maple present.

Canopy Species	% Cover	Size Class	DBH	Age
Quaking Aspen	60	Sapling	4	24
Balsam Fir	5	Sapling	2	
White Spruce	5	Sapling	4	
Black Ash	10	Sapling	3	
Balsam Poplar	20	Sapling	3	24

Sub-Canopy Species	Density	Avg. Height	Size
Blackberry/Raspberry	Low	< 5 feet	Tall Shrub