



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41184

Entry Year 2017

Acreage: 833

County Alger

Management Area: Cusino Complex

Revision Date: 2015-08-04

Stand Examiner: Scott Kentner

Legal Description:

T46N R17W Sections 4-6

Identified Planning Goals:

The main goal in this compartment is to conduct multiple resource management for current and future generations.

Soil and topography:

The topography in this compartment is flat to rolling with low areas. The main soils in the compartment are; Escanaba-Greylock Complex with good drainage and fair to good natural fertility, Munising Loam with good drainage and moderate natural fertility and Carbondale Peat with fair drainage and fair to good natural fertility. The entire compartment lies within the Munising Moraine Land Type Association.

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

The area has broken ownership of State and private properties. Section 6 is separated from the main part of the compartment by private ownership and H-15.

Unique Natural Features:

Currently under review by Michigan Natural Features Inventory (MNFI).

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

The SE1/4NW1/4 of section 6, the SE1/4 of section 5 and the bottom part of the SW1/4 in section 4 are designated as deer yard areas. Treatments that will be conducted around any water areas and lowland conifers will follow all BMP regulations and those concerns addressed from other divisions.

Watershed and Fisheries Considerations:

No comments from Fisheries.

Wildlife Habitat Considerations:

This compartment lies five miles north of Shingleton and sits on the northern edge of the Petrel Deer Yard. General Land Office survey notes indicate sugar maple, yellow birch, hemlock, balsam fir, and elm dominated the uplands during pre-settlement times. Ironwood, beech and red maple were recorded as minor components of the forest. Lowlands contained a mix of cedar, spruce, tamarack, and a minor component of elm, red maple, and black ash. Although all the species recorded in the original survey still occur, sugar maple appears to be more dominant in today's upland than circa 1850. Black cherry also appears to be more prevalent than in pre-settlement times. Lowland conifer stands appear to be fairly similar to those recorded by GLO surveyors. The cedar and swamp conifer stands (17, 18, 19, and 21) are part of a larger systematic management plan for the Petrel Deer Yard. They will be held back from treatment until dictated by that plan. Featured species in this compartment are American marten, moose, bear, gray jay, northern goshawk, ruffed grouse, and white-tailed deer. The wildlife habitat objectives for the northern hardwoods consist of enhancing the species and structural diversity between and within stands.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of end moraine of medium-textured till and peat and muck. The glacial drift thickness varies between 10 and 50 feet. The Ordovician Prairie du Chien (PdC) Formation subcrops below the glacial drift. The PdC could be used for stone. The nearest gravel pit is three miles to the south and there should be good potential. There is no commercial oil and gas production in the UP.

Vehicle Access:

Access to the compartment is good with use of H-15 and H-58. There is also a good forest road system through out the

compartment from past timber activities.

Survey Needs:

None.

Recreational Facilities and Opportunities:

This compartment is used regularly by hunters. There is also a good amount of traffic on the two main roads. There is fishing potential in the Humphrey Ponds. Snowmobile trail #8 goes through the compartment in section 5 and 4. This is the only trail out of Shingleton for access to the north.

Fire Protection:

Fire response to the area will be good. The Shingleton station is about 4 miles from the compartment via H-15. The current road system is good enough for fire operations; however the timber types present are not of high fire potential. Urban interface problems could occur with those homes or cabins around the compartment, however the majority of the timber is northern hardwoods.

Additional Compartment Information:

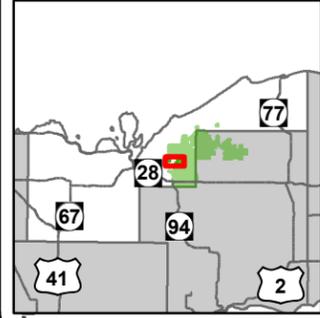
The following reports from the Inventory are attached:

- 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:

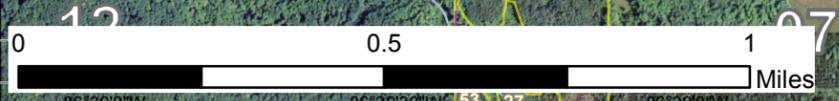
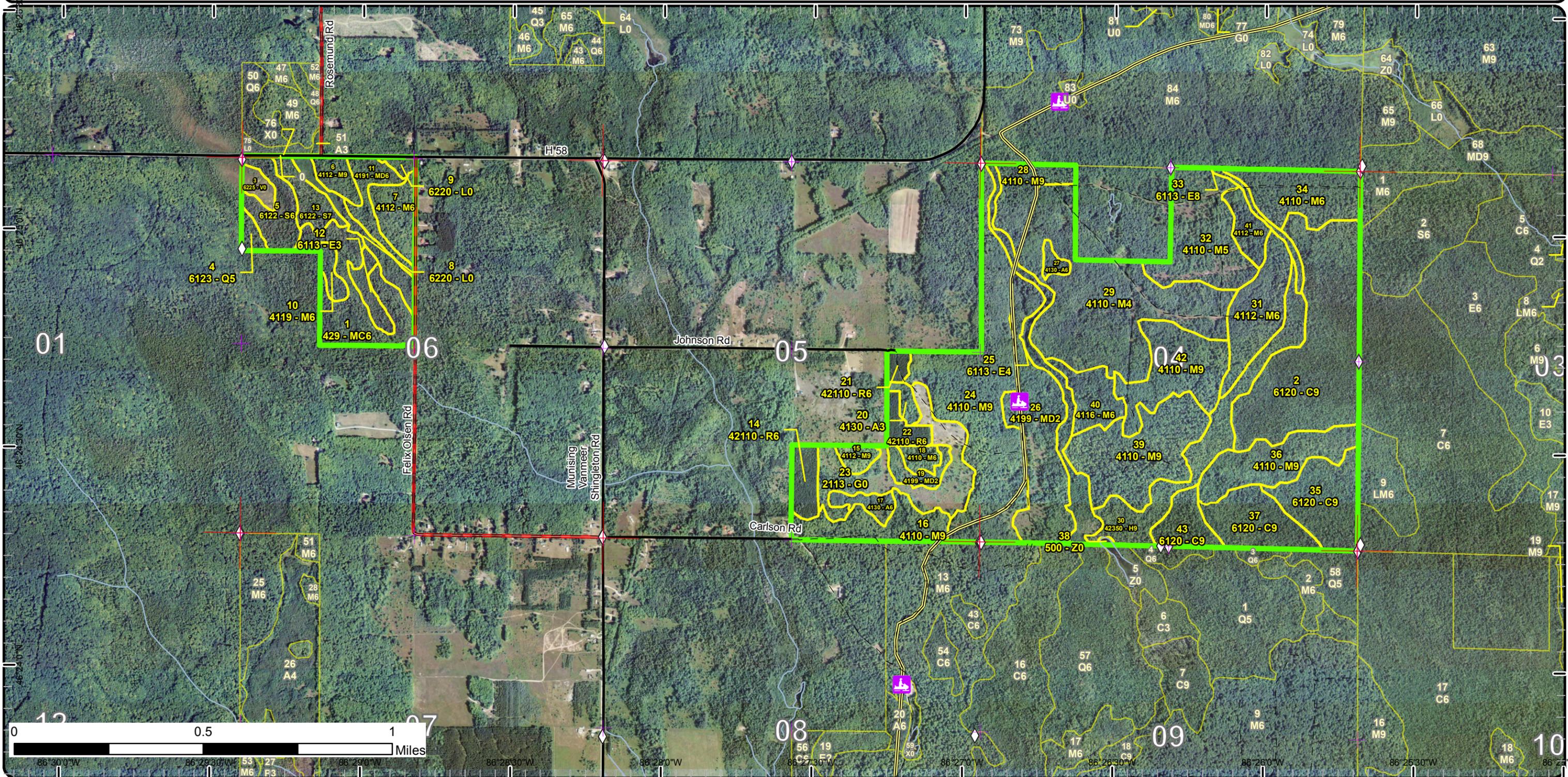
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Stand Boundary Map



Compartment: 184
 T46N, R17W, Sec: 4-6
 County: Alger
 Unit: Shingleton
 Mgmt Area: Casino Complex
 YOE: 2017
 Acres: 833 GIS Calculated
 Examiner: Scott Kentner
 Map Revised: 8/19/2015
 Map Phase: Review

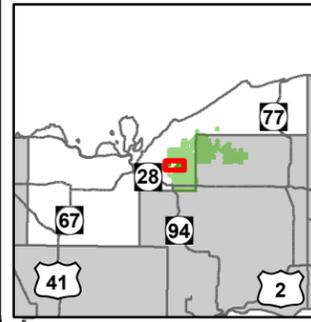
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 - ◇ Field Grade GPS Corners
 - Miris Corners
 - Paved Roads
 - County Gravel Roads
 - - Poor Dirt Roads
 - 🏠 Snowmobile Trails
 - Rivers
 - 🟡 Stand Boundaries
- Forest Cotype
 411 - Northern Hardwood
- Non-Forest Cotype
 211 - Cropland
 500 - Water
 622 - Lowland Shrub
- 413 - Aspen
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 423 - Other Upland Conifers
 - 429 - Mixed Upland Conifers
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest



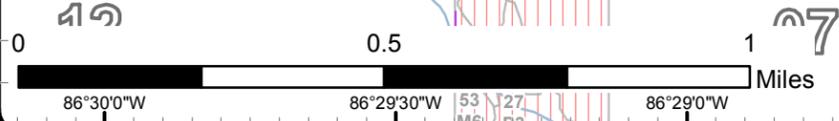
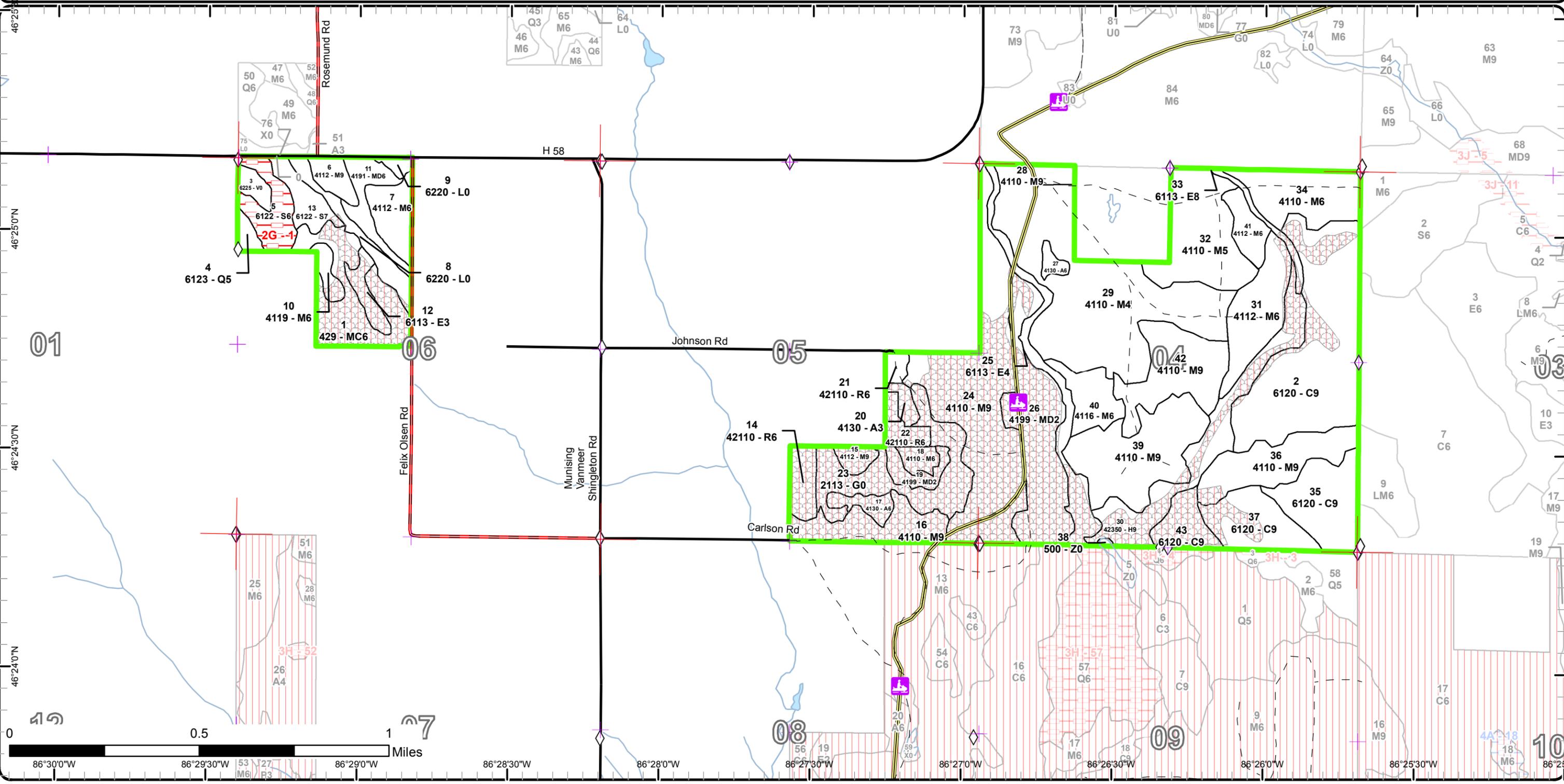
86°30'0"W 86°29'30"W 86°29'0"W 86°28'30"W 86°28'0"W 86°27'30"W 86°27'0"W 86°26'30"W 86°26'0"W 86°25'30"W 86°25'0"W

Special Conservation Areas & Site Conditions Map

Compartment: 184
 T46N, R17W, Sec: 4-6
 County: Alger
 Unit: Shingleton
 Mgmt Area: Casino Complex
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- ✚ Remonumented Section Corners Site Condition
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- Poor Dirt Roads
- 🏠 Snowmobile Trails
- Rivers
- ▭ Stand Boundaries
- 🗑️ SCA Removal
- Unavailable
- Unavailable Factors
- 2G: Too wet (sensitive soils, does not include access issues)
- Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- 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	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137	137
Cropland	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	35
Lowland Conifers	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
Lowland Deciduous	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	10	30
Lowland Shrub	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	10	24
Mixed Upland Deciduous	0	0	0	49	0	0	0	11	0	0	0	0	0	0	0	0	0	0	60
Northern Hardwood	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	426	438
Red Pine	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Upland Conifers	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	30
Water	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	48	0	0	78	0	0	0	43	0	47	0	618	834						



Report 2 – Treatment Summary

Shingleton Mgt. Unit
Year of Entry: 2017

Acres of Harvest

Compartment 184
Total Compartment Acres: 833

Commercial Harvest - 33
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
Northern Hardwood		0	33	0	0	0	0	0	0	0	33
	Total	0	33	0	0	0	0	0	0	0	33

Proposed and Next Step Treatments by Method

		Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current		33	0	0	0	0	0	0	0	0	33
Next Step		0	0	0	0	0	33	0	0	0	33
	Total	33	0	0	0	0	33	0	0	0	65



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Stand	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
6	41184006-Cut	6.4	4112 - Maple, Beech, Cherry Association	Sawtimber Well	80	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal

Habitat Cut: No

Site Condition:

Prescription Mark stand to 70 -80 BA following the guidance of the completed marker. Leave any healthy beech and favor cherry where present.

Specs:

Next Step

Treatments:

Acceptable Any species currently on site.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

36	41184036-Cut	26.3	4110 - Sugar Maple Association	Sawtimber Well	90	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Mark stand to 70- 80 BA using the complete marker's standards. Leave all Hemlock. Open up around Yellow birch and Black Cherry to promote regeneration. Cut all merchantable Balsam fir.

Next Step

Treatments:

Acceptable Any species currently on site.

Regen:

Other Protect drainages that run throughout stand by not marking within them. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Total Treatment Acreage Proposed: 32.7

Dominant Site Conditions

2G

Aspen	
Bog	
Cedar	
Cropland	
Hemlock	
Lowland Conifers	
Lowland Deciduous	
Lowland Shrub	
Lowland Spruce/Fir	14
Mixed Upland Deciduous	
Northern Hardwood	
Red Pine	
Upland Conifers	
Water	
Total Forested Acres	14
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	2G: Too wet (sensitive soils, does not include access issues)	14	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments: Site has been flooded by drainage from road. Many of the spruce trees have died.							



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
Unspecified	Other SCA		SCA Removal	33
Comments Covered by other SCA.				
Unspecified	Other SCA		SCA Removal	252
Comments Parts of polygon covered by other SCA.				



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.

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

Conservation Area	Type	Description
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	429 - Mixed Upland Conifers	Poletimber Well	29.6	80	51-80	Mixed Red maple stand with many hemlock and white pine. Transition between wet areas and upland.
2	6120 - Lowland Cedar	Sawtimber Well	77.4	112	111-140	Lowland mixed stand with cedar and an array of deciduous trees. Stand is large in size and many drainages run through.
4	6123 - Lowland Fir	Poletimber Medium	3.2	82	51-80	Black spruce stand. Boggy soil with mixed conifers among spruce. BMP issues if stand was entered.
5	6122 - Black Spruce	Poletimber Well	13.7	82	81-110	Black spruce stand that is very wet and boggy. Spruce is almost submerged in water lots of snags due to flooding.
6	4112 - Maple, Beech, Cherry Association	Sawtimber Well	6.4	80	111-140	Nicer Red Maple stand.
7	4112 - Maple, Beech, Cherry Association	Poletimber Well	12.3	65	51-80	Poor quality Red maple stand, BA between 50 - 80 mostly Poles.
10	4119 - Mixed Northern Hardwoods	Poletimber Well	4.3	50	51-80	Red maple stand that is poor quality on wetter soils.
11	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	11.0	65	51-80	Mixed upland stand, poor quality hardwood with mixed conifer. Wet areas intermixed. BA 60-80.
12	6113 - Lowland Maple	Sapling Well	6.1	20	111-140	Wet cedar with Red maple saplings growing thick. A drainage/ditch runs along the west edge of the stand.
13	6122 - Black Spruce	Sawtimber Poor	9.5	82	1-50	Wet spruce bog, flooded to the point where most trees are already dead. Mostly snags.
14	42110 - Planted Red Pine	Poletimber Well	8.6	27	111-140	Red pine plantation. Stand looks healthy.
15	4112 - Maple, Beech, Cherry Association	Sawtimber Well	4.0	80	51-80	Timber sale 011-00. Cut in 04. Nice hardwood stand residual is low due to recent harvest.
16	4110 - Sugar Maple Association	Sawtimber Well	20.3	80	51-80	Timber sale 011-00. Cut in 04. Nice hardwood stand, regeneration is coming in well. Stand could be harvested at next rotation.
17	4130 - Aspen	Poletimber Well	5.4	27	111-140	Stand was clear-cut in 1987. Stand is coming back nicely to Aspen.
18	4110 - Sugar Maple Association	Poletimber Well	4.1	70	51-80	Timber Sale 011-00. Cut in 04. poorer quality Maple stand with Black cherry. Pole stand.
19	4199 - Other Mixed Upland Deciduous	Sapling Medium	5.9	20	Immature	Hummocky stand of pin cherry along the edge opening. Some areas are fairly open.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	4130 - Aspen	Sapling Well	3.4	20	81-110	Small Aspen stand with some mixed deciduous trees.
21	42110 - Planted Red Pine	Poletimber Well	3.0	27	81-110	Red pine plantation. Healthy and looking good.
22	42110 - Planted Red Pine	Poletimber Well	6.2	27	111-140	Red pine plantation. Stand looks good and healthy.
24	4110 - Sugar Maple Association	Sawtimber Well	78.4	80	81-110	Timber sale 011-00. Cut in 04. Nice hardwood stand, residual trees are larger in size. Stand itself is boarder line ready to cut again. I suggest waiting another rotation so BA can reach 120.
25	6113 - Lowland Maple	Poletimber Poor	19.5	60	51-80	Drainage, seasonally wet.
26	4199 - Other Mixed Upland Deciduous	Sapling Medium	43.3	20	Immature	Semi-open stand with shrubby trees, grass in open areas.
27	4130 - Aspen	Poletimber Well	2.6	22	111-140	Aspen stand young in age.
28	4110 - Sugar Maple Association	Sawtimber Well	15.6	70	51-80	Timber sale 36-10. Lower quality Sugar maple stand with a mix of cherry and Aspen. Residual BA is between 60 and 80.
29	4110 - Sugar Maple Association	Poletimber Poor	84.0	40	81-110	Younger stand of sugar maple with higher BA. this stand could be thinned in 10 years once BA hits 120.
30	42350 - Upland Hemlock	Sawtimber Well	34.6	87	111-140	Hemlock stand with low areas, a transition to lowland.
31	4112 - Maple, Beech, Cherry Association	Poletimber Well	24.2	60	51-80	Pole stand of Red maple/Sugar maple and Black cherry. Lots of cherry, needs time to recover from last harvest, still has lower BA.
32	4110 - Sugar Maple Association	Poletimber Medium	36.8	27	51-80	Patchy trees with scattered openings. Cut in the 60's and has taken a while to fill in the openings.
33	6113 - Lowland Maple	Sawtimber Medium	4.1	80	51-80	Wet soil all year long from natural drainage. Very poor quality timber.
34	4110 - Sugar Maple Association	Poletimber Well	25.7	60	51-80	Cherry stand with mixed maple poles.
35	6120 - Lowland Cedar	Sawtimber Well	26.6	87	81-110	Lowland with upland, cedar is of poor quality.
36	4110 - Sugar Maple Association	Sawtimber Well	26.3	90	111-140	Stand was Hemlock and Cedar turn of century and was harvested leaving hardwoods. Hardwoods have grown and are merchantable. BA is higher and tree are large in size. There are drainages running throughout stand.

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Shingleton Mgt. Unit

Report 8 – Forested Stands

Compartment: 184
Year of Entry: 2017

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	6120 - Lowland Cedar	Sawtimber Well	21.9	87	81-110	Lowland cedar stand, very wet and buggy.
39	4110 - Sugar Maple Association	Sawtimber Well	42.7	70	51-80	Stand was cut in 2003 (26-98) Ba is between 70 - 90 BA. Regen is coming in good within the gaps made by harvest.
40	4116 - Mixed N. Hardwood - Aspen	Poletimber Well	13.1	27	81-110	Young stand of residual from past cuts. Some clones of aspen mostly maple and cherry.
41	4112 - Maple, Beech, Cherry Association	Poletimber Well	8.6	50	51-80	Mostly a Cherry stand, poles dominate with mixed maple. Oaks planted on northern edge of stand in 09.
42	4110 - Sugar Maple Association	Sawtimber Well	30.8	80	51-80	Log stand harvested in 60's (strip cuts) then Elm salvage done around 1978. Stand was then part of sale cut in 1998. BA is still low but good quality Sugar maple is present, advanced regen is present. Stand should be harvest at next entry.
43	6120 - Lowland Cedar	Sawtimber Well	11.4	112	111-140	Lowland cedar stand, old cedar. Very wet saturated soils.



Stand	Cover Type	Acres	Managed Site	General Comments:
3	6225 - Bog	4.2	No	Bog with scattered tamarack.
8	6220 - Alder/willow	10.7	No	Drainage of Tag alder, very wet.
9	6220 - Alder/willow	2.1	No	Tag alder wetness.
23	2113 - Forage Crops	30.8	Yes	Maintained opening by wildlife. Site is farmed and surrounded by trees and scattered within opening.
38	500 - Water	0.5	No	North edge of Humphrey Pond.