



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41171

Entry Year 2017

Acreage: 1,204

County Alger

Management Area: Cusino Complex

Revision Date: 2015-08-04

Stand Examiner: Mario Molin

Legal Description:

T47N R17W Sections 10 and 15

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 hilly to flat with some low areas. The main soils in the compartment are; Ogemaw Sandy Loam with fair to good drainage and fair natural fertility, Munising Loam with good drainage and moderate natural fertility and Kalkaska Loamy Sand with good drainage and low to fair natural fertility. The entire compartment lies within the Munising Moraine Land Type Association.

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

Ownership within the compartment is all State land except for the town of Melstrand on the south end. The surrounding land has broken ownership of State lands, CFR lands and private ownership. State land is heavily used by hunters while the roads are heavily used by those looking for fishing sites and access into PRNL properties to the northwest. The residents are a mix of year-round and seasonal.

Unique Natural Features:

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

Archeological, Historical, and Cultural Features:

None known.

Special Management Designations or Considerations:

Treatments that will be conducted around any water areas will follow all BMP regulations and those concerns addressed from other divisions.

Watershed and Fisheries Considerations:

The extreme upper reaches of the Mosquito Creek watershed extend into this compartment. Mosquito Creek does contain brook trout. This compartment has very little surface water within its boundary. As always, best management practices (BMP's) should be applied when working in proximity to surface water.

Wildlife Habitat Considerations:

This compartment is located immediately north, east, and west of Melstrand. The pre-settlement forest, as recorded by General Land Office surveyors appears to have been dominated by sugar maple, yellow birch, and beech. Hemlock and balsam fir were also common components. Red maple, ironwood, and elm were recorded as minor components of the forest. Currently the northern hardwoods appear to have a stronger component of black cherry than during the pre-settlement days. Aspen is also a more significant part of the landscape than it was circa 1850. Featured species in this compartment are American marten, moose, bear, gray jay, northern goshawk, ruffed grouse, and white-tailed deer. Wildlife habitat objectives include promoting diversity within the hardwoods, and maintaining the aspen component in the compartment.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of end moraine of medium-textured glacial till. There is insufficient data to determine the glacial drift thickness. The Ordovician Prairie du Chien (PdC) Formation subcrops below the glacial drift. The PdC could be used for stone. The nearest gravel pit is in Section 15 or just to the east 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-58 and County Road 639, Chapel Lake Road. 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 for those heading into the PRNL and those looking for fishing opportunities.

Fire Protection:

Fire response to the area will be good. The Shingleton station is about 20 minutes from the compartment via H-15 and H-58. 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:

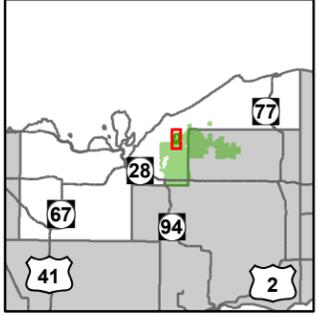
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

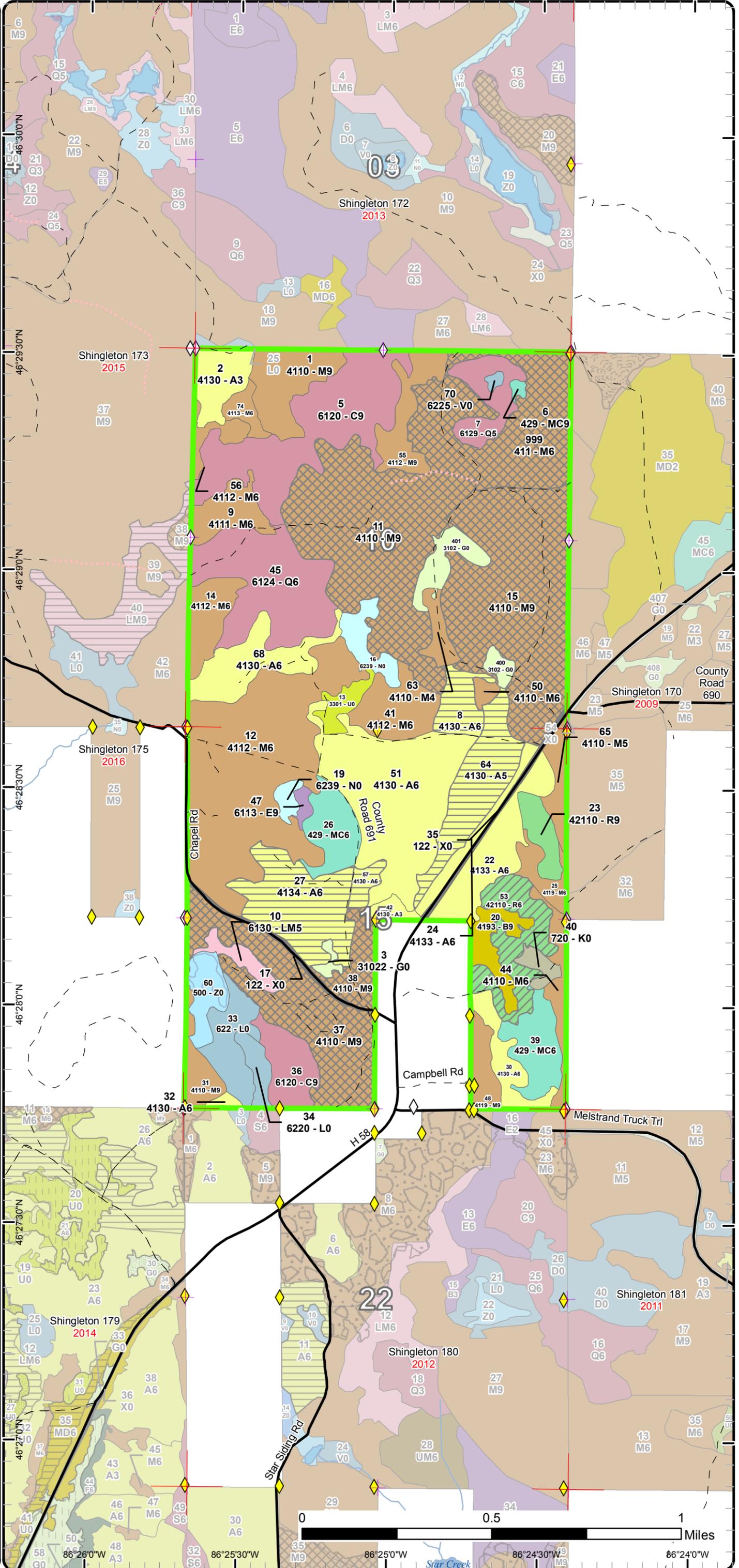
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments

Compartment: 171
 T47N,R17W, Sec: 10, 15
 County: Alger
 Unit: Shingleton
 Mgmt Area:
 Cusino Complex
 YOE: 2017
 Acres: 1204 GIS Calculated
 Examiner: Mario Molin
 Map Revised: 8/18/2015
 Map Phase: Review

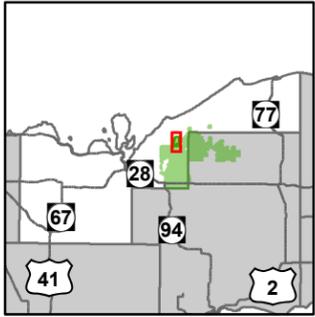


- ✚ Remonumented Section Corner
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Paved Roads
- - - Poor Dirt Roads
- · - · - Trail (Non-Recreation)
- · · · · Closed Roads
- Rivers
- Lakes
- Treatments**
- ▨ Selection (Group, Single Tree)
- ▨ Clearcut (w/Reserves)
- ▨ Thinning (Crown, Low, Systematic)
- Forest Covertypes**
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 429 - Mixed Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- Non-Forest Covertypes**
- 122 - Roads/Parking Lot
- 310 - Herbaceous Openland
- 330 - Low Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 720 - Exposed Rock



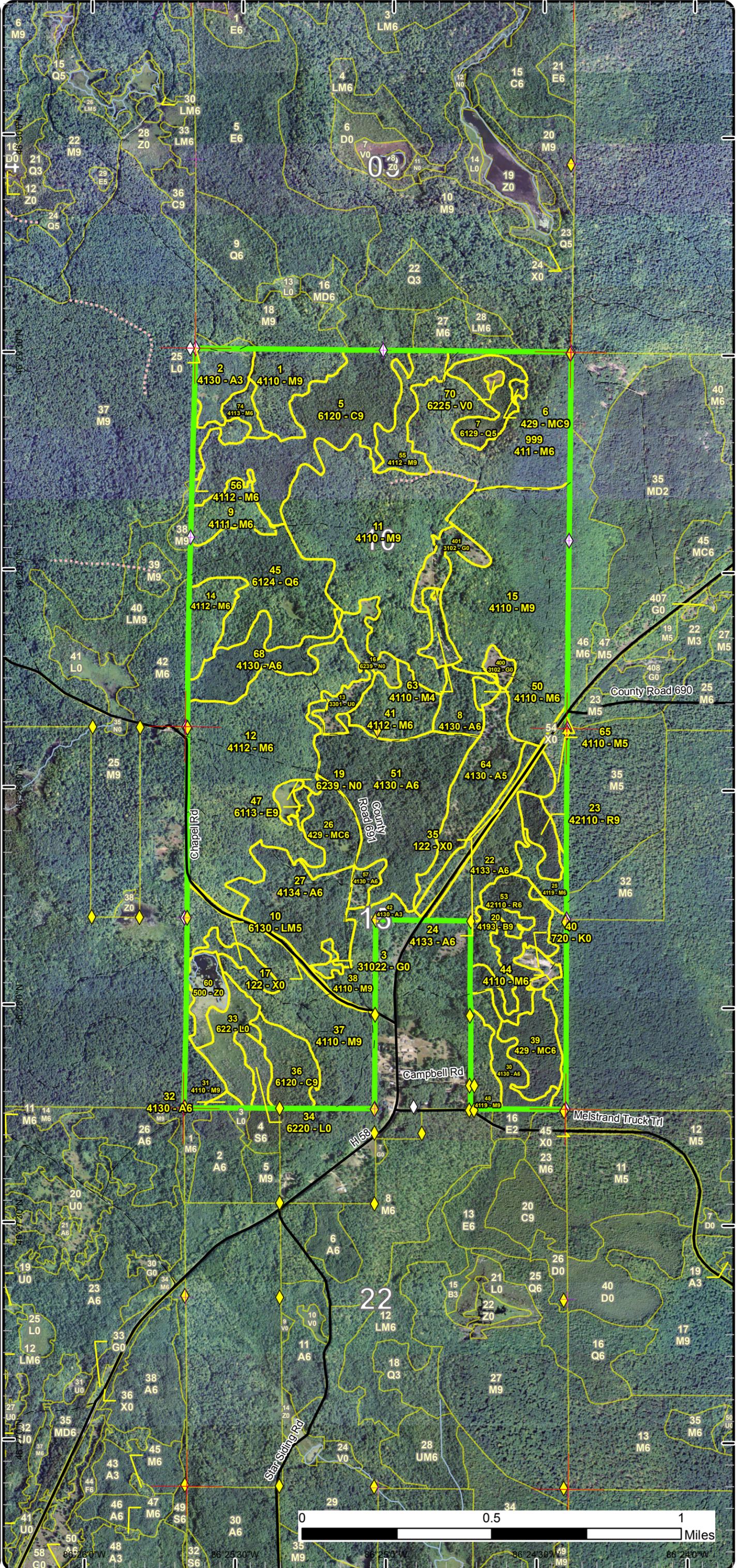
Stand Boundary Map

Compartment: 171
 T47N,R17W, Sec: 10, 15
 County: Alger
 Unit: Shingleton
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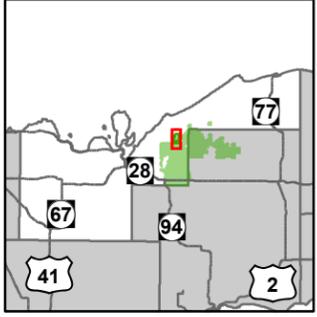
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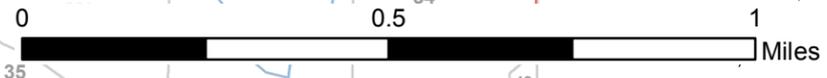
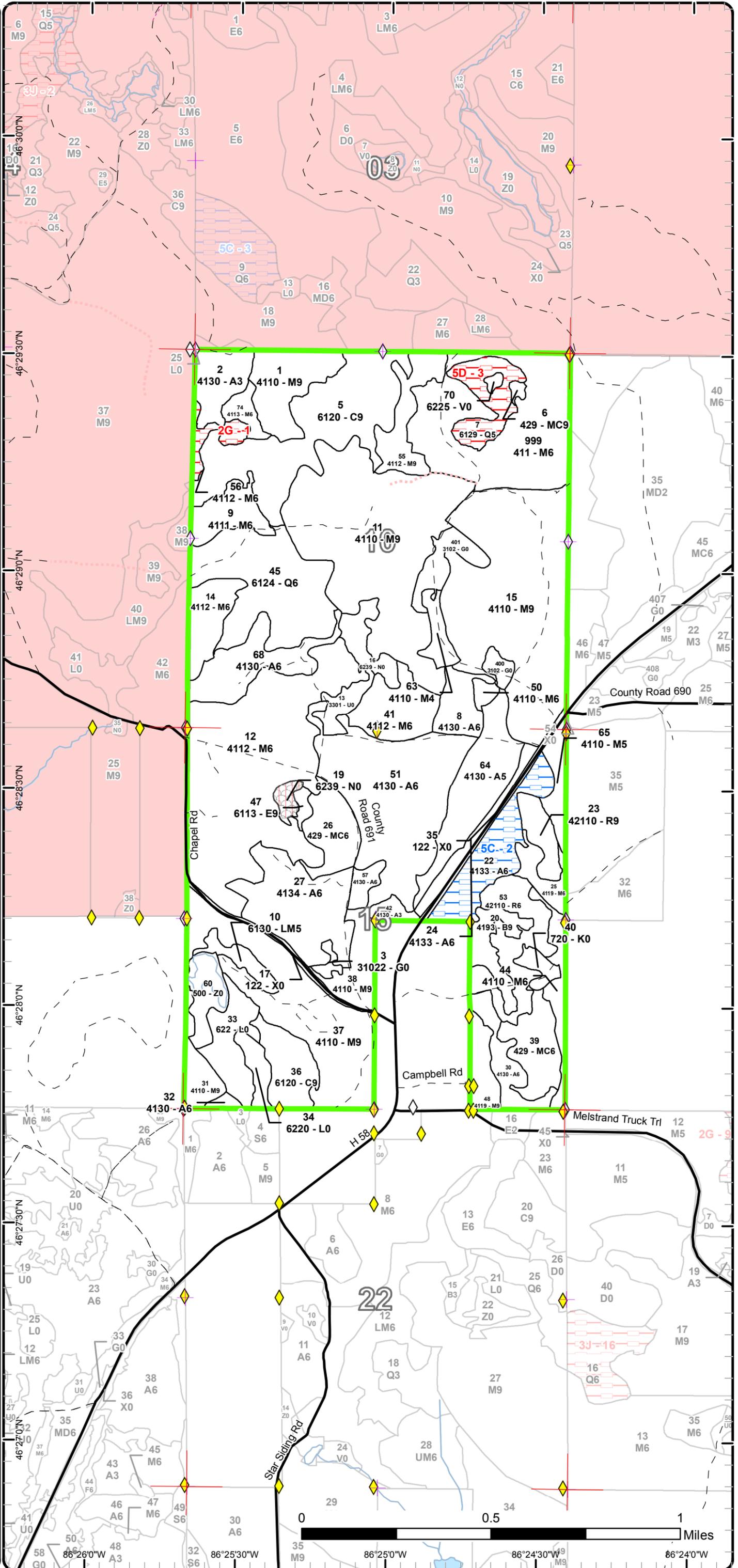


Special Conservation Areas & Site Conditions Map

Compartment: 171
 T47N,R17W, Sec: 10, 15
 County: Alger
 Unit: Shingleton
 Mgmt Area:
 Cusino Complex
 YOY: 2017
 Acres: 1204 GIS Calculated
 Examiner: Mario Molin
 Map Revised: 8/18/2015
 Map Phase: Review



- ✚ Remonumented Section Corner
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- Paved Roads
- - - Poor Dirt Roads
- · - · - Trail (Non-Recreation)
- · · · · Closed Roads
- Rivers
- Stand Boundaries
- SCA Recommendation
- ▨ SCA Removal
- Site Condition
- Available w/ Constraints
- - - Unavailable
- Available Factors W/ Constraints
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- Unavailable Factors
- 2G: Too wet (sensitive soils, does not include access issues)
- 5D: Unproductive Forest Land
- Special Conservation Areas
- Cold Water Streams
- Cold Water Lakes
- Contiguous Resource Area
- ▨ Other SCA (No Category Assigned)



86°26'0"W 86°25'30"W 86°25'0"W 86°24'30"W 86°24'0"W

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	18	0	37	26	74	26	0	0	0	0	0	0	0	0	0	0	71	252
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	81	0	0	0	0	0	81
Exposed Rock	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Herbaceous Openland	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Low-Density Trees	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Lowland Conifers	0	0	0	0	0	0	0	0	53	16	0	0	0	0	0	0	0	0	69
Lowland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Lowland Mixed Forest	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6
Lowland Shrub	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Marsh	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Northern Hardwood	0	0	0	0	0	0	35	0	0	14	62	0	0	0	0	0	0	515	626
Paper Birch	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	12
Red Pine	0	0	0	0	25	0	9	0	0	0	0	0	0	0	0	0	0	0	34
Upland Conifers	0	0	0	0	0	0	35	0	0	0	0	0	0	1	0	0	0	0	36
Urban	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Water	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Total	85	18	0	37	51	74	123	0	53	30	62	0	81	1	0	0	0	588	1203



Report 2 – Treatment Summary

Shingleton Mgt. Unit
Year of Entry: 2017

Acres of Harvest

Compartment 171
Total Compartment Acres: 1,204

Commercial Harvest - 469
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	87	0	0	0	0	0	0	0	0	87
Northern Hardwood	0	358	0	0	0	0	0	0	0	358
Red Pine	0	0	0	0	0	25	0	0	0	25
Total	87	358	0	0	0	25	0	0	0	469

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	469	0	0	0	0	0	0	0	0	469
Next Step	0	31	31	0	0	31	444	0	0	537
Total	469	31	31	0	0	31	444	0	0	1007



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
8	41171008-Cut	11.6	4130 - Aspen	Poletimber Well	39	81-110	Harvest	Clearcut	413 - Aspen	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**Prescription Clear-cut with a 2" spec.Specs: No retention, trying to clone back as much aspen as possible.
In contract add spec to leave 1 log/stick 8" or larger per acre (drumming log)Next Step
Treatments:Acceptable Aspen
Regen:Other This is the Hybrid-Aspen stand Old next step comments:
Comment:Proposed Start Date: 10/1 /2016

11	41171011-Cut	105.6	4110 - Sugar Maple Association	Sawtimber Well	85	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No**Site Condition:**Prescription Mark down to 85 BA, re-establish existing regen gaps.Specs: Promote species diversity when possible.Next Step
Treatments:Acceptable Any mix of species on site.
Regen:Other Old next step comments:
Comment:Proposed Start Date: 10/1 /2016

15	41171015-Cut	107.6	4110 - Sugar Maple Association	Sawtimber Well	85	111-140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No**Site Condition:**Prescription Mark down to 85BA.Specs: Promote species diversity when possible.Next Step
Treatments:Acceptable Any mix of species on site.
Regen:Other Old next step comments:
Comment:Proposed Start Date: 10/1 /2016

27	41171027-Cut	39.8	4134 - Aspen, Spruce/Fir	Poletimber Well	26	51-80	Harvest	Clearcut with Retention	413 - Aspen	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**Prescription Clear-cut with a 2"spec.Specs: Retention should be an island with a conifer/cherry component.
In contract add spec to leave 1 log/stick 8" or larger per acre (drumming log)Next Step
Treatments:Acceptable An Aspen dominated stand.
Regen:Other Old next step comments:
Comment:Proposed Start Date: 10/1 /2016



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
37	41171037-Cut	62.1	4110 - Sugar Maple Association	Sawtimber Well	90	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Mark down to 85BA. Promote species diversity where possible.

Specs:

Next Step

Treatments:

Acceptable Any mix of species on site.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

38	41171038-Cut	13.8	4110 - Sugar Maple Association	Sawtimber Well	85	111- 140	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven- Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Mark down to 85BA, maintain/promote species diversity.

Specs:

Next Step

Treatments:

Acceptable Any mix of species on site.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

53	41171053-Cut	25.0	42110 - Planted Red Pine	Poletimber Well	33	111- 140	Harvest	Systematic Thinning	4211 - Planted Red Pine	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Remove all species except red pine, cherry and any oak or hemlock if present. Row thin mark red pine where needed for operations or thinning is desirable.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

57	41171057-Cut	4.5	4130 - Aspen	Poletimber Well	36	51-80	Harvest	Clearcut	413 - Aspen	Even-Aged	Proposal
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Habitat Cut: No**Site Condition:**

Prescription Clear-cut.

Specs: In contract add spec to leave 1 log/stick 8" or larger per acre (drumming log)
No retention needed area too small, adjacent stand 27 will have island retention.

Next Step

Treatments:

Acceptable Aspen dominated stand.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016



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
64	41171064-Cut	30.9	4130 - Aspen	Poletimber Medium	50	1-50	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Proposal

Habitat Cut: No

Site Condition:

Prescription Clear-cut stand, make sure red line picks up any scotch pine on edges.

Specs: Retention should be an island with a conifer/cherry component.
In contract add spec to leave 1 log/stick 8" or larger per acre (drumming log)

3 chain wide strip of red pine will behind stand 24 to create a wind break and visual buffer for future harvests.

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

Treatments:

Acceptable Re Pine

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

999	41171999-Cut	68.3	411 - Northern Hardwood	Poletimber Well	81	81-110	Harvest	Single Tree Selection	411 - Northern Hardwood	Uneven-Aged	Proposal
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Habitat Cut: No

Site Condition:

Prescription Mark down to 85BA. The northeast has steep hills, remember to mark for operations on slopes, some slopes may be too steep to machine harvest.

Specs: Promote species diversity when possible.

Next Step

Treatments:

Acceptable Any mix of species on site.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

Total Treatment Acreage Proposed: 469.3

Report 5 – Site Conditions

Shingleton Mgt. Unit
Mario Molin : Examiner

Compartment: 171
Year of Entry: 2017

Availability for Management

Total Acres	Acres Available	Acres Avail		Dominant Site Conditions	5C	2G	5D
		With Condition	Not Available				
252	226	26	0	Aspen	26		
1	1	0	0	Bog			
81	81	0	0	Cedar			
4	4	0	0	Exposed Rock			
16	16	0	0	Herbaceous Openland			
7	7	0	0	Low-Density Trees			
69	53	0	16	Lowland Conifers			16
2	2	0	0	Lowland Deciduous			
6	6	0	0	Lowland Mixed Forest			
24	24	0	0	Lowland Shrub			
13	13	0	0	Marsh			
626	620	0	6	Northern Hardwood		6	
12	12	0	0	Paper Birch			
34	34	0	0	Red Pine			
36	36	0	0	Upland Conifers			
9	9	0	0	Urban			
11	11	0	0	Water			
1,204	1,156	26	22	Total Forested Acres	26	6	16
	96%	2%	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	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments: An isolated stand that is also very wet, too small to to put up and sell as a winter harvest.							

Report 5 – Site Conditions

Shingleton Mgt. Unit

Mario Molin : Examiner

Compartment: 171

Year of Entry: 2017

2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	26	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
3	Unavailable	5D: Unproductive Forest Land	16	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							



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	3
Comments Does not meet SCA criterea				



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.



S t a n d	Shingleton Mgt. Unit		Report 8 – Forested Stands			Compartment: 171 Year of Entry: 2017
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4110 - Sugar Maple Association	Sawtimber Well	22.7	80	81-110	OPIC - FMD: Stand needs to be treated with C172 stand 17. There is scattered cherry and beech in the stand with balsam fir about 3 feet tall. TSI might have been done in the stand in the '70's but no major cutting has taken place. Terrain is flat to rolling. MO is for northern hardwoods. [07/07/2008] Stand is now under contract TS# 41-001-08-01. Residual BA: mixed hardwood = 81; yellow birch = 1; hemlock = 1; total = 83 sq.ft/acre. [6-29-10] Sale is now completed TCR dtd 6-29-10.
2	4130 - Aspen	Sapling Well	14.8	5	Immature	OPIC - FMD: Old opening that is starting to fill in. There are some white spruce planted in rows (maybe 30 years ago), plus others seeding in on their own. Balsam fir is seeding in from surrounding stands. [07/07/2008] Stand is now under contract TS# 41-001-08-01. [6-29-10] Sale is now completed TCR dtd 6-29-10.
5	6120 - Lowland Cedar	Sawtimber Well	64.3	119	141-170	OPIC - FMD: A MIX OF C AND Q. Very wet ground containing small drains scattered within the stand. Some cedar regeneration in areas, mainly from layering. Cedar is large and old but of poor quality, crooked and spirals. Scattered hemlock and white pine near the hardwood types. 10 BA snags.
6	429 - Mixed Upland Conifers	Sawtimber Well	1.2	125	111-140	Small island of large diameter White pine and Hemlock, has all the signs of type 2 old growth.
7	6129 - Mixed Coniferous Lowland Forest	Poletimber Medium	16.0	80	51-80	OPIC - FMD: "The Old Man". D-type sits in a good hole with steep slopes reaching into the white pine and hardwood stands.
8	4130 - Aspen	Poletimber Well	11.6	39	81-110	Hybrid Aspen plantation planted in 1976.
9	4111 - S.Maple, Hard Mast Association	Poletimber Well	13.7	85	51-80	OPIC - FMD: Stand is more than likely an even aged stand from clear cuts 80 years ago. Little is any beech regeneration, BBD is in the stand and trees are dying off. I would allow them to die naturally and not harvest for fear of beech brush
10	6130 - Fir, Aspen, Maple	Poletimber Medium	6.4	50	1-50	OPIC - FMD: There is some fir and other hardwood species present. Ground is extremely wet keeping trees non merchantable. 2015: Extremely wet and brushy, cover type was done from the edge.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
11	4110 - Sugar Maple Association	Sawtimber Well	105.6	85	81-110	<p>OPIC - FMD: Lots of good hard maple regeneration, beech, red maple with some fir, white pine and hemlock. Yellow birch is coming in on the skid roads. Canopy gaps are still filling in nicely. Regen is about 1-4 feet tall. CUT TS#01-98 TCR dtd 8-31-00.</p> <p>[11/8/12 bb] Stand was added to the 2014 Compartment Review as an Out of Entry Treatment due to the rapid spread of BBD and overall decline of the species within the stand. Stand was part of a Unit wide analysis. The harvest is a salvage cut in which all the beech and ash will be designated unless retained for mast or resistance.</p> <p>[4/16/13 bb] After a more thorough look the stand is being dropped as a salvage cut because, the stand has a current BA of 110-120 and would have to be marked to harvest the Beech. The Beech volume is very low in the stand to begin with. This stand will be thinned next YOE 2017 and the Beech present is expected to have fallen out of the stand by then reducing the need to deal with Beech brush post-harvest.</p>
12	4112 - Maple, Beech, Cherry Association	Poletimber Well	112.0	85	81-110	<p>OPIC - FMD: Sale completed in 2000, CUT TS#01-98 TCR dtd 8-31-00. Very rolling terrain, areas of heavier residual BA on hill tops and sides. Regeneration is about 2-5 feet tall. 99= hard maple, red maple and yellow birch. 8 BA snags.</p> <p>2015: Regeneration is patchy. There is a drainage in the middle of the stand, which may change one way or another with the road improvement.</p>
14	4112 - Maple, Beech, Cherry Association	Poletimber Well	14.8	85	51-80	<p>OPIC - FMD: Good slope on the west end to an old two-track. Best access will be from the west. Poor quality- aspen was cut out when adjacent sale was cut. Understory contains a good mix of species. 99= white birch and beech. 13 BA snags.</p>
15	4110 - Sugar Maple Association	Sawtimber Well	107.6	85	111-140	<p>OPIC - FMD: North part (stand 999 YOE2017) of the stand is of better quality. Some type of thinning was done in '79 (TSI or commercial?). Scattered cherry, aspen and fir especially near the edges of the stand. 99=cherry, beech, basswood. 8 BA snags.</p> <p>2015: Small scattered pockets of completely healthy looking beech in the stand, most of the beech is dead or dying. No reason to enter early for salvage purposes.</p>
20	4193 - Birch, Aspen	Sawtimber Well	12.0	54	81-110	
22	4133 - Aspen, Mixed Pine	Poletimber Well	26.0	54	81-110	<p>OPIC - FMD: Stand is patchy with reproduction, in 1990 - 1992 areas of merchantable aspen were cut out.</p>
23	42110 - Planted Red Pine	Sawtimber Well	9.2	54	81-110	<p>OPIC - FMD: Diameters frange 4-7 " DBH, heights 1-3 sticks, not a great plantation because of shape making for pruning difficult. Aspen and hardwood competition present. Trees seem to be healthy. Spruce was planted with RP - seems to be doing well. RP was replanted in 83,84.</p>



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
24	4133 - Aspen, Mixed Pine	Poletimber Well	8.1	35	51-80	<p>OPIC - FMD: PLANT W. SPRUCE ON CLOSE SPACING FOR WIND BREAK AND TO REDUCE BUSHINESS. [2/3/03] Spruce were planted as a wind break under FTP C41-811 in 2000, and are currently healthy. No further monitoring necessary.</p> <p>2015: Scotch pine has been found in the stand.</p>
25	4119 - Mixed Northern Hardwoods	Poletimber Well	8.1	54	81-110	Very good birch regeneration (why?)
26	429 - Mixed Upland Conifers	Poletimber Well	16.6	55	81-110	<p>OPIC - FMD: Good aspen reproduction, cut in 1996. Some patchy spots are present. Large white pine in the overstory and scattered small white pine, fir and spruce in understory.</p> <p>2015: This is another odd aspen type cut, wait until fir is at rotation/ in decline, this will give the time needed for the aspen to be at a better merchantable size and clear cut all species.</p>
27	4134 - Aspen, Spruce/Fir	Poletimber Well	39.8	26	51-80	2015: Stand was multiple stands last inventory, all were similar in structure and should be managed as one. All the stands were managed somewhat oddly in the past, it seems like pockets of aspen were harvested when they became merchantable, so stand has a multi aged look. Age given is based on last cutting record but stand has everything from saplings to logs.
30	4130 - Aspen	Poletimber Well	12.8	27	1-50	OPIC - FMD: Cut in '88 with TSI done in '90-91. Almost an A4. Some fir and hardmaple mixed into the understory. Stand is patchy with how the reproduction has filled in. Files show hybrid aspen was planted somewhere in the stand in '76. When treated again go all the way to the Melstrand TT.
31	4110 - Sugar Maple Association	Sawtimber Well	9.7	85	81-110	<p>OPIC - FMD: Some white pine near the waters edge. Cut in '87 removing much of the overstory - understory is about 20-30' tall and doing well. Access will be best from the west through private land. South part of the stand changes slightly with poorer quality wood. MO is for northern hardwoods.</p> <p>[6-8-07] Stand is now under sale contract 41-008-07-02 DOC Melstrand Hardwood.</p> <p>[1-28-09] Sale is completed TCR dtd 1-27-09.</p> <p>2015: Stand appears to have been cut quite aggressively in the past, the residual trees are of good quality and there is very good regeneration, this should allow for future cuts to be more traditional and push the stand into an uneven aged status.</p>
32	4130 - Aspen	Poletimber Well	1.7	33	51-80	
36	6120 - Lowland Cedar	Sawtimber Well	16.8	116	171-200	<p>Spine in middle of stand with log x-log sized red maple and hemlock.</p> <p>OPIC - FMD: Stand can wait to be treated with hardwoods to the east. There is some cedar regeneration (mostly from layering) about 1-4 feet tall. Ground is wet, would have to be a winter cut. No sign that deer browse is a problem. DEER PRESENT IN 1996, BUT NOT A YARD.</p>



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4110 - Sugar Maple Association	Sawtimber Well	62.1	90	111-140	Mainly 12-14in log stand of sugar maple and basswood, very little regen. Hilly terrain. OPIC - FMD: Sale completed in 2000, CUT TS#01-98 TCR dtd 8-31-00. Very rolling terrain, areas of heavier residual BA on hill tops and sides. Regeneration is about 2-5 feet tall. 99= hard maple, red maple and yellow birch. 8 BA snags. Forest road that comes out of private needs to be blocked like it is from the county road to the north.
38	4110 - Sugar Maple Association	Sawtimber Well	13.8	85	111-140	OPIC - FMD: No record of cutting but stand could have been fire-wooded at one point. Some fir and iron wood in the understory, but mainly hardwood.
39	429 - Mixed Upland Conifers	Poletimber Well	18.1	55	1-50	OPIC - FMD: Cut in '88 with TSI done in '90-91. Almost an A4. Some fir and hardmaple mixed into the understory. Stand is patchy with how the reproduction has filled in. Files show hybrid aspen was planted somewhere in the stand in '76. When treated again go all the way to the Melstrand TT.
41	4112 - Maple, Beech, Cherry Association	Poletimber Well	19.8	85	81-110	OPIC - FMD: Pockets of M3 starting to become M4/M5's. Scattered fir and white pine. 99=beech, cherry. 3 BA snags. 2015: Poor quality stand, not much regeneration, consider cutting in ten years.
42	4130 - Aspen	Sapling Well	3.7	6	Immature	OPIC - FMD: There is good hardwood reproduction in the understory, without treatment stand would convert easily. Some white pine, fir in understory. Scattered cherry and hilly terrain. MO of the stand is for aspen. Some conifers and hardwood will come back after the cut. This is okay. [10-10-08 JS] Sold as negotiated sale 41-043-08-02 and FTP# W41-1391 [1-14-09] TCR has been signed. [5-1-09 JS] Dave gave this FTP to DOC (Kip) to do. [4/30/09] DOC cut residual trees - close FTP
44	4110 - Sugar Maple Association	Poletimber Well	11.2	55	51-80	OPIC - FMD: Pole stand that is fairly healthy. Understory has a good mix of species, better than over story. When treated go all the way to the Melstrand TT C180 stands 1, 2, 62. Old fire plow line on west side of stand. MO is for northern hardwoods. [6-8-07] Stand is now under sale contract 41-008-07-02 DOC Melstrand Hardwood. [1-28-09] Sale is completed TCR dtd 1-27-09.
45	6124 - Lowland Spruce-Fir	Poletimber Well	52.6	75	81-110	
47	6113 - Lowland Maple	Sawtimber Well	2.2	85	51-80	
48	4119 - Mixed Northern Hardwoods	Sawtimber Well	9.7	55	51-80	OPIC - FMD: Mostly beech coming in for the understory. When treated mark to encourage species diversity. MO is for northern hardwoods. Go all the way to the Melstrand TT when cutting. [6-8-07] Stand is now under sale contract 41-008-07-02 DOC Melstrand Hardwood. [1-28-09] Sale is completed TCR dtd 1-27-09.
50	4110 - Sugar Maple Association	Poletimber Well	2.5	50	81-110	

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Shingleton Mgt. Unit

Report 8 – Forested Stands

Compartment: 171
Year of Entry: 2017

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
51	4130 - Aspen	Poletimber Well	74.0	41	81-110	OPIC - FMD: Trees are a mix of merchantable poles and some only starting to come into the 4-5" DBH class. There is also scattered white pine, spruce and fir. Understory is hard maple.
53	42110 - Planted Red Pine	Poletimber Well	25.0	33	111-140	OPIC - FMD: Diameters frange 4-7 " DBH, heights 1-3 sticks, not a great plantation because of shape making for prunning difficult. Aspen and hardwood competition present. Trees seem to be healthy. Spruce was planted with RP - seems to be doing well. RP was replanted in 83,84.
55	4112 - Maple, Beech, Cherry Association	Sawtimber Well	17.0	81	81-110	North end includes a small lowland piece with hemlock.
56	4112 - Maple, Beech, Cherry Association	Poletimber Well	6.0	50	111-140	
57	4130 - Aspen	Poletimber Well	4.5	36	51-80	2015: Similar multi aged structure here as well, small cuts done in past giving this strange mosaic size structure.
63	4110 - Sugar Maple Association	Poletimber Poor	6.6	50	1-50	Old grass opening that is filling in.
64	4130 - Aspen	Poletimber Medium	30.9	50	1-50	2015: Small area was planted with red pine.
65	4110 - Sugar Maple Association	Poletimber Medium	9.0	55	1-50	OPIC - FMD: Scattered large white spruce, red maple, aspen and cherry brush all about 15-20 feet tall. There are still some 1/10 acre pockets of open area.
68	4130 - Aspen	Poletimber Well	23.9	25	51-80	OPIC - FMD: Stand was cut and TSI'd in 90-91. Ground can be wet. Scattered fir and white pine.
74	4113 - R.Maple, Conifer	Poletimber Well	5.4	50	81-110	Low wet ground when harvesting occurs it may need to be restricted to winter time.
999	411 - Northern Hardwood	Poletimber Well	68.3	81	81-110	



Stand	Cover Type	Acres	Managed Site	General Comments:
3	31022 - Warm Season Grass	2.1	No	
13	3301 - Low Density Deciduous Tree	6.7	No	
16	6239 - Mixed Emergent Wetland	9.6	No	2015: Wetland of some kind, lots of lilies and other flowers. Appears to be a pair of sandhill cranes using the area.
17	122 - Road/Parking Lot	4.2	No	OPIC - FMD: County Road 639, Chapel Road ROW
19	6239 - Mixed Emergent Wetland	3.5	No	OPIC - FMD: Lots of wildlife activity. 2015: When harvesting adjacent to the stand special care should be taken to keep equipment out of the stand.
33	622 - Lowland Shrub	17.6	No	OPIC - FMD: Stand was a D-type, however beaver dams are keeping the water table high with cattails for ground cover/understory. May go back to a D-type if water table went down for a long period of time.
34	6220 - Alder/willow	6.5	No	Stand can go either way as nonforested lowland shrub or some sort treed bog. OPIC - FMD: High water table will continue to keep timber non-merchantable.
35	122 - Road/Parking Lot	5.0	No	OPIC - FMD: County Road H--58.
40	720 - Exposed Rock	4.3	Yes	OPIC - FMD: GRAVEL PIT
60	500 - Water	11.5	No	2015: Pond with some flooding in the past, southwest has numerous snags in it.
70	6225 - Bog	1.1	No	
400	3102 - Grass	3.4	No	
401	3102 - Grass	10.5	No	