



Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 41195

Entry Year 2017

Acreage: 854

County Alger

Management Area: Cusino Complex

Revision Date: 2015-08-14

Stand Examiner: Robert Tylka

Legal Description:

T46N R17W Sections 20 and 29

Identified Planning Goals:

Management activities that coordinate multiple uses and benefits for the people of Michigan including recreation, timber production and protection/enhancement of wildlife habitat are desirable.

Soil and topography:

The area generally features flat to slightly-rolling terrain. The uplands feature fine sand to loamy soils, while the lower areas vary considerably and are probably a mix of soils ranging from sands to muck and peat. Accurate soil survey data and upland habitat classification information are not complete at this time.

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

This compartment is immediately adjacent to the town of Shingleton. Many year-round homes and businesses are located on nearby private lands, and an electrical power transmission line crosses east-west through the compartment. Snowmobile Trail 8 also runs through the area.

Unique Natural Features:

Archeological, Historical, and Cultural Features:

The old town dump is in this compartment.

Special Management Designations or Considerations:

Most of this compartment is considered to be a part of the Petrel Deer Yard.

Watershed and Fisheries Considerations:

Prairie Creek is found in this compartment and is classified as cold water. This stream supports a cold-water fishery community, including brook trout, and thus should be protected from inputs of sediments which cover spawning gravels. BMP's should be followed as inputs of sediment and increases in sand bedload need to be prevented.

Wildlife Habitat Considerations:

This compartment lies immediately north and east of Shingleton and makes up the southwest corner of the Petrel Deer Yard. Early surveyor's notes indicate that pre-settlement lowland forests supported hemlock, cedar, spruce, tamarack, and balsam fir. Upland forests consisted of hemlock, yellow birch, white pine, red maple and minor components of sugar maple & beech. Current lowland forests appear to contain similar species as were found in pre-settlement times. Upland forests appear to have less hemlock and more sugar maple, red maple, and aspen. 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 hemlock, yellow birch, and black cherry in the hardwood stands, maintaining closed conifer forest in the lowlands, and providing browse opportunities through the retention of aspen.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and minor peat and muck. The glacial drift thickness varies between 10 and 50 feet. The Ordovician Black River and Prairie du Chien (PdC) Formations subcrop below the glacial drift. The Black River is quarried for stone elsewhere in the UP. There is a gravel pit in Section 19 and there should be good potential. There is no commercial oil and gas production in the UP.

Vehicle Access:

The compartment itself is bounded by Highway H-15 to the west and Highway M-28 to the south, but access to much of the area is limited by soft, wet terrain.

Survey Needs:

None at this time.

Recreational Facilities and Opportunities:

The area receives a great deal of hunting pressure, Snowmobile Trail 8 is heavily-used through the compartment. There are no other developed recreational facilities.

Fire Protection:

Access to most of the compartment is difficult due to the soft, wet ground.

Additional Compartment Information:

The snowmobile trail crosses over Prairie Creek via a small bridge up near the northwest corner of the compartment, and over Hickey Creek via a larger bridge near the town of Shingleton along the southwest edge of the area.

The following reports from the Inventory are attached:

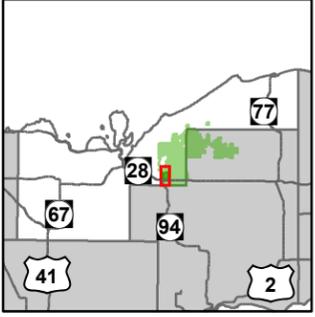
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

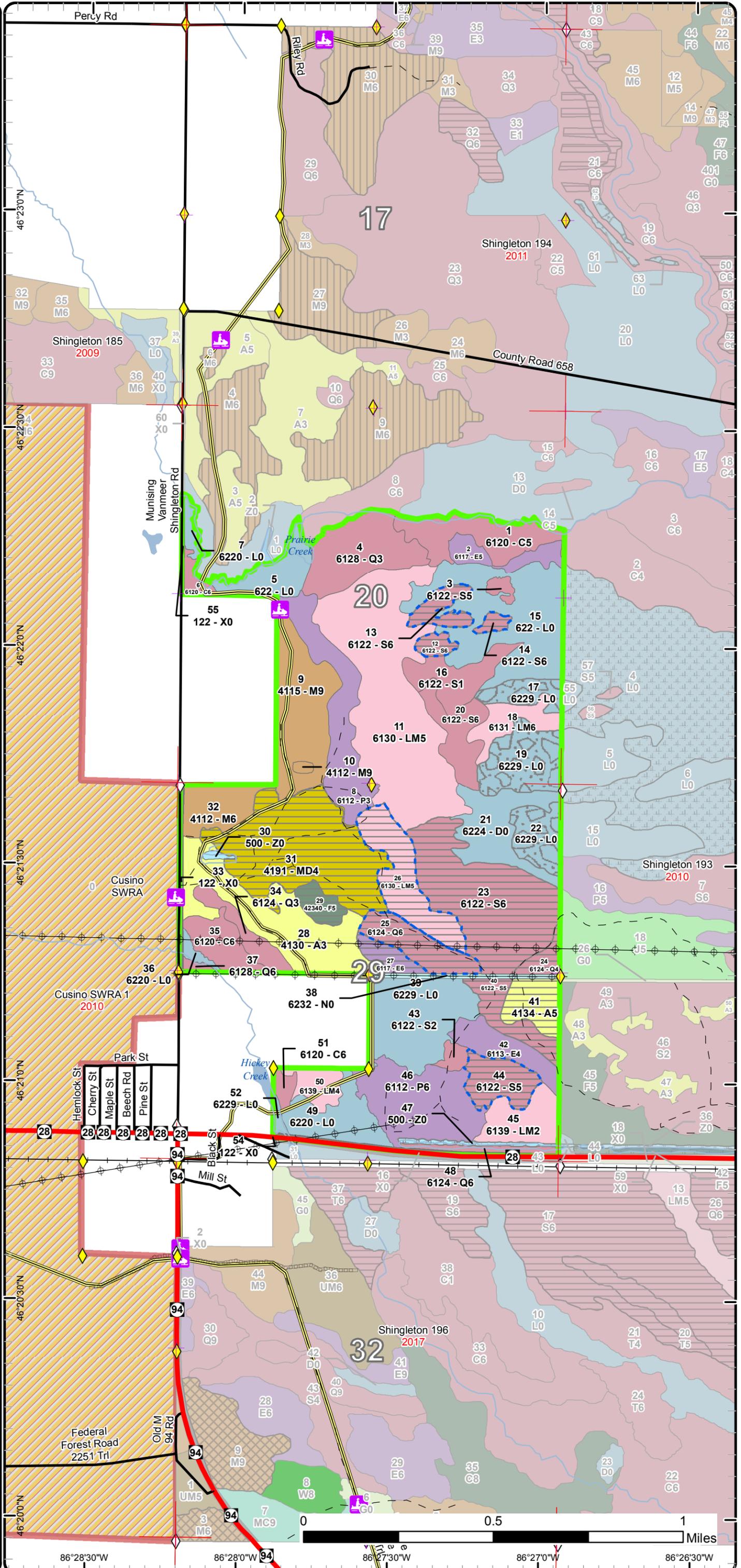
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments

Compartment: 195
 T46N,R17W, Sec: 20, 29
 County: Alger
 Unit: Shingleton
 Mgmt Area:
 Cusino Complex
 YOE: 2017
 Acres: 854 GIS Calculated
 Examiner: Robert Tylka
 Map Revised: 8/20/2015
 Map Phase: Review

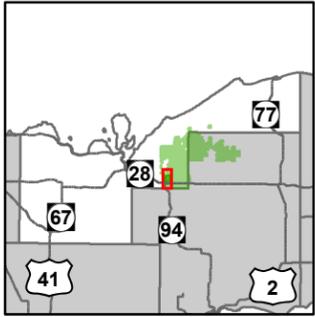


- ✚ Remonumented Section Corner
- ◆ Survey Grade GPS Corners
- ◇ Field Grade GPS Corners
- Miris Corners
- Highway
- Paved Roads
- Poor Dirt Roads
- ORV Routes
- SN Snowmobile Trails
- Railroads
- Rivers
- Lakes
- Pipeline
- Powerline
- Treatments with Site Conditions
- Treatments
- Clearcut (w/Reserves)
- Other Treatment - See Comments
- Regeneration Survey
- Forest Covertypes
- 411 - Northern Hardwood
- 413 - Aspen
- 419 - Mixed Upland Deciduous
- 423 - Other Upland Conifers
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- Non-Forest Covertypes
- 122 - Roads/Parking Lot
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



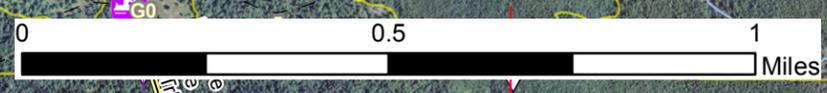
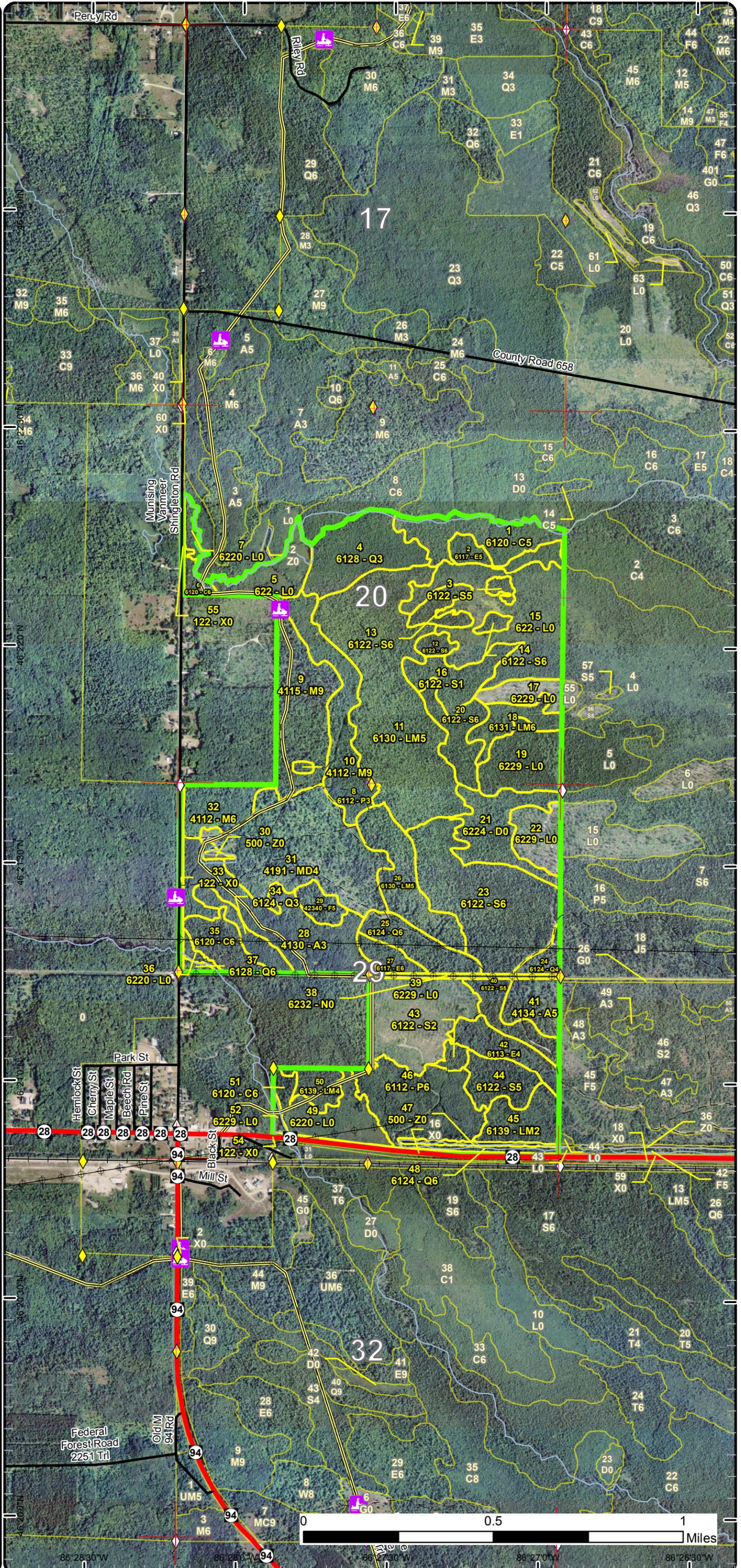
Stand Boundary Map

Compartment: 195
 T46N,R17W, Sec: 20, 29
 County: Alger
 Unit: Shingleton
 Mgmt Area:
 Cusino Complex
 YOE: 2017
 Acres: 854 GIS Calculated
 Examiner: Robert Tylka
 Map Revised: 8/20/2015
 Map Phase: Review



- Remonumented Section Corner
 - Survey Grade GPS Corners
 - Field Grade GPS Corners
 - Miris Corners
 - Highway
 - Paved Roads
 - Poor Dirt Roads
 - ORV Routes
 - Snowmobile Trails
 - Railroads
 - Rivers
 - Pipeline
 - Powerline
 - Stand Boundaries
- Forest Covertypes**
- 411 - Northern Hardwood
 - 413 - Aspen
 - 419 - Mixed Upland Deciduous
 - 423 - Other Upland Conifers
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest

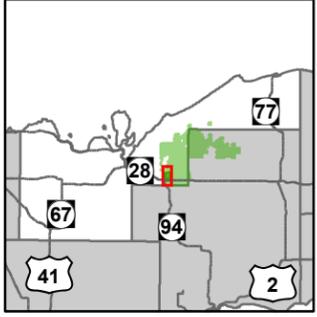
 - 613 - Lowland Mixed Forest
- Non-Forest Covertypes**
- 122 - Roads/Parking Lot
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland



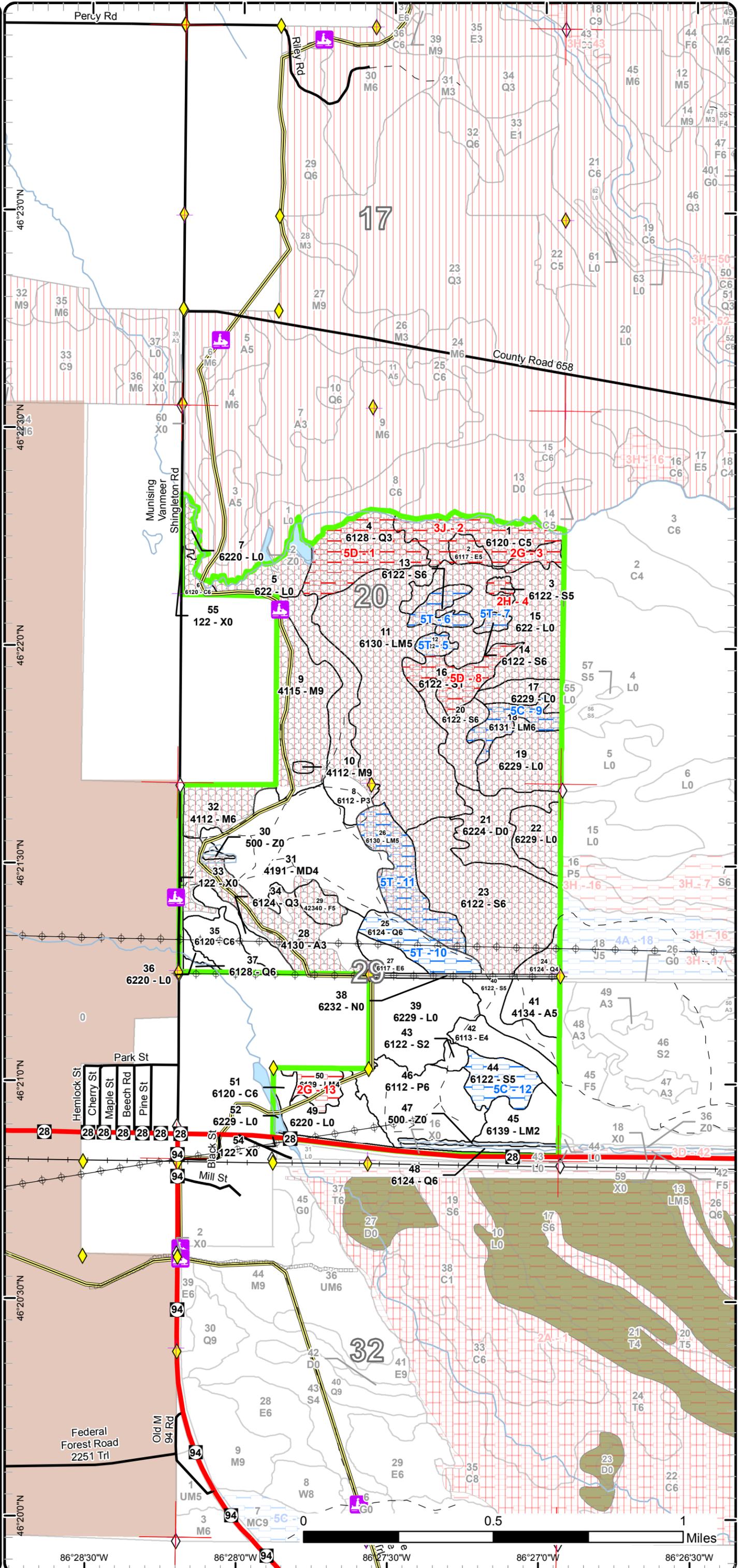
86°28'30"W 86°28'00"W 86°27'30"W 86°27'00"W 86°26'30"W

Special Conservation Areas & Site Conditions Map

Compartment: 195
 T46N,R17W, Sec: 20, 29
 County: Alger
 Unit: Shingleton
 Mgmt Area:
 Cusino Complex
 YOE: 2017
 Acres: 854 GIS Calculated
 Examiner: Robert Tylka
 Map Revised: 8/20/2015
 Map Phase: Review



- Remonumented Section Corner
- Survey Grade GPS Corners
- Field Grade GPS Corners
- Miris Corners
- Highway
- Paved Roads
- Poor Dirt Roads
- ORV Routes
- Snowmobile Trails
- Railroads
- Rivers
- Pipeline
- Powerline
- 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
- 5T: Contingency Treatment for Forest Health Concerns
- Unavailable Factors**
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3J: Water quality / BMPs (stream, river, or lake)
- 5D: Unproductive Forest Land
- Special Conservation Areas**
- Cold Water Streams
- Cold Water Lakes
- Wildlife Research Areas
- Potential Old Growth
- Other SCA (No Category Assigned)



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	0	42	0	0	0	12	0	0	0	0	0	0	0	0	0	0	54
Cedar	0	0	0	0	0	0	0	0	0	0	0	18	22	0	0	0	0	0	40
Lowland Aspen/Balsam Poplar	0	0	29	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	64
Lowland Conifers	0	0	0	9	0	0	0	33	19	0	0	1	0	0	0	0	0	0	62
Lowland Deciduous	0	0	0	0	0	0	13	0	6	0	0	0	0	0	0	0	0	9	28
Lowland Mixed Forest	0	0	0	15	0	0	0	90	36	8	0	0	0	0	0	0	0	0	149
Lowland Shrub	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168
Lowland Spruce/Fir	0	0	0	3	0	0	0	0	111	15	0	0	0	0	0	0	0	0	129
Marsh	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Mixed Upland Deciduous	0	0	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	62
Northern Hardwood	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	50	51
Treed Bog	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Upland Spruce/Fir	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
Urban	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Water	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	209	0	29	69	35	0	75	141	172	24	0	19	22	0	0	0	0	59	854



Report 2 – Treatment Summary

Shingleton Mgt. Unit
Year of Entry: 2017

Acres of Harvest

Compartment 195
Total Compartment Acres: 854

Commercial Harvest - 159
Harvests with Site Condition - 66
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	12	0	0	0	0	0	0	0	0	12
Lowland Conifers	20	0	0	0	0	0	0	0	0	20
Lowland Deciduous	6	0	0	0	0	0	0	0	0	6
Lowland Mixed Forest	25	0	0	0	0	0	0	0	0	25
Lowland Spruce/Fir	95	0	0	0	0	0	0	0	0	95
Mixed Upland Deciduous	61	0	0	0	0	0	0	0	0	61
Upland Spruce/Fir	6	0	0	0	0	0	0	0	0	6
Total	225	0	0	0	0	0	0	0	0	225

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	225	0	0	0	0	43	0	3		271
Next Step	0	73	0	12	0	12	163	0	0	260
Total	225	73	0	12	0	12	206	0	3	531



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
47	41195_OutOfY OE_1-NonFor	3.2	500 - Water	Nonstocked		Unspec ified	NonForestMgt	Other - Specify	622 - Lowland Shrub		Draft Field Boundary

Habitat Cut: Yes**Site Condition:**

Prescription Hand plant Wild Calla in low areas near prairie creek per WLD specs. (w41-1606)

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 5 /28/2014

12	41195012-Cut	3.3	6122 - Black Spruce Well	Poletimber	84	51-80	Harvest	Clearcut	6124 - Lowland Spruce-Fir	Even-Aged	Proposal
----	--------------	-----	-----------------------------	------------	----	-------	---------	----------	------------------------------	-----------	----------

Habitat Cut: No**Site Condition: Contingency Treatment**

Prescription Clearcut - no retention necessary due to small stand size.

Specs:

Next Step

Treatments:

Acceptable All lowland conifers plus red maple, aspen & birches are acceptable.

Regen:

Other Factor limit for now but cut if/when spruce budworm enters the area. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

13	41195013-Cut	7.3	6122 - Black Spruce Well	Poletimber	84	81-110	Harvest	Clearcut with Retention	6124 - Lowland Spruce-Fir	Even-Aged	Proposal
----	--------------	-----	-----------------------------	------------	----	--------	---------	----------------------------	------------------------------	-----------	----------

Habitat Cut: No**Site Condition: Contingency Treatment**

Prescription CC with retention - retain the cedar.

Specs:

Next Step

Treatments:

Acceptable All lowland conifers plus aspen, birch & red maple are acceptable.

Regen:

Other Hold for now until the large mixed stand to the west is ready next entry, unless spruce budworm shows up and makes cutting sooner a necessity. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

14	41195014-Cut	2.1	6122 - Black Spruce Well	Poletimber	84	51-80	Harvest	Clearcut	6124 - Lowland Spruce-Fir	Even-Aged	Proposal
----	--------------	-----	-----------------------------	------------	----	-------	---------	----------	------------------------------	-----------	----------

Habitat Cut: No**Site Condition: Contingency Treatment**

Prescription Clearcut - no retention necessary due to small stand size.

Specs:

Next Step

Treatments:

Acceptable All lowland conifers plus aspen, birch & red maple are acceptable.

Regen:

Other Hold until next entry unless spruce budworm makes it necessary to cut sooner. 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
17	41195017- Monitor	8.4	6229 - Mixed lowland shrub	Nonstocked	0	Unspec ified	Monitoring	Natural Regen (Intermediate)	6122 - Black Spruce	Even-Aged	Proposal

Habitat Cut: Yes**Site Condition:**

Prescription Monitor natural regeneration in accordance with the work instructions.

Specs:

Next Step

Treatments:

Acceptable Black spruce is desirable. All lowland conifers plus aspen and birch are acceptable.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2019

19	41195019- Monitor	21.4	6229 - Mixed lowland shrub	Nonstocked	0	Unspec ified	Monitoring	Natural Regen (Intermediate)	6122 - Black Spruce	Even-Aged	Proposal
----	----------------------	------	-------------------------------	------------	---	-----------------	------------	---------------------------------	------------------------	-----------	----------

Habitat Cut: Yes**Site Condition:**

Prescription Monitor natural regeneration per forest certification standards.

Specs:

Next Step

Treatments:

Acceptable Black spruce is desirable; all conifers plus aspen & birch are acceptable.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2019

22	41195022- Monitor	12.8	6229 - Mixed lowland shrub	Nonstocked	0	Unspec ified	Monitoring	Natural Regen (Intermediate)	6122 - Black Spruce	Even-Aged	Proposal
----	----------------------	------	-------------------------------	------------	---	-----------------	------------	---------------------------------	------------------------	-----------	----------

Habitat Cut: Yes**Site Condition:**

Prescription Monitor for natural regeneration per the forest certification standards.

Specs:

Next Step

Treatments:

Acceptable Black spruce is desirable; all conifers plus aspen & birch are acceptable.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2019

23	41195023-Cut	57.1	6122 - Black Spruce Poletimber Well	77	81-110	Harvest	Clearcut with Retention	6124 - Lowland Spruce-Fir	Even-Aged	Proposal
----	--------------	------	---	----	--------	---------	----------------------------	------------------------------	-----------	----------

Habitat Cut: No**Site Condition:**

Prescription CC with retention - reserve the cedar & white pine, and any hemlock encountered in the stand.

Specs:

Next Step

Treatments:

Acceptable All lowland timber species that are commercially viable are acceptable.

Regen:

Other natural regeneration 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
24	41195024-Cut	4.7	6124 - Lowland Spruce-Fir	Poletimber Poor	66	1-50	Harvest	Clearcut	6112 - Lowland Aspen	Even-Aged	Proposal

Habitat Cut: No**Site Condition:**

Prescription Clearcut - no retention is needed due to the small stand size, or desirable as we attempt to regenerate aspen before it is too late to do so. Cut all
Specs: trees greater than 2" DBH to encourage as much sprouting as possible.

Next Step
Treatments:

Acceptable Aspen is desirable but any commercially viable timber species is acceptable.

Regen:

Other Winter cut only. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

25	41195025-Cut	15.1	6124 - Lowland Spruce-Fir	Poletimber Well	77	81-110	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Even-Aged	Proposal
----	--------------	------	------------------------------	--------------------	----	--------	---------	----------------------------	-------------------------------	-----------	----------

Habitat Cut: No**Site Condition: Contingency Treatment**

Prescription CC with retention if spruce budworm begins showing up in the area. Patches of aspen regen are the likely the best source of retention.

Specs:

Next Step
Treatments:

Acceptable Aspen, birch, spruce, balsam fir, red maple, plus any other conifers are all acceptable.

Regen:

Other This is a contingency treatment - otherwise hold until next entry. Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

26	41195026-Cut	24.6	6130 - Fir, Aspen, Maple	Poletimber Medium	77	1-50	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Even-Aged	Proposal
----	--------------	------	-----------------------------	----------------------	----	------	---------	----------------------------	-------------------------------	-----------	----------

Habitat Cut: No**Site Condition: Contingency Treatment**

Prescription CC with retention - this is a contingency treatment only. If Spruce budworm moves into the area, then cut ASAP and determine retention at the
Specs: time of sale preparation.

Next Step
Treatments:

Acceptable All commercial lowland timber species are acceptable.

Regen:

Other Old next step comments:

Comment:

Proposed Start Date: 10/1 /2016

29	41195029-Cut	6.0	42340 - Upland Spruce/Fir	Poletimber Medium	65	1-50	Harvest	Clearcut	4319 - Mixed Upland Forest	Even-Aged	Proposal
----	--------------	-----	------------------------------	----------------------	----	------	---------	----------	-------------------------------	-----------	----------

Habitat Cut: No**Site Condition:**

Prescription Clearcut - no retention necessary due to small stand size.

Specs:

Next Step
Treatments:

Acceptable Any conifers plus aspen, birch and hardwoods.

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
31	41195031-Cut	61.4	4191 - Mixed Upland Deciduous with Conifer	Poletimber Poor	50	1-50	Harvest	Clearcut	310 - Herbaceous Openland		Proposal - Approval Pending Edits

Habitat Cut: No**Site Condition:**

Prescription CC with no retention - cut all trees down to 2" DBH; Wildlife Division may request that we reserve any cherry. Manage opening for open
Specs: grassland wildlife habitat and deer breakout areas using methods per DNR's Wildlife Division SOP. Currently under FTP W41-1600.

Next Step
Treatments:

Acceptable Conversion to grass
Regen:

Other WLD may opt to plant some shrubs in the opening. Old next step comments:
Comment:

Proposed Start Date: 3 /20/2014

27	41195039-Cut	6.3	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	77	81-110	Harvest	Clearcut	611 - Lowland Deciduous Forest	Even-Aged	Proposal
----	--------------	-----	--	--------------------	----	--------	---------	----------	--------------------------------------	-----------	----------

Habitat Cut: No**Site Condition:**

Prescription Clearcut - no retention required due to the small stand size, but if any white pine, hemlock or cedar are encountered in the stand, these should
Specs: be left.

Next Step
Treatments:

Acceptable Aspen and red maple are likely to regenerate best. All conifers and birch are also acceptable.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

40	41195040-Cut	11.4	6122 - Black Spruce	Poletimber Medium	77	51-80	Harvest	Clearcut with Retention	613 - Lowland Mixed Forest	Even-Aged	Proposal
----	--------------	------	---------------------	----------------------	----	-------	---------	----------------------------	-------------------------------	-----------	----------

Habitat Cut: No**Site Condition:**

Prescription CC w/retention - cut everything except the scattered cedar and any white pine & hemlock if encountered in the stand.
Specs:

Next Step
Treatments:

Acceptable Spruce/fir are desirable, but all lowland species including aspen, birch and other hardwoods are all acceptable,
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

41	41195041-Cut	11.9	4134 - Aspen, Spruce/Fir	Poletimber Medium	66	1-50	Harvest	Clearcut	413 - Aspen	Even-Aged	Proposal
----	--------------	------	-----------------------------	----------------------	----	------	---------	----------	-------------	-----------	----------

Habitat Cut: No**Site Condition:**

Prescription Clearcut - due to the poor quality of the timber, no retention is desirable unless scattered white pine, hemlock or cedar are encountered in the
Specs: stand. These may be retained if present.

Next Step Monitoring, Natural Regen (Intermediate); SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; Seeding, Other - Specify
Treatments:

Acceptable Aspen is desirable but it may be too late to regenerate it here; if the aspen regen fails then initiate treatment to establish jack pine.
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
44	41195044-Cut	13.4	6122 - Black Spruce	Poletimber Medium	75	1-50	Harvest	Clearcut with Retention	6122 - Black Spruce	Even-Aged	Proposal

Habitat Cut: No **Site Condition: Age-Class or Site Quality**

Prescription Contingency Treatment - cut if spruce budworm becomes an issue in the area. Retention will be determined during sale preparation.
Specs:

Next Step
Treatments:

Acceptable sPRUCE/FIR IS DESIRABLE; ALL CONIFERS PLUS ASPE, & BIRCH ARE ACCEPTABLE.
Regen:

Other Old next step comments:
Comment:

Proposed Start Date: 10/1 /2016

**Total Treatment
Acreage Proposed: 270.6**

Report 5 – Site Conditions

Shingleton Mgt. Unit
Robert Tylka : Examiner

Compartment: 195
Year of Entry: 2017

Availability for Management

Total Acres	Acres Available	Acres Avail With Condition		Acres Not Available	Dominant Site Conditions						
					5C	5T	2G	2H	3J	5D	
54	54	0	0	0	Aspen						
41	18	0	22	22	Cedar					22	
64	64	0	0	0	Lowland Aspen/Balsam Poplar						
62	19	15	28	28	Lowland Conifers		15				28
28	19	0	9	9	Lowland Deciduous			9			
148	105	36	8	8	Lowland Mixed Forest	11	25	8			
168	168	0	0	0	Lowland Shrub						
129	86	26	17	17	Lowland Spruce/Fir	13	13		2		15
5	5	0	0	0	Marsh						
62	62	0	0	0	Mixed Upland Deciduous						
51	51	0	0	0	Northern Hardwood						
23	23	0	0	0	Treed Bog						
6	6	0	0	0	Upland Spruce/Fir						
9	9	0	0	0	Urban						
4	4	0	0	0	Water						
854	694	77	84	84	Total Forested Acres	24	53	16	2	22	43
	81%	9%	10%	10%	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	5D: Unproductive Forest Land	28	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Site indices are very low, although the stand was apparently cut at one time.							
2	Unavailable	3J: Water quality / BMPs (stream, river, or lake)	22	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Shingleton Mgt. Unit
Robert Tylka : Examiner

Compartment: 195
Year of Entry: 2017

3	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Access issues across low wetlands - probably not enough volume to justify the BMP issues that are likely to arise.							
5	Available	5T: Contingency Treatment for Forest Health Concerns	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
6	Available	5T: Contingency Treatment for Forest Health Concerns	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Hold until next entry unless spruce budworm makes it necessary to cut sooner.							
7	Available	5T: Contingency Treatment for Forest Health Concerns	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Hold until next entry unless spruce budworm makes it necessary to cut sooner.							
8	Unavailable	5D: Unproductive Forest Land	15	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							

Report 5 – Site Conditions

Shingleton Mgt. Unit
Robert Tylka : Examiner

Compartment: 195
Year of Entry: 2017

9	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Hold at least until the adjacent spruce cuts to the north & south are regenerated per the forest certification standards. Access & BMP issues may also be concerns.							
10	Available	5T: Contingency Treatment for Forest Health Concerns	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Available	5T: Contingency Treatment for Forest Health Concerns	25	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
12	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	5T: Contingency Treatment for Forest Health Concerns	Unspecified	Unspecified	Unspecified
Comments: HOLD UNTIL NEXT ENTRY UNLESS SPRUCE BUDWORM SHOWS UP AND MAKES CUTTING SOONER A NECESSITY.							
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	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	534
Comments				
already in the deer wintering 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 Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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.
SCA	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	Poletimber Medium	22.3	114	111-140	SCA - Petrel Deeryard Slow-growing cedar with numerous small drainage channels running through it. The stand borders on Prairie Creek to the north, and lowland brush is a significant component in the understory. Soils are classified as type 57 (Carbondale muck.) This stand should be regarded as inoperable. SCA - Petrel Deeryard
2	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	8.5	114	1-50	SCA - Petrel Deeryard Low, wet area that features fairly poor stocking, but it is significantly higher than the lowland brush stand to the south. stand density is variable but generally drops as you proceed southward. Unevenaged characteristics have developed as the less-tolerant species died out. Site indices for all species appear to be low. It is also too wet for operability. Over time, a slow-growing cedar/black ash complex is developing, but the EAB may change that. Soils are classified as type 57 (Carbondale muck.)
3	6122 - Black Spruce	Poletimber Medium	2.3	84	51-80	SCA - Petrel Deer Yard. Island of spruce/mixed lowland timber on wet ground.. Access issues indicate that timber management is not likely to be profitable.
4	6128 - Lowland Coniferous, Mixed Deciduous	Sapling Well	28.0	61	1-50	SCA - Petrel Deeryard Slow-growing mix of conifer regeneration that includes cedar, black spruce and balsam fir, plus red maple, paper birch, aspen, bam and black ash. The stand is adjacent to Prairie Creek. It is gradually filling in and now appears to consist of an older generation 3-5" DBH over a younger generation 0-2" DBH. Lowland brush is common throughout. Site indices are too low for all species to classify this stand as commercial timber, though it may eventually produce enough volume to harvest. Soils are classified as type 57 (Carbondale muck.)
6	6120 - Lowland Cedar	Poletimber Well	3.4	106	81-110	SCA - Petrel Deeryard Cedar stand along Prairie Creek with mixed conifer/lowland brush understory. The snowmobile trail also runs through it, and crosses the creek at a bridge located here. Soils are classified as type 57 (Carbondale muck.)
8	6112 - Lowland Aspen	Sapling Well	29.3	17	Immature	SCA - Petrel Deeryard Partially cut by D.O.C. in 1997-98. Aspen now found in the areas where the stand was opened up enough, with residual conifers & red maple dominant where it was left with more cover. Shade-tolerant seedlings (red maple, balsam fir, some black spruce) are the primary understory species. Management objective now is to let it grow as a mixed stand and harvest when the aspen matures. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.) The site may be best described as a transitional zone between uplands and true lowlands.
9	4115 - Y. Birch, Hemlock NH	Sawtimber Well	35.5	80	81-110	This stand features fairly good quality red maple and a lot of large hemlock. Mixed hardwood sawlog volume includes yellow birch, black cherry and a few sugar maple. The stand was select cut with the sale completed in 2009, and beech was then salvaged in 2013. Soils are classified as type 160B (Paquin-Finch sands, 0-6% slopes.) SCA - Petrel Deeryard



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
10	4112 - Maple, Beech, Cherry Association	Sawtimber Well	1.0	80	81-110	SCA - Petrel Deeryard USFS RED MAPLE RESEARCH PLOT --- NO CUTTING. Exclude the area when harvesting the adjacent stands. [03/31/05] For more info contact Terry Strong, USFS @ (715) 362-1124 Soils are classified as type 160B (Paquin-Finch sands, 0-6% slopes.)
11	6130 - Fir, Aspen, Maple	Poletimber Medium	89.6	66	51-80	SCA - Petrel Deeryard More or less the remains of a stand that was once dominated by lowland poplar/birch, but most of them have died. A mix of red maple & conifers has succeeded to stand dominance on the rolling wet terrain. Wood quality varies significantly from one spot to the next, but overall it's not impressive. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.) Next entry - break this stand up into several blocks and begin rotating it; or wait until it fits into the deer wintering complex management.
12	6122 - Black Spruce	Poletimber Well	3.3	84	51-80	SCA - Petrel Deeryard Cut now if necessary, but will hold until next entry when the large mixed stand to the west is also ready.
13	6122 - Black Spruce	Poletimber Well	7.3	84	81-110	SCA - Petrel Deeryard Ready to cut, but can hold until the large mixed stand to the west is ready next entry; or cut sooner if spruce budworm begins showing up in the area. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.) SCA - Petrel Deeryard
14	6122 - Black Spruce	Poletimber Well	2.1	84	51-80	SCA - Petrel Deer Yard Another pocket of black spruce - hold until the large mixed stand to the west is ready next entry, unless spruce budworm makes it necessary to cut it sooner.
16	6122 - Black Spruce	Sapling Poor	15.0	72	Unspecified	SCA - Petrel Deer Yard Very slow-growing black spruce, cedar and white pine on hummocks; this site is poorly drained. Records indicate that some timber was probably cut here in about 1943, but the trees are very short and small diameters - site indices are too low to classify this as manageable timber. A few trees are reaching merchantable size - if it were faster-growing it might be classified as a fully-stocked conifer stand. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope) but probably includes type 58 (Dawson muck) here.
18	6131 - Hemlock, White Pine, Maple, Birch	Poletimber Well	10.9	79	81-110	SCA - Petrel Deer Yard This stand may be somewhat older than the year of origin indicates, as two-storied/uneven-aged conditions are developing. The white pine and hemlock are fairly large with DBH's in the 14-18" range common. Density and composition are variable through out the stand. This stand was left in place when the surrounding spruce stands adjacent to the north & south were cut along with timber in Cmp 193 to the east. That sale (KMA Spruce, 41-009-10-01) was just completed in 2015. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	6122 - Black Spruce	Poletimber Well	14.3	72	81-110	SCA - Petrel Deeryard Density varies considerably from one spot to the next since the aspen and 1st generation of balsam fir died out of this stand. A few hemlock and cedar are also present. Ready to cut when the rest of the spruce in the vicinity is ready, hopefully next entry. The year of origin is from reliable evidence in timber sale records. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
23	6122 - Black Spruce	Poletimber Well	57.1	77	81-110	SCA - Petrel deer yard Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.) Mixed lowland timber - ready to cut, as the quality of the timber here is relatively low. This is partly a result of past management - partial cutting took place around 1992, resulting in a few pockets of aspen regeneration. The best tactic now is to restart a new stand.
24	6124 - Lowland Spruce-Fir	Poletimber Poor	4.7	66	1-50	SCA - Petrel Deeryard Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.) Poorly stocked conifer stand with a few remaining aspen that will probably not regenerate very well. Cut it now while cutting/regenerating the large stand to the northwest, as there is insufficient volume in this stand to stand alone in a timber sale. Some age-class diversity is developing as a result of a partial cutting around 1992.
25	6124 - Lowland Spruce-Fir	Poletimber Well	15.1	77	81-110	SCA - petrel Deer yard Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.) A partial cut in 1992 released much of the balsam fir & red maple that have become dominant by removing the aspen. The age shown reflects that of the original stand, but there is probably more age class diversity present. As a result, the trees here have not reached their full growth potential. Hold the stand for wildlife cover until next entry, and cut it after stand 23 has been successfully regenerated unless spruce budworm shows up and makes cutting sooner a necessity.
26	6130 - Fir, Aspen, Maple	Poletimber Medium	24.6	77	1-50	SCA - Petrel Deeryard This stand was partially cut took in about 1992. Aspen was cut, but provided only small patches of regeneration. The rest of it has basically died out. As a result, the density and volume displayed in many parts of this stand is somewhat sparse. Best plan appears to be managing for conifers from now on, as the current mix may be harvested in about 10 years when more of the nearby conifer stands are also ready. For now, hold it as wildlife cover while stand 23 (adjacent to the west) is cut and regenerated. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
27	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	6.3	77	81-110	This is a mixed stand on fairly wet ground that may have been partially cut. Cut now. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
28	4130 - Aspen	Sapling Well	41.9	23	Immature	Cut in 1992 - The understory varies considerably from red maple to upland brush (cherry) where the aspen isn't as dense. A few aspen are beginning to reach merchantable diameters. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	42340 - Upland Spruce/Fir	Poletimber Medium	6.0	65	1-50	Semi-open conifer stand with a few larger spruce and balsam fir that have provided the seed source to produce the current mix. Cut now along with the adjacent stand to the north. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.) SCA - Petrel Deeryard
31	4191 - Mixed Upland Deciduous with Conifer	Poletimber Poor	62.3	50	1-50	SCA - Petrel Deer Yard OPIC - FMD: Soils are classified as type 160B (Paquin-Finch sands, 0-6% slopes.)
32	4112 - Maple, Beech, Cherry Association	Poletimber Well	14.4	70	81-110	SCA - Petrel Deer Yard A few yellow birch and cherry logs are also scattered throughout the stand. Last thinned in 1989. The snowmobile trail runs along the edge of this stand. Should be ready to thin/select cut next entry. Soils are classified as type 160B (Paquin-Finch sands, 0-6% slopes.) SCA - Petrel Deeryard
34	6124 - Lowland Spruce-Fir	Sapling Well	8.7	23	Immature	Fully stocked stand featuring a mix of conifer regeneration and a few scattered aspen sprouts. Soils are classified as type 160B (Paquin-Finch sands, 0-6% slopes.)
35	6120 - Lowland Cedar	Poletimber Well	12.0	106	201+	Cedar adjacent to Hickey Creek and its floodplain. Some partial cutting took place about 1992 inside the northeast edge of the stand. Soils are classified as type 57 (Carbondale muck.)
37	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	1.2	106	141-170	Conifer mix between Hickey Creek and its floodplain, the powerline and Highway H-15. Some of the hemlock are very large. Soils are classified as type 16A (Paquin sand, 0-3% slopes.)
40	6122 - Black Spruce	Poletimber Medium	11.4	77	51-80	Mixed conifer stand that includes spruce, balsam fir, a few cedar and some red maple & paper birch. This stand is ready to cut. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
41	4134 - Aspen, Spruce/Fir	Poletimber Medium	11.9	66	1-50	Low quality, semi-open stand. Cut it now along with the adjacent mixed spruce stand. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
42	6113 - Lowland Maple	Poletimber Poor	13.1	50	1-50	Tag alder with trees scattered throughout - wetter than surrounding stands. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope) but may include some type 58 (Dawson muck.)
43	6122 - Black Spruce	Sapling Medium	2.9	23	Immature	Cut in 1992 252A (Finch-Kinross complex, 0-3% slope.)



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
44	6122 - Black Spruce	Poletimber Medium	13.4	75	1-50	Stand density varies considerably. The understory is a mix of black spruce, balsam fir, tamarack, white pine and red maple. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
45	6139 - Mixed Lowland Forest	Sapling Medium	15.1	27	Immature	Mix of spruce, tamarack, aspen and red maple regeneration; lowland brush still occupies part of the area. A few white pine are also present. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
46	6112 - Lowland Aspen	Poletimber Well	35.1	35	51-80	Aspen now reaching merchantable size. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
48	6124 - Lowland Spruce- Fir	Poletimber Well	4.3	74	111-140	Lowland conifer mix along Highway M-28. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
50	6139 - Mixed Lowland Forest	Poletimber Poor	7.6	81	1-50	Sparse mix of slow-growing timber over tag alder on a wet site. Soils are classified as type 57 (Carbondale muck.)
51	6120 - Lowland Cedar	Poletimber Well	3.0	106	141-170	6-12" DBH cedar along the east bank of Hickey Creek. The understory is highly variable, from no understory to lowland brush to mixed conifers. Soils are classified as type 57 (Carbondale muck.)



Stand	Cover Type	Acres	Managed Site	General Comments:
5	622 - Lowland Shrub	14.4	No	Very wet site adjacent to Prairie Creek. Soils are ponded histosols/aquents. The snowmobile trail runs through this stand. SCA - Petrel Deeryard
7	6220 - Alder/willow	3.3	No	Lowland brush with a few trees scattered mostly along the western edge. Soils are classified as type 57 (Carbondale muck.) SCA - Petrel Deeryard
15	622 - Lowland Shrub	51.3	No	SCA - Petrel Deeryard Lowland brush with many scattered submerchantable conifers, a few paper birch and red maple, all up on hummocks. In spots the conifers are becoming dominant over the brush, but overall the site is extremely wet. The site indices are very low for all the tree species, but a few stems have reached merchantable size. This area may have been cut in the past. Soils are classified as either type 252A (Finch-Kinross complex, 0-3% slope) or type 93 (Tawas-Deford muck.)
17	6229 - Mixed lowland shrub	8.4		SCA - Petrel Deeryard Just cut in 2014 - Part of KMA Spruce TS #41-009-10-01. Some seedlings/ advanced regeneration present but will need to be checked for natural regeneration later. About 10-12 sq ft of hemlock/paper birch residual basal area is present in clumps (retention from the last stand.)
19	6229 - Mixed lowland shrub	21.4	No	SCA - Petrel Deeryard Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.) Just cut in winter 2014-15 under TS #41-009-10-01 KMA Spruce. Residual BA: paper birch = 4; cedar = 2; white pine = 9; hemlock = 2; total = 17 sq.ft./acre. Note: Red pine (less than 1 sq.ft./acre) was also reserved.
21	6224 - Treed Bog	22.7	No	SCA - Petrel Deeryard This is a treed bog with many conifers up on hummocks and ridges in an area of impeded drainage. If the site index was higher, this stand might be considered a fully-stocked conifer stand. A few trees have reached merchantable size, and over time this stand may take on the appearance of manageable timber. There are no conclusive records indicating that timber was ever cut here. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope) but probably includes type 58 (Dawson muck) here.
22	6229 - Mixed lowland shrub	12.8		SCA - Petrel Deer Yard Just cut in winter 2013-2014 under contract TS 41-009-10-01 KMA Spruce. Residual BA: paper birch = 2; cedar = 3; white pine = 9; total = 14 sq.ft./acre. The white pine are fairly large (12-18" DBH). Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
30	500 - Water	0.9	No	Flooded pit - probably excavated for fill to cap the adjacent town dump.
33	122 - Road/Parking Lot	3.1	No	H-15 right-of-way
36	6220 - Alder/willow	2.0	No	Hickey Creek & floodplain - Soils are classified as type 57 (Carbondale muck.) A few trees scattered over the tag alder.
38	6232 - Wet Prairie	4.5	No	Powerline right-of-way



Stand	Cover Type	Acres	Managed Site	General Comments:
39	6229 - Mixed lowland shrub	35.5		Cut in 2011 - expecting a mix of lowland conifers with scattered pockets of hardwoods, aspen and birch.. Soils are classified as type 252A (Finch-Kinross complex, 0-3% slope.)
47	500 - Water	3.2	No	Flooded ditch/borrow pit from the construction of Highway M-28
49	6220 - Alder/willow	17.7	No	Heavy lowland brush with a few trees scattered throughout. Soils are classified as type 57 (Carbondale muck.)
52	6229 - Mixed lowland shrub	1.5	No	Lowland brush and Hickey Creek north of M-28
54	122 - Road/Parking Lot	4.8	No	M-28 R-O-W
55	122 - Road/Parking Lot	1.2	No	H-15 right-of-way