

Compartment Review Presentation

Shingleton Forest Management Unit

Compartment 183 Entry Year 2015 Acreage: 1,934

County Alger

Management Area: Cusino Complex

Revision Date: 07/23/2013

Stand Examiner: Rick James Hill

Legal Description:

T.46N, R17W, Sections 1-3.

Identified Planning Goals:

Vegetative management in the Cusino Complex MA will provide various timber products; maintain or enhance wildlife habitat; protect unique areas (ERA, SCA) and threatened, endangered, and special concern species; and provide many recreational opportunities.

Soil and topography:

Greylock-Cookson fine sandy loams, Carbondale, Lupton, Tawas and Deford mucks and mucky peats. The compartment is within a Ground Moraine landform area. Topography is level to rolling.

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

State owned land surrounds the north, west and south sides of the compartment. The land to the east is owned by The Forest Land Group.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

this compartment is obligate winter deer range.

Watershed and Fisheries Considerations:

Good. Star Creek is classified as designated trout water and is a tributary to the west branch of the Manistique River. Commencement Creek is classified as non-designated trout water, and we have no information as to what fishery it may support.

Wildlife Habitat Considerations:

Located in the Grand Marais end moraine and outwash ecological sub-subsection and on the north side of the Petrel Deer Yard, this compartment is a composite of cedar swamp with large hardwood islands. The circa 1850 lowland vegetation was dominated by cedar, hemlock, tamarack, and spruce. Uplands at that time held a mixture of sugar maple, hemlock, yellow birch, balsam fir and elm. Current vegetation appears to be similar in species composition to that of pre-settlement times. Wildlife habitat objectives include maintaining closed canopy cedar swamps for wintering deer, enhancing small upland openings within the forest, providing deciduous browse, and promoting structural and species diversity in the northern hardwood system. Wildlife species of special interest potentially utilizing this compartment include red-shouldered hawks, red-tailed hawks, and bobcat.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of peat and muck and medium-textured till. There is insufficient data to determine the glacial drift thickness. The Ordovician Prairie du Chien (PdC) Group subcrops below the glacial drift. The PdC could be used for stone. The nearest gravel pit is to the south but there may be some potential in Section 2 & 3. There is no commercial oil and gas production in the UP.

Vehicle Access:

The petrel road cuts thought the compartment north to south the west side of the compartment has fairly good access. The area of the compartment east of star creek is isolated with difficult access from the south.

Survey Needs:

None

Recreational Facilities and Opportunities:

There are no developed recreation facilities within this compartment.

Fire Protection:

Wildfire potential is low.

Additional Compartment Information:

The following reports from the Inventory are attached:

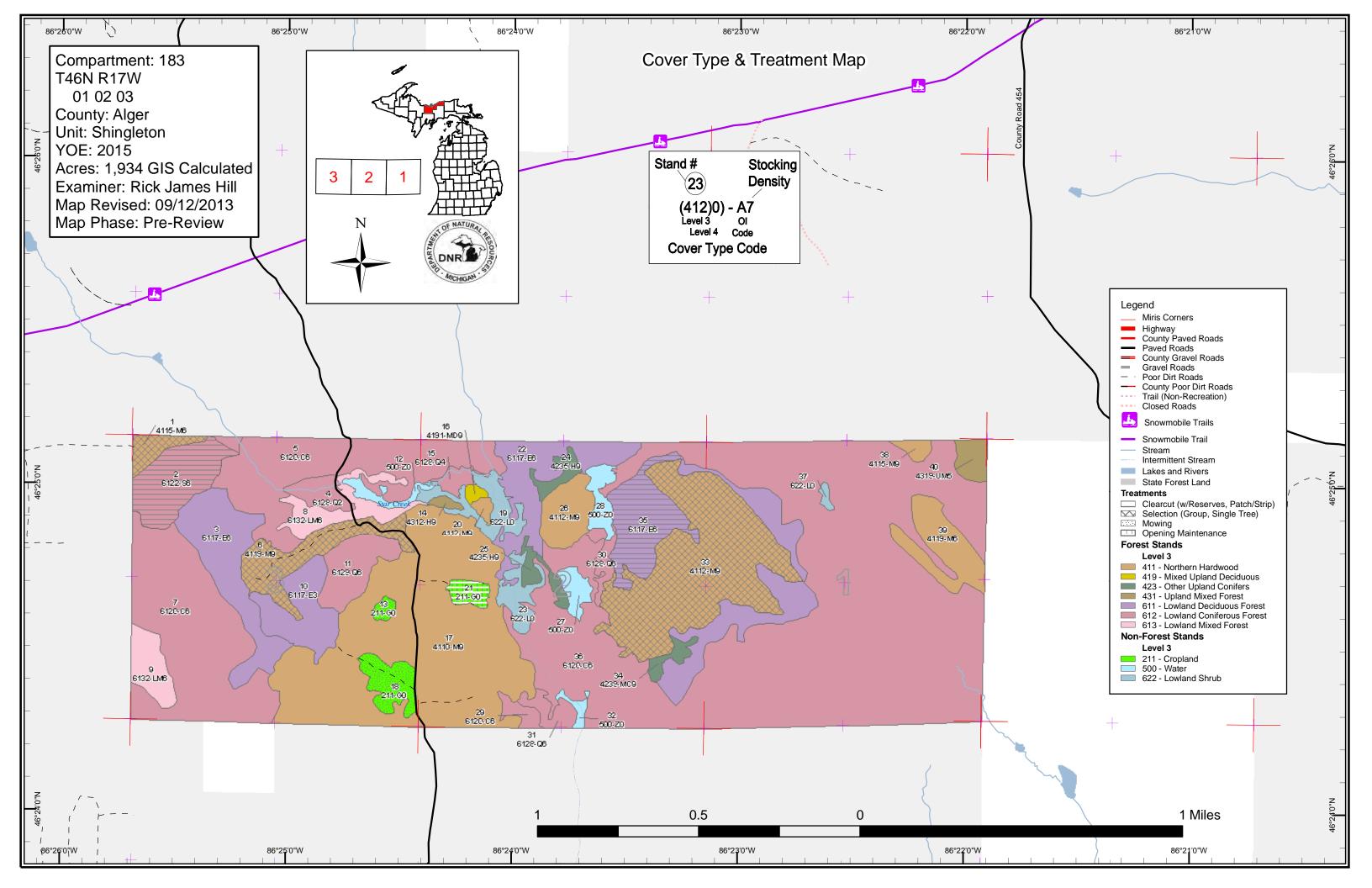
Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas Site Condition Details

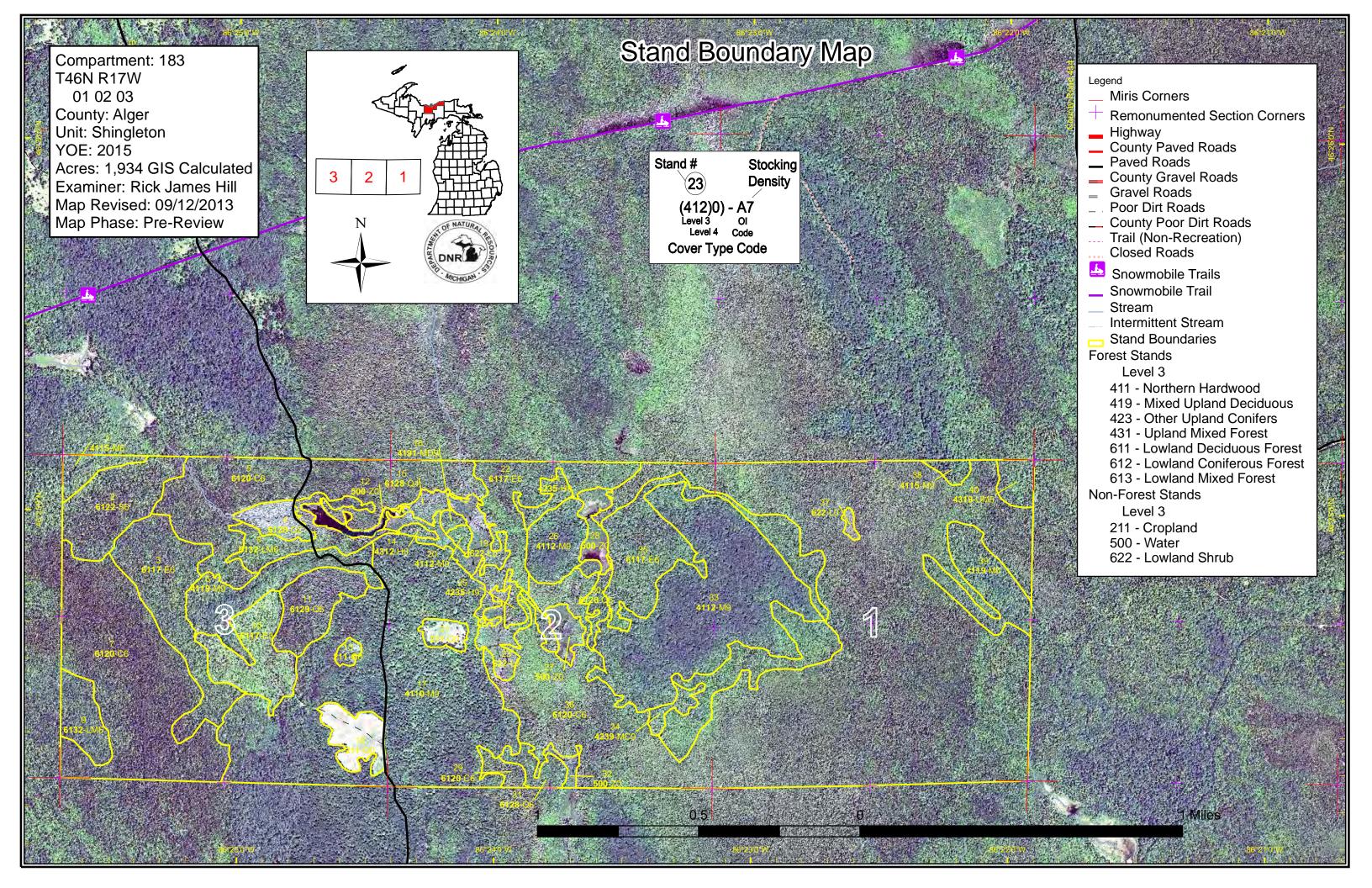
The following information is displayed, where pertinent, on the attached compartment maps:

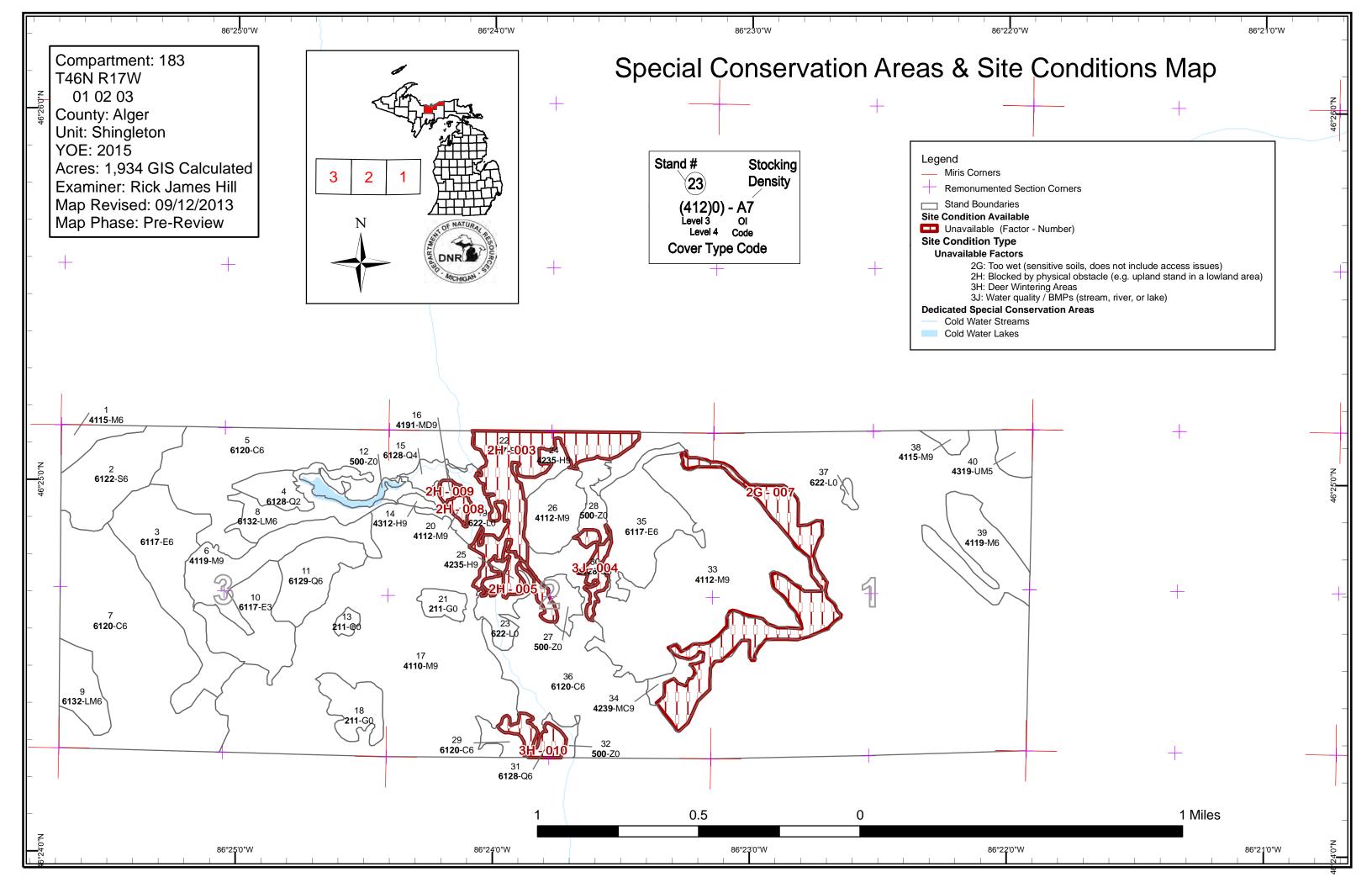
Base feature information, stand boundaries, cover types, and numbers Proposed treatments

Site condition boundaries

Details on the road access system







Compartment 183 Year of Entry 2015

Shingleton Mgt. Unit Rick-James Hill : Examiner



Age Class

						Age	Ciass									
		6.0	0,70	Parks /	,	AD IN	\$ 50,000	\$0,00°	10 ¹ 0°/	O CO	86.00	on on one	70,73	No Ju	S /	, dir
Cedar	0	0	0	0	0	0	0	0	0	0	611	258	0	0	870	
Cropland	29	0	0	0	0	0	0	0	0	0	0	0	0	0	29	
Hemlock	0	0	0	0	0	0	0	7	2	0	0	0	0	8	18	
Lowland Conifers	0	12	0	0	6	0	0	28	10	0	8	0	0	0	64	
Lowland Deciduous	37	0	0	61	0	0	0	0	50	0	106	0	0	0	254	
Lowland Mixed Forest	0	0	0	0	0	0	0	44	0	0	0	0	0	0	44	
Lowland Shrub	36	0	0	0	0	0	0	0	0	0	0	0	0	0	36	
Lowland Spruce/Fir	0	0	0	0	0	0	0	0	44	0	0	0	0	0	44	
Mixed Upland Deciduous	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	
Northern Hardwood	0	0	0	0	0	0	0	476	53	0	0	0	0	0	529	
Upland Conifers	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	
Upland Mixed Forest	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10	
Water	29	0	0	0	0	0	0	0	0	0	0	0	0	0	29	
Total	131	12	0	61	6	0	10	558	164	0	726	258	0	8	1934	



Report 2 – Proposed Treatment Summaries

Shingleton Mgt. Unit Year of Entry 2015

Compartment 183 **Total Compartment Acres: 1,934**

Acres by Treatment Type

Commercial Harvest - 137 Tree Planting - 0 Other - 0

Habitat Cut - 153 Opening Maintenance - 29

			Cov	er Ty	oe by F	larves	st Meth	od	
				Sign of	N. S. S.	Non of the second	China Ora		Sec. Sec. Sec. Sec. Sec. Sec. Sec. Sec.
(Habitat Cut)Northern Hardwo	od	0	153	0	0	0	0	153	
Lowland Coniferous Forest		42	0	0	0	0	0	42	
Lowland Deciduous Forest		46	0	0	0	0	0	46	
Northern Hardwood		0	50	0	0	0	0	50	
	Total	87	203	0	0	0	0	290	

Shingleton Mgt. Unit S

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 183 Year of Entry 2015

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1	41183001-Cut	10.3	4115 - Y.Birch, Hemlock NH	High Density Pole	84	51-80	Harvest	Single Tree Selection	4112 - Maple, Beech, Cherry Association	Cmpt. Review Proposal

Prescription This stand is on contract, it has been set up with the compartment to the north in sale number 410291201 Beaverville Contract Hardwood. Area Specs

was contract marked by Greenstone forestry.

Other Access is off of H-58 at Highbend corner though FLG to stand.

Comments:

Next

Steps: <u>Proposed</u>

Start Date: 09/03/2013

Clearcut with 41183002-Cut 41.6 6122 - Black Spruce High 84 Harvest 6124 - Lowland Cmpt. Review Reserves Spruce-Fir Proposal Density

Pole

Prescription Clearcut this stand, leave islands with high concentrations of hemlock, cedar and white pine. All hemlock, white pine and cedar should be reserved. Any red pine and oak that is present should be reserved as well. Size may vary a bit due to areas of cedar and hemlock that should be Specs:

Access is though FLG so a road permit will be needed. A culvert will be needed to cross a drain as well. Other

Comments:

<u>Next</u> Expectable regeneration is spruce and a mix of lowland species. If regeneration fails spruce should be seeded.

Steps:

Proposed

10/01/2014 Start Date:

81-110 4113 - R.Maple, Cmpt. Review 41183006-Cut 39 5 4119 - Mixed High 86 Harvest **Group Selection** Northern Hardwoods Density Log Proposal Conifer

Prescription Cut using a selection system. Mark using the complete marker as a guide, maintain and try to improve species diversity. Target BA is 80 Square Specs:

feet. Cut all beech with scale any resistant trees should be left.

Hilly site make sure to mark for operability. Combine with stand to south for sale. **Other**

Comments:

Acceptable regeneration is a mix of hardwood species excluding beech.

<u>Next</u> Steps:

Proposed

03/19/2013 Start Date:

153.0 33 41183033-Cut 4112 - Maple, High 74 111-140 Harvest Single Tree 4110 - Sugar Maple Cmpt. Review Beech, Cherry Density Log Selection Association Proposal

Association

Prescription Cut using a selection system. Mark using the complete marker as a guide, maintain and try to improve species diversity including mesic conifers.

Target BA is 80 Square feet. Cut all beech with scale any resistant trees should be left. Specs:

Access to this area is a two track north off of the million dollar road. There are two creek crossings that need to be left in following C187 Other_

contracts harvest to allow logging access to this stand. The stand will have to be cut in winter conditions to allow use of the last quarter mile of road though a cedar stand this road will need to frozen to allow cutting and hauling. Marking access is poor with approximately a 2 mile walk in to

the island, with the aid of a four wheeler this could be cut to a 3/4 mile but it will have to be dry to make it that far. The last quarter mile is a walk

through a cedar swamp with tag alder filling the road. Contract marking is highly recommended due to theses challenges.

Next Acceptable regeneration is a mix of species on site excluding Beech.

Steps:

Comments:

<u>Proposed</u> Start Date: 10/01/2014

Shingleton Mgt. Unit

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 183 Year of Entry 2015

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
35	41183035_sm all-Cut	45.8	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	101		Harvest	Clearcut with Reserves	6119 - Mixed Lowland Deciduous Forest	Cmpt. Review Proposal

Prescription Clearcut this stand, reserve hemlock and red pine. Leave retention islands within the sale boundaries ideally theses islands will have high Specs:

volumes of cedar and hemlock.

Other Comments:

Access to this area is a two track north off of the million dollar road. There are two creek crossings that need to be left in following C187 contracts harvest to allow logging access to this stand. The stand will have to be cut in winter conditions to allow use of the last quarter mile of road though a cedar stand this road will need to frozen to allow cutting and hauling. Winter prep should be done here but will still require a mile

plus walk to reach the stand. This stand could be added to the marking contract as well.

Next Steps:

S

Acceptable regeneration is a mix of species on site excluding Beech and ash. Seed cedar if regen fails

Proposed

10/01/2014 Start Date:

13 NF 41183013-NonFor

3.0 2113 - Forage Crops Non-Forest Mowing 3204 - Mast Cmpt. Review Management Producing Shrub Proposal

Prescription Manage this open area for wildlife, this may include clearing of trees in the opening, Planting of forage crops, Planting of oak or other species

that wildlife division sees fit. Specs:

Other

Comments:

<u>Next</u> Steps:

Proposed

09/03/2013 Start Date:

18 NF 41183018-18.4 2113 - Forage Crops Non-Forest Mowing 3204 - Mast Cmpt. Review NonFor Producing Shrub Management Proposal

Prescription Maniage this open area for wildlife, this may include clearing of trees in the opening, Planting of forage crops, Planting of oak or other species

that wildlife division sees fit. Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 09/03/2013

NF 41183021-7.4 2113 - Forage Crops NonFor

Non-Forest **Brush Cutting** Management

3204 - Mast Cmpt. Review Producing Shrub Proposal

Prescription Manage this open area for wildlife, this may include clearing of trees in the opening, Planting of forage crops, Planting of oak or other species

that wildlife division sees fit. Specs:

Other

Comments:

<u>Next</u> Steps:

<u>Proposed</u>

Start Date: 09/03/2013

Total Treatment

319.1 Acreage Proposed:

Shingleton Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 183 a Limiting Factor s Year of Entry 2015 t **Treatment** Acres CoverType Size Stand ВА **Treatment Treatment Cover Type Approval** n Method Objective Status Name Density Age Range Type #Type! #Type! **Prescription** Specs: **Other** Comment: <u>Next</u> Steps: <u>Proposed</u> #Type! Start Date:

Total Treatment

Limiting Factor

Acreage Proposed: 0.0

Shingleton Mgt. Unit
Rick James Hill: Examiner

Compartment 183 Year of Entry 2015

Availability for Management

Availe	ability lol i	nanagement						
Total	Acres	Acres	C	omina	nt Site	e Con	ditions	s
Acres	Available	Not Available		No	3J	3H	2H	2G
869	869	0	Cedar	869				0
18	10	8	Hemlock	10			8	
64	46	18	Lowland Conifers	46	8	10		
253	147	106	Lowland Deciduous	147			50	56
44	44		Lowland Mixed Forest	44				
44	44		Lowland Spruce/Fir	44				
2		2	Mixed Upland Deciduous				2	
528	525	4	Northern Hardwood	525			3	1
6	6		Upland Conifers	6				
10	10		Upland Mixed Forest	10				
1,838	1,700	138	Total Forested Acres	1,700	8	10	63	57
	92%	8%	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.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
003	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	50	3J: Water quality / BMPs (stream, river, or lake)	2D: Portable Bridge Needed (Dept. bridge will be adequate)	2E: Road needed	3H: Deer Wintering Areas
С	omments:						
004	Not Available	3J: Water quality / BMPs (stream, river, or lake)	8	3H: Deer Wintering Areas			
С	omments:						
005	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	8	1C: Other dept or div proc/practices	2E: Road needed	3H: Deer Wintering Areas	
С	omments:						

Report 5 – Site Conditions

Shingleton Mgt. Unit
Rick James Hill : Examiner

Compartment 183 Year of Entry 2015

007	Not Available	2G: Too wet (sensitive soils, does not include access issues)	58	3H: Deer Wintering Areas	5C: Delay treatment for age/size class diversity or exceptional site quality	
С	omments:					
008	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3	3J: Water quality / BMPs (stream, river, or lake)	2E: Road needed	
С	omments:					
009	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	3H: Deer Wintering Areas	3J: Water quality / BMPs (stream, river, or lake)	
С	omments:					
010	Not Available	3H: Deer Wintering Areas	10			
С	omments:					

Shingleton Mgt. Unit

Compartment: 183 Year of Entry: 2015



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
Comments				

Shingleton Mgt. Unit





Report 7 - DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

Conservati Area	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen condition stocked trout populations and those of other coldwater fish species conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of the Director's action and designated as trout resources by Fisheries	es to persist from year to year. Suitable y are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen condistocked trout populations and those of other coldwater fish specification to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	es (e.g., slimy sculpin) to persist from se conditions due to substantial
SCA	Habitat Area	An area that provide some specific need for the life cycle of wildli and Waterfowl Production Areas, deer wintering complexes in low openings and savannas. Habitat areas are distinct from critical had endangered or threatened species (such as Kirtland's warbler or general in nature, are not primarily associated with threatened or covered by species recovery plans that are developed in cooperation.	wland conifer communities, grassland abitat designated for recovery of piping plover areas) in that they are more endangered species, and are not

S t	Shingleton	n Mgt. Unit		Report 8	– Forested	Stands Compartment: 183 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4115 - Y.Birch, Hemlock NH	High Density Pole	10.3	84	51-80	This stand was was set up in 2012 with stands in compartment 180. The sale name is Beverville contract hardwood.
2	6122 - Black Spruce	High Density Pole	43.7	84		This is an area of spruce that could be harvested now, or be held until 2025 lines may be adjusted to exclude heavy hemlock or cedar areas.
3	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	61.2	38		There is much elm in the understory of this stand as well as some tag alder there is some older cedar and hemlock scattered throughout the stand.
4	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density	11.9	13		
5	6120 - Lowland Cedar	High Density Pole	110.7	117		This stand is part of the petrel deer yard management area, this stand will managed with wildlife in mind.
6	4119 - Mixed Northern Hardwoods	High Density Log	39.5	86	81-110	
7	6120 - Lowland Cedar	High Density Pole	141.5	113		This is a cedar stand that borders the petrol deer yard. Too that end it should be held and managed with wildlife in mind.
8	6132 - Mixed Lowland Forest with Cedar	High Density Pole	24.7	79		
9	6132 - Mixed Lowland Forest with Cedar	High Density Pole	19.0	73		This stand could be harvested due to poor access it should be held and cut when the adjacent hardwood in c 184 is cut.
10	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	36.9	4		
11	6129 - Mixed Coniferous Lowland Forest	High Density Pole	28.4	73		Stand should be looked at in snow free conditions to evaluate whether it should be cut now or be held for ten more years.
14	4312 - Hemlock, Mixed Deciduous	High Density Log	2.3	83		
15	6128 - Lowland Coniferous, Mixed Deciduous	Low Density Pole	6.1	45		Borderline Lowland Brush area vary wet with scattered trees and a lot of water.
16	4191 - Mixed Upland Deciduous with Conifer	High Density Log	2.4	75	171-200	Hemlock stand some hardwood and birch present this stand could be harvested if access is found.
17	4110 - Sugar Maple Association	High Density Log	260.2	79	81-110	Cut under Contract 31-05 Petrol corner hardwood there are traces of red maple Ironwood and yellow birch in the stand. Should be able to be cut this stand again in 2025.
20	4112 - Maple, Beech, Cherry Association	High Density Log	2.8	85	111-140	

S t	Shingleton Mgt. Unit			Report 8 –	Forested	Stands Compartment: 183 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	50.0	83		Low hardwood, conifer mix stand is surrounded by a couple of creeks and is very difficult to access trees look good and could be cut at some point if access can be found.
24	42350 - Upland Hemlock	High Density Log	7.4	75	141-170	
25	42350 - Upland Hemlock	High Density Log	8.2	Uneven Age		
26	4112 - Maple, Beech, Cherry Association	High Density Log	23.7	75	81-110	Hardwood stand, looks good havest in 10-20 years depending on BA at that time.
29	6120 - Lowland Cedar	High Density Pole	6.0	112		
30	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	8.2	103		
31	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	9.6	89		
33	4112 - Maple, Beech, Cherry Association	High Density Log	153.0	74	111-140	Island in cedar swamp, The island is made up of sugar maple and other associated hardwood species. The stand is ready for a harvest.
34	42390 - Mixed Non- Pine Upland Conifers	High Density Log	6.2	83	51-80	
35	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	106.0	101		A portion of this stand could be cut. The stand should be operable buffer the creek and wet areas.
36	6120 - Lowland Cedar	High Density Pole	611.4	101		This is a mixed lowland conifer stand with cedar being dominant; there are areas where the overstory is of poor quality with mortality. These areas have full stocking of cedar in the understory and low volumes so a harvest is not advisable. Other areas of this stand are well stocked cedar that looks good at this time. This stand is also part of the petrel deer yard management area, this stand will managed with wildlife in mind
38	4115 - Y.Birch, Hemlock NH	High Density Log	4.5	75	51-80	Cut with the stand to the north, continue to cut this with the stand to the north.
39	4119 - Mixed Northern Hardwoods	High Density Pole	34.8	79	81-110	This stand was cut using a shelterwood in the past. The regeneration from the old harvest is just making pulp size the stand should be looked at for cutting in 20-30 years.
40	4319 - Mixed Upland Forest	Medium Density Pole	9.9	65	81-110	Cut this stand when stands in adjacent compartments are ready in about 20 years.

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Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
12	50 - Water	6.7	Unspecified	Unspecified	
13	2113 - Forage Crops	3.0	No	High	
18	2113 - Forage Crops	18.4	Yes	Low	
19	6220 - Alder/willow	20.4	Unspecified	Unspecified	
21	2113 - Forage Crops	7.4	Yes	High	
23	622 - Lowland Shrub	13.9	Unspecified	Unspecified	
27	50 - Water	8.3	Unspecified	Unspecified	
28	50 - Water	10.8	Unspecified	Unspecified	
32	50 - Water	3.3	Unspecified	Unspecified	
37	6229 - Mixed lowland shrub	1.9	Unspecified	Unspecified	