Gladwin Forest Management Unit
Compartment Review Presentation
Compartment # 133 Entry Year: 2014
Compartment Acreage: 1213 County: Arenac

Revision Date: June 1, 2012, June 20, 2012

Stand Examiner: Richard A. Myrick

Legal Description: T19N – R5E, Section 6; T20N – R4E, Section 36; and T20N – R5E, Sections 30 & 31.

Identified Planning Goals ('Management Area' or 'RMU', if applicable): Gladwin Lake Plain

Management Goals: Approximately one third of Compartment 133 consists of aspen species cover. The remainder of the compartment is about equal parts oak, mixed upland forest, and mixed lowland forest. The variations in cover type offer management opportunities for timber production, wildlife habitat maintenance, and associated outdoor recreation.

Soil and Topography: The majority of the compartment is comprised of the Grayling association being nearly level to undulating, well drained to moderately well drained sands. The western portion of the compartment encompasses the Rubicon association of level to rolling, well drained to moderately well drained sands. The far eastern segment of the compartment takes in the Roscommon-Au Gres association of mainly level to gently undulating, somewhat poorly drained to very poorly drained, deep sands.

Ownership Patterns, Development, and Land Use in and Around the Compartment: All boundaries of the compartment except the far northeast line are bordered by private property. The surrounding land consists of small acreage home sites, hunting properties and a few farms.

Unique, Natural Features: The Michigan Natural Resources Inventory (MNFI) database indicates no known occurrences however, wood turtle could occur in this compartment in swamp hardwood stands adjacent to the Rifle River and the drainage. There is also potential for nesting red shouldered hawk to occur in this compartment in stands of oak, swamp hardwoods and swamp hardwoods.

Archeological, Historical, and Cultural Features: No known occurrences noted in the Archeology database.

Special Management Designations or Considerations: None.

Watershed and Fisheries Considerations:: This compartment is located in the Rifle River Watershed, which is a Natural River as well as a designated Trout stream. Townline Creek is located in section 36. Townline Creek is also a designated trout stream. Care should be taken to maintain shading and prevent sedimentation.

Wildlife Habitat Considerations: This compartment contains a variety of vegetative types. Upland and lowland systems are present, making it suitable for a number of wildlife species. Game species likely to be present in this compartment include black bear, bobcat, raccoon, coyote, wild turkey, ruffed grouse and white-tailed deer. Many bird species stand to benefit from the juxtaposition of lowland and upland habitats present in the compartment. These include common yellowthroat, yellow-rumped warbler, gray catbird, redeyed vireo, white-throated sparrow, hermit thrush, red-breasted nuthatch, ruffed grouse, and American woodcock. The compartment is easily accessible to hunters via Knight Road and Twining Road.

Mineral Resource and Development Concerns and/or Restrictions:
Surface sediments consist of lacustrine (lake) sand and gravel. The glacial drift thickness varies between 10 and 50 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum in other areas of the State. A limestone quarry is located two miles to the southeast. Gravel pits are located in Section 30 and potential is thought to be good. Several dry holes have been drilled in the compartment. Deep River Field, discovered in 1936, is located two miles to the southwest. The field has produced over 27 MBO from the Dundee Limestone. The compartment has been nominated for the May 2012 oil and gas lease auction.

Vehicle Access: Tyler Plains Road bisects the mid portion of the compartment. Overall this area is easily accessed along with the northeast segment of the compartment which can be reached via Knight Road to the south and Main Road at the north. The western portion of the compartment has limited access from Knight Road. Townline Road runs across the southern boundary where a small parking area is accessible.

Survey Needs: None necessary at this time.

Recreational Facilities and Opportunities: The primary recreational opportunities offered by the compartment are large and small game hunting, and fishing along the Rifle River.

Fire Protection: Almost all of Compartment 133 can be readily accessed by wildland fire suppression vehicles and equipment.

Additional Compartment Information: N/A.

- **The following reports from the Inventory are attached:**
  - **Total Acres by Cover Type and Age Class**
  - **Proposed Treatment Summary**
  - **Proposed Treatments – No Limiting Factors**
  - **Proposed Treatments – With Limiting Factors**
  - **Stand Details (Forested and Nonforested)**
  - **Dedicated and Proposed Special Conservation Areas**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - **Base feature information, stand boundaries, cover types, and numbers**
  - **Proposed treatments**
  - **Details on the road access system**

Table 1 – Total Acres by Cover Type and Age Class

Gladwin Mgt. Unit **Compartment 133 Year of Entry 2014**

Richard Myrick : Examiner

Age Class

	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 +	Uneven Age	Total
Aspen	32	164	179	36	55	0	0	0	0	0	0	0	0	0	**466**
Herbaceous Openland	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
Lowland Aspen/Balsam Poplar	0	13	32	0	0	0	0	0	0	0	0	0	0	0	**44**
Lowland Conifers	0	0	0	0	0	0	0	22	11	0	0	0	0	0	**33**
Lowland Deciduous	0	0	9	33	0	0	0	5	0	0	0	0	0	0	**48**
Lowland Mixed Forest	0	0	0	12	0	0	0	64	48	0	0	0	0	0	**123**
Lowland Shrub	10	0	0	0	0	0	0	0	0	0	0	0	0	0	**10**
Mixed Upland Deciduous	57	28	49	0	6	0	0	10	0	0	0	0	0	0	**151**
Oak	0	58	0	26	0	0	18	32	63	0	0	0	0	0	**198**
Planted Mixed Pines	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**
Upland Mixed Forest	0	0	0	0	0	0	0	107	22	0	0	0	0	0	**129**
Urban	6	0	0	0	0	0	0	0	0	0	0	0	0	0	**6**
Total	**109**	**263**	**270**	**107**	**62**	**0**	**18**	**240**	**144**	**0**	**0**	**0**	**0**	**0**	**1212**

Table 2 – Proposed Treatment Summaries

Gladwin Mgt. Unit
Year of Entry 2014

Compartment 133
Total Compartment Acres: 1212

Acres by Treatment Type

Commercial Harvest - 217	Site Prep - 0	Tree Planting - 51	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	37	0	0	0	0	0	**37**
Oak	0	0	54	0	18	0	**73**
Upland Mixed Forest	0	0	107	0	0	0	**107**
Total	**37**	**0**	**161**	**0**	**18**	**0**	**217**

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
4	73133004-Cut	25.6	4131 - Aspen, Oak	High Density Log	45	81-110	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal

Prescription Specs: Remove most aspen and maple species 2" or greater. Remove most oak species 4" or greater. Do not cut any white pine.

Other Comments: Additionally retain scattered log sized white oak within stand with preference given to mast trees.

MO is the regeneration of aspen and oak species.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
15	73133015-Cut	32.2	4125 - Black, N. Pin Oak	Medium Density Log	77	1-50	Harvest	Seed Tree	4122 - Oak, Pine	Cmpt. Review Proposal

Prescription Specs: Mark to leave 20 BA of oak. Leave all conifer.

Other Comments: Dormant harvest preferred.

MO is the regeneration of oak and pine.

Next Steps: If stand does not regenerate naturally within three years, trench and plant to red pine.

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	73133020-Cut	106.6	4310 - Pine, Oak Mix	Medium Density Log	77	1-50	Harvest	Seed Tree with Reserves	4310 - Pine, Oak Mix	Cmpt. Review Proposal

Prescription Specs: Mark to leave 20 BA of oak. Leave all conifer.

Other Comments: Dormant harvest preferred.

MO is the regeneration of pine and oak.

Next Steps: If stand does not regenerate naturally within three years, trench and plant to red pine.

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
26	73133026-Cut	3.2	4126 - White, Black, N. Pin Oak	High Density Log	82	1-50	Harvest	Seed Tree with Reserves	4122 - Oak, Pine	Cmpt. Review Proposal

Prescription Specs: Mark to leave 20 BA of oak. Leave all conifer.

Other Comments: MO is the regeneration of oak and conifer species.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
45	73133045-Cut	18.3	4122 - Oak, Pine	High Density Pole	61	51-80	Harvest	Crown Thinning	4122 - Oak, Pine	Cmpt. Review Proposal

Prescription Specs: Crown thinning to 90 BA for best stem in place.

Other Comments: MO is the timber stand improvement of white pine.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
51	73133051-Cut_exp-0	19.1	4125 - Black, N. Pin Oak	Medium Density Log	82	1-50	Harvest	Seed Tree	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: Mark oak to 10 BA to leave.

Other Comments: After harvest trench and interplant to red pine.

MO is the salvage of oak stand burned over by a 2012 wildfire.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
53	73133053CCR-Cut	11.7	4130 - Aspen	High Density Pole	41		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Prescription Specs: Clear cut with reserves.

Other Comments: Retain larger oak and pine and a few cavity trees scattered within stand.

MO is the regeneration of aspen, oak and white pine.

Next Steps:

Proposed Start Date: 10/01/2013

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
32	73133032-Plant	51.0	4199 - Other Mixed Upland Deciduous	Low Density Sapling	3		Tree Planting	Machine Plant	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: Treat existing stand with herbicide or other site preparation as needed.

Other Comments: MO is the generation of red pine.

Next Steps: Trench and plant to red pine.

* Create FTP and cross reference existing FTP number for Compartment 134 so both Compartments will be planted together.

Proposed Start Date: Unspecified

Total Treatment Acreage Proposed: 267.6

Table 4 -- Treatments Prescribed with a Limiting Factor

Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
			#Error							

Prescription Specs:

Other Comment:

Next Steps:

Proposed Start Date: #Error

Limiting Factor and No Treatment Reason

Total Treatment Acreage Proposed: **0**

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2014

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010274-Cut	26.5	42260 - Natural Pine, Mixed Deciduous	High Density Log	105		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: The stand is to be harvested as a 2" spec final harvest. The retention should be focused along the snowmobile trail.

Other Comments:

Next Steps: After the harvest replant the stand to red pine, expand the unplanted area around the Leota Weather Station.

Proposed Start Date: 10/01/2009

73010290-Cut	17.1	42110 - Planted Red Pine	High Density Pole	56		Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: The stand needs to be thinned by a systematic thinning individual tree marking taking the residual BA down to 110.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2009

73010295-Cut	28.0	4122 - Oak, Pine	High Density Pole	83		Harvest	Clearcut with Reserves	4129 - Mixed Oak	Cmpt. Review Proposal

Prescription Specs: The stand should be harvested as a 2" spec final harvest. The harvest should retain all red and white pine as well as marked oak for retention. This retention should be focused along the snowmobile trail.

Other Comments:

Next Steps: After the stand is harvested interplant with red pine.

Proposed Start Date: 10/01/2009

73010296-Cut	39.4	42260 - Natural Pine, Mixed Deciduous	High Density Pole	68		Harvest	Clearcut with Reserves	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: The stand is to be harvested as a 2" spec final harvest. The retention should be a mixture of individually mark oak and pine. The retention should be concentrated along the snowmobile trail.

Other Comments:

Next Steps: After the stand is harvested plant to red pine.

Proposed Start Date: 10/01/2009

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010299-Cut	15.5	4122 - Oak, Pine	High Density Log	105		Harvest	Clearcut with Reserves	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription Specs: The stand is to be harvested to 2" DBH but do not cut any red or white pine. Focus any addition retention to the area along the snowmobile trail.

Other Comments:

Next Steps: After harvest interplant red pine this will lead to a mixed oak/pine stand.

Proposed Start Date: 10/01/2009

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010308-Cut	21.7	42211 - Natural Red Pine, Mixed Deciduous	High Density Pole	73		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: The stand is to be final harvested to 2" DBH. The retention should be placed along the Township property for visual consideration. In addition the boundary should be marked along the top of the bluff that overlooks the Muskegon River Food plain

Other Comments:

Next Steps: After harvest replant the stand to red pine.

Proposed Start Date: 10/01/2009

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010310-Cut	6.8	42211 - Natural Red Pine, Mixed Deciduous	High Density Pole	73		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: Harvest the stand as a 2" spec final harvest. The retention should be placed to address visual concerns.

Other Comments:

Next Steps: After the harvest plant the stand to red pine.

Proposed Start Date: 10/01/2009

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010312-Cut	34.7	42110 - Planted Red Pine	High Density Log	73		Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: The stand is to be harvested as a thinning taking the BA down to around 120 sq ft. Concentrated the removal on damaged trees and leave the scattered live and dead oak. Focus the retention along the snowmobile trail.

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2009

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010314-Cut	9.2	42140 - Planted Mixed Pine	High Density Pole	73		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Specs: The stand should be final harvest the stand to 2" DBH. The stand should have red pine and oak marked to met retention or leave the SE corner of the stand for retention.

Other Comments:

Next Steps: After the stand is harvested replant the stand to red pine.

Proposed Start Date: 10/01/2009

73010323-Cut	160.2	42220 - Natural Jack Pine	High Density Pole	63		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: This stand is in an established KW Block. Harvest the stand as a 2" clearcut. The retention should be left in strip going from the southwest to northeast and should be approximatly 33' wide. These strips are being left to simulate fire skips.

Other Comments:

Next Steps: After the harvest trench and replant to jack pine.

Proposed Start Date: 10/01/2009

73010324-Cut	34.3	42220 - Natural Jack Pine	High Density Pole	59		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: This stand is in an established KW Block. Harvest the stand as a 2" DBH final harvest. The retention in the stand should be left in strip going from the southwest to northeast going through the entire block. These strips should be approximately 33' wide.

Other Comments:

Next Steps: After the harvest trench and plant jack pine.

Proposed Start Date: 10/01/2009

73010325-Cut	86.7	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	59		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: This stand is in an established KW Block. Harvest the stand as a 2" DBH final harvest. The retention in the stand should be left in strip going from the southwest to northeast going through the entire block. These strips should be approximately 33' wide.

Other Comments:

Next Steps: After the harvest trench and plant jack pine

Proposed Start Date: 10/01/2009

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010334-Cut	7.3	42121 - Planted Jack Pine, Mixed Deciduous	High Density Pole	72		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: The stand is to be harvested as a 2" Spec final harvest.

Other Comments:

Next Steps: After the harvest replant the stand to jack pine.

Proposed Start Date: 10/01/2006

73010336-Cut	32.5	4122 - Oak, Pine	High Density Log	94		Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal

Prescription Specs: Harvest the stand as a 2" spec, except for oak which is to be cut to 4" DBH and white pine to be cut to 6" DBH. In addition mark some trees for retention

Other Comments:

Next Steps: The stand is expected to regenerate to a mixture of aspen, oak, maple, and jack pine.

Proposed Start Date: 10/01/2006

73010338-Cut	86.7	42290 - Natural Mixed Pine	High Density Pole	74		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Specs: This stand is in an established KW Block. Harvest the stand as a 2" DBH final harvest. The retention in the stand should be left in strip going from the southwest to northeast going through the entire block. These strips should be approximately 33' wide.

Other Comments:

Next Steps: After the harvest trench and plant jack pine for KW.

Proposed Start Date: 10/01/2009

73010344-Cut	22.8	4125 - Black, N. Pin Oak	High Density Pole	96		Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal

Prescription Specs: Harvest the stand as a 2" spec final harvest, except the oak which is to be cut to 4" DBH. In addition, do not harvest any white and red pine.

Other Comments:

Next Steps: The stand is expected to regenerate to a mixture of oak and aspen.

Proposed Start Date: 10/01/2006

Out of YOE -- Treatments
Prescribed with No Limiting Factor

Year of Entry: 2014

Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010420-Cut	1.5	42220 - Natural Jack Pine	High Density Pole	66		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription Specs: The stand should be harvested as a 2" spec final harvest. The retention should be kept in a small patch.

Other Comments:

Next Steps: The stand is to be replanted to jack pine after it is harvested.

Proposed Start Date: 10/01/2012

Total Treatment Acreage Proposed: 630.9

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6129 - Mixed Coniferous Lowland Forest	High Density Log	3.9	80		
2	4131 - Aspen, Oak	Low Density Pole	10.7	25		
3	4130 - Aspen	High Density Sapling	39.2	25		
4	4131 - Aspen, Oak	High Density Log	25.6	45	81-110	
6	4199 - Other Mixed Upland Deciduous	High Density Sapling	20.9	25	1-50	
7	6139 - Mixed Lowland Forest	High Density Pole	46.7	72	51-80	
8	4125 - Black, N. Pin Oak	Medium Density Pole	26.0	38	51-80	
9	4125 - Black, N. Pin Oak	High Density Sapling	10.1	15		Heavy deer browse.
10	4121 - Oak, Aspen	High Density Sapling	10.7	15		Much deer browse.
11	4130 - Aspen	High Density Pole	15.7	38		
13	4191 - Mixed Upland Deciduous with Conifer	High Density Log	10.5	77	51-80	
14	4131 - Aspen, Oak	High Density Sapling	28.0	16		
15	4125 - Black, N. Pin Oak	Medium Density Log	32.1	77	1-50	
16	4131 - Aspen, Oak	High Density Sapling	14.6	3		Heavy deer browse.
18	4131 - Aspen, Oak	High Density Sapling	46.4	25		
19	4130 - Aspen	High Density Pole	31.8	25		Generally upland with numerous lowland pockets.
20	4310 - Pine, Oak Mix	Medium Density Log	106.6	77	1-50	
21	4131 - Aspen, Oak	High Density Sapling	17.7	3		Heavily browsed by deer.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
22	4131 - Aspen, Oak	High Density Sapling	19.1	18		
23	4131 - Aspen, Oak	High Density Sapling	12.3	18		
24	6112 - Lowland Aspen	High Density Sapling	12.6	15		Hummocky low ground.
25	4133 - Aspen, Mixed Pine	High Density Log	20.4	37	141-170	
26	4126 - White, Black, N. Pin Oak	High Density Log	3.2	82	1-50	
27	4199 - Other Mixed Upland Deciduous	Medium Density	21.5	24		
28	6132 - Mixed Lowland Forest with Cedar	High Density Log	25.0	84	111-140	
29	4131 - Aspen, Oak	Medium Density	20.5	15		
30	42130 - Planted Scotch Pine	High Density Log	1.6	40	111-140	
31	4131 - Aspen, Oak	High Density Sapling	7.5	15		
32	4199 - Other Mixed Upland Deciduous	Low Density Sapling	57.0	3		
33	6119 - Mixed Lowland Deciduous Forest	High Density Pole	5.2	70	51-80	
34	4126 - White, Black, N. Pin Oak	High Density Sapling	3.0	18		
35	4131 - Aspen, Oak	Medium Density	10.2	15		
36	4310 - Pine, Oak Mix	Low Density Log	22.5	82	1-50	
37	6112 - Lowland Aspen	High Density Sapling	10.9	25		
39	6127 - Lowland Pine	High Density Log	4.4	77		
40	4132 - Aspen, Jack Pine	High Density Sapling	31.9	18		

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	6112 - Lowland Aspen	High Density Pole	20.9	25		Very wet.
42	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	17.6	70	81-110	Matrix of lowland with wide upland ridges.
43	6132 - Mixed Lowland Forest with Cedar	High Density Pole	16.9	70	81-110	
44	4131 - Aspen, Oak	High Density Sapling	11.2	24		GOOD REGENERATION.
45	4122 - Oak, Pine	High Density Pole	18.3	61	51-80	
46	4139 - Aspen, Mixed Deciduous	High Density Sapling	6.1	25		Upland with lowland swales.
47	4125 - Black, N. Pin Oak	High Density Sapling	4.8	14		A wildfire occurred in this stand in 2012.
48	4131 - Aspen, Oak	High Density Sapling	11.6	14		
49	4125 - Black, N. Pin Oak	High Density Sapling	6.2	15		A wildfire occurred in this stand in 2012.
50	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density	9.2	24		
51	4125 - Black, N. Pin Oak	Medium Density Log	59.8	82	1-50	A wildfire occurred in this stand in 2012.
52	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	28.3	14		
53	4130 - Aspen	High Density Pole	18.0	41		
54	4131 - Aspen, Oak	High Density Sapling	33.9	25		
56	4125 - Black, N. Pin Oak	Medium Density	11.5	14		
57	6131 - Hemlock, White Pine, Maple, Birch	High Density Pole	11.6	32	51-80	
58	4131 - Aspen, Oak	High Density Sapling	13.5	18		
59	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	6.6	32	51-80	Hummocky wetland.

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
60	4131 - Aspen, Oak	High Density Pole	11.0	41	111-140	
61	6129 - Mixed Coniferous Lowland Forest	High Density Log	6.6	86	51-80	Excellent stand of hemlock. Possible deer thermocover area. Much deer sign.
62	4199 - Other Mixed Upland Deciduous	High Density Pole	6.9	25	81-110	Mixed stand of 25 year old new growth and declining low density 86 year old growth. Stand ends at almost vertical bank of Rifle River. Approximately 90 foot drop in elevation to river.
63	4130 - Aspen	High Density Sapling	9.3	14		
64	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	6.1	41	81-110	
65	6119 - Mixed Lowland Deciduous Forest	High Density Pole	26.7	37	51-80	Matrix of lowland with upland ridges and hummocks.
66	6132 - Mixed Lowland Forest with Cedar	High Density Log	22.6	86	81-110	Cedar swamp. Much deer activity.
67	4122 - Oak, Pine	Low Density Sapling	11.8	14		

6 – Nonforested Stands

Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
5	3301 - Low Density Deciduous Tree	2.0	No	Low (NonForested)	
12	6229 - Mixed lowland shrub	7.2	No	Low (NonForested)	
17	6220 - Alder/willow	2.7	No	Low (NonForested)	
38	11 - Low Intensity Urban	5.5	Yes	Low (NonForested)	GRAVEL & DIRT COUNTY ROAD
55	3102 - Grass	2.0	No	Unspecified	

Data updated before 2:00 PM

7 – 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.

Stand	SCA Type	SCA Name	Acres	Comments

8 – 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.

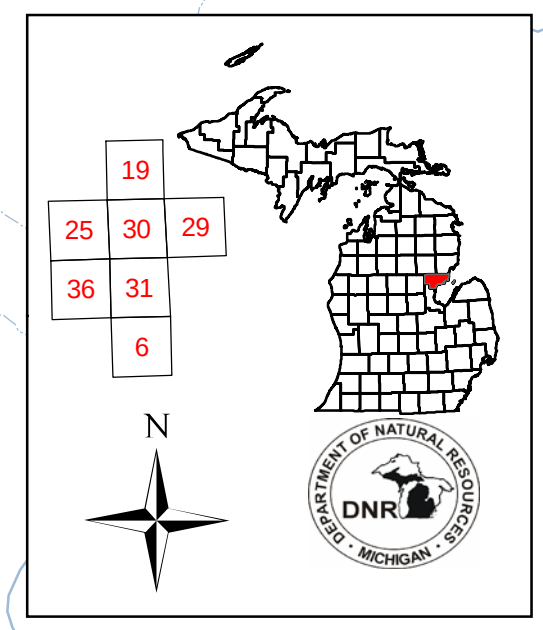
ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

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.
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.

Cover Type & Treatment Map

Compartment: 133
T19N R05E Sec. 06
T20N R04E Sec. 25, 36
T20N R05E Sec. 19, 29, 30, 31
County: Arenac
Unit: Gladwin
YOE: 2014
Acres: 1,212 GIS Calculated
Examiner: Rick Myrick
Map Revised: 06/22/2012
Map Phase: Pre-Review

Stand # 23
Stocking Density
(412)0) - A7
Level 3 Ol
Level 4 Code
Cover Type Code



Legend

- Remonumented Section Corners
- Corners
- Miris Corners
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Berms
- Stream
- Intermittent Stream
- State Forest Land
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Planting (tree species)

Forest Stands

Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

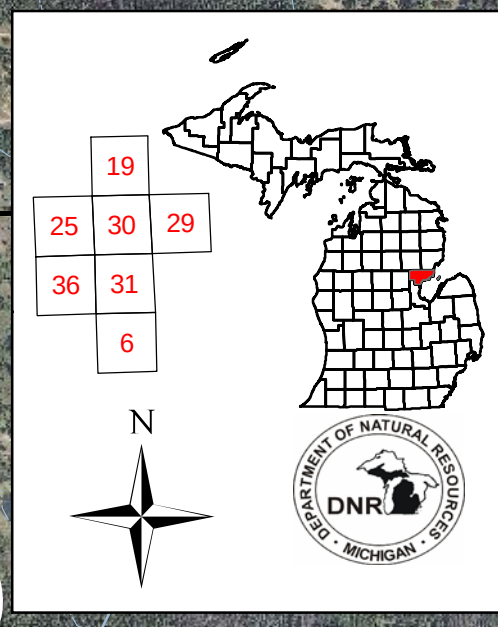
- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 622 - Lowland Shrub

83°56'0"W
83°55'0"W
83°54'0"W
44°8'0"N
44°7'0"N
44°6'0"N
44°5'0"N
W Novak Rd
W Berry Rd
W Norris Rd
Janish Rd
N Scott Rd
Main Rd
Knight Rd
Townline Rd
Tyler Plains Rd
Rifle River
19
29
30
31
36
6
1 0.5 0 1 Miles

Stand Boundary Map

Compartment: 133
T19N R05E Sec. 06
T20N R04E Sec. 25, 36
T20N R05E Sec. 19, 29, 30, 31
County: Arenac
Unit: Gladwin
YOE: 2014
Acres: 1,212 GIS Calculated
Examiner: Rick Myrick
Map Revised: 06/22/2012
Map Phase: Pre-Review

Stand # 23 — Stocking Density
(412)0) - A7
Level 3 / Level 4 — OI Code
Cover Type Code



Legend

- Remonumented Section Corners
- Corners
- Miris Corners
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Berms
- Lakes and Rivers
- Stream
- Intermittent Stream
- Stand Boundaries

Forest Stands

Level 3

412 - Oak Types
413 - Aspen Types
419 - Mixed Upland Deciduous
421 - Planted Pines
431 - Upland Mixed Forest
611 - Lowland Deciduous Forest
612 - Lowland Coniferous Forest
613 - Lowland Mixed Forest

Non-Forest Stands

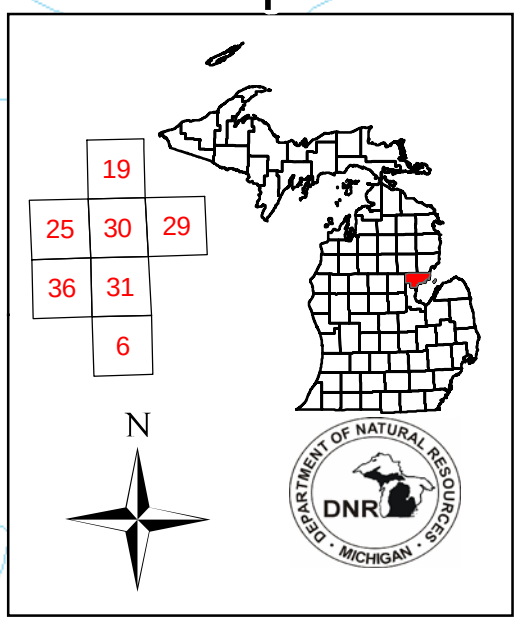
Level 3

110 - Low Intensity Urban
310 - Herbaceous Openland
330 - Low-Density Trees
622 - Lowland Shrub

Dedicated & Proposed Special Conservation Area Map

Compartment: 133
T19N R05E Sec. 06
T20N R04E Sec. 25, 36
T20N R05E Sec. 19, 29, 30, 31
County: Arenac
Unit: Gladwin
YOE: 2014
Acres: 1,212 GIS Calculated
Examiner: Rick Myrick
Map Revised: 06/22/2012
Map Phase: Pre-Review

Stand # 23
Stocking Density
(412)0) - A7
Level 3 Level 4 OI Code
Cover Type Code



Legend

- Remonumented Section Corners
- Miris Corners
- Stand Boundaries

Dedicated Special Conservation Areas
- Cold Water Streams
- Natural Rivers Vegetative Buffer
- Natural Rivers Zoning District

Forest Stands
- Level 3
  - 412 - Oak Types
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 421 - Planted Pines
  - 431 - Upland Mixed Forest
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - 613 - Lowland Mixed Forest

Non-Forest Stands
- Level 3
  - 110 - Low Intensity Urban
  - 310 - Herbaceous Openland
  - 330 - Low-Density Trees
  - 622 - Lowland Shrub