

Gladwin Forest Management Unit Compartment Review Presentation Compartment # 137 - Entry Year: 2013

Compartment Acreage: 815 GIS Calculated - County: Arenac

Revision Date: November 7, 2011.

Stand Examiner: Tim Gallagher, Forest Technician.

Legal Description: T20N R5E Sections 15, 16, 21 and 22.

Identified Planning Goals: None.

Management Goals: Manage the aspen, oak and red pine stands to maintain a variety of age classes to support forest sustainability and to enhance wildlife habitat.

Soil and Topography: The area varies from medium drained soils to well drained soils and is level too gently rolling hills. The major soil types are Roscommon, Carbendale and Rubicon associations. Overall the compartment is dry and well drained.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The state land that makes up this compartment is in one isolated block that is entirely surrounded by private property. The adjacent private lands are for the most part made up of larger (greater then 40 acres) forested single holdings. Forest management activity occurs on the larger private holdings. There are numerous permanent residences all around the entire compartment.

Unique, Natural Features: MNFI records indicate the following; high-quality mesic northern forest to NE. Wood turtle and blanding's turtle in vicinity. Fox snake and massasauga to N. Bald eagle to E. Channel darter to S. Great blue heron rookery to S. Large toothwort to W, ginseng to NE. Potential for red-shouldered hawk and goshawk. Potential for eagle. Slight potential for doll's merolonche (moth) in jack pine or oak savanna. Potential for wood turtle and channel darter in association with streams. Potential for massasauga and blanding's turtle in cedar swamps and adjacent uplands. Slight potential for hill's thistle and alleghany plum in grassy openings within oak and pine stands. Potential for ginseng, large toothwort, beak grass, and broad-leaved puccoon in floodplain forests. Potential for calypso and ram's head lady's slipper in conifer swamps.

Archeological, Historical, and Cultural Features: There is one documented site within the compartment.

Special Management Designations or Considerations: Stand 23 has been nominated as an, SCA type two old growth.

Watershed and Fisheries Considerations: One un-named intermittent creek bi-sects the north-east corner of the compartment.

Wildlife Habitat Considerations: This compartment provides habitat for many game species such as white tail deer, ruffed grouse, woodcock and wild turkey. Several species of mast producing trees are present which provide a food source as well as cedar stands which provide important winter thermal cover and benefit numerous wildlife species. The area should continue to benefit from the species diversity within stands, excluding aspen cover types, where no net loss of aspen acres is always desired. Oak species should be encouraged and not be entirely removed from any one stand. Grassy openings are an important aspect of wildlife habitat and should be maintained as non-forested stands.

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 100 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan Formation is mined for gypsum in this area of the State. A quarry is located approximately two miles to the south. Gravel pits are located to the west and potential appears to be excellent. There has been some oil and gas exploration in the area. Four miles to the northwest is Clayton field. This field has produced over 5 Bcf gas from the Berea, nearly 7 MBO from the Richfield and over 17 Bcf gas from the PdC. There are no current oil and gas leases in the Compartment.

Vehicle Access: Access to the entire compartment is good via the county road system and state two tracks that are in place.

Survey Needs: None. DNR survey completed in 1978 for the entire compartment.

Recreational Facilities and Opportunities: No official facilities. The area receives moderate hunting pressure most of which is for deer, grouse and turkey.

Fire Protection: A potential fire control problem exists due to the rural/urban interface within this compartment. A wildland fire in this compartment has the potential to be larger in size due to the upland well drained soils that make up most of the compartment.

Additional Compartment Information: The former Omer Fire Tower site is located within this compartment. There has been trash dumping within this compartment over the years, and this would be a good site for a clean up project and/or an Adapt a Forest program.

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 and details on the road access system

Compartment 137 Year of Entry 2013

Gladwin Mgt. Unit **Timothy Gallagher: Examiner**



Age Class

	Age Class																
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Aspen	0	12	31	31	74	58	0	0	0	5	0	0	0	0	0	212	
Bog	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Cedar	0	0	0	0	0	0	0	0	3	0	0	0	36	0	0	39	j
Low-Density Trees	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Lowland Deciduous	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0	32	
Mixed Upland Deciduous	0	0	3	42	0	0	0	0	0	0	0	0	0	0	0	46	
Natural Mixed Pines	0	0	0	0	0	0	0	87	0	30	0	0	0	0	0	116	
Oak	0	58	16	0	0	16	0	34	0	166	0	0	0	0	0	289	
Red Pine	0	0	0	0	0	0	0	0	36	0	0	0	0	0	0	36	
Upland Mixed Forest	0	0	11	0	0	0	0	0	0	0	18	0	0	0	0	29]
White Pine	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	11]
Total	6	70	61	74	74	85	0	121	39	233	18	0	36	0	0	815	



Table 2 – Proposed Treatment Summaries

Gladwin Mgt. Unit

Compartment 137 Year of Entry 2013 **Total Compartment Acres: 815.5**

Acres by Treatment Type

Commercial Harvest - 266 Site Prep - 0 Tree Planting - 0 Prescribed Burn - 11 Other - 0

Habitat Cut - 0 Tree Seeding - 0 Pesticide - 0 Opening Maintenance - 0

Cover Type by Harvest Method

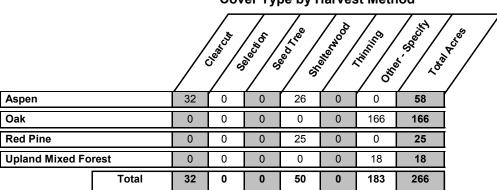


Table 3 -- Treatments Prescribed Compartment: 137 Gladwin Mgt. Unit Year of Entry 2013 with No Limiting Factor s t **Treatment** Size Stand **Treatment Treatment** Cover Type Acres Stage1 **A**pproval n CoverType Name **Density** Method Objective Status Type d Age 73137009-Cut 17.5 4310 - Pine, Oak High Density Log 91 Harvest Other - Specify in 4310 - Pine, Oak Mix Cmpt. Review Mix Comments Proposal Prescription Overstory removal with reserves. Use 6" cutting spec on all species. Mark 30 to 40 sq. ft. of a mix of red pine, white pine and mixed oak for reserves and retention. Apply area retention with an uncut buffer on slope that leads down to stand 8. Leave super canopy red pine. Corners for Specs: the private line work are in. Other Stand is extreamly varible. Lots of species and age class diversity. Super canopy oak, white pine and red pine with mature aspen and red maple mixed in. Understory ranges from saps to poles up to 40 feet tall, understory is a dense mix of oak, white pine, aspen, red maple and red pine. Comments: Very nice oak understory. Pocket of red pine at south end of stand, red pine is concentrated in this pocket at the south end. Records indicate some type of treatment in 1963 that would explain the understory. Stand is expected to be fully stocked with a mix of natural regeneration following harvest. A mix of oak, white pine, red pine, red maple and <u>Next</u> Steps: aspen is expected. 73137010-Cut 32.2 High Density Pole 10 4130 - Aspen Harvest Clearcut with 4130 - Aspen Cmpt. Review Proposal Reserves Prescription Clearcut 2" spec. manage for a mix of natural regeneration; aspen, red maple, mixed oak and white pine. Natural regeneration is expected. Small drain at north east corner of stand. Apply retention by buffering small drain and lowland stands to the north. In addition mark to leave scattered Specs: mature mixed oak, white pine and red pine. <u>Other</u> Selective clearcut in 1965. Some of the aspen was left and are now bigger sawlogs. Comments: <u>Next</u> A mix of natural regeneration is expected. Aspen, red maple, mixed oak and white pine. Steps: 16 **73137016-Cut** 165.6 4125 - Black, N. Pin High Density Log Harvest Other - Specify in 4125 - Black, N. Pin Cmpt. Review Oak Comments Oak Proposal Prescription Overstory removal with reserves. Release oak and pine understory that is in place and establish new oak regeneration. 2" spec on all species except oak, 6" spec on all oak, leave all red and white pine. Mark to remove red pine in pockets where red pine is dense. Mark these pockets Specs: down to 50' to 70' sq. ft. of residual red pine. Mark to leave one to two mature trees/acre. Leave trees should be mix of oak and pine, heavy to oak for seed and mast. Big stand, mature mixed oak stand with scattereed areas of red pine, white pine, jack pine and over mature aspen. A portion of this stand was Other Comments: prescribed last year of entry but did not get harvested. Pockets of dense red pine. Apply area retention by painting out two to three small un-cut islands A mix of natural regeneration is expected, (mixed oak, white pine and red pine) if needed interplant red pine to maintain full stocking. Next Steps: 73137021-Cut 24.6 42210 - Natural High Density Log Shelter Wood with 4122 - Oak, Pine Cmpt. Review 21 Harvest Red Pine Reserves Proposal Prescription Shelterwood with reserves. Release white pine and red pine understory; and stimulate mixed oak regeneration. 2" spec on all oak, 6" spec on all white and red pine. Mark to leave 20' to 40' sq. ft. of red and white pine focusing on red pine residual. Leave super canopy red pine. Specs: Big diameter natural red pine stand with lots of species and age class diversity. Super canopy red pine cored at 115 yrs old. Dominate red pine Other_ Comments: cored at 77 yrs old. Co-dominate red pine cored at 60 yrs old. Understory ranges from saps to poles up to 40 feet tall, understory is a dense mix of oak, white pine and red pine. Very nice oak understory.

Stand is expected to regenerate naturaly to a mix of oak, white pine and red pine. If needed interplant red pine to maintain full stocking <u>Next</u> Steps:

26 73137026-Cut 25.8 4133 - Aspen, High Density Log Harvest Shelter Wood with 4133 - Aspen, Mixed Cmpt. Review Mixed Pine Reserves Pine Proposal

Prescription Shelterwood with reserves, manage for a mix of natural regeneration of aspen, maple, whie pine, mixed oak and red pine. 2" spec aspen and maple, 6" spec red pine and white pine. Leave all oak. Mark to leave red pine with a target residual of 40' to 60' sq. ft. for red pine. Also mark to Specs: leave scattered mature red maple to meet retention guidelines. Apply area retention by leaving a 100' wide buffer around C type (stand 25).

Mixed stand. Bigger diameter red pine within stand. Aspen and red pine density varies through-out stand. Stand line between this stand and <u>Other</u> Comments: stand to the west is not well defined on the ground, wide transition zone. Dominate red pine cored at 77 yrs old. Co-dominate red pine cored at 60 yrs old.

<u>Next</u> A mix of natural regeneration is expected (aspen, maple, white pine, mixed oak and red pine). Steps:

Gladwin Mgt. Unit

Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 137
Year of Entry 2013

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t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	73137020-	11.1	42210 - Natural	High Density Log	77	Prescribed Burn	Unspecified	42210 - Natural Red	Cmpt. Review

<u>Prescription</u> Rx burn to maintain understory favoring red pine regeneration.

Specs:
Other

s

Mature natural red pine stand. Wildfire in this stand in the past.

Comments:

Next Steps:

Total Treatment

Acreage Proposed: 276.8

Gladwin Mgt. Unit Table 4 -- Treatments Prescribed with Compartment: 137 a Limiting Factor s Year of Entry 2013 t **Treatment Cover Type** n **Treatment Acres** Stage1 Size Stand **Treatment Approval** Name CoverType Density Method Objective Status Age Type d #Error **Prescription** Specs: <u>Other</u> Comment: <u>Next</u> Steps:

Total Treatment
Acreage Proposed:

<u>Limiting Factor and No</u> <u>Treatment Reason</u>

0

Out of YOE -- Treatments Prescribed with No Limiting Factor

Year of Entry: 2013

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Treatment Cover Type Objective Approval Status **Treatment Treatment Acres** Stage1 Size Stand Name CoverType Density Method Age Type <u>Prescription</u> Specs: <u>Other</u> Comments: <u>Next</u> Steps:

Total Treatment Acreage Proposed:

0

s t	Gladwin	Mgt. Unit		5 – Fo	orested Sta	Compartment: 137 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4130 - Aspen	High Density Sapling	12.4	7		Aspen clearcut 2004. Excellent mix of natural regeneration.
3	42290 - Natural Mixed Pine	High Density Log	86.6	68	51-80	Harvested in 1995, all red and white pine were left. Mature red pine / white pine overstory with well stocked understory of red maple, aspen, oak, and white pine. Understory is the direct result of the 1995 harvest. Componant of white pine that is just reaching pole size. (White pine in all size classes throughout entire stand) Red pine overstory appears to be two distinct age classes. Not a plantation, no records found of the pine being planted.
4	4130 - Aspen	High Density Pole	23.6	35		Aspen clearcut 1976. Approximately 10 sq. ft of white and red pine left from 1976 harvest.
5	42200 - Natural White Pine	High Density Pole	11.0	49	51-80	Clearcut in 1976 all white pine was left. Stand is a mix of residual white pine and aspen regen from the 1976 harvest. Aspen regen density varies and is just reaching pole size.
6	4130 - Aspen	High Density Pole	45.1	35		Aspen clearcut 1976. Approximately 10 sq. ft. of red and white pine left. Fair amount of white pine in understory.
7	4130 - Aspen	High Density Pole	5.4	80		Narrow steep stand. No treatment possible. Narrow stand pinched between upland aspen and Q type; and private line is at bottom of steep slope.
8	6120 - Lowland Cedar	High Density Pole	5.0	118		Cedar stand. Mix of cedar, hemlock, white pine, red maple and birch. Scattered big diameter white pine within stand.
9	4310 - Pine, Oak Mix	High Density Log	17.5	91	51-80	Stand is extreamly varible. Lots of species and age class diversity. Super canopy oak, white pine and red pine with mature aspen and red maple mixed in. Understory ranges from saps to poles up to 40 feet tall, understory is a dense mix of oak, white pine, aspen, red maple and red pine. Very nice oak understory. Pocket of red pine at south end of stand, red pine is concentrated in this pocket at the south end. Records indicate some type of treatment in 1963 that would explain the understory.
10	4130 - Aspen	High Density Pole	32.2	46	111-140	Selective clearcut in 1965. Some of the aspen was left and are now bigger sawlogs.
11	6120 - Lowland Cedar	High Density Pole	20.0	116	1-50	Cedar stand. Small creek bi-sects stand.
12	4310 - Pine, Oak Mix	High Density Sapling	11.2	16		Clearcut 1995. Mix of regeneration oak, jack pine, aspen and red maple.
13	4125 - Black, N. Pin Oak	High Density Pole	15.9	46	1-50	Oak understory is just starting to reach pole size. About 10 to 20 sq. ft. of much older seed trees. No treatment at this time; would not harvest seed trees at this time, very little volume, poor quality and harvest would do a significant amount of damage to the oak pole stand.
14	4125 - Black, N. Pin Oak	High Density Sapling	15.6	16		Clearcut 1995, very good oak regeneration.

s t	Gladwin Mgt. Unit			5 – Fo	orested Sta	nds Compartment: 137 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	3.3	16		
16	4125 - Black, N. Pin Oak	High Density Log	165.6	84	51-80	Big stand, mature mixed oak stand with scattereed areas of red pine, white pine, jack pine and over mature aspen. A portion of this stand was prescribed last year of entry but did not get harvested. Pockets of dense red pine.
18	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	32.4	83	81-110	Creek bi-sects stand. No access to north side, wet mucky ground with slopes down to creek. No commercial treatment, areas of cedar and hemlock.
19	4130 - Aspen	High Density Pole	5.0	39	81-110	Clearcut 1972. Management access is a concern with this stand. Possible access is across township land to the north. Semi open stand in central part of stand.
20	42210 - Natural Red Pine	High Density Log	11.1	77	171-200	Mature natural red pine stand. Wildfire in this stand in the past.
21	42210 - Natural Red Pine	High Density Log	24.6	77	111-140	Big diameter natural red pine stand with lots of species and age class diversity. Super canopy red pine cored at 115 yrs old. Dominate red pine cored at 77 yrs old. Co-dominate red pine cored at 60 yrs old. Understory ranges from saps to poles up to 40 feet tall, understory is a dense mix of oak, white pine and red pine. Very nice oak understory.
22	4199 - Other Mixed Upland Deciduous	High Density Pole	42.4	27	1-50	Clearcut 1984. Very nice mix of regeneration, just reaching pole size. Oak regen is a mix of stump sprouts and seed source. The stump sprout oak are out performing the seed source regeneration, the stump sprout trees are 1" to 2" bigger at DBH and 10' taller at least.
23	42260 - Natural Pine, Mixed Deciduous	High Density Log	29.6	86	111-140	Big diameter natural mixed pine/oak stand. Mature natural red pine. 20" DBH red pine is common within stand. Super canopy red pine cored at 115 yrs old. Mixed understory is up to 40' tall in places.
24	4122 - Oak, Pine	Low Density Sapling	57.5	7		Clearcut in 2004. There was a 4"spec on all species except oak, 6' spec on all oak. Very nice mixed oak regeneration about 1/2 stump sprouts and 1/2 seed source.
<u></u> 25	4123 - Red Oak	High Density Pole	34.1	66	51-80	Decent oak site. Stand has fair amount of younger co-dominate pole sized oak that cored at 36 yrs old. While the dominate oak cored at 66 yrs old. Hold 10 yrs and re-evaluate for a selection harvest. No need for shelterwood system with this stand as a decent oak understory is in place ranging from saps to poles.
26	4133 - Aspen, Mixed Pine	High Density Log	25.8	46	1-50	Mixed stand. Bigger diameter red pine within stand. Aspen and red pine density varies through-out stand. Stand line between this stand and stand to the west is not well defined on the ground, wide transition zone. Dominate red pine cored at 77 yrs old. Co-dominate red pine cored at 60 yrs old.
 27	6120 - Lowland Cedar	High Density Pole	3.4	75	1-50	Cedar stand.

S t a n d	Gladwi	n Mgt. Unit		5 – Fo	orested Stand	S Compartment: 137 Year of Entry: 2013
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	4133 - Aspen, Mixed Pine	High Density Sapling	31.4	18		Clearcut 1993. Very nice mix of natural regeneration.
29	4133 - Aspen, Mixed Pine	High Density Pole	31.2	25	1-50	Clearcut 1986. Just reaching pole size.
30	6120 - Lowland Cedar	High Density Pole	10.6	115	51-80	Cedar stand with pockets of very low wet lowland hardwoods. Intermentant creek bi-secting stand.

5 - Forested Stands

Gladwin Mgt. Unit

6 - Nonforested Stands

Compartment: 137 Year of Entry: 2013



Stand	Cover Type	Acres	Managed Management Prior Site (Objective)		General Comments:	
2	3303 - Mixed Low Density Trees	5.0	No	Unspecified	Grass opening filling in with scattered trees, white pine and mixed hardwood. Trash being dumped here.	
17	6225 - Bog	0.8	No	Unspecified		

Gladwin Mgt. Unit

Compartment: 137 Year of Entry: 2013



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
23	Unique Site - SCA	73137023_Edt	29.6	Nominate for SCA. Review stand at pre-review. At pre-review decided to nominate as SCA type two old growth.

Gladwin Mgt. Unit Compa

Compartment: 137 Year of Entry 2013



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.

Conservation Type Description
Area

ERA = Ecological Reference Area

HCVA = High Conservation Value Area

SCA = Special Conservation Area

