

Gladwin Forest Management Unit Compartment Review Presentation Compartment #70 Entry Year: 2012

Compartment Acreage: 754 County: Gladwin

Revision Date: Sept 2010, Oct 2010

Stand Examiner: Steven Nyhoff

Legal Description: T18N, R1E, Section 24, 25, and 36

Identified Planning Goals ('Management Area' or 'RMU', if applicable): None

Management Goals: The compartment has been heavily managed for early successional aspen types over the last 30 years. Currently 93% of the aspen is less than 30 years old and of that 57% is between 20 and 29 years old. The compartment, as a whole, is made up of younger stands with 66% of them being less than 30 years old, 22% being uneven aged, and 22% made up of stands between 30 and 89 years old. The older stands are mainly swamp hardwoods in the river corridors.

The aspen stands that were harvested last Year of Entry (YOE) had mixed results. Some of the stands had areas that failed to regenerate; these areas need to be interplant with conifer to bring them up to full stocking.

Overall management is to continue managing the compartment for the current cover types where possible.

Soil and Topography: The terrain in the compartment is generally flat with minimal topographical relief, except along the Little Molasses River, Black Creek, and the Tittabawassee River. These waterways have associated flood plains bordered by steep banks.

The soils in the compartment are made up of well-drained Croswell and Rubicon Associations (48%); somewhat poorly drained AuGres and Iosco Associations (34%); and poorly drained Roscommon, Brevort, and Evart-Winterfield Associations (18%). Therefore, 52% if the soils in the compartment have problems with water, at least seasonally.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The state ownership in the compartment is fragmented by numerous small private land owners to the north, west, and south. The private lands are in small ownerships with permanent residences on them, especially along the Tittabawassee River. However, there is state ownership to the east of the compartment.

Unique, Natural Features: There are no records of occurrences and no sites were located during the inventory process.

Archeological, Historical, and Cultural Features: There are no records of occurrences and no sites were located during the inventory process.

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: Black Creek, The Little Molasses River, and the Tittabawassee River flow through the compartment. These are warm water fisheries. Both the Tittabawassee and Little Molasses River have boating and fishing activity on them.

The treatments that are scheduled for this YOE will not impact the waterways, because the nearest treatment is greater than 100 feet away from the Little Molasses River.

Wildlife Habitat Considerations: This compartment has a long history with ORV issues. Significant administrative progress, with this issue, has occurred since the 2002 YOE. During the spring of 2010, a Land Use Order of the Director was requested and approved which provided legal authority for the installation of two gates on forest trails running immediately north of Maple Point Road. These closures complemented the objectives of this compartment and those immediately to the north. Land management over habitat management was the crucial need of this area for many years. If deemed necessary, camp locations/parking areas were upgraded during the summer of 2010. Selected roads were refurbished to improve both department and general public access.

The Maple Point Road Subdivision functions as an area that traditionally concentrates wintering turkeys. Valuable census information is gained from this location reference spring and fall turkey recommendations. Deer, grouse and woodcock are actively pursued by hunters each fall throughout this compartment.

Approximately 51% of the existing cover type is aspen. Shade intolerant timber management should continue to move toward the establishment of four to five distinct age classes. This is a high priority goal of Wildlife Division with one exception. Age class distribution "regulation standards" should not be achieved at the expense or decline in stem density.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of Lacustrine (lake) sand and gravel. The glacial drift thickness varies between 100 and 200 feet. Beneath the glacial drift is the Pennsylvanian Saginaw Formation. The Saginaw Formation is used for clay/shale in other areas of the State. This area is predominantly sand, and gravel potential in the compartment is considered limited. Very little oil and gas exploration has occurred in this area, and potential is fair. Two large fields are located to the west. Buckeye North Field, discovered in 1936, has produced over 20 million BO from the Dundee. Billings Field, 1950, has produced 946,334 BO primarily from the Detroit River Formation. Most of the Compartment is leased for oil and gas development.

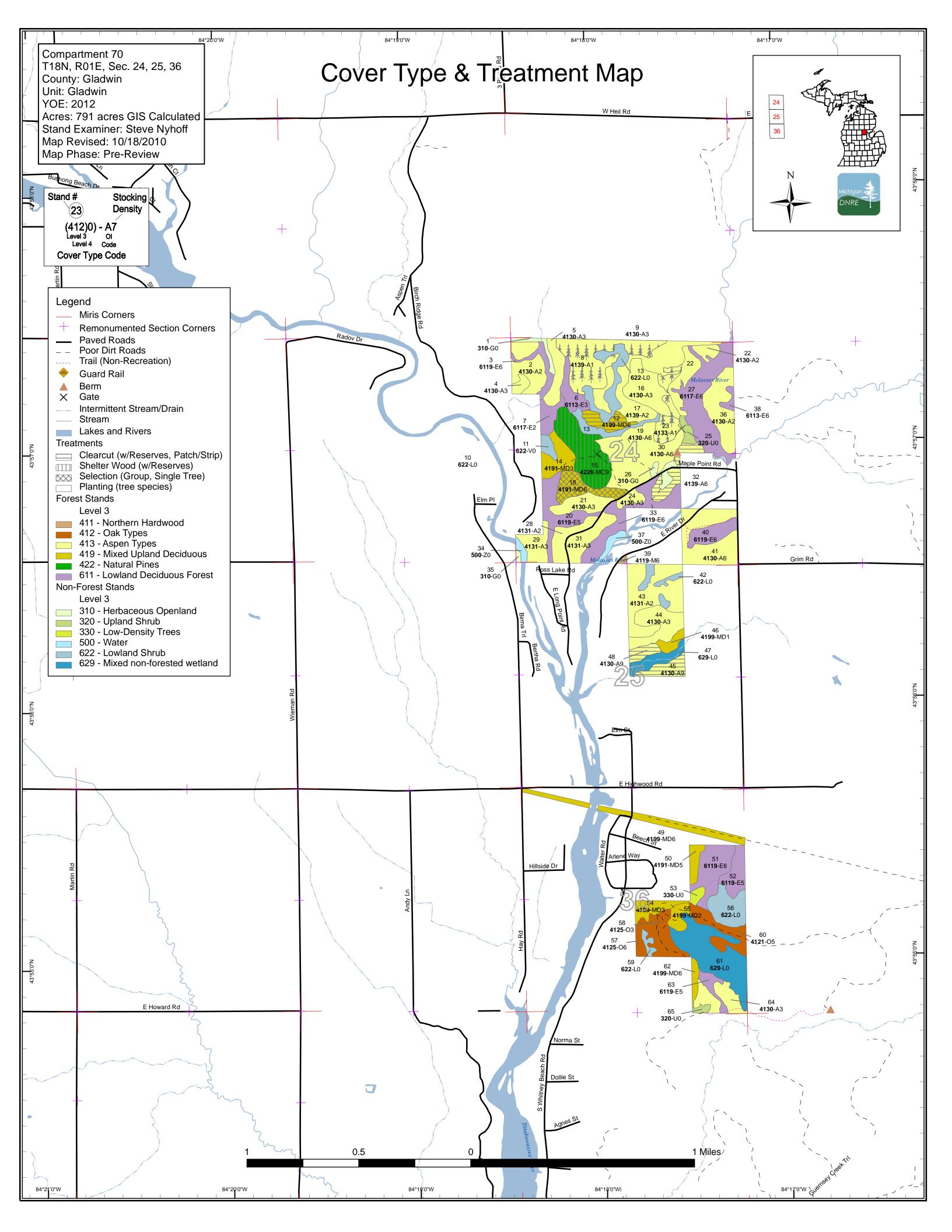
Vehicle Access: The access to the compartment is off Maple Point Road, Whitney Road, and the abandoned Smith Siding RR grade. Overall the access is good. Currently wildlife has been installing gates to control some of the overuse in the compartment.

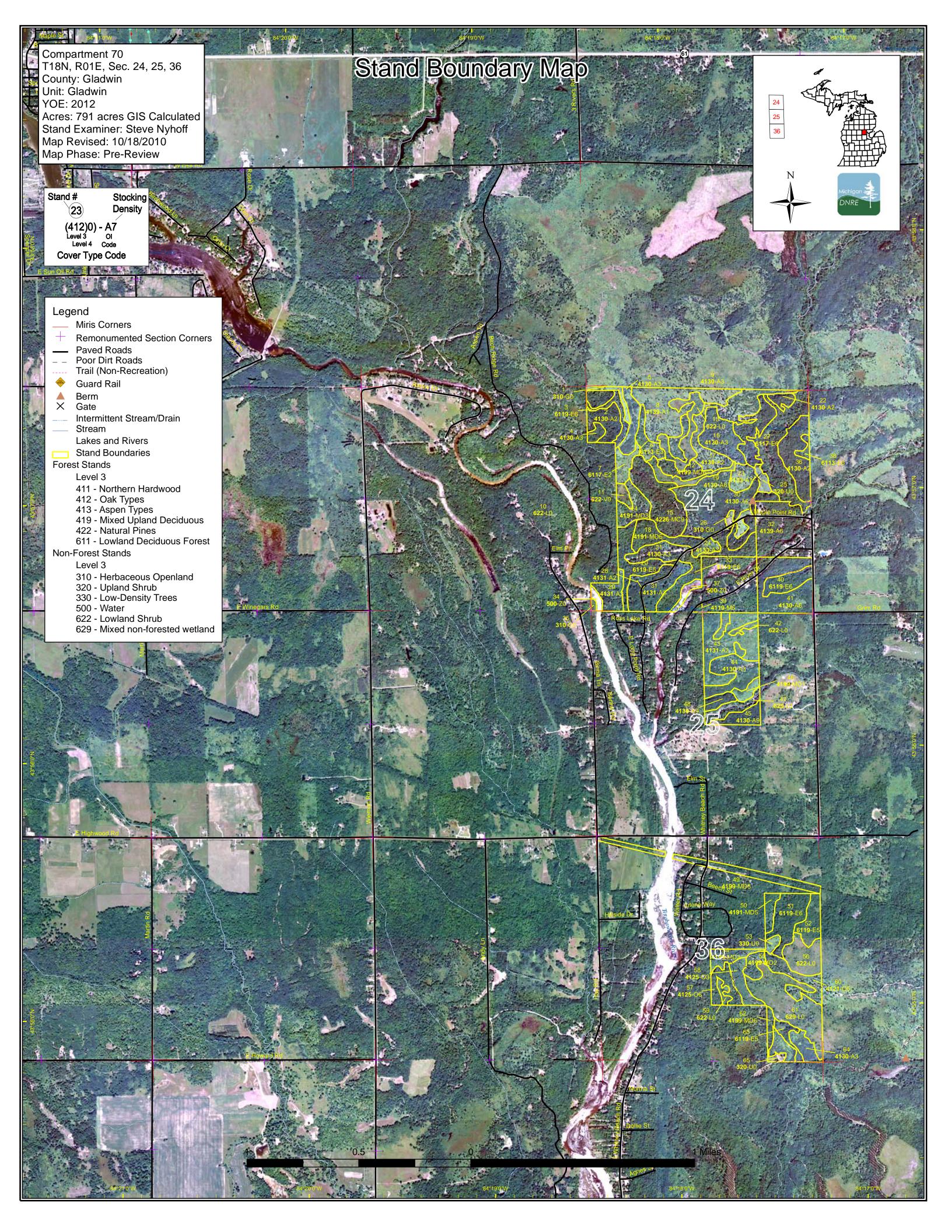
Survey Needs: Much of the state land is surrounded by state ownership and the private land has been heavily surveyed so no survey is need at the current time.

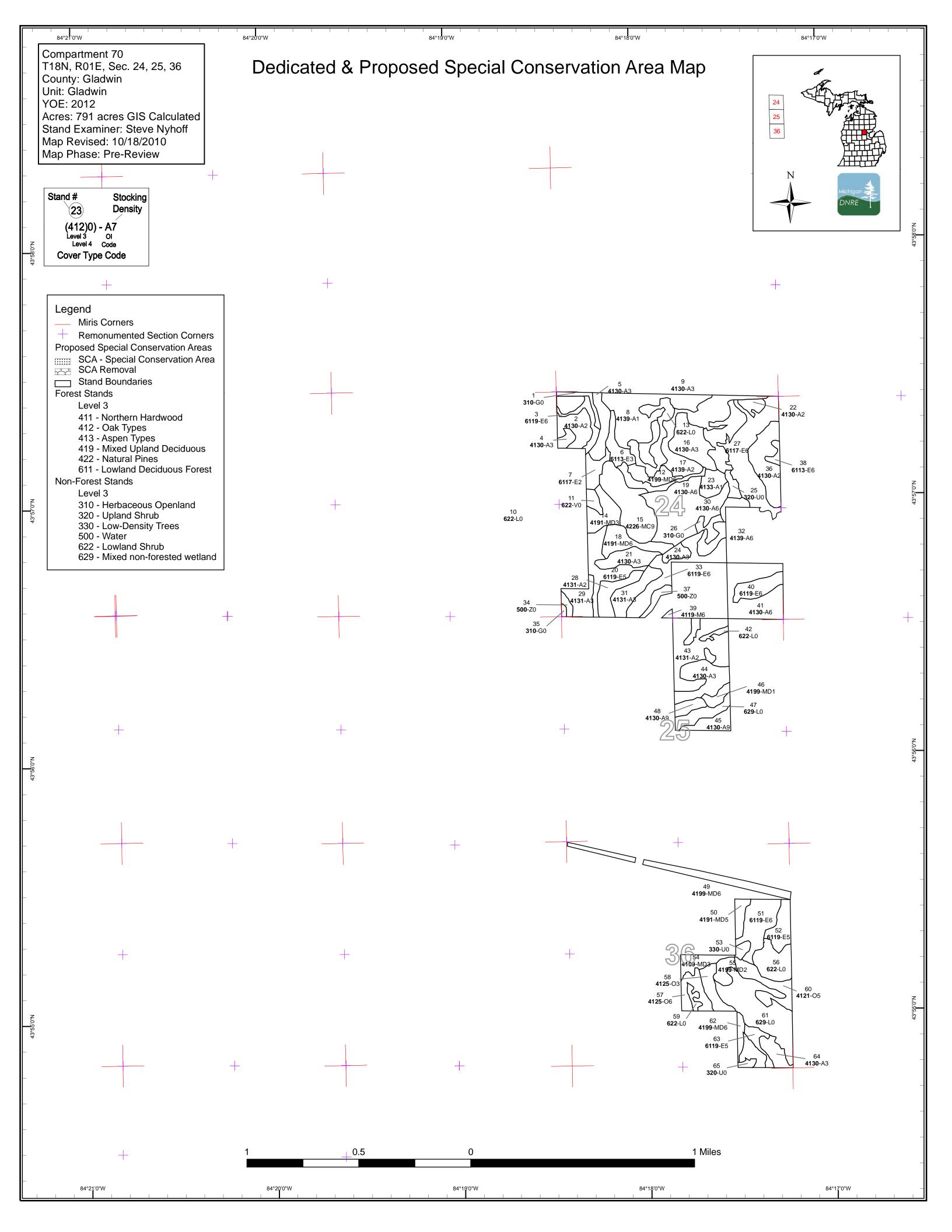
Recreational Facilities and Opportunities: The area is heavily used by the public for hunting, boating, and fishing. It is also use illegally by ORV users. There are no established recreational facilities in the compartment but the Midland to Mackinaw Hiking trail is just to the east.

Fire Protection: The compartment has 52% moist to wet ground so fire danger is moderate. However, because of the high concentration of small private ownership, if a fire did get started the threat to private property is high.

Additional Compartment Information: None







Gladwin Mgt. Unit

Data updated before 10:00 AM

Compartment 070 Year of Entry 2012



Age	Class
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	Age Class																
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Aspen	0	67	66	206	0	0	6	0	4	12	0	0	0	0	3	364	
Bog	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Herbaceous Openland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	[
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Lowland Deciduous	0	0	15	0	0	0	0	0	17	10	0	0	0	0	100	142	
Lowland Shrub	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	
Mixed Upland Deciduous	0	0	12	11	0	17	0	10	0	3	0	0	0	0	21	75	
Natural Mixed Pines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	29	
Northern Hardwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
Oak	0	0	8	0	0	0	0	13	0	0	0	0	0	0	10	31	
Upland Shrub	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Water	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Total	115	67	101	217	0	17	6	24	20	26	0	0	0	0	163	757	



Table 2 – Proposed Treatment Summaries

Data updated before 10:00 AM

Gladwin Mgt. Unit Year of Entry 2012

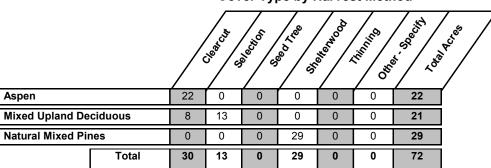
Compartment 070 Total Compartment Acres: 757

Acres by Treatment Type

Commercial Harvest - 72 Site Prep - 0 Tree Planting - 47 Prescribed Burn - 0 Other - 0

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

Cover Type by Harvest Method



Compartment: 070 Gladwin Mgt. Unit Table 3 -- Treatments Prescribed with No Limiting Factor Year of Entry 2012 s Data updated before 10:00 AM t а **Treatment** Acres Stage1 Size Stand **Treatment Treatment Cover Type Approval** n Method Name CoverType Density Objective **Status** d Age Type 12 73070012-Cut 7.9 4199 - Other Mixed High Density Pole 78 Harvest Clearcut with Other Mixed Upland Cmpt. Review **Upland Deciduous** Reserves Deciduous Proposal Prescription Final harvest to 4" DBH and mark 1-2 trees per acre for retention. Specs: Other There are areas in the stand that are wetter so harvest dry or frozen condition. Comments: <u>Next</u> The stand is expected to regerated. <u>Steps:</u> 15 73070015-Cut 29.2 42260 - Natural High Density Log 115 Harvest Shelterwood Natural Pine, Mixed Cmpt. Review Pine, Mixed Deciduous Proposal Deciduous Prescription Harvest the stand by removing all the hardwoods cown to 4" and thin area of dense pine down to 70 sq ft. Specs: Other_ The harvest will yield a stand with variable density. Comments: The stand is expected to regenerate with a mixture of pines and hardwoods. <u>Next</u> Steps: 18 73070018-Cut 12.9 4191 - Mixed High Density Pole 88 Harvest Single Tree Selection Mixed Upland Cmpt. Review **Upland Deciduous** Deciduous with Proposal with Conifer Conifer Prescription Harvest the stand redusing the BA to 80. When marking favor the removal of the larger diameter trees. However, do not eliminate any one Specs: Other There are areas of wetter gound in the stand so harvest in dry or frozen condition. Comments: The stand is expected to regenerate as a mixed stand. Next Steps: 73070030-Cut 30 3.7 4130 - Aspen High Density Pole 74 Harvest Clearcut Aspen Cmpt. Review Proposal

Prescription Final harvest the stand to 2" DBH without reservers, because of the small acreage.

Specs:

<u>Other</u>

The private line may be difficult to locate. When harvesting the stand do not use the road to access the harvest, instead use the opening to the west of the stand crossing the road in only on place. The road will have to be restrored after the stand is harvested. Comments:

The stand is expected to regenrate to aspen. **Next**

Steps:

73070032-Cut 32 6.1 High Density Pole 50 Harvest Clearcut with Cmpt. Review 4139 - Aspen, Aspen Mixed Deciduous Reserves Proposal

Prescription Final harvest to 2" DBH mark 1 to 2 trees pre acre to retain.

Specs:

The boundary to the sale may need to be move into stand 33 to allow the logger room to harvest the slope along the south side of the stand. Other_

Comments:

The stand is expected to regnerate to aspen mixed with other hardwoods.

<u>Next</u> Steps:

S t	Gladwin Mgt. Unit Data updated before 10:00 AM					eatments Preso Limiting Facto	Compartment: 070 Year of Entry 2012	Michigan DNRE	
a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8	73070008- Plant	33.9	4139 - Aspen, Mixed Deciduous	Low Density Sapling	26	Tree Planting	Hand Plant	Aspen, Jack Pine	Cmpt. Review Proposal
Presci Specs	ription ::								
Other Comm	•								
Next Steps:	<u>:</u>								
22	73070022- Plant	5.9	4130 - Aspen	Medium Density Saplin	4	Tree Planting	Hand Plant	Aspen, Mixed Pine	Cmpt. Review Proposal
Presc Specs		nt with red	d pine the stand to br	ing up to full stockir	ng.				
Other Comm	•								
Next Steps:	<u>.</u>								
23	73070023- Plant	7.3	4133 - Aspen, Mixed Pine	Low Density Sapling	26	Tree Planting	Hand Plant	Planted Jack Pine, Mixed Deciduous	Cmpt. Review Proposal
Presci Specs		nt jack pir	ne to bring the stand	to full stocking.					
Other Comm									
Next Steps:	<u>.</u>								

Total Treatment Acreage Proposed:

106.9

Table 4 -- Treatments Prescribed with Compartment: 070 a Limiting Factor s Data updated before 10:00 AM Year of Entry 2012 t а **Treatment** Acres Stage1 Size Stand **Treatment Treatment Cover Type Approval** n Method Objective Name CoverType Density **Status** d Age Type 73070045-Cut 80 45 4.7 4130 - Aspen High Density Log Harvest Clearcut Aspen, Mixed Cmpt. Review Proposal Deciduous

Prescription Final harvest the stand to 2" DBH leave some retention along the south edge. This retention is to be placed to minimze the disturbance along the upper slope over the intermitten creek. This will address BMP concerns. Specs:

Other Comment:

The stand is expected to regenerate to a mixture of aspen, maple, ash and oak. <u>Next</u>

Gladwin Mgt. Unit

Steps:

Limiting Factor and No 2A: Adjacent landowner denies

Treatment Reason access

Cmpt. Review 48 73070048-Cut 7.8 4130 - Aspen High Density Log 80 Harvest Clearcut with Aspen, Mixed Reserves Deciduous Proposal

Prescription Final harvest the stand to 2" DBH. The retention should be along the north edge of the stand along the top of the ridge along the creek. This retention should be placed to minimize the disturbance and address BMP concederation. Specs:

<u>Other</u> Comment:

The stand is expected to regenerate to aspen, maple, ash and oak. Next

Steps:

Limiting Factor and No 2A: Adjacent landowner denies

Treatment Reason access

Total Treatment 12.4 **Acreage Proposed:**

Data updated before 10:00 AM

Out of YOE -- Treatments Prescribed with No Limiting Factor

Year of Entry: 2012

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
Prescription Specs:								
Other Comments:								
Next								

Total Treatment Acreage Proposed:

Steps:

0

5 - Forested Stands Compartment: 070 Gladwin Mgt. Unit s Year of Entry: 2012 Data updated before 10:00 AM t а Level 4 Size Stand BA General n **Cover Type** Density Acres Age Range Comments: d 4130 - Aspen Medium 2 16.3 4 The balsam popular in the stand is in the depression. Overall, Density the stand has regenerated well with inclusion of fern openings. High Density 6119 - Mixed Lowland 5.9 Uneven Age 81-110 There is an intermittent creek that flows through the stand. 3 **Deciduous Forest** Pole 4130 - Aspen High Density The birch was left in the stand and is now declining. 29 Uneven Age Sapling 4130 - Aspen High Density 9.5 18 5 Sapling 6113 - Lowland Maple **High Density** 8.2 15 The stand gets wetter going north. Overall the stand is a matrix Sapling of upland and lowland with the lowland being about 60%. 6117 - Lowland Medium 6.8 14 Stand swapped from Non-Forested to Forested. The stand is a 7 Density Deciduous, Mixed mixture of upland and lowland with the lowland being the Coniferous majority. The stand has a ridge going E/W at about the center of the stand. 4139 - Aspen, Mixed Low Density 33.9 26 The stand is sparse and has inclusions of lowland. The lowlands Deciduous Sapling are in small patches often less than 1 acre in size. 4130 - Aspen High Density 5.5 26 New stand added. The stand is a matrix of upland and lowland 9 Sapling with the upland being about 75%. 4199 - Other Mixed High Density 7.9 Uneven Age The stand is variable in size going from saw logs to saplings. 12 **Upland Deciduous** Pole High Density 4191 - Mixed Upland 11.5 23 The stand is a matrix of upland and lowland with the upland Deciduous with Conifer Sapling being the majority. 42260 - Natural Pine, High Density 292 81-110 This stand is a natural red and white pine stand. The area has a Uneven Age 15 Mixed Deciduous Log mixture of hardwoods, mainly aspen and oak. There is some regeneration of oak and pine in the understory. 4130 - Aspen High Density 18.5 26 16 The maple in the stand is located in slight depressions. The oak Sapling in the stand was left when the aspen was harvested. 4139 - Aspen, Mixed Medium 26 27.2 New stand added. The stand is mainly upland with some 17 Deciduous Density inclusions of lowland. The regeneration is patchy.

4191 - Mixed Upland

Deciduous with Conifer

4130 - Aspen

6119 - Mixed Lowland

Deciduous Forest

18

19

High Density

Pole

High Density

Pole

Medium

Density Pole

129

418

16.8

Uneven Age

25

78

111-140

81-110

This stand is somewhat wet but could be operable in dry or

frozen condition.

The stand is a matrix of upland and lowland with the lowland

being about 35%. There are inclusions of upland G-type also present.

New stand added. The stand lies along an intermittent drainage.

5 - Forested Stands Compartment: 070 Gladwin Mgt. Unit s Year of Entry: 2012 Data updated before 10:00 AM t а Level 4 Size Stand BA General n **Cover Type** Density Comments: Acres Age Range d 4130 - Aspen **High Density** 21 11.0 23 Sapling 4130 - Aspen Medium 19.7 4 The balsam popular in the stand is in the depression. Overall, 22 Density the stand has regenerated well with inclusion of fern openings. 4133 - Aspen, Mixed Low Density 7.3 26 The stand has regenerated poorly and what regeneration is 23 Pine Sapling present is patchy. 4130 - Aspen **High Density** 24 4.1 25 Some overstory oaks and white pines were left when the stand Sapling was harvested. 6117 - Lowland **High Density** 27 35.6 Uneven Age 81-110 The stand is variable with some of the species being in pockets. Deciduous, Mixed Pole The green ash, basswood, red maple are uniformly distributed, Coniferous the aspen is on the upper slopes, cedar and white pine are in pockets of less then 5 acres. 4131 - Aspen, Oak Medium 10.1 4 The east half regenerated well the west half regenerated 28 Density poorly. Also when the stand was harvest all pine was left in a buffer along Maple Point Rd, in addition some oak and larger white pine were left in the sale. 4131 - Aspen, Oak High Density 29 9.5 25 The stand has regenerated well and should be a nice pole stand Sapling in 10 years. There was a narrow buffer left along the ridge top above the river on the west side of the stand. This area is only 1 to 2 acres at most in size. 4130 - Aspen High Density 74 51-80 3 7 30 Pole 4131 - Aspen, Oak **High Density** 31 12.1 15 Some overstory red oaks and white pines were left when the Sapling stand was harvested. The stand has heavy witch hazel in areas. 4139 - Aspen, Mixed High Density 32 6.1 50 81-110 The stand is mainly quaking aspen with some bigtooth aspen, Deciduous Pole red maple and mixed oaks.

6119 - Mixed Lowland

Deciduous Forest

4130 - Aspen

6113 - Lowland Maple

4119 - Mixed Northern

Hardwoods

6119 - Mixed Lowland

Deciduous Forest

33

36

38

39

40

High Density

Pole

Medium

Density

High Density

Pole

High Density

Pole

High Density

Pole

22.2

20.8

2.2

0.7

10.1

Uneven Age

4

Uneven Age

Uneven Age

Uneven Age

81-110

81-110

81-110

81-110

The stand is lowland because of a high water table. It sits

between a ridge and the river. There are numerous springs present most are not currently flowing.

The stand is upland for the most part, but there are inclusions of

lowland.

This stand is in a depression.

The stand is a broad drainage and is too wet to harvest.

s t	Gladwin	Mgt. Unit		5 – Fo Data update	rested Sta d before 1	Michigan
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	4130 - Aspen	High Density Pole	29.6	25	1-50	The stand is a good site index and will be a candidate for early harvest in 10 years.
43	4131 - Aspen, Oak	Medium Density	31.8	16		The stand is a matrix of upland and lowland with the lowland being about 20%. The regeneration is patchy having good density on the ridges and moderate to poor in the lowland.
44	4130 - Aspen	High Density Sapling	17.3	24		
45	4130 - Aspen	High Density Log	4.7	80	81-110	The stand is on a ridge over looking a creek. The aspen is overmature and there is good advanced regeneration of red maple.
46	4199 - Other Mixed Upland Deciduous	Low Density Sapling	4.0	15		The stand was cleared by beaver activity. It is now mainly a bracken fern field with some choke cherry.
48	4130 - Aspen	High Density Log	7.8	80	111-140	The stand is land locked.
49	4199 - Other Mixed Upland Deciduous	High Density Pole	17.3	40		This stand is an old RR grade that is ditched on 2 sides.
50	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	5.0	65	1-50	
51	6119 - Mixed Lowland Deciduous Forest	High Density Pole	18.9	Uneven Age	81-110	
52	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	10.4	80	1-50	The stand is very wet and has inclusion of tag alder and willow openings. The site index appears to be low estimated around 40 to 45.
54	4199 - Other Mixed Upland Deciduous	High Density Sapling	7.6	16		New stand added. The stand has regenerated well.
55	4199 - Other Mixed Upland Deciduous	Medium Density	5.4	65		The stand is a matrix of upland and lowland with the upland being the majority. There are inclusions of V-Type in the stand.
57	4125 - Black, N. Pin Oak	High Density Pole	9.6	Uneven Age		The stand is mostly upland with the lowland being in a drainage going north of an L-Type.
58	4125 - Black, N. Pin Oak	High Density Sapling	8.4	16		The stand is regenerating well. It is on a ridge.
60	4121 - Oak, Aspen	Medium Density Pole	13.5	65	1-50	The stand's density is variable, there are numerous openings scattered in the stand.

4199 - Other Mixed

Upland Deciduous

62

High Density

Pole

3.3

87

51-80

The stand boundary will be difficult to place. When the stand was inventoried no corners were found, so a survey will be needed to establish the private line. There is an old cedar post

fence but most of the posts near the corner are down.

S t	Gladwin Mgt. Unit t			5 – For Data update	ested Sta d before 1	Nichigae =
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
63	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	4.8	Uneven Age	51-80	The stand is along a drainage that has intermittent beaver activities.
64	4130 - Aspen	High Density Sapling	12.7	16		The stand has some lowland areas and areas that are grassy openings.

Gladwin Mgt. Unit

6 - Nonforested Stands Data updated before 10:00 AM

Compartment: 070

Year of Entry: 2012

Stand	Cover Type	Acres	Gen Cmts:
1	3105 - Mixed Upland Herbaceous	3.4	The stand has chest high braken fern.
10	6220 - Alder/willow	14.4	
11	6225 - Bog	3.3	The bog has a significant amount of lowland shrubs in it.
13	6220 - Alder/willow	7.1	
25	3202 - Autumn Olive/Honeysuckle	3.3	
26	3105 - Mixed Upland Herbaceous	4.5	
34	50 - Water	2.0	river
35	3105 - Mixed Upland Herbaceous	0.7	
37	50 - Water	3.6	
42	6220 - Alder/willow	5.7	
47	629 - Mixed non-forested wetland	8.2	The stand is an intermittent creek that has had beaver activities in the past.
53	3303 - Mixed Low Density Trees	2.4	New stand added. Stand swapped from Forested to Non-Forested.
56	6220 - Alder/willow	15.0	
59	6220 - Alder/willow	2.3	The stand is very dense.
61	629 - Mixed non-forested wetland	37.5	
65	3202 - Autumn Olive/Honeysuckle	1.6	

Gladwin Mgt. Unit

Compartment: 070 Year of Entry: 2012



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.

Data updated before 10:00 AM

Stand	SCA Type	SCA Name	Acres	Comments

Gladwin Mgt. Unit Compartment: 070
Year of Entry 2012

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.

Data updated before 10:00 AM

Conservation Area

Type D

Description

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