

Compartment Review Presentation

Gladwin Forest Management Unit

Compartment 73071

Entry Year 2019

Acreage: 4,950

County Gladwin

Management Area: Gladwin Lake Plain

Revision Date: 2017-05-30

Stand Examiner: Steve Nyhoff

Legal Description:

T18N, R02E, Sections 9-16; 21-24; 27, 28

Identified Planning Goals:

Vegetation management in the Gladwin Lake Plain management area (MA) will provide forest products; maintain or enhance wildlife habitat; protect areas of unique character including the Rifle River, a designated natural river; the Lame Duck Foot Access Area, a high conservation value area; several wildlife area floodings; threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year planning period will focus on balancing the age-class distributions for aspen and red pine. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation opportunities. Expected trends in this 10-year planning period will be the continued need to address illegal off-road vehicle use, trash dumping and increased recreational pressure.

Soil and topography:

The soils in the compartment are made up of around 30% poorly drained Roscommon Associations, Evart-Winterfield, Carbondale Muck, and Kinross mucky sand; 25% somewhat poorly to poorly drained AuGres Associations and Iosco Associations; 45% is moderately drained to excessively drained Grayling Associations and Croswell Associations. The Grayling and Croswell Associations have inclusions of wetter soil associations. The Grayling and Croswell soils make up the numerous ridges in the compartment. Some of the ridges are 20-30' high. Beside the ridges the terrain is generally flat to undulating.

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

The compartment is a contiguous block of State Land. It has State Land to the north, south, and west. The east boundary is all private land. There are three private forties surrounded by State Land in the central portion of the compartment. There is also a land locked State forty along the west boundary. The private land is mainly used as recreational properties.

The State Land is heavily used for hunting. There are numerous traditional hunting camps. Many of them are also used for dispersed camping by the ORV riders.

Unique Natural Features:

None are recorded in the data base and none were located during the inventory process.

Archeological, Historical, and Cultural Features:

None are recorded in the data base and none were located during the inventory process.

Special Management Designations or Considerations:

Much of the east side of the compartment contains the Molasses River Flooding Number 3. The flooding is maintained by the Wildlife Division.

Watershed and Fisheries Considerations:

The southern border is the Little Molasses River. There are also several creeks and drainages that flow into Fish Creek which is a little west of the compartment. All the creeks and rivers are warm water fisheries. In addition, much of the eastern ¼ of the compartment is the Molasses River Flooding Number 3 and the associated wetlands.

Wildlife Habitat Considerations:

Wildlife Habitat Considerations: Compartment #71. This compartment includes the Molasses River Flooding #3 and associated wetlands. These wetlands are components of a larger wetland complex that drains through compartment #71. About 45% of this compartment is lowland systems. Non-wetland stands are comprised mainly of Jack Pine, Aspen and Oak, making it suitable for a number of wildlife species. Waterfowl and shore birds can be found utilizing the many

wetland areas in this compartment. Furbearers including beaver, mink, muskrat, black bear, bobcat, and coyote use the wetlands and lowlands as corridors and year-round habitat. Game species likely to be present in this compartment include wood duck, mallard, wild turkey, ruffed grouse, snowshoe hare, and white-tailed deer. The compartment is easily accessible to hunters via Center Fireline Trail.

Mineral Resource and Development Concerns and/or Restrictions

There is no known metallic mineral potential in this part of the state. No sand/gravel pits exist in this area, and sand & gravel potential in the compartment is considered limited. This compartment has had sparse exploration for oil and gas. The North Buckeye and Billings fields are located less than two miles to the west and southwest, respectively. Only the Billings Field is currently active. There has been a rise in leasing and permit activity in the region recently. Nearly all of the state mineral rights within the compartment are currently leased for oil and gas exploration and development.

Vehicle Access:

The overall access is good. In recent years, the county has established three county roads in the compartment. The spoils from the road building and the slash from the harvested trees have been used to close off the spider web of illegal trails and roads. There has been some success. Some of them are still being used but the use has been reduced. In addition, the State Land between Grim Road and the Little Molasses River has been closed to motorized vehicles by a Director's Order. The old trail in the area is still being used. The use is heavy enough to keep portions of the trail from filling in with grass.

Survey Needs:

The State Land west of Center Fireline Trail was surveyed in the late 90s. Most of the corners are still readily visible. Some of the old cedar witness post are now in poor condition. The State Land east of Center Fireline Trail has been surveyed by private surveyors and a number of the private corners were found during the inventory process. At the current time a survey is not needed.

Recreational Facilities and Opportunities:

The compartment has a large portion of the Gladwin ORV trail in the center portion of the compartment which receives heavy use. There is a designated parking area at the corner of M-61 and Center Fireline Trail. Assure there are warning signs placed on the trail regarding logging activities. Focus any retention pockets or clusters along or near the trail. All sign posts shall be protected. Ensure logging activity does not obliterate the trail and a debris free tread is maintained. Limit logging activity crossing the trails. All stumps adjacent to the motorized trail shall be cut flush to the ground or the stumps left high (3 feet) to avoid being hidden by perennial flora (ferns) resulting in unsafe trail conditions. Unmerchantable understory should be protected and maintained next to the tread to promote narrow use adjacent to motorized trails. Use forestry activity to curtail illegal motorized use.

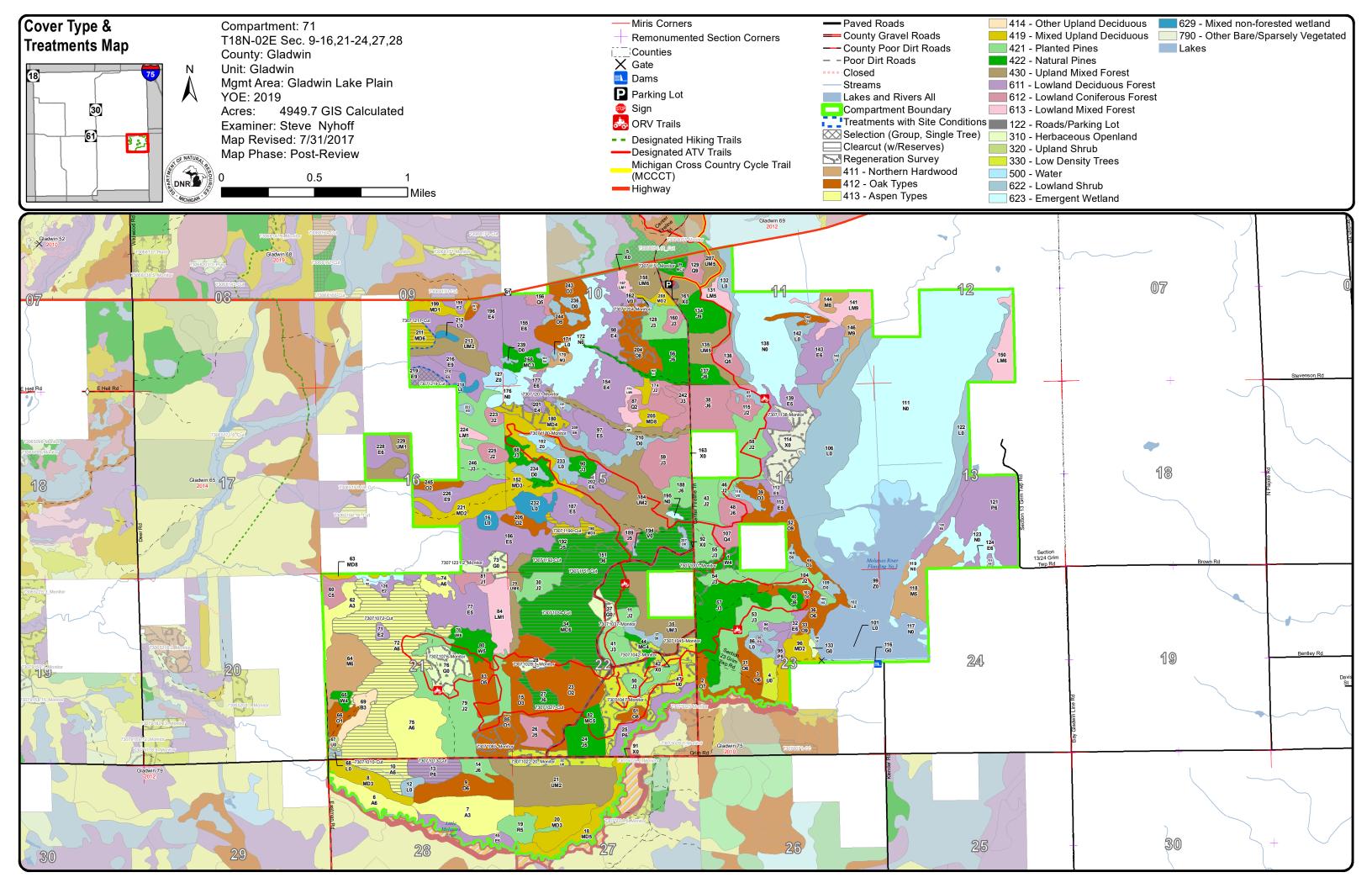
Dispersed recreation is also popular throughout the compartment. The area has easy access from M-61. It has water resources and varying cover types offering opportunities for hunting and gathering.

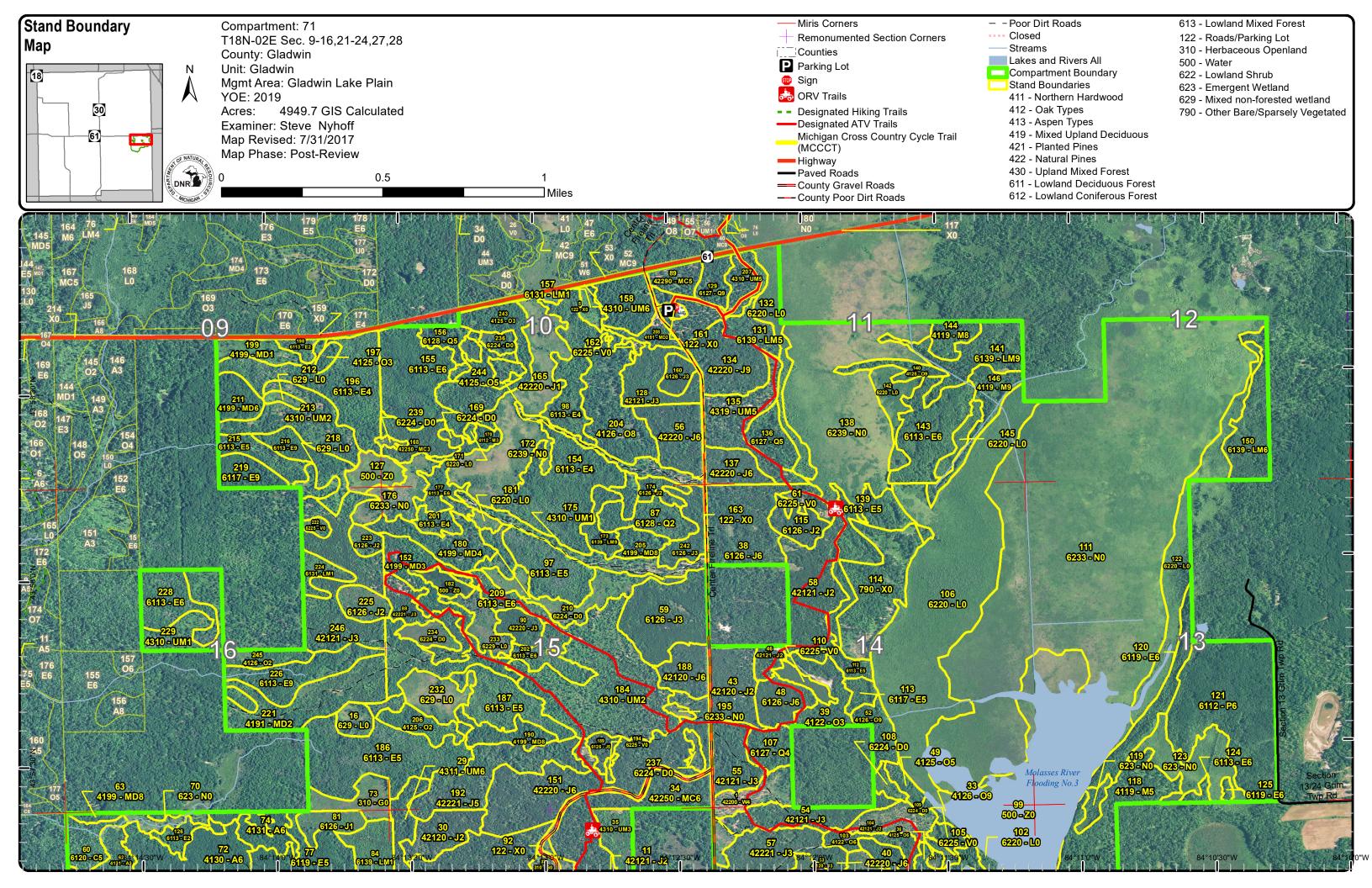
Fire Protection:

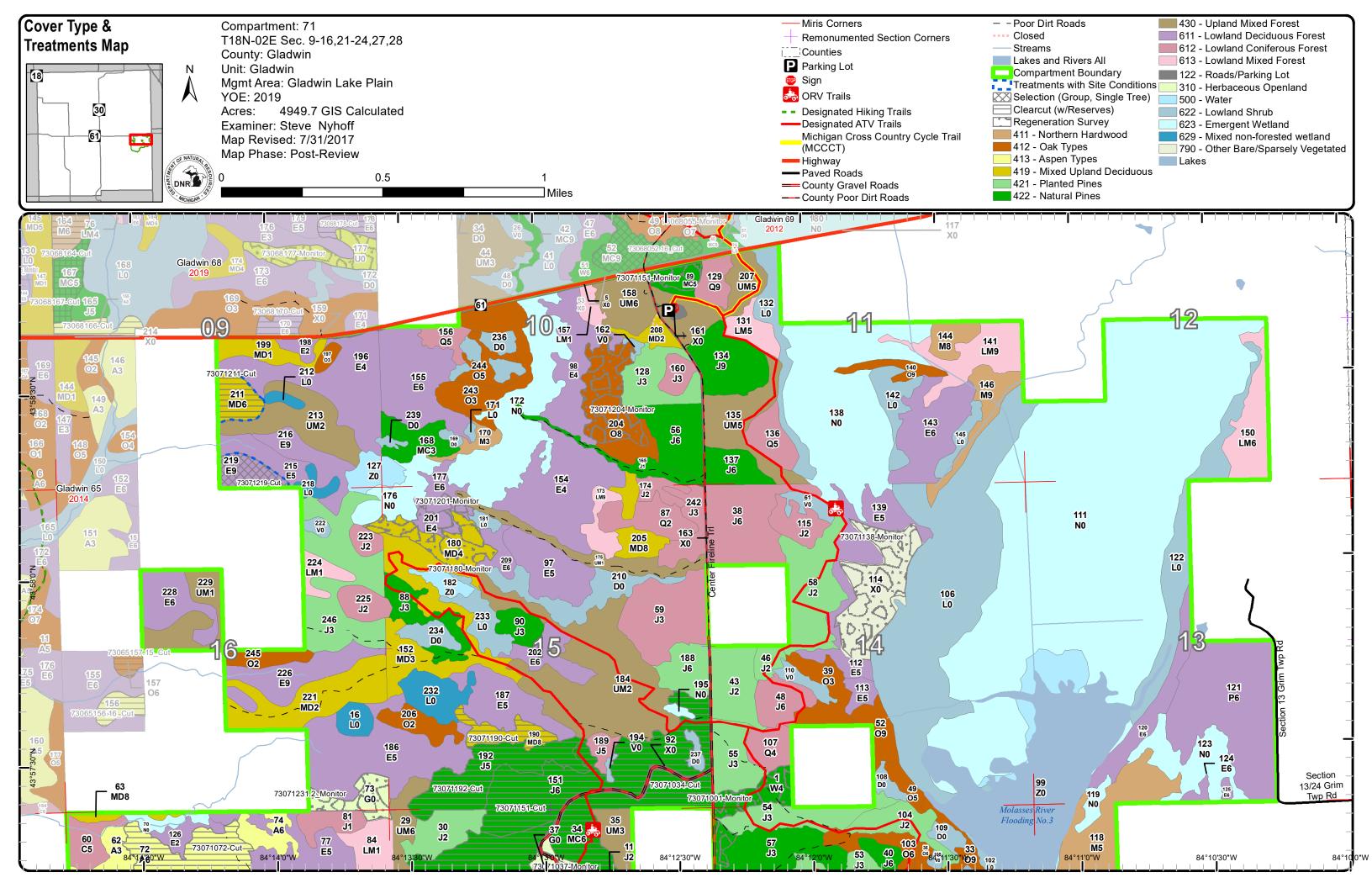
There has been some fire activity in the past. Most of the fires have been kept small. The area has good access off M-61, Center Fireline Trail, and Grim Road, along with numerous two-tracks. In addition, the compartment has a mixture of cover types that hinder fire development. However, the area is heavily used by the public, so the overall fire danger is moderate.

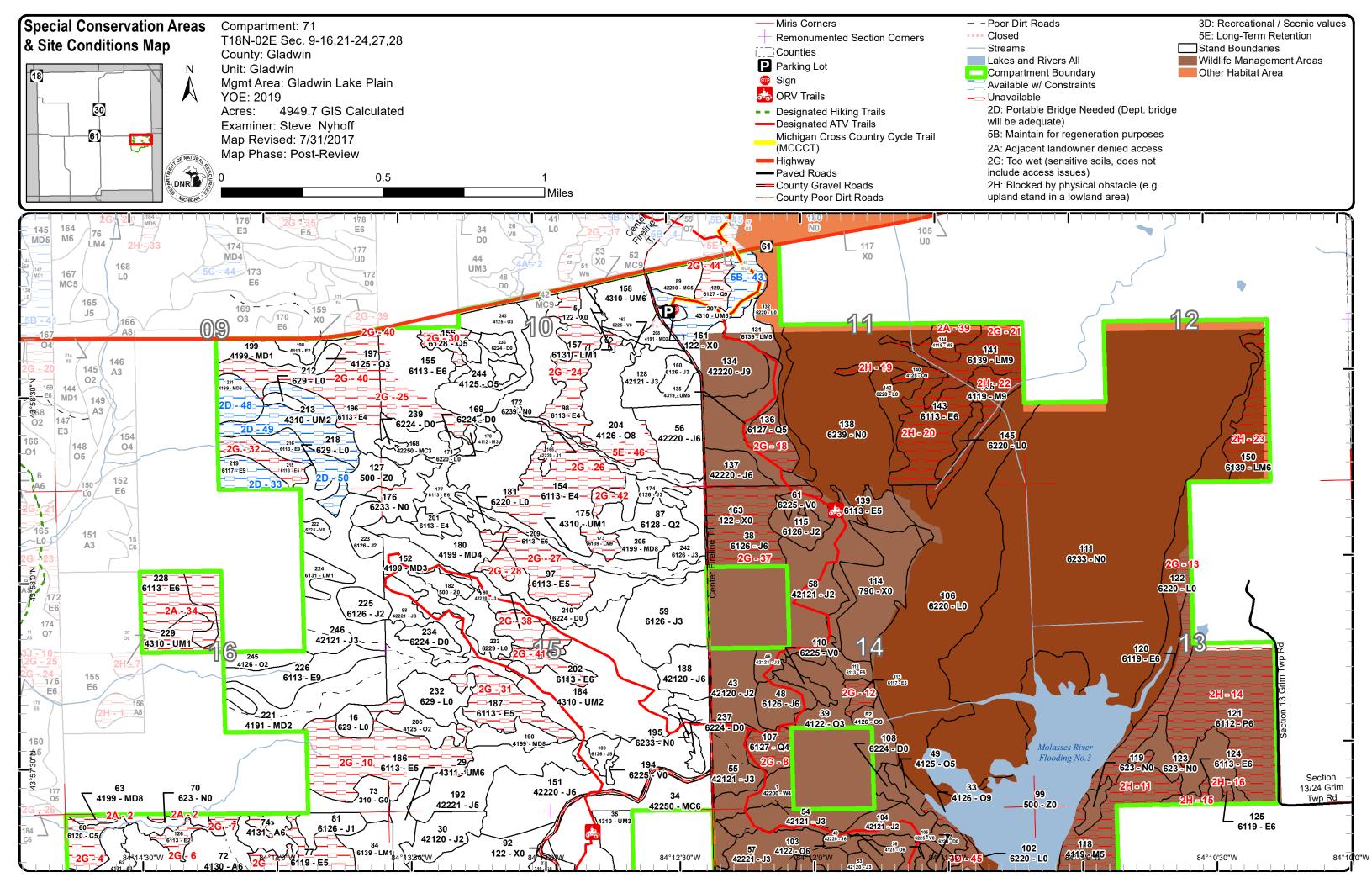
Additional Compartment Information:

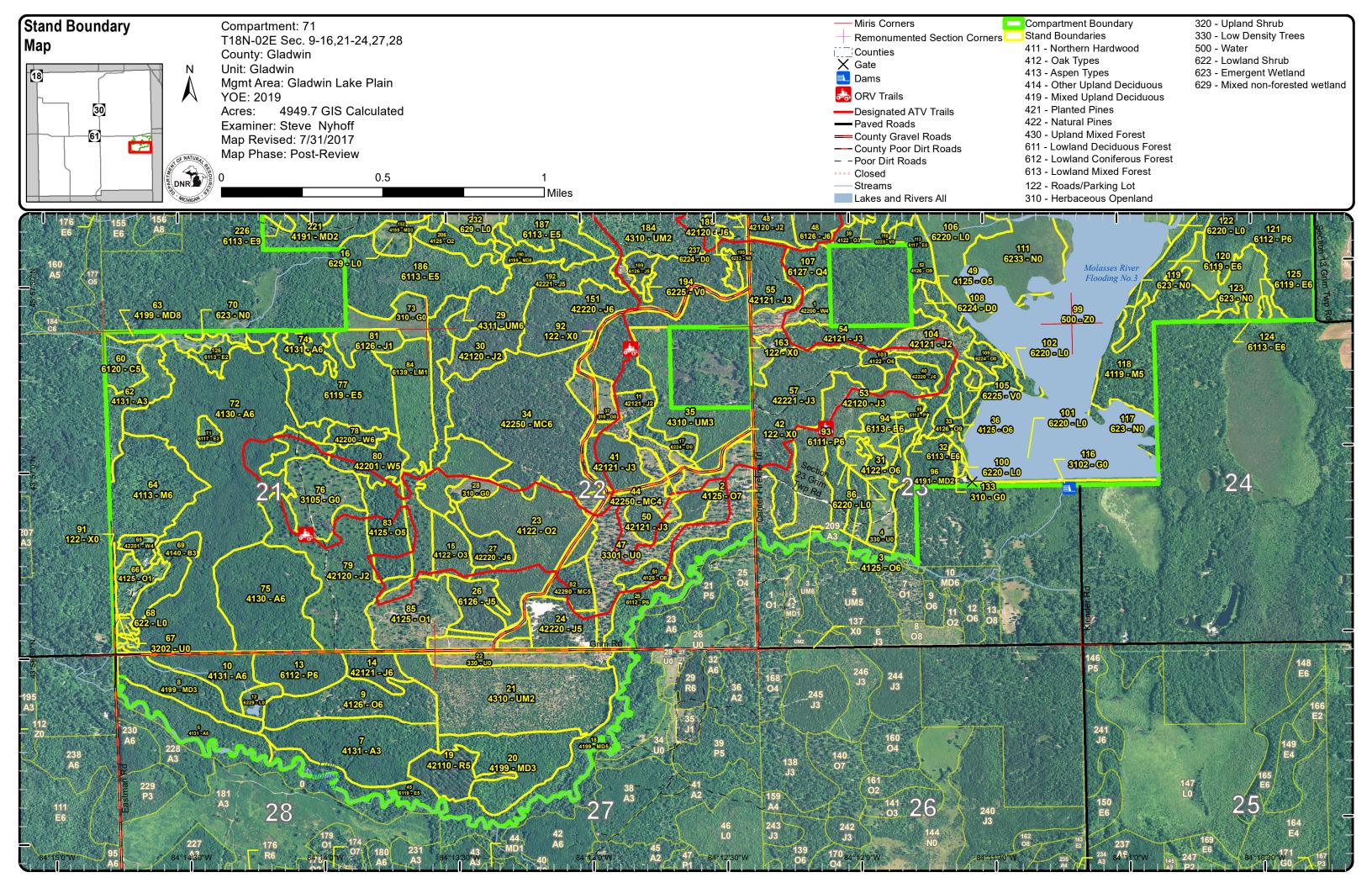
The jack pine in the compartment has problems with gall rust especially in the younger stands. Some areas within these stands are so heavily galled that there are pockets of mortality. The galling has caused a large percentage of the jack pine to be stunted and have poor form. Therefore, any planting of conifer should avoid the use of jack pine. The wetter stand should be harvested in a way to promote natural seeding of a variety of conifers.

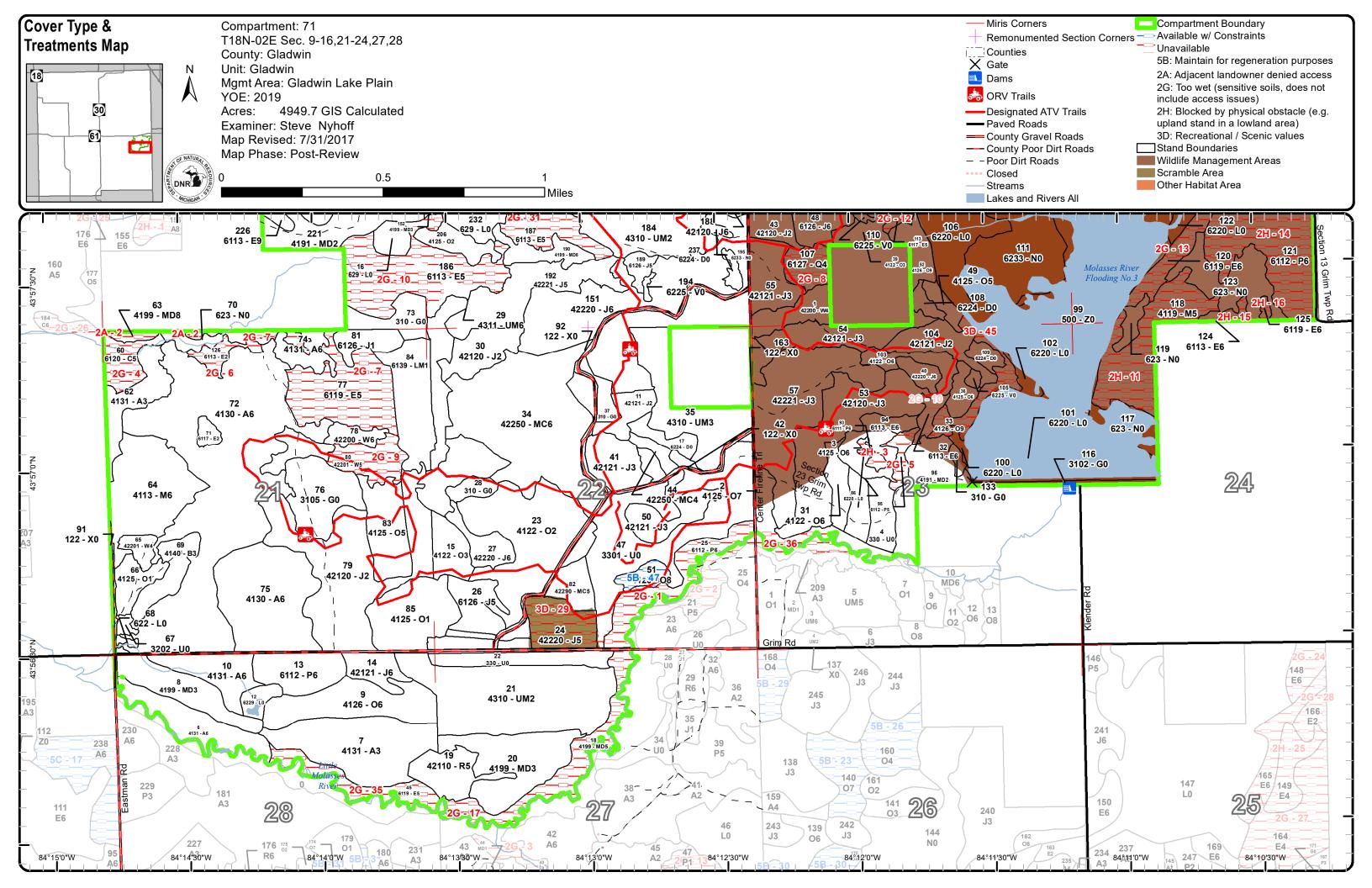


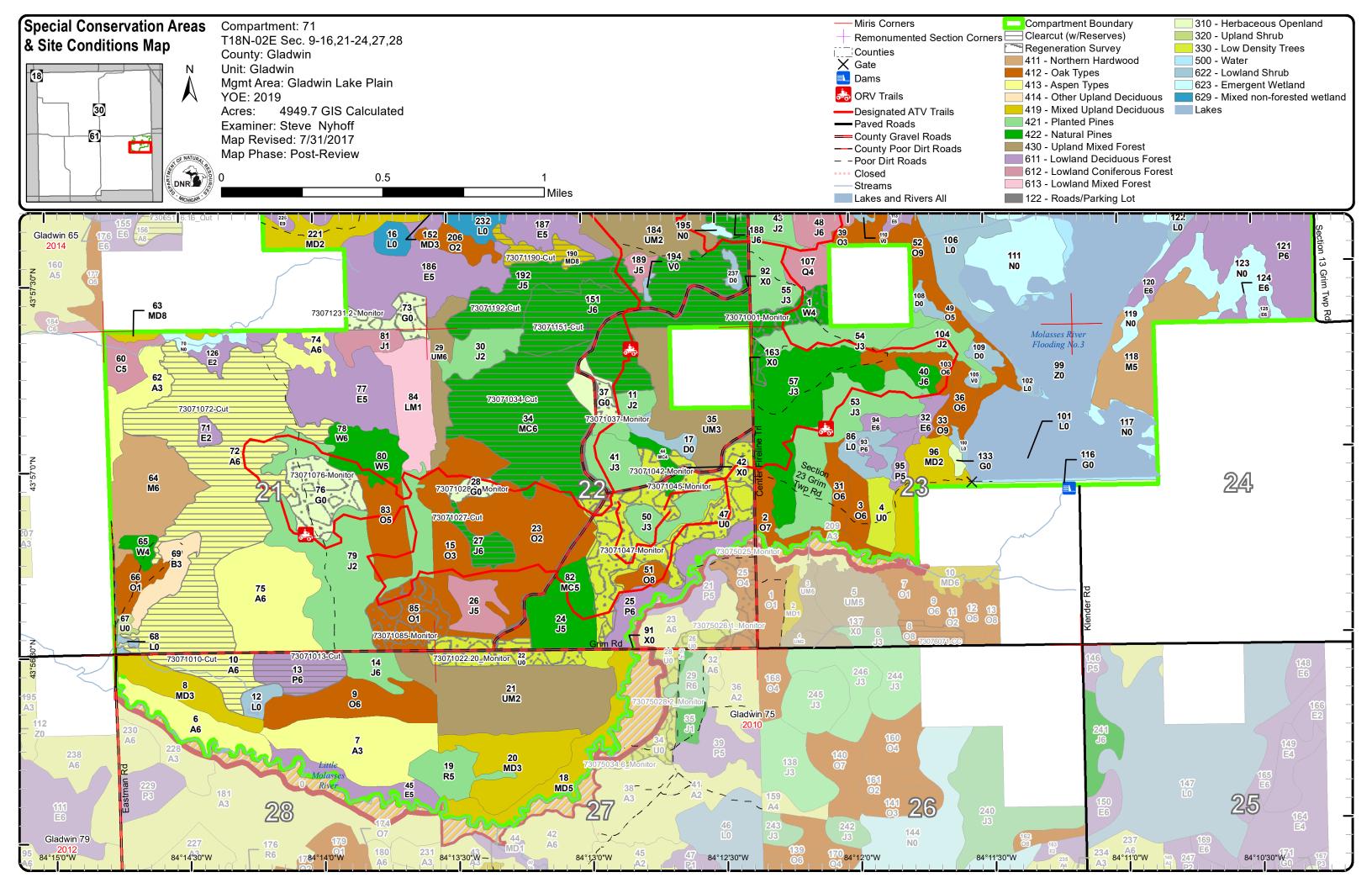












The following reports from the Inventory are attached:

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

Gladwin Mgt. Unit

Compartment 71 Year of Entry 2019



Steve Nyhoff: Examiner

Age Class

	¥or	Sapara Contraction of the same		200	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	8 /4	\$0°,	, § / &		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	800	\$ / %	70,	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	85 / W	0 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 /	St Reg	No. No. No.
Aspen	0	0	19	56	49	223	0	0	0	0	0	0	0	0	0	0	0	0	347
Bare/Sparsely Vegetated	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
Bog	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12
Herbaceous Openland	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
Jack Pine	0	19	209	289	69	220	0	29	0	0	0	0	0	0	0	0	0	11	846
Low-Density Trees	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109
Lowland Aspen/Balsam Poplar	0	0	0	6	79	20	0	0	23	0	0	0	0	0	0	0	0	0	128
Lowland Conifers	0	0	0	16	23	7	0	0	0	9	0	0	0	0	0	0	0	0	55
Lowland Deciduous	0	0	10	5	39	212	7	54	0	0	11	0	0	0	0	0	0	228	566
Lowland Mixed Forest	0	29	12	0	0	25	9	0	0	33	0	0	0	0	0	0	0	0	107
Lowland Shrub	309	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	309
Marsh	688	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	688
Mixed Upland Deciduous	0	11	98	71	19	12	0	29	4	0	0	0	0	0	0	0	0	22	266
Natural Mixed Pines	0	0	0	19	0	139	0	0	0	0	0	0	0	0	0	0	0	8	166
Northern Hardwood	0	0	0	46	9	0	0	0	0	61	0	0	0	0	0	0	0	0	116
Oak	0	42	117	54	31	67	0	0	16	71	0	0	0	0	0	0	0	0	398
Paper Birch	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Red Pine	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17
Treed Bog	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Upland Mixed Forest	0	18	218	46	0	44	0	0	0	24	0	0	0	0	0	0	0	0	350
Upland Shrub	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Urban	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
Water	193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	193
White Pine	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	26	43
Total	1524	119	683	622	318	1003	16	112	43	198	11	0	12	0	0	0	0	295	4954



Report 2 – Treatment Summary

Gladwin Mgt. Unit Year of Entry: 2019

Acres of Harvest

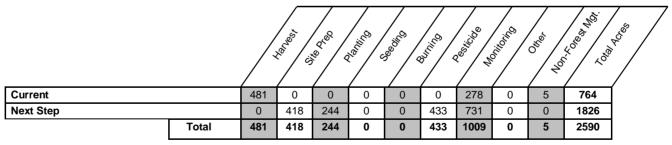
Compartment 71
Total Compartment Acres: 4,950

Commercial Harvest - 459 Harvests with Site Condition - 22 Next Step Harvest - 0 Habitat Cut - 0

Cover Type by Harvest Method

		/	177 July 1	TO HOUSE OF THE PERSON OF THE	#5.00 ()		DOMONO,	in Son	Key Cor	8 / 8 / 8 / 8 / 8 / 8 / 8 / 8 / 8 / 8 /		No. of State
Aspen		189	0	0	0	0	0	0	0	0	189	
Jack Pine		110	0	0	0	0	0	0	0	0	110	
Lowland Aspen/Balsam Poplar		20	0	0	0	0	0	0	0	0	20	
Lowland Deciduous		0	11	0	0	0	0	0	0	0	11	
Mixed Upland Deciduous		22	0	0	0	0	0	0	0	0	22	
Natural Mixed Pines		129	0	0	0	0	0	0	0	0	129	
	Total	470	11	0	0	0	0	0	0	0	481	

Proposed and Next Step Treatments by Method



Acceptable Lowland aspen mixed with maple and oak.

Regen:

Other Overall the stand is somewhat wet and rutting could be a problem. In the sale include the grouse drumming log spec.

Comment:

Proposed Start Date: 10/01/2018

73071022.20 19.5 330 - Low-Density Nonstocked Monitoring Natural Regen 4310 - Pine, Even-Aged Draft Field (Intermediate) Oak Mix Monitor Trees Boundary

Habitat Cut: No

Site Condition:

Prescription Monitor regeneration in 2019.

Specs:

Next Step **Treatments:**

Acceptable Mixed conifer with oak species is acceptable.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

Compartment: 71

Year of Entry: 2019

a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
27	73071027-Cut	10.3	42220 - Natural Jack Pine	Poletimber Well	61	81-110	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No Site Condition:

Prescription Harvested the stand as a clear cut without retention. Then trench and plant the stand to red pine including stand 28 if at the time regeneration is not Specs:

Next Step SitePrep, Roller Chopping; Pesticide, Skidder/Mechanical; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr);

Treatments: Monitoring, Artificial Regen(3yr)

Acceptable Planted red pine with some natural jack pine and oak.

Regen:

Other Comment:

Proposed Start Date: 10/01/2018

23 73071028.3 M 4122 - Oak, Pine Sapling Immatu Monitorina Natural Regen 42121 - Planted Even-Aged Draft Field onitor Medium re (Intermediate) Jack Pine. Boundary Mixed Deciduous

Habitat Cut: No Site Condition:

Prescription monitor the natural regeneration.

Specs:

Next Step SitePrep, Trenching; Planting, Interplant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)

Treatments:

Acceptable Should be jack pine/oak stand, but oak/jack pine is also acceptable if natural oak regen is vigorous.

Regen:

Other Percent to Treat = 100%

Comment:

Proposed Start Date: 08/10/2018

73071034-Cut 128.6 42250 - Pine, Oak Poletimber 81-110 Harvest Clearcut with 4211 - Planted Even-Aged Draft Field Well Retention Red Pine Boundary

Habitat Cut: No Site Condition:

Prescription Harvest the stand as a clear cut with retention. The retention should be in pockets and set up to minimize problems with spraying if needed. Some of Specs: the retention pockets could be placed along the ORV trail to keep the trail narrow. In addition, retain the trees less than 4" DBH next to the trail. The

trail crosses the stand in one main place so it should not hinder aerial spraying. Most of the over story oak should be harvested to help reduce oak-

pine gall problems.

SitePrep, Roller Chopping; Planting, Initial Plant; SitePrep, Trenching; Monitoring, Artificial Regen(1yr); Pesticide, Aerial; Pesticide, Next Step

Skidder/Mechanical; Monitoring, Artificial Regen(3yr) Treatments:

Acceptable Planted red pine mixed with some oak and jack pine

Regen:

Other The stand should be trenched and planted to red pine after it is harvested. Use the trenching to help close the illegal trails in the stand.

Comment:

Proposed Start Date: 10/01/2018

11 73071037-42121 - Planted 1-50 42140 - Planted Draft Field 4.6 Sapling 25 Monitoring Artificial Even-Aged Monitor Jack Pine, Mixed Medium Mixed Pine Boundary Regen(3yr)

> Deciduous **Site Condition:**

Prescription monitor artificial regen 3 growing season after planting

Specs:

Next Step **Treatments:**

Habitat Cut: No

Planted red pine with mixed oak and jack pine is acceptable. <u>Acceptable</u>

Regen:

Percent to Treat = 100% Other

Comment:

Proposed Start Date: 10/01/2017

Gladwin Mgt. Unit Report 3 -- Treatments Compartment: 71 s Year of Entry: 2019 а Approval **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** n Age Method Objective Name Density Age Structure Status d CoverType Range **Type** 73071042-3.2 3301 - Low Density Artificial 47 Nonstocked Monitoring 4122 - Oak, Pine Even-Aged Draft Field Deciduous Trees Monitor Regen(3yr) Boundary **Habitat Cut: No Site Condition:** Prescription Monitor artificial regen 3 growing season after planting. Specs: Next Step Treatments: Acceptable planted red pine mixed with oak. Regen: Other Percent to Treat = 100% Comment: Proposed Start Date: 10/01/2017 73071045 14.0 3301 - Low Density Nonstocked Monitorina Artificial 42111 - Planted Two-Aged Draft Field Monitor **Deciduous Trees** Regen(3yr) Red Pine, Mixed Boundary Deciduous **Habitat Cut: No Site Condition:** Prescription monitor artificial regen 3 growing season after planting. Specs: Next Step **Treatments:** Acceptable Planted red pine mixed with oak, and jack pine is acceptable. Regen: Other Percent to Treat = 100% Comment: **Proposed Start Date:** 10/01/2017 47 73071047-54.2 3301 - Low Density Nonstocked Monitoring Artificial 4126 - White, Two-Aged Draft Field **Monitor Deciduous Trees** Regen(3yr) Black, N. Pin Boundary Oak Site Condition: **Habitat Cut: No** Prescription monitor artificial regen 3 growing season after planting Specs: Next Step Treatments: Acceptable Inter-planted red pine with oak is an acceptable outcome. Regen: Other Percent to Treat = 100% Comment: **Proposed Start Date:** 10/01/2017 72 73071072-Cut 170.0 4130 - Aspen Poletimber 43 Draft Field 81-110 Clearcut with 413 - Aspen Even-Aged Harvest Well Retention Boundary **Habitat Cut: No Site Condition:** Prescription Harvest the stand as a clear cut with retention. The retention should be in pockets. Some of these pockets should be along the ORV trail to keep the trail narrow. In addition, the trees within 20' of the ORV trail that are less than 4" DBH should be retained. The trees that are harvested along the trail Specs: should be cut flush with the ground. Also, some of the larger oaks in the stand should be marked to be retained. The harvest will need to be done during dry/frozen conditions. Much of the stand looks like it would be dry in late June or July. However, the drainages may not dry out so the logger will need to work around them.

Next Step Monitoring, Natural Regen (Intermediate) Treatments:

Acceptable aspen mixed with oak, pine and some maple

Regen:

Other In the sale include the grouse drumming log spec.

Comment:

Proposed Start Date: 10/01/2018

S t		GI	adwin Mgt. Unit		Re	port 3	Treatmen	its	Compart Year of E	ment: 71 Entry: 2019	DNR DNR
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
76	73071076- Monitor	26.4	3105 - Mixed Upland Herbaceous	Nonstocke	d		Monitoring	Artificial Regen(3yr)	42121 - Planted Jack Pine,	Two-Aged	Draft Field Boundary
Habit Presci Specs			Site Condition:						Mixed Deciduous		
Next S Treatr											
Accep Reger		id jack pin	e inter-planted with F	Red pine will	be acc	eptable.					
Other Comm		t to Treat	= 100%								
	sed Start Date	_	1/2017					A 255 1 1	4405 BL L N		
85	73071085- Monitor	25.1 4	4125 - Black, N. Pin Oak	Poor	2	lmmatu re	Monitoring	Artificial Regen(3yr)	4125 - Black, N. Pin Oak	Even-Aged	Draft Field Boundary
		r artificial r	Site Condition: regeneration 3 growing		fter plar	nting.					
Next S Treatr											
Accep Reger		er-planted	I with red pine will be	an accepta	ble mix.						
Other Comm		t to Treat	= 100%								
Propo	sed Start Date	10/01	1/2017								
116	73071116-NF	4.5	3102 - Grass	Nonstocke	d	Unspec ified	NonForestMgt	Mowing	3102 - Grass		Draft Field Boundary
			Site Condition: dike for the Molasse be conducted when	s River Floo	ding #3.	It will be	maintained by W	ildlife Division with	n mowing and brush	ning. Periodic o	like
Next S Treatr											
Accep Reger											
Other Comm											
Propo	sed Start Date	_	1/2018								
114	73071138- Monitor	36.2	790 - Other Bare/Sparsely Vegetated	Nonstocke	d		Monitoring	Natural Regen (Intermediate)	4199 - Other Mixed Upland Deciduous	Even-Aged	Draft Field Boundary
		r stand for	Site Condition: natural regeneration								

<u>Other</u>

Regen:

Next Step Treatments:

Percent to Treat = 100%

Acceptable mixture of swamp hardwood, white pine and other conifers

Comment:

Proposed Start Date: 10/01/2020

Specs:

Treatments:

Regen:

Other Comment:

Proposed Start Date:

10/01/2020

73071190-Cut 11.2 4199 - Other Mixed 4199 - Other Draft Field Sawtimber 85 81-110 Harvest Clearcut with Even-Aged Mixed Upland **Upland Deciduous** Medium Retention Boundary Deciduous

Habitat Cut: No Site Condition:

<u>Prescription</u> Harvest the stand as a clear cut with retention. The retention should be kept in pockets. After harvesting trench and plant or interplant with red pine. Specs:

About 15-20% of the stand is wet and may be prone to rutting. These areas should not be trenched and planted.

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

<u>Acceptable</u> mixture of oak, maple, birch, and pines.

Regen:

Other

Comment:

Proposed Start Date: 10/01/2018

S t		G	ladwin Mgt. Unit		Re	eport 3	Treatme	nts	•	tment: 71 Entry: 2019	DNR DNR
a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
192 7	73071192-Cut	34.4	42221 - Natural Jack Pine, Mixed Deciduous	Poletimber Medium	41	51-80	Harvest	Clearcut with Retention	4211 - Planted Red Pine	Even-Aged	Draft Field Boundary
			Site Condition: d as a clearcut with r trenched and planted	etention. The							inds. The
Next S Treatn	<u>step</u> SitePre nents: Regen(Chopping; SitePrep	o, Trenching;	Planti	ing, Initial	Plant; Pesticid	e, Aerial; Monitori	ng, Artificial Reger	n(1yr); Monitor	ing, Artificial
Accep Regen		I red pine	mixed with oak, map	ole, and aspe	en						
Other Comm											
Propos 201	73071201- Monitor	7.7	1/2018 6113 - Lowland Maple	Poletimber Poor	32	1-50	Monitoring	Natural Regen (Intermediate)	611 - Lowland Deciduous Forest	Even-Aged	Draft Field Boundary
	at Cut: No iption check r	egenerati	Site Condition: ion in 2021								
Next S Freatn											
Accep Regen		swamp ha	ardwood with some o	onifer.							
<u>Other</u> Comm	ient:										
Propos	sed Start Date:	10/0	1/2020								
204	73071204- Monitor	27.1	4126 - White, Black, N. Pin Oak	Sawtimber Medium	85	51-80	Monitoring	Natural Regen (Intermediate)	4191 - Mixed Upland Deciduous with Conifer	Uneven- Aged	Draft Field Boundary
	•	the stand	Site Condition: for natural regenera								
Next S Freatn											
Accep Regen		of swam	p hardwood and con	ifers							
Other Comm											
	sed Start Date:	10/0	1/2020								
211 7	73071211-Cut	11.0	4199 - Other Mixed Upland Deciduous	Poletimber Well	96	81-110	Harvest	Clearcut with Retention	4319 - Mixed Upland Forest	Even-Aged	Draft Field Boundary
			Site Condition: d as a clear cut with			_		and placed around	any vernal ponds.	In addition, ma	ark some oak
Next S	<u>step</u> Monitor		ral Regen (Re-Inven	tory)							

Acceptable maple, oak, pine, and aspen

DEQ permit will be needed to access the stand.

10/01/2018

Treatments:

Regen: Other

Comment:

Proposed Start Date:

Gladwin Mgt. Unit Report 3 -- Treatments Compartment: 71 s Year of Entry: 2019 а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type** Age Approval n Method Objective Structure Status Name CoverType Density d Age Range Type 73071219-Cut 6117 - Lowland Single Tree 611 - Lowland Draft Field 219 10.8 Sawtimber 95 81-110 Harvest Two-Aged Deciduous, Mixed Well Deciduous Boundary Selection Coniferous Forest **Habitat Cut: No** Site Condition: Portable Bridge Needed Prescription The stand needs to be harvested. The best access is through stand 215. The creek in the stand could be crossed by using a crane mat bridge for skidding. If harvested do a selection taking the BA down to 70. Retain the larger white pine, red pines, and hemlock. There are areas of dense white Specs: sap/pole and harvest these areas only if the overstory can be removed without damaging the understory. Monitoring, Natural Regen (Re-Inventory) Next Step Treatments: Acceptable maple, pine, oak and aspen Regen: Access to the stand will be difficult. The stand is isolated by private land and a creek. If harvested a DEQ permit will be needed to get to the stand. Other Comment: **Proposed Start Date:** 10/01/2018 73071231.2 M 12.7 310 - Herbaceous Nonstocked Monitoring Natural Regen 4222 - Natural Even-Aged Draft Field Openland (Intermediate) Jack Pine Boundary onitor **Habitat Cut: No Site Condition:** Prescription Check the regeneration in 2021.

Specs:

Next Step Treatments:

<u>Acceptable</u> Jack pine with mixed lowland deciduous and conifer will be acceptable.

Regen:

<u>Other</u> Percent to Treat = 100%

Comment:

Proposed Start Date: 10/01/2020

Total Treatment 763.8 **Acreage Proposed:**

Compartment: 71

Gladwin Mgt. Unit

Steve Nyhoff: Examiner Year of Entry: 2019

Availa	bility for	Managemer	nt								
Total	Acres	Acres Avail	Acres	D	omina	nt Site	e Cond	ditions	3		
Acres	Available	With Condition	Not Available		2D	5B	2A	2G	2H	3D	5E
347	347	0	0	Aspen				0			
39	39	0	0	Bare/Sparsely Vegetated							
16	16	0	0	Bog							
12	1	0	11	Cedar				11			
61	61	0	0	Herbaceous Openland							
845	781	0	64	Jack Pine				46		19	
109	103	0	6	Low-Density Trees				6			
128	22	0	106	Lowland Aspen/Balsam Poplar				27	79		
54	16	0	38	Lowland Conifers				38			
564	121	26	417	Lowland Deciduous	26		20	360	36		
109	50	0	58	Lowland Mixed Forest				34	25		
309	269	0	39	Lowland Shrub				39	0		
688	688	0	0	Marsh							
266	251	11	4	Mixed Upland Deciduous	11		4				
166	157	0	9	Natural Mixed Pines				9			
116	51	0	65	Northern Hardwood			8		56		
396	347	6	43	Oak		6		18	6	13	7
14	14	0	0	Paper Birch							
17	17	0	0	Red Pine							
60	59	0	1	Treed Bog				1			
348	276	53	20	Upland Mixed Forest	29	23	20				
2	2	0	0	Upland Shrub							
46	45	0	1	Urban				1			
193	193	0	0	Water							
44	28	0	15	White Pine				15			
4,949	3,953	96	899	Total Forested Acres	67	30	53	606	202	32	7
	80%	2%	18%	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.

	ominant Site nd Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	25	Unspecified	Unspecified	Unspecified	Unspecified

Gladwin Mgt. Unit
Steve Nyhoff: Examiner

	Comments:						
2	Unavailable	2A: Adjacent landowner denied access	4	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
	Comments:						
3	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

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7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	47	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	11	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
9	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	15	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	50	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
11	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	41	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						

Compartment: 71

		Nyhoff : Examiner				Year of Entry: 201	19
12	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
13	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	25	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
14	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	76	2A: Adjacent landowner denied access	Unspecified	Unspecified	Unspecified
(Comments:						
15	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
16	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	1	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Gladwin Mgt. Unit

Gladwin Mgt. Unit
Steve Nyhoff: Examiner

18	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	Unspecified	Unspecified	Unspecified	Unspecified
Co	omments:						
19	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5	2A: Adjacent landowner denied access	Unspecified	Unspecified	Unspecified
Co	omments:						
20	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	33	2A: Adjacent landowner denied access	Unspecified	Unspecified	Unspecified
Co	omments:						
21	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	26	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
Co	omments:						
22	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	15	2A: Adjacent landowner denied access	Unspecified	Unspecified	Unspecified
	omments:						

Gladwin Mgt. Unit
Steve Nyhoff: Examiner

23	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	25	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
C	Comments:						
24	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	29	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
25	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	15	Unspecified	Unspecified	Unspecified	Unspecified
C	comments:						
26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	36	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
27	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	25	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Compartment: 71

Steve Nyhoff: Examiner						Year of Entry: 20	19
28	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
29	Unavailable	3D: Recreational / Scenic values	19	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
30	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	7	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
31	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	25	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
32	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	12	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
33	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	11	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Gladwin Mgt. Unit

Gladwin Mgt. Unit
Steve Nyhoff: Examiner

	Unavailable	2A: Adjacent landowner denied access	40	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
36	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
C	omments:						
37	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	37	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
38	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
39	Unavailable	2A: Adjacent landowner denied access	9	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
C	omments:						
40	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	39	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						

Gladwin Mgt. Unit
Steve Nyhoff: Examiner

41	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
42	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	8	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
43	Available	5B: Maintain for regeneration purposes	24	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
44	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
45	Unavailable	3D: Recreational / Scenic values	14	Unspecified	Unspecified	Unspecified	Unspecified
(Comments:						
46	Unavailable	5E: Long-Term Retention	7	Unspecified	Unspecified	Unspecified	Unspecified

Gladwin Mgt. Unit
Steve Nyhoff: Examiner

47	Available	5B: Maintain for regeneration purposes	6	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
48	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	11	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
49	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	29	Unspecified	Unspecified	Unspecified	Unspecified
С	omments:						
50	Available	2D: Portable Bridge Needed (Dept. bridge will be adequate)	16	Unspecified	Unspecified	Unspecified	Unspecified
С	Comments:						

Mgt. Unit

Compartment: #Type! Year of Entry:



Report 5 - 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				

Mgt. Unit Compartment:
Year of Entry

Report 6 - EXISTING SPECIAL CONSERVATION AREA DETAILS



* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

Conservation Type Description
Area

ERA = Ecological Reference Area

HCVA = High Conservation Value Area

SCA = Special Conservation Area

S t	Gladwin	Gladwin Mgt. Unit				Stands Compartment: 71 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42200 - Natural White Pine	Poletimber Poor	16.8	42	1-50	The stand was harvested in June of 2016 under contract number 73-016-11-01, Buffalo Trace. It was a 2" clear cut retaining white pine and green marked trees. The retention is in the form of scattered leave trees. The crown closure is just over 25%. The west side, along Center Fireline has a decent stocking of aspen and maple regeneration. In the rest of the stand the regeneration is minimal at the current time. The stand has a treatment to monitor regeneration in 2019.
2	4125 - Black, N. Pin Oak	Sawtimber Poor	16.4	83	1-50	The stand had an oak shelterwood/salvage treatment in 1992. Then in 2002 and 2004 portions of the stand were planted to jack pine. These are most visible along Center Fireline.
3	4125 - Black, N. Pin Oak	Poletimber Well	8.2	24	1-50	The stand was harvested in 1992 in Center-Grim Oak, sale #73-008-92-01. The crown closure is around 75%.
6	4131 - Aspen, Oak	Poletimber Well	24.5	40	51-80	The ground is wet, because the water table reaches the surface as the stand slopes down to the river. Therefore, the stand has numerous seeps. The cedars are concentrated along the river.
7	4131 - Aspen, Oak	Sapling Well	48.7	30	1-50	The stand has some scattered sawlog oaks. The oak is concentrated in the north-east portion of the stand and along the river.
8	4199 - Other Mixed Upland Deciduous	Sapling Well	23.1	13	1-50	The stand was seed tree harvested. The residual oak is 10-20 BA The white pine < 4" DBH was retained. The stand is on a ridge. There is an illegal ORV Trail on it.
9	4126 - White, Black, N. Pin Oak	Poletimber Well	34.7	42	51-80	The aspen is in the west end of the stand. The area is closed to motorized vehicles. However, there is still a trail being used in the stand by both ORV and dirt bikes. The use is not extensive but it is enough to keep the tread free of vegetation. There is some mortality in the stump sprout oak. It looks like it could be root rot. The mortality is concentrated along the illegal trail.
10	4131 - Aspen, Oak	Poletimber Well	18.7	42	81-110	The stand could be harvested as a clear cut with retention. The retention should be kept in patches. The stand has a broad base drain going through it, which is located in the southern half of the stand.
11	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Medium	9.6	25	1-50	The jack pine in the stand is heavily galled. It is concentrated on the lower ground. The oak in the stand is concentrated on the ridges.
13	6112 - Lowland Aspen	Poletimber Well	20.2	40	81-110	The stand has a ridge along Grin Road. However, much of the stand is a mix of uplands and lowlands with lowlands being the majority. It has inclusions of lowland shrubs. The terrain is hummocky. The stand could be harvested as a clearcut with retention. The retention should be kept in patches. The harvest will have to be done when it is dry or frozen.

42121 - Planted Jack

Pine, Mixed Deciduous

14

Poletimber

Well

10.6

42

81-110

The stand is pole size jack pine that could be harvested. Hold the

stand for now and harvest in 10 years.

S t	Gladwii	Gladwin Mgt. Unit			– Forested	Stands Compartment: 71 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
15	4122 - Oak, Pine	Sapling Well	12.6	14	Immature	The stand is filling in with the planted pine and natural oak
18	4199 - Other Mixed Upland Deciduous	Poletimber Medium	29.0	66	51-80	This stand is the slope that goes down to the flood plain of the Little Molasses River. The slope and the uplands are heavy to oaks. The lowlands are heavy to maples. The ash on the flood plain is dead and coming down making canopy gaps. These gaps are filling in with maple and shrubs. The stand has a history of illegal activity using the slope as a hill climb. These are still visible but they have grassed in.
19	42110 - Planted Red Pine	Poletimber Medium	17.2	44	111-140	The stand was harvested in the summer of 2014 in Highland Oak, sale number 73-008-10-01. The harvest made rows through the stand. However, the part of the stand west of the section line was not thinned. The thinning took the BA down to around 110 BA.
20	4199 - Other Mixed Upland Deciduous	Sapling Well	38.8	16	Immature	The stand was harvested in 2001 in Grim Hill Split, Sale #73-028-00-01. The aspen is in pockets in a matrix of oak and maple.
21	4310 - Pine, Oak Mix	Sapling Medium	78.6	14	Immature	The ground cover is heavy to sedges, with a trace of bracken fern, sweet fern, and blueberry. There are a few bigtooth aspen clones and jack pine in pockets. The jack pine regeneration is heavily galled. The planted red pine is starting to compete with the oak, though it is being suppressed in areas. It appears that the stand was planted twice. The older red pine is around 14 years old and the younger is around 6 years old. The stand should be a nice mix of oak and red pine when it matures. It will have some scattered pockets of aspen and jack pine. There is still some ORV activity but it is minimal. The terrain is hilly.
23	4122 - Oak, Pine	Sapling Medium	85.1	14	Immature	The stand was harvested in 2001 in Grim Hill Split, Sale #73-028-00-01. The stand was planted to jack pine which is now heavily galled. The galling of the jack pine is bad enough to cause mortality as the galls die. The oak regeneration is heaviest on the ridges and the jack pine in the swales. The terrain is undulating.
24	42220 - Natural Jack Pine	Poletimber Medium	18.9	62	51-80	The stand is the Gladwin Scramble Area which is surrounded by guardrails. The trees in the area range in size from seedlings to logs.
25	6112 - Lowland Aspen	Poletimber Well	23.0	78	51-80	This stand is on the flood plain of the Little Molasses River. The aspen overstory is declining and the understory red maple will take over in time. Because of the wetness and BMPs the stand should not be harvested.
26	6126 - Lowland Jack Pine	Poletimber Medium	14.8	26	1-50	The stand was cut in 1991 in Centerfire Break-up Sale, Sale #73-012-90-01. The jack pine regeneration is heavily galled. This is causing some mortality and branch dieback. Most of the stand is jack pine over leather leaf with some scattered upland areas.
27	42220 - Natural Jack Pine	Poletimber Well	10.3	61	81-110	The overstory is declining and it should be harvested as a clear cut without retention. Then trench and plant red pine including stand 28. The planting should be red pine because of the high occurrence of gall rust in the area

S t	Gladwin	Gladwin Mgt. Unit			– Forested	Stands Compartment: 71 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
29	4311 - Pine, Aspen Mix	Poletimber Well	17.5	44	81-110	The west edge of the stand is wetter than the east edge. The stand is heavier to hardwoods at the north end and pine is heavier at the south end. There is a traditional hunting camp in the north end of the stand.
30	42120 - Planted Jack Pine	Sapling Medium	16.3	34	51-80	The stand is a mix of uplands and lowlands with the uplands being the majority. The lowlands include some small bogs of leather leaf and blueberry.
31	4122 - Oak, Pine	Poletimber Well	9.4	35	51-80	The stand's regeneration is mainly stump sprout oak.
32	6113 - Lowland Maple	Poletimber Well	5.0	20	1-50	The overstory oak is dying. The red maple and birch understory is taking over. There is a slight ridge along the east side. On this slight ridge is where most of the declining oak is located.
33	4126 - White, Black, N. Pin Oak	Sawtimber Well	13.6	81	51-80	This stand is mainly a ridge of medium-heavy oak. The northern end is more level and wetter. The oak is declining and the understory of maple and other species are taking over.
34	42250 - Pine, Oak	Poletimber Well	128.6	44	81-110	The stand is doing okay. It has veins of oak and scattered aspen. The ridges are heavy to oak. This is where most of the white oak is found. There is also significant mortality in the oak on these ridges. The stand could be harvested as a clear cut with retention. The retention should be in pockets. Most of the over story oak should be harvested to help reduce oak-pine gall. After harvesting trench and plant to red pine. The harvest should be done in late summer and fall to allow some scarification and when the stand is dryer. The stand could also be harvested in the winter when the stand is frozen.
35	4310 - Pine, Oak Mix	Sapling Well	36.0	15	Immature	The stand was harvested in 2002 in Far Back Jack, Sale #73-042-99-01. The west side of the stand has areas that are wet and where the regeneration is low. Over all, the crown closure is closer to 75%. Gall rust is causing a low level of mortality and branch dieback at the current time.
36	4125 - Black, N. Pin Oak	Poletimber Well	6.5	31	1-50	This area is mainly stump sprouts of oak. The terrain is undulating to rolling.
38	6126 - Lowland Jack Pine	Poletimber Well	37.2	43	81-110	The stand is a 50-50 mix of uplands and lowlands. The southern portion of the stand is wetter. There are inclusions of leatherleaf that are too wet to harvest. The stand also has some droughty ridges. The overall crown closure is around 75% because of blow down and stem breakage.
39	4122 - Oak, Pine	Sapling Well	15.8	20	Immature	When the stand was harvested some of the 4" DBH oaks and conifers were retained. The stand has a landing in it which was used to harvest stand 114. It lies along stand 110. Stand 39 has pockets of wet ground having leatherleaf as ground cover scattered in it.
40	42220 - Natural Jack Pine	Poletimber Well	5.5	23	81-110	The stand is in a depression that is a mix of uplands and lowlands with the uplands being around 55%.

S t	Gladwin	Gladwin Mgt. Unit			– Forested	Stands Compartment: 71 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	16.2	26	51-80	The stand was cut in 1991 in Centerfire Break-up Sale, sale #73-012-90-01. The stand was planted to jack pine which is now suffering from heavy occurrence of gall rust. This has cause some mortality and branch dieback and breakage.
43	42120 - Planted Jack Pine	Sapling Medium	21.3	32	Immature	The stand is mostly uplands with a few scattered pockets of bogs. Most of them are small in size. There is a lot of blow down and stem breakage in the jack pine.
44	42250 - Pine, Oak	Poletimber Poor	5.7	26	1-50	The stem density was too high in the stand to allow interplanting.
45	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	16.9	66	51-80	This is the slope that goes down to the floodplain of the Little Molasses River.
46	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Medium	5.3	25	Immature	The stand was harvested in 1993 in Center-Grim Jack Pine, sale #73-010-92-01. When it was harvested some of the oaks were retained.
48	6126 - Lowland Jack Pine	Poletimber Well	13.8	36	81-110	The stand is seasonally flooded. The jack pine has heavy blow down and stem breakage from wind storms. This has thinned out the stand.
49	4125 - Black, N. Pin Oak	Poletimber Medium	5.1	33	51-80	This is a ridge that runs along stand 106.
50	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	14.6	27	1-50	The stand is starting to become a pole stand. However, most of the jack pine is around 4" DBH. The west edge of the stand is heavy to hardwoods. The stand has heavy galls causing branch dieback, leader kill, and breakage resulting in poor growth and poor form.
51	4125 - Black, N. Pin Oak	Sawtimber Medium	6.2	78	1-50	The stand is in a depression. There are some openings and a mixture of overstory sawlogs and understory saplings and poles.
52	4126 - White, Black, N. Pin Oak	Sawtimber Well	10.4	72	81-110	The stand is on a ridge that slope steeply to stand 106.
53	42120 - Planted Jack Pine	Sapling Well	49.2	15	Immature	The stand was harvested in 2004 in Grim Highlands, sale #73-005- 01-01. The planted jack pine has significate gall rust causing poor form, branch die back and mortality.
54	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	20.5	25	51-80	The stand was harvested in 1993 in Center-Grim Jack Pine, sale #73-010-92-01. It was planted to jack pine that had some

42121 - Planted Jack

Pine, Mixed Deciduous

55

Sapling Well

17.6

32

51-80

#73-010-92-01. It was planted to jack pine that had some mortality. The stand is now a patchy mix of jack pine and oak. The jack pine also has a moderate amount of gall rust.

The stand was harvested in 1993 in Center-Grim Jack Pine, sale

#73-010-92-01. This is a jack pine plantation. When it was harvested some of the white pines were left. The stand has some ridges that are dry and some very wet depressions of leather leaf.

S t	Gladwin	Gladwin Mgt. Unit			– Forested	Stands Compartment: 71 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
56	42220 - Natural Jack Pine	Poletimber Well	21.5	40	81-110	The stand was harvested in 1985 in the Two Blind Sale, Sale #73-124-83-01. There is heavy mortality in the form of blow down. The stand looks like it is thinning itself. The crown closure is now closer to 75%.
57	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	59.0	23	Immature	The stand is mostly jack pine through the center and a mix of oak and pine at the south end. There is a small pocket of leather leaf along the north line.
58	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Medium	35.5	25		The stand was harvested in 1993 in Center-Grim Jack Pine, sale #73-010-92-01. It has some ridges in the southern ½ of the stand. There are also some wet depressions in the northern ½ of the stand.
59	6126 - Lowland Jack Pine	Sapling Well	36.2	22	Immature	The stand was harvested in 1994 in Center-61 Jack Pine. The stand soil condition varies from shallow wet leather leaf depressions to slight ridges. There is significant mortality in the stand that is acting like a thinning treatment. Some of the mortality looks to be caused by root rot, as well as, wind breakage. The jack pine in the stand is also heavily galled.
60	6120 - Lowland Cedar	Poletimber Medium	11.9	114	141-170	The ash in the stand is now dead and coming down. The north edge is purer swamp hardwoods. The rest of the stand is a mixture of swamp hardwoods and swamp conifers. It has significate blow down making the crown closure closer to 50% and navigating the stand difficult
62	4131 - Aspen, Oak	Sapling Well	18.7	17	Immature	The stand was clearcut in 2000. The regeneration is concentrated through the center of the stand, which is a ridge. The edges, especially along stand 60, has heavy deer browse and sparse regeneration.
63	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	3.9	70	51-80	The stand is inaccessible except from the private land to the north or by going across a creek and its very wet flood plain. The aspen has a high mortality with a moderate amount of blow down. On the eastern part of the stand the crown closure is around 25%. The western part has a crown closure around 75%. The stand is on a ridge.
64	4113 - R.Maple, Conifer	Poletimber Well	45.0	83	51-80	The stand has multiple drains running through it. It was thinned in 2000 making the stand multi storied. The major overstory trees are around 83, the pole size middle story is around 35 and the sapling are around 16. The regeneration in the understory is variable going from well to poorly stocked.
65	42201 - Natural White Pine, Mixed Deciduous	Poletimber Poor	5.3	45	1-50	The area is heavily used for disperse camping, especially during the hunting season. The east half is heavily disturbed by ORVs. The form of the overstory white pines show they have been open grown and heavily weevilled. They are saw log size. However, they are not as tall as they should be for their diameter. The understory white pine has a much better form.

s t	Gladwin	Mgt. Unit		Report 7	– Forested	Stands Compartment: 71 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
66	4125 - Black, N. Pin Oak	Sapling Poor	10.5	6	Immature	The stand was harvested in 2011 as a clearcut with reserves. The harvest retained oak with a diameter less than 4" DBH. The sale was Grim Rd Harvest, sale number 73-012-10-01. The regeneration is coming along well but much of the oak regeneration is less than 4' tall. So, it is not considered established yet.
69	4140 - Other Upland Deciduous	Sapling Well	14.1	28	51-80	The stand has a ridge through the center. There is a drainage along the eastern edge of the stand. The western edge is a little wetter than the central portion. However, it looks like it dries out in late summer
71	6117 - Lowland Deciduous, Mixed Coniferous	Sapling Medium	3.3	11	Immature	The stand is mainly wet and there are areas that are not forested. It looks like cedar and hemlock were retained along with some of the white pine when it was harvested. The regeneration is moderate and a portion of it is ash.
72	4130 - Aspen	Poletimber Well	170.0	43	81-110	The stand is highly variable in soils and topography. There are areas that are hummocky. The stand has 2 drainages running through it. The central portion of the stand is heavy to aspen. The edges are more mixed and the northeast end is heavy to maple.
74	4131 - Aspen, Oak	Poletimber Well	9.9	40	51-80	The stand is about 60% uplands. There are areas that are wet, but not too wet to harvest. The crown closure is around 75%.
75	4130 - Aspen	Poletimber Well	56.3	28	1-50	The stand is a mix of uplands and lowlands. The uplands are around 75%. The low areas are depressions and drainages. The soils have evidence of rutting that happened when it was harvested. The rutting looks to have been minor. The stand has a ridge that goes through it.
77	6119 - Mixed Lowland Deciduous Forest	Poletimber Medium	47.0	43	51-80	There is a ridge that runs from east to west thru the middle of the stand. Much of the stand is low and wet. The openings in the crowns that show up on the 2014 imagery are lowland shrub pockets. They are often small with some swamp hardwoods in them so they were not delineated. Overall, the stand is too wet to harvest.
78	42200 - Natural White Pine	Poletimber Well	6.2	35	111-140	The stand is a mix of uplands and lowlands. The uplands consist of a ridge that goes through most of the stand. This ridge is flanked along the north, south, and west edges by wet ground. Overall the stand is around 55% uplands.

42120 - Planted Jack

Pine

79

Sapling

Medium

83.9

13

1-50

The jack pine was planted around 2002. The oak regeneration is coming in but much of it is < 4' tall. The planted jack pine is heavily galled. This has caused some pockets of mortality. The ORV trail runs thru the stand in a couple of places. There are

several wet pockets in the southern 1/3 of the stand, especially along the west edge.

S t	Gladwin	n Mgt. Unit		Report 7	Forested	Stands Compartment: 71 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
80	42201 - Natural White Pine, Mixed Deciduous	Poletimber Medium	15.2	45	111-140	The stand is a mixture of lowland depressions and upland knobs. The understory is heavy to leatherleaf in 40% of the stand. These areas look like they will probably dry out in late summer. The species mix and diameters are highly variable. Oak is heavy in the east end. There are a few aspen clones scattered in the stand. The wetter areas have a strong component of red maple mixed in with the overstory. The ORV trail runs along the ridge in the southern portion of the stand.
81	6126 - Lowland Jack Pine	Sapling Poor	9.2	8	Immature	The jack pine in the stand is heavily galled. Much of it has a leatherleaf ground cover which looks like it dries out in late summer. The stem density is variable, going from moderate to non-stocked. The ORV trail runs through the stand.
82	42290 - Natural Mixed Pine	Poletimber Medium	10.4	43	51-80	The stand is undulating and is a nice mix of species and sizes.
83	4125 - Black, N. Pin Oak	Poletimber Medium	23.6	40	81-110	The stand is undulating to rolling. There are numerous openings in the canopy making the crown closure around 75%. The ORV trail crosses thru the stand in several places.
84	6139 - Mixed Lowland Forest	Sapling Poor	29.4	8	Immature	The stand is about 40% uplands and 60% lowlands. The aspen regeneration is in scattered clones. The oak regeneration is < 4' tall in much of the stand, so it is not considered established. Within the stand there are some very wet areas that did not regenerate well. Overall the stem count looks to be at a full stocking level.
85	4125 - Black, N. Pin Oak	Sapling Poor	31.4	2	Immature	The stand was harvested as a clearcut with reserves. The trees were cut in the summer of 2011. The stand was planted in 2015 and the regeneration was checked in the spring of 2016. At that time, there was 800 stems/ac of red pine, 1478 stems/ac of oak, and 4 stems/ac of jack pine, totaling 2282 stems/ac of desirable species. There was also 83 stem/ac of cherry. The oak is < 4' tall for the most part so it is not established yet.
87	6128 - Lowland Coniferous, Mixed Deciduous	Sapling Medium	15.8	27	1-50	The crown closure is variable in the stand and it goes from 100% to non-stocked. The stand averages around 50%. The site has a low site index.
88	42221 - Natural Jack Pine, Mixed Deciduous	Sapling Well	15.6	21	Immature	The stand was harvested in 1994 in Center-61 Oak, sale #73-043-93-01. The jack pine is doing well. The occurrence of gall rust is less in this stand but it is still present. The stand gets wetter along stand 234.
89	42290 - Natural Mixed Pine	Poletimber Medium	8.2	103	81-110	The stand was harvested by removing all the maple and aspen and thinning the remaining white pine. In addition, the white pine with a diameter of 8" or less were retained.
90	42220 - Natural Jack Pine	Sapling Well	8.2	21	Immature	The stand was harvested in 1994 in Center-61 Oak, sale #73-043-93-01. The stand is mostly uplands with inclusions of leather leaf. The occurrence of gall rust is also present but not as bad as in other stands.

6111 - Lowland Balsam

Poplar

93

Poletimber Well

2.7

33

51-80

The stand is an island in a willow and marsh grass depression. So, it is blocked by a physical obstacle.

S t	Gladwir	Gladwin Mgt. Unit				Stands Compartment: 71 Year of Entry: 2019		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
94	6113 - Lowland Maple	Poletimber Well	5.2	29	1-50	The stand is a depression and it is very wet. The crown closure is closer to 75%.		
95	6112 - Lowland Aspen	Poletimber Medium	5.6	28	51-80	The eastern portion of the stand is manageable but it grades to being too wet on the western edge. The crown closure is around 75%		
96	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	23.9	24	1-50	The stand was harvested in 1993 in Center-Grim Oak, sale #73-008-92-01. There is heavy deer browse in some areas. However, there is good natural regeneration throughout the stand. The jack pine is concentrated in north west end.		
97	6113 - Lowland Maple	Poletimber Medium	24.1	32	51-80	The ash in the stand is dead and coming down. The aspen is mostly dead. There are still some live trees but they are in small scattered pockets. Overall the stand is too wet to harvest even though there are some dryer knobs and ridges.		
98	6113 - Lowland Maple	Poletimber Poor	28.7	41	1-50	The stand grades from poles to small sap and from somewhat operable to inoperable going from east to west. There are inclusions of lowland shrubs in the western portion of the stand. What ash was in the stand is dead and coming down.		
103	4122 - Oak, Pine	Poletimber Well	10.1	37	81-110	The stand is mainly a ridge that is heavy to oak stump sprouts. The terrain is rolling.		
104	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Medium	15.4	10	Immature	This is a jack pine plantation. The terrain is rolling. There is a moderate level of mortality in the planted jack pine. The open areas have oak, red and white pine. The jack pine has heavy gall rust and the white pine has weevils.		
107	6127 - Lowland Pine	Poletimber Poor	10.6	33	51-80	The stand is mainly lowlands that are quite wet. There are some limited upland ridges present in the stand.		
112	6113 - Lowland Maple	Poletimber Medium	6.7	50	1-50	The stand is mainly lowland deciduous. There are some large diameter white pines along the edges		
113	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Medium	4.9	48	1-50	This stand is very wet with mucky soils. Overall, it is too wet to harvest.		
115	6126 - Lowland Jack Pine	Sapling Medium	10.6	25		This is a wet depression of jack pine over leather leaf and sheep laurel. It is too wet to harvest.		
118	4119 - Mixed Northern Hardwoods	Poletimber Medium	41.4	22	1-50	The stand is mainly uplands with several lowland inclusions. The stand was harvested in 1995 in Hougen Access Sale, Sale #73-011-94-02.		
120	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	20.1	66	1-50	This stand is a low ridge with numerous inclusions of alder. Factor Limit. Inaccessible and too wet.		

S t	Gladwin	Mgt. Unit		Report 7	– Forested	Stands Compartment: 71 Year of Entry: 2019		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
121	6112 - Lowland Aspen	Poletimber Well	76.4	38	51-80	This stand is a matrix of uplands and lowlands with the lowlands being the majority. There are veins of some very wet ground along stand 123. These areas include some drainages.		
124	6113 - Lowland Maple	Poletimber Well	2.5	48		This stand is a peninsula of swamp hardwoods with inclusions of alder with some scattered white birch saplings.scattered white birch saplings		
125	6119 - Mixed Lowland Deciduous Forest	Poletimber Well	1.4	48		The stand is isolated by stand 123 and private land.		
126	6113 - Lowland Maple	Sapling Medium	6.4	17	Immature	The stand looks like it has been heavily impacted by beaver wher stand 70 was flooded. The maple and birch has regenerated.		
128	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	18.5	21	Immature	The old ORV trail runs through the stand. There were some residual oaks left when the stand was harvested.		
129	6127 - Lowland Pine	Sawtimber Well	8.7	87	141-170	The stand is wet by M-61 and there is a wet swale in the center of the stand. The uplands to lowlands mix is around 50-50.		
131	6139 - Mixed Lowland Forest	Poletimber Medium	9.2	57	1-50	The stand is an open wet area. This area is filling in with maple, white pine, tamarack, and birch. There are some larger oaks, pines, and maples scattered in the stand		
134	42220 - Natural Jack Pine	Sawtimber Well	24.6	43	81-110	The center portion of the stand is wet. The edges of the stand are dry. The mix of uplands and lowlands is 60% wet to 40% dry.		
135	4319 - Mixed Upland Forest	Poletimber Medium	26.0	45	51-80	The stand has a high ridge along stand 132. The southern leg of the stand has a fairly dense understory of conifers. The regeneration is lower throughout the rest of the stand.		
136	6127 - Lowland Pine	Poletimber Medium	12.1	32	51-80	The center of the stand is wet. The east edge has a low ridge.		
137	42220 - Natural Jack Pine	Poletimber Well	12.0	43	81-110	The stand was trenched and planted to jack pine. It has a lot of down woody material from wind throw and stem breakage. Overall, the crown closure is closer to 75%.		
139	6113 - Lowland Maple	Poletimber Medium	25.6	43	1-50	This is the portion of stand 114 that was not harvested. It is very wet with some slight ridges. At the far north east corner there is a narrow drainage that separates stand 139 and 143 which can be crossed by foot. It would take a large number of crane mats or very frozen conditions to cross it with equipment.		
140	4125 - Black, N. Pin Oak	Sawtimber Well	6.8	83	51-80	The stand is a ridge that is crossed in several places by drainages. But these drainages are very narrow.		

6139 - Mixed Lowland

Forest

141

Sawtimber

Well

25.4

83

The stand is about a 50-50 mix of uplands and lowlands. There are inclusions of leather leaf. The jack pine and oak are declining $\frac{1}{2}$

S t				Report 7	– Forested	Stands Compartment: 71 Year of Entry: 2019	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
143	6113 - Lowland Maple	Poletimber Well	32.5	43	81-110	The stand is mostly lowlands with some slight ridges. The red maple is mostly multi-stem pole size trees. The aspen in the stand are located on the slight ridges and knobs in the stand.	
144	4119 - Mixed Northern Hardwoods	Sawtimber Medium	8.6	35	51-80	The overstory is declining and coming down. The under story is taking over the stand. There are pockets of treed bogs in the stand.	
146	4119 - Mixed Northern Hardwoods	Sawtimber Well	15.6	82	51-80	The stand is a series of long narrow knobs. The areas between the knobs are tag alder drains that are very wet. The soils in them are mucky. Some of the oaks are oversized saw logs that are declining.	
150	6139 - Mixed Lowland Forest	Poletimber Well	24.5	42		The stand is land locked by a large marsh system and private land. From the 2016 imagery there appears to be areas of high mortality.	
151	42220 - Natural Jack Pine	Poletimber Well	65.7	41	51-80	The stand has less oak than Stand 34. The stand could be harvested as a clear cut with retention. The retention should be in pockets. Most of the over story oak should be harvested to help reduce oak-pine gall. After harvesting plant to red pine.	
152	4199 - Other Mixed Upland Deciduous	Sapling Well	40.6	21	1-50	The stand was harvested in 1994 in Center-61 Oak, sale #73-043-93-01. The crown closure ranges from around 25% to 100%. However, it averages around 75%. There are inclusions of low wet depressions with leather leaf ground cover and droughty ridges of poverty grass and sweet fern.	
154	6113 - Lowland Maple	Poletimber Poor	48.5	43	51-80	The stand is wet overall. There are some dryer knobs but they are scattered. The ash is dead making some large canopy gaps. The overall, crown closure is close to 50%.	
155	6113 - Lowland Maple	Poletimber Well	38.5	44	81-110	The stand is a mixture of uplands and lowlands. There are a couple of ridges and a couple of broad base drains. Portions of the stand are manageable but there are areas that are too wet to harvest. The ash in the stand is dead. The southern ½ has more aspen.	
156	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Medium	6.8	43	51-80	Overall the stand is too wet to harvest.	
157	6131 - Hemlock, White Pine, Maple, Birch	Sapling Poor	4.6	10	Immature	The stand was clear cut in Aug '07. The regeneration of maple is from stump sprouts, the white pine regeneration is from seeds, plus there are a few oak seedlings. Most of the regeneration is now above the deer. The stand is too wet to trench and plant to bring it up to full stocking but some seeding in of pine is occurring.	
158	4310 - Pine, Oak Mix	Poletimber Well	16.8	22	Immature	The stand was harvested in 1995 in Center-61 Corner, sale #73-045-93-01. The stand is doing fairly well. However, the jack pine is galled and the white pine is weevilled.	
160	6126 - Lowland Jack Pine	Sapling Well	6.3	22	Immature	The stand was harvested in 1994 in Center-61 Jack Pine. This stand is wet and has the ground cover of sheep laurel and leatherleaf.	

S t	Gladwii	Gladwin Mgt. Unit			– Forested	Stands Compartment: 71 Year of Entry: 2019	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
165	42220 - Natural Jack Pine	Sapling Poor	9.7	9	1-50	The stand was salvaged in 1995 in Center Salvage #1, Sale #73-009-95-02. It was then seed tree harvested March '07. The east end of the stand has good pine regeneration. There is decent oak regeneration throughout the rest of the stand. However, most of it is still less than 4' tall so it is not established. The oak is also heavily browsed by deer.	
168	42250 - Pine, Oak	Sapling Well	13.2	21	51-80	The stand consists of a ridge and swales. The jack pine has some gall rust but it is not as heavy as in other stands. There is a ridge along the southern edge with about 40 BA of log sized oak.	
170	4112 - Maple, Beech, Cherry Association	Sapling Well	5.2	21	Immature	This is a low wet area along stand 172 that is dominated by sapling red maple.	
173	6139 - Mixed Lowland Forest	Sawtimber Well	8.4	80	81-110	The stand is a mixture of uplands and lowlands. The uplands make up only 40%. The lowlands are heavy to leatherleaf groun cover under jack pine and maple.	
174	6126 - Lowland Jack Pine	Sapling Medium	5.8	27	1-50	The stand is dryer than stand 87 but still quite wet. It also has a denser crown closure.	
175	4310 - Pine, Oak Mix	Sapling Poor	17.5	9	Immature	The stand was salvaged in 1995 in Center Salvage #1, Sale #73-009-95-02. Then it was clearcut in 2007. The residual oak was less than 10 BA. The regeneration is variable going from well to poorly stocked. The east end has regenerated well to jack pine and oak and the west end has a moderate stocking of aspen. Through the rest of the stand there are oak seedlings which are less than 4' tall mixed with some pine. The overall crown closure is just above 25%.	
177	6113 - Lowland Maple	Poletimber Well	7.9	43	81-110	The stand is too wet to harvest and there are some drainages flowing through the stand from stand 172 to 176.	
180	4199 - Other Mixed Upland Deciduous	Poletimber Poor	19.1	36	1-50	The stand was harvested as a shelterwood in 2016. All ash was removed. All the oak and marked maple were retained reducing the BA to around 40 sq. ft. Most of the stand is upland, but the wettest areas are at the west end and along the southern boundaries. These areas were painted out for retention. The regeneration will need to be checked in 2020.	
184	4310 - Pine, Oak Mix	Sapling Medium	83.3	19	1-50	The stand was harvested in 1998 in Center Fire Seed Tree, sale #73-067-96-01. The crown closure ranges from 25 to 100% and averages between 50-75%. The residual oak is less than 10 BA. The jack pine regeneration is heavier to the east. The aspen and maple regeneration is heavier along the south side.	
186	6113 - Lowland Maple	Poletimber Medium	55.3	85	81-110	The stand is too wet to harvest. There are a couple of ridges that could be treated but they are narrow and make up only a small number of acres. The west 1/2 is dryer than the east 1/2. The ash in the stand is dead and coming down. The gaps that were created are filling in with Michigan holly and maple seedling.	

188 ⁴² 189 ⁶ 190 ⁴	Level 4 Cover Type 3113 - Lowland Maple 32120 - Planted Jack Pine 3126 - Lowland Jack Pine 4199 - Other Mixed Upland Deciduous	Poletimber Medium Poletimber Well Poletimber Medium	Acres 24.7 14.0 4.7	Stand Age 85	BA Range 1-50 81-110	General Comments: The stand is too wet to harvest. The stand has some dryer ridges but they are narrow and do not amount to much acreage. The ash in the stand is dead and coming down making larger canopy gaps. The gaps are filling in with lowland shrubs and maple. The crown closure is now closer to 50%. There is a lot of mortality in the jack pine mainly in the form of blow down. The jack pine is heaviest in the northern 2/3 of the stand and oak becomes more common in the southern 1/3. The central portion of the stand is very wet and makes up about
188 ⁴² 189 ⁶ 190 ⁴	12120 - Planted Jack Pine 12126 - Lowland Jack Pine 4199 - Other Mixed	Poletimber Well Poletimber Medium	14.0	41	81-110	but they are narrow and do not amount to much acreage. The ash in the stand is dead and coming down making larger canopy gaps. The gaps are filling in with lowland shrubs and maple. The crown closure is now closer to 50%. There is a lot of mortality in the jack pine mainly in the form of blow down. The jack pine is heaviest in the northern 2/3 of the stand and oak becomes more common in the southern 1/3.
189 6 190 4 190 4 Pii	Pine 6126 - Lowland Jack Pine 4199 - Other Mixed	Well Poletimber Medium Sawtimber	4.7			blow down. The jack pine is heaviest in the northern 2/3 of the stand and oak becomes more common in the southern 1/3.
190 ⁴	Pine 4199 - Other Mixed	Medium Sawtimber		21	1-50	The central portion of the stand is very wet and makes up about
192 42 Pii			11 2			10-20% of the stand. The rest of the stand is dryer.
Pir			11.2	85	81-110	The jack pine in the stand is heavier to the west and the hardwood to the east. The stand could be harvested as a clear cut with retention. The retention should be in pockets. After harvesting trench and plant or interplant with red pine. About 15-20% of the stand is wet and may be prone to rutting.
196 ⁶¹	42221 - Natural Jack ine, Mixed Deciduous	Poletimber Medium	34.4	41	51-80	The stand is a mosaic of uplands and lowlands with the uplands being the majority. Some of the lowlands are pockets of leather leaf with scattered jack pine. The stand could be harvested as a clearcut with retention. The retention should be in pockets and may be place to protect some of the wetter lowlands. After harvesting plant or interplant with red pine.
	113 - Lowland Maple	Poletimber Poor	44.8	96	51-80	There is a creek that flows along the northern edge of the stand. The eastern ½ of the stand is too wet to treat. The ash in the stand is dead and coming down making large canopy gaps that are filling in with shrubs and maple.
197 ⁴¹²	25 - Black, N. Pin Oak	Sapling Well	2.8	20	Immature	The stand is mainly regenerating from stump sprouts. Overall the DBH is 2 inches. There were some 4" oak left when the stand was harvested but currently they do not make up 10 BA. White pine has started to encroach along the south edge of the stand. The stand is mainly one large knoll.
198 ⁶¹	113 - Lowland Maple	Sapling Medium	3.7	66	51-80	The stand is a wetter area along M-61 that was left for visual. The overstory is declining and starting to come down. The understory maple is taking over the stand. The stand is dry enough that it could be harvested in late summer or winter but continue to hold for now.
199	4199 - Other Mixed Upland Deciduous	Sapling Poor	11.2	9	Immature	The stand was clear cut in April of 2008. The stand is starting to regenerate well but much of the heavy oak regeneration is between 2-4 feet and it is heavily browsed.

6113 - Lowland Maple

6113 - Lowland Maple

201

202

Poletimber

Poor

Poletimber

Well

7.7

12.8

32

62

1-50

51-80

The stand was harvested removing all the ash and aspen. During

the harvest the soils were heavily rutted. The regeneration will need to be checked in 2020.

The ash in the stand is dead, for the most part. However, it is still

standing. The stand looks like it could be treated during a dry summer. The center of the stand is a broad base drain.

Report 7 - Forested Stands



t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
204	4126 - White, Black, N. Pin Oak	Sawtimber Medium	34.2	85	51-80	The stand was harvested as a seed tree retaining mainly oak around 2012. The sprouts are heavily browsed. The slash load is moderate and some of the forest products were left on the ground at the north end.
205	4199 - Other Mixed Upland Deciduous	Sawtimber Medium	11.9	40	1-50	The stand is a ridge that could be harvested. The southern end is heavy to oaks the north end is heavier to maple, oak, jack pine and other species.
206	4125 - Black, N. Pin Oak	Sapling Medium	10.1	17	Immature	The regeneration is coming along well. The density ranges from poorly stocked at the west end to well stocked through the rest of the stand. There is a pocket of conifers along stand 232.
207	4310 - Pine, Oak Mix	Poletimber Medium	23.5	86	1-50	The stand was harvested in 1996. The regeneration is spotty.
208	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	5.8	21	Immature	The stand is a sandy ridge with an old ORV Trail on it which is still being used.
209	6113 - Lowland Maple	Poletimber Well	6.7	32	51-80	Overall the stand is too wet to harvest. The ash in the stand is dead and coming down making crown gaps. These gaps are filling in with red maple. There are 2 dryer knobs in the stand that could be harvested.
211	4199 - Other Mixed Upland Deciduous	Poletimber Well	11.0	96	81-110	Stand is a mixed stand. There are some lower areas that are E6 and some more upland areas that are more M6. Harvest the stand as a clear cut with retention. The retention should be in pockets and placed around any vernal ponds. In addition, mark some oak for retention. DEQ permit will be needed to access the stand.
213	4310 - Pine, Oak Mix	Sapling Medium	29.2	20	Immature	The stand is mainly regenerating from stump sprouts. Overall the DBH is 3 inches. There were some 4" DBH oak left after the harvest but currently they do not make up 10 BA. White pine has started to encroach along the south edge of the stand. There are frost problems in the low-lying areas. The west leg of the stand has regenerated into more of an A3 along the private line. The stand has some problems with white pine weevil and jack pine gall-rust.
215	6113 - Lowland Maple	Poletimber Medium	11.7	95	81-110	The stand is very wet. It has one of the tributaries of Fish Creek flowing through the stand. There are heavy areas of windthrow of mainly cedar and dead ash. Overall the stand is too wet to harvest.
216	6113 - Lowland Maple	Sawtimber Well	15.6	96	81-110	Stand has a lot of tip up mounds and standing water. There are some areas of dryer land but overall it is quite wet. The stand is harvestable in dry summer or frozen winter. If harvested do so as a selection taking the BA down to 80 sq. ft.

S t	Gladwir	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 71 Year of Entry: 2019
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
219	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	10.8	95	81-110	The stand is an oak ridge that most of the oak has died and converted to an upland red maple stand. The stand needs to be harvested. Access to the stand will be difficult. The stand is isolated by private land and a creek. If harvested a DEQ permit will be needed to get to the stand. The best access is through stand 215. The creek in the stand could be crossed by using a crane mat bridge for skidding. If harvested do a selection taking the BA down to 70. Retain the larger white pine, red pines, and hemlock. There are areas of dense white sap/pole and harvest these areas only if the overstory can be removed without damaging the understory.
221	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	36.3	19	Immature	The stand was interplanted with jack pine in 1998. It is a mix of upland ridges and cold air drains that act as frost pockets. The ridges are well stocked with oak and aspen and the lowlands are moderately to poorly stocked with jack pine, oak, and maple.
223	6126 - Lowland Jack Pine	Sapling Medium	4.9	15	Immature	The stand was harvested in 2002 in Far Back Jack, Sale #73-042-99-01 in an out of YOE harvest. The main reason was because of its age and the buildup of jack pine bud worm. The regeneration is patchy and the stand has a moderate stocking level. Part of the problem with the regeneration may be because of the drought in 2001 and 2002. The habitat type is PArVCo.
224	6131 - Hemlock, White Pine, Maple, Birch	Sapling Poor	7.2	19	Immature	The stand is a larger frost pocket that is somewhat wet. It has regenerated to jack pine at a moderate to poorly stocking level.
225	6126 - Lowland Jack Pine	Sapling Medium	9.0	15	Immature	The stand was harvested in 2002 in Far Back Jack, Sale #73-042-99-01 in an out of YOE harvest. The main reason was because of its age and the buildup of jack pine bud worm. The regeneration is at a low to moderate stocking level. Part of the poorer regeneration may have been caused by the drought in 2001 and 2002.
226	6113 - Lowland Maple	Sawtimber Well	25.5	78	51-80	The stand is variable. It has some dry ridges as well as wet swales. Overall the stand is more wet then dry. It could be harvested doing a group selection on the scattered ridges and leaving low wet areas alone.
228	6113 - Lowland Maple	Poletimber Well	20.1	78	81-110	The stand is overall low and wet. There is a small aspen knoll in the center of the stand. The stand has a lot of blow down and course woody debris. There are several very wet drains in the stand that are too wet to harvest.
229	4310 - Pine, Oak Mix	Sapling Poor	20.1	16	Immature	The stand was harvested in a negotiated sale retaining all the trees less than 4" DBH and marked oak. The stand has a lot of ridges and swales. The swales are frost pockets and the oak in them is not doing overly well, on the ridges the oak is regenerating fine. Currently, there is a lot of open ground that is poorly stocked.

6126 - Lowland Jack

Pine

4125 - Black, N. Pin Oak Sapling Well

242

243

Sapling Well

12.4

26.8

27

22

51-80

1-50

The stand is mostly lowlands but there is about 35% uplands.

The stand was harvested around 1995. The harvest removed the

hardwood. The pine was retained. So, there are some pole and log size pines along M-61 and pine scattered throughout the stand.

S t a n d	Gladwin Mgt. Unit			Report 7 – Forested Stands			Compartment: 71 Year of Entry: 2019	DNR
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	Michigan .
244	4125 - Black, N. Pin Oak	Poletimber Medium	8.1	43	1-50	The stand is a slig	ht ridge that weaves between to	reed bogs.
245	4126 - White, Black, N. Pin Oak	Sapling Medium	8.3	19	Immature	Currently, the stand is	sted in 1997. The regeneration is a well-stocked of oak, maple, unt of mortality in the red oak re	aspen. There
246	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	46.3	19	Immature	heavy to grass and	ested in 1997. The stand's ground is mainly by the stand is mainly by the same pack pine. The swales are pine with some oak.	oak on the



Stand	Cover Type	Acres	Managed Site	General Comments:
4	330 - Low-Density Trees	11.1		The stand was harvested around 2012-2013. It has started to regenerate. The north end has moderate to poor regeneration. The south end is doing much better and has 25-50% crown closure which is heavy to aspen. There was a part of the stand that was painted out for retention and to protect some of the wettest ground at the north end of the stand.
5	122 - Road/Parking Lot	7.7	No	This is M-61
12	6229 - Mixed lowland shrub	5.5	No	The stand is mainly lowland shrubs. The water drains through stand 10.
16	629 - Mixed non-forested wetland	6.6	No	The stand is marsh grasses with some slightly dryer knobs of swamp hardwoods. The ash that was in the stand is dead and coming down. The maple that is on the knobs is still doing fairly well.
17	6224 - Treed Bog	6.8	No	The stand is in a depression. It is mainly marsh grasses with pockets of mature trees. The crown closure is only slightly less than 25%.
22	330 - Low-Density Trees	22.0		The east end has a moderate stocking of aspen. However, most of the rest of the stand has scattered oak and jack pine seedlings. The stand was harvested retaining trees less than 4" DBH. The current crown closure is around 15%. The stand has some rolling topography. There is still some illegal ORV but it looks minimal.
28	310 - Herbaceous Openland	5.4		The stand was harvested in summer of 2014 in Highland Oak, sale number 73-008-10-01. The stand is starting to seed in with jack pine but it looks very sparse. The stand should be checked for regeneration after stand 27 is harvested. If the regeneration is not adequate, trench and plant with stand 27.
37	310 - Herbaceous Openland	10.0		In the spring of 2016 the planted red pines were checked for survival. The averaged stem count were 642 stems/ac of red pine, 617 stems/ac oak, and 100 stems/ac of jack pine totaling 1359 stems/ac of desirable species. There was also 67 stems/ac of cherry. The portion of the stand that lies west of the road was not planted but there was a wildfire. This area has regenerated to jack pine and it is well stocked.
42	122 - Road/Parking Lot	3.7	No	The stand is a newer county road which was constructed in 2013/2014. The road is sand and it is currently in good shape.
47	3301 - Low Density Deciduous Trees	76.0		The stand was harvested as a seed tree retaining 10-20 BA of overstory. It was then interplanted/underplanted with red pine in 2015. The planted red pine has a low mortality. The oak regeneration is in pockets and scattered. Most of the planted red pine is free to grow. The oak stems have a moderate amount of browse. The regeneration was checked in the spring of 2016. The results are the stem density averaged 642 stems/ac of red pine, 617 stems/ac oak, and 100 stems/ac of jack pine totaling 1359 stems/ac of desirable species. There was also 67 stems/ac of cherry. However, most of the oak is < 4' tall so it is not established.
61	6225 - Bog	5.0	No	This is an area of heavy leather leaf. There are some jack pines in the stand especially along the northwestern edge.
67	3202 - Autumn Olive/Honeysuckle	2.0	No	The stand is an old autumn olive planting. The autumn olive looks like it has suffered some mortality.



Stand	Cover Type	Acres	Managed Site	General Comments:
68	622 - Lowland Shrub	1.3	No	This stand is part of a drainage that comes out of the south end of stand 72.
70	623 - Emergent Wetland	6.0	No	The stand is a sequence of old beaver floodings. They are not holding much water at the current time. The stand is mainly marsh grass and cattails.
73	310 - Herbaceous Openland	13.0		The stand was harvested in 2015/2016. The stump sprouts have only 1 year of growth. The cones on the residual jack pine branches are just starting to open. The oak and maple sprouts have signs of heavy deer browse. The stand has some upland areas as well as areas that contain leatherleaf.
76	3105 - Mixed Upland Herbaceous	26.6		The stand was planted in 2015 and the regeneration was checked in the spring of 2016. At that time, there was 679 stems/acre of red pine, 1168 stems/acre of oak, 105 stems/acre of aspen, totaling 1952 stems/acre of desirable species. There were also 211 stems/acre of cherry and 142 stems/acre of maple, totaling 353 stems/acre of undesirable species. The oak in the stand is < 4' tall so it is not established. The stand has adequate openings so the red pine will make up about 50 to 75% of the stand as it matures.
86	6220 - Alder/willow	11.1	No	This is a depression of willow and marsh grass.
91	122 - Road/Parking Lot	10.7	No	This is Grim Road and Eastman
92	122 - Road/Parking Lot	13.9	No	This is a newer county road put in during 2013/2014. The surface is sand and it is still in good shape.
99	500 - Water	176.9	No	This is the Molasses #3 River Flooding.
100	6220 - Alder/willow	2.5	No	This is a strip of willow and tad alder.
101	6220 - Alder/willow	2.8	No	waterfowl nesting Island.
102	6220 - Alder/willow	3.8	No	
105	6225 - Bog	1.4	No	This is a well-defined depression of leather leaf.
106	6220 - Alder/willow	160.2	No	
108	6224 - Treed Bog	3.8	No	This is a leather leaf depression with scattered jack pine in it.
109	6224 - Treed Bog	4.4	No	This is mostly wet leather leaf with some veins of slightly dryer land that supports trees. The ash that was on these veins has died.



Stand	Cover Type	Acres	Managed Site	General Comments:
110	6225 - Bog	5.1	No	This is an excellent leatherleaf/blueberry bog.
111	6233 - Wet Meadow	458.9	Yes	This is part of the Molasses #3 River Flooding.
114	790 - Other Bare/Sparsely Vegetate	38.8		The stand is a matrix of upland ridges and lowland swales. It was harvested in 2016. The harvest retained pockets of white pine regeneration and some larger oaks and pines. At the current time, there is no regeneration from the cut trees. There is a lot of slash scattered throughout the stand. The residual overstory was aged at 86 years old. This is according to the previous inventory. The crown closure is right around 25%. However, the north and south ends are non-forested.
116	3102 - Grass	4.5	Yes	This stand is the dike for the Molasses River Flooding #3. It is maintained by Wildlife Division
117	623 - Emergent Wetland	13.5	No	This stand is mostly marsh grass and cattails with some scattered trees along the east side and lowland shrubs along the west.
119	623 - Emergent Wetland	4.7	No	This is a swale of leather leaf with some jack and white pine. The crown closure is around 25%.
122	6220 - Alder/willow	39.0	No	This stand has a channel cut in it.
123	623 - Emergent Wetland	26.6	No	
127	500 - Water	10.1	No	The stand was a beaver flooding. It is not holding as much water as it used to.
132	6220 - Alder/willow	18.9	No	This stand has some scattered tamarack and white pine.
133	310 - Herbaceous Openland	1.9		This stand was once a part of stand 96 but had a fire in 2012. It is now more of an herbaceous open land.
138	6239 - Mixed Emergent Wetland	102.8	No	
142	6220 - Alder/willow	12.7	No	This stand is mainly lowland shrubs with some scattered white pine and tamarack.
145	6220 - Alder/willow	5.9	No	The stand has scattered birch that is sapling size. The stand is very wet and has multiple drainages going out of it through stand 146.
161	122 - Road/Parking Lot	1.8	Yes	ORV parking lot and access road.
162	6225 - Bog	1.3	No	The stand is a depression of leather leaf with some scattered trees.



Stand	Cover Type	Acres	Managed Site	General Comments:
163	122 - Road/Parking Lot	8.2	No	This is Center Fireline Road
169	6224 - Treed Bog	1.6	No	The stand is a treed bog that is pretty far along in succession to willow/alder
171	6220 - Alder/willow	1.0	No	The stand is mainly swamp grass with some scattered quaking aspen.
172	6239 - Mixed Emergent Wetland	56.9	No	This stand is a mix of lowland shrub, wet meadow, emergent marsh, and water.
176	6233 - Wet Meadow	17.2	No	The water in the stand is down and it is now more of a wet meadow.
181	6220 - Alder/willow	2.4	No	The stand is heavy to willow and tag alder which is over marsh grass.
182	500 - Water	5.6	No	The stand is mainly water. However, it looks like it dries out to some degree later in the summer. Previous comment stated that there was only about 35% open water.
194	6225 - Bog	1.1	No	The stand is heavy to leatherleaf
195	6233 - Wet Meadow	1.6	No	The stand is a depression of mainly marsh grass and some lowland shrubs around the perimeter.
210	6224 - Treed Bog	21.1	No	The stand is hard to classify as it is non-forested but it is a 50-50 mix of dry knobs and ridges mix with leather leaf depressions and swales. The stand was harvested around 2007. The regeneration is sparse and heaviest at the west and east end.
212	629 - Mixed non-forested wetland	2.7	No	This stand is low and wet. The ground cover is leather leaf, blueberry and reed grass.
218	629 - Mixed non-forested wetland	4.5	No	The stand was a beaver pond but it is not one now. The stand is still very wet and there is no regeneration in it at the current time.
222	6225 - Bog	2.5	No	This area is a pocket of leather leaf and it is also a frost pocket.
232	629 - Mixed non-forested wetland	15.5	No	
233	6229 - Mixed lowland shrub	12.2	No	The stand is mostly lowland shrubs with islands of trees. Most look to be dead. There are still some jack pines on the dryer portions of the stand.
234	6224 - Treed Bog	6.9	No	The east edge was harvested in 2002 in Far Back Jack, Sale #73-042-99-01. The regeneration had a poor survival. The stand is now mainly leather leaf with some scattered jack pine in the east end of the stand.pine in the east end of the stand.
236	6224 - Treed Bog	10.9	No	This stand is made up of a series of depressions that are mainly treed bogs.

Gladwin Mgt. Unit

Report 8 - Nonforested Stands



Stand	Cover Type	Acres	lanaged Site	General Comments:
237	6224 - Treed Bog	2.9	No	The stand is mainly leatherleaf with islands of trees
239	6224 - Treed Bog	1.5	No	The stand is a depression of leatherleaf and scattered jack pine.