

# **Compartment Review Presentation**

**Gladwin Forest Management Unit** 

Compartment 73026
Entry Year 2018
Acreage: 2,768
County Gladwin

Management Area: Upper Muskegon

Revision Date: 2016-06-13

Stand Examiner: Rick Myrick

**Legal Description:** 

T20N - R02W Sections 2, 11, 15 thru 19, 22, and 28 thru 30

#### **Identified Planning Goals:**

Vegetation management in the Upper Muskegon management area (MA) will provide forest products; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year period will focus on harvesting older jack pine and balancing age class distributions of oak, 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. Expected trends within this 10-year planning period are the need to manage exotic species (especially Phragmites and glossy buckthorn), the need to continue to manage cover types for a balanced age-class distribution and an expected increase in recreation pressure.

#### Soil and topography:

The Compartment is comprised of the Mancelona-Gladwin association; typically level to undulating, well-drained and somewhat poorly drained soils that have a sandy to loamy subsoil; on outwash plains. Also within the Compartment is the Chelsea-Rubicon-Montcalm association; noted as undulating to hilly, well-drained soils that have a dominantly sandy subsoil; on moraines.

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

The Compartment is a fragmented collection of approximately eight large parcels of State ownership. The vast majority of the Compartment is surrounded by private land. Most of the private land interface consists of hunting lands and farmland. There are more concentrated year round and seasonal residential parcels in the Meredith area which includes; the Blue Lake, Island Lake and Grass Lake subdivisions. Consequently there is heavy recreational use of the nearby State owned parcels within the Compartment. Additionally there are a number of public utility ROWs accommodating electric power lines and gas pipelines.

#### **Unique Natural Features:**

There is a known occurrence of Red-shouldered Hawk (Buteo lineatus) - a Michigan threatened species- within the Compartment. The general area may also include: massasauga rattlesnake, blanding's turtle, spotted turtle, and bald eagle. Within the cedar swamps there is potential for rams head orchid, calypso orchid, and limestone oak fern.

#### **Archeological, Historical, and Cultural Features:**

There are no known archeological, historical, or cultural features within the Compartment.

#### **Special Management Designations or Considerations:**

The North Branch Cedar River is a high priority trout stream and its riparian (buffer) zone is designated as a Special Conservation Area (SCA). The Compartment also directly borders a designated High Conservation Value Area (HCVA) - the Gladwin Field Trial Area (GFTA).

#### **Watershed and Fisheries Considerations:**

Approximately three miles of the North Branch Cedar River, a Michigan high priority trout stream, flows south through Compartment 26. The North Branch Cedar River is the only cold water trout stream within the Saginaw Bay watershed. The stream bank should be kept forested where practicable in order to maintain cool water temperatures and provide a shade mosaic for fish cover diversity.

#### Wildlife Habitat Considerations:

Wildlife Habitat Considerations: Compartment #26. Upland systems are dominant in this compartment, making it suitable for a number of early forest successional wildlife species. The majority of stands are aspen with lowland cover types present. Species such as Ruffed grouse, white-tailed deer and American woodcock are quite common. The North Branch

of the Cedar River passes through the compartment. Furbearers including beaver, mink, muskrat, black bear, bobcat, and coyote use the river riparian zone as a travel corridor as well as year-round habitat. Other game species likely to be present in this compartment include raccoon, wild turkey and snowshoe hare. Many bird species stand to benefit from the juxtaposition of lowland and upland habitats present in the compartment. These include common yellowthroat, yellow-rumped warbler, gray catbird, redeyed vireo, white-throated sparrow, hermit thrush and red-breasted nuthatch. The compartment is easily accessible to hunters via Shaw Road on the east and M-18 on the west.

# Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and post glacial alluvium, coarse-textured glacial till, and an end moraine of coarse-textured till. Glacial drift thickness varies between 200 and 600 feet. Beneath the glacial drift are the Jurassic Red Beds and the Pennsylvanian Saginaw and Grand River Formations. The Saginaw Formation is used for clay/shale in other areas of the State. The nearest gravel pit is located just east of the Compartment, and potential is thought to be good on the upland areas. Skeels Field lies in the southwest corner of the Compartment. The field has produced from several Devonian formations and all the old wells in the Compartment have been abandoned.

#### **Vehicle Access:**

The majority of the Compartment has adequate vehicle access via improved and gravel county roads along with state forest two-tracks. There is no vehicle access to; the SW/SE of Section 16, the majority of the W1/2 of Section 21, and the NE/NW of Section 28, due to the river and private land. Additionally the NE/NW of Section 29 is landlocked.

## **Survey Needs:**

Additional Survey work in Sections 21 and 28 would benefit timber sale preparation and document easement necessity west of the Cedar River.

## **Recreational Facilities and Opportunities:**

The designated Meredith-Houghton Lake Snowmobile trail runs through the northwest portion of the Compartment. This trail receives considerable use during the snowmobile season when conditions are right. The Gladwin Field Trial Area (GFTA) is directly north of the Compartment. There is fairly consistent small game and deer hunting pressure within the Compartment, which creates light dispersed camping during the open seasons. There is moderate fishing pressure along the North Branch Cedar River.

#### **Fire Protection:**

The Compartment has had low occurrences of wildfire in the recent past. This maybe due to the preponderance of hardwood stands. However, the predominance of public /private land interface and the presence of subdivisions with high summer seasonal activity elevate the chance of fire starts and subsequently, the susceptibility of the compartment to moderate fire danger.

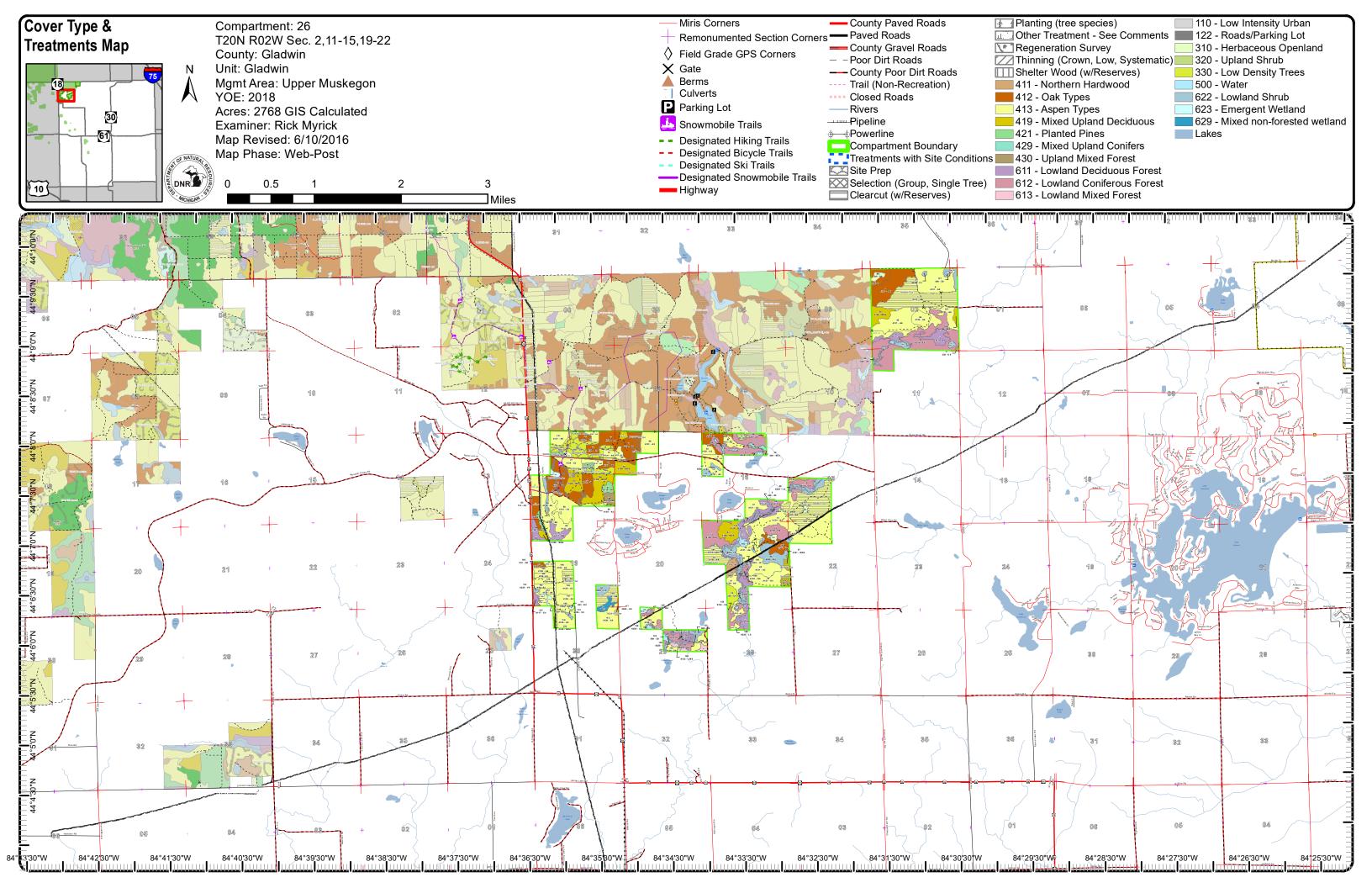
#### **Additional Compartment Information:**

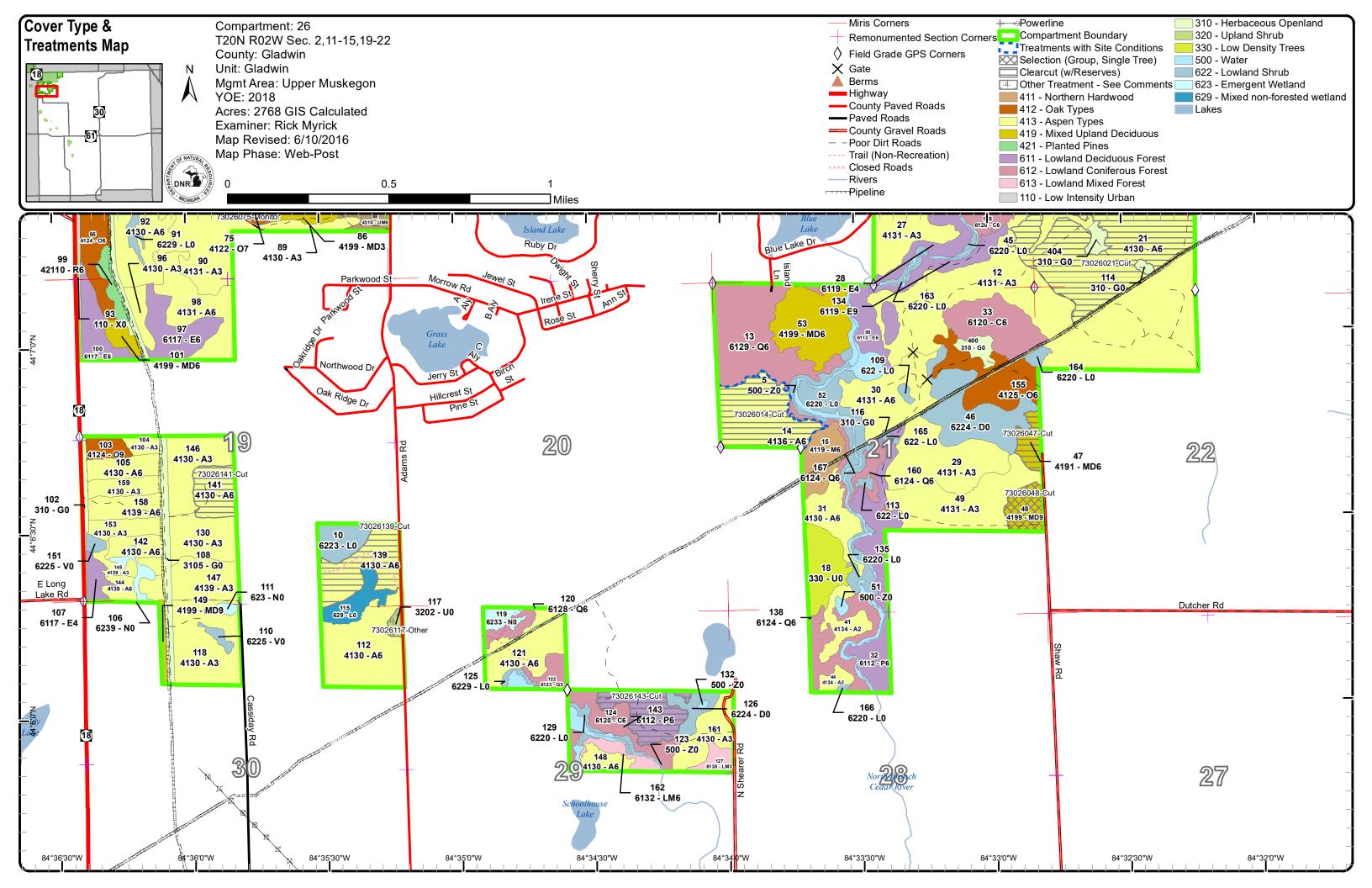
The following reports from the Inventory are attached:

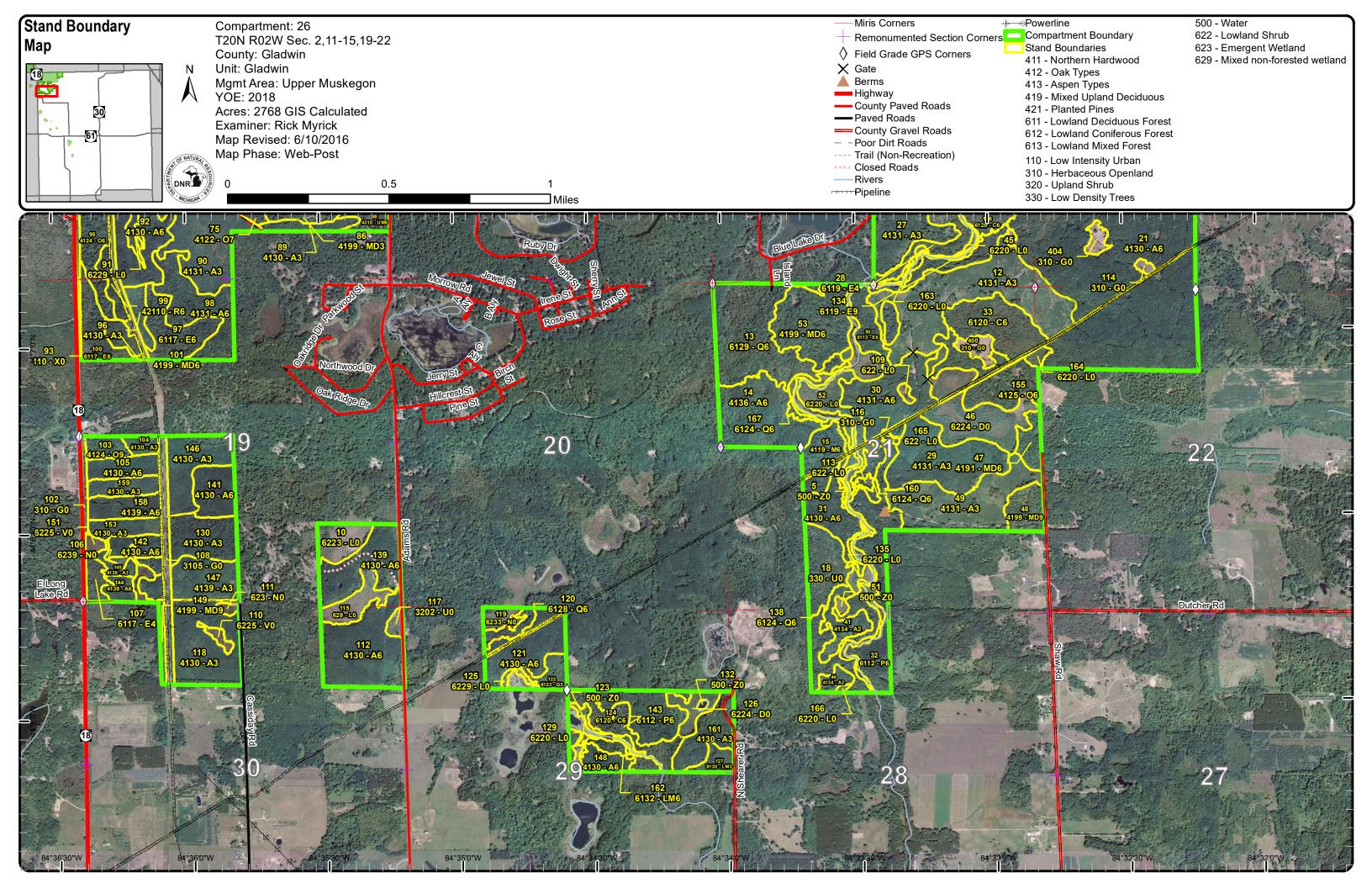
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

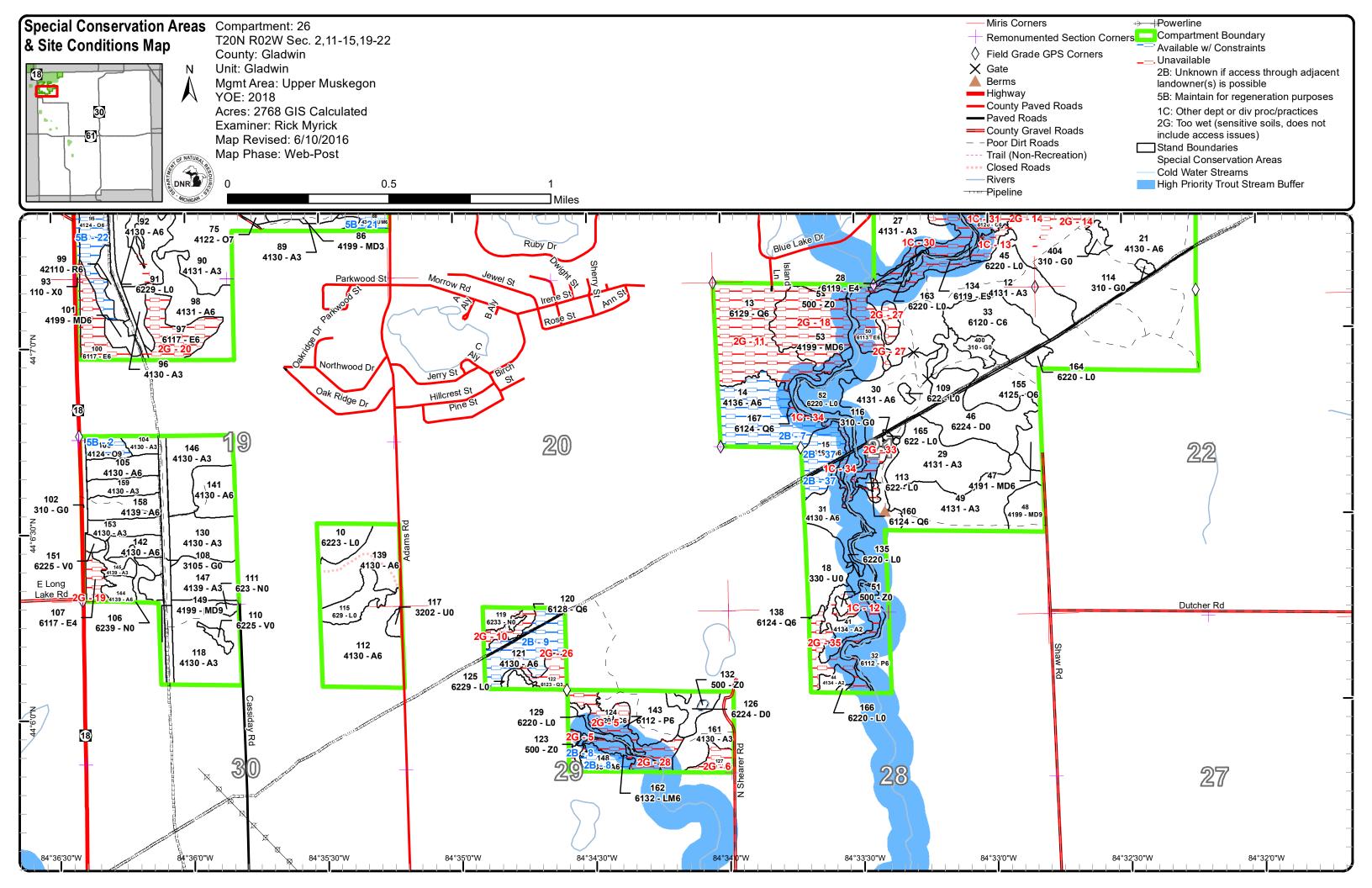
The following information is displayed, where pertinent, on the attached compartment maps:

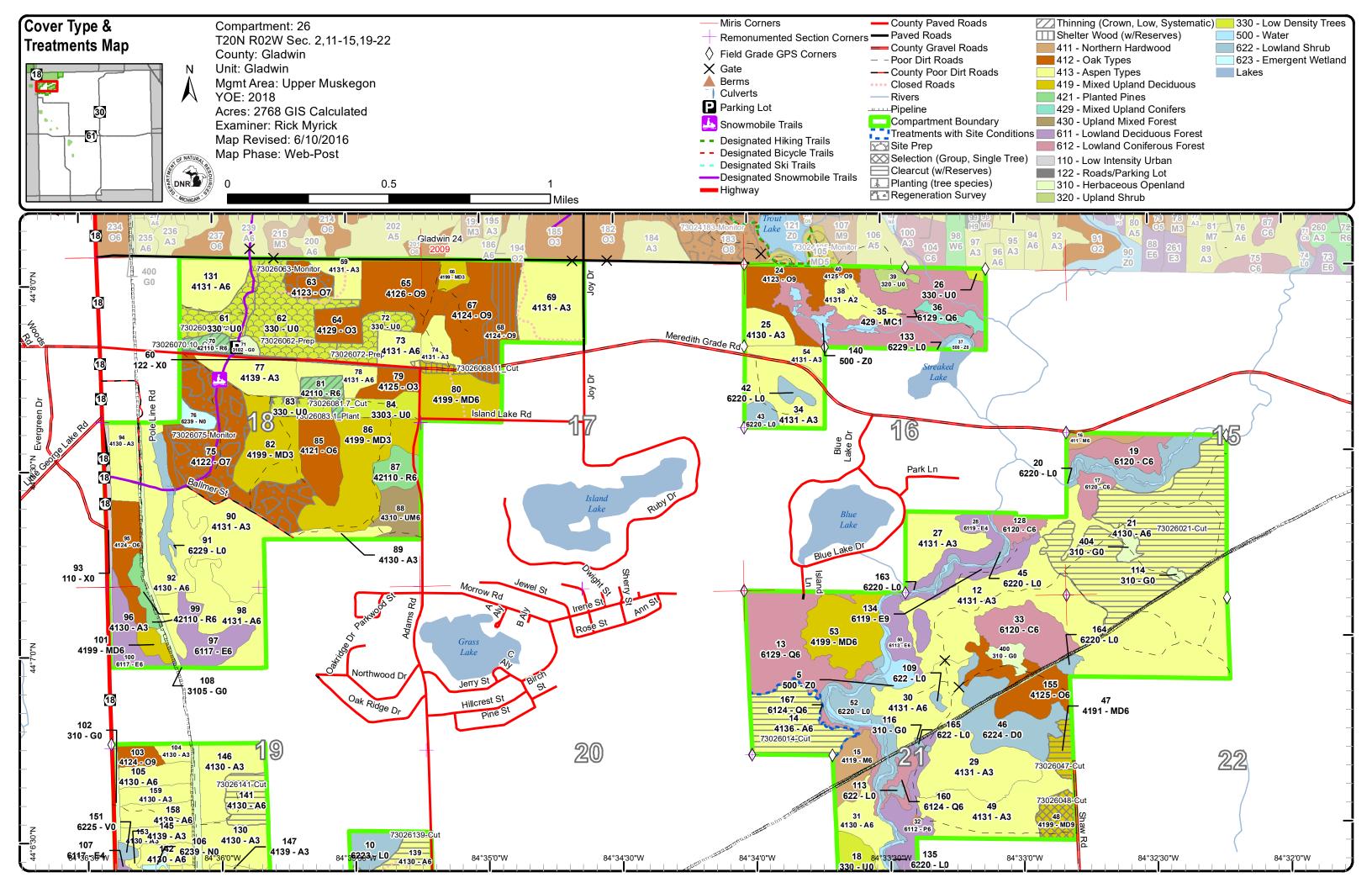
Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system

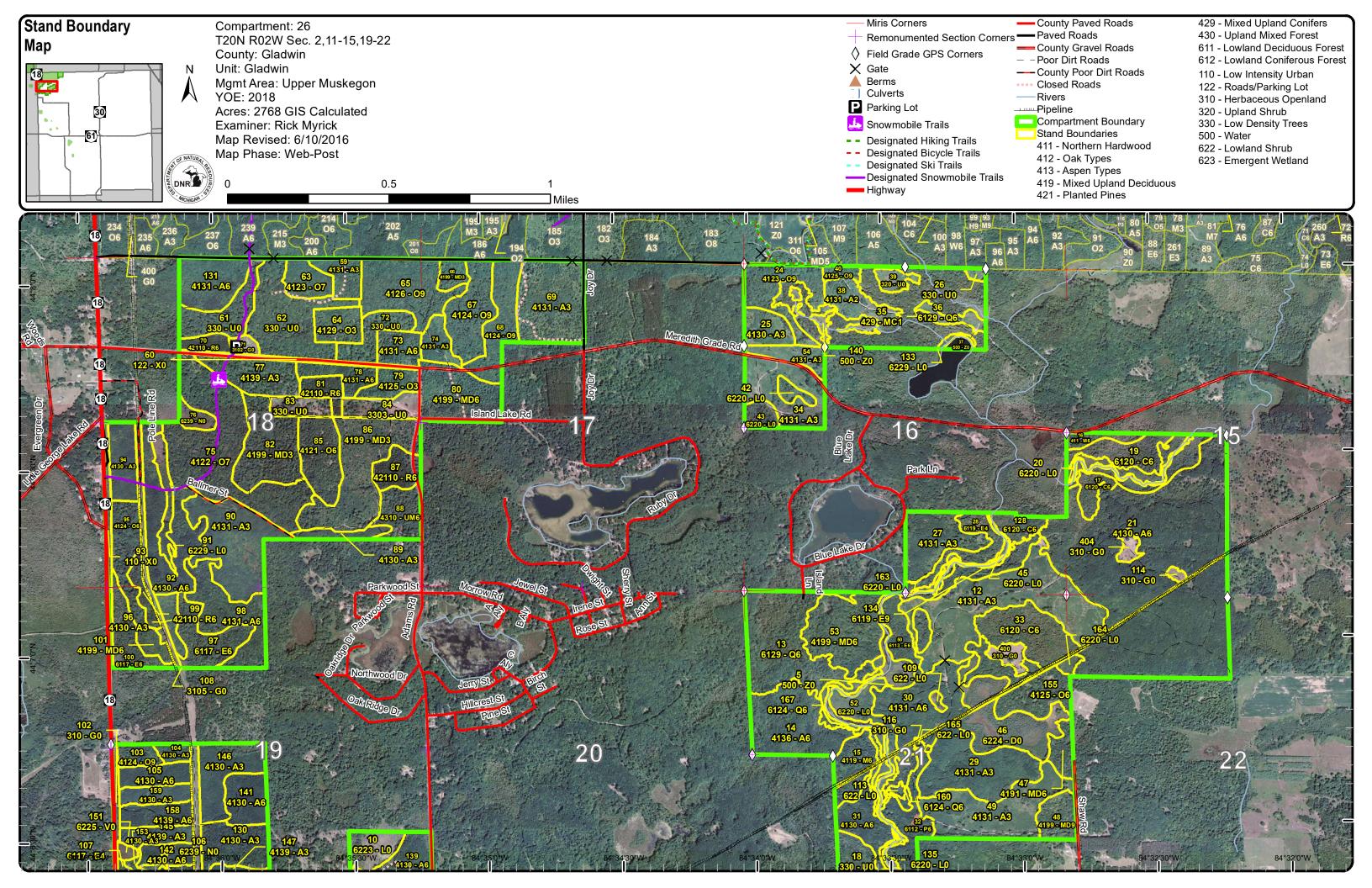


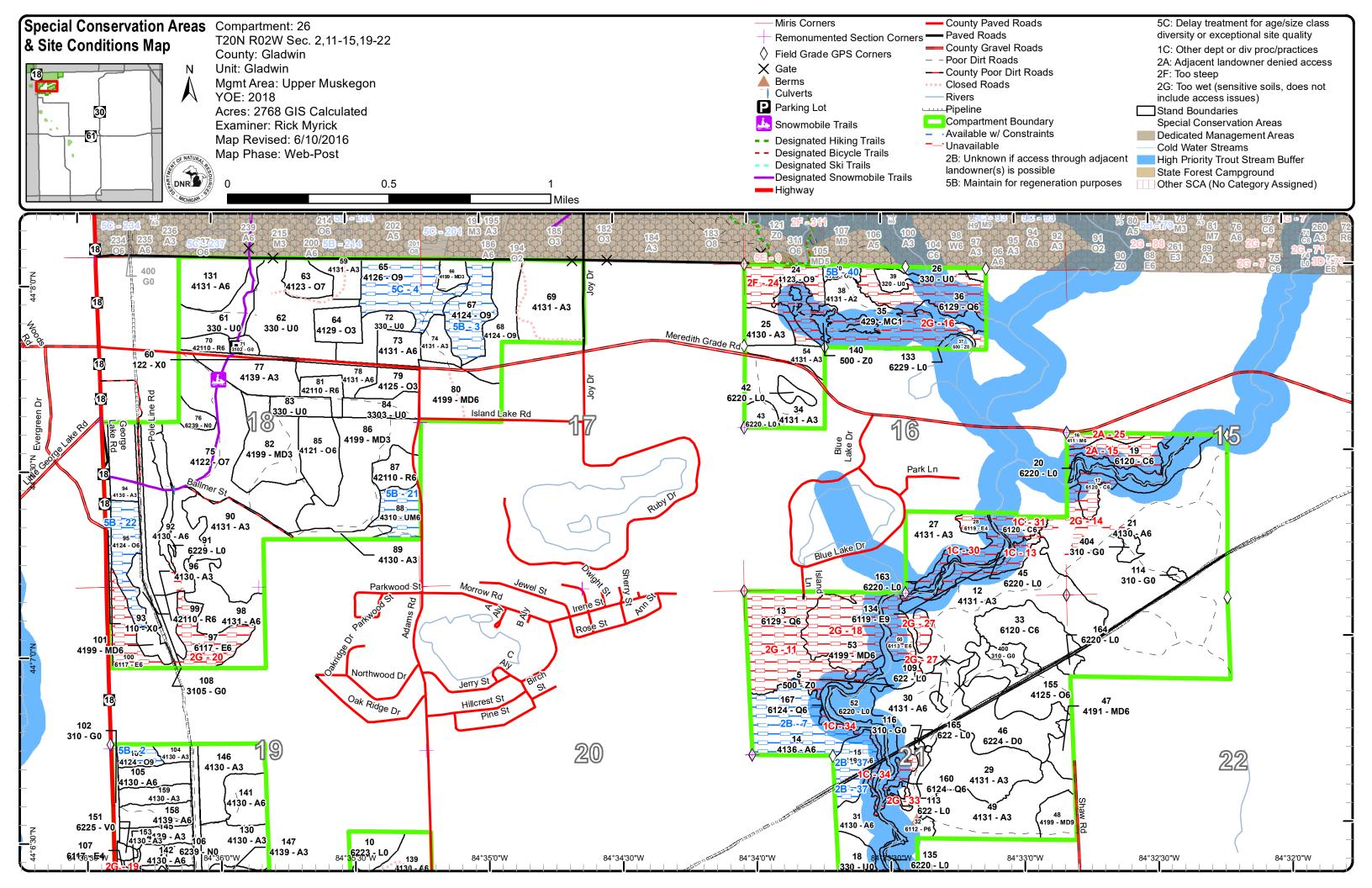


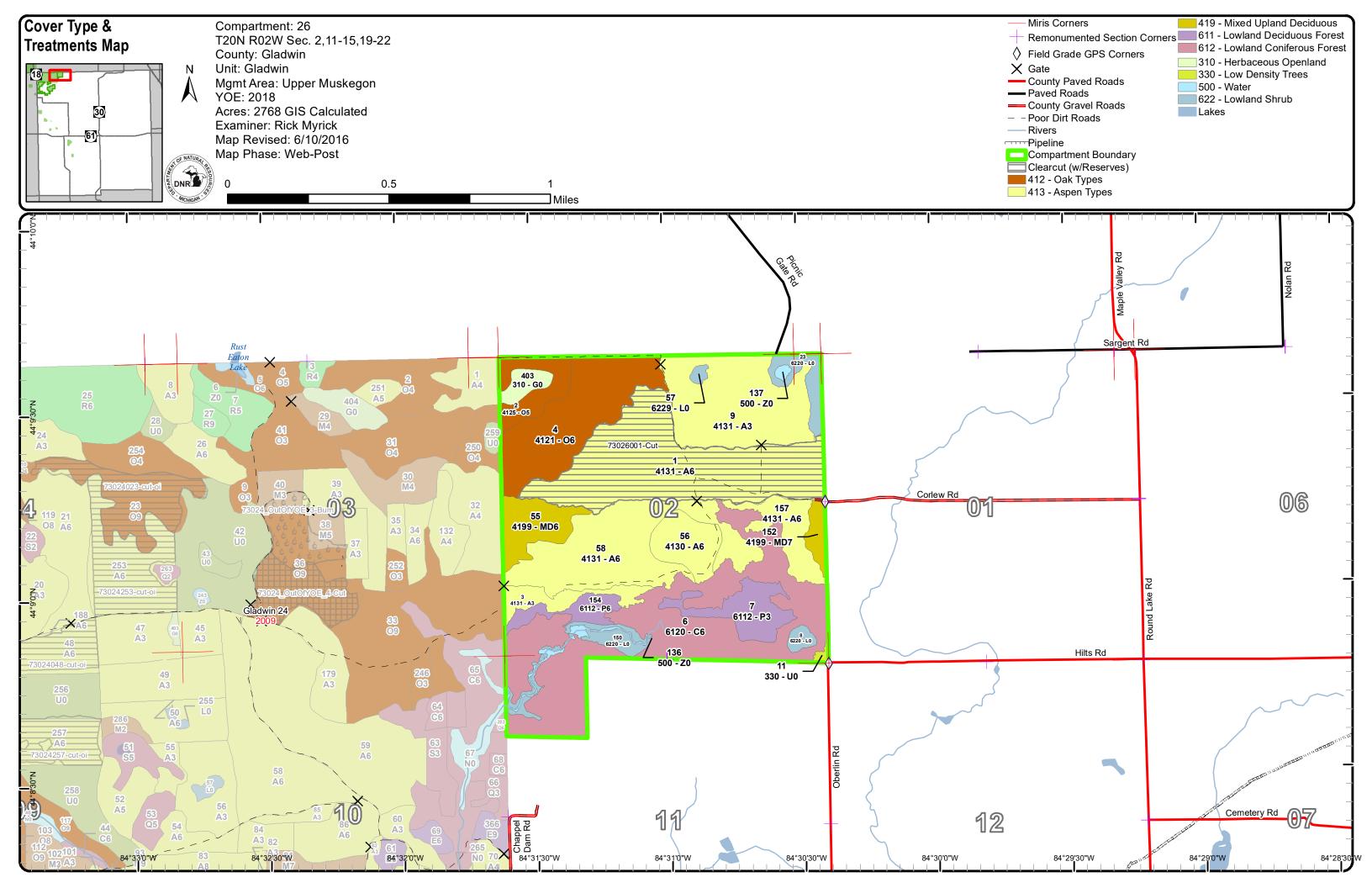


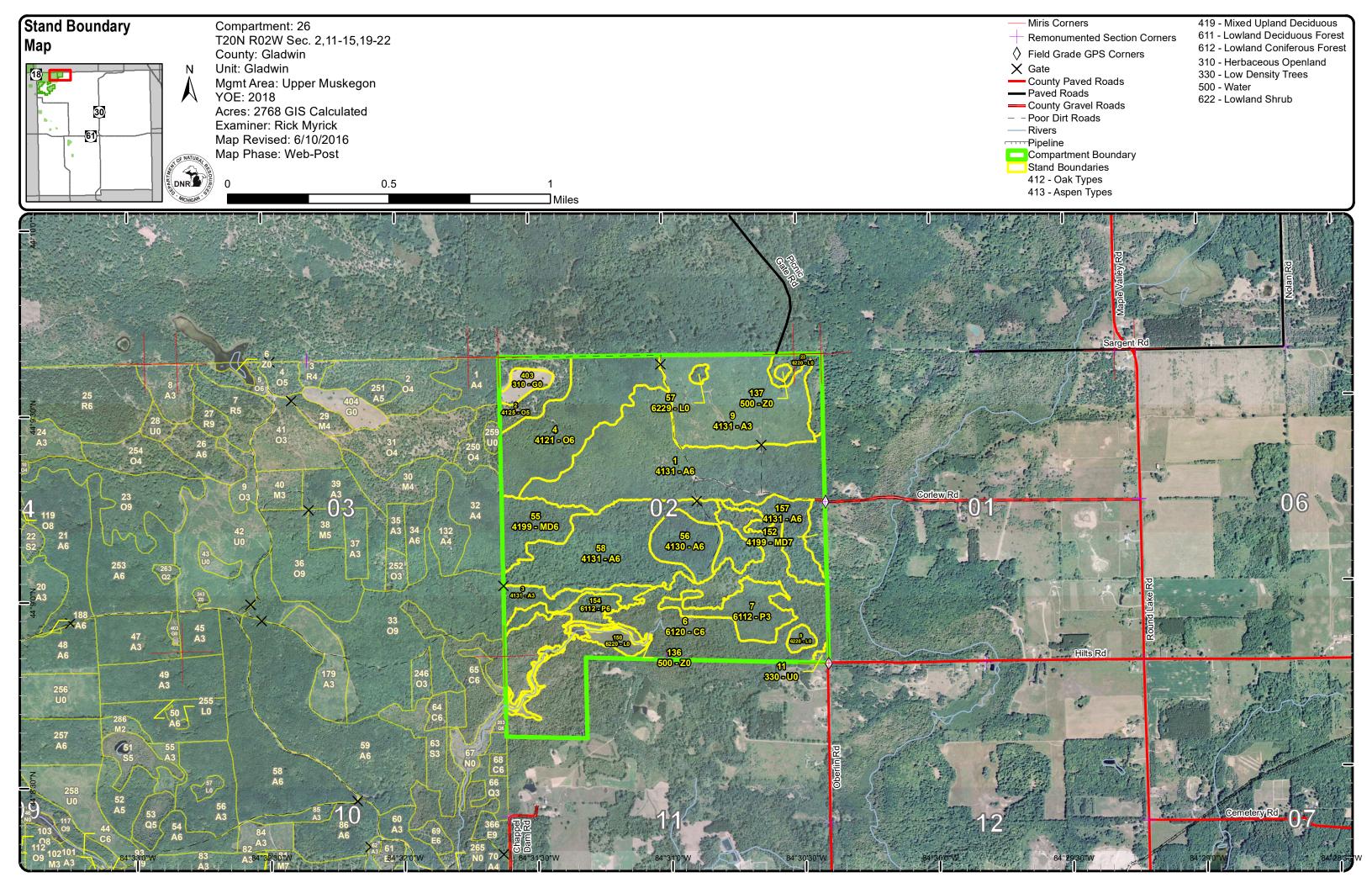


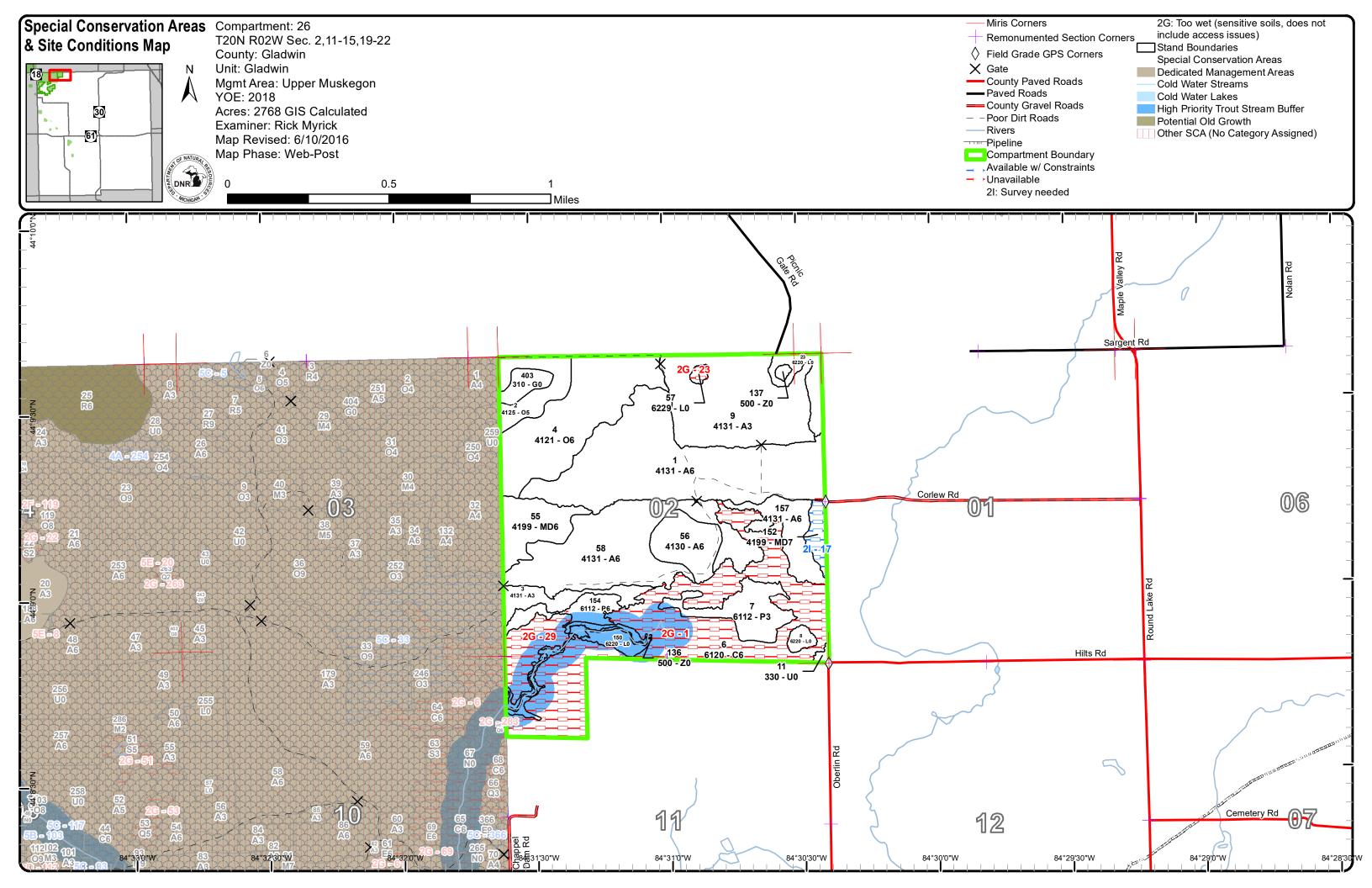












Compartment 26 Year of Entry 2018

Gladwin Mgt. Unit **Rick Myrick: Examiner** 



## Age Class

			,	,	,	,	,	,	,	,	,	,	,	,		,		,	, ,
	<b>₹</b> 6	40	3 / 5		\ \f\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	8 / \$		, 3 8		/ \$ <sup>\$</sup> /\$		\$ \ \&	70,	(S) /S			N. P.	Or Jue	No. No.
Aspen	0	249	201	257	227	354	0	0	0	0	0	0	0	0	0	0	0	0	1288
Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Cedar	0	0	0	0	0	0	0	0	0	0	170	20	0	16	0	0	0	0	206
Herbaceous Openland	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
Low-Density Trees	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
Lowland Aspen/Balsam Poplar	0	0	12	0	22	51	0	0	0	0	0	0	0	0	0	0	0	0	85
Lowland Conifers	0	0	0	0	0	5	4	0	0	0	121	0	0	4	0	0	0	6	140
Lowland Deciduous	0	0	0	0	0	13	0	0	0	27	0	0	0	0	0	0	0	31	71
Lowland Mixed Forest	0	0	0	0	5	0	0	0	0	0	5	0	0	0	0	0	0	0	10
Lowland Shrub	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	121
Marsh	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Mixed Upland Deciduous	0	0	70	53	0	12	0	0	3	7	31	0	0	0	0	0	0	10	186
Northern Hardwood	0	0	0	0	0	13	0	0	0	0	5	0	0	0	0	0	0	0	18
Oak	0	0	10	33	101	0	0	0	0	40	134	0	0	0	0	0	0	16	334
Red Pine	0	0	0	0	12	0	15	0	0	0	0	0	0	0	0	0	0	0	27
Treed Bog	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Upland Conifers	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	13
Upland Shrub	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Urban	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Water	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Total	388	249	298	343	367	448	19	0	3	74	479	20	0	20	0	0	0	63	2771



# **Report 2 – Treatment Summary**

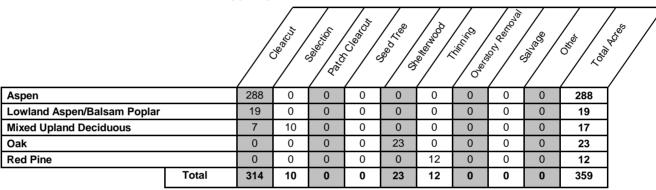
# Gladwin Mgt. Unit Year of Entry: 2018

#### **Acres of Harvest**

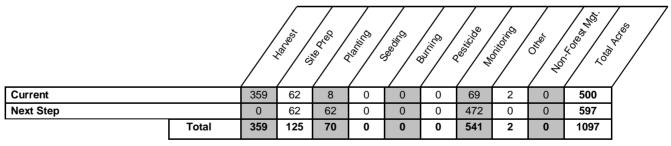
Compartment 26
Total Compartment Acres: 2,768

Commercial Harvest - 326 Harvests with Site Condition - 33 Next Step Harvest - 0 Habitat Cut - 0

# **Cover Type by Harvest Method**



# **Proposed and Next Step Treatments by Method**



Compartment: 26

Year of Entry: 2018

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	7
1	73026001-Cut	113.6	4131 - Aspen, Oak	Poletimber Well	36	51-80	Harvest	Clearcut with	413 - Aspen	Even-Aged	Proposal	

**Habitat Cut: No Site Condition:** 

Prescription Cut all species two inches and greater. Retain a few patches of mature aspen and some individual mature oak and red maple. Do not cut any conifer. Specs:

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

Acceptable An aspen stand with some mixed deciduous and conifer will be acceptable.

Regen:

S

Regarding blue line: The eastern border of the stand is along private land. There is currently a dispute between a private survey and DNR survey for Other that line. The issue has been taken to the Gladwin County Remon, Committee for resolution. It is unknown when this dispute with be resolved. Comment:

Proposed Start Date: 10/01/2017

14 73026014-Cut 32.7 4136 - Aspen, Mixed Poletimber 41 81-110 Harvest Clearcut with 4136 - Aspen. Even-Aged Proposal Conifer Well Retention Mixed Conifer

**Habitat Cut: No** Site Condition: Unknown Access

Prescription Cut all species 2" and greater. Do not cut any conifer. Mark a few larger maple, aspen, oak and birch for retention. Favor those trees that may

provide nesting cavities. Specs:

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable Aspen species with some mixed deciduous and conifer will be acceptable.

Regen:

Other Access will need to be through private. It is unknown if access will be granted at this time.

Comment:

Proposed Start Date: 10/01/2017

73026021-Cut 105.3 4130 - Aspen Poletimber 81-110 Harvest Clearcut with 413 - Aspen Even-Aged Proposal Well Retention

**Habitat Cut: No Site Condition:** 

<u>Prescription</u> Cut all species 2 inches and greater. Do not cut any conifer.

Green mark to retain a few XL sized mature oak. Specs:

Retain two small patches of mature aspen.

Favor those trees that may provide cavities for wildlife. Maintain a 100 foot riparian buffer strip along the Cedar River.

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable Aspen mixed with some deciduous and inclusions of conifer will be acceptable.

Regen:

Other The Cedar River is a designated cold water stream and as such will need a one hundred foot wide riparian buffer (no cut zone) maintained.

The remainder of Stand 21 should be harvested in 10 years in keeping with the 2005 Compartment Review agreement. Comment:

Proposed Start Date: 10/01/2017

73026047-Cut 7.0 4191 - Mixed Poletimber 51-80 Harvest Clearcut with 4191 - Mixed Proposal Even-Aged **Upland Deciduous** Well Retention Upland with Conifer Deciduous with

Conifer

**Habitat Cut: No Site Condition:** 

Prescription Cut all species 2 inches and greater, except oak and conifer.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable A mix of upland deciduous and conifer will be acceptable.

Regen:

Other Comment:

**Proposed Start Date:** 10/01/2017 **Habitat Cut:** No

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

Treatments:

Acceptable After harvest the stand may need to have a site prep treatment before planted to red pine.

Regen:

Other

Comment:

**Proposed Start Date:** 05/24/2016

62 73026062-34.5 330 - Low-Density Nonstocked Unspec SitePrep Roller Chopping 4129 - Mixed Two-Aged Draft Field Prep Trees ified Oak Boundary

**Site Condition: Habitat Cut: No** 

Percent to Treat = 100%

Prescription After harvest The stand will need to have site prep before it is planted to red pine.

Specs:

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

Treatments:

Acceptable After harvest The stand will need to have site prep before it is planted to red pine.

Regen:

Other Percent to Treat = 100%

Comment:

**Proposed Start Date:** 05/24/2016

51-80 Natural Regen 4126 - White, Draft Field 63 73026063-4123 - Red Oak Sawtimber Monitoring Two-Aged Monitor Poor (Re-Inventory) Black, N. Pin Boundary Oak

**Habitat Cut: No Site Condition:** 

Prescription The stand is expected to regenerate to a mixture of oak, aspen and maple, if not seed tree harvest down to 20 BA and interplant red pine.

Specs:

Next Step Treatments:

Acceptable The stand is expected to regenerate to a mixture of oak, aspen and maple, if not seed tree harvest down to 20 BA and interplant red pine.

Regen:

Other Percent to Treat = 100%

Comment:

**Proposed Start Date:** 05/24/2016

Treatments:

Acceptable After harvest The stand will need to have site prep before it is planted to red pine.

Regen:

Other Percent to Treat = 100%

Comment:

**Proposed Start Date:** 05/24/2016

75 73026075 59.8 4122 - Oak, Pine Sawtimber 1-50 Monitoring Natural Regen 4191 - Mixed Two-Aged Draft Field Monitor Poor (Re-Inventory) Upland Boundary

> Deciduous with Conifer

**Habitat Cut: No Site Condition:** 

Prescription The stand is expected to regenerate to a mixture of hardwood, including oak, maple, and aspen, if not interplant red pine.

Specs:

Next Step **Treatments:** 

Acceptable The stand is expected to regenerate to a mixture of hardwood, including oak, maple, and aspen, if not interplant red pine.

Regen:

Other Percent to Treat = 100%

Comment:

**Proposed Start Date:** 05/24/2016

Next Step Treatments:

<u>Acceptable</u> Regen:

Other A grass planting treatment will be done by Wildlife Division.

Comment:

**Proposed Start Date:** 10/01/2017

139 73026139-Cut 23.7 4130 - Aspen Poletimber 41 111-Harvest Clearcut with 413 - Aspen Even-Aged Proposal Well 140 Retention

**Habitat Cut: No Site Condition:** 

Prescription Cut all species 2 inches and greater. Retain a few oak aspen and maple. Favor log-sized oak for cavity nesting wildlife. Do not cut any conifer.

Specs: Protect vernal ponds by painting them out of the sale.

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

An aspen stand with a minor mix of deciduous and conifer will be acceptable. <u>Acceptable</u>

Regen:

Other Stand is selected for early harvest to even out the age class distribution of aspen as noted in the Upper Muskegon 2018 analysis.

Comment:

**Proposed Start Date:** 10/01/2017 Gladwin Mgt. Unit

Report 3 -- Treatments

Compartment: 26 Year of Entry: 2018

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
141	73026141-Cut	12.9	4130 - Aspen	Poletimber	38	81-110	Harvest	Clearcut with	413 - Aspen	Even-Aged	Proposal

**Habitat Cut: No Site Condition:** 

Prescription Cut all species 2 inches and greater. Do not cut any conifer. Retain a few small patches of mature aspen. Favor those trees that may develop cavities Specs:

for wildlife. Green mark to retain some oak and maple.

Next Step Monitoring, Natural Regen (Intermediate)

**Treatments:** 

Acceptable Aspen with a mix of some red maple and oak will be acceptable.

Regen:

s

Other Restart to even out Aspen age class distribution per Upper Muskegon MA 2018 analysis.

Comment:

Proposed Start Date: 10/01/2017

143 73026143-Cut 18.6 6112 - Lowland Poletimber 111-Harvest Clearcut with 6112 - Lowland Even-Aged Proposal Well Aspen 140 Retention Aspen

**Habitat Cut: No Site Condition:** 

Prescription Cut all species 2 inches and greater. Do not cut any conifer. Mark a few trees for species diversity retention.

Specs:

Next Step Monitoring, Natural Regen (Intermediate)

Treatments:

<u>Acceptable</u> Aspen species with a mix of some maple and conifer will be acceptable.

Regen:

Other Comment:

**Proposed Start Date:** 10/01/2017

Dry frozen spec.

**Total Treatment Acreage Proposed:** 

500.4

Compartment: 26

Gladwin Mgt. Unit

Year of Entry: 2018 Rick Myrick : Examiner

Availa	ability for	Managemer	nt									
Total	Acres	Acres Avail	Acres	D	omina	nt Site	e Cond	dition	s			
Acres	Available	With Condition	Not Available		2B	21	5B	5C	1C	2A	2F	2G
1288	1216	60	11	Aspen	60		0		1			10
4	4	0	0	Bog								
206	24	0	182	Cedar					7	14		162
49	48	1	0	Herbaceous Openland	1							0
100	100	0	0	Low-Density Trees								
85	85	0	0	Lowland Aspen/Balsam Poplar								0
140	0	0	140	Lowland Conifers	0		0		13		0	127
71	0	0	71	Lowland Deciduous					21			50
10	0	0	10	Lowland Mixed Forest								10
121	119	0	2	Lowland Shrub					0			2
14	14	0	0	Marsh								0
185	147	7	31	Mixed Upland Deciduous		7						31
18	0	13	5	Northern Hardwood	13					5		
332	237	76	20	Oak			46	30			20	
27	27	0	0	Red Pine								
38	38	0	0	Treed Bog								
5	5	0	0	Upland Conifers								
13	0	13	0	Upland Mixed Forest			13					
7	7	0	0	Upland Shrub								
12	8	2	2	Urban			2					2
43	43	0	0	Water					0			
2,768	2,121	172	474	Total Forested Acres	74	7	61	30	41	18	20	395
	77%	6%	17%	Relative Percent								

\*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	121	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Gladwin Mgt. Unit
Rick Myrick: Examiner

2	Available	5B: Maintain for regeneration purposes	6	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
3	Available	5B: Maintain for regeneration purposes	21	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	30	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Available	2B: Unknown if access through adjacent landowner(s) is possible	33	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

Report 4 - Site	<b>Conditions</b>
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		adwin Mgt. Unit Myrick : Examiner		Report 4 – Site Cond	aitions	Compartment: 26 Year of Entry: 2018	
3	Available	2B: Unknown if access through adjacent landowner(s) is possible	6	2D: Portable Bridge Needed (Dept. bridge will be adequate)	2E: Road needed	Unspecified	Unspecified
(	Comments:						
9	Available	2B: Unknown if access through adjacent landowner(s) is possible	22	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
(	Comments:						
1	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	46	Unspecified	Unspecified	Unspecified	Unspecified
	Comments: Lowland conifer sw	/amp.					
2	Unavailable	1C: Other dept or div proc/practices	10	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
	Comments: Riparian buffer zon	e to the Cedar River; a design	ated co	ld water stream.			
3	Unavailable	1C: Other dept or div proc/practices	9	2G: Too wet (sensitive soils, does not include access issues)	2F: Too steep	Unspecified	Unspecified

Gladwin Mgt. Unit
Rick Myrick: Examiner

14	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
15	Unavailable	2A: Adjacent landowner denied access	14	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
C	Comments:						
16	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	59	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						
17	Available	2l: Survey needed	7	Unspecified	Unspecified	Unspecified	Unspecified
	comments: There is a survey d	ispute between State survey a	and priv	ate survey. It is currently be	eing looked into via the co	unty remon. committee.	
18	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	31	2B: Unknown if access through adjacent landowner(s) is possible	2C: Engineered Bridge Needed (Dept. portable bridge not available or inadequate)	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified
	comments: oo wet in much of	the stand.					
19	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	Unspecified	Unspecified	Unspecified	Unspecified
	comments:						

Compartment: 26

Gladwin Mgt. Unit

Comments:

Year of Entry: 2018 **Rick Myrick: Examiner** 20 34 Unspecified Unspecified Unspecified Unspecified Unavailable 2G: Too wet (sensitive soils, does not include access issues) Comments: 21 Unspecified Unspecified Unspecified **Available** 5B: Maintain for Unspecified 13 regeneration purposes Comments: 5B: Maintain for Unspecified Unspecified Unspecified Unspecified 22 **Available** 18 regeneration purposes Comments: 23 2G: Too wet (sensitive Unspecified Unspecified Unspecified Unspecified 2 Unavailable soils, does not include access issues) **Comments:** 24 Unavailable 2F: Too steep 20 3D: Recreational / Unspecified Unspecified Unspecified Scenic values Comments: Unspecified 2A: Adjacent landowner Unspecified Unspecified Unspecified 25 Unavailable 5 denied access

Gladwin Mgt. Unit

Rick Myrick : Examiner

26	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
С	comments:						
27	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	13	Unspecified	Unspecified	Unspecified	Unspecified
_	comments: his stand was initia	ally part of stand 12 but was ca	arved c	out of the Cedar River Asper	n (2010) as too wet to harv	est.	
28	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	5	2B: Unknown if access through adjacent landowner(s) is possible	Unspecified	Unspecified	Unspecified
С	comments:						
29	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	18	Unspecified	Unspecified	Unspecified	Unspecified
С	comments:						
0	Unavailable	1C: Other dept or div proc/practices	12	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
	comments: 00 foot riparian bu	ffer zone to the Cedar River; a	a desig	nated cold water stream.			
31	Unavailable	1C: Other dept or div proc/practices	7	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
	comments: The western side of	f the stand serves as a ripariar	n buffer	to the Cedar River; a desig	nated cold water stream. A	As a true cedar swamp it is	s too wet to harvest.

Compartment: 26
Year of Entry: 2018

Gladwin Mgt. Unit

Comments:

**Rick Myrick: Examiner** 33 Unspecified Unspecified Unspecified Unspecified Unavailable 2G: Too wet (sensitive 5 soils, does not include access issues) Comments: 1C: Other dept or div 2G: Too wet (sensitive Unspecified Unspecified Unspecified 34 Unavailable 4 proc/practices soils, does not include access issues) Comments: Riparian buffer zone to the Cedar River; a designated cold water stream. 35 2G: Too wet (sensitive Unspecified Unspecified Unspecified Unspecified Unavailable 8 soils, does not include access issues) **Comments:** Unspecified Unspecified Unspecified 37 **Available** 2B: Unknown if access 13 Unspecified through adjacent landowner(s) is possible Comments: 5B: Maintain for Unspecified Unspecified Unspecified Unspecified 40 **Available** 3 regeneration purposes

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				

Gladwin Mgt. Unit Compartment: 26
Year of Entry 2018



# 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 Area	туре	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish spec year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such stream designated as trout resources by Fisheries Order 210.	cies (e.g., slimy sculpin) to persist from ese conditions due to substantial
SCA	Riparian Area	A transitional area between aquatic and terrestrial ecosystems i influences the aquatic ecosystem and vice-versa. Because of th streams and open water wetlands, riparian areas harbor a high communities are ecologically and socially significant in their effe as aesthetics, habitat, bank stability, timber production, and their	ne unique conditions adjacent to lakes, diversity of plants and wildlife. Riparian acts on water quality and quantity, as well
HCVA	Dedicated Management Areas	Such areas are dedicated by the DNR Director for specific manarules, as governed by Part 5, Department of Natural Resources, 324.504). Section 38 of the Administrative Procedures Act (MCI the promulgation of rules. This is an active program, with one proposed purples.	, of the NREPA (MCL 324.502(2) and L 24.238) provides for public requests for

S t	Gladwin	Mgt. Unit		Report 7	– Forested	Stands Compartment: 26 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4131 - Aspen, Oak	Poletimber Well	115.1	36	51-80	Stand is mostly poles. Some of the aspen is just becoming log size. Rolling terrain. Cut after large wildfire in the late 70's.  Excellent growth. Healthy stand.
2	4125 - Black, N. Pin Oak	Poletimber Medium	17.9	36	1-50	Cut after large wildfire in the late 70's. Oak are poor quality, lots of limbs, stunted. Poor site.
3	4131 - Aspen, Oak	Sapling Well	14.0	16	Immature	Clear cut 1999. Heavy deer browse in a few pockets near the cedar swamp to the south (stand 6).
4	4121 - Oak, Aspen	Poletimber Well	63.9	36	51-80	Stand is mostly poles. Oak is growing mostly on the ridges. Terrain is steep in some of the areas to the west. Some of the aspen is just becoming log size. Rolling terrain back to the east.  Excellent growth. Healthy stand.
6	6120 - Lowland Cedar	Poletimber Well	139.3	96	81-110	Areas of cedar blow down. Pockets of mixed hardwood scattered throughout; red maple, birch and aspen. True swamp. Very wet.
7	6112 - Lowland Aspen	Sapling Well	22.5	36	51-80	Habitat cut. Aspen showing signs of decadence. Very wet site.  Some blow-down.
9	4131 - Aspen, Oak	Sapling Well	71.4	7	Immature	Stand is regenerating very well. Excellent growth. Clear-cut 2009, Cedar River Aspen 73-015-07-01.
12	4131 - Aspen, Oak	Sapling Well	61.6	6	Immature	Clear-cut in 2010, Cedar River Aspen 73-015-07-01. Left 100' buffer along river. Left scattered mature oak, most of this oak is located at the north end of stand along the river. The mature oak adds diversity to this large area that is being managed for aspen. This is a excellent aspen site and excellent aspen regeneration.
13	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	45.7	96	81-110	Stand Year Origin was 1920. Thick swamp. Wind throw of cedar near southeast edge. Factor limit: Too wet.
14	4136 - Aspen, Mixed Conifer	Poletimber Well	32.7	41	81-110	Very hilly and steep. Scattered low pockets and drains with balsam fir and cedar. Noted ash that has NOT been infested with EAB yet. Access is very limited.
15	4119 - Mixed Northern Hardwoods	Poletimber Well	13.0	41	111-140	Rolling hills with scattered low pockets. Limited access.
16	411 - Northern Hardwood	Poletimber Well	4.7	95	51-80	Access is limited.
17	6120 - Lowland Cedar	Poletimber Well	6.2	105	81-110	Some blow down.
19	6120 - Lowland Cedar	Poletimber Well	13.7	105	81-110	Some blow down.

S t	Gladwir	n Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 26 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	4130 - Aspen	Poletimber Well	184.8	44	81-110	Scattered residual mature oak through out entire stand. Leave mature oak when stand is harvested as it will add diversity to an area that is dominated by aspen management. Follow similar treatment that was done in Stand 12 five years ago. Attempt to even out the age class distribution of aspen within the compartment.
24	4123 - Red Oak	Sawtimber Well	19.8	93	81-110	Parts of stand are very steep. Parts are too steep to harvest (35% to 40% slopes). Two valleys in stand that lead down to a cedar swamp that is the head waters to the cedar river. Stand is adjacent to "Trout Lake State Forest Campground." Possibly no treatment due do; 1) proximity to campground: 2) steep slopes: 3) proximity to the head waters of the cedar river.
25	4130 - Aspen	Sapling Well	9.9	12	Immature	Clear cut 2004. Noted Black Knot beginning to spread in the cherry.
27	4131 - Aspen, Oak	Sapling Well	21.2	18	Immature	Clear cut 1998. Noted black knot in cherry.
28	6119 - Mixed Lowland Deciduous Forest	Poletimber Poor	11.8	81	1-50	Riparian buffer to the North Branch Cedar River. Much windfall in the north portion of the stand. A few higher knolls, but mostly flood plain. 100% ash mortality from EAB. Access is limited.
29	4131 - Aspen, Oak	Sapling Well	34.9	27	Immature	Clear cut 1989. Excellent growth.
30	4131 - Aspen, Oak	Poletimber Well	27.7	27	81-110	Clear cut 1989. Some Bigtooth aspen showing signs of decadences due to off site growth in wetter areas of the stand.
31	4130 - Aspen	Poletimber Well	14.2	41	51-80	Very steep slopes in places. Stand is mostly pole sized aspen.  Very few aspen are just starting to come into logs. Hold.
32	6112 - Lowland Aspen	Poletimber Well	32.2	41	51-80	There is a 100 foot riparian buffer zone of the North Branch Cedar River along the western edge of the stand. A number of vernal ponds and drains are scattered throughout stand.
33	6120 - Lowland Cedar	Poletimber Well	23.8	90	51-80	Stand Year Origin was 1926. True swamp. Very wet. Much blow-down of cedar throughout stand. Complete ash mortality due to EAB.
34	4131 - Aspen, Oak	Sapling Well	23.8	4	Immature	Clear cut fall 2011, MGR Aspen, 73-002-11-01.
35	429 - Mixed Upland Conifers	Sapling Poor	4.7	18	Immature	Clear cut 1998 - very poor regeneration of aspen. The stand has heavy deer browse to the aspen and oak. Stand was too small and too proximate to lowland conifer swamp for successful regen. of aspen. A few pockets of aspen are making it. Some beaver damage also.
36	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	58.6	96	111-140	Headwater area of the North Branch Cedar River. A number of areas of blow-down.

S	Gladwin	Mgt. Unit		Report 7	- Forested	Stands Compartment: 26 Year of Entry: 2018
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
38	4131 - Aspen, Oak	Sapling Medium	11.6	18	Immature	Final harvest 1998. Regeneration is spotty in places. Browse issues due to proximity to lowland conifers.
40	4125 - Black, N. Pin Oak	Sawtimber Well	3.0	93	81-110	Partial harvest in 1998 - all aspen, birch and marked oak and maple removed. Adjacent to Trout Lake State Forest Campground.
41	4134 - Aspen, Spruce/Fir	Sapling Medium	9.7	18	Immature	Final harvest 1998. Stand is thicker to aspen in the north three quarters. The southern quarter has some aspen feathering in, but oak, spruce and white pine predominate.
44	4134 - Aspen, Spruce/Fir	Sapling Medium	3.6	18	Immature	Final harvest 1998. Some openings present.
47	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	7.0	49	51-80	
48	4199 - Other Mixed Upland Deciduous	Sawtimber Well	10.2	96	111-140	Partial harvest in 1959 and again in 1997. High quality red oak sawlogs.
49	4131 - Aspen, Oak	Sapling Well	37.5	6	Immature	This is an excellent aspen site with high density aspen regeneration. Stand was clear-cut 2010, Cedar River Aspen 73-015-07-01. A few scattered mature oak were left standing.
50	6113 - Lowland Maple	Poletimber Well	13.2	44	Unspecified	Part of the stand is the riparian zone to North Branch Cedar River. This stand was part of stand 12 when it was initially prescribed for harvest, but was cut out of the Cedar River Aspen (2010) sale as it was too wet to harvest. Factor limited - Too wet.
53	4199 - Other Mixed Upland Deciduous	Poletimber Well	30.8	96	51-80	Stand Year Origin was 1920. Some aspen showing signs of decadence. Otherwise healthy mature stand.
54	4131 - Aspen, Oak	Sapling Well	8.3	4	Immature	Clear cut fall 2011, MGR Aspen, 73-002-11-01.
55	4199 - Other Mixed Upland Deciduous	Poletimber Well	22.1	29	81-110	The stand was "real estate" cut 29 years ago, apparently removing all aspen, maple, and some oak. There are more xlog sized aspen in the this hilly stand than in the stand to the east; possibly due to the steep grades within this area, thus they did not get harvested at that time. There is now an advanced healthy dense canopy of aspen, maple and seed source oak. This two aged stand has an older oak over-story of log to xl log sized timber varying from 10 to 40 BA in places. The oak will hold for ten or twenty more years. Recommend holding the entire stand for 10 or 20 more years then 1. final harvest with retention; or 2. prescribe an oak seed tree treatment. This stand has very steep slopes and may need the prescription to be modified to allow for equipment operability.
56	4130 - Aspen	Poletimber Well	20.8	37	81-110	The stand was final harvested without reserves and has regenerated in a mix of aspen, maple, and oak. The terrain is fairly level. The stand is coming along well but still on the smaller pole size scale.

S t	Gladwir	n Mgt. Unit		Report 7	- Forested	Stands Compartment: 26 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
58	4131 - Aspen, Oak	Poletimber Well	76.6	29	81-110	The stand was "real estate" cut 29 years ago before State ownership, apparently removing all aspen, maple, and some oak. There is less xlog sized aspen in this stand than the more hilly stand to the west. There is now an advanced healthy dense canopy of aspen, maple and seed source oak. This two aged stand has an older oak over-story of log to xl log sized timber varying from 10 to 40 BA in places. The oak will hold for ten or twenty more years. Recommend holding the entire stand for 10 or 20 more years then 1. final harvest with retention; or 2. prescribe an oak seed tree treatment.
59	4131 - Aspen, Oak	Sapling Well	8.8	29	1-50	The stand is just starting to become a pole stand. The terrain is undulating and it is situated in a draw between two hills.
63	4123 - Red Oak	Sawtimber Poor	9.6	82	51-80	Stand was treated in the Fall of 2015 as a part of MGR Mix sale 73-018-14-01. Shelterwood harvest. Removed volume down to 60 BA. Retained mostly oak with some red maple for variability.
64	4129 - Mixed Oak	Sapling Well	10.1	18	1-50	The stand is variable. The west side has more red maple, red oak, and choke cherry and multi stem stumps sprouts are more common. The east side has more white oak, red oak, hybrid oak; this is mixed with red maple stump sprouts. There are more single stems in the eastern end.
65	4126 - White, Black, N. Pin Oak	Sawtimber Well	29.6	82	51-80	The stand appears to have had the red maple removed about 17 years ago. The terrain is rolling. The aspen is declining. The red maple in the stand is mainly of stump sprout origin
66	4199 - Other Mixed Upland Deciduous	Sapling Well	4.9	24	1-50	When the stand was harvested some oaks were left. The featured species in the stand is now the regeneration.
67	4124 - Red with White Oak	Sawtimber Well	21.3	90	51-80	The stand had the aspen removed as well as marked oak and maple. The sale retained around 70 sq ft. The harvest was completed in 2008 in Meredith Oak, sale #73-006-04-01. The crown closure is greater than 75%. There is some mortality in the tops of the oaks. The terrain is undulating to rolling. The poles and sawlogs are the same age.
68	4124 - Red with White Oak	Sawtimber Well	20.2	90	111-140	The terrain is rolling. There is EAB present in the ash. The oak in the stand has some mortality in the tops. The stand is a part of the MGR Mix sale, 73-018-14-01. It was added as an amendment.
69	4131 - Aspen, Oak	Sapling Well	33.3	16	Unspecified	The stand had the dead oak harvested. It was set up in patches that were sold separately over several years. It was harvested again to 4" DBH retaining all red and white pine. The pine species makes up less than 10 sq ft. The crown closure is around 75%. This harvest was completed in 2006. The sale was Meredith Oak, sale #73-006-04-01. The density is variable. The aspen is in pockets. There are areas of dense oak and red maple as well as areas that have only a medium stocking.
70	42110 - Planted Red Pine	Poletimber Well	5.0	36	111-140	This is a red pine plantation along Meredith Grade. There are some crown openings in the stand. There is a trace of black cherry, choke cherry, and maple present.

S t	Gladwin	Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 26 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
73	4131 - Aspen, Oak	Poletimber Well	9.3	38	1-50	The density in the stand is variable. It goes from poorly stocked to well stocked. There are inclusions of grassy openings.
74	4131 - Aspen, Oak	Sapling Well	7.8	10	Immature	The stand was final harvested to 2" DBH. The harvest took place during the dormancy period in 2004. The sale was Barrel Aspen, sale #73-004-04-01. The current crown closure is 50 to 75%. The aspen regeneration is heaviest in the central portion of the stand. The edges are less dense but have a greater percentage of oak.
<b>75</b>	4122 - Oak, Pine	Sawtimber Poor	63.8	90	1-50	Seed tree harvested Summer/Fall 2015, taking the BA to around 30 Sq. ft. MGR Mix sale 73-018-14-01Favored the retention of oak and red pine. The red pine pockets were thinned down about 100 BA and not seed tree harvested. Some red maple and oak already stump sprouting.
<del></del>	4139 - Aspen, Mixed Deciduous	Sapling Well	18.0	12	1-50	The stand had the dead oak removed in 1994, in Meredith Grade Oak sale #73-038-94-01. The stand was also harvested in 2008, in the Meredith Oak sale #73-006-04-01. In that sale, the aspens, red maples, and marked oaks were harvested retaining 30-40 BA. The current crown closure is between 50-75%. The oak that was retained is now declining.
78	4131 - Aspen, Oak	Poletimber Well	9.2	41	51-80	The stand is well on its way to being a well stocked pole stand.  The terrain is undulating. The stand has a lot of evidence of past fire activity
<b>79</b>	4125 - Black, N. Pin Oak	Sapling Well	8.5	24	1-50	This stand was harvested as a 4" DBH final harvest. In the sale, some of the oak, maple, aspen, and pine were retained. The harvest was done in 1997 in the Meredith Salvage, sale #73-005-97-01. The current crown closure is around 80%.
80	4199 - Other Mixed Upland Deciduous	Poletimber Well	25.6	23	1-50	This stand was harvested as a 4" final harvest. It was completed in 1994. The sale was S. Meredith Salvage, sale #73-079-92-01. The stand has regenerated and currently has a crown closure around 80%. White pine grades from poles/logs in the east to saps west. Aspen is heavier in the east and oaks in the west. There are pockets of heavy slash.
81	42110 - Planted Red Pine	Poletimber Well	6.8	34	171-200	The plantation has some scattered oak in it. The diameter of the oak goes from 4 to 11" DBH.
82	4199 - Other Mixed Upland Deciduous	Sapling Well	28.1	10	51-80	The stand was harvested in Meredith Oak sale #73-006-04-01 in 2006. It was set up as a seed tree harvest, retaining around 30 BA. The stand has small pockets of planted red pine.
85	4121 - Oak, Aspen	Poletimber Well	18.8	32	51-80	The stand had the dead oak removed in 1993 in sale #73-080-92-02. It was also harvested in the Meredith Oak, sale #73-006-04-

02. It was also harvested in the Meredith Oak, sale #73-006-04-01 in 2006. This sale was a 4" final harvest retaining all the white oaks, red pines, and white pines. The current crown closure is greater than 25%. The stand is just coming into poles. The oaks that are present are very branchy.

S t	Gladwii	n Mgt. Unit		Report 7	– Forested	Stands Compartment: 26 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
86	4199 - Other Mixed Upland Deciduous	Sapling Well	41.5	12	1-50	The stand had the dead oak removed in 1993 in sale #73-080-92-02. It was also harvested in the Meredith Oak, sale #73-006-04-01 in 2006. This sale was a 4" final harvest retaining all the white oak, red pine, and white pine. The current crown closure is greater than 25%.
87	42110 - Planted Red Pine	Poletimber Well	9.9	54	141-170	The stand was harvested in 1996 by removing all trees but pines. It was cut in Adams Road Medley, sale #73-050-94-01. The rows in the stand are not straight. The current crown closure is around 90%.
88	4310 - Pine, Oak Mix	Poletimber Well	13.0	91	51-80	The stand was harvested in 1996 by removing all trees but pines. It has a larger white pine component. The current crown closure is between 85-90%. It was cut in Adams Rd. Medley, sale #73-050-94-01
89	4130 - Aspen	Sapling Well	5.7	21	Unspecified	The stand was harvested in 1996 by removing all trees but pines. It has a larger component of hardwoods. Currently the crown closure is around 90%. It was cut in Adams Rd. Medley, sale #73-050-94-01
90	4131 - Aspen, Oak	Sapling Well	37.7	12	1-50	The stand was final harvested to 2" DBH. It was harvested during the dormancy period in 2004. The sale was Barrel Aspen, sale #73-004-04-01. The stand is a matrix of uplands and lowlands with the lowlands being about 25%. Most of the wet ground is found in the central portion of the stand. The terrain is hummocky.
92	4130 - Aspen	Poletimber Well	32.5	31	1-50	The stand is just coming into poles. The terrain is hummocky to undulating. It is a matrix of uplands and lowlands with the uplands being around 80%. There is a drainage (Stand 91) going through the central portion of the stand.
94	4130 - Aspen	Sapling Well	13.1	8	Unspecified	The stand was final harvested to 2" DBH. In addition all white pines less than or equal to 4" were retained. The harvest was completed in July of 2004. The sale was Barrel Aspen, sale #73-004-04-01. The current crown closure is 90%. The stand is along M-18. It has regenerated well. There are some low pockets but it is upland overall. There are some sparse areas along M-18 and in the north end.
95	4124 - Red with White Oak	Poletimber Well	16.3	85	1-50	The stand was harvested in the Meredith Oak, sale #73-006-04-01. It was a species removal of aspen and red maple. The harvest was completed in 2009. The crown closure is around 90%.
96	4130 - Aspen	Sapling Well	5.5	12	Unspecified	The stand was final harvested to 2" DBH. The harvest was completed in July 2004. The sale was Barrel Aspen, sale #73-004-04-01. The terrain is undulating. Good regeneration.
97	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	17.5	85	51-80	The stand is a matrix of uplands and lowlands with the lowlands being about 80%. The terrain is hummocky. The stand appears to be seasonally flooded. Site conditioned as too wet.

s t	Gladwii	n Mgt. Unit		Report 7	- Forested	Stands Compartment: 26 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
98	4131 - Aspen, Oak	Poletimber Well	25.9	42	81-110	The terrain is undulating. The white pine in the stand is scattered.  The red pine is an old plantation of less than 1 acre in a pocket at the north end. The oak is patchy. The stand has some low wet pockets.
99	42110 - Planted Red Pine	Poletimber Well	5.2	57	111-140	The stand was harvested by a third row thinning as well as a hardwood removal. The open areas have regenerated to a mixture of red maple and oak. Red maple has regenerated throughout the stand. There is a high density of black/red hybrid oak seedlings dominating the sub-canopy.
100	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	13.2	91	81-110	The stand is a matrix of uplands and lowlands with the lowlands being about 70%. The uplands are marginal. There is evidence of a high water table throughout the stand. The terrain is hummocky. Stand has been site conditioned as too wet.
101	4199 - Other Mixed Upland Deciduous	Poletimber Well	4.9	42	51-80	The terrain is hummocky. The understory is dominated by balsam fir saplings. Some of the canopy is beginning to see balsam fir feathering in as well.
103	4124 - Red with White Oak	Sawtimber Well	5.6	91	1-50	The terrain is undulating. The oak is patchy. The stand has some low wet pockets.
104	4130 - Aspen	Sapling Well	3.7	12	Unspecified	The stand was final harvested to 2" DBH. The harvest was completed in November 2004. The sale was Barrel Aspen, sale #73-004-04-01. The terrain slopes down going north. There is a drainage in the northern portion of the stand. There are some areas where the regeneration is sparse but overall it is fully stocked.
105	4130 - Aspen	Poletimber Well	9.5	32	81-110	The terrain slopes down going north. Currently the stand is self thinning, so there is a lot of down woody material present.
107	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Poor	5.3	84	1-50	Very wet stand. The stand has minor upland pockets as well as pockets of lowland shrubs and cattails. Factor limited as too wet.
112	4130 - Aspen	Poletimber Well	35.9	41	111-140	This stand does not appear to be a good candidate for early harvest. The timber is primarily small poles. There is a heavy density of red maple saplings within the stand. The terrain is rolling. There are some vernal ponds present in the stand.
118	4130 - Aspen	Sapling Well	31.8	21	81-110	This stand was final harvested in 1996. Power Line Aspen sale 73-051-95-01. Some paper birch in pockets. Traces of choke cherry and beech.
120	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	4.5	127	51-80	Terrain is hummocky and wet. Stand is factor limited as too wet.
121	4130 - Aspen	Poletimber Well	21.6	43	81-110	IFMAP notes from four years ago: The terrain is rolling. Currently the aspen is going through a natural thinning. There is a lot of down woody material present. Some of the swales contain vernal ponds.

s t	Gladwin	Mgt. Unit		Report 7	- Forested	Stands Compartment: 26 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
122	6123 - Lowland Fir	Sapling Well	5.8	29	51-80	The stand has extensive blow down. This makes the stand difficult to navigate. There is cedar regeneration in the stand that appears to be doing well. There is very little browse damage because of the jack strawed nature of the stand. Stand is factor limited as too wet.
124	6120 - Lowland Cedar	Poletimber Well	16.3	127	111-140	This stand is in a swale with a creek running through it. There are numerous seeps making the soils very wet. Blow down is heaviest along the creek. In those areas the stand is converting to balsam fir.
127	6130 - Fir, Aspen, Maple	Sapling Well	5.2	32	Unspecified	The stand is low and wet. The balsam fir is very dense in areas.  There is a trace of cedar in the stand but it is heavily browsed.
128	6120 - Lowland Cedar	Poletimber Well	6.9	90	51-80	Part of the stand is the riparian buffer to the Cedar River; a designated cold water stream.
130	4130 - Aspen	Sapling Well	18.1	1	1-50	This stand was clear cut in April 2015 as part of the MGR Mix sale 73-018-14-01. The regen is already coming back very well. The treatment was brought through to completion, not terminated.
131	4131 - Aspen, Oak	Poletimber Well	19.7	28	Immature	Stand is just coming into poles.
134	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	10.1	80	51-80	This is the approximately 100' riparian buffer that was left along the Cedar River (a designated cold water stream), when the stand was clear-cut in 2010, as a part of the Cedar River Aspen sale 73-015-07-01. The majority of this stand is flood plain with a very steep drop from it's southern line sloping toward the river. Factor limit-Too wet.
138	6124 - Lowland Spruce- Fir	Poletimber Well	16.5	94	51-80	Wet lowland conifer swamp.
139	4130 - Aspen	Poletimber Well	23.7	41	111-140	There is a steep narrow draw running east and west through part of the middle of the stand. The banks may be too steep for mechanical logging. The terrain is rolling. There are some vernal ponds present in the stand.
141	4130 - Aspen	Poletimber Well	12.9	38	81-110	The terrain slopes down going north. Currently the stand is self thinning, so there is a lot of down woody material present.
142	4130 - Aspen	Poletimber Well	6.7	32	81-110	This stand is a matrix of uplands and lowlands. Mostly uplands.  There is sheet flow within the stand.
143	6112 - Lowland Aspen	Poletimber Well	18.6	42	111-140	This stand is in a swale with a creek running through it. There are numerous seeps making the soils very wet. Blow down is heaviest along the creek. In those areas the stand is converting to ash and balsam fir.
144	4139 - Aspen, Mixed Deciduous	Poletimber Well	7.6	28	81-110	Some poles are just starting to come into logs.

S t	Gladwin	Mgt. Unit		Report 7	<ul><li>Forested</li></ul>	Stands Compartment: 26 Year of Entry: 2018
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
145	4139 - Aspen, Mixed Deciduous	Sapling Well	5.5	21	81-110	This stand was clear cut in 1996. Power Line Aspen sale 73-051- 95-01. Some of the aspen is just coming into poles.
146	4130 - Aspen	Sapling Well	20.1	21	81-110	This stand was clear cut in 1996. Power Line Aspen sale 73-051-95-01. Good regeneration.
147	4139 - Aspen, Mixed Deciduous	Sapling Well	17.0	12	81-110	This stand was clear cut in 2004 dormant season. Barrel Aspen sale 73-004-04-01. Variable regeneration. Some wet low pockets along the west side.
148	4130 - Aspen	Poletimber Well	6.2	42	81-110	The terrain is rolling. Very steep in places. Currently the stand is self thinning. There is a significant amount of down woody material on the ground. There are some vernal ponds located in the swales between the hills.
149	4199 - Other Mixed Upland Deciduous	Sawtimber Well	2.7	70	51-80	The terrain slopes down going north. Currently the stand is self thinning, so there is a lot of down woody material present. Narrow strip. Small stand.
152	4199 - Other Mixed Upland Deciduous	Sawtimber Poor	7.0	89	51-80	The stand is fairly flat to undulating. It is a two-aged and looks to have had the aspen and maple removed about 16 years ago. The stand has regenerated to a mix of oak, aspen, maple, and some white pine.
153	4130 - Aspen	Sapling Well	8.1	21	81-110	This stand was final harvested in 1996. Power Line Aspen 73-051-95-01. It is now coming into poles. There is a broad drainage present that was heavily rutted during the harvest. This area of moist soils is heavy to paper birch and quaking aspen. Noted black knot spreading on cherry. White and black oak predominately in openings near edges.
154	6112 - Lowland Aspen	Poletimber Well	11.6	17	81-110	Clear cut 1999. Some mature oak was left. Evidence of EAB. 100% ash mortality
155	4125 - Black, N. Pin Oak	Poletimber Well	24.0	25	51-80	Excellent oak regeneration has resulted from a partial harvest in 1990.
157	4131 - Aspen, Oak	Poletimber Well	19.8	36	51-80	Cut after large wildfire in the late 70's. Excellent growth.
158	4139 - Aspen, Mixed Deciduous	Poletimber Well	10.3	28	81-110	When the stand was harvested some of the over-story white oak was retained along the northern boundary.
159	4130 - Aspen	Sapling Well	7.8	12	81-110	The stand was final harvested to 2"DBH in November 2004. Barrel Aspen sale 73-004-04-01. Stand is somewhat rolling.
160	6124 - Lowland Spruce- Fir	Poletimber Well	5.0	41	51-80	Very sensitive stand, almost adjacent to the North Branch Cedar River. Factor limit. Too wet.
161	4130 - Aspen	Sapling Well	15.3	2	Immature	This stand was harvested in the Summer of 2015, MGR Mix sale 73-018-14-01. Good regeneration occurring in aspen and oak.

S t a n d	Gladwin		Report 7	– Forested	Stands Compartment: 26 Year of Entry: 2018	
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
162	6132 - Mixed Lowland Forest with Cedar	Poletimber Well	5.2	95	111-140	There are numerous seeps making the soils very wet. Blow down is heaviest along the creek. In those areas the stand is converting to ash and balsam fir. Very low and wet stand. Factor limited as too wet.
167	6124 - Lowland Spruce- Fir	Poletimber Well	3.8	50	51-80	Riparian buffer zone to the Cedar River. Factor limit as Buffer strip and too wet.



Cover Type	Acres	Managed Site	General Comments:
500 - Water	23.8	No	North Branch Cedar River.
6220 - Alder/willow	3.4	No	Marsh grass and tag alder wetland.
6223 - Inundated Shrub Swamp	10.4	No	Wetland with some sapling sized aspen and balsam fir in the western portion of the stand.
330 - Low-Density Trees	1.3	Yes	OPIC - FMD: Wildlife planting.
330 - Low-Density Trees	16.9	No	Down over a bank. Very wet tag alder / willow. 100% ash mortality-standing dead and wind thrown.
6220 - Alder/willow	17.3	No	Riparian zone to the North Branch Cedar River.
6220 - Alder/willow	11.3	No	
330 - Low-Density Trees	1.3	No	Aspen clear cut 1998. Appears to have failed. Possibly due to the adjacent cedar stand serving as thermo-cover to deer browsing the stand down in winter.
500 - Water	1.8	No	Streaked Lake.
320 - Upland Shrub	4.4	No	Clear cut 1998 - very poor regeneration.
6220 - Alder/willow	3.4	No	
6220 - Alder/willow	5.1	No	
6220 - Alder/willow	1.2	No	River flood plain. Alder/Willow.
6224 - Treed Bog	31.3	No	Treed cranberry bog with tamarack and black spruce. Mostly saps less than 4" dbh.  There are some coming into poles.
500 - Water	1.1	No	
6220 - Alder/willow	18.9	No	North Branch Cedar River bottom lands. Tag alder and willow.
6229 - Mixed lowland shrub	1.6	No	Mixed lowland shrub/deciduous wetland.
	500 - Water 6220 - Alder/willow 6223 - Inundated Shrub Swamp 330 - Low-Density Trees 330 - Low-Density Trees 6220 - Alder/willow 330 - Low-Density Trees 500 - Water 320 - Upland Shrub 6220 - Alder/willow	500 - Water       23.8         6220 - Alder/willow       3.4         6223 - Inundated Shrub Swamp       10.4         330 - Low-Density Trees       1.3         6220 - Alder/willow       17.3         6220 - Alder/willow       11.3         330 - Low-Density Trees       1.3         500 - Water       1.8         320 - Upland Shrub       4.4         6220 - Alder/willow       3.4         6220 - Alder/willow       5.1         6220 - Alder/willow       1.2         6224 - Treed Bog       31.3         500 - Water       1.1         6220 - Alder/willow       1.8	Cover Type         Acres         Site           500 - Water         23.8         No           6220 - Alder/willow         3.4         No           6223 - Inundated Shrub Swamp         10.4         No           330 - Low-Density Trees         1.3         Yes           330 - Low-Density Trees         16.9         No           6220 - Alder/willow         17.3         No           6220 - Alder/willow         11.3         No           500 - Water         1.8         No           500 - Water         1.8         No           6220 - Alder/willow         3.4         No           6220 - Alder/willow         5.1         No           6220 - Alder/willow         1.2         No           6224 - Treed Bog         31.3         No           500 - Water         1.1         No           6220 - Alder/willow         18.9         No



Stand	Cover Type	Acres	Managed Site	General Comments:
60	122 - Road/Parking Lot	4.9	No	Meredith Grade road and Road ROW
61	330 - Low-Density Trees	16.1		The stand was final harvested in the Fall of 2015 with some oak left as retention. Sale was MGR Mix 73-018-14-01.
62	330 - Low-Density Trees	34.5		Stand was harvested in the Fall of 2015, MGR Mix sale 73-018-14-01. Stand to be planted to red pine, FTP C73-963.
71	3102 - Grass	2.9	Yes	This stand is Leota Trail Head Parking Lot for the snowmobile trail
72	330 - Low-Density Trees	11.9		Stand was clear cut in the Fall of 2015 leaving some log sized oak and conifer as retention. Sale was MGR Mix 73-018-14-01.
76	6239 - Mixed Emergent Wetland	4.4	No	The stand is heavy to cattails and water. The edges are tag alder and willow
83	330 - Low-Density Trees	7.5	No	
84	3303 - Mixed Low Density Trees	10.3	No	
91	6229 - Mixed lowland shrub	7.8	No	The terrain is rolling with some steep slopes. The stand has traces of black locust and beech in the southern portion of the stand.
93	110 - Low Intensity Urban	7.0	No	Over head power line.
102	310 - Herbaceous Openland	4.5	No	This is a power line and ROW for M-18.
106	6239 - Mixed Emergent Wetland	4.0	No	
108	3105 - Mixed Upland Herbaceous	20.2	No	This is an overhead utility power line and a DTE Energy gas pipeline. The terrain is undulating to rolling.
109	622 - Lowland Shrub	1.1	No	
110	6225 - Bog	2.0	No	This is a leather leaf bog with a lot of standing water present.
111	623 - Emergent Wetland	1.4	No	This is a marsh grass wetland.
113	622 - Lowland Shrub	1.1	No	



Stand	Cover Type	Acres	Managed Site	General Comments:
114	310 - Herbaceous Openland	1.2	Yes	Managed Wildlife Division opening.
115	629 - Mixed non-forested wetland	9.9	No	This is an old beaver flooding. It is still holding some water.
116	310 - Herbaceous Openland	5.3	No	Buried gas pipeline.
117	3202 - Autumn Olive/Honeysuckle	2.3	No	This is an autumn olive planting. The other species in the stand are some blackberry and raspberry.
119	6233 - Wet Meadow	4.6	No	The stand looks like an old beaver flooding that the dam has gone out on. The area now looks to be a wet meadow. Some paper birch and ash are starting to fill in.
123	500 - Water	7.0	No	Appears to be a beaver flooding that has recently been abandoned. Headwaters and feeder stream to North Branch Cedar River.
125	6229 - Mixed lowland shrub	1.7	No	Lowland shrub surrounding a flooded area.
126	6224 - Treed Bog	6.6	No	This stand is a leather leaf bog with scattered patches of black spruce and tamarack.  There is also an inclusion of a small pond.
129	6220 - Alder/willow	3.2	No	This is a lowland shrub type surrounding a water feature.
132	500 - Water	0.5	No	
133	6229 - Mixed lowland shrub	1.1	No	Streaked Lake riparian zone.
135	6220 - Alder/willow	5.1	No	Flood plain. Alder/willow. Marsh grass.
136	500 - Water	3.8	No	Headwaters and feeder stream to the North Branch Cedar River.
137	500 - Water	1.1	No	
140	500 - Water	4.3	No	
150	6220 - Alder/willow	12.3	No	Riparian zone of headwaters and feeder stream to the North Branch Cedar River.
151	6225 - Bog	1.7	No	This is a leather leaf bog along M-18.

# Report 8 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	General Comments:
163	6220 - Alder/willow	2.1	No	North Branch Cedar River.
164	6220 - Alder/willow	1.9	No	
165	622 - Lowland Shrub	0.6	No	
166	6220 - Alder/willow	0.5	No	Down over a bank. Very wet tag alder / willow.
400	310 - Herbaceous Openland	4.6	Yes	Maintained wildlife opening.
403	310 - Herbaceous Openland	7.0	Yes	Maintained wildlife opening.
404	310 - Herbaceous Openland	3.1	Yes	Wildlife planting.