

## **Compartment Review Presentation**

**Gladwin Forest Management Unit** 

Compartment 18
Entry Year 2015

Acreage: 2,610 County Clare

Management Area: Upper Muskegon

Revision Date: 06/10/2013

Stand Examiner: Tim Gallagher

**Legal Description:** 

T17N R06W Sec. 3, 10 & 11 - T18N R06W Sec. 27, 34 & 35.

## **Identified Planning Goals:**

Follow guidelines set forth in the Regional State Forest Management Plan for the Upper Muskegon Management Area. Monitor and address forest health concerns and issues, balance timber age classes, manage for forest sustainability, provide wildlife habitat, provide forest based recreation. Protect archeological concerns, protect threaten and endangered species.

### Soil and topography:

The area varies from medium drained soils to well drained soils and is level too gently rolling hills. The major soil types are Rubicon-Croswell-Au Gres and Lupton-Markey associations. Overall the compartment is on average to above average ground with site indices above average.

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

The state land in this compartment is spread out over six sections. Private holdings range from small (less then 15 acres) subdivided lots to larger (greater then 40 acres) forested single holdings with absentee landowners. Forest management activity occurs on the larger private holdings. The Lost Lake Boy Scout Camp (2300 acres) is adjacent to the compartment. The proximity of the town of Lake to this compartment concentrates use on State Land within this compartment.

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

MNFI records indicate the following element occurrences; bald eagle to the south of compartment, osprey to the south of compartment, common loon to the south of compartment. There are no proposed forest treatments that will impact the noted element occurrences.

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

None noted within compartment.

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

Manage the aspen, oak and red pine stands to maintain a variety of age classes to support forest sustainability and to enhance wildlife habitat. Protect the non-forested and forested wetland types. Visual management near main roadways must remain an important factor when considering treatment options and sale layout.

#### Watershed and Fisheries Considerations:

Approximately 25% of this compartment is made up of lowland types. These lowland types provide excellent habitat for both game and non-game wildlife species and support populations of waterfowl. Three Lake Creek and several unnamed drainage's flow through the compartment. There are three small to medium sized lakes within the compartment listed as follows: Pike Lake, Green Pine Lake and Curry Lake.

#### Wildlife Habitat Considerations:

Upland systems are dominant in this compartment, making it suitable for a number of early forest successional wildlife species. The majority of strands are aspen although, there are lowland cover types and coniferous strands present. Species such as Ruffed grouse, white-tailed deer and American woodcock are quite common. Furbearers including beaver, mink, muskrat, black bear, bobcat, and coyote use the lowlands as corridors as well as year-round habitat. Other game species likely to be present in the compartment include black bear, bobcat, raccoon, coyote, 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 Lake Station Ave. and Adams Road.

#### Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 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 two miles to the northeast and there may be some potential on the upland areas. The compartment lies in an area of sparse drilling to the southwest of the Freeman-Lincoln Underground Gas Storage Fields. The entire compartment is currently leased for oil and gas development.

#### **Vehicle Access:**

Access to most of the compartment is good via the county road system and state two tracks that are in place.

#### **Survey Needs:**

None at this time.

### **Recreational Facilities and Opportunities:**

A large portion of the Green Pine Lake Pathway is located within this compartment in sections 27 & 34 of T18N - R06W. This non-motorized pathway has two loops within this compartment, then turns east thru compartment 17, ending at Big Mud Lake campground. Timber management activities should include trail protection specifications to reduce impacts to the pathway users, as well as serve as an example of how siliviculturally sound timber harvesting practices can co-exist, and often improve recreation and hunting experiences for future generations. Example trail protection specifications include: do not cut trees with blue pathway confidence markers on them, maintain a 20 foot wide slash, debris and rut free zone daily using the pathway as the centerline, do not run equipment down the pathway, & skid across the pathway only when necessary. Portions of the Green Pine Lake Pathway (Section 34, SW1/4) have been flooded by a beaver dam. PRD and WLD to work together to propose options to resolve beaver dam/pathway issue. (All purchased land State Game Fund).

#### **Fire Protection:**

A potential fire control problem exists due to the rural/urban interface within this compartment.

### **Additional Compartment Information:**

A long standing ORV damage issue exists within section 3, T17N - R06W. In order to address this resource damage FRD will develop a road closure plan for section 3. (PRD will apply for recreation grant to fund restoration and road closure work). Following is the proposed plan of action:

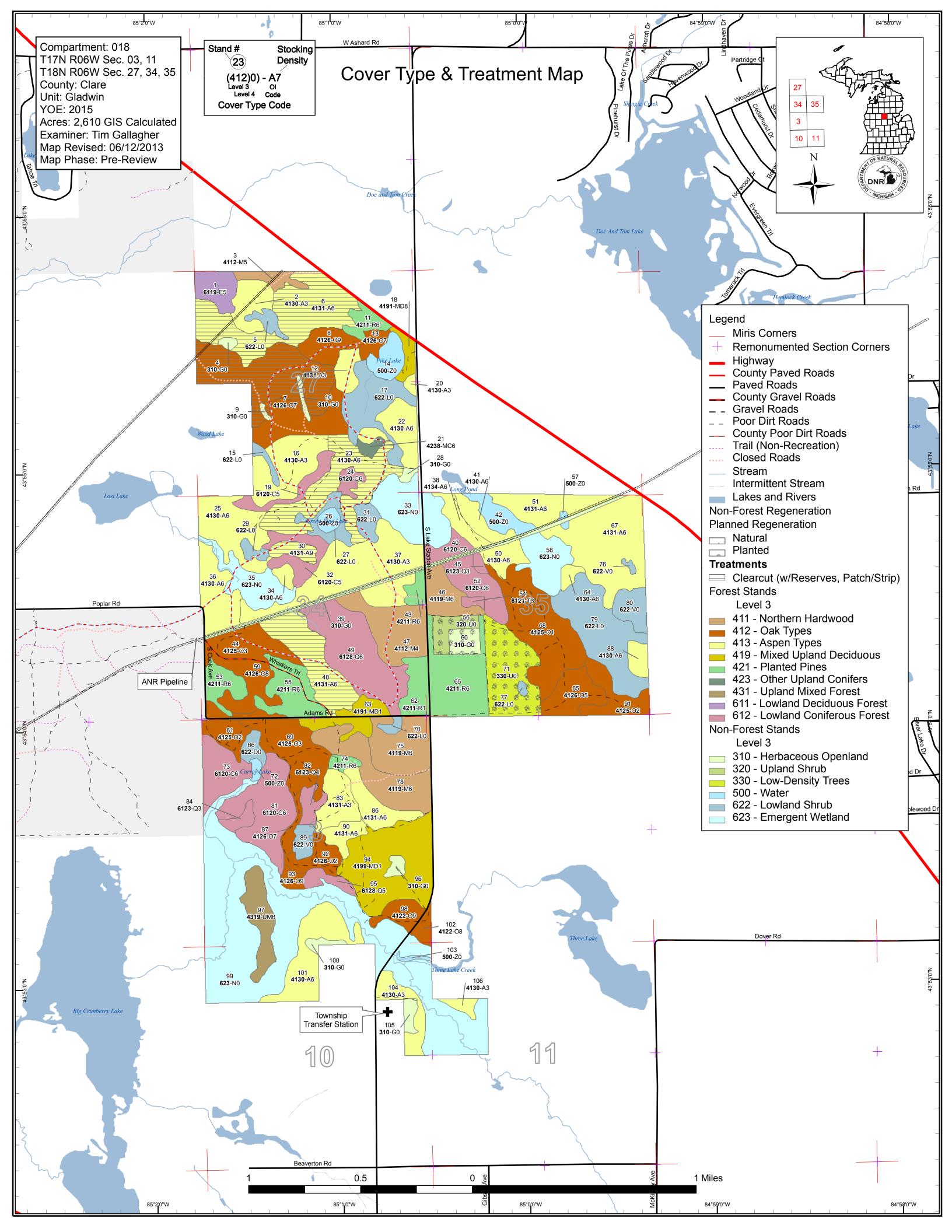
- 1. Leave the two roads in section three designated on the map open year round to vehicle traffic.
- 2. Continue blocking all side trails and access to hill climb areas with stumps and slash.
- 3. Monitor the land use over the next few years. If excessive trash dumping and/or access to hill climb areas continues, the two interior roads may be closed.
- 4. Road closures could be permanent, partial, or seasonal. Options would be finalized at a future time but could involve closing the entire length of road, blocking part of the road to prevent through traffic, and/or using gates to allow seasonal vehicle access for the main hunting seasons.

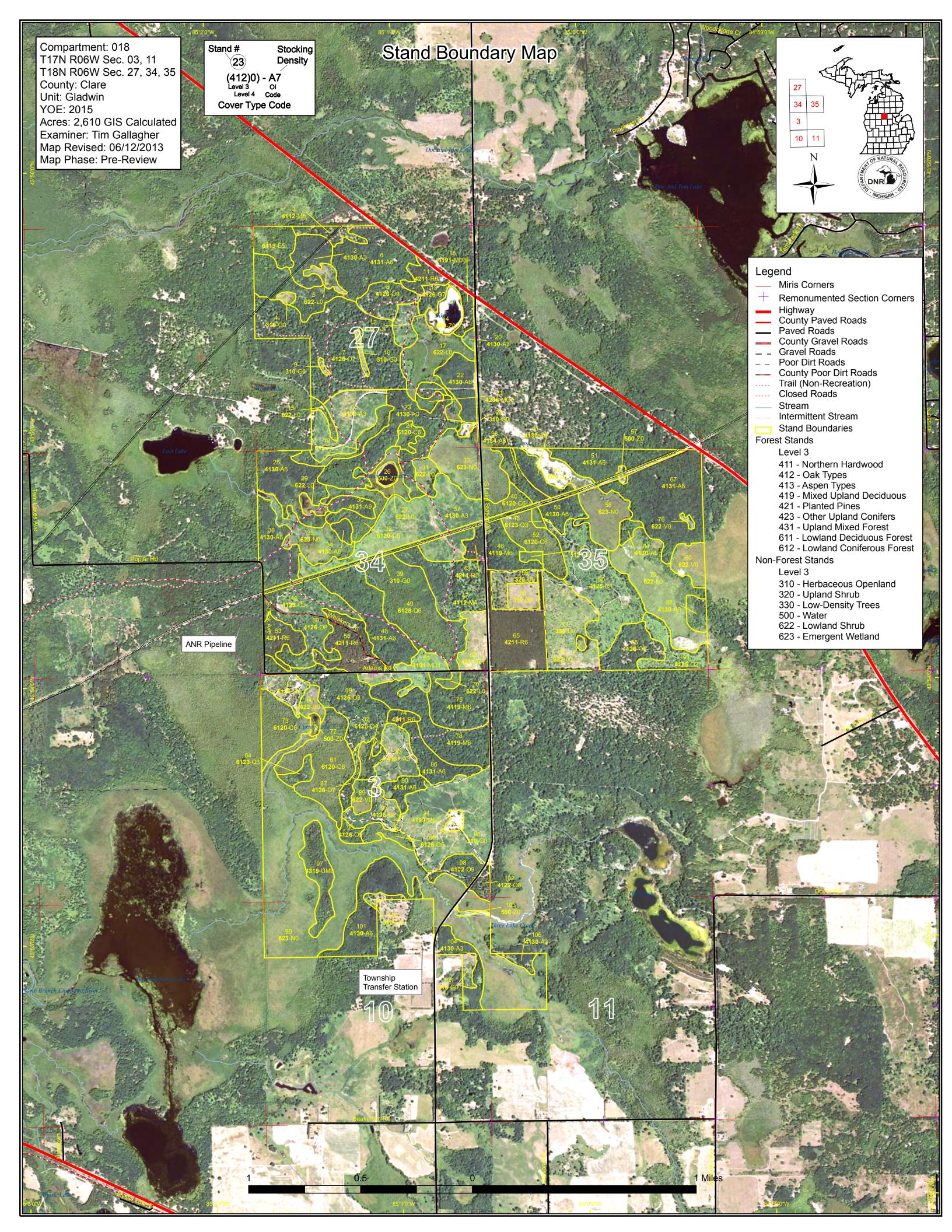
#### The following reports from the Inventory are attached:

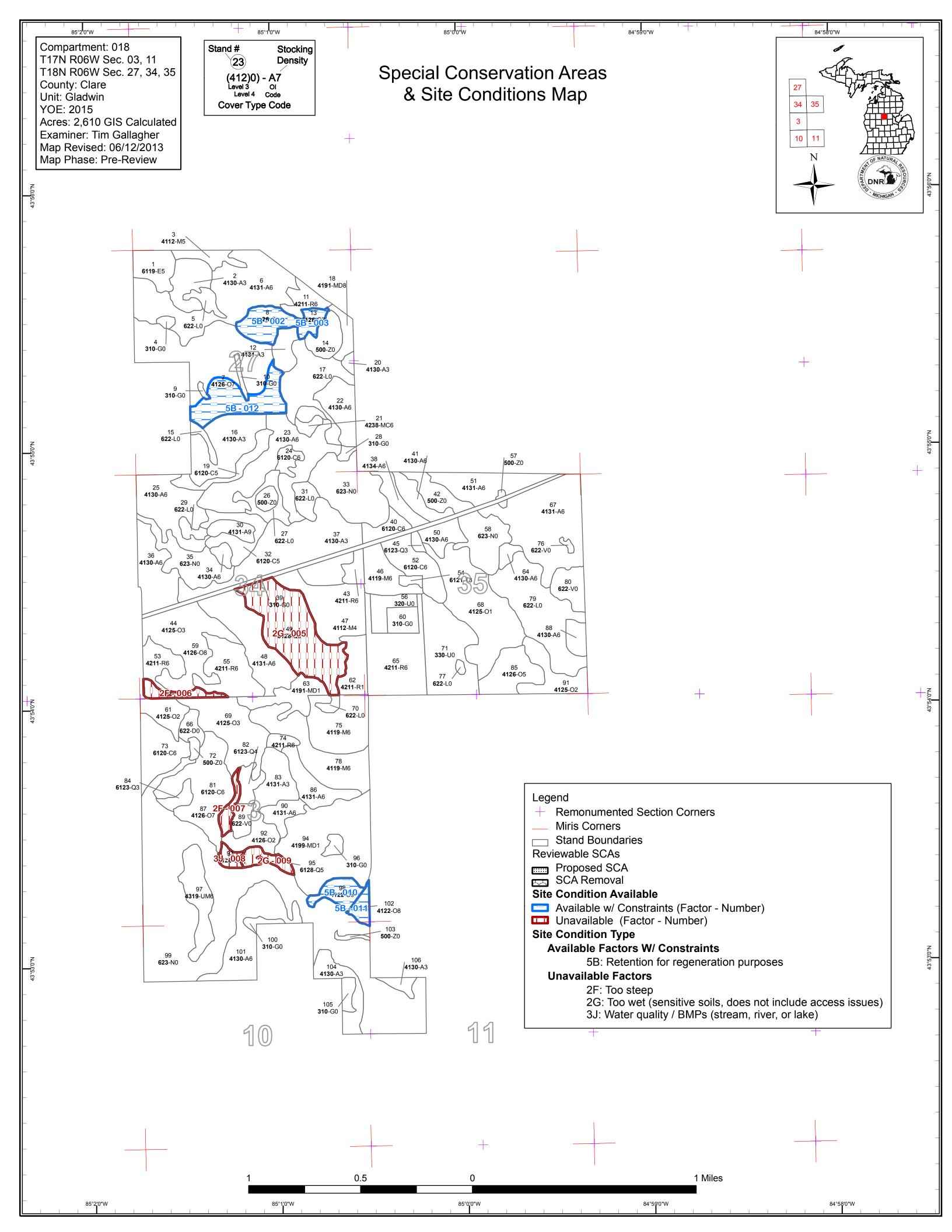
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







**Timothy Gallagher : Examiner** 



Age Class																
		60	70,79	in the second	No. No. No.	Dr. Co.	Sa S	800	d'a d'a	St. Co.	88.0	on on one	70,70	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	8 / A	or l
Aspen	165	19	165	44	158	204	0	0	0	0	0	0	0	0	756	
Bog	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
Cedar	0	0	0	0	0	0	0	0	0	26	131	0	0	0	157	
Herbaceous Openland	54	0	0	0	0	0	0	0	0	0	0	0	0	0	54	
Low-Density Trees	52	0	0	0	0	0	0	0	0	0	0	0	0	0	52	
Lowland Conifers	0	0	9	0	9	0	0	0	0	71	0	9	0	0	97	
Lowland Deciduous	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18	
Lowland Shrub	146	0	0	0	0	0	0	0	0	0	0	0	0	0	146	
Marsh	362	0	0	0	0	0	0	0	0	0	0	0	0	0	362	
Mixed Upland Deciduous	104	0	0	0	0	0	0	0	0	8	0	0	0	0	112	
Northern Hardwood	0	0	48	0	0	0	84	10	22	0	0	0	0	0	164	
Oak	86	137	0	0	0	26	0	0	6	174	0	0	0	0	430	
Red Pine	18	0	0	0	0	125	0	0	0	0	0	0	0	0	143	
Tamarack	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	
Treed Bog	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
Upland Conifers	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	
Upland Mixed Forest	0	0	0	0	27	0	0	0	0	0	0	0	0	0	27	
Upland Shrub	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
Water	41	0	0	0	0	0	0	0	0	0	0	0	0	0	41	
Total	1074	156	225	44	193	354	84	27	28	283	131	9	0	0	2610	



## **Report 2 – Proposed Treatment Summaries**

# Gladwin Mgt. Unit Year of Entry 2015

Compartment 018
Total Compartment Acres: 2,610

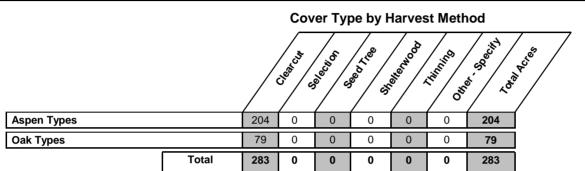
## **Acres by Treatment Type**

Commercial Harvest - 283 Tree Planting - 0

Other - 0

Habitat Cut - 0

Opening Maintenance - 0



#### Report 3 -- Treatments Prescribed with No Limiting Factor

Co

mpartment: 018	(3
ear of Entry 2015	DEPARTME
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t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
6	73018006-Cut	83.1	4131 - Aspen, Oak	High Density Pole	53		Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Specs:

S

Prescription Clearcut 2" spec manage for a mix of natural regeneration of aspen, red maple and mixed oak. Mark scattered oak and maple to leave in small groups to meet retention guidelines. Also leave all white pine, red pine and cedar (trace amounts of pine and cedar). Stand is expected to

regenerate naturally to a full stocked stand.

Decent aspen stand with red maple and mixed oak present as well. Mostly upland with scattered wet pockets. (Possible to treat 1/2 of stand this Other

year and 1/2 next year) Comments:

Monitior natural regeneration until adequate regeneration is achieved. A mix of aspen, mixed oak and red maple regeneration is acceptable. **Next** 

Steps:

Proposed

Start Date: 10/01/2014

73018007-78.9 4126 - White, 1-50 Harvest 4199 - Other Mixed 7 Low 99 Clearcut with Cmpt. Review Black, N. Pin Oak Density Log Cut1 Reserves **Upland Deciduous** Proposal

Specs:

Prescription North 1/2 - 2/3; Clearcut with reserves two inch spec. Cut at the same time as aspen cut to the north. Leave all scattered white pine and red pine. Mark to leave larger diameter oak for mast, retention and future snags etc.. Natural regeneration of aspen, red maple and mixed oak is expected. Dormant season harvest to promote the best possible stump sprouting and natural regeneration. Use bigger landing to the south that was used last YOE. Blue line is already in from last YOE harvest. As agreed to at pre-review leave retention along the Green Pine Lake Pathway. Leave smaller rather than larger trees. Notify District Recreation Specialist in advance of sale set-up to coordinate effort to protect the the pathway.

Other Comments:

All aspen, red maple and marked oak harvested in 2006. Timber sale cruised residual was 44 sq ft. Residual oak are mature and larger DBH. Lots of mixed understory as a result of the 2006 partial harvest.

South 1/2 - 1/3: No treatment. The regeneration will continue to grow, the overstory may favor the oak regen and the mature oaks will provide

Monitor natural regeneration until adequate regeneration is achieved. A mix of aspen, red maple and mixed oak regeneration is acceptable. Next

Steps:

Proposed

Start Date: 10/01/2014

73018023-Cut 64.8 4130 - Aspen High 53 4130 - Aspen Cmpt. Review 23 Harvest Clearcut with Density Reserves Proposal Pole

Specs:

Prescription Clearcut 2" spec manage for a mix of natural regeneration of aspen, red maple and mixed oak. Natural regeneration to a fully stocked stand is expected. Mark to leave mature oak and red maple in small groups to meet retention guidelines. Also leave area retention around adjacent low wet stands. Also leave all white pine, red pine and cedar (trace amounts of pine and cedar). Access is along main entrance road into the Lost Lake Camp.

Other

Decent aspen with red maple and mixed oak as well. Stand is mainly upland with a few scattered wet pockets. As agreed to at pre-review leave retention along the Green Pine Lake Pathway. Leave smaller rather than larger trees. Notify District Recreation Specialist in advance of sale set-Comments:

up to coordinate effort to protect the the pathway.

Next

Monitor natural regeneration until adequate regeneration is achieved. A mix of aspen, mixed oak and red maple regeneration is acceptable.

Steps:

Proposed

Start Date: 10/01/2014

30 73018030-Cut 9.0 4131 - Aspen, Oak High 58 Harvest Clearcut with 4130 - Aspen Cmpt. Review **Density Log** Reserves Proposal

Specs:

Prescription Clearcut 2" spec manage for a mix of natural regeneration of aspen, red maple and mixed oak. Stand is expected to regenerate to a full stocked stand. Mark scattered mature red maple and oak to leave in small groups to meet retention guidelines. Also leave all white pine, red pine and cedar (trace amounts of pine and cedar).

Other Comments: Mature aspen stand with fair amount of red maple mixed in. Access is from the north across a wet drainage. As agreed to at pre-review leave retention along the Green Pine Lake Pathway. Leave smaller rather than larger trees. Notify District Recreation Specialist in advance of sale set-

up to coordinate effort to protect the the pathway.

<u>Next</u> Steps: Monitior natural regeneration until adequate regeneration is achieved. A mix of aspen, mixed oak and red maple regeneration is acceptable.

<u>Proposed</u>

Start Date: 10/01/2014

## Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 018 Year of Entry 2015

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	MICHIGAN

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
48	73018048-Cut	47.2	4131 - Aspen, Oak	High Density	58	111-140	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal

Specs:

s

Prescription Clear cut 2" spec manage for a mix of natural regeneration of aspen, red maple and oak. Stand is expected to regenerate to a full stocked stand. Mark to leave mature oak in small groups to meet retention guidelines. Also leave area retention at very south end of stand between two red pine stands and about 200 feet north of Adams Road. Also leave all white pine, red pine and cedar (trace amounts of pine and cedar).

<u>Other</u> Comments: Mature aspen stand with fair amount of red maple poles and oak sawlogs mixed in. Scattered wet pot holes. Also trace amounts of white pine and red pine. Stand is upland with a few small wet pockets. As agreed to at pre-review leave retention along the Green Pine Lake Pathway. Leave smaller rather than larger trees. Notify District Recreation Specialist in advance of sale set-up to coordinate effort to protect the the

<u>Next</u>

Monitor natural regeneration until adequate regeneration is achieved. A mix of aspen, mixed oak and red maple regeneration is acceptable.

Steps:

Proposed

10/01/2014 Start Date:

**Total Treatment** 

283.1 Acreage Proposed:

Gladwin Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 018 a Limiting Factor s Year of Entry 2015 t **Treatment** Acres CoverType Size Stand ВА **Treatment Treatment Cover Type Approval** n Method Objective Status Name Density Age Range Type #Type! **Prescription** Specs: Other Comment: **Next** Steps: Proposed

Total Treatment

#Type!

Start Date: # Limiting Factor

Acreage Proposed: 0

Tim Gallagher: Examiner

3

4

27

1,810

95%

99

5%

4

27

1,910

Compartment 018
Year of Entry 2015

Availa	ability for I	<b>Vianagement</b>								
Total	Acres	Acres	Dominant Site Conditions							
Acres	Available	Not Available		No	5B	3J	2G	2F		
756	756		Aspen	756						
157	157		Cedar	157						
97	17	80	Lowland Conifers	17			80			
18	18		Lowland Deciduous	18						
112	112		Mixed Upland Deciduous	112						
164	164		Northern Hardwood	164						
430	411	20	Oak	328	82	5		15		
143	143		Red Pine	143						

Tamarack

**Upland Conifers** 

**Upland Mixed Forest** 

**Total Forested Acres** 

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.

4

27

1,728

82

•	Dominant Site ond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Available	5B: Retention for regeneration purposes	19	No Limiting Factor			
	omments: oor aualitv open ar	own mixed oak and red mapl	e Last Y0	OE stand had an RX for a	shelterwood harvest follow	ved by a understory RX bu	ırn. Both treatments
		5B: Retention for regeneration purposes					

80

15

# **Report 5 – Site Conditions**

Gladwin Mgt. Unit
Tim Gallagher: Examiner

Compartment 018
Year of Entry 2015

005	Not Available	2G: Too wet (sensitive soils, does not include access issues)	71			
_	comments: lo treatment. To w	et for commercial treatment. S	tand is v	very wet. Stand is mostly Q	type with scattered areas	s of lowland hardwood. Balsam fir is taking over.
006	Not Available	2F: Too steep	8	5B: Retention for regeneration purposes	3D: Recreational / Scenic values	
_	comments: lo treatment. Smal	l stand on slope above county	road. O	n slope above county road	. Hill climb area, trails up	and down slope. O3 understory.
007	Not Available	2F: Too steep	7	5B: Retention for regeneration purposes	3L: Other wildlife concerns	
N		e overstory manage for unders d white pine regen all over the				Over mature oak overstory. Lots happening in the
800	Not Available	3J: Water quality / BMPs (stream, river, or lake)	5	5B: Retention for regeneration purposes	3L: Other wildlife concerns	
S		at was left out of sale to the not ea and large lowland complex.		along lowland type. Stand	is regenerating naturaly t	o oak. Great wildlife stand / BMP stand. Between
009	Not Available	2G: Too wet (sensitive soils, does not include access issues)	9			
_	comments: Yery wet, to wet for	commercial harvest. Small dia	ameter s	parse timber, blow down, I	ots of diversity.	
010	Available	5B: Retention for regeneration purposes	13	No Limiting Factor		
0		and, small stand between large ak would set back the white pir				outh. Very dense white pine sap/pole understory.

# **Report 5 – Site Conditions**

Gladwin Mgt. Unit

Compartment 018 Year of Entry 2015 Tim Gallagher: Examiner

011	Available	5B: Retention for regeneration purposes	7	No Limiting Factor					
		st in 2008. O3/W3 in the unders	story. Fai	r amount of white pine in this stand. Visual concerns with this stand, small stand along Lake Station					
012	Available	5B: Retention for regeneration purposes	36						
	Comments:  South 1/2 - 1/3; No treatment. The regeneration will continue to grow, the overstory may favor the oak regen and the mature oaks will provide mast.								

Compartment: 018
Year of Entry: 2015

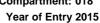


## Report 6 - PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* 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: 018





## Report 7 - DEDICATED CONSERVATION AREA DETAILS

\* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

ERA = Ecological Reference Area HCVA = High Conservation Value Area Conservation **Description Type** SCA = Special Conservation Area Area

S t	Gladwii	n Mgt. Unit	Report 8	– Forested	Stands Compartment: 018 Year of Entry: 2015	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	17.5	72	51-80	Not treatment. Wet
2	4130 - Aspen	High Density Sapling	20.4	27		Aspen regeneration.
3	4112 - Maple, Beech, Cherry Association	Medium Density Pole	9.8	77	51-80	Semi open stand lots of open brushy areas. Brush is mainly pin cherry.
6	4131 - Aspen, Oak	High Density Pole	83.1	53		Decent aspen stand with red maple and mixed oak present as well. Mostly upland with scattered wet pockets. (Possible to treat 1/2 of stand this year and 1/2 next year)
7	4126 - White, Black, N. Pin Oak	Low Density Log	114.6	99	1-50	All aspen, red maple and marked oak harvested in 2006. Timber sale cruised residual was 44 sq ft. Residual oak are mature and larger DBH. Lots of mixed understory as a result of the 2006 partial harvest.
8	4126 - White, Black, N. Pin Oak	High Density Log	19.4	91	111-140	Poor quality open grown mixed oak and red maple. Last YOE stand had an RX for a shelterwood harvest followed by a understory RX burn. Both treatments were dropped. (Not sure why treatments were dropped) Good wildlife stand, cavity trees, nesting trees etc.
11	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	12.0	59	81-110	Red pine stand with fair amount of oak and red maple mixed in.  Up against M-115.
12	4131 - Aspen, Oak	High Density Sapling	11.3	7		Clearcut 2006, good mix of natural regeneration.
13	4126 - White, Black, N. Pin Oak	Low Density Log	7.6	99	1-50	Seed tree harvest in 2006. Old Pike Lake Campground.
16	4130 - Aspen	High Density Sapling	43.1	7		Clearcut 2006. Excellent aspen regeneration.
18	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	8.0	99	81-110	Small oak stand between Pike Lake, M-115 and Lake Stattion Ave. Parking area within stand.
19	6120 - Lowland Cedar	Medium Density Pole	13.7	103	51-80	Low wet valley. Narrow stand between two managed aspen stands. (possible blow down)
20	4130 - Aspen	High Density Sapling	2.5	7		Clearcut 2006, good aspen regeneration.
21	42380 - Non Pine Upland Conifer, Mixed Deciduous	High Density Pole	4.2	93		Very wet, no commercial harvest. No BA required.
22	4130 - Aspen	High Density Pole	26.1	26		Aspen regeneration is moving along nice.

S t	Gladwin Mgt. Unit			Report 8	– Forested	Stands Compartment: 018 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
23	4130 - Aspen	High Density Pole	64.8	53		Decent aspen with red maple and mixed oak as well. Stand is mainly upland with a few scattered wet pockets.
24	6120 - Lowland Cedar	High Density Pole	6.7	93		Very wet, no commercial harvest. Mixed conifer hardwood swamp.
<u></u> 25	4130 - Aspen	High Density Pole	42.8	27		Aspen regeneration, clearcut 1986. Scattered wet pockets.
30	4131 - Aspen, Oak	High Density Log	9.0	58		Mature aspen stand with fair amount of red maple mixed in. Access is from the north across a wet drainage.
32	6120 - Lowland Cedar	Medium Density Pole	18.8	96		Very wet, to wet for commercial harvest. North arm of stand is inclusion of a lowland brush/marsh area.
34	4130 - Aspen	High Density Pole	4.6	27		Aspen regeneration, clearcut 1986. Scattered wet pockets within stand.
36	4130 - Aspen	High Density Pole	32.4	27		Aspen regeneration, clearcut 1986. Scattered wet pockets within stand.
37	4130 - Aspen	High Density Sapling	86.0	7		Aspen regeneration, clearcut 2006.
38	4134 - Aspen, Spruce/Fir	High Density Pole	12.0	45		Hold one rotation.
40	6120 - Lowland Cedar	High Density Pole	10.1	109		Cedar swamp, no treatment.
41	4130 - Aspen	High Density Pole	12.8	45		Aspen stand. Could be cut this YOE if aspen acres are needed to even out the age class.
43	42110 - Planted Red Pine	High Density Pole	7.2	59	141-170	Maintain as red pine stand.
44	4125 - Black, N. Pin Oak	High Density Sapling	53.6	14		Oak that was clearcut 1999. Regenerating wee to O3 rwed maple and pin cherry mixed in as well. Some oak residual was left, less than 10 ft. Leave all oak residual.
<b>45</b>	6123 - Lowland Fir	High Density Sapling	2.6	24		Cut in 1989, regenerating well.
46	4119 - Mixed Northern Hardwoods	High Density Pole	21.6	80	81-110	Upland red maple. Scattered low ground.
47	4112 - Maple, Beech, Cherry Association	Low Density Pole	44.1	68	1-50	Open sparse cherry and maple. Stand was interplanted to red pine in 2005. P3 inclusion at north/west end of stand.

S t	Gladwin	Gladwin Mgt. Unit			– Forested	Stands Compartment: 018 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
48	4131 - Aspen, Oak	High Density Pole	47.2	58	111-140	Mature aspen stand with fair amount of red maple poles and oak sawlogs mixed in. Scattered wet pot holes. Also trace amounts of white pine and red pine. Stand is upland with a few small wet pockets.
49	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	70.9	96	81-110	Stand is very wet. Stand is mostly Q type with scattered areas of lowland hardwood. Balsam fir is taking over.
50	4130 - Aspen	High Density Pole	12.8	45		Aspen stand. Could be cut this YOE if aspen acres are needed to even out the age class.
51	4131 - Aspen, Oak	High Density Pole	30.2	45	81-110	Cut in 1968. Some residual oak and maple left.
52	6120 - Lowland Cedar	High Density Pole	25.2	109		Cedar swamp, Areas of blow down.
53	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	16.4	59	111-140	Red pine mixed with fair amount of oak. Red pine is suppressed looking.
54	6121 - Tamarack	High Density Sapling	2.8	26		Cut in 1987.
55	42110 - Planted Red Pine	High Density Pole	32.8	59	81-110	Red pine plantation, was thinned in 2006. Not ready to be thinned again yet BA is a little low and crowns not closed yet. All oak was left when stand was thinned.
59	4126 - White, Black, N. Pin Oak	Medium Density Log	8.1	92	51-80	On slope above county road. Hill climb area, trails up and down slope. O3 understory.
61	4125 - Black, N. Pin Oak	Medium Density	14.4	6		Clearcut 2007, good oak regeneration, hilly, roads all over the place.
62	42111 - Planted Red Pine, Mixed Deciduous	Low Density Sapling	18.3	5		Clearcut and replanted to red pine 2010.
63	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	21.1	7		Clearcut and replanted to red pine in 2006.
64	4130 - Aspen	High Density Pole	4.6	26		Aspen stand, clearcut 1987.
65	42110 - Planted Red Pine	High Density Pole	51.5	59	141-170	Red pine plantaion. Row thinned in 1987, second thinning in 2006.
67	4131 - Aspen, Oak	High Density Pole	78.9	45	81-110	Cut in 1968. Some residual oak and maple left.
68	4125 - Black, N. Pin Oak	Low Density Sapling	72.0	6		Oak clearcut in 2007. Good oak/mix regeneration less than 10 BA/AC mature oak trees left.

s t	Gladwin Mgt. Unit			Report 8	<ul><li>Forested</li></ul>	Stands Compartment: 018 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
69	4125 - Black, N. Pin Oak	High Density Sapling	45.0	15	1-50	6" DBH spec clearcut in 1998. 20 BA/AC of 6" DBH oak was left. Overall stand is doing well O4/O3
73	6120 - Lowland Cedar	High Density Pole	28.1	103	81-110	Cedar/Q type very low and wet, mucky soils.
74	42110 - Planted Red Pine	High Density Pole	4.9	59	111-140	Small red pine stand.
75	4119 - Mixed Northern Hardwoods	High Density Pole	39.7	60	81-110	Stand is wet in places, scattered wet pot holes.
78	4119 - Mixed Northern Hardwoods	High Density Pole	48.5	29	51-80	Seed tree harvest in 1984. Pretty much decided with past two inventory cycles to leave seed trees. Good cavity trees. Pockets were almost clearcut and other areas have higher oak residual BA/AC.
81	6120 - Lowland Cedar	High Density Pole	54.1	103	81-110	Cedar/Q type very low and wet, mucky soils. To wet for commercial harvest.
82	6123 - Lowland Fir	Low Density Pole	8.6	40		In a depression, bog type ground cover.
83	4131 - Aspen, Oak	High Density Sapling	22.6	6		Aspen clearcut 2007, nice regeneration.
84	6123 - Lowland Fir	High Density Sapling	6.2	28		Habitat cut in Q type, heavy to balsam fir.
85	4126 - White, Black, N. Pin Oak	Medium Density Pole	25.5	52	1-50	Cut in 1961
86	4131 - Aspen, Oak	High Density Pole	20.7	26	1-50	All aspen and maple cut in 1987 about 30' - 40' BA/AC of oak residual was left. Pretty much decided with last two inventory cycles to leave the oak residual. Mature oak residual are good cavity/wildlife trees.
87	4126 - White, Black, N. Pin Oak	Low Density Log	6.5	93	1-50	Steep hills, road is on top drops down on both sides. Over mature oak overstory. Lots happening in the understory. Oak and white pine regen all over the place 5' - 20' tall and starting to reach pole size. Manage for the understory. Overstory is low timber value and high wildlife value. ridge between two lowland types.
88	4130 - Aspen	High Density Pole	8.4	26		Aspen clearcut 1987.
90	4131 - Aspen, Oak	High Density Pole	11.3	42		Between two clearcuts from last year of entry. Stand has some fairly steep ravains.
91	4125 - Black, N. Pin Oak	Medium Density	22.6	16		Clear cut 1997.

S t	Gladwin Mgt. Unit			Report 8	– Forested	Stands Compartment: 018 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
92	4126 - White, Black, N. Pin Oak	Medium Density	16.3	15		Oak clear cut 1998.
93	4126 - White, Black, N. Pin Oak	High Density Log	5.2	94	51-80	Small oak stand that was left out of sale to the north, right along lowland type. Stand is regenerating naturaly to oak. Great wildlife stand / BMP stand. Between upland managed area and large lowland complex.
94	4199 - Other Mixed Upland Deciduous	Low Density Sapling	82.5	4		Clear cut between 2007 and 2012. Nice mix of regeneration. Areas of pure aspen areas of mixed oak/aspen/red maple. In the future may be able to type some of these areas out however, it is pretty mixed.
95	6128 - Lowland Coniferous, Mixed Deciduous	Medium Density Pole	8.7	113	51-80	Very wet, to wet for commercial harvest. Small diameter sparse timber, blow down, lots of diversity.
97	4319 - Mixed Upland Forest	High Density Pole	26.6	43		Island of timber surrounded by large lowland marsh system.
98	4122 - Oak, Pine	High Density Log	13.0	90	81-110	Oak / white pine stand, small stand between large clearcut to the north and a lowland marsh complex to the south. Very dense white pine sap/pole understory. Removing mixed oak would set back the white pine. Leave stand as natural buffer between clearcut and large swamp. Also visual buffer along Lake Station Ave.
101	4130 - Aspen	High Density Pole	44.4	37		Access is issue with this stand. Only access through state land would require a bridge (creekl is 20' bank to bank). Access through private is possible.
102	4122 - Oak, Pine	Medium Density Log	6.5	88	1-50	Shelterwood harvest in 2008. O3/W3 in the understory. Fair amount of white pine in this stand. Visual concerns with this stand, small stand along Lake Station Ave.
104	4130 - Aspen	High Density Sapling	18.9	16		Clear cut 1997.
106	4130 - Aspen	High Density Sapling	5.2	26		Access is concern with this stand.

# Report 9 - Nonforested Stands

Compartment: 018 Year of Entry: 2015



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
4	3102 - Grass	2.2	No	Unspecified	
5	6229 - Mixed lowland shrub	6.5	No	Unspecified	Lowland brush with A1.
9	3102 - Grass	1.2	No	Unspecified	Grass stand, old landing.
10	3102 - Grass	2.7	No	Unspecified	Grass stand, old landing.
14	50 - Water	14.6	No	Unspecified	Pike Lake.
15	6220 - Alder/willow	4.1	No	Unspecified	Lowland brush with cedar and balsam around edges.
17	6220 - Alder/willow	39.3	No	Unspecified	Tag alder and marsh type.
26	50 - Water	5.5	No	Unspecified	Green Pine Lake.
27	6223 - Inundated Shrub Swamp	12.4	No	Unspecified	Low wet ground around Green Pine Lake.
28	3102 - Grass	2.4	No	Unspecified	Sandy / Grassy area.
29	6229 - Mixed lowland shrub	4.5	No	Unspecified	Lowland brush.
31	6229 - Mixed lowland shrub	9.2	No	Unspecified	Beaver activity, standing water.
33	6239 - Mixed Emergent Wetland	47.7	No	Unspecified	Marsh and tag alder.
35	6239 - Mixed Emergent Wetland	29.6	No	Unspecified	Marsh grass and catttails. Small un-named creek bi-sects stand. Beaver activity.
39	3102 - Grass	22.1	No	Unspecified	ANR pipeline.
42	50 - Water	15.4	No	Unspecified	Water.
56	3202 - Autumn Olive/Honeysuckle	12.8	Planted	Red Pine	Autumn olive and scrub cherry. Planted to red pine 2008. Replanted to red pine 20011. FTP completion report C73-743-Replant 2011.
57	50 - Water	1.4	No	Unspecified	

# Report 9 - Nonforested Stands

Compartment: 018 Year of Entry: 2015



Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
6239 - Mixed Emergent Wetland	27.7	No	Unspecified	Tag alder, willow, marsh grass, water, cattails.
3102 - Grass	10.3	Planted	Red Pine	Planted to red pine 2008.
6224 - Treed Bog	7.4	No	Unspecified	Low wet bog type sparse tamarack, spruce and fir. Adjacent to Curry Lake.
6220 - Alder/willow	3.2	No	Unspecified	
3302 - Low Density Conifer Trees	51.9	Planted	Red Pine	Clearcut and planted to red pine in 2009
50 - Water	2.6	No	Unspecified	Currey Lake
6225 - Bog	1.4	No	Unspecified	
6220 - Alder/willow	1.4	No	Unspecified	
6229 - Mixed lowland shrub	65.1	No	Unspecified	large lowland shrub area. Water fowl habitat.
6225 - Bog	14.9	No	Unspecified	
6225 - Bog	8.0	No	Unspecified	
3101 - Poverty Grass, Cladonia	4.2	No	Unspecified	Old township dump.
6239 - Mixed Emergent Wetland	257.2	No	Unspecified	Large marsh complex, areas of tag alder, cattails, dogwood. Two creeks bi-sect stand.
3102 - Grass	3.6	No	Unspecified	Scattered pin cherry.
50 - Water	1.9	No	Unspecified	Part of Trhee Lake Creek
3102 - Grass	5.2	No	Unspecified	Old twp. dump. Garfield twp. transfer station.
	6239 - Mixed Emergent Wetland 3102 - Grass 6224 - Treed Bog 6220 - Alder/willow 3302 - Low Density Conifer Trees 50 - Water 6225 - Bog 6229 - Mixed lowland shrub 6225 - Bog 3101 - Poverty Grass, Cladonia 6239 - Mixed Emergent Wetland 3102 - Grass 50 - Water	6239 - Mixed Emergent Wetland 27.7  3102 - Grass 10.3  6224 - Treed Bog 7.4  6220 - Alder/willow 3.2  3302 - Low Density Conifer Trees 51.9  50 - Water 2.6  6225 - Bog 1.4  6229 - Mixed lowland shrub 65.1  6225 - Bog 14.9  6225 - Bog 8.0  3101 - Poverty Grass, Cladonia 4.2  6239 - Mixed Emergent Wetland 257.2  3102 - Grass 3.6	Cover type         Acres         Site           6239 - Mixed Emergent Wetland         27.7         No           3102 - Grass         10.3         Planted           6224 - Treed Bog         7.4         No           6220 - Alder/willow         3.2         No           3302 - Low Density Conifer Trees         51.9         Planted           50 - Water         2.6         No           6225 - Bog         1.4         No           6220 - Alder/willow         1.4         No           6229 - Mixed Iowland shrub         65.1         No           6225 - Bog         14.9         No           6225 - Bog         8.0         No           3101 - Poverty Grass, Cladonia         4.2         No           6239 - Mixed Emergent Wetland         257.2         No           3102 - Grass         3.6         No           50 - Water         1.9         No	Cover type         Acres         Site         (Objective)           6239 - Mixed Emergent Wetland         27.7         No         Unspecified           3102 - Grass         10.3         Planted         Red Pine           6224 - Treed Bog         7.4         No         Unspecified           6220 - Alder/willow         3.2         No         Unspecified           3302 - Low Density Conifer Trees         51.9         Planted         Red Pine           50 - Water         2.6         No         Unspecified           6225 - Bog         1.4         No         Unspecified           6220 - Alder/willow         1.4         No         Unspecified           6229 - Mixed lowland shrub         65.1         No         Unspecified           6225 - Bog         14.9         No         Unspecified           6225 - Bog         8.0         No         Unspecified           3101 - Poverty Grass, Cladonia         4.2         No         Unspecified           6239 - Mixed Emergent Wetland         257.2         No         Unspecified           50 - Water         1.9         No         Unspecified