



**Gladwin Forest Management Unit  
Compartment Review Presentation  
Compartment # 27 - Entry Year: 2014  
Compartment Acreage: 917 GIS Calculated - County: Gladwin**

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**Revision Date:** May 29, 2012; June 20, 2012

**Stand Examiner:** Tim Gallagher, Forest Technician.

**Legal Description:** T20N – R01E Sections 4, 9, 16 and 21.  
T20N – R01W Sections 1 and 12.

**Identified Planning Goals:** None.

**Management Goals:** Continue to manage aspen on the aspen sites and oak on the oak sites maintaining a variety of age classes to enhance deer and grouse habitat. Protect the non-forested wetland types.

**Soil and Topography:** The area varies from poorly drained soil to medium drained soil and is level. The major soil types are Iosco-Brevort association and Crowell-AuGres-Rubican association.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Solid block of state ownership with private ownership around the entire perimeter. There are many small subdivisions around Elk, Mud and Indian Lakes, all of which are all located within the compartment. The proximity of these small subdivisions concentrates use on State Land within this compartment. Many illegal ORV trails are located within the compartment. Very little forest management occurs on the adjacent private lands.

**Unique, Natural Features:** MNFI records indicate the following; Potential for blanding's turtle and wood turtle. Loon associated with Elk Lake. Historic great blue heron rookery to the southeast. Laura's snaketail to the east and northeast in two small streams, slight potential in Elk Lake Creek. Potential for red shoulder hawk in mature aspen and birch. Potential for ram's head, round leaved orchid, limestone oak fern and calypso in lowland conifer and cedar types.

**Archeological, Historical, and Cultural Features:** None noted within compartment.

**Special Management Designations or Considerations:** Visual management near main roadways and within view of the subdivisions must remain an important factor when considering treatment options and sale layout.

**Watershed and Fisheries Considerations:** Approximately 40% of this compartment is made up of lowland types. These lowland types are excellent game wildlife habitat and support populations of waterfowl and many non-game species as well. Several unnamed drainage's flow through the compartment. There are several medium sized lakes within the compartment listed as follows: Elk Lake, Indian Lake, Mud Lake, Lost Lake, Dollar Lake and Cedar Lake. These lakes have a mixture of private and state ownership and have small subdivisions built up around the water.

**Wildlife Habitat Considerations:** This compartment contains a variety of vegetative types. Upland and lowland systems are present, making it suitable for a number of wildlife species. This compartment functions as a major travel corridor for Black Bears. Game species likely to be present in this compartment include black bear, bobcat, raccoon, coyote, wild turkey, ruffed grouse, snowshoe hare, and white-tailed deer. Many bird species stand to benefit from the juxtaposition of lowland and upland habitats present in the compartment. These include gray catbird, redbellied vireo, white-breasted nuthatch, tufted titmouse, black-capped chickadees, eastern kingbirds, northern flicker and common loon. The compartment is easily accessible to hunters via M-30.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of lacustrine (lake) sand and gravel and lacustrine clay and silt. The glacial drift thickness varies between 100 and 400 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations. The Saginaw Formation is used for brick making in other areas of the State. The nearest gravel pit is in Section 9 and potential in the compartment is considered good. Butman Field lies in the compartment. It has produced more than 360,000 BO primarily from the Richfield. Two wells are still producing (not plugged). Most of the State lands in the Compartment are leased for oil and gas exploration.

**Vehicle Access:** Access to most of the compartment is good via the county road system and state two tracks that are in place. State highway M-30 bisects the compartment.

**Survey Needs:** None.

**Recreational Facilities and Opportunities:** Primarily used for deer, turkey and grouse hunting. The Midland to Mackinaw Boy Scout Trail runs through the compartment. The Michigan Cross County Cycle Trail (MCCCT) bi-sects the compartment as well.

**Fire Protection:** Low fire occurrence due to the forest cover type.

**Additional Compartment Information:** Visual management of areas near main roadways and within view of the subdivisions must remain an important factor when considering treatment options and sale layout.

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

- ◆ **Total Acres by Cover Type and Age Class**
- ◆ **Proposed Treatment Summary**
- ◆ **Proposed Treatments – No Limiting Factors**
- ◆ **Proposed Treatments – With Limiting Factors**
- ◆ **Stand Details (Forested and Nonforested)**
- ◆ **Dedicated and Proposed Special Conservation Areas**
- **The following information is displayed, where pertinent, on the attached compartment maps:**
  - ◆ **Base feature information, stand boundaries, cover types, and numbers**
  - ◆ **Proposed treatments and details on the road access system**

**Table 1 – Total Acres by Cover Type and Age Class**

Gladwin Mgt. Unit

Compartment 027 Year of Entry 2014

Timothy Gallagher : Examiner



	Age Class														Total
	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120 +	Uneren Age	
Aspen	43	98	36	100	0	0	0	0	4	0	0	0	0	0	280
Cedar	0	0	0	0	0	0	0	0	0	6	0	68	0	0	74
Herbaceous Openland	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Lowland Conifers	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15
Lowland Deciduous	0	0	9	0	0	21	7	0	12	0	0	0	0	0	49
Lowland Mixed Forest	0	0	0	0	0	6	0	0	0	26	0	0	0	124	156
Lowland Shrub	32	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Lowland Spruce/Fir	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
Marsh	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Mixed Upland Deciduous	0	14	0	0	0	0	0	0	8	0	0	0	0	0	23
Oak	12	0	0	16	0	17	0	7	126	28	9	0	0	0	216
Red Pine	0	0	0	19	0	0	0	0	0	0	0	0	0	0	19
Urban	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Water	22	0	0	0	0	0	0	0	0	0	0	0	0	0	22
<b>Total</b>	<b>138</b>	<b>112</b>	<b>45</b>	<b>136</b>	<b>0</b>	<b>45</b>	<b>10</b>	<b>7</b>	<b>150</b>	<b>74</b>	<b>9</b>	<b>68</b>	<b>0</b>	<b>124</b>	<b>917</b>



## Table 2 – Proposed Treatment Summaries

**Gladwin Mgt. Unit**  
**Year of Entry 2014**

**Compartment 027**  
**Total Compartment Acres: 917.4**

### Acres by Treatment Type

Commercial Harvest - 142	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

### Cover Type by Harvest Method

		Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
<b>Aspen</b>	38	0	0	0	0	0	0	38
<b>Mixed Upland Deciduous</b>	8	0	0	0	0	0	0	8
<b>Oak</b>	0	0	33	45	0	0	0	78
<b>Red Pine</b>	0	0	0	0	18	0	0	18
<b>Total</b>	<b>46</b>	<b>0</b>	<b>33</b>	<b>45</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>142</b>



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
13	73027013-Cut	12.9	4131 - Aspen, Oak	High Density Pole	36		Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<p><u>Prescription</u>: Clear cut with reserves. Manage for a mix of natural regeneration of aspen, red maple and oak. Mark to leave scattered oak, pine and mixed hardwood to meet retention guidelines. Harvesting now to manage with stand 24.</p> <p><u>Specs</u>:</p> <p><u>Other</u>: Some type of selective clear cut in 1976. Residual oak, red maple and aspen were left (2 aged stand). Aspen regen is a bit small diameter wise.</p> <p><u>Comments</u>: Aspen regen is up into the overstory. Aspen is heavy to poles. 10 -20 BA of oak. 10 - 20 BA of red maple. 60 BA of aspen. No corners found along private line, decent fence along private line. Stand is all upland.</p> <p><u>Next Steps</u>: Monitor natural regeneration until adequate regeneration is achieved. A mix of aspen, mixed oak and red maple regeneration is acceptable.</p> <p><u>Proposed Start Date</u>: 10/01/2013</p>										
14	73027014-Cut	9.8	4126 - White, Black, N. Pin Oak	High Density Log	89	111-140	Harvest	Shelter Wood with Reserves	4126 - White, Black, N. Pin Oak	Cmpt. Review Proposal
<p><u>Prescription</u>: Shelterwood to establish and promote oak regeneration. Reduce residual BA down to 60 - 70 BA. Retention will be the residual trees. Stay 100 feet away from the lake (waters edge) with the red line. Gradual slope down to lake.</p> <p><u>Specs</u>:</p> <p><u>Other</u>: No corners found (5" of fresh snow). Old paint (blue and red) is still visible. Found a couple wood lot stacks along the north line. Access; ditch along Elk Lake Road is 3' feet deep and 5' feet wide. Will need permit to cross from Road Commission. Possible access off Marshall Drive. All aspen and maple removed in 1995. Can hardly tell stand was thinned in 1995. Not much regen in the understory. Stand is fully stocked with mature fair quality oak. Stand borders Mud Lake, Elk Lake Road and homes along the north line.</p> <p><u>Next Steps</u>: Monitor natural regeneration until adequate regeneration is achieved. A mix of mixed oak, red maple and aspen regeneration is acceptable.</p> <p><u>Proposed Start Date</u>: 10/01/2013</p>										
22	73027022-Cut	8.9	4126 - White, Black, N. Pin Oak	High Density Log	101	81-110	Harvest	Shelter Wood with Reserves	4126 - White, Black, N. Pin Oak	Cmpt. Review Proposal
<p><u>Prescription</u>: Shelterwood reduce oak residual down to 10 - 30 BA. Oak is in pretty good condition yet. Leave all white and red pine (trace).</p> <p><u>Specs</u>:</p> <p><u>Other</u>: All red maple and aspen removed in 1995. Not as much regen in this stand as the stand to the south. Visual concerns with this stand, houses to the north and east; borders Elk Lake Road. Oak regen ranges from 3' to 15' tall. (Clear cut is an option with this stand as the oak regen that is in place is tall enough and this option may improve stump sprouting. A clear cut in this stand would be a visual concern)</p> <p><u>Next Steps</u>: Monitor natural regeneration until adequate regeneration is achieved. A mix of mixed oak, aspen and red maple regeneration is acceptable.</p> <p><u>Proposed Start Date</u>: 10/01/2013</p>										
24	73027024-Cut	8.5	4199 - Other Mixed Upland Deciduous	High Density Pole	80	51-80	Harvest	Clearcut with Reserves	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u>: Clear cut with reserves manage for a mix of natural regeneration of aspen, red maple and mixed oak. Mark to leave white pine, oak and mixed hardwood species to meet retention guidelines. Wet area at south end of stand may need to be painted out. Restrict harvest to dry and/or frozen ground conditions. No corners found along private line. Pretty decent fence (nine point hunt club).</p> <p><u>Specs</u>:</p> <p><u>Other</u>: Mostly upland with scattered wet pockets. Manage with stand 13. Variable stand pockets of pure aspen pockets of oak/aspen. No corners found along private line. Pretty decent fence (nine point hunt club).</p> <p><u>Next Steps</u>: Monitor natural regeneration until adequate regeneration is achieved. A mix of aspen, mixed oak and red maple regeneration is acceptable.</p> <p><u>Proposed Start Date</u>: 10/01/2013</p>										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
26	73027026-Cut	10.6	4126 - White, Black, N. Pin Oak	Medium Density Log	82	51-80	Harvest	Shelter Wood with Reserves	4126 - White, Black, N. Pin Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Shelterwood with reserves. Loggability will be key factor when marking this stand. Where BA is higher mark down to 10 - 30 BA. There will be less to mark at the north end and around old borrow pit. Leave all white pine and scattered mixed hardwood (trace of each). Old two track from M-30 to old borrow pit will be access road. Will need culvert at M-30 ditch. Good size ditch.</p> <p><u>Specs:</u></p> <p><u>Other</u> All but live oak removed in 1986. Understory is fully stocked as a result of the 1986 harvest; aspen, oak and red maple. Understory is dense, well stocked, well established and in many places reaching pole size. Overstory density varies.</p> <p><u>Comments:</u></p> <p><u>Next Steps:</u> Monitor natural regeneration until adequate regeneration is achieved. A mix of mixed oak, aspen and red maple regeneration is acceptable.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
27	73027027-Cut	24.8	4130 - Aspen	High Density Pole	39	81-110	Harvest	Clearcut with Reserves	4130 - Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> Clear cut with reserves, manage for a mix of natural regeneration aspen, mixed oak and red maple. Mark to leave scattered oak in pockets and individually and leave all scattered white pine (trace).</p> <p><u>Specs:</u></p> <p><u>Other</u> No corners found however, private line should be ok to run. A little early to treat this stand however, treating to break up the aspen cuts in this compartment along the M-30 corridor. Cut in 1973. Scattered mature oak. Nice well stocked stand. Oak and some aspen must have been left in 1973 cut. Highly visible stand along M-30.</p> <p><u>Comments:</u></p> <p><u>Next Steps:</u> Monitor natural regeneration until adequate regeneration is achieved. A mix of aspen, mixed oak and red maple regeneration is acceptable.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
29	73027029-Cut	15.4	4126 - White, Black, N. Pin Oak	High Density Log	82	51-80	Harvest	Shelter Wood with Reserves	4126 - White, Black, N. Pin Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Shelterwood with reserves. Reduce BA down to 10 - 30 BA. This would help reduce the visual concern. The trees that were left would be left for the next rotation. There is a pocket in the northern central part of the stand where not much would be removed because the regen is so advanced.</p> <p><u>Specs:</u></p> <p><u>Other</u> All but live oak removed in 1988. Excellent aspen, oak and red maple regeneration as a result of the 1988 harvest. Regeneration is 10' to 30' tall and in many places is reaching 3" to 4" DBH. The question is whether or not to go in and remove the overstory. Overstory is in fair condition and fair quality. 18" DBH oak are common. Stand is along M-30, Elk Lake Road and homes on the north. The well stocked and well established regeneration stands out with this stand, oak, aspen and red maple.</p> <p><u>Comments:</u></p> <p><u>Next Steps:</u> Monitor natural regeneration until adequate regeneration is achieved. A mix of mixed oak, aspen and red maple regeneration is acceptable.</p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										
50	73027050-Cut	17.9	42110 - Planted Red Pine	High Density Pole	35	200+	Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Third row thin. Leave all scattered hardwood.</p> <p><u>Specs:</u></p> <p><u>Other</u> Planted in 1977. Not thinned yet. Small openings within stand with scattered wolfy oak. Stand makes good buffer along M-30 and Sugar River Road. No survey corner at SW corner of stand. Older single wire fence along west end of stand, fence looks good to use as private line.</p> <p><u>Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2013</p>										

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
57 73027057-Cut	33.3	4126 - White, Black, N. Pin Oak	Medium Density Log	88	51-80	Harvest	Seed Tree with Reserves	4126 - White, Black, N. Pin Oak	Cmpt. Review Proposal

Prescription Seed tree harvest with reserves, leaving 10 - 30 BA of wind firm oak and all white pine, releasing a well established oak understory. The Midland to Mackinac hiking trail is within stand, use VMS trail protection spec to protect trail during harvest.

Other Shelterwood harvest in 2006. Harvest has produced excellent oak regeneration. Oak regen looks to be seed source and above 4 1/2 feet tall.

Comments: Small wet area at SE corner of stand will need to be painted out if cut. Good private line to the south, old blue paint is still noticeable.

Next Monitor natural regeneration until adequate regeneration is achieved. A mix of mixed oak, aspen and red maple regeneration is acceptable. If needed interplant red pine to maintain full stocking.

Proposed  
Start Date: 10/01/2013

**Total Treatment  
Acreage Proposed: 142.0**

**Table 4 -- Treatments Prescribed with  
a Limiting Factor**



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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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#Error

Prescription  
Specs:

Other  
Comment:

Next  
Steps:

Proposed  
Start Date: #Error

Limiting Factor and No  
Treatment Reason

**Total Treatment  
Acreage Proposed: 0**

**Out of YOE -- Treatments  
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<b>73010274-Cut</b>	26.5	42260 - Natural Pine, Mixed Deciduous	High Density Log	105		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription: The stand is to be harvested as a 2" spec final harvest. The retention should be focused along the snowmobile trail.

Specs:

Other

Comments:

Next Steps: After the harvest replant the stand to red pine, expand the unplanted area around the Leota Weather Station.

Proposed

Start Date: 10/01/2009

<b>73010290-Cut</b>	17.1	42110 - Planted Red Pine	High Density Pole	56		Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription: The stand needs to be thinned by a systematic thinning individual tree marking taking the residual BA down to 110.

Specs:

Other

Comments:

Next

Steps:

Proposed

Start Date: 10/01/2009

<b>73010295-Cut</b>	28.0	4122 - Oak, Pine	High Density Pole	83		Harvest	Clearcut with Reserves	4129 - Mixed Oak	Cmpt. Review Proposal
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Prescription: The stand should be harvested as a 2" spec final harvest. The harvest should retain all red and white pine as well as marked oak for retention.

Specs: This retention should be focused along the snowmobile trail.

Other

Comments:

Next

Steps: After the stand is harvested interplant with red pine.

Proposed

Start Date: 10/01/2009

<b>73010296-Cut</b>	39.4	42260 - Natural Pine, Mixed Deciduous	High Density Pole	68		Harvest	Clearcut with Reserves	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription: The stand is to be harvested as a 2" spec final harvest. The retention should be a mixture of individually mark oak and pine. The retention

Specs: should be concentrated along the snowmobile trail.

Other

Comments:

Next

Steps: After the stand is harvested plant to red pine.

Proposed

Start Date: 10/01/2009

**Out of YOE -- Treatments  
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010299-Cut	15.5	4122 - Oak, Pine	High Density Log	105		Harvest	Clearcut with Reserves	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription: The stand is to be harvested to 2" DBH but do not cut any red or white pine. Focus any addition retention to the area along the snowmobile trail.  
Specs:

Other Comments:

Next Steps: After harvest interplant red pine this will lead to a mixed oak/pine stand.

Proposed Start Date: 10/01/2009

73010308-Cut	21.7	42211 - Natural Red Pine, Mixed Deciduous	High Density Pole	73		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription: The stand is to be final harvested to 2" DBH. The retention should be placed along the Township property for visual consideration. In addition the boundary should be marked along the top of the bluff that overlooks the Muskegon River Food plain  
Specs:

Other Comments:

Next Steps: After harvest replant the stand to red pine.

Proposed Start Date: 10/01/2009

73010310-Cut	6.8	42211 - Natural Red Pine, Mixed Deciduous	High Density Pole	73		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription: Harvest the stand as a 2" spec final harvest. The retention should be placed to address visual concerns.  
Specs:

Other Comments:

Next Steps: After the harvest plant the stand to red pine.

Proposed Start Date: 10/01/2009

73010312-Cut	34.7	42110 - Planted Red Pine	High Density Log	73		Harvest	Systematic Thinning	42110 - Planted Red Pine	Cmpt. Review Proposal
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Prescription: The stand is to be harvested as a thinning taking the BA down to around 120 sq ft. Concentrated the removal on damaged trees and leave the scattered live and dead oak. Focus the retention along the snowmobile trail.  
Specs:

Other Comments:

Next Steps:

Proposed Start Date: 10/01/2009

**Out of YOE -- Treatments  
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<b>73010314-Cut</b>	9.2	42140 - Planted Mixed Pine	High Density Pole	73		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> The stand should be final harvest the stand to 2" DBH. The stand should have red pine and oak marked to met retention or leave the SE corner of the stand for retention.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> After the stand is harvested replant the stand to red pine.</p> <p><u>Proposed Start Date:</u> 10/01/2009</p>									
<b>73010323-Cut</b>	160.2	42220 - Natural Jack Pine	High Density Pole	63		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> This stand is in an established KW Block. Harvest the stand as a 2" clearcut. The retention should be left in strip going from the southwest to northeast and should be approximatly 33' wide. These strips are being left to simulate fire skips.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> After the harvest trench and replant to jack pine.</p> <p><u>Proposed Start Date:</u> 10/01/2009</p>									
<b>73010324-Cut</b>	34.3	42220 - Natural Jack Pine	High Density Pole	59		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> This stand is in an established KW Block. Harvest the stand as a 2" DBH final harvest. The retention in the stand should be left in strip going from the southwest to northeast going through the entire block. These strips should be approximately 33' wide.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> After the harvest trench and plant jack pine.</p> <p><u>Proposed Start Date:</u> 10/01/2009</p>									
<b>73010325-Cut</b>	86.7	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	59		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal
<p><u>Prescription</u> This stand is in an established KW Block. Harvest the stand as a 2" DBH final harvest. The retention in the stand should be left in strip going from the southwest to northeast going through the entire block. These strips should be approximately 33' wide.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> After the harvest trench and plant jack pine</p> <p><u>Proposed Start Date:</u> 10/01/2009</p>									

**Out of YOE -- Treatments  
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
<b>73010334-Cut</b>	7.3	42121 - Planted Jack Pine, Mixed Deciduous	High Density Pole	72		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription The stand is to be harvested as a 2" Spec final harvest.

Specs:

Other

Comments:

Next After the harvest replant the stand to jack pine.

Steps:

Proposed

Start Date: 10/01/2006

<b>73010336-Cut</b>	32.5	4122 - Oak, Pine	High Density Log	94		Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal
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Prescription Harvest the stand as a 2" spec, except for oak which is to be cut to 4" DBH and white pine to be cut to 6" DBH. In addition mark some trees for retention

Specs:

Other

Comments:

Next The stand is expected to regenerate to a mixture of aspen, oak, maple, and jack pine.

Steps:

Proposed

Start Date: 10/01/2006

<b>73010338-Cut</b>	86.7	42290 - Natural Mixed Pine	High Density Pole	74		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal
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Prescription This stand is in an established KW Block. Harvest the stand as a 2" DBH final harvest. The retention in the stand should be left in strip going from the southwest to northeast going through the entire block. These strips should be approximately 33' wide.

Specs:

Other

Comments:

Next After the harvest trench and plant jack pine for KW.

Steps:

Proposed

Start Date: 10/01/2009

<b>73010344-Cut</b>	22.8	4125 - Black, N. Pin Oak	High Density Pole	96		Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal
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Prescription Harvest the stand as a 2" spec final harvest, except the oak which is to be cut to 4" DBH. In addition, do not harvest any white and red pine.

Specs:

Other

Comments:

Next The stand is expected to regenerate to a mixture of oak and aspen.

Steps:

Proposed

Start Date: 10/01/2006

**Out of YOE -- Treatments  
Prescribed with No Limiting Factor**

Year of Entry: 2014



Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
73010420-Cut	1.5	42220 - Natural Jack Pine	High Density Pole	66		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal - Incomplete

Prescription The stand should be harvested as a 2" spec final harvest. The retention should be kept in a small patch.

Specs:

Other

Comments:

Next The stand is to be replanted to jack pine after it is harvested.

Steps:

Proposed

Start Date: 10/01/2012

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**Total Treatment  
Acreage Proposed: 630.9**



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4126 - White, Black, N. Pin Oak	High Density Log	1.7	91	51-80	Very small stand with access issue. Surrounded by cedar and private land.
2	6120 - Lowland Cedar	High Density Pole	32.2	111	171-200	Dense cedar stand with some blow down. Borders Elk Lake. Small creek bi-sects stand.
3	4125 - Black, N. Pin Oak	High Density Log	22.4	91	81-110	Boarders Elk Lake. Only access for commercial harvest is across private. There is a heavy concentration of cabins and homes within view across the lake from this stand. Valley in the south central part of stand.
4	4130 - Aspen	High Density Sapling	18.0	8	1-50	Coding for understory. All but 10 to 20 sq. ft. of mixed hardwood cut in 2004. Very good aspen regeneration. Includes a couple small areas within stand that were not cut.
5	6120 - Lowland Cedar	High Density Pole	18.0	110		Boarders small creek and Elk Lake.
7	4130 - Aspen	High Density Log	4.0	85		Entire stand is on slope above Elk Lake. Stand has understory of oak, ash, maple and aspen. As aspen die off stand is converting to mixed hardwood.
9	6120 - Lowland Cedar	High Density Pole	14.3	110		Boarders Elk Lake and small creek.
10	4130 - Aspen	High Density Sapling	23.3	14		Clearcut 1998. Great regeneration.
11	4130 - Aspen	High Density Sapling	27.0	26		Clearcut 1986. Great regeneration in transition between saps and poles.
12	6119 - Mixed Lowland Deciduous Forest	High Density Pole	21.1	59	81-110	Species composition varies, inclusions of small scattered lowland brush areas. Stand is a forested drainage between two managed stands. Over all this stand is pretty wet.
13	4131 - Aspen, Oak	High Density Pole	12.9	36		Some type of selective clear cut in 1976. Residual oak, red maple and aspen were left (2 aged stand). Aspen regen is a bit small diameter wise. Aspen regen is up into the overstory. Aspen is heavy to poles. 10 -20 BA of oak. 10 - 20 BA of red maple. 60 BA of aspen. No corners found along private line, decent fence along private line. Stand is all upland.
14	4126 - White, Black, N. Pin Oak	High Density Log	9.8	89	111-140	All aspen and maple removed in 1995. Can hardly tell stand was thinned in 1995. Not much regen in the understory. Stand is fully stocked with mature fair quality oak. Stand borders Mud Lake, Elk Lake Road and homes along the north line.
15	6130 - Fir, Aspen, Maple	Medium Density Pole	25.6	90		Creek/drainage corridor. Beaver activity. Standing dead trees. RMZ stand protects water shed. Areas of marsh grass, cattails and tag alder.
16	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	15.1	97	51-80	Very wet site. Areas of cattails and marsh grass. Areas of blowdown. Smaller diameter timber. Drainage bi-sects stand.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
18	4130 - Aspen	High Density Sapling	6.9	14		Clear cut 1998. Good mix of regeneration.
19	6115 - Lowland Ash	High Density Pole	7.0	60		Very wet stand. Small diameter black ash and tag alder. Areas of marsh grass and cattails.
22	4126 - White, Black, N. Pin Oak	High Density Log	8.9	101	81-110	All red maple and aspen removed in 1995. Not as much regen in this stand as the stand to the south. Visual concerns with this stand, houses to the north and east; borders Elk Lake Road. Oak regen ranges from 3' to 15' tall.
23	4130 - Aspen	High Density Sapling	5.9	14		Clear cut in 1998. Good mix of natural regeneration.
24	4199 - Other Mixed Upland Deciduous	High Density Pole	8.5	80	51-80	Mostly upland with scattered wet pockets. Manage with stand 13. Variable stand pockets of pure aspen pockets of oak/aspen.
25	4130 - Aspen	Low Density Sapling	2.2	15		Old borrow pit from when M-30 was built. Filling in with aspen.
26	4126 - White, Black, N. Pin Oak	Medium Density Log	10.6	82	51-80	All but live oak removed in 1986. Understory is fully stocked as a result of the 1986 harvest; aspen, oak and red maple. Understory is dense, well stocked, well established and in many places reaching pole size. Overstory density varies.
27	4130 - Aspen	High Density Pole	24.8	39	81-110	Cut in 1973. Scattered mature oak. Nice well stocked stand. Oak and some aspen must have been left in 1973 cut. Highly visible stand along M-30.
28	6122 - Black Spruce	High Density Pole	2.8	60	81-110	Spruce swamp. In depression.
29	4126 - White, Black, N. Pin Oak	High Density Log	15.4	82	51-80	All but live oak removed in 1988. Excellent aspen, oak and red maple as a result of the 1988 harvest. Regeneration is 10' to 30' tall and in many places is reaching 3" to 4" DBH. The question is whether or not to go in and remove the overstory. Overstory is in fair condition and fair quality. 18" DBH oak are common. Stand is along M-30, Elk Lake Road and homes on the north. The well stocked and well established regeneration stands out with this stand, oak, aspen and red maple.
30	4130 - Aspen	High Density Pole	9.0	26		Clearcut 1986. Scattered oak were left. Just reaching pole size.
31	6139 - Mixed Lowland Forest	High Density Pole	6.5	50		Wet site, to wet for commercial harvest. Blowdown from at least 10 yrs ago.
33	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	11.6	88	51-80	Very wet in places. Stand is extremely visible from all sides, stand is in a triangle between three different roads - M-30, Elk Lake Road and Indian Lake Drive. Small creek bi-sects stand. Species composition varies.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	4126 - White, Black, N. Pin Oak	High Density Pole	7.0	70	51-80	Small visible stand along M-30 and Elk Lake Road. Scattered wet pockets. Decent mixed understory, pockets of advanced oak regeneration. Overall smaller diameter timber.
35	6120 - Lowland Cedar	High Density Pole	3.4	111		Small isolated cedar stand adjacent to Dollor Lake. Buffer between lake and upland managed stand.
36	4130 - Aspen	High Density Sapling	3.5	17		Clear cut 1995. Left scattered oak along road.
37	4130 - Aspen	High Density Sapling	12.9	17		Clear cut 1995. Left scattered oak.
38	4130 - Aspen	High Density Pole	36.2	37		Highly visible stand along M-30. If younger aspen is needed to even out the age class distribution this stand could be harvested this YOE.
39	42110 - Planted Red Pine	High Density Pole	1.6	35	111-140	Red pine planted in old borrow pit when M-30 was built. Nothing but blow sand, top soil was never restored. I would never clear cut this stand.
40	4130 - Aspen	High Density Sapling	14.1	17		Clear cut 1995. Left scattered oak mainly along road.
41	4126 - White, Black, N. Pin Oak	High Density Log	3.7	92	81-110	Leave as small permanent buffer along PVT and Indian Lake Road. Stand was left as buffer in the past. Decent understory.
42	4130 - Aspen	High Density Pole	14.6	34	51-80	Clear cut 1978.
46	4130 - Aspen	High Density Pole	11.6	34	51-80	Clear cut 1978.
47	4126 - White, Black, N. Pin Oak	Medium Density Log	47.3	87	1-50	Shelter wood harvest 2006. 40 BA of mixed oak was left.
48	4125 - Black, N. Pin Oak	Medium Density Pole	16.5	32	1-50	Old grass stand that has filled in with oak. Still semi open in areas.
49	4126 - White, Black, N. Pin Oak	Medium Density Log	9.8	83	51-80	Overstory is bigger wolfy oak with a decent oak regeneration through-out. The development of the oak regen is variable from 3' tall to 30' tall. Stand is regeneration to oak on its own. Very good acorn mast producing stand. Deer and turkey sign all over digging for acorns.
50	42110 - Planted Red Pine	High Density Pole	17.9	35	200+	Planted in 1977. Not thinned yet. Small openings within stand with scattered wolfy oak. Stand makes good buffer along M-30 and Sugar River Road. No survey corner at SW corner of stand. Older single wire fence along west end of stand, fence looks good to use as private line.
52	4121 - Oak, Aspen	High Density Pole	17.0	54	51-80	Advanced oak regeneration reaching pole size with aspen poles.

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Gladwin Mgt. Unit

## 5 – Forested Stands

Compartment: 027  
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
53	4131 - Aspen, Oak	High Density Sapling	24.7	6		Clear cut 2006.
54	6120 - Lowland Cedar	High Density Pole	5.6	99		Cedar/ hardwood swamp. Scattered white pine and tamarack.
56	6139 - Mixed Lowland Forest	High Density Pole	124.3	Uneven Age	81-110	Mixed conifer/hardwood swamp. Flowwing creek bi-sects stand. Dense balsam fir from saps to poles. Ash borer is pesent in stand. Pockets of cedar through-out. Understory of ash, maple, balsam fir and tag alder. Size and age varies. Michigan mt. holly in understory.
57	4126 - White, Black, N. Pin Oak	Medium Density Log	33.3	88	51-80	Shelterwood harvest in 2006. Harvest has produced excellent oak regeneration. Oak regen looks to be seed source and above 4 1/2 feet tall. Small wet area at SE corner of stand will need to be painted out if cut. Good private line to the south, old blue paint is still noticable.
58	4125 - Black, N. Pin Oak	Low Density Sapling	12.2	6	1-50	Seed tree harvest 2005. 10 BA of mixed oak was left. Interplanted to red pine in 2006. Rx worked very well, excellent mix of natural and artificial regen. Stump sprout oak 10' to 15' tall, seed source oak 4' to 5' tall.
59	6117 - Lowland Deciduous, Mixed Coniferous	High Density Sapling	9.4	24		Habitat cut 1988.
60	4199 - Other Mixed Upland Deciduous	High Density Sapling	14.1	14		All but birch cut in 1998. About 20 BA of birch was left and is starting to fade out. Great mix of natural regen.
61	4130 - Aspen	High Density Sapling	28.7	14		Clear cut 1998. Nice mix of natural regen. Two small pockets of pine were left in SW corner of stand. (scotch pine, red pine and white pine)



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
6	50 - Water	3.6	No	Unspecified	Part of Elk Lake.
8	50 - Water	15.3	No	Unspecified	Lost Lake / Mud Lake and small creek between the two lakes.
17	6239 - Mixed Emergent Wetland	10.8	No	Unspecified	
20	50 - Water	2.8	No	Unspecified	No named creek flowing from Mud Lake. Beaver activity.
21	122 - Road/Parking Lot	3.1	No	Unspecified	Elk Lake Road and cleared right of way.
32	3102 - Grass	7.8	No	Unspecified	M-30 and cleared right-of-way.
43	3102 - Grass	2.1	No	Unspecified	Grass.
44	6223 - Inundated Shrub Swamp	10.5	No	Unspecified	
45	6223 - Inundated Shrub Swamp	21.1	No	Unspecified	Marsh grass, tag alder, cattails. Creek bi-sects stand, beaver activity.
51	3102 - Grass	0.9	No	Unspecified	M-30 and cleared right-of-way.
55	3102 - Grass	4.5	No	Unspecified	Grass stand with ORV activity. Old landfill site.



**7 – PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS**

\* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

Stand	SCA Type	SCA Name	Acres	Comments



### 8 – DEDICATED CONSERVATION AREA DETAILS

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

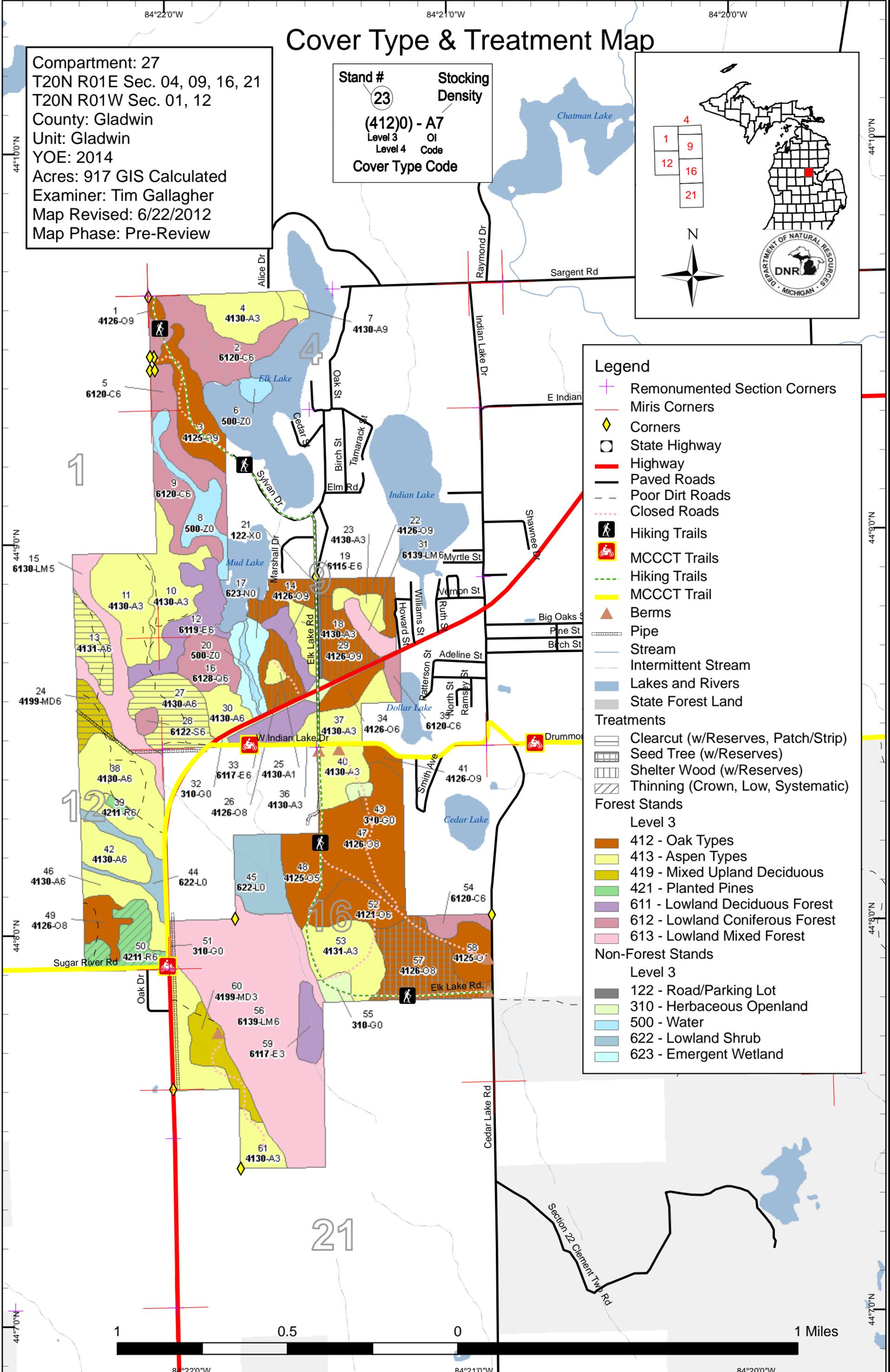
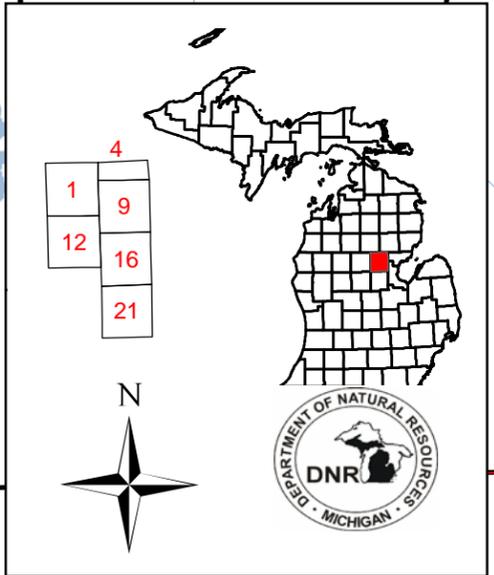
ERA = Ecological Reference Area  
HCVA = High Conservation Value Area  
SCA = Special Conservation Area

Conservation Area	Type	Description
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# Cover Type & Treatment Map

Compartment: 27  
 T20N R01E Sec. 04, 09, 16, 21  
 T20N R01W Sec. 01, 12  
 County: Gladwin  
 Unit: Gladwin  
 YOE: 2014  
 Acres: 917 GIS Calculated  
 Examiner: Tim Gallagher  
 Map Revised: 6/22/2012  
 Map Phase: Pre-Review

**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



### Legend

- Remonumented Section Corners
- Miris Corners
- Corners
- State Highway
- Highway
- Paved Roads
- Poor Dirt Roads
- Closed Roads
- Hiking Trails
- MCCCT Trails
- Hiking Trails
- MCCCT Trail
- Berms
- Pipe
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

### Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Shelter Wood (w/Reserves)
- Thinning (Crown, Low, Systematic)

### Forest Stands

Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

### Non-Forest Stands

Level 3

- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland

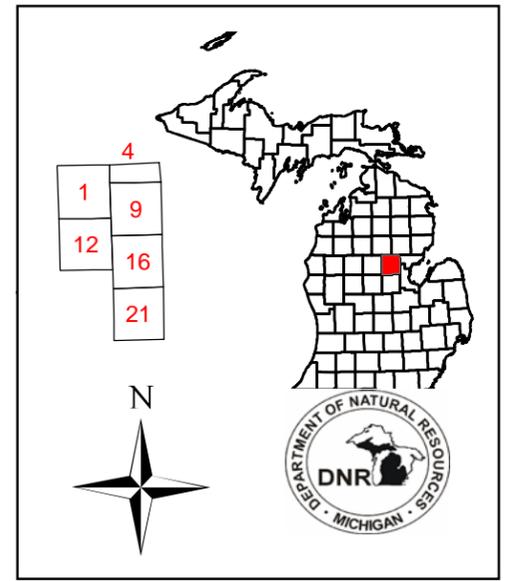




# Dedicated & Proposed Special Conservation Area Map

Compartment: 27  
 T20N R01E Sec. 04, 09, 16, 21  
 T20N R01W Sec. 01, 12  
 County: Gladwin  
 Unit: Gladwin  
 YOE: 2014  
 Acres: 917 GIS Calculated  
 Examiner: Tim Gallagher  
 Map Revised: 6/22/2012  
 Map Phase: Pre-Review

**Stand #**  
 23  
**Stocking Density**  
 (412)0 - A7  
 Level 3 OI  
 Level 4 Code  
**Cover Type Code**



**Legend**

- ⊕ Remonumented Section Corners
- Miris Corners
- ▭ Stand Boundaries

**Forest Stands**

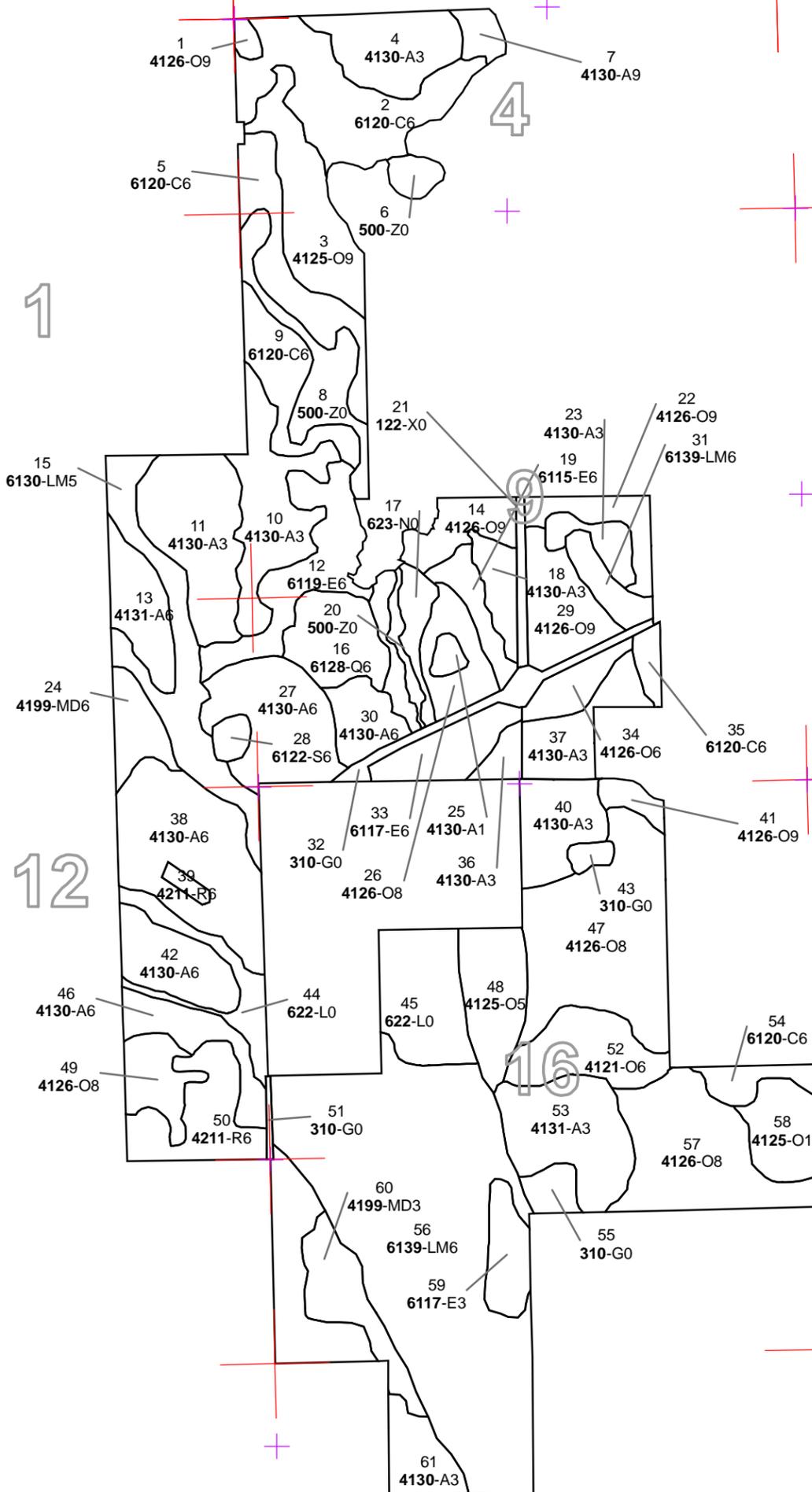
**Level 3**

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

**Non-Forest Stands**

**Level 3**

- 122 - Road/Parking Lot
- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



84°22'0"W      84°21'0"W      84°20'0"W

44°10'0"N

44°9'0"N

44°8'0"N

44°10'0"N

44°9'0"N

44°8'0"N