



**Gladwin Forest Management Unit  
Compartment Review Presentation  
Compartment # 19    Entry Year: 2014  
Compartment Acreage: 1997    County: Clare**

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**Revision Date:** June 1, 2012, June 20, 2012

**Stand Examiner:** Richard A. Myrick

**Legal Description:** T17N – R5W, Sections 26, 27, 28, 29, 32, 33, & 34.

**Identified Planning Goals ('Management Area' or 'RMU', if applicable):** Upper Muskegon.

**Management Goals:** Overall the compartment is managed for wildlife habitat, timber production, watershed protection and recreation. Compartment 19 is generally dominated by northern rich conifer (cedar) swamps which regulate the local hydrology and provide critical wildlife habitat. Numerous stands of aspen and oak of varying age classes are managed to provide a consistent mix of early successional forest habitats (important to many upland game and nongame species), and mature timber. Additionally, the eradication of invasive autumn olive and non-native conifer plantations are ranking management goals.

**Soil and Topography:** The compartment ranges from very poorly drained to well drained soils. It is generally level with some rolling hills. The two major soil associations present are Lupton-Markey, and Graycalm-Montcalm.

**Ownership Patterns, Development, and Land Use in and Around the Compartment:** Compartment 19 is situated within rural northern Michigan and proximate to the city of Farwell. The main portion of the compartment is completely surrounded by numerous private parcels typically ranging from 10 acre residential to 80 acre farms and hunting lands. About one half of the compartment's mill pond area is within the city limits and provides suitable access to fishing and other day uses.

**Unique, Natural Features:** No observations were noted in the Michigan Natural Features Inventory (MNFI) database. However MNFI suggests that there is potential for red shouldered hawk, wood turtle and eastern massasauga rattlesnake along various riparian zones. Also there is potential for the occurrence of ram's head, round leaved orchid, limestone fern and calypso in Deadman swamp. Common loon may occur in Deadman Lake.

**Archeological, Historical, and Cultural Features:** The archeology data base noted archeological concerns in Sections 26 and 34. Additionally near early spillways of the mill pond are the historic remnants of the Farwell sawmill and other outbuildings which operated during Michigan's lumbering era.

**Special Management Designations or Considerations:** Consideration should be given to further develop the mill pond location as a Parks and Recreation Division managed interpretive day use area, given the proximity of the historic sawmill remnants, spillways and former Pere Marquette railway. Approximately, one half of the 80 acre area including most of the 24 acre mill pond is within the city limits. A gravel parking lot is established and the Pere Marquette Rail Trail is its' northern border. Enough acreage exists to construct a nature trail as well, which may facilitate some protection from excessive foot traffic and corral littering.

**Watershed and Fisheries Considerations:** This compartment is located within the South Branch Tobacco watershed and contains the Deadman swamp. The South Branch Tobacco is a designated Trout stream. Care should be taken to maintain shading along the stream corridor and to prevent sedimentation.

**Wildlife Habitat Considerations:** This compartment contains a variety of vegetative types from both upland and lowland systems, making it suitable for a number of wildlife species. Game species likely to be present in this compartment include bobcat, raccoon, coyote, wild turkey, ruffed grouse and white-tailed deer. 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, redbellied vireo, white-throated sparrow, hermit thrush, red-breasted nuthatch, ruffed grouse, and American woodcock. The compartment is located close to the city of Farwell and is easily accessible to hunters via Maple Grove Road and Bringold Avenue.

**Mineral Resource and Development Concerns and/or Restrictions:** Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium, coarse-textured glacial till and an end moraine of coarse-textured till. 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 brick making in other areas of the State. The nearest gravel pit is located just north of the compartment, and potential is thought to be good on the upland areas. The compartment lies in an area of sparse drilling, but the entire compartment is under lease for oil and gas exploration.

**Vehicle Access:** State forest two-track roads enter the compartment from all four cardinal directions. While access is generally good through a large portion of the compartment, the dominance of lowland conifer swamps negate deep interior passage by vehicle.

**Survey Needs:** None necessary at this time.

**Recreational Facilities and Opportunities:** The full length of the compartment is traversed by the paved Pere Marquette Rail Trail. The trail provides recreational opportunities for non-motorized wheeled vehicle, snowmobile, and foot traffic. It is enjoyed by many cyclists, hikers, equestrians and snowmobilers. The mill pond area of the compartment is within the Farwell city limits and offers convenient parking, fishing, picnicking and other day use activities.

**Fire Protection:** Fuel types are comprised mainly of upland deciduous species and lowland conifers. The perimeter of the compartment is accessible by wildland fire equipment from the north at West Maple Grove Road, the west at South Bringold Avenue, the east at West Washington Road and to a limited extent the south at Clarabella Road. The rail trail is paved and could prove viable for some firefighting equipment passage during an emergency. The deep interior has very limited access. The mill pond area can be generally accessed from Vandecar Avenue at Farwell.

**Additional Compartment Information:** N/A.

➤ **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**
- ◆ **Details on the road access system**



	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 +		Uneven Age
Aspen	162	0	111	32	128	95	0	18	36	0	0	0	0	0	581
Cedar	0	0	0	0	0	0	19	0	35	0	28	0	0	0	82
Herbaceous Openland	32	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Low-Density Trees	25	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Lowland Aspen/Balsam Poplar	0	43	22	19	6	0	0	0	0	0	0	0	0	0	89
Lowland Conifers	0	0	0	60	0	38	15	0	243	0	208	0	0	0	563
Lowland Deciduous	15	44	37	0	21	0	0	0	0	0	0	0	0	0	117
Lowland Mixed Forest	0	0	0	8	0	0	0	0	0	53	0	0	0	0	61
Lowland Shrub	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Marsh	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Mixed Upland Deciduous	0	50	18	10	4	10	0	20	0	26	0	0	0	0	138
Natural Mixed Pines	0	0	0	5	0	7	0	0	0	0	0	0	0	0	12
Oak	0	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Planted Mixed Pines	0	0	0	6	0	0	0	0	0	0	0	0	0	0	6
Red Pine	0	0	0	0	9	32	9	31	0	0	0	0	0	0	81
Upland Conifers	0	0	0	7	0	32	7	0	0	0	0	0	0	0	45
Upland Mixed Forest	0	0	0	13	0	0	0	0	0	0	0	0	0	0	13
Upland Shrub	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Urban	50	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Water	40	0	0	0	0	0	0	0	0	0	0	0	0	0	40
White Pine	0	0	0	0	10	0	0	11	6	0	0	0	0	0	27
<b>Total</b>	<b>365</b>	<b>137</b>	<b>188</b>	<b>159</b>	<b>182</b>	<b>212</b>	<b>50</b>	<b>81</b>	<b>319</b>	<b>79</b>	<b>236</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2008</b>



## Table 2 – Proposed Treatment Summaries

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

**Compartment 019**  
**Total Compartment Acres: 2008**

### Acres by Treatment Type

Commercial Harvest - 241	Site Prep - 0	Tree Planting - 28	Prescribed Burn - 0	Other - 0
Habitat Cut - 13	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>	161	0	0	0	0	0		161
<b>Mixed Upland Deciduous</b>	0	0	0	0	26	0		26
<b>Planted Mixed Pines</b>	6	0	0	0	0	0		6
<b>Red Pine</b>	9	0	0	0	31	0		41
<b>Upland Conifers</b>	7	0	0	0	0	0		7
<b>Upland Mixed Forest</b>	0	0	0	0	0	13		13
<b>Total</b>	<b>184</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>57</b>	<b>13</b>		<b>254</b>



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3	CCR003-Cut	46.8	4131 - Aspen, Oak	High Density Log	49	141-170	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<u>Prescription</u> Clear cut with reserves.										
<u>Specs:</u>										
<u>Other</u> Retain all oak, sugar maple and conifer. Additionally leave some aspen retention along rail trail as visual screen.										
<u>Comments:</u> MO is the regeneration of aspen and oak.										
<u>Next Steps:</u>										
<u>Proposed Start Date:</u> 10/01/2013										
15	CCR015-Cut	13.4	4310 - Pine, Oak Mix	Low Density Pole	30		Harvest	Other - Specify in Comments	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Roller chop autumn olive. Treat with herbicide.										
<u>Specs:</u>										
<u>Other</u> Retain scattered white pine and oak species.										
<u>Comments:</u> Treat stand with timber sale of stands 20 and 23. Use "by the acre" value. MO is the eradication of autumn olive and exotic scotch pine and the generation of red pine.										
<u>Next Steps:</u> Trench and plant to red pine.										
<u>Proposed Start Date:</u> 10/01/2013										
36	CCR036-Cut	33.6	4139 - Aspen, Mixed Deciduous	High Density Log	46	111-140	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Clear cut with reserves.										
<u>Specs:</u>										
<u>Other</u> Retain all conifer and a mix of some log sized oak for mast and under-represented sugar maple in scattered patches throughout the stand.										
<u>Comments:</u> MO is the regeneration of aspen, mixed deciduous species.										
<u>Next Steps:</u>										
<u>Proposed Start Date:</u> 10/01/2013										
76	CCR076-Cut	35.6	4139 - Aspen, Mixed Deciduous	High Density Log	86	51-80	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
<u>Prescription</u> Clear cut with reserves.										
<u>Specs:</u>										
<u>Other</u> Retain all conifer and some log sized oak for mast throughout the stand.										
<u>Comments:</u> MO is the regeneration of aspen and a mix of deciduous and conifer species.  E/W PVT. line divided by road and DNR boundary markers. Access from forest two-track running through bottom third of stand and/or road running N/S dividing PVT. from Public. Must cross buried petroleum pipeline which may require armoring with top fill.										
<u>Next Steps:</u>										
<u>Proposed Start Date:</u> 10/01/2013										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
79	CCR079-Cut	18.2	4133 - Aspen, Mixed Pine	High Density Log	78		Harvest	Clearcut with Reserves	4133 - Aspen, Mixed Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Clear cut with reserves.  <u>Specs:</u>  <u>Other</u> Retain oak and conifer to serve as a visual screen to rail trail and riparian buffer to small pond.  <u>Comments:</u> MO is the regeneration of aspen, oak and conifer.  <u>Next Steps:</u>  <u>Proposed Start Date:</u> 10/01/2013</p>										
87	CCR087-Cut	27.2	4131 - Aspen, Oak	High Density Log	46	51-80	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<p><u>Prescription</u> Clear cut with reserves.  <u>Specs:</u>  <u>Other</u> Retain all conifer, some oak for mast and a few cavity trees throughout the stand.  <u>Comments:</u> MO is the regeneration of aspen, oak and conifer.  <u>Next Steps:</u>  <u>Proposed Start Date:</u> 10/01/2013</p>										
20	CCTNP020-Cut	9.4	42110 - Planted Red Pine	High Density Pole	61	81-110	Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Clear cut with reserves.  <u>Specs:</u>  <u>Other</u> Retain some log sized white pine.  <u>Comments:</u> Roller chop autumn olive. Treat with herbicide.  MO is the eradication of exotic norway spruce and autumn olive and the restart of red pine.  <u>Next Steps:</u> Trench and plant to red pine.  <u>Proposed Start Date:</u> 10/01/2013</p>										
23	CCTNP023-Cut	6.9	429 - Mixed Upland Conifers	High Density Pole	61	141-170	Harvest	Clearcut	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription</u> Clear cut.  <u>Specs:</u>  <u>Other</u> No retention. Stand overwhelmingly norway spruce and autumn olive.  <u>Comments:</u> Roller chop autumn olive. Treat with herbicide.  MO is the eradication of norway spruce and autumn olive and the generation of red pine.  <u>Next Steps:</u> Trench and plant to red pine.  <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
66	CCTNP066-Cut	6.2	42130 - Planted Scotch Pine	High Density Pole	38		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clear cut with reserves. <u>Specs:</u> <u>Other</u> Retain some pole sized balsam fir in patches within stand. <u>Comments:</u> MO is the removal of exotic scotch pine and the generation of red pine. <u>Next Steps:</u> Trench and plant to red pine. <u>Proposed Start Date:</u> 10/01/2013										
4	CTS004-Cut	25.6	4199 - Other Mixed Upland Deciduous	High Density Log	92	81-110	Harvest	Crown Thinning	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal
<u>Prescription</u> First entry into stand for crop tree release. Remove high risk and cull. Thin from below. Manage for best tree in place. Favor sugar maple, red oak and hickory. <u>Specs:</u> <u>Other</u> Mark to keep one extra large log oak tree per acre where possible. <u>Comments:</u> Short-wood logging operation only. Access road will need to be built through stand 11 south then west, else private road must be utilized. <u>Next Steps:</u> <u>Proposed Start Date:</u> 10/01/2013										
73	TSI073-Cut	31.3	42210 - Natural Red Pine	High Density Log	78	171-200	Harvest	Low Thinning	42210 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin all species from below to 90 BA. Prefer red pine and oak. <u>Specs:</u> <u>Other</u> Management objective is the timber stand improvement of natural pine stand. <u>Comments:</u> <u>Next Steps:</u> <u>Proposed Start Date:</u> 10/01/2013										
6	73019006-Plant	1.5	4131 - Aspen, Oak	High Density Sapling	6		Tree Planting	Machine Plant	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Roller chop autumn olive. Treat with herbicide. <u>Specs:</u> <u>Other</u> Trench and plant to red pine. <u>Comments:</u> MO is the eradication of autumn olive and the generation of red pine. <u>Next Steps:</u> <u>Proposed Start Date:</u> Unspecified										



S t a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
8	NF_73019008- Plant	1.8	3105 - Mixed Upland Herbaceous				Tree Planting	Machine Plant	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Roller chop autumn olive. Treat with herbicide. Then										
<u>Specs:</u> trench and plant to red pine.										
<u>Other</u> MO is the eradication of autumn olive and the generation of red pine.										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										
9	NF_73019009- Plant	5.4	3202 - Autumn Olive/Honeysuckle				Tree Planting	Machine Plant	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Roller chop autumn olive. Treat with herbicide.										
<u>Specs:</u>										
<u>Other</u> Trench and plant to red pine.										
<u>Comments:</u> MO is the eradication of autumn olive and the generation of red pine.										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> Unspecified										
11	NF_73019011- Plant	8.4	3301 - Low Density Deciduous Trees				Tree Planting	Machine Plant	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Roller chop autumn olive. Treat with herbicide.										
<u>Specs:</u>										
<u>Other</u> Trench and plant to red pine.										
<u>Comments:</u> Create public parking area at north end. Retain vegetative buffer around wet area at mid-stand.										
MO is the eradication of autumn olive and the generation of red pine.										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> Unspecified										
13	NF_73019013- Plant	1.2	3105 - Mixed Upland Herbaceous				Tree Planting	Machine Plant	42110 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Roller chop autumn olive. Treat with herbicide. Then										
<u>Specs:</u> trench and plant to red pine.										
<u>Other</u> MO is the eradication of autumn olive and the generation of red pine.										
<u>Comments:</u>										
<u>Next</u>										
<u>Steps:</u>										
<u>Proposed</u>										
<u>Start Date:</u> 10/01/2013										



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
21	NF_73019021-Plant	9.7	3105 - Mixed Upland Herbaceous				Tree Planting	Machine Plant	42110 - Planted Red Pine	Cmpt. Review Proposal

Prescription Roller chop autumn olive. Treat with herbicide. Then  
Specs: trench and plant to red pine.

Other MO is the eradication of autumn olive and the generation of red pine.

Comments:

The stand is covered with scattered tires and dumped demolition materials which will need to be cleaned up before roller chopping and planting. It is an Adopt-A-Forest site.

Next

Steps:

Proposed

Start Date: 10/01/2013

**Total Treatment  
Acreage Proposed: 282.2**

**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
<p><u>Prescription</u> The stand is to be harvested as a 2" Spec final harvest.  <u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> After the harvest replant the stand to jack pine.  <u>Proposed Start Date:</u> 10/01/2006</p>									
<b>73010336-Cut</b>	32.5	4122 - Oak, Pine	High Density Log	94		Harvest	Clearcut with Reserves	4121 - Oak, Aspen	Cmpt. Review Proposal
<p><u>Prescription</u> 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  <u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> The stand is expected to regenerate to a mixture of aspen, oak, maple, and jack pine.  <u>Proposed Start Date:</u> 10/01/2006</p>									
<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
<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.  <u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> After the harvest trench and plant jack pine for KW.  <u>Proposed Start Date:</u> 10/01/2009</p>									
<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
<p><u>Prescription</u> 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.  <u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> The stand is expected to regenerate to a mixture of oak and aspen.  <u>Proposed Start Date:</u> 10/01/2006</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
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**

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## Gladwin Mgt. Unit

## 5 – Forested Stands

Compartment: 019  
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	6120 - Lowland Cedar	High Density Pole	35.1	80	51-80	True cedar swamp. A few small pockets of aspen to the northwest.
3	4131 - Aspen, Oak	High Density Log	46.8	49	141-170	
4	4199 - Other Mixed Upland Deciduous	High Density Log	25.7	92	81-110	
5	42290 - Natural Mixed Pine	Low Density Pole	4.9	35	1-50	
6	4131 - Aspen, Oak	High Density Sapling	13.7	6		Autumn olive throughout the stand. Dense raspberry as well.
7	4191 - Mixed Upland Deciduous with Conifer	High Density Log	17.9	78	111-140	
12	6119 - Mixed Lowland Deciduous Forest	High Density Pole	20.9	45	111-140	Riparian zone of creek. Very wet.
14	4125 - Black, N. Pin Oak	Low Density Pole	4.0	45	51-80	
15	4310 - Pine, Oak Mix	Low Density Pole	13.4	30		
16	4130 - Aspen	High Density Log	94.5	50	141-170	
17	4131 - Aspen, Oak	Medium Density	13.3	6		Much deer browse. Autumn olive in spots throughout stand.
18	4130 - Aspen	High Density Sapling	13.8	5		Much autumn olive invading understory.
19	6120 - Lowland Cedar	High Density Pole	18.8	65	81-110	
20	42110 - Planted Red Pine	High Density Pole	9.4	61	81-110	
23	429 - Mixed Upland Conifers	High Density Pole	6.9	61	141-170	Stand was thinned three years ago.
24	4199 - Other Mixed Upland Deciduous	High Density Pole	3.1	30	51-80	
25	4130 - Aspen	High Density Pole	7.6	26		
26	4130 - Aspen	Medium Density	10.0	6		New stand added.

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## Gladwin Mgt. Unit

## 5 – Forested Stands

Compartment: 019  
Year of Entry: 2014

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6120 - Lowland Cedar	High Density Pole	8.3	104		True cedar swamp. Very wet.
6129 - Mixed Coniferous Lowland Forest	High Density Pole	37.6	50	81-110	
6112 - Lowland Aspen	High Density Sapling	8.8	19		Excellent regeneration.
4130 - Aspen	High Density Pole	11.0	26		Matrix of uplands with lowland swales.
4199 - Other Mixed Upland Deciduous	High Density Pole	14.6	28		
4139 - Aspen, Mixed Deciduous	High Density Sapling	15.3	26		
4139 - Aspen, Mixed Deciduous	High Density Log	33.6	46	111-140	
6139 - Mixed Lowland Forest	High Density Pole	53.0	93		
6112 - Lowland Aspen	High Density Sapling	34.2	19		Very good regeneration.
6132 - Mixed Lowland Forest with Cedar	High Density Pole	7.8	39		
6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	242.8	85		
6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	36.9	26		
6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	39.2	102		
42200 - Natural White Pine	High Density Log	5.5	85	1-50	
6117 - Lowland Deciduous, Mixed Coniferous	Low Density Sapling	15.1	6		Stand swapped from Non-Forested to Forested.
6112 - Lowland Aspen	High Density Pole	18.6	37		
6129 - Mixed Coniferous Lowland Forest	High Density Pole	48.4	102	81-110	

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## Gladwin Mgt. Unit

## 5 – Forested Stands

Compartment: 019  
Year of Entry: 2014

Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
6120 - Lowland Cedar	High Density Pole	19.4	104	171-200	True cedar swamp. Very wet.
4199 - Other Mixed Upland Deciduous	High Density Sapling	49.8	19		
6123 - Lowland Fir	High Density Pole	20.4	37		
6112 - Lowland Aspen	High Density Pole	16.1	28		
6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	91.1	102	81-110	
429 - Mixed Upland Conifers	High Density Log	18.2	56		
42260 - Natural Pine, Mixed Deciduous	High Density Pole	6.8	50		
6119 - Mixed Lowland Deciduous Forest	High Density Sapling	44.4	19		
6129 - Mixed Coniferous Lowland Forest	Low Density Pole	39.2	35		Riparian zone to creek.
42130 - Planted Scotch Pine	High Density Pole	6.2	38		
4131 - Aspen, Oak	High Density Pole	31.8	35		
4139 - Aspen, Mixed Deciduous	High Density Pole	20.4	27		
6129 - Mixed Coniferous Lowland Forest	High Density Pole	29.2	105	81-110	Cedar swamp. High water.
4134 - Aspen, Spruce/Fir	High Density Pole	6.7	25		
4131 - Aspen, Oak	Low Density Sapling	6.2	5		Heavy deer browse.
429 - Mixed Upland Conifers	High Density Pole	13.7	56	111-140	
42210 - Natural Red Pine	High Density Log	31.3	78	171-200	
4131 - Aspen, Oak	High Density Sapling	11.5	26		

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## Gladwin Mgt. Unit

## 5 – Forested Stands

Compartment: 019  
Year of Entry: 2014

Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
75	42100 - Planted White Pine	Medium Density Log	10.1	40	1-50	
76	4139 - Aspen, Mixed Deciduous	High Density Log	35.6	86	51-80	
77	42110 - Planted Red Pine	High Density Pole	4.9	56	51-80	Thinned 5 years ago.
78	4131 - Aspen, Oak	High Density Sapling	7.3	5		Good regeneration.
79	4133 - Aspen, Mixed Pine	High Density Log	18.2	78		
80	4199 - Other Mixed Upland Deciduous	High Density Log	2.6	70		Old homestead remains.
81	4131 - Aspen, Oak	High Density Sapling	34.7	6		Good regeneration.
82	4131 - Aspen, Oak	High Density Sapling	13.4	26		
83	4133 - Aspen, Mixed Pine	High Density Pole	20.5	47		
84	42200 - Natural White Pine	High Density Log	11.4	72	141-170	Heard Loon in distance. Possibly from Deadman Lake.
85	4131 - Aspen, Oak	High Density Sapling	17.0	26		
87	4131 - Aspen, Oak	High Density Log	27.2	46	51-80	
88	4131 - Aspen, Oak	High Density Sapling	17.3	6		
89	4131 - Aspen, Oak	Medium Density	3.0	6		
90	4130 - Aspen	High Density Pole	8.3	26		
91	42111 - Planted Red Pine, Mixed Deciduous	Medium Density Log	27.1	54	1-50	Stand was thinned 3 years ago.
92	42111 - Planted Red Pine, Mixed Deciduous	High Density Pole	8.7	46	81-110	
93	4130 - Aspen	High Density Sapling	6.7	3		

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## Gladwin Mgt. Unit

## 5 – Forested Stands

Compartment: 019  
Year of Entry: 2014

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
94	6112 - Lowland Aspen	High Density Pole	5.6	26		
95	4130 - Aspen	Medium Density	35.9	6		
96	4199 - Other Mixed Upland Deciduous	Low Density Pole	3.3	25	51-80	
97	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	9.7	50	111-140	
99	6129 - Mixed Coniferous Lowland Forest	High Density Log	15.3	60		
100	429 - Mixed Upland Conifers	High Density Log	6.8	35		
101	4199 - Other Mixed Upland Deciduous	High Density Pole	4.2	40		
103	4191 - Mixed Upland Deciduous with Conifer	Low Density Pole	6.9	31		
105	6112 - Lowland Aspen	High Density Pole	6.2	40		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
2	6239 - Mixed Emergent Wetland	1.2	No	Unspecified	
8	3105 - Mixed Upland Herbaceous	1.8	No	Low (NonForested)	New stand added.
9	3202 - Autumn Olive/Honeysuckle	5.4	No	Low (NonForested)	
10	50 - Water	0.7	No	Low (NonForested)	Pond.
11	3301 - Low Density Deciduous Tree	8.4	No	Low (NonForested)	
13	3105 - Mixed Upland Herbaceous	1.2	No	Low (NonForested)	
21	3105 - Mixed Upland Herbaceous	9.7	No	High (NonForested)	
22	11 - Low Intensity Urban	1.0	Yes	Low (NonForested)	
28	3301 - Low Density Deciduous Tree	4.4	No	Low (NonForested)	
33	50 - Water	8.3	No	Unspecified	Deadman Lake.
34	6233 - Wet Meadow	10.5	No	Unspecified	
45	50 - Water	6.7	No	Unspecified	Noted Ring-neck duck drake and Mallards.
46	6223 - Inundated Shrub Swamp	2.0	No	Low (NonForested)	
48	11 - Low Intensity Urban	45.6	Yes	High (NonForested)	Pere Marquette rail trail. Completely paved with grass banks.
50	6220 - Alder/willow	11.7	No	Unspecified	
53	3102 - Grass	4.9	Yes	Low (NonForested)	Buried gas pipeline easement.
55	6220 - Alder/willow	5.6	No	Unspecified	Riparian zone of creek.
57	3303 - Mixed Low Density Trees	9.3	No	Low (NonForested)	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
62	3102 - Grass	4.2	Yes	Low (NonForested)	Easement. Buried gas pipeline.
64	3105 - Mixed Upland Herbaceous	1.1	No	Unspecified	
65	3105 - Mixed Upland Herbaceous	1.0	No	Low (NonForested)	
86	3105 - Mixed Upland Herbaceous	8.2	Yes	Low (NonForested)	Great Lakes Gas Transmission Co. pipeline easement.
98	6220 - Alder/willow	4.8	No	Low (NonForested)	
102	3303 - Mixed Low Density Trees	3.3	No	Medium (NonForested)	
104	50 - Water	22.9	No	Unspecified	Mill Pond.
106	50 - Water	1.1	No	Unspecified	
107	11 - Low Intensity Urban	3.0	Yes	Low (NonForested)	Mill Pond parking lot.



**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
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210.

Compartment: 019  
 T16N R05W Sec. 4, 5  
 T17N R05W Sec. 20, 22, 26-29, 32-35  
 County: Clare  
 Unit: Gladwin  
 YOE: 2014  
 Acres: 2,008 GIS Calculated  
 Examiner: Rick Myrick  
 Map Revised: 6/22/2012  
 Map Phase: Pre-Review

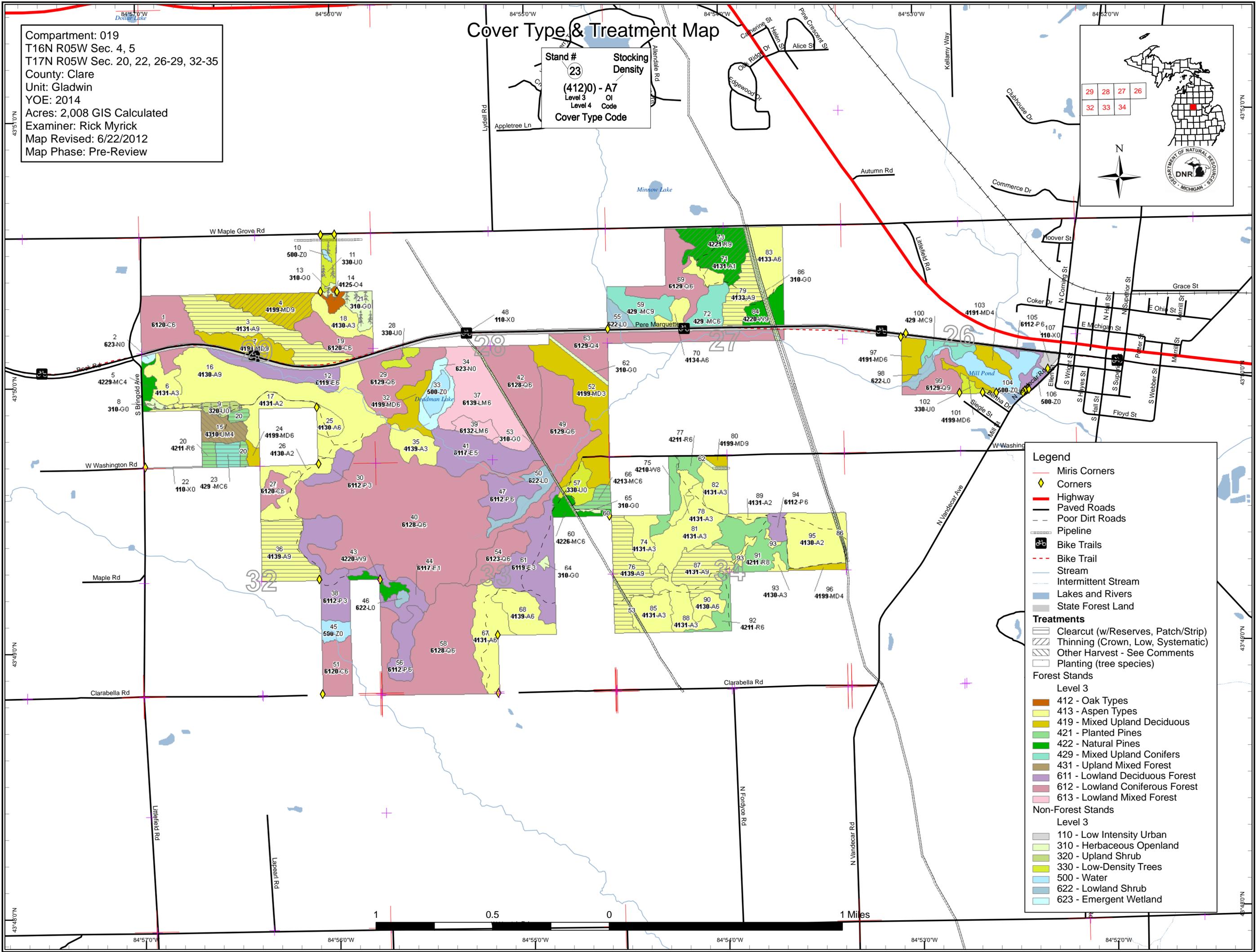
# Cover Type & Treatment Map

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

29 28 27 26  
 32 33 34

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DNR  
 DEPARTMENT OF NATURAL RESOURCES  
 MICHIGAN STATE



### Legend

- Miris Corners
- ◆ Corners
- Highway
- Paved Roads
- - - Poor Dirt Roads
- Pipeline
- ⊠ Bike Trails
- - - Bike Trail
- Stream
- Intermittent Stream
- Lakes and Rivers
- State Forest Land

### Treatments

- ▨ Clearcut (w/Reserves, Patch/Strip)
- ▨ Thinning (Crown, Low, Systematic)
- ▨ Other Harvest - See Comments
- ▨ Planting (tree species)

### Forest Stands

Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

### Non-Forest Stands

Level 3

- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 320 - Upland Shrub
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland



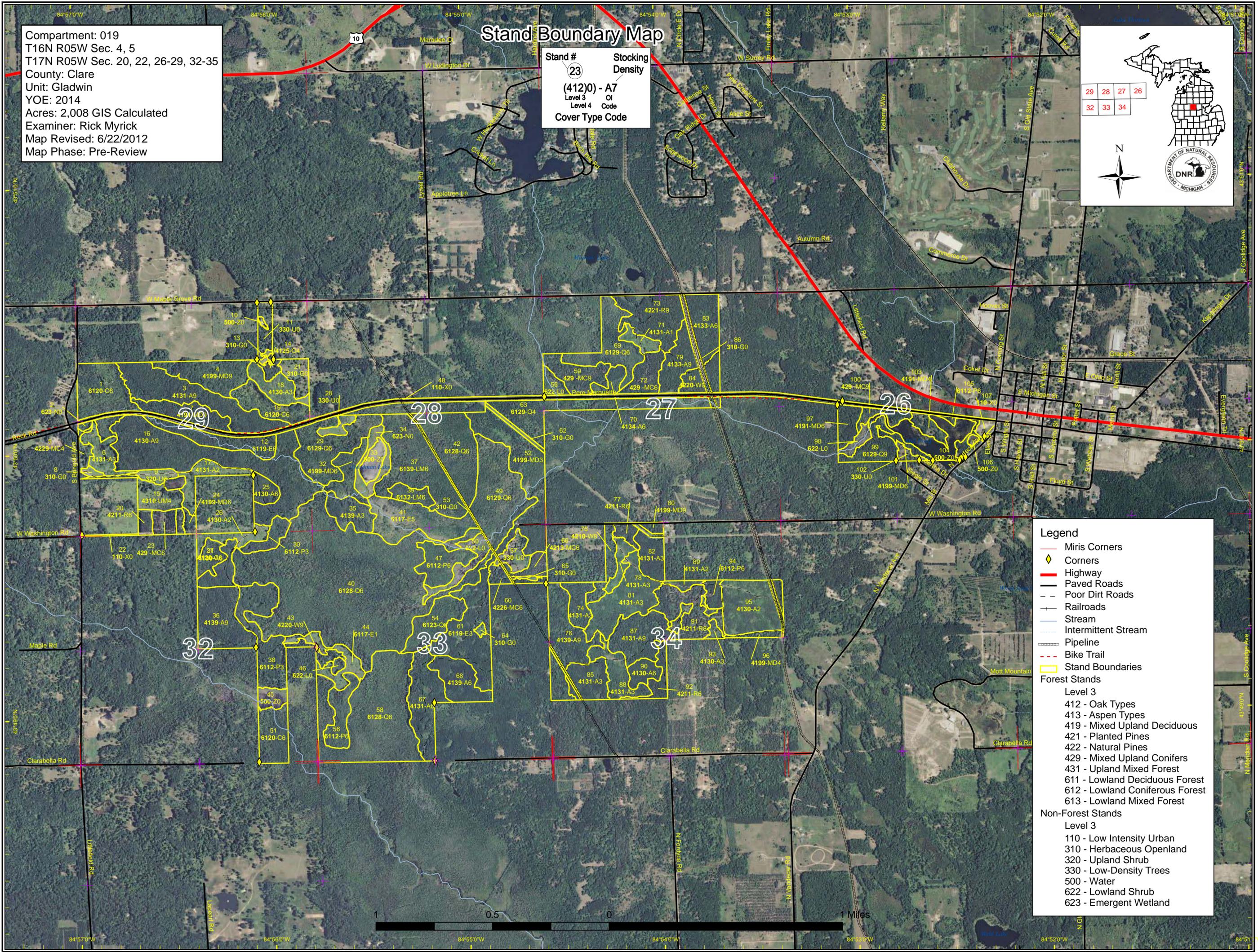
84°57'0"W 84°56'0"W 84°55'0"W 84°54'0"W 84°53'0"W 84°52'0"W

43°51'0"N 43°50'0"N 43°49'0"N 43°48'0"N

Compartment: 019  
 T16N R05W Sec. 4, 5  
 T17N R05W Sec. 20, 22, 26-29, 32-35  
 County: Clare  
 Unit: Gladwin  
 YOE: 2014  
 Acres: 2,008 GIS Calculated  
 Examiner: Rick Myrick  
 Map Revised: 6/22/2012  
 Map Phase: Pre-Review

# Stand Boundary Map

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



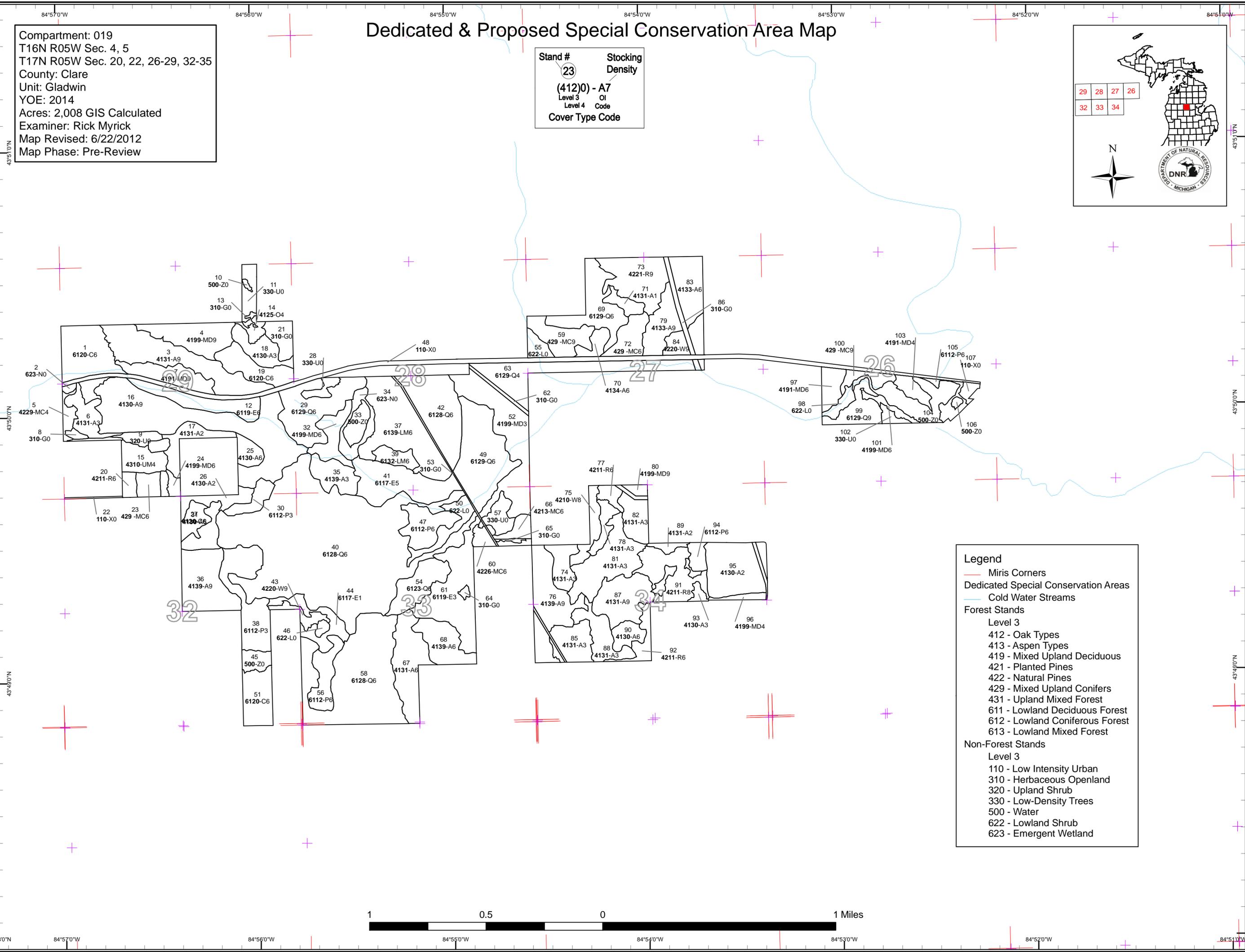
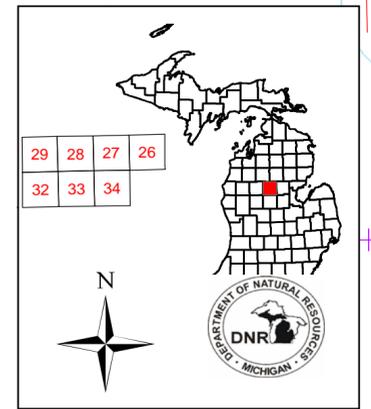
- Legend**
- Miris Corners
  - ◆ Corners
  - Highway
  - Paved Roads
  - - - Poor Dirt Roads
  - Railroads
  - Stream
  - - - Intermittent Stream
  - Pipeline
  - - - Bike Trail
  - Stand Boundaries
- Forest Stands**
- Level 3
- 412 - Oak Types
  - 413 - Aspen Types
  - 419 - Mixed Upland Deciduous
  - 421 - Planted Pines
  - 422 - Natural Pines
  - 429 - Mixed Upland Conifers
  - 431 - Upland Mixed Forest
  - 611 - Lowland Deciduous Forest
  - 612 - Lowland Coniferous Forest
  - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
- 110 - Low Intensity Urban
  - 310 - Herbaceous Openland
  - 320 - Upland Shrub
  - 330 - Low-Density Trees
  - 500 - Water
  - 622 - Lowland Shrub
  - 623 - Emergent Wetland



# Dedicated & Proposed Special Conservation Area Map

Compartment: 019  
 T16N R05W Sec. 4, 5  
 T17N R05W Sec. 20, 22, 26-29, 32-35  
 County: Clare  
 Unit: Gladwin  
 YOE: 2014  
 Acres: 2,008 GIS Calculated  
 Examiner: Rick Myrick  
 Map Revised: 6/22/2012  
 Map Phase: Pre-Review

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



- Legend**
- Miris Corners
  - Dedicated Special Conservation Areas
  - Cold Water Streams
  - Forest Stands
    - Level 3
    - 412 - Oak Types
    - 413 - Aspen Types
    - 419 - Mixed Upland Deciduous
    - 421 - Planted Pines
    - 422 - Natural Pines
    - 429 - Mixed Upland Conifers
    - 431 - Upland Mixed Forest
    - 611 - Lowland Deciduous Forest
    - 612 - Lowland Coniferous Forest
    - 613 - Lowland Mixed Forest
  - Non-Forest Stands
    - Level 3
    - 110 - Low Intensity Urban
    - 310 - Herbaceous Openland
    - 320 - Upland Shrub
    - 330 - Low-Density Trees
    - 500 - Water
    - 622 - Lowland Shrub
    - 623 - Emergent Wetland

