



**Gladwin Forest Management Unit
Compartment Review Presentation
Compartment #145 Entry Year: 2014
Compartment Acreage: 2573 County: Iosco**

Revision Date: January 2012

Stand Examiner: Steven Nyhoff

Legal Description: T21N R7E Sections 19, 20, 29-31

Identified Planning Goals ('Management Area' or 'RMU', if applicable): Gladwin Lake Plain

Management Goals: The compartment is heavy to swamp hardwoods. A large percentage of these swamp hardwoods is black ash over tag alder. These stands are heavily infested with Emerald Ash Borer (EAB). They will convert over to tag alder and willow stands over time. They are too wet to do any type of salvage.

Also, several of the operable stands are blocked by a large complex of marshes and lowland shrubs or by private land. Some of these stands in the southern portion of the compartment have been set up both in 1994 and 2004. Both times they have come back to the State uncut because the logger could not secure or lost their permission to access the stand through US Gypsum property. Access will be a problem again in this year of entry (YOE), if they can not be harvest this YOE commercially; then habitat cut the aspen stands. These stands should be expanded into the neighboring stand were possible.

Therefore, manage the compartment for the current species diversity where possible. There are several stands that are accessible off Alabaster Road. Some of these stands are red/white pine stand that were harvested in 1998. Since then some natural regeneration has occurred in the pine where the crown closure was below 40%. These stands are scheduled to be seed tree harvested to try for natural regeneration. There are also several other hardwood stands that are scheduled for harvest by selection. In addition, where possible expand treatment into neighboring stand to remove the ash component.

Soil and Topography: The soils in the compartment are about 2/3 muck or mucky soils, which have high amounts of organic material and are very poorly drained. These soils are mainly Tawas-Lupton mucks complex or Wabun mucky sand. The rest of the compartment is mainly well-drained Croswell-Proper complex, or somewhat poorly to poorly drained McIvor sand. Most of the soils in the compartment are prone to seasonal flooding.

The land in the compartment is flat with very little relief except for some low ridges. The ridges run through the E ½ of the compartment.

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

The state ownership is in one large block. The private land is mainly along the edges of the compartment.

To the east of the compartment US Gypsum has an open pit mine. They own most of the private land in the area. The lands that are not being mined are used for hunting, for the most part. There are very few permanent residences in immediate area. Most of them are along Alabaster Road.

Unique, Natural Features:

The land is heavy to sparse swamp hardwoods with tag alder and willow in the understory. There are only a few areas of open water. Most of these have been created by beaver.

There is a record of Bald Eagle nesting in section 20. Also wood turtles have been seen along the Johnson Creek in section 24 just outside of the compartment boundary. There are no other records of rare species in the compartment and none were found during the inventory process.

Archeological, Historical, and Cultural Features:

No known occurrences in the compartment. The land has a low probability of having historical sites.

Special Management Designations or Considerations: None

Watershed and Fisheries Considerations: This compartment is located in the AuGres River watershed. The compartment drains into a man made drainage system to the west. These then drain into the natural river bed of the AuGres River, which is channelized along the south side of the compartment. Most soils are wet, and care should be taken not to cause sedimentation to any drainages. Fisheries in this compartment are warm water.

Wildlife Habitat Considerations: Both upland and lowland systems are present, making it suitable for a number of wildlife species. The majority of stands are lowland cover types. Due to the nature of this compartment wildlife management goals will focus on mid to late successional species such as barred owl, northern goshawk, pileated woodpeckers and the hoary bat. Furbearers including beaver, mink, muskrat, black bear, bobcat, and coyote use the lowlands as corridors as well as year-round habitat. Game species likely to be present in this compartment include raccoon, coyote, wild turkey, ruffed grouse, snowshoe hare, and white-tailed deer. The compartment is easily accessible to hunters via Alabaster Road.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of lacustrine (lake) sand, gravel, clay and silt. Glacial drift thickness varies between 10 and 100 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum one mile to the east. Gravel pits are not located in this area and potential may be limited. Exploration for oil and gas is sparse. A few Prairie du Chien fields have been found to the west of the compartment. The compartment is not leased, but a few older leases are located to the west on mineral rights only land.

US Gypsum has an open pit mine to the east of the compartment and has in the past contacted the Gladwin Field Office to pursue an exchange for the DNR Properties.

For Gas/Oil development most of sections 19, 30 and 31 are classified as non-develop because of the wetlands. The rest of the area is classified as develop with restrictions being 1 well per 160 acres.

Vehicle Access: The access is good into sections 19 and 20 from Alabaster Rd. The rest of the compartment has poor access. Much of the compartment can not be accessed because of wetlands or it can only be accessed through private lands to the east.

Survey Needs: The west and north boundary of the compartment had a remonument survey done in 2000. Much of the property line along US Gypsum property had monuments. The private land along the east side of section 30 and 31 is not monumented well. Overall the corners need to set up the proposed sale are in. Therefore, though there is a need for some comers they are not of high priority this YOE.

Recreational Facilities and Opportunities: The compartment is mainly used for hunting and not much else.

Fire Protection: The access into some of the southern areas of the compartment would be a problem due to lack of a good trail system. Also, any fire that occurs in the compartment would probably have a large amount of ground fire associated with it making mop-up difficult. But overall, because of the timber types, there should not be a big problem with fires in the area. If one got started it should be slow moving because of the timber types.

Additional Compartment Information: Some of the timber that is being prescribed for harvest will be restricted because of access. A number of these stands were put up in the last 2 inventory cycles and were not harvested because loggers could not secure access to the sales. That will be the same problem this year of entry. There are some sales that will be able to be accessed from Alabaster Rd.

Table 1 – Total Acres by Cover Type and Age Class



	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	0	32	0	0	104	0	0	0	31	0	0	0	0	0	167
Herbaceous Openland	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Jack Pine	0	16	0	0	0	0	0	0	0	0	0	0	0	0	16
Low-Density Trees	21	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Lowland Conifers	0	51	0	0	0	0	0	7	0	0	0	0	0	0	59
Lowland Deciduous	0	9	0	7	61	223	10	412	331	0	0	0	0	192	1245
Lowland Mixed Forest	0	5	0	0	0	0	0	0	0	0	0	0	0	66	71
Lowland Shrub	506	0	0	0	0	0	0	0	0	0	0	0	0	0	506
Marsh	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	0	0	0	53	53
Natural Mixed Pines	0	22	0	0	0	0	12	77	42	0	0	0	0	0	153
Northern Hardwood	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
Paper Birch	0	0	0	0	37	0	0	0	0	0	0	0	0	0	37
Red Pine	0	5	0	0	0	0	0	37	20	0	0	0	0	0	62
Tamarack	0	68	0	0	0	0	0	0	0	0	0	0	0	0	68
Upland Mixed Forest	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
Water	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30
White Pine	0	0	0	4	0	35	0	0	0	0	0	0	0	0	39
Total	584	225	0	11	202	258	23	527	432	0	0	0	0	311	2573



Table 2 – Proposed Treatment Summaries

Gladwin Mgt. Unit
Year of Entry 2014

Compartment 145
Total Compartment Acres: 2573

Acres by Treatment Type

Commercial Harvest - 324	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 53	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	31	0	0	0	0	0	31
Lowland Deciduous	0	128	0	0	0	0	128
Lowland Mixed Forest	0	25	0	0	0	0	25
Mixed Upland Deciduous	53	0	0	0	0	0	53
Natural Mixed Pines	10	0	77	0	0	0	87
Red Pine	0	0	38	0	0	0	38
White Pine	0	0	15	0	0	0	15
Total	93	153	130	0	0	0	377



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
14	73145014-Cut	25.3	6131 - Hemlock, White Pine, Maple, Birch	High Density Log	65	51-80	Harvest	Group Selection	6117 - Lowland Deciduous, Mixed Coniferous	Cmpt. Review Proposal
<p><u>Prescription</u> The stand is to be harvested as a group selection keeping the average BA around 80 Sq Ft. This harvest should make holes in the crown around one - 80' in diameter per acre. Mark skid trails between opening to make it loggable. In addition, when marking the stand favor the removal of ash.</p> <p><u>Specs:</u></p> <p><u>Other</u> Some of the opening may need to be made larger because there are some super canopy trees that will need a larger open to drop the tree.</p> <p><u>Comments:</u></p> <p><u>Next</u> The stand is expected to regenerate naturally to a mixture of white pine and deciduous trees</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
19	73145019-Cut	9.6	42260 - Natural Pine, Mixed Deciduous	High Density Pole	60	81-110	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
<p><u>Prescription</u> Harvest the stand as a 2 inch final harvest with reserves. Mark some of the hardwood and larger pine to retain for structural diversity. The retention should be marked in group mainly with some individual trees marked to retain.</p> <p><u>Specs:</u></p> <p><u>Other</u> The stand is on a ridge.</p> <p><u>Comments:</u></p> <p><u>Next</u> The stand is expected to regenerate naturally to a mixture of deciduous and conifers.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
28	73145028-Cut	16.1	42290 - Natural Mixed Pine	High Density Log	76	81-110	Harvest	Seed Tree with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> The stand should be harvested down to 10-20 Sq Ft. The retention should be marked to retain some of the larger pines and some of the hardwoods for structural and species diversity. The good portion of the pine tops need to be left for seed source.</p> <p><u>Specs:</u></p> <p><u>Other</u> The trail road through the stand needs some work there are some large holes that need to be filled in to get the forest products out.</p> <p><u>Comments:</u></p> <p><u>Next</u> The stand is expected to regenerate naturally to a mixture of pines and hardwood.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>Start Date:</u> 10/01/2013</p>										
36	73145036-Cut	20.4	42210 - Natural Red Pine	High Density Log	84	51-80	Harvest	Seed Tree with Reserves	42211 - Natural Red Pine, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> The stand should be harvested down to 10-20 Sq Ft. The retention should be marked to retain some of the larger pines for structural diversity.</p> <p><u>Specs:</u> The good portion of the pine tops need to be left for seed source.</p> <p><u>Other</u> The trail road through the stand needs some work there are some large holes that need to be filled in to get the forest products out.</p> <p><u>Comments:</u></p> <p><u>Next</u> The stand is expected to regenerate naturally to a mixture red pines and hardwood.</p> <p><u>Steps:</u></p> <p><u>Proposed</u></p> <p><u>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
29	73145029-Cut	52.3	42290 - Natural Mixed Pine	High Density Log	75	111-140	Harvest	Seed Tree with Reserves	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal

Prescription The stand should be harvested down to 10-20 Sq Ft. The retention should be marked to retain some of the larger pines and some of the hardwoods for structural and species diversity. The good portion of the pine tops need to be left for seed source.

Other Comment: The only good drier access is through US Gypsum Property. The trail along the south edge is very wet.

Next Steps: The stand is expected to regenerate naturally to a mixture of pines and hardwood.

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason 2A: Adjacent landowner denied access

71	73145071-Cut	52.9	4199 - Other Mixed Upland Deciduous	High Density Log	89	81-110	Harvest	Clearcut with Reserves	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal
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Prescription The stand is to be harvested to 2 inches DBH marking pockets for retention. The retention should not exceed 5%. The retention should not exceed 5%. The stand is to be harvested commercially if possible otherwise habitat cut it.

Other Comment: The only access is only through private land to the east. One of the major land owners is US Gypsum.

Next Steps: The stand is expected to regenerate naturally to a mixed upland deciduous.

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason 2A: Adjacent landowner denied access

73	73145073-Cut	127.5	6119 - Mixed Lowland Deciduous Forest	High Density Log	86	51-80	Harvest	Single Tree Selection	6119 - Mixed Lowland Deciduous Forest	Cmpt. Review Proposal
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Prescription The stand is to be harvested as a selection keeping the average BA around 70 Sq Ft, favoring the removal of ash.

Other Comment: The only access is only through private land to the east. One of the major land owners is US Gypsum.

Next Steps: The stand is expected to regenerate naturally to a mixed upland deciduous.

Proposed Start Date: 10/01/2013

Limiting Factor and No Treatment Reason 2A: Adjacent landowner denied access

**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
73010274-Cut	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

73010290-Cut	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

73010295-Cut	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

73010296-Cut	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
73010314-Cut	9.2	42140 - Planted Mixed Pine	High Density Pole	73		Harvest	Clearcut with Reserves	42110 - Planted Red Pine	Cmpt. Review Proposal
<p><u>Prescription Specs:</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>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>									
73010323-Cut	160.2	42220 - Natural Jack Pine	High Density Pole	63		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal
<p><u>Prescription Specs:</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>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>									
73010324-Cut	34.3	42220 - Natural Jack Pine	High Density Pole	59		Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal
<p><u>Prescription Specs:</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>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>									
73010325-Cut	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 Specs:</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>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
73010334-Cut	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>									
73010336-Cut	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>									
73010338-Cut	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>									
73010344-Cut	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

**Total Treatment
Acreage Proposed: 630.9**



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42210 - Natural Red Pine	Low Density Pole	4.9	13	1-50	The stand is a grass stand that has been filling in with pine. The northern portion is still grassy. However, it goes from grass to thick pine heading south. Much of the stand has seeded in over the last 15 years. These trees make up the majority of the crown closure. There are some red and white pines that are 30+ years old; but the average is around 13. Many of the older trees show signs of the leaders being killed multiple times.
2	42200 - Natural White Pine	Medium Density Pole	4.0	39		The stand is a mixture of uplands and lowlands. There are some slight ridges along the north and south sides with a swale between them. The red maple and ash are coming up in the understory. There is a dense pocket of red pine. These trees are mostly poles, but some are sawlogs. The stand was recorded as declining last YOE. Access to the stand is poor due to private property and large lowland types.
4	42210 - Natural Red Pine	High Density Log	11.6	76	81-110	This stand is a leather leaf bog that is filling in with white pine and spruce.
5	4130 - Aspen	Medium Density Pole	35.6	41	51-80	The stand was cut in 1970. It is patchy and goes from well to poorly stocked. There are inclusions of low wet ground. The terrain is a matrix of uplands and lowlands, with the uplands being the majority. The red pine is in pockets. The aspen goes from a light A6 to a light P4. The lowlands areas have an understory of tag alder and winterberry
8	42290 - Natural Mixed Pine	High Density Log	8.1	87	111-140	This stand is a knob that backs up to private land. It has difficult access between the private land to the north and the low wet ground around it. It has oversize red and white pines in it. The stand was marked and sold last YOE but the logger could not gain access. The terrain is hummocky to rolling.
9	4130 - Aspen	Low Density Pole	19.1	41	1-50	The stand is a matrix of uplands and lowlands with the lowlands being the majority. The trees are patchy and with some lowland shrubs intermixed. Overall the stand is too wet to harvest commercially except during a deep freeze. The volume is very low. The crown closure is only around 25%. Some of the aspen clones have crown closure around 75%. However, there are also areas with a crown closure less than 15%.
11	4133 - Aspen, Mixed Pine	High Density Pole	41.9	41	51-80	The stand is a matrix of uplands and lowlands, with the uplands being the majority. There is a ridge along the east side. White pine is heaviest in the NE portion which has a greater % of uplands. In the SW and W portion of the stand it is heavier to hardwood and the soils are wetter. Some areas in it are open and some are heavy to tag alder. The terrain is undulating. There is some beaver activity but much of it is old.
12	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	9.0	86	1-50	The stand was final harvested in 2006 to 2" DBH. There are areas in it that were heavily rutted. In those areas the regeneration is low to moderate. In the areas that were not rutted the regeneration is moderate or better.
13	4140 - Other Upland Deciduous	High Density Pole	36.9	43		The stand is a mixture of uplands and lowlands with the uplands being the majority. The stand is mainly green ash. There are some Q aspen next to stand 12 and the maple is scattered. There are some wind throw that is occurring in pockets.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
14	6131 - Hemlock, White Pine, Maple, Birch	High Density Log	28.7	Uneven Age	51-80	The stand is a matrix of uplands and lowlands. The lowlands make up the majority by a little. The lowlands, because of how it is mixed in the stand, will dictate the management. There are super canopy and oversized white pines and red pines in the stand as well as large oaks. There is an understory of sapling and pole swamp hardwoods.
15	6115 - Lowland Ash	Low Density Pole	6.8	31	1-50	This is a pocket of swamp hardwood that goes along the base of stand 8. The record show it was harvested in 1980 and it is wet. The stand is mainly ash and maple over tag alder and winterberry.
16	6115 - Lowland Ash	High Density Pole	24.1	80	51-80	The ground cover is marsh grasses with some tag alder. The trees are stunted with some mortality. It is a mixture of moderately to very wet ground with some upland areas. EAB is common and the stand is expected to convert to lowland shrubs in 10 years.
19	42260 - Natural Pine, Mixed Deciduous	High Density Pole	12.5	60	81-110	The stand is on a well defined ridge. It has areas of good aspen and maple poles. There are also white pine poles and logs in it. The trail that goes through it is heavily used and it is often rutted.
20	4133 - Aspen, Mixed Pine	High Density Pole	7.8	43	51-80	This stand is mainly trees over thick tag alder and willow. There are areas that are slightly dryer. These areas are usually a medium stocked swamp hardwood pole stand. The wetter areas are usually a poorly stocked sapling swamp hardwood stand. The difference in elevation is only about 6". There are some scattered larger trees but much of it appears to be stunted swamp hardwoods.
21	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	24.4	48	51-80	The stand has a lot of standing water in it. The crown closure is between 25 and 85%; however it averages around 40%. The ground is hummocky with areas of deep mucky soils.
24	6131 - Hemlock, White Pine, Maple, Birch	High Density Log	37.7	Uneven Age	111-140	This stand is a matrix of uplands and lowlands. However, overall the stand is lowlands. Most of the white pine is on the west side; the east side is heavier to paper birch and aspen. Much of the white pine is log or oversized logs. There are also inclusions of lowland shrubs. Most of these pockets have some type of overstory. The terrain is hummocky; but there are some ridges mixed with swales.
26	42260 - Natural Pine, Mixed Deciduous	Medium Density	14.8	13		The stand was final harvested in 1998. It has regenerated to a medium stocked stand. There is a slight ridge along the northern edge that stretches almost to stand 8. The regeneration is a mixture of swamp hardwoods, pines, and aspens. The aspens are thickest on the ridge. Pines and swamp hardwoods are filling in on the lower ground. The pines are heaviest along the southern edge of the stand.
27	6126 - Lowland Jack Pine	Medium Density	16.2	13		The stand was harvested in 1998 as a 2" spec final harvest. It has regenerated to a medium stocked stand overall. It has significant areas of low wet ground which have a sparse overstory. The soils are a mixture of uplands and lowlands, with the lowlands being about 55%. The stand is very thick along the road.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
28	42290 - Natural Mixed Pine	High Density Log	16.1	76	81-110	The stand is a ridge that goes through a lowland type. It is very narrow.
29	42290 - Natural Mixed Pine	High Density Log	52.3	75	111-140	This stand was put up for harvest in 2007 but it was not cut. The logger lost his permission to access the stand through US Gypsum property. This stand is a ridge that is heavy to red pine. It is very narrow in areas and in others it is fairly wide. There is no regeneration in it. There was a trail in it last YOE, but it is grown in.
30	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	36.9	43	1-50	The stand is a thick swamp hardwood that grades to a lowland shrub type. It is mainly green ash and black ash with some maple. The stand is a fringe around a lowland type. It has a thick understory of red maple with ash. The larger ash has a lot of wood pecker activity. The stand is converting to E3 of red maple.
32	6127 - Lowland Pine	Low Density Sapling	46.5	12		This is a leather leaf bog that has been filling in with tamaracks, white and red pines. The average age is about 12, but it ranges from 2 to 30. The crown closure is around 30%. The site is poor. The average incremental growth of the leaders is around 3".
33	42290 - Natural Mixed Pine	Medium Density	7.0	13	51-80	The stand was harvested in 1998 by removing all the hardwoods. This left pockets of sawlog red and white pines. It is variable in density and size. Some of the created openings are regenerating to a mixture of aspens, red maples, white pines, and red pines.
34	6121 - Tamarack	Low Density Sapling	68.3	13		Last YOE this stand was typed as a marsh. It was made up of marsh grasses and cattails. It has since filled in with tamarack and white pines. There is still an area of lowland shrubs in the central portion of the stand. The crown closure is now sufficient to call it a forested stand. However, it is still very wet.
36	42210 - Natural Red Pine	High Density Log	20.4	84	51-80	The stand was final harvested in 2006 to 2" DBH. There are areas in it that were heavily rutted. In those areas the regeneration is low to moderate. In the areas that were not rutted the regeneration is moderate or better.
37	6127 - Lowland Pine	Medium Density Pole	7.3	83	51-80	This is a dry knoll surrounded by lowland types. There are inclusions of lowland shrubs. There is some swamp hardwood regeneration along the edges. The density and the species mix is variable.
39	4116 - Mixed N. Hardwood - Aspen	Medium Density	8.8	13		The stand is on a ridge that was harvested in 1998. The harvest was a 2" spec final harvest. It appears to be a medium stocked stand. There's a trail through it that comes from the private land to the east. It goes through the center of the stand. The red maple is along the edges where the ground is wetter. There is a lot of wildlife making dens along the trail.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
41	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Sapling	8.9	13		The stand has regenerated fairly well after it was harvested in 1998. The ground cover is heavy to wet grasses. The terrain is hummocky. It is a matrix of uplands and lowlands, with the lowlands being the majority. The central portion is very open.
42	4139 - Aspen, Mixed Deciduous	Medium Density	31.5	12		The regeneration in the stand is a mixture of species. It goes from poorly stocked to well stocked. There are clones of aspen and areas of swamp hardwood regeneration. Most of the regeneration is from stump sprouts, but some seed source is present. The stand is undulating. It is a matrix of uplands and lowlands; with the uplands being the majority.
43	6113 - Lowland Maple	High Density Pole	33.6	84	51-80	The stand is a matrix of uplands and lowlands, with the lowlands being the majority. It was put up for harvest in 2007 but it was not cut. The logger lost his permission to access the stand through US Gypsum property.
45	42260 - Natural Pine, Mixed Deciduous	High Density Pole	9.0	74	1-50	The stand was harvested in 1998 by the removal of all hardwoods. This left the stand with pockets of heavy red and white pines that are pole size. Therefore, the stand is variable in density and the mixture of pines. The terrain is undulating to rolling. There is a depression, on the west side, that contains leather leaf. The aspens and red maples are regenerating in the opening as well as red and white pines.
46	6115 - Lowland Ash	Medium Density Pole	222.7	57	51-80	The stand is low and wet. There are some openings appearing due to overstory die off. There are some significant areas of declining ash according to the last YOE data. EAB is also present in the stand. It is converting to lowland shrubs. The trees have roots right at the surface. Some wind throw is occurring.
48	6127 - Lowland Pine	Medium Density	4.7	12		This is a pocket of pines situated in a depression that grades from sparse upland red pine to a dense white pine with a leather leaf ground cover. The crown closure goes from 20 to 90%; the average is 60%.
49	6113 - Lowland Maple	Low Density Pole	10.4	61		This is a low depression of swamp hardwoods. The low wet ground has stunted the red maple and black oak. There are other species present, mainly paper birch and green ash. The center portion of the stand is very sparse. Much of the overstory is along the perimeter.
51	42210 - Natural Red Pine	High Density Log	17.4	75	81-110	The stand was harvested in 1998. In the harvest all trees were cut, but unmarked red pine was left. It is mainly an upland stand though there are pockets of lowland containing leather leaf in it. In the areas where the BA was less than 60 sq ft there is some regeneration of pines.
53	42200 - Natural White Pine	High Density Pole	19.8	50	111-140	The soils are very wet. There have been some problems with wind throw in pockets. This was reported in the data from the last YOE. The crowns are larger along the NW edge then in the SE corner. So the stand grades from sawlogs to poles from NW to SE.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
54	6119 - Mixed Lowland Deciduous Forest	High Density Pole	85.6	86	51-80	This stand is a matrix of uplands and lowlands, with the lowlands being around 70%. There are some drier knolls in it but they are scattered.
55	42210 - Natural Red Pine	High Density Pole	8.0	76	51-80	The stand was thinned in 2007. During the harvest many of the residual trees were damaged. The damage has caused some mortality but it is still light. The southern edge of the stand is sparse. The regeneration in that area is also sparse. In the main stand there is no regeneration.
57	42260 - Natural Pine, Mixed Deciduous	High Density Pole	33.7	89		The stand is a mixture of uplands and lowlands. There are some slight ridges along the north and south sides with a swale between them. The red maple and ash are coming up in the understory. There is a dense pocket of red pine. These trees are mostly poles, but some are sawlogs. The stand was recorded as declining last YOE. Access to the stand is poor due to private property and large lowland types.
58	6115 - Lowland Ash	Low Density Pole	412.2	70	1-50	The ash is showing signs of decline as reported in the last YOE. It has a medium stocking of trees overall. The density goes from poorly stocked in the east to well stocked in the west. The crown closure goes from 50 to 80%. It has a thick understory of tag alder and willow. There is a lot of EAB activity and the stand is dying out and will be an alder swamp in 10 years.
62	6131 - Hemlock, White Pine, Maple, Birch	Medium Density	5.0	13		The soils are very wet. There have been some problems with wind throw in pockets. This was reported in the data from the last YOE. The crowns are larger along the NW edge than in the SE corner. So the stand grades from sawlogs to poles from NW to SE.
63	42200 - Natural White Pine	High Density Log	15.2	59	111-140	This is a ridge that was thinned in 1998. The harvest removed all species but red and white pines. This left a fully stocked stand of pine. Some of the aspen and maple have regenerated. The terrain is undulating with some low depressions. The red maple regeneration is heaviest through the center and in the transition zones between the uplands and lowlands. In these areas there is also white pine and tamarack.
64	6115 - Lowland Ash	High Density Pole	5.4	86	51-80	The stand is a thick swamp hardwood that grades to a lowland shrub type. It is mainly green ash and black ash with some maple. The stand is a fringe around a lowland type. It has a thick understory of red maple with ash. The larger ash has a lot of wood pecker activity. The stand is converting to E3 of red maple.
68	4311 - Pine, Aspen Mix	Medium Density	8.7	13		Last YOE this stand was typed as a marsh. It was made up of marsh grasses and cattails. It has since filled in with tamarack and white pines. There is still an area of lowland shrubs in the central portion of the stand. The crown closure is now sufficient to call it a forested stand. However, it is still very wet.
69	6113 - Lowland Maple	High Density Pole	4.7	86	51-80	This is a stand at the base of a ridge. The terrain is low and wet. The terrain is hummocky ground. There are areas of leather leaf.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
70	6115 - Lowland Ash	Medium Density Pole	78.1	86	1-50	This stand is a low density tree stand, with a tag alder and willow in the understory. Portions of the stand have been flooded out and much of the overstory has been killed off. The trees are mainly poles with stilt roots. The stand appears to have a low site index. The soils are mainly muck.
71	4199 - Other Mixed Upland Deciduous	High Density Log	52.9	Uneven Age	81-110	This stand is mostly upland. It is land locked by private land to the east and low wet ground to the north and south. It was part of a sale that was set up in 2007. However, it was not cut. The logger lost his permission to access it through US Gypsum property. The stand slopes down and grades from aspen to swamp hardwoods. White pines are seeding in on the east side. The terrain is hummocky with some down trees. The aspen is showing signs of decline. Many trees have fungal conks on them. EAB is in the ash but it is not a big problem yet.
72	6119 - Mixed Lowland Deciduous Forest	High Density Log	64.6	Uneven Age	51-80	This stand is low and wet. There are some scattered upland knobs, but they make up less than 20%. It has standing water in it for an extended portion of the year. The soils are dryer in the south end of the stand. This area also has the greatest % of sawlogs. There are more poles present going north, but sawlogs are present through out the stand. EAB is present and is more pronounced in the wetter areas of the stand.
73	6119 - Mixed Lowland Deciduous Forest	High Density Log	127.5	Uneven Age	51-80	This stand is a mixture of uplands and lowlands. It has about a 50-50 mix. It was marked for harvest in 2007. However, it was not cut. The logger lost his permission to cross US Gypsum property. The aspen in the stand is declining. EAB is present in the ash but it is not wide spread yet. It is mainly confined to isolated trees. The ash is being wind thrown. Many of the trees are greater than 16" DBH.
74	4130 - Aspen	Medium Density Pole	15.6	89	1-50	This stand is upland and was heavy to aspen and birch that are both declining. The birch is all but dead and now there are significant opening in the crown. The openings are filling in with red maple and green ash. It was part of a sale that was set up in 2007. However, it was not cut. The logger lost his permission to access it through US Gypsum property.
75	4130 - Aspen	High Density Log	15.3	86	51-80	This stand is uplands with out a large component of paper birch. The aspen is showing signs of decline and many have fungal conks on their boles. The ground cover has a strong component of ground pine. The terrain is hummocky and there are some wet pockets. It was part of a sale that was set up in 2007. However, it was not cut. The logger lost his permission to access it through US Gypsum property.
76	6115 - Lowland Ash	Medium Density Log	90.6	86	51-80	The soils are very wet. There have been some problems with wind throw in pockets. This was reported in the data from the last YOE. The crowns are larger along the NW edge then in the SE corner. So the stand grades from sawlogs to poles from NW to SE.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3	629 - Mixed non-forested wetland	6.1	No	Unspecified	This is an area of marsh grasses and cattails along Alabaster Road. It has some lowland shrubs but they are scattered.
6	6220 - Alder/willow	10.4	No	Unspecified	The stand is a low wet shrub type that is heavy to tag alder. The trees are filling in but it is not a forested stand.
7	6229 - Mixed lowland shrub	87.8	No	Unspecified	This is a large lowland shrub type that is heavy to tag alder. There are some swamp hardwoods present. However, the crown closure is less than 10%. Most of the trees are in the western portion of the stand (this includes OI stands 63 and 64).
10	6229 - Mixed lowland shrub	15.9	No	Unspecified	This stand is a lowland shrub type with a lot of wet marsh characteristics. The shrubs are low and have greater than 60% cover. However, there are large openings of marsh grass. In some areas there are widely scattered trees.
17	50 - Water	29.7	No	Unspecified	This is a beaver flooding and it is still retaining some water. There is some new activity but the lodge was not seen. There is some open water and the shrub are heavy along the perimeter.
18	6220 - Alder/willow	7.2	No	Unspecified	The overstory is gone. It is now a lowland shrub type of willow and tag alder. There are still some scattered white pines and ash but the crown closure is less than 15%. It is a draw between two ridges that connects two lowland types. There is a water feature to the east and a marsh to the west.
22	6220 - Alder/willow	15.4	No	Unspecified	The stand is a very wet lowland shrub type with a lot of standing water. It is heavy to tag alder and willow with some trees starting to come in, mainly ash. However, it is a non-forested type.
23	6239 - Mixed Emergent Wetland	25.9	No	Unspecified	This stand is a stand of marsh grass with some scattered lowland shrub.
25	6229 - Mixed lowland shrub	52.5	No	Unspecified	This is a wet marsh type. It has some scattered lowland shrubs but not much. There is a patch of phragmites in it. In addition, the SW end has standing water.
31	6220 - Alder/willow	17.8	No	Unspecified	This is a lowland shrub type that has some scattered tamarack, white and red pines in it. The crown closure is getting close to 15%
35	6229 - Mixed lowland shrub	5.7	No	Unspecified	The stand was harvested in 1998. It is mainly tag alder with some regeneration. The stand is off a ridge and the soils are low and wet. It is now lowland shrub. There is a slight ridge along the north side. On the ridge the cover is sparse.
38	3302 - Low Density Conifer Trees	20.9	N/A	Unspecified	This stand was harvested in 2007. Some of the ground was rutted when it was harvested.



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
40	6229 - Mixed lowland shrub	167.2	No	Unspecified	This is a large lowland shrub type. There are some upland areas in the stand but they are scattered. These areas have a sparse crown closure. Overall the stand is mainly tag alder, willow, and dogwood, with areas of open marshy grasses. The crown closure is less than 15%.
44	629 - Mixed non-forested wetland	1.3	No	Unspecified	This stand is along the base of a slight ridge. It was harvested in 1989 and it has not regenerated. It is now mainly marsh grasses. The edges are filling in with lowland shrubs. There are some trees but they have only around 5% crown closure.
47	6229 - Mixed lowland shrub	21.7	No	Unspecified	The stand is a lowland shrub type of tag alder, willow and dogwood. There are inclusions of marshy ground especially in the NW end. There are some scattered trees.
50	3105 - Mixed Upland Herbaceous	1.6	No	Unspecified	This area was used to harvest stand 12 and 112. Some trees are encroaching along the edges. There are also areas of exposed sand.
52	6229 - Mixed lowland shrub	5.9	No	Unspecified	This stand is in a depression that is a mix of marsh grass and tag alders. There are a mild ridge along the north west edge.
56	629 - Mixed non-forested wetland	23.7	No	Unspecified	This stand is a mixture of lowland shrubs and marsh grasses. The marsh grasses make up 75% of cover. There are shrubs along the edges. In addition, there are white pines, red pines, and tamaracks scattered throughout the stand.
59	6229 - Mixed lowland shrub	11.3	No	Unspecified	This area was heavily rutted when it was harvested in 1998. The regeneration has not come in well. It currently has a crown closure between 15 and 25%.
60	629 - Mixed non-forested wetland	12.0	No	Unspecified	This was part of a sale that did not regenerate. It is mainly marsh grasses with some scattered regeneration.
61	6220 - Alder/willow	2.9	No	Unspecified	This is a depression and it is low and wet. It is heavy to tag alder. The crown closure was between 15 and 25% now the over story is dead. There is still some ash, maple and white pines present but they are scattered.
65	6220 - Alder/willow	24.1	No	Unspecified	This is a area of lowland shrub type that grades to marsh grass going east.
66	629 - Mixed non-forested wetland	7.0	No	Unspecified	This is a lowland shub type.
67	629 - Mixed non-forested wetland	10.1	No	Unspecified	This is mainly of marsh grass.



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.

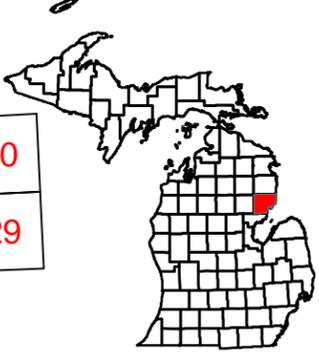
ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

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.

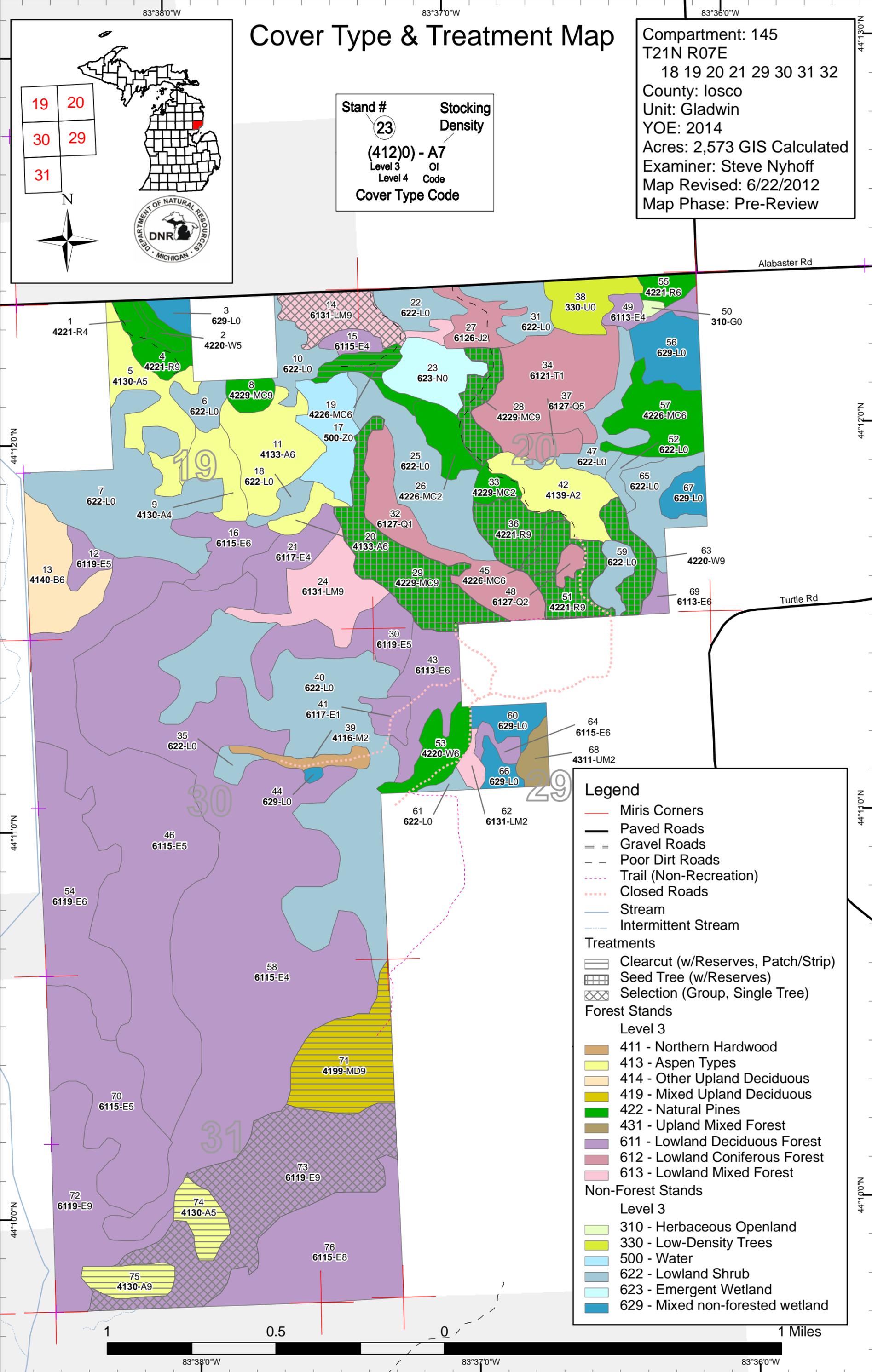
Cover Type & Treatment Map

Compartment: 145
 T21N R07E
 18 19 20 21 29 30 31 32
 County: Iosco
 Unit: Gladwin
 YOE: 2014
 Acres: 2,573 GIS Calculated
 Examiner: Steve Nyhoff
 Map Revised: 6/22/2012
 Map Phase: Pre-Review

19 20
 30 29
 31



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



Legend

- Miris Corners
- Paved Roads
- Gravel Roads
- Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stream
- Intermittent Stream

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Selection (Group, Single Tree)

Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland



83°38'0"W 83°37'0"W 83°36'0"W

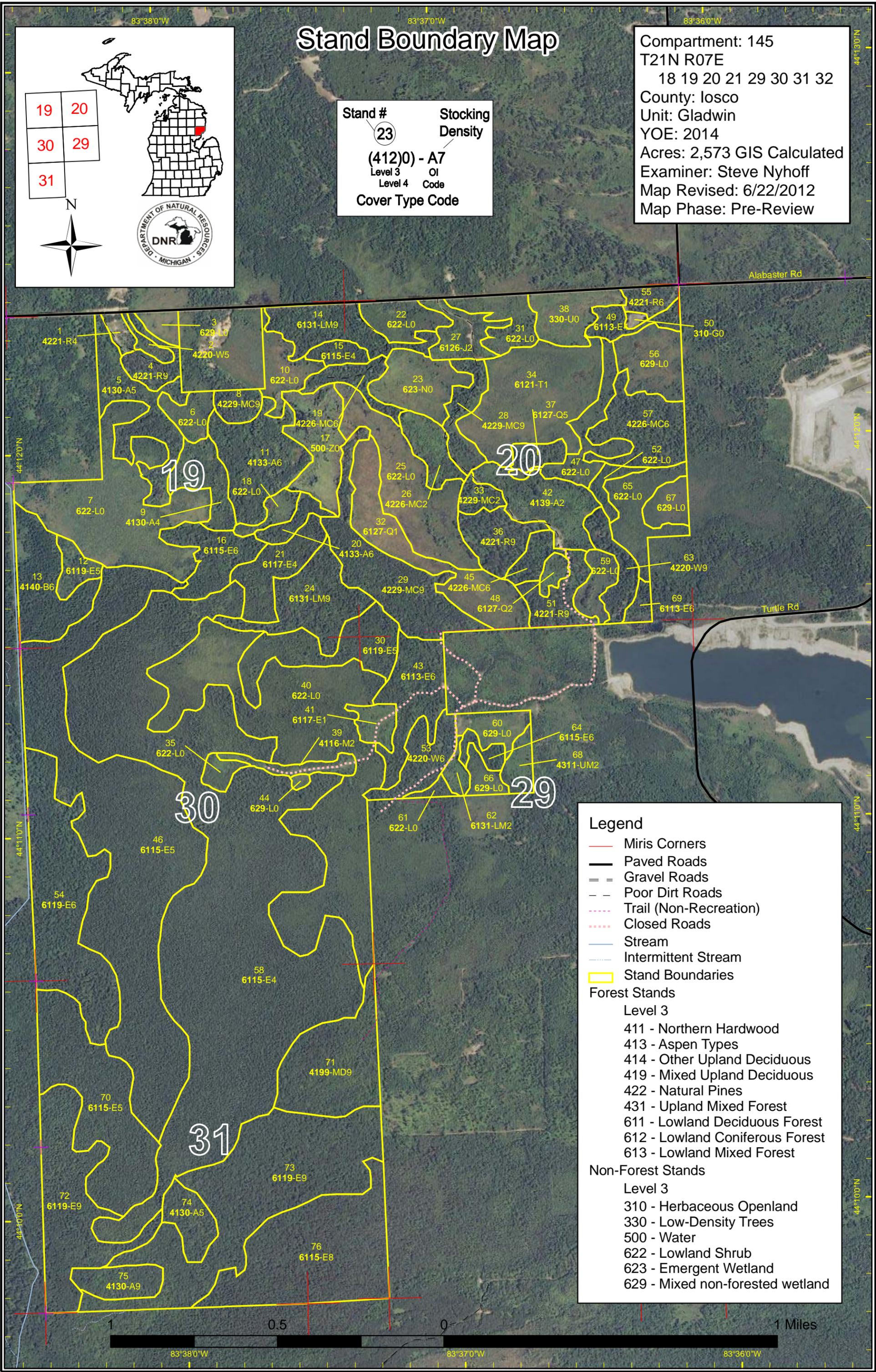
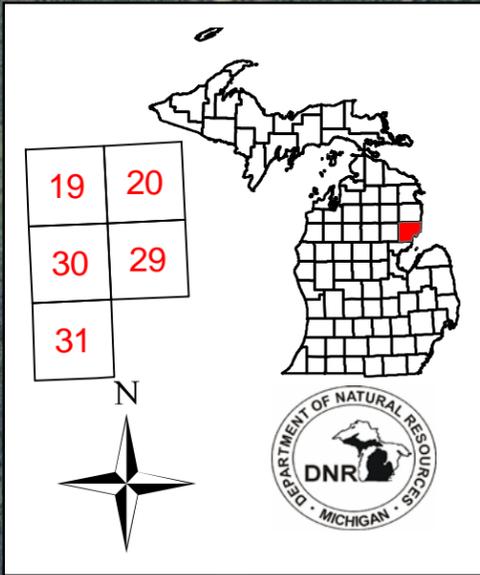
44°12'0"N 44°11'0"N 44°10'0"N

83°36'0"W 44°13'0"N 44°12'0"N 44°11'0"N

Stand Boundary Map

Compartment: 145
 T21N R07E
 18 19 20 21 29 30 31 32
 County: Iosco
 Unit: Gladwin
 YOE: 2014
 Acres: 2,573 GIS Calculated
 Examiner: Steve Nyhoff
 Map Revised: 6/22/2012
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Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



Legend

- Miris Corners
- Paved Roads
- == Gravel Roads
- - Poor Dirt Roads
- Trail (Non-Recreation)
- Closed Roads
- Stream
- - - Intermittent Stream
- Stand Boundaries

Forest Stands

Level 3

- 411 - Northern Hardwood
- 413 - Aspen Types
- 414 - Other Upland Deciduous
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest

Non-Forest Stands

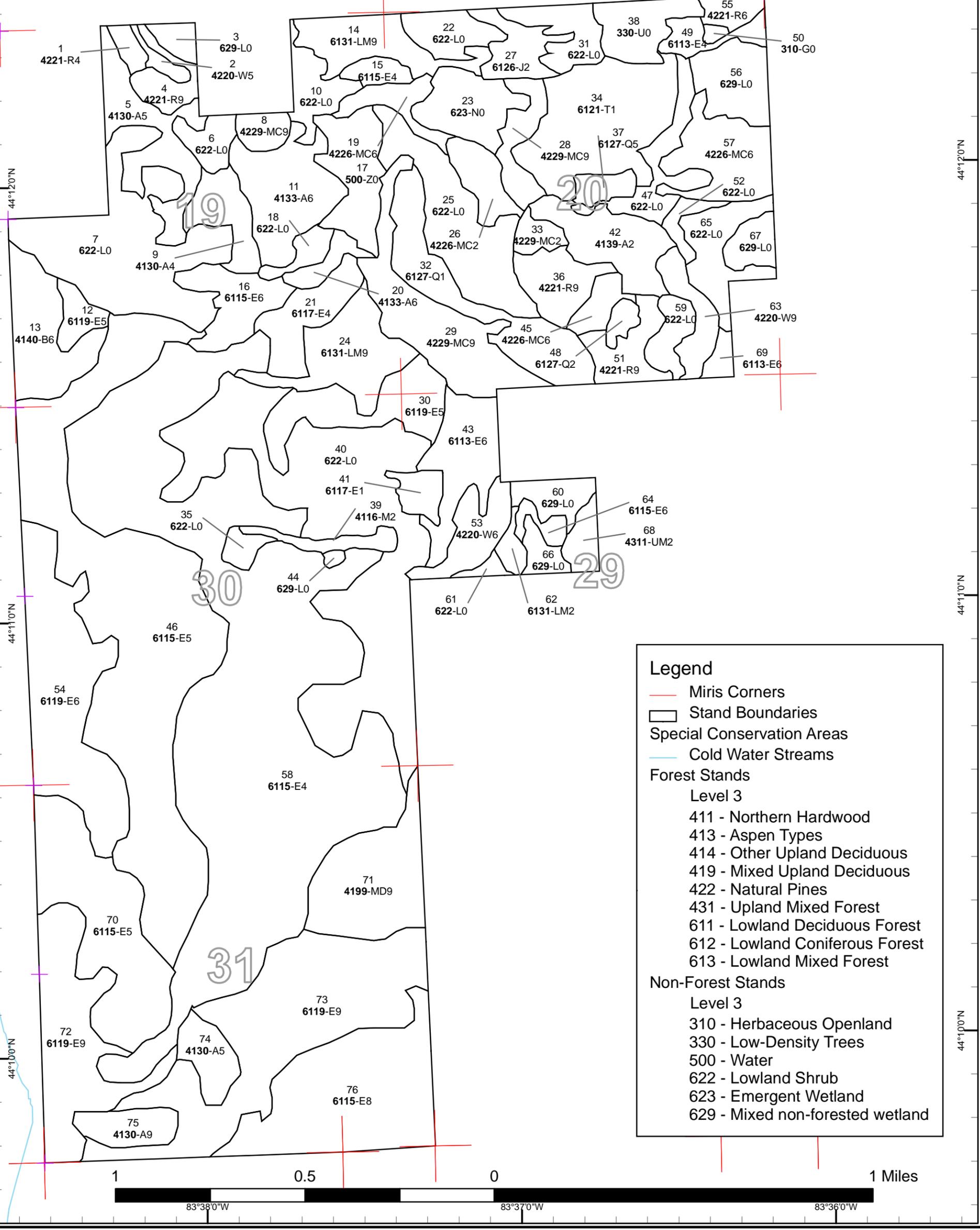
Level 3

- 310 - Herbaceous Openland
- 330 - Low-Density Trees
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland

Dedicated & Proposed Special Conservation Area Map

Compartment: 145
 T21N R07E
 18 19 20 21 29 30 31 32
 County: Iosco
 Unit: Gladwin
 YOE: 2014
 Acres: 2,573 GIS Calculated
 Examiner: Steve Nyhoff
 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

- Miris Corners
- Stand Boundaries
- Special Conservation Areas
- Cold Water Streams
- Forest Stands
 - Level 3
 - 411 - Northern Hardwood
 - 413 - Aspen Types
 - 414 - Other Upland Deciduous
 - 419 - Mixed Upland Deciduous
 - 422 - Natural Pines
 - 431 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands
 - Level 3
 - 310 - Herbaceous Openland
 - 330 - Low-Density Trees
 - 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 629 - Mixed non-forested wetland