



**FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 135 ENTRY YEAR: 2010

Compartment Acreage: 1858

County: Arenac

Draft

Revision Date: April 28, 2008, Aug. 2008, 10/20/08

Stand Examiner: Steven Nyhoff

Legal Description: T19N, R5E, Sec. 3, 4
T20N, R5E, Sec. 27, 28, 33, 34

RMU (if applicable):

Management Goals:

The compartment is mainly a mix of aspen and oak with the drainages being swamp hardwoods. The oak in the area is Black and Northern Pin Oak with very little Red Oak. The trees have poor to fair form, much of it is grade 2 or 3. The aspen in the compartment has been heavily treated in the past 20 years; therefore, oak covertsypes are now in need of attention. Some of these stands have been treated in the past with dead oak removals and fire salvage.

Continue to manage the stands for the current covertsypes. Try to maintain the current mix of species. The oak in the area is now 80+ years old and the harvests that have been prescribed this YOE are seed tree harvests. If they do not regenerate well after harvest, they will need to be interplanted with jack or red pine to bring them up to full stocking.

Soil and Topography:

The terrain is mainly flat throughout much of the area. The area does have extensive micro relief because it is very hummocky due to a high water table and past wind throw events.

The main soil types are AuGres associations on the moderate ground. In the low ground and along the creeks, the soils are heavier to Tawas Associations and coarse alluvial soils with some Roscommon associations. In addition, the driest areas are heavy to Rubicon and Grayling Associations, which are scattered in the compartment.

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

The state ownership, for the most part, is contiguous with only one 40-acre parcel that is isolated. The private land in the area is mainly used as recreational properties, hunting, camping, etc. On the eastside of the compartment, there is an active quarry that produces road gravel.

Unique, Natural Features (include only non-site specific and non-sensitive information):

The compartment has a record of a Great-Blue Heron Rookery in 1988 but it was not located during the IFMAP process. The old beaver flooding that was located near by has been dry now for over 14 years. There are also records of Channel Darter in some of the creeks and drains to the south. In addition, there is a record of a wood turtle to the south. No other occurrences were located during the IFMAP process.

Archeological, Historical, and Cultural Features

There are no records of sites in the HAL database and no sites were located during the IFMAP process.

Special Management Designations or Considerations:

None

Watershed and Fisheries Considerations:

This compartment is part of a complex of natural and man-made creeks that flow into the Rifle River or directly into the Saginaw Bay. These will need to be protected when sales are set up along or near these creeks.

Wildlife Habitat Considerations:

No major concerns noted. Continue to manage for traditional wildlife species.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of lacustrine (lake) clay, silt, sand and gravel. The glacial drift thickness varies between 10 and 100 feet. Beneath the glacial drift are the Mississippian Michigan Formation and Bayport Limestone. The Michigan was quarried for gypsum in other areas of the State and there is a Bayport quarry in Section 34. Gravel pits are located in the area and there may be some potential. Very little oil and gas exploration has occurred in this area, but the compartment currently is almost entirely leased.

Vehicle Access:

The access in the compartment is good. There are numerous open roads; many of these are in excess of what are needed. However, the closing of these excess roads is difficult because of the coverts and land which is open and flat.

Survey Needs:

Much of the area has been surveyed in the past so no new survey is needed.

Recreational Facilities and Opportunities:

There are no established recreational facilities in the compartment. However, the area is heavily used for hunting, disperse camping, horseback riding, snowmobiling, firewood gathering, and berry picking.

Fire Protection:

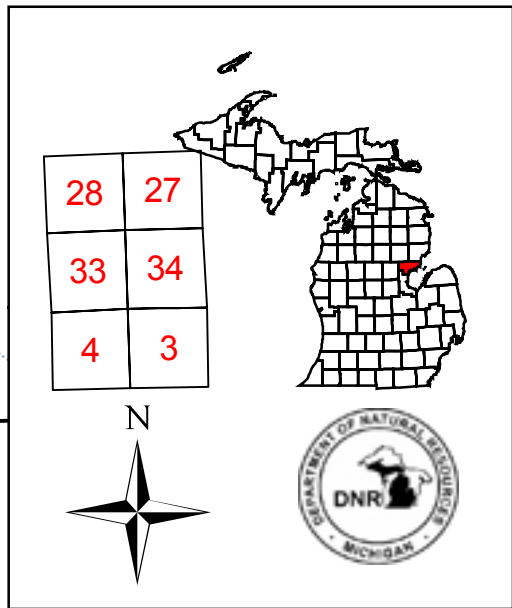
The area along Tyler Plains Road has a history of fire activity.

Additional Compartment Information:

There is currently some work being done on a possible exchange of property between the state and Mike Glancy. The exchange is for some of the state land north and south of his current quarry in exchange for his property west of his quarry that abuts up to Tyler Plains Rd.

Compartment 135
 T19N, R05E, Sec. 3, 4
 T20N, R05E, Sec. 27, 28, 33, 34
 County: Arenac
 Unit: Gladwin
 YOE: 2010
 Acres: 1,858 GIS Calculated
 Stand Examiner: Steven Nyhoff
 Map Revised: 10/31/2008
 Map Phase: Pre-Review

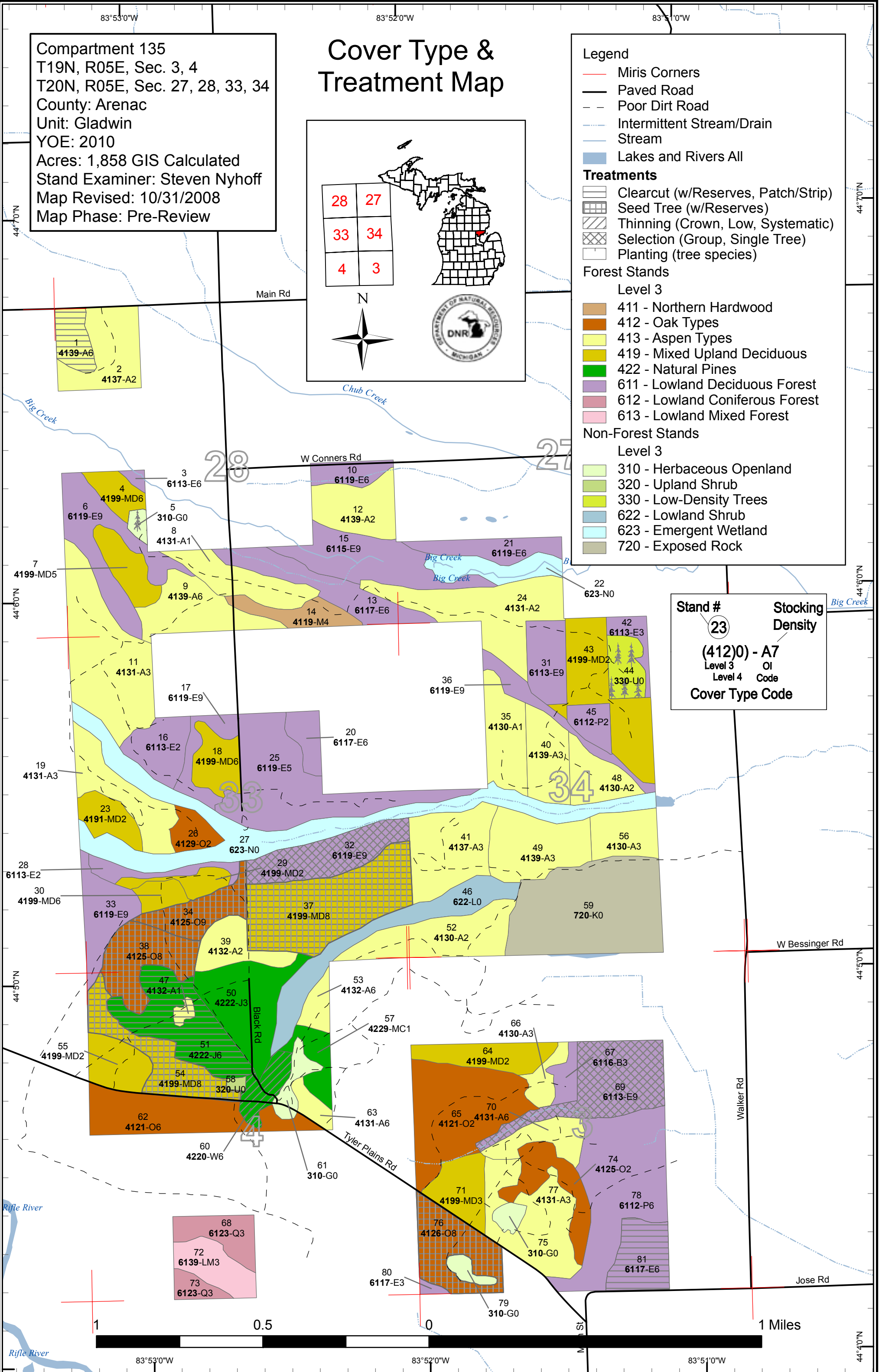
Cover Type & Treatment Map



Legend

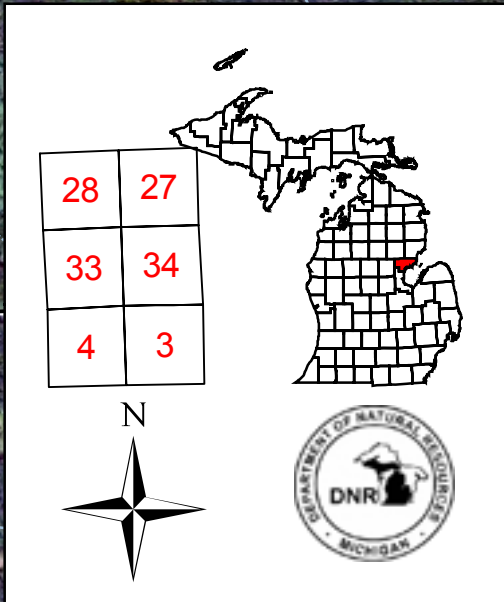
- Miris Corners
 - Paved Road
 - Poor Dirt Road
 - Intermittent Stream/Drain
 - Stream
 - Lakes and Rivers All
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
 - Seed Tree (w/Reserves)
 - Thinning (Crown, Low, Systematic)
 - Selection (Group, Single Tree)
 - Planting (tree species)
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 422 - Natural Pines
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
 - 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
- 310 - Herbaceous Openland
 - 320 - Upland Shrub
 - 330 - Low-Density Trees
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - 720 - Exposed Rock

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



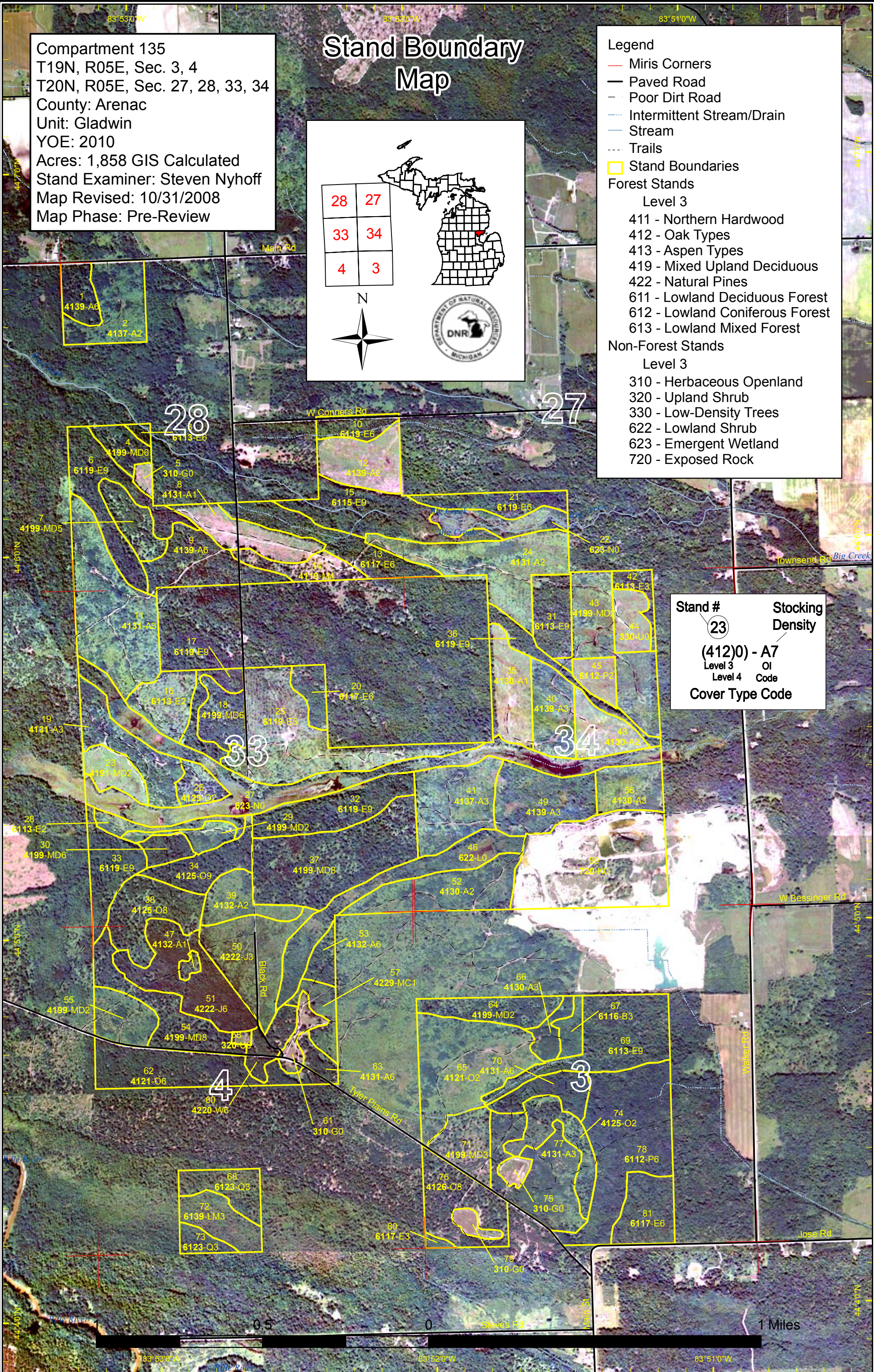
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Stand Boundary Map



Legend

- Miris Corners
 - Paved Road
 - Poor Dirt Road
 - Intermittent Stream/Drain
 - Stream
 - - - Trails
 - Stand Boundaries
- Forest Stands**
- Level 3
- 411 - Northern Hardwood
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Stand #	Stocking Density
23	(412)0 - A7
	Level 3 OI
	Level 4 Code
	Cover Type Code

Covertypes, Acres, and Age summary (Level 3 Cover Type)

Gladwin Mgt. Unit

Compartment 135 Year of Entry 2010

Report Date: 10/31/2008



	Age Class															Total
	Non-Forested	1-9	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 Types	0	87.6	309.3	89.1	22.3	17.6	2.3	0	0	0	0	0	0	0	0	528.3
Emergent Wetland	96.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96.0
Exposed Rock	76.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76.3
Herbaceous Openland	19.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.4
Low-Density Trees	12.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.5
Lowland Coniferous Forest	0	0	21.9	0	0	0	0	0	0	0	0	0	0	0	0	21.9
Lowland Deciduous Forest	0	89.9	15.5	9.4	65.9	1.6	21.5	36.6	0	226.3	9.8	0	0	0	0	476.7
Lowland Mixed Forest	0	0	17.3	0	0	0	0	0	0	0	0	0	0	0	0	17.3
Lowland Shrub	36.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36.0
Mixed Upland Deciduous	0	12.8	65.1	59.0	0	7.5	28.7	0	0	82.5	0	0	0	0	0	255.6
Natural Pines	0	0	37.7	0	0	11.1	39.9	0	0	11.9	0	0	0	0	0	100.4
Northern Hardwood	0	0	0	0	0	0	0	0	13.2	0	0	0	0	0	0	13.2
Oak Types	0	0	84.8	0	0	40.1	0	0	29.9	47.9	0	0	0	0	0	202.7
Upland Shrub	1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.4
Total	241.7	190.3	551.6	157.5	88.3	77.9	92.4	36.6	43.1	368.6	9.8	0	0	0	0	1857.9

83°53'0"W


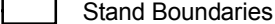

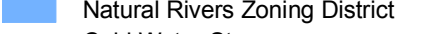

83°52'0"W

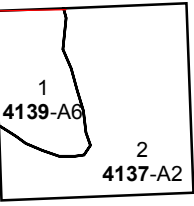
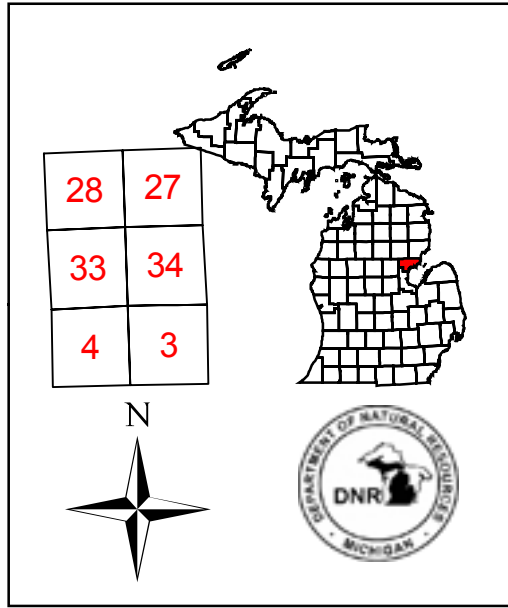
83°51'0"W

Compartment 135
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Dedicated & Proposed Special Conservation Area Map

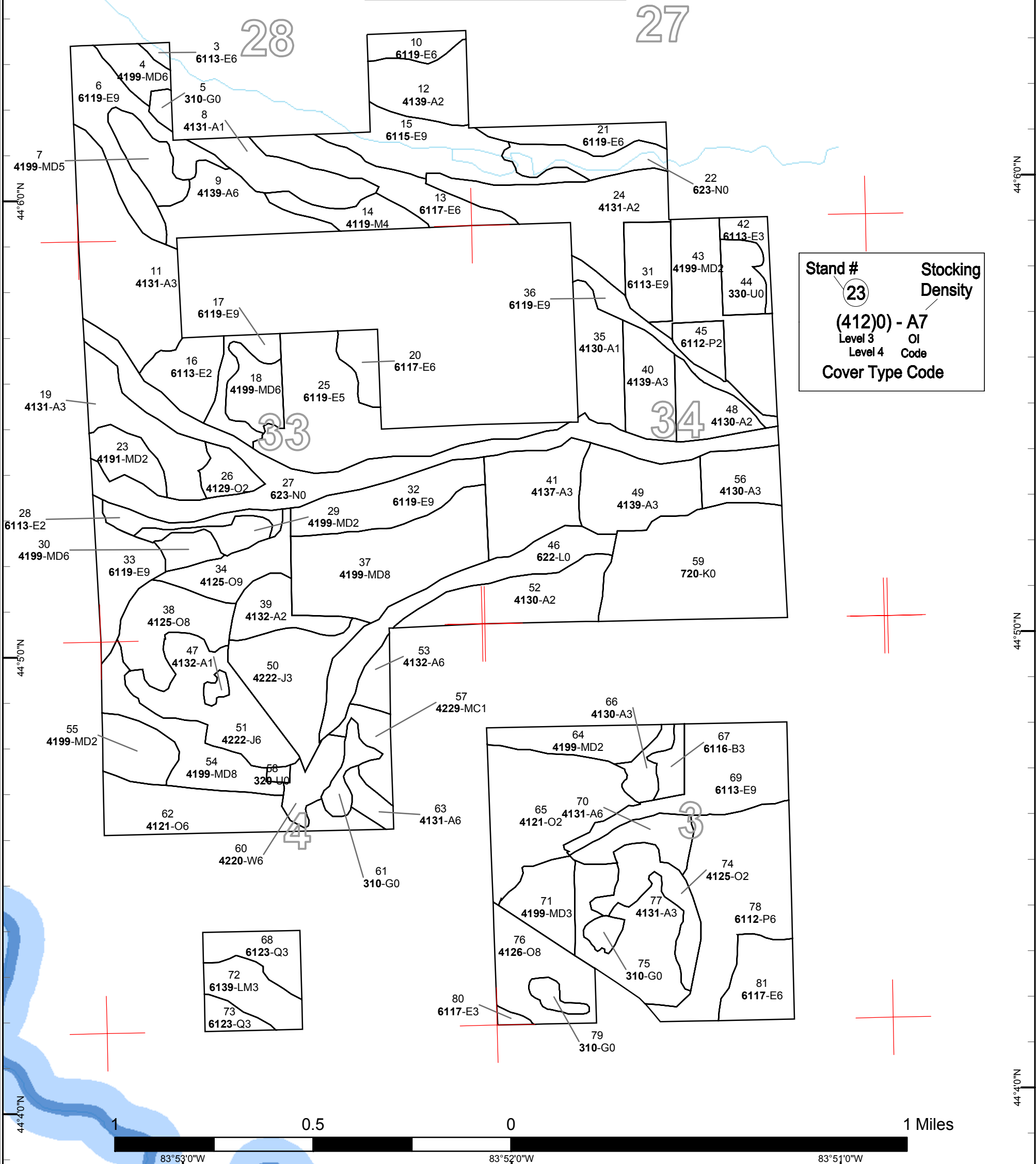
Legend

-  Miris Corners
-  Stand Boundaries
- Dedicated Special Conservation Areas**
-  Natural Rivers Vegetative Buffer
-  Natural Rivers Zoning District
-  Cold Water Streams



44°70'N
44°60'N
44°50'N
44°40'N

44°70'N
44°60'N
44°50'N
44°40'N



Stand #	Stocking Density
23	(4120) - A7
	Level 3 OI
	Level 4 Code
	Cover Type Code

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
1 73135001-Cut	11.6	4139 - Aspen, Mixed Deciduous	High Density Pole	48	Harvest	Clearcut with Reserves	Aspen

Rev Cmnt: Soils under the stand are, for the most part, dry but there are some wet patches. So cutting specs. should be written to minimize the impact on the soil.

Rev Spec: The stand is a decent aspen type, so do a 2" spec. clearcut with reserves. The retention in the stand should not exceed 3% of the area. Retention should be kept in patches to lessen the impact on the aspen regeneration.

Next Steps: The stand is expected to regenerate.

32 73135032-Cut	31.0	6119 - Mixed Lowland Deciduous Forest	High Density Log	82	Harvest	Single Tree Selection	Mixed Lowland Deciduous Forest
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Rev Cmnt: The stand is a mixture of upland and lowland. The lowland being the majority. Because there are areas of wetter soils rutting could be a problem if the stand is harvested at the wrong time. Therefore harvest the stand in dry or frozen conditions to minimize rutting. In addition, the overstory oak in the stand has about 15-20% mortality.

Rev Spec: Stand is to be marked to cut, retaining 70 to 80 BA.

Next Steps: The stand is expected to regenerate.

34 73135034-Cut	19.1	4125 - Black, N. Pin Oak	High Density Log	86	Harvest	Seed Tree with Reserves	Black, N. Pin Oak
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Rev Cmnt: The stand is heavily used by fuel wood gatherers, and as such, has very little dead wood standing or down. The east side of the stand has a component of red maple and there is an aspen component along the east and south sides.

Rev Spec: The stand is showing some decline and needs to be harvested. Harvest the stand as a Seed Tree Cut with reserves retaining 10-20 BA of mainly oak. Also, retain some of the other species for diversity and retention.

Next Steps: The stand is expected to regenerate as a mixed stand of oak, maple and aspen. But if regeneration is not adequate interplant red pine.

37 73135037-Cut	64.0	4199 - Other Mixed Upland Deciduous	Medium Density Log	82	Harvest	Seed Tree with Reserves	White, Black, N. Pin Oak
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Rev Cmnt: The stand has some mortality showing up this has generated numerous gaps in the crowns some are regenerating well. The stand also looks like the aspen and maple was removed two YOEs ago.

Rev Spec: The stand is showing some decline and needs to be harvested. Harvest the stand as a Seed Tree Cut with reserves retaining 10-20 BA of mainly oak. Also, retain some of the pine for diversity and retention.

Next Steps: The stand is expected to regenerate as an oak stand. If the regeneration is not adequate interplant red pine

38 73135038-Cut	28.9	4125 - Black, N. Pin Oak	Medium Density Log	82	Harvest	Seed Tree with Reserves	Black, N. Pin Oak
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Rev Cmnt: The aspen in the stand is concentrated along the west side and the density of oak increases going east.

Rev Spec: The stand is showing some decline and needs to be harvested. Harvest the stand as a Seed Tree Cut with reserves retaining 10-20 BA of mainly oak. Also, retain some of the other species for diversity and retention.

Next Steps: The stand is expected to regenerate as an oak stand. If the regeneration is not adequate interplant jack pine. The soils are drier than some of the other stands.

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
47 73135047-Cut	2.3	4132 - Aspen, Jack Pine	Low Density Sapling	52	Harvest	Clearcut	Aspen, Jack Pine

Rev After the stand is harvested with stand 51 it is expected to be replanted with stand 51 making them one stand.
Cmnt:

Rev The stand is a poorly stock area in a larger well stock jack pine stand. The stand is to be clearcut without reserves because of it small size and retention
Spec: will be addressed in stand 51.

Next The stand will need to be trenched and replanted to jack pine.
Steps:

51 73135051-Cut	39.9	42220 - Natural Jack Pine	High Density Pole	52	Harvest	Clearcut with Reserves	Planted Jack Pine
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Rev The stand has some areas that appear to have a seasonally high water table, so rutting could be a problem.
Cmnt:

Rev Stand is to be a clearcut with reserves. The retention should be kept in patches and not exceed 5% of the stand's area.
Spec:

Next The stand will need to be trenched and hand planted to jack pine after the harvest.
Steps:

54 73135054-Cut	28.7	4199 - Other Mixed Upland Deciduous	Medium Density Log	56	Harvest	Seed Tree with Reserves	Other Mixed Upland Deciduous
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Rev The west side of the stand has a significant amount of jack pine. The stand is dense at the east and west ends but becomes sparse in the center of the stand.
Cmnt:

Rev The stand is showing some decline and needs to be harvested. Harvest the stand as a Seed Tree Cut with reserves retaining 10-20 BA of mainly oak.
Spec: When harvesting cut all aspen and retain some of the pine for diversity and retention.

Next The stand is expected to regenerate as a mixed upland with a component of pine. If the regeneration is not adequate inter plant jack pine.
Steps:

60 73135060-Cut	11.9	42200 - Natural White Pine	High Density Pole	82	Harvest	Systematic Thinning	Natural White Pine
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Rev The stand is variable. The north end is heavier to jack pine and the south end is heavier to white pine. The diameter of the trees is also variable being fairly large south becoming smaller north.
Cmnt:

Rev The stand need to be systimatically thinned by making rows through the stand. When harvesting remove about 1/3 the volume. Set up the rows to make the stand loggable.
Spec:

Next
Steps:

69 73135069-Cut	44.0	6113 - Lowland Maple	High Density Log	82	Harvest	Single Tree Selection	Lowland Maple
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Rev The stand is a mixture of upland and lowland with the lowland being the most prodominate. Because of this rutting could be a problem if harvest at the wrong time of the year. So a dry or frozen spec. should be used to minimize the possibility of rutting
Cmnt:

Rev The stand needs to be thinned down to an average of 80 BA. The marking should concentrate on the removal of aspen and ash. In the stand there are ridges that are heavy to aspen which should be mraked to make regeneration openings for the aspen. Also, in the stand there are some very wet areas that should not be marked at all. These are mainly long the south edge of the stand where there is a minor internitten drainage.
Spec:

Next The stand is expected to regenerate naturally as a lowland maple stand mixed with some aspen, oak and ash.
Steps:



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
76 73135076-Cut	29.9	4126 - White, Black, N. Pin Oak	Medium Density Log	79	Harvest	Seed Tree with Reserves	White, Black, N. Pin Oak

Rev Cmnt: The stand was salvaged last YOE removing dead oak. The area is still a medium stocked. In addition, where there are opening in the crowns, the stand has good regeneration.

Rev Spec: The stand is showing some decline and needs to be harvested. Harvest the stand as a Seed Tree Cut with reserves retaining 10-20 BA of mainly oak. Also, retain some of the other speices for diversity and retention.

Next Steps: The stand is expected to regenerate as a mixed oak stand with some other species present. If the regeneration is not adequate inter plant red pine.

81 73135081-Cut	21.5	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	59	Harvest	Clearcut with Reserves	Lowland Deciduous, Mixed Coniferous
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Rev Cmnt: The ground is hummocky and there are areas of lowland brush with a swamp hardwood overstory. There are also slight ridges in the stand. So the area is a mix of upland and lowland with the lowland making up the majority of the area. Because of the low wet ground in the stand the stand needs to be restricted to dry or frozend condition when it is harvested.

Rev Spec: Harvest the as a clearcut with reserves. The retention in the stand should not exceed 5% of the area.

Next Steps: The stand is expected to regenerate naturally to a mix lowland hardwood stand.

5 NF_73135005-Plant	2.9	Unspecified		0	Tree Planting	Hand Plant	Planted Red Pine
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Rev Cmnt:

Rev Spec: This stand was harvested last YOE and did not regenerate to oak. Trench and hand plant red pine to bring up to full stocking.

Next Steps:

44 NF_73135044-Plant	12.5	Unspecified		0	Tree Planting	Hand Plant	Planted Jack Pine
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Rev Cmnt: The stand is a mixture of some upland and lowland so jack pine is preferred to red pine for planting.

Rev Spec: This area was harvested and did not regenerated well, so trench and hand plant jack pine to bring up to full stocking.

Next Steps:

**Total Treatment
Acreage Proposed: 348.0**

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Gladwin Mgt. Unit
Inventory Method: IFMAP

PROPOSED TREATMENTS WITH LIMITING FACTORS

Compartment: 135 Entry Yr: 2010
Date 10/31/2008



Treatment Name	Acres	Stage1 Cover Type	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Page 1 of 1
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Limiting Factor
and Comment:

Rev
Cmnt:

Rev
Spec:

Next
Steps:

No Treatment
Reason

**Total Treatment
Acreage Proposed: 0**



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.

Inventory Method: IFMAP

Stand	SCA Name	Acres	Comments



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
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical remains of human occupation. These are sites of cultural and historical significance that may occur upon terrestrial areas and Great Lakes bottomlands. They include thousands of Native American settlements and burial sites, as well as French and British outposts, nineteenth century logging camps, mines and homesteads. Beneath the waters of the Great Lakes, there are shipwrecks and other remains documenting the maritime trade. Such sites may be identified by Natural heritage data from the State Historic Preservation Office. Proposed treatments in this compartment will be implemented in such a manner as to maintain the integrity of these sites. Due to the sensitive nature of this information, no further detail about location is available.
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.
SCA	Potential Old Growth Areas	This category contains stands were identified for a broad range of reasons and were coded in the OI database as stand condition 8 as potential old growth (POG). Approximately 310,000 acres have been identified through the Operations Inventory (OI)/Compartment Review process. For stands in Year of Entry 2008 and forward, potential old growth is managed for the identified objective until it is: 1) vetted through the Biodiversity Conservation Planning Process (BCPP) and given a specific designation and objective (as an ERA, HCVA, or other type of SCA) and is released from the potential old growth designation; or 2) it is released from the potential old growth designation via the Compartment Review process.