



**ROSCOMMON FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 164 ENTRY YEAR: 2011

Compartment Acreage: 1886 County: Roscommon

Revision Date: 6/30/09

Stand Examiner: D. Ekdorn

Legal Description: T21N R3W Sections 31-33

Management Goals: Maintain current age and species diversity in a range of early and late successional ecosystems.

Soil and Topography: Terrain is mostly level to slightly rolling and soils are Grayling, Rubicon, and Roselawn sands in the upland areas and Rifle Peat and Houghton Muck in the lower drainages and swamps.

Ownership Patterns, Development, and Land Use in and Around the Compartment: Compartment is entirely state owned with the exception of the SWSW Section 31 and is surrounded by state land except for a mix of private and state land to the south in Clare County. An R-4077 Lands Proposed for Acquisition has been submitted for the 40 acre private parcel in the SWSW of Section 31.

Unique, Natural Features: There are no known or recorded T & E species in the compartment. However, many OFS hits for T & E species have been recorded on surrounding lands.

Archeological, Historical, and Cultural Features: None known or detected during fieldwork. Good potential for all three in compartment especially along Townline Creek.

Special Management Designations or Considerations: Stands along Townline Creek have been proposed for an SCA based on Townline Creek.

Watershed and Fisheries Considerations: Townline Creek is a Type 1 coldwater trout stream. Numerous RDR's have been submitted within the Townline Creek drainage and need to be dealt with this year-of-entry. Bell Lake is in the SE1/4 of Section 32.

Wildlife Habitat Considerations: Maintain ecosystem diversity in the compartment via habitat manipulation to benefit game species such as deer, grouse, rabbits, and turkeys as well as non-game species.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 800 feet. Beneath the glacial drift is the Pennsylvanian Saginaw Formation. The Saginaw is quarried for brick making clay elsewhere in the State. Most of the good gravel pits are associated with upland areas. A gravel pit is located in Section 36, but potential does not appear to be good. Part of Headquarters Field is located in the Compartment. The field has produced over 11.3 million BO and 4.2 Bcf gas primarily from the Devonian Richfield Formation and is in secondary recovery operations currently. The Compartment was leased at the May 2008 oil and gas lease auction. All well sites within the compartment

have been abandoned. However, many well sites to the north of the compartment on state land are still producing oil and gas.

Vehicle Access: Vehicle access is good via county roads, seasonal county roads, and forest two-tracks and fire breaks. Numerous RDR's in the compartment need to be dealt with via closing off vehicle access to certain areas and rehabilitation of some of the areas.

Survey Needs: None necessary at this time.

Recreational Facilities and Opportunities: No organized recreational facilities are located within the compartment but dispersed camping associated with hunting is heavy and there is heavy illegal ORV use and snowmobile use on the seasonal county roads and forest two-tracks.

Fire Protection: This compartment is a mosaic of pine, hardwood, and swamp cover types with good vehicle access and the compartment has lots of man-made and natural fire breaks. However, this compartment is within the Zone 4 fire dispatch area due to the oil field and the presence of some larger areas of R/J pine cover types on the east side of the compartment.

Additional Compartment Information: Some attention will need to be paid to dealing with the numerous RDR's in the compartment. 69 acres of final harvest/seed tree cuts in aspen, oak, and pine, 149 acres of thinning in oak and pine, and 61 acres of red pine plantings are prescribed in the compartment this year-of-entry.

- **The following 5 reports from the Operations Inventory System (OIPC) are attached:**
 - ◆ **Cover Type by Age Class**
 - ◆ **Cover Type by Management Objective**
 - ◆ **Compartment Volume Summary**
 - ◆ **Proposed Treatments – No Limiting Factors**
 - ◆ **Proposed Treatments – With Limiting Factors**

- **The following information is displayed, where pertinent, on the attached compartment maps:**
 - ◆ **Base feature information, stand numbers, cover types**
 - ◆ **Proposed treatments**
 - ◆ **Proposed road access system**
 - ◆ **Suggested potential old growth**

Cover Type & Treatment Map

Compartment 164
 T21N, R03W, Sec. 31, 32, 33
 County: Roscommon
 Unit: Roscommon
 YOE: 2011
 Acres: 1,886 GIS Calculated
 Stand Examiner: Dale Ekdorn
 Map Revised: 8/31/2009
 Map Phase: Pre-Review

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

Legend

- ◆ RLS Corners
- Miris Corners
- Paved Road
- == County Gravel Road
- - - Poor Dirt Road
- Subject to Closure
- ~ Intermittent Stream/Drain
- Stream
- - - Trails
- ORV Trails
- ORV Routes
- Motorcycle Trails
- Pipelines
- Powerlines
- Lakes and Rivers

Treatments

- Clearcut (w/Reserves, Patch/Strip)
- Seed Tree (w/Reserves)
- Thinning (Crown, Low, Systematic)
- Planting (tree species)
- Site Preparation

Forest Stands

Level 3

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

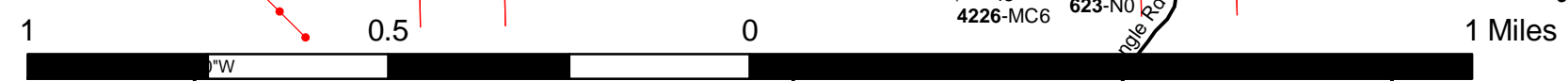
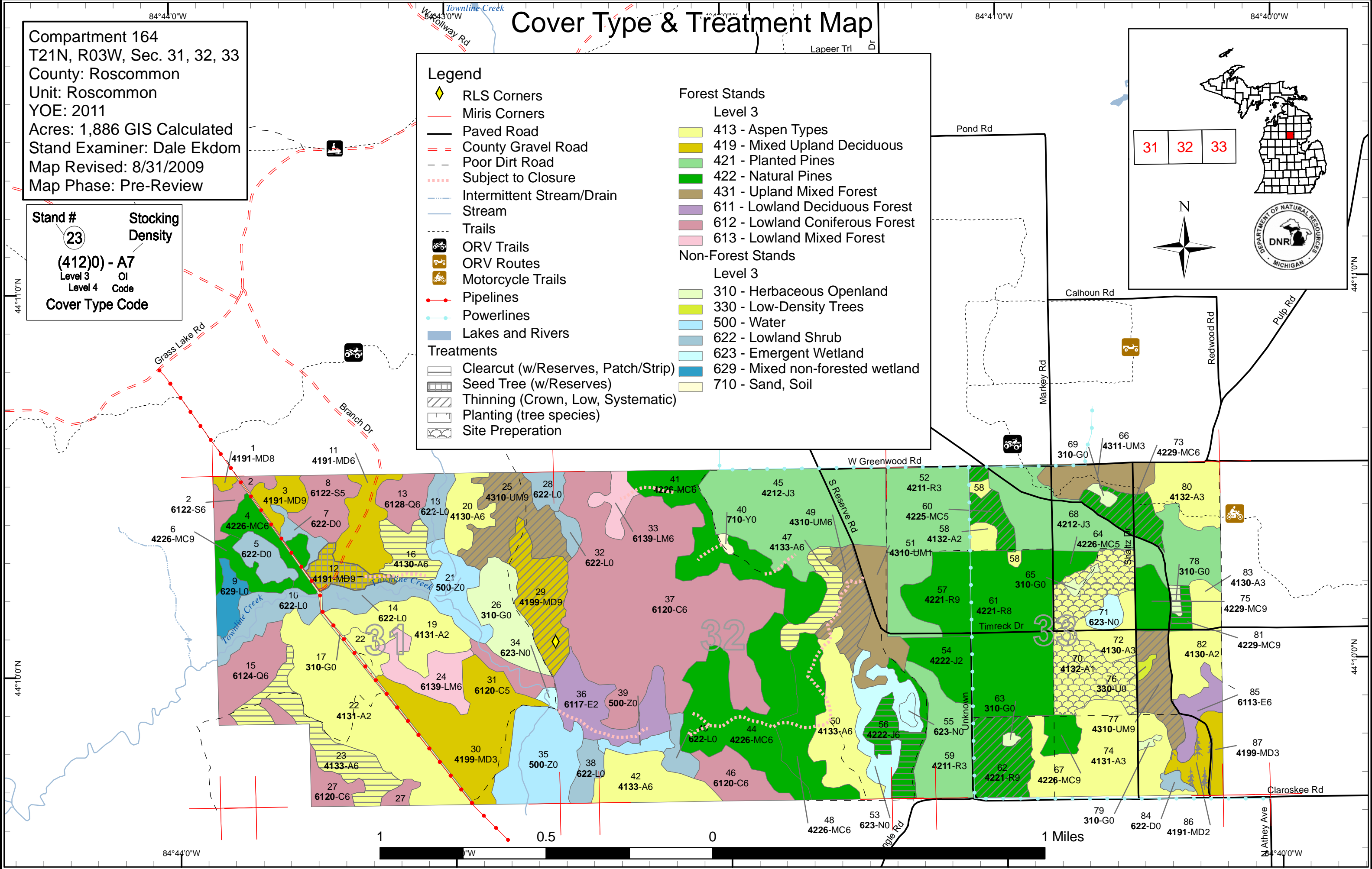
Non-Forest Stands

Level 3

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

31 32 33

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84°44'0"W 84°43'0"W 84°41'0"W 84°40'0"W 44°11'0"N 44°10'0"N 44°10'0"N 44°10'0"N 84°44'0"W

Stand Boundary Map

Compartment 164
T21N, R03W, Sec. 31, 32, 33
County: Roscommon
Unit: Roscommon
YOE: 2011
Acres: 1,886 GIS Calculated
Stand Examiner: Dale Eksom
Map Revised: 8/31/2009
Map Phase: Pre-Review

Legend	
—●—	Miris Corners
◆	RLS Corners
—●—	Powerlines
—●—	Pipelines
—	Paved Road
==	County Gravel Road
- -	Poor Dirt Road
.....	Closed Road
—	Intermittent Stream/Drain
—	Stream
—	Trails
🏍	ORV Trails
🏍	ORV Routes
🏍	Motorcycle Trails
□	Stand Boundaries

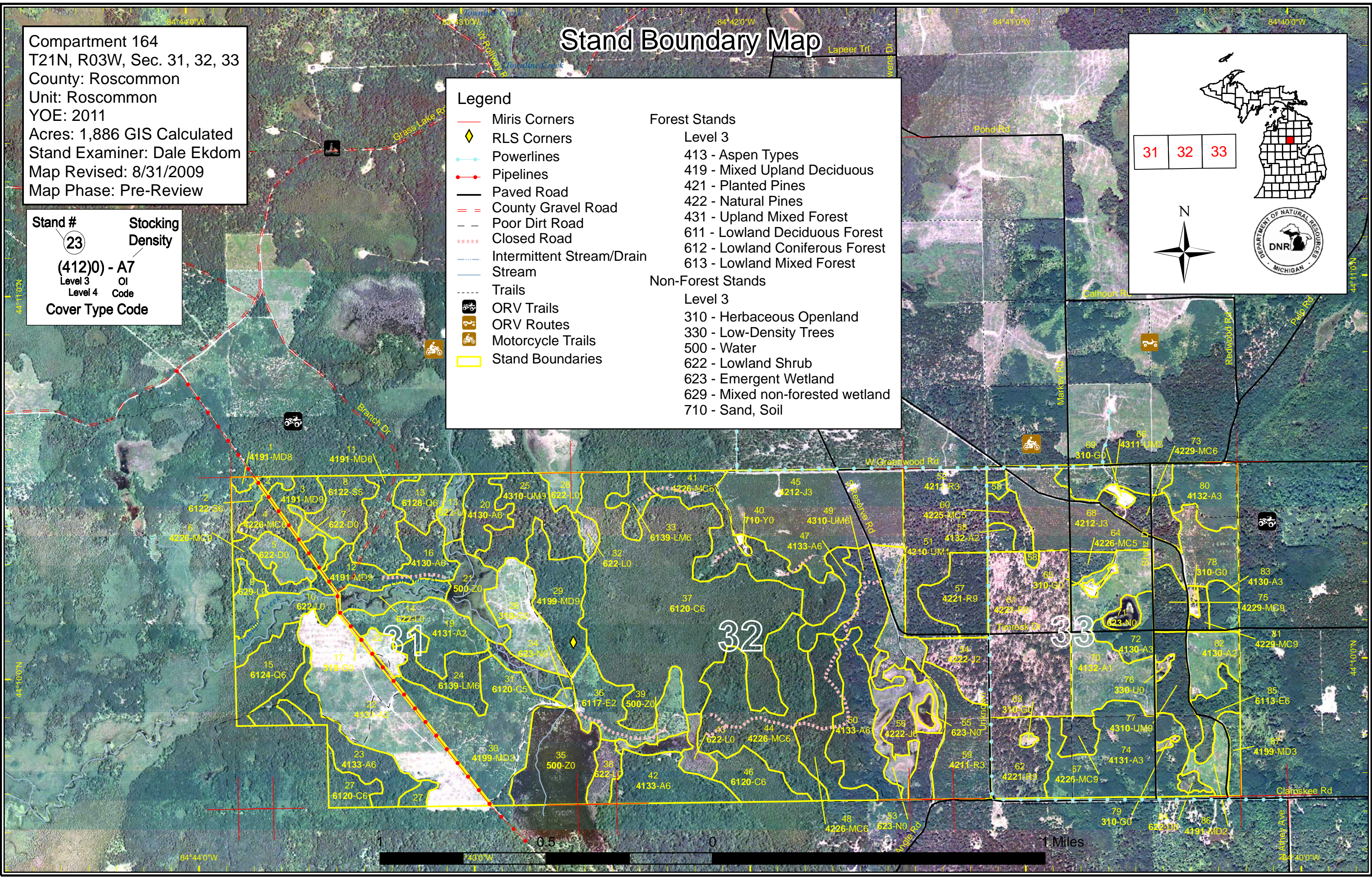
Forest Stands	
Level 3	
413	- Aspen Types
419	- Mixed Upland Deciduous
421	- Planted Pines
422	- Natural Pines
431	- Upland Mixed Forest
611	- Lowland Deciduous Forest
612	- Lowland Coniferous Forest
613	- Lowland Mixed Forest
Non-Forest Stands	
Level 3	
310	- Herbaceous Openland
330	- Low-Density Trees
500	- Water
622	- Lowland Shrub
623	- Emergent Wetland
629	- Mixed non-forested wetland
710	- Sand, Soil

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

31 32 33

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DEPARTMENT OF NATURAL RESOURCES
DNR
MICHIGAN



Dedicated & Proposed Special Conservation Area Map

Compartment 164
 T21N, R03W, Sec. 31, 32, 33
 County: Roscommon
 Unit: Roscommon
 YOE: 2011
 Acres: 1,886 GIS Calculated
 Stand Examiner: Dale Eksom
 Map Revised: 8/31/2009
 Map Phase: Pre-Review

Legend

- Miris Corners
 - Stand Boundaries
 - ▤ Proposed Special Conservation Area
 - Dedicated Special Conservation Areas
 - Cold Water Streams
 - IFMAP Special Conservation Areas
- Forest Stands**
- Level 3
- 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 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
- 710 - Sand, Soil

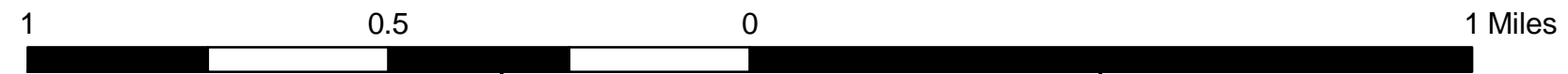
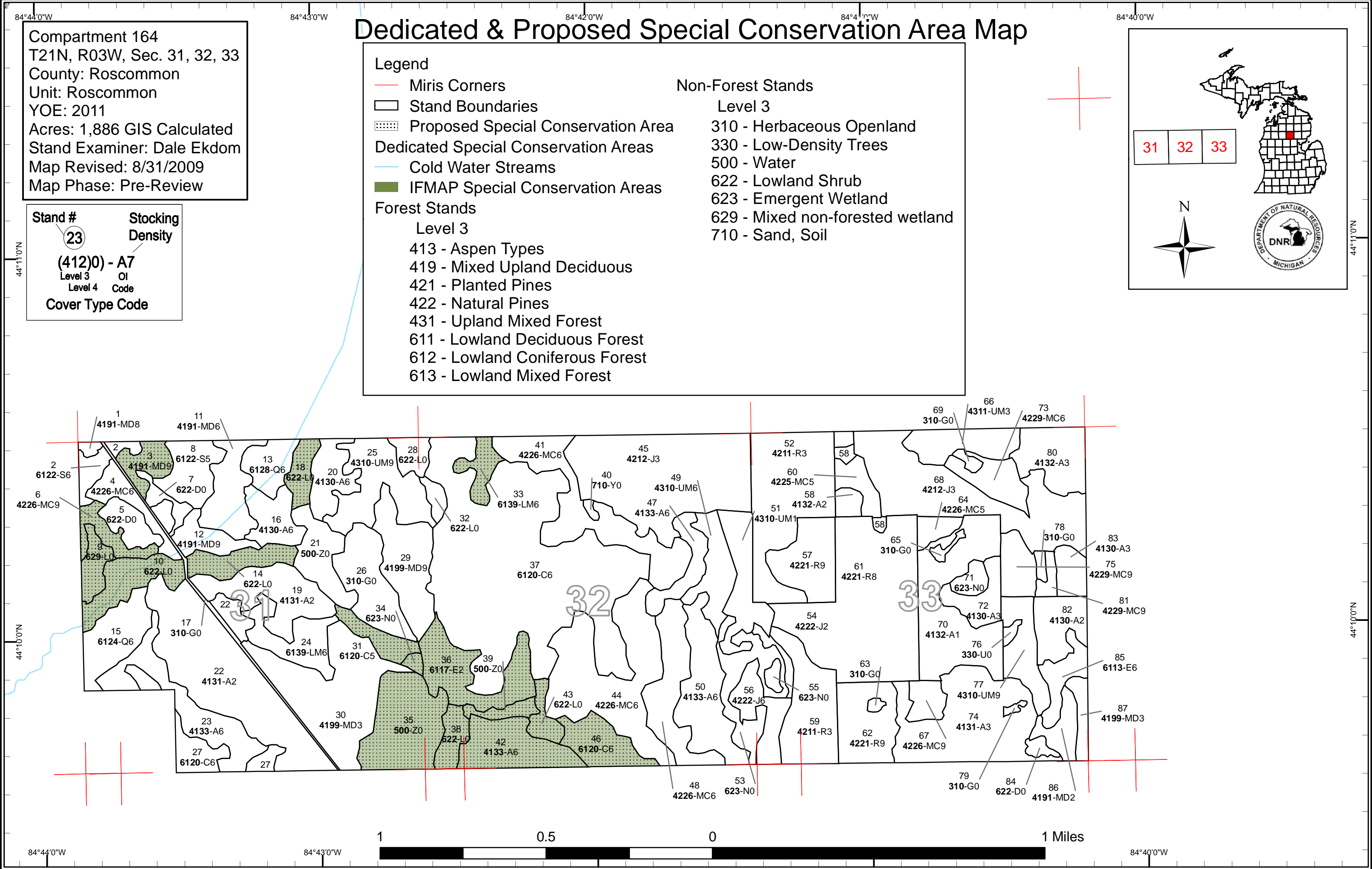
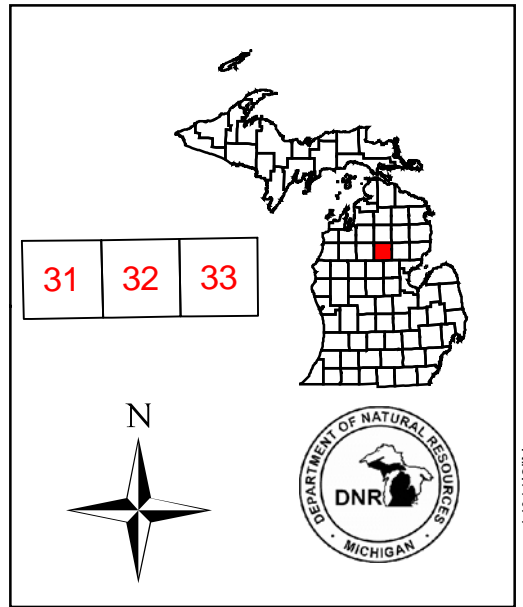
Stand # **Stocking Density**

23 OI

(412)0 - A7 Code

Level 3 Level 4

Cover Type Code



Roscommon Mgt. Unit

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

Compartment 164 Year of Entry 2011

Report Date: 08/28/2009



	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	150	64	75	0	87	46	0	0	0	0	0	0	0	0	423
Emergent Wetland	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
Herbaceous Openland	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Low-Density Trees	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Lowland Coniferous Forest	0	0	0	0	0	0	0	0	25	8	232	22	0	0	0	288
Lowland Deciduous Forest	0	0	30	0	0	0	0	0	0	11	0	0	0	0	0	41
Lowland Mixed Forest	0	0	0	0	20	0	0	0	0	0	0	0	0	0	9	28
Lowland Shrub	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85
Mixed non-forested wetland	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Mixed Upland Deciduous	0	10	57	27	0	0	0	0	11	2	30	10	0	0	0	147
Natural Pines	0	0	4	0	6	30	137	0	12	123	0	0	9	0	59	379
Planted Pines	0	0	185	58	0	0	0	0	0	0	0	0	0	0	0	243
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Upland Mixed Forest	0	0	40	0	0	0	0	18	0	18	32	0	0	0	0	108
Water	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
Total	229	160	380	160	25	117	183	18	48	162	294	32	9	0	67	1886

**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
12 71164012-Cut	10.9	4191 - Mixed Upland Deciduous with Conifer	High Density Log	77	Harvest	Seed Tree with Reserves	Mixed Upland Deciduous with Conifer
<p><u>Rev Cmnt:</u> protect residual WP understory - shortwood only(?)</p> <p><u>Rev Spec:</u> shelterwood prep by removing hardwoods/JP but mark 30-40 SF of good oak seed trees to leave and leave all R/W pine</p> <p><u>Next Steps:</u></p>							
16 71164016-Cut	14.7	4130 - Aspen	High Density Pole	42	Harvest	Clearcut	Aspen
<p><u>Rev Cmnt:</u> no retention other than small buffers due to small size of the stand, any combination of hardwoods/pine to a fully stocked stand is acceptable, plant R/W pine mix if stand does not regenerate</p> <p><u>Rev Spec:</u> final harvest 2" spec and manage for aspen, buffer lowland brush to the east/south and swamp to the northwest, mark some oak and pine to leave for diversity and wildlife mast</p> <p><u>Next Steps:</u> regeneration survey</p>							
23 71164023-Cut	31.0	4133 - Aspen, Mixed Pine	High Density Pole	45	Harvest	Clearcut with Reserves	Aspen, Mixed Pine
<p><u>Rev Cmnt:</u> culvert and fill will need to be installed to harvest west arm as there is a steep drainage which will need to be crossed OR leave west of draiange for retention, possibly will need a survey to establish private property line</p> <p><u>Rev Spec:</u> final harvest 2" spec. and manage for aspen/mixed pine, buffer swamp for retention and use "rabbitat" spec along swamp, mark some scattered oak and pine for wildlife mast and diversity</p> <p><u>Next Steps:</u> regeneration survey</p>							
25 71164025-Cut	31.8	4310 - Pine, Oak Mix	High Density Log	90	Harvest	Crown Thinning	Pine, Oak
<p><u>Rev Cmnt:</u> buffer lowland brush stand to the east for retention, leave all aspen in the stand until it's more merchantable</p> <p><u>Rev Spec:</u> remove all JP and mark R/W pine and oak to cut, residual target BA for pine and oak is 90 SF, manage for a mix of O/P</p> <p><u>Next Steps:</u></p>							
29 71164029-Cut	30.2	4199 - Other Mixed Upland Deciduous	High Density Log	90	Harvest	Crown Thinning	Other Mixed Upland Deciduous
<p><u>Rev Cmnt:</u> eliminate areas heavy to aspen from the sale so site won't be taken over by aspen, buffer lowland shrub to the east and retain conifers for retention especially the larger R/W pine</p> <p><u>Rev Spec:</u> thin stand to 90 SF where oak is heavy by removing red maple and pin oak first, create holes where possible to begin starting oak regeneration, mark all trees to cut including RM, maintain as mix of Oak/RM/A with scattered conifers</p> <p><u>Next Steps:</u></p>							

**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 71164047-Cut	12.4	4133 - Aspen, Mixed Pine	High Density Pole	50	Harvest	Clearcut with Reserves	Aspen, Mixed Pine

Rev expand into surrounding stands where possible, any combination of hardwoods/pine to a fully stocked stand is acceptable, plant R/W pine mix if stand does not regenerate
Cmnt:

Rev final harvest 2" spec, buffer swamp to the west and use for retention, use "rabbitat" spec along swamp, place green line on heavy pine areas and leave
Spec: R/W pine in these areas for diversity/retention, mark some oak to leave for diversity and wildlife mast also

Next
Steps:

49 71164049-Cut	17.7	4310 - Pine, Oak Mix	High Density Pole	68	Harvest	Crown Thinning	Pine, Oak
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Rev
Cmnt:

Rev cut A/M/J and leave R/W pine and oak, manage for a mixed stand of R/W pine and oak
Spec:

Next
Steps:

56 71164056-Cut	16.1	42220 - Natural Jack Pine	High Density Pole	48	Harvest	Clearcut	Planted Red Pine
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Rev no retention other than buffers due to small size of the stand
Cmnt:

Rev final harvest 2" spec, buffer lowland brush on north end and wet meadow on west
Spec:

Next trench/plant red pine
Steps:

60 71164060-Cut	10.5	42250 - Pine, Oak	Medium Density Pole	68	Harvest	Low Thinning	Pine, Oak
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Rev watch visuals on Parrent Drive
Cmnt:

Rev thin by cutting all jack pine and marking oak and R/W pine to cut, thin oak/pine to residual of 90 - 120 SF/Acre depending on starting density, favor
Spec: white oak over pin oak

Next
Steps:

62 71164062-Cut	26.1	42210 - Natural Red Pine	High Density Log	80	Harvest	Low Thinning	Natural Red Pine
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Rev avoid damage to understory oak/white pine where possible to enhance diversity in the stand
Cmnt:

Rev thin to 120 SF/Acre, remove suppressed/low quality trees
Spec:

Next evaluate next YOE for final harvest or additional thinning
Steps:

73 71164073-Cut	14.0	42290 - Natural Mixed Pine	High Density Pole	33	Harvest	Low Thinning	Natural Mixed Pine
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Rev watch oil well line within stand - H2S, watch ORV trail thru stand, watch visuals on Parrent Drive
Cmnt:

Rev thin by cutting all aspen and jack pine and mark pine and oak to cut, thin pine/oak to 90 - 120 SF /Acre residual depending on starting density, favor
Spec: white oak over pin oak

Next
Steps:

**PROPOSED TREATMENTS
NO LIMITING FACTORS**



S t a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Page 3 of 3

77	71164077-Cut	18.0	4310 - Pine, Oak Mix	High Density Log	80	Harvest	Low Thinning	Pine, Oak
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Rev
Cmnt:

Rev thin to 120 SF/Acre by concentrating on removing mostly hardwoods/jack pine and then marked R/W pine, favor white oak over pin oak when marking,
Spec: aspen, red maple, and jack pine will be removed via spec. and R/W pine and oak will be marked to cut, remove suppressed/low quality R/W pine first

Next
Steps: evaluate need for additional thinning next YOY

81	71164081-Cut	3.6	42290 - Natural Mixed Pine	High Density Log	80	Harvest	Clearcut	Planted Red Pine, Mixed Deciduous
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Rev no retention due to small size of the stand
Cmnt:

Rev final harvest 2" spec
Spec:

Next
Steps: trench and plant red pine

70	71164070- Prep	51.1	4132 - Aspen, Jack Pine		5	Site Prep	Trenching	Planted Red Pine, Mixed Deciduous
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Rev leave areas that are well stocked in A/O/J untrenched
Cmnt:

Rev cut 2003 and planted to red pine in 2004 w/o trenching due to above ground pipelines in the stand, greater than 75% red pine mortality, pipelines are
Spec: now gone and the well sites de-commissioned, trench site to reduce competition with RP seedlings

Next
Steps: hand plant red pine

86	71164086- Plant	9.8	4191 - Mixed Upland Deciduous with Conifer		6	Tree Planting	Hand Plant	Planted Red Pine, Mixed Deciduous
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Rev
Cmnt: avoid re-planting in areas well-stocked in natural JP/Oak/Aspen regeneration

Rev Cut 2002, planted 2004 to red pine without trenching due to above ground flowlines approx. 50% mortality on the RP seedlings noted in 2008 regen.
Spec: survey, re-plant with fill-in RP to get full stocking in areas not fully stocked

Next
Steps: regeneration survey

**Total Treatment
Acreage Proposed: 298.0**

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Roscommon Mgt. Unit
Inventory Method: IFMAP

PROPOSED TREATMENTS WITH LIMITING FACTORS

Compartment: 164 Entry Yr: 2011
Date 08/28/2009



Treatment Name	Acres	Stage1 Cover Type	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective
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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
3	71164003	10.0	propose for old growth
6	71164006	9.3	SCA conservation values include connectivity/corridor. large older pine trees, trending toward all-aged
31	71164031	9.3	SCA conservation values are free flowing stream in natural drainageway
33	71164033	8.6	mixed conifer swamp where SCA conservation values are diverse number of swamp HW's and conifers with lots of vertical and horizontal structure in the form of X-log WP and blowdowns
36	71164036	29.9	SCA conservation values are connectivity/corridor aspects of stand
42	71164042	26.2	SCA conservation values are connectivity/corridor aspects of stand as well as lots of vertical and horizontal structure developing in the form of X-log WP and blowdowns
46	71164046	17.3	SCA conservation values are connectivity/corridor aspects of stand as well as diverse number of swamp HW's and conifers with lots of vertical and horizontal structure in the form of X-log WP and blowdowns
9	NF_71164009	8.7	SCA conservation values are connectivity/corridor aspects of stand
10	NF_71164010	18.9	SCA conservation values are connectivity/corridor aspects of stand
14	NF_71164014	13.5	SCA conservation values are connectivity corridor aspects of stand
18	NF_71164018	8.4	SCA conservation values are connectivity corridor aspects of stand
34	NF_71164034	1.8	SCA conservation values are connectivity/corridor aspects of stand
35	NF_71164035	38.0	SCA conservation values are connectivity/corridor aspects of stand
38	NF_71164038	8.5	SCA conservation values are connectivity/corridor aspects of stand
39	NF_71164039	5.2	SCA conservation values are connectivity/corridor aspects of stand
43	NF_71164043	6.7	SCA conservation values are connectivity/corridor aspects of stand



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	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.