



Compartment Review Presentation

Roscommon Forest Management Unit

Compartment 91

Entry Year 2016

Acreage: 622

County Roscommon

Management Area: Ogemaw Hills

Revision Date: 06/30/2014

Stand Examiner: Jason Lewicki

Legal Description:

T23N, R01W Section 23 and 24

Identified Planning Goals:

Maintain current age and species diversity in a range of early and late successional ecosystems as determined by the Ogemaw Hills Management Area plan.

Soil and topography:

Soils on the uplands consist of Grayling and Greycalm-Grayling sands. Lowland areas are predominately Dawson-Loxley peat and Deford muck.

The topography is generally flat on the northern end and becomes gently rolling to hilly on the southern end.

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

This compartment lies just outside the town of St. Helen. Due to this it receives a heavy amount of land use in the form of hunting and ORV use. There is a lot of private property to the east and north of this compartment but just outside of St. Helen land ownership changes to large blocks of State ownership.

Unique Natural Features:

No Unique Natural Features known.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

None at this time

Watershed and Fisheries Considerations:

None at this time.

Wildlife Habitat Considerations:

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 600 feet. Beneath the glacial drift is the Mississippian Michigan Formation. The Michigan is quarried for gypsum elsewhere in the State. Most of the good gravel pits are associated with upland areas. The nearest gravel pit is located just to the south and potential appears to be good in Section 34. St. Helen Field is located four miles to the north. The field has produced over 8.7 million BO and 14.7 Bcf gas from the Devonian Richfield Formation, and is in secondary recovery operations currently. The Compartment is not currently leased.

Vehicle Access:

Vehicle access is excellent in this compartment.

Survey Needs:

None needed at this time.

Recreational Facilities and Opportunities:

Recreational activities are popular in this compartment due to the proximity of St. Helen. The St. Helen ORV Route (Fuel Connector) divides the larger section of the compartment. Utilize timber management activities to balance resource protection by closing illegal trails and scramble areas. Assure warning signs are placed on the trail regarding logging activity on ORV Route. Focus any retention pockets along or near trail. All sign posts shall be protected. Limit stacking of

timber along the trail. Ensure logging activity does not obliterate the designated trail. All stumps within 20 feet of the trail shall be Flush-Cut to ensure stumps do not result in unsafe conditions.

Fire Protection:

Section 34 is mostly oak, aspen and a few stands of jackpine. There is a subdivision on the east side of the section that causes a wildland-urban interface concern. Access in both of these sections is good. Section 28 only has 2 stands of oak surrounded by private subdivisio and is not much of a fire protection concern.

Additional Compartment Information:

The following reports from the Inventory are attached:

- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

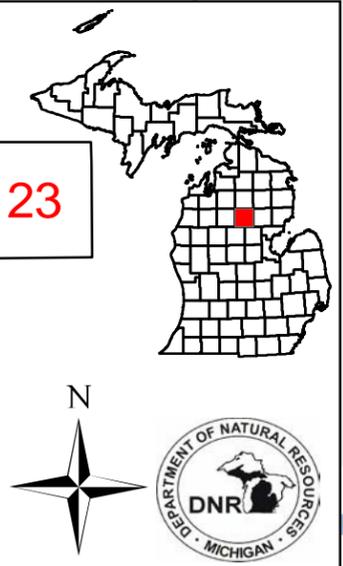
The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatment Map

Compartment: 091
 T23N R01W
 Sections: 23, 34
 County: Roscommon
 Unit: Roscommon
 Management Area: Ogemaw Hills
 YOE: 2016
 Acres: 652 GIS Calculated
 Examiner: Jason Lewicki
 Map Revised: 08/08/2014
 Map Phase: Web Post

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

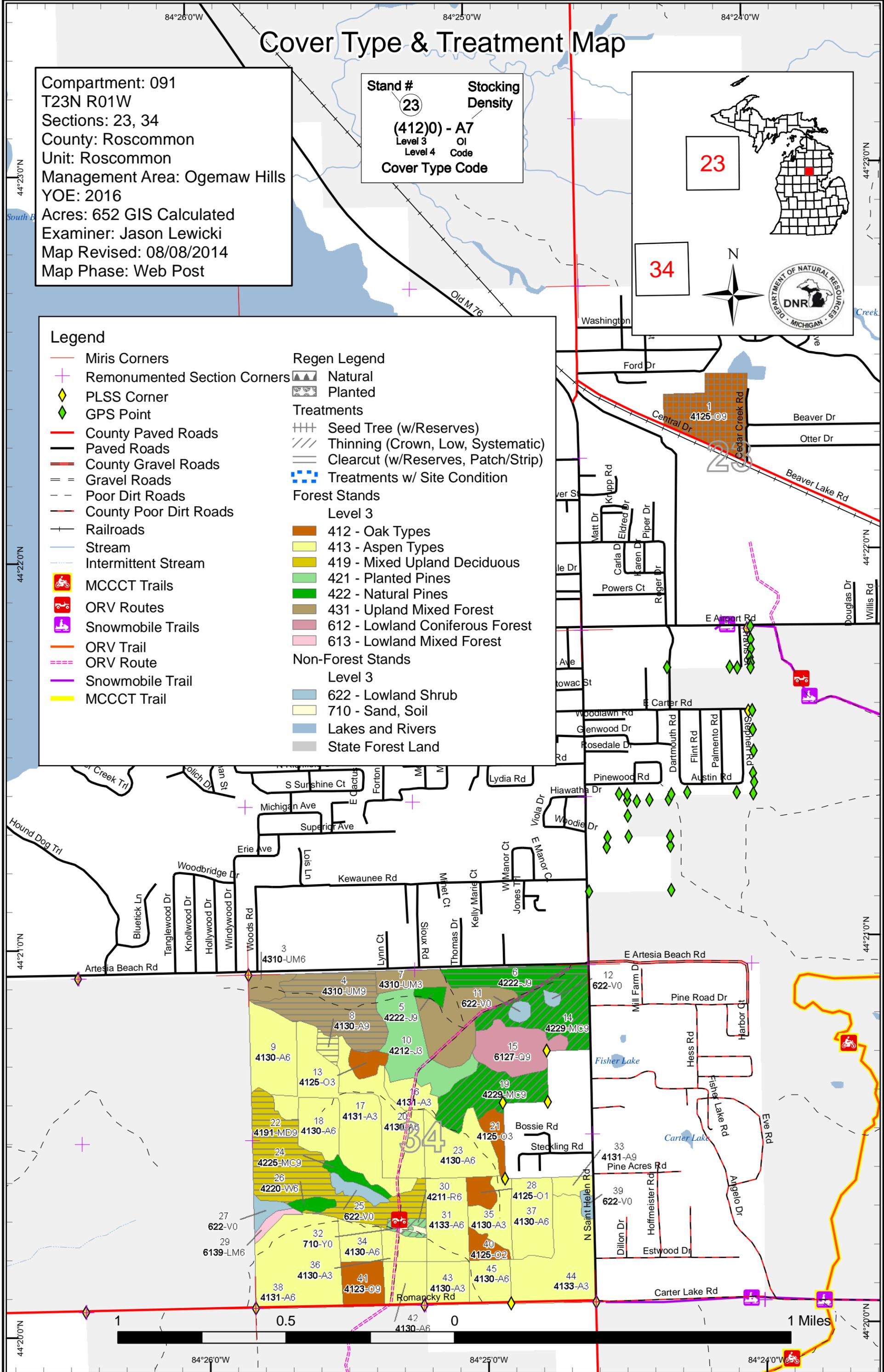


Legend

- Miris Corners
- + Remonumented Section Corners
- ◆ PLSS Corner
- ◆ GPS Point
- County Paved Roads
- Paved Roads
- County Gravel Roads
- Gravel Roads
- Poor Dirt Roads
- County Poor Dirt Roads
- Railroads
- Stream
- Intermittent Stream
- 🏍️ MCCCT Trails
- 🏍️ ORV Routes
- 🏍️ Snowmobile Trails
- ORV Trail
- ORV Route
- Snowmobile Trail
- MCCCT Trail

Regen Legend

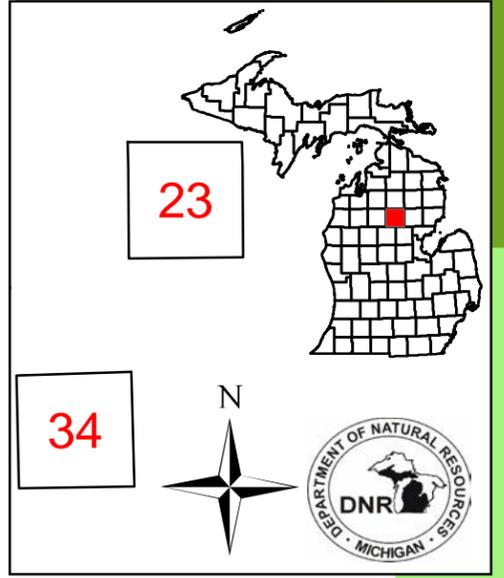
- 🌲 Natural
- 🌲 Planted
- Treatments**
- +++ Seed Tree (w/Reserves)
- /// Thinning (Crown, Low, Systematic)
- Clearcut (w/Reserves, Patch/Strip)
- 📍 Treatments w/ Site Condition
- Forest Stands**
- Level 3
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 421 - Planted Pines
- 422 - Natural Pines
- 431 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 613 - Lowland Mixed Forest
- Non-Forest Stands**
- Level 3
- 622 - Lowland Shrub
- 710 - Sand, Soil
- Lakes and Rivers
- State Forest Land



Special Conservation Areas & Site Conditions Map

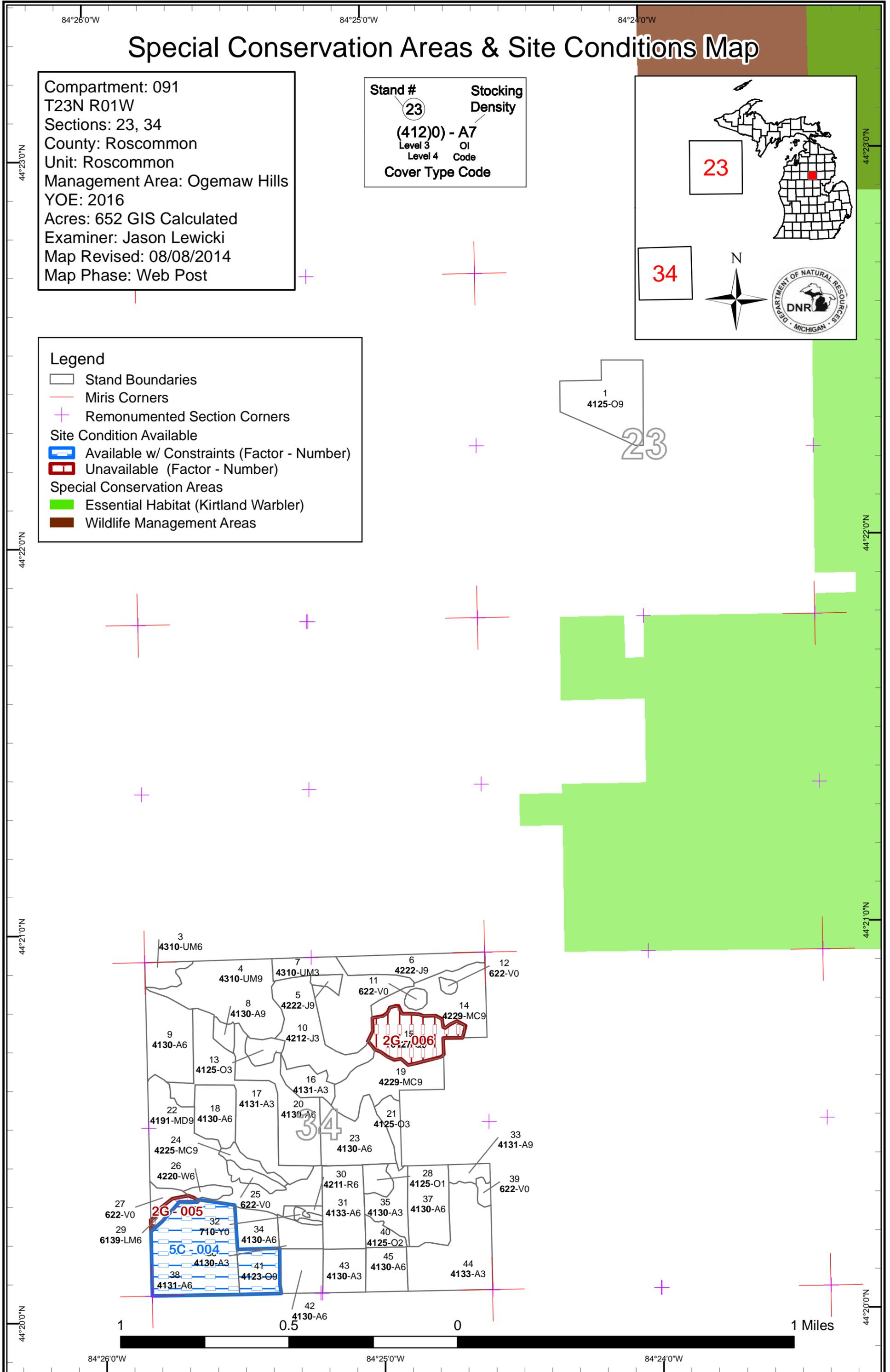
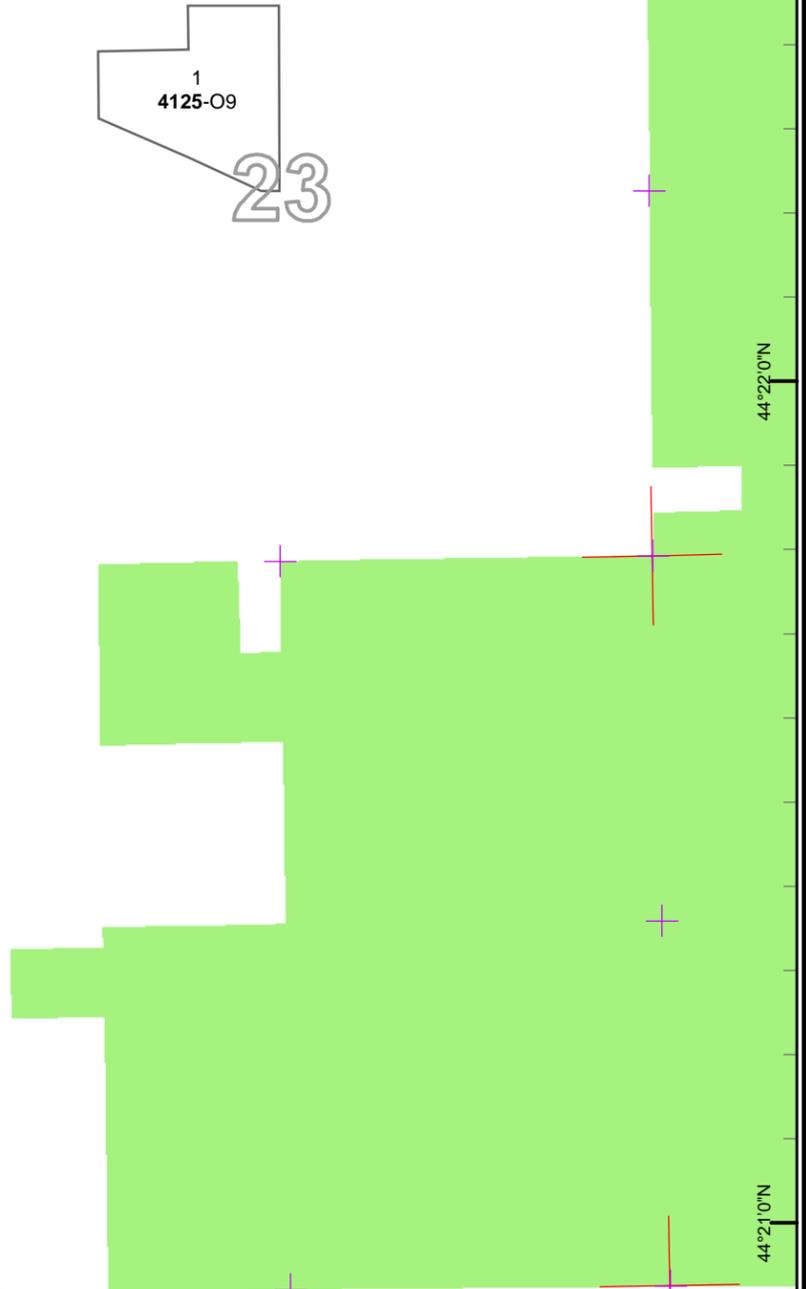
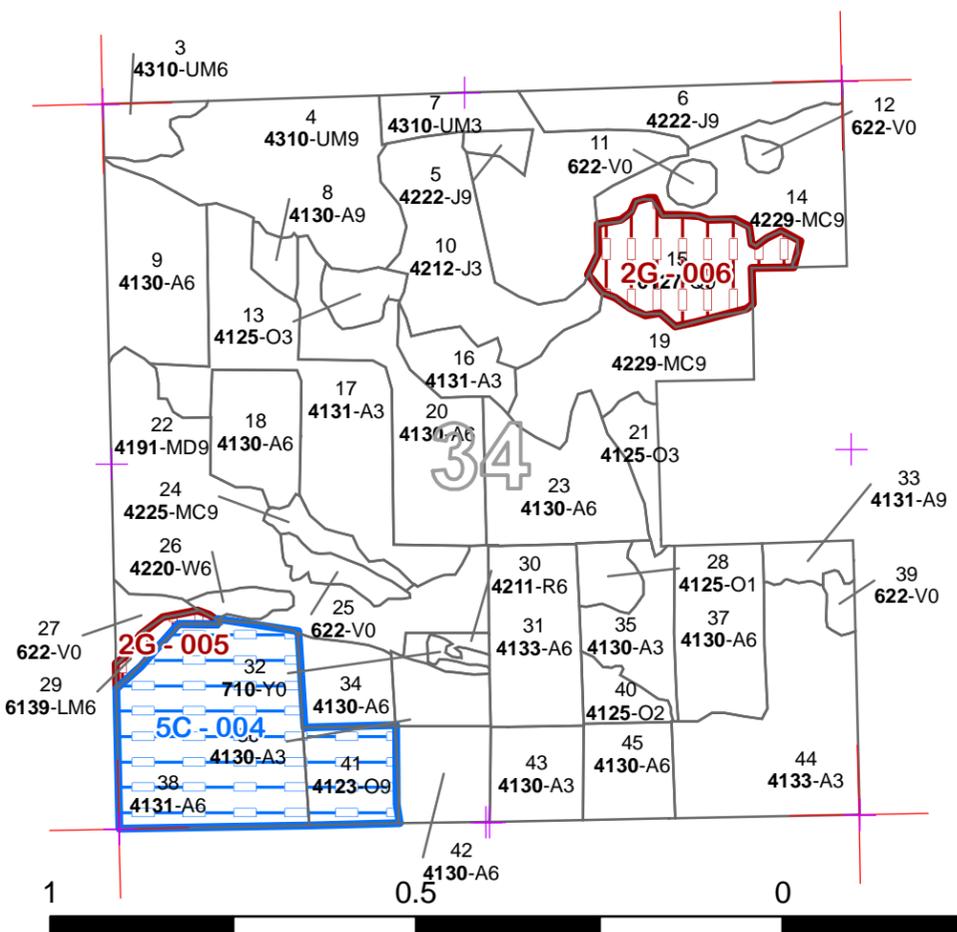
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Stand #
 23
Stocking Density
 (412)0 - A7
 Level 3 OI
 Level 4 Code
Cover Type Code



Legend

- Stand Boundaries
- Miris Corners
- Remonumented Section Corners
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Special Conservation Areas
- Essential Habitat (Kirtland Warbler)
- Wildlife Management Areas



Report 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	60	71	128	0	0	0	4	3	0	42	0	0	0	0	308
Bog	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Jack Pine	27	0	0	0	0	0	16	2	0	0	0	0	0	0	45
Lowland Conifers	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20
Lowland Mixed Forest	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	47	0	0	0	47
Natural Mixed Pines	0	0	0	0	0	0	23	0	0	0	4	0	0	22	49
Oak	5	9	5	0	0	0	0	0	0	39	0	0	0	0	58
Red Pine	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Sand, Soil	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Upland Mixed Forest	0	32	0	0	0	5	0	36	0	0	0	0	0	0	73
White Pine	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
Total	106	113	133	0	2	5	43	61	2	84	51	0	0	22	622



Report 2 – Proposed Treatment Summaries

Roscommon Mgt. Unit
Year of Entry 2016

Compartment 091
Total Compartment Acres: 622

Acres by Treatment Type

Commercial Harvest - 177 Tree Planting - 51 Other - 0
 Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	<i>Clearcut</i>	<i>Selection</i>	<i>Seed Tree</i>	<i>Shelterwood</i>	<i>Thinning</i>	<i>Other - Specify</i>	<i>Total Acres</i>
Aspen Types	3	0	0	0	0	0	3
Mixed Upland Deciduous	47	0	0	0	0	0	47
Natural Pines	16	0	0	0	45	0	61
Oak Types	0	0	28	0	0	0	28
Planted Pines	0	0	0	0	2	0	2
Upland Mixed Forest	36	0	0	0	0	0	36
Total	102	0	28	0	48	0	177

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
1 71091001-Cut	28.0	4125 - Black, N. Pin Oak	High Density Log	90	51-80	Harvest	Seed Tree with Reserves	412 - Oak	Cmpt. Review Proposal
<u>Prescription</u> Seed tree harvest stand in attempts to regenerate some oak. Leave red and white pine component for visuals along central drive. Leave									
<u>Specs:</u> approximately 10 BA of healthier oak, favoring white oak. Expect some patches of aspen regeneration. Survey needed. Possibly dispose of property.									
<u>Other Comments:</u>									
<u>Next Steps:</u>									
<u>Proposed Start Date:</u> 10/01/2015									
4 71091004-Cut	35.8	4310 - Pine, Oak Mix	High Density Log	70	81-110	Harvest	Clearcut with Reserves	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut and establish a red pine plantation. Stand should have a good mix of oak with the pine. Plant red pine for less of a wild fire risk species in a									
<u>Specs:</u> high use area around St. Helen. Leave scattered pine and oak for retention and visuals. Leave a few strips of jack pine to simulate a "wildfire skip" and to increase aesthetics.									
<u>Other Comments:</u>									
<u>Next Steps:</u> Trench and plant red pine.									
<u>Proposed Start Date:</u> 10/01/2015									
6 71091006-Cut	15.5	42220 - Natural Jack Pine	High Density Log	65	81-110	Harvest	Clearcut with Reserves	4211 - Planted Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Clearcut stand and establish a red pine plantation. Leave little in the form of jack pine retention. Leave scattered red pine and oak for visuals and									
<u>Specs:</u> retention. Stand should have have a good mix of oak regen after the harvest. Leave some additional retention around the small pot hole.									
<u>Other Comments:</u>									
<u>Next Steps:</u> Trench and plant red pine.									
<u>Proposed Start Date:</u> 10/01/2015									
8 71091008-Cut	3.0	4130 - Aspen	High Density Log	70	81-110	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
<u>Prescription</u> Clear cut with adjacent jack pine stand. Manage fore aspen. Leave large crowned, healthy oak. Very little to no aspen retention.									
<u>Specs:</u>									
<u>Other Comments:</u>									
<u>Next Steps:</u>									
<u>Proposed Start Date:</u> 10/01/2015									
14 71091014-Cut	23.0	42290 - Natural Mixed Pine	High Density Log	65	141-170	Harvest	Crown Thinning	4221 - Natural Red Pine	Cmpt. Review Proposal
<u>Prescription</u> Thin stand by removing all jack pine. Thin red and white pine from below and attempt to advance pine and oak understory and increase overall									
<u>Specs:</u> health of the stand. Basal areas will vary do to variability of the stand but targets should be in the 80-100 BA range. Buffer the pot hole bogs and leave out the SE part of the stand for retention due to the high water table and multiple small bogs.									
<u>Other Comments:</u>									
<u>Next Steps:</u>									
<u>Proposed Start Date:</u> 10/01/2015									

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Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
19 71091019-Cut	22.4	42290 - Natural Mixed Pine	High Density Log	60	81-110	Harvest	Crown Thinning	4221 - Natural Red Pine	Cmpt. Review Proposal

Prescription Thin stand to promote understory requirement of pine and oak. Remove all jack pine. Thin stand down to around 70-90BA. Remove high risk oak where it wont damage regeneration while felling. Do not spec cut the aspen. Mark some for removal but not enough to regenerate. Protect regeneration by not allowing tree length skidding. Do not contract.

Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2015

22 71091022-Cut	47.2	4191 - Mixed Upland Deciduous with Conifer	High Density Log	100	111-140	Harvest	Clearcut with Reserves	413 - Aspen	Cmpt. Review Proposal
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Prescription Clearcut the stand and manage for aspen with a oak component. Most of the stand should have no problems regenerating to aspen. Leave large red pine component for diversity and leave all white pine greater than 6". Leave a buffer strip along the bog edge and small groups of aspen scattered throughout for retention purposes. Leave scattered large crowned oaks where possible.

Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2015

30 71091030-Cut	2.5	42110 - Planted Red Pine	High Density Pole	48	141-170	Harvest	Crown Thinning	4211 - Planted Red Pine	Cmpt. Review Proposal
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Prescription Thin stand by removing all jack pine and 1/3 of the red pine volume. Market with clearcut stand to the NW.

Specs:
Other
Comments:

Next
Steps:

Proposed
Start Date: 10/01/2015

**Total Treatment
Acreage Proposed: 177.5**

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

Prescription
Specs:

Other
Comment:

Next
Steps:

Proposed
Start Date: #Type!

Limiting Factor

Total Treatment
Acreage Proposed: 0.0

Report 5 – Site Conditions

Roscommon Mgt. Unit
Jason Lewicki : Examiner

Compartment 091
Year of Entry 2016

Availability for Management

Total Acres	Acres		Dominant Site Conditions	No	5C	2G
	Available	Not Available				
308	308		Aspen	266	42	
44	44		Jack Pine	44		
19		19	Lowland Conifers			19
2		2	Lowland Mixed Forest			2
47	47		Mixed Upland Deciduous	47		
49	49		Natural Mixed Pines	49		
58	58		Oak	47	11	
2	2		Red Pine	2		
73	73		Upland Mixed Forest	73		
3	3		White Pine	3		
607	585	22	Total Forested Acres	532	53	22
	96%	4%	Relative Percent			

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	53				
Comments:							
005	Not Available	2G: Too wet (sensitive soils, does not include access issues)	2				
Comments:							

Report 5 – Site Conditions

Roscommon Mgt. Unit

Compartment 091

Jason Lewicki : Examiner

Year of Entry 2016

006	Not Available	2G: Too wet (sensitive soils, does not include access issues)	20
Comments:			



Report 6 – 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.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



Report 7 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

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.
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and cooperative process between the DNR and the U.S. Fish and Wildlife service for the recovery of threatened and endangered species, as governed by Part 365, Endangered Species Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, and the Federal Endangered Species Act of 1973. This is an active program, with proposed species plans in various stages of review. As of now only two exist, Kirtland Warbler Habitat and Piping Plover Habitat.



Stand	Roscommon Mgt. Unit		Report 8 – Forested Stands			Compartment: 091 Year of Entry: 2016
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4125 - Black, N. Pin Oak	High Density Log	28.0	90	51-80	Stand of 90+ year old poor quality black oak. Stand is mixed with variable height white pine of which some makes it into the canopy. Some scattered pockets of aspen. Heavy illegal firewood cutting and ORV use. Small wet swale on north end. Scattered red pine.
3	4310 - Pine, Oak Mix	High Density Pole	5.3	50	51-80	
4	4310 - Pine, Oak Mix	High Density Log	35.8	70	81-110	Older jack pine and low quality oak stand. Multiple ages of jack pine. The oldest being about 70-75 yrs with a 50 year old age class as well. Oak and older jack pine are in decline with some mortality. Scattered red pine throughout with a pocket of heavier red pine on the SE side. Good amounts of oak in the understory.
5	42220 - Natural Jack Pine	High Density Log	2.3	70	51-80	Small stand of 70-75 year old jack pine.
6	42220 - Natural Jack Pine	High Density Log	15.5	65	81-110	Stand of mature jack pine (65-70 yrs) along artesia beach rd. Some scattered red pine and oak. More red pine component on the east side. Oak understory.
7	4310 - Pine, Oak Mix	High Density Sapling	32.2	17		Red pine plantation with heavy oak component.
8	4130 - Aspen	High Density Log	3.0	70	81-110	Small stand of overmature aspen mixed with some oak and jack pine. Oak saplings in understory.
9	4130 - Aspen	High Density Pole	21.3	28	51-80	
10	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	26.7	8		Jack pine plantation with good amounts of oak regeneration.
13	4125 - Black, N. Pin Oak	High Density Sapling	4.6	28		Wildfire
14	42290 - Natural Mixed Pine	High Density Log	23.0	65	141-170	Mixed stand of red pine, jack pine and oak. There are multiple age classes of red pine. Some very old, large red pine present in the 175 year range. Some red pine in the understory but mostly it has white pine with some oak regeneration on the north end. Jack pine is mature and has some decline and mortality.
15	6127 - Lowland Pine	High Density Log	19.6	72	111-140	Lowland pine swamp with black spruce.
16	4131 - Aspen, Oak	High Density Sapling	7.6	8		
17	4131 - Aspen, Oak	High Density Sapling	38.4	18		
18	4130 - Aspen	High Density Pole	13.1	28	1-50	



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	42290 - Natural Mixed Pine	High Density Log	22.4	Uneven Age	81-110	2-3 aged red pine stand mixed with jack pine, white pine and black oak. Majority of stand is small sawtimber size red and white pine. There is also a 90 year old age class present. Old, large diameter red pine are also present as super canopy trees and were cored at 175 years and can be labeled as "legacy trees". Old fire scars are common on these trees. White pine, oak and even some red pine are found as saplings in the understory.
20	4130 - Aspen	High Density Pole	25.0	28	81-110	
21	4125 - Black, N. Pin Oak	High Density Sapling	5.3	8		Heavy cherry component. All the aspen is on the south edge.
22	4191 - Mixed Upland Deciduous with Conifer	High Density Log	47.2	100	111-140	Large stand of old black oak and aspen. Scattered mature red pine. Some areas of very thick white pine understory. Small narrow swale in the central part of the stand that is easily crossable by equipment. There are many illegal ORV trails found throughout the stand.
23	4130 - Aspen	High Density Pole	21.9	18	1-50	
24	42250 - Pine, Oak	High Density Log	4.0	100	81-110	
26	42200 - Natural White Pine	High Density Pole	2.9	90	51-80	
28	4125 - Black, N. Pin Oak	Low Density Sapling	4.6	18		Open grass/sedge areas with oak found scattered and in clumps.
29	6139 - Mixed Lowland Forest	High Density Pole	2.3	80		
30	42110 - Planted Red Pine	High Density Pole	2.5	48	141-170	Small mixed plantation of red and jack pine. Red pine has much better form.
31	4133 - Aspen, Mixed Pine	High Density Pole	19.7	26	51-80	Areas of almost solid oak. Areas heavy to white pine.
33	4131 - Aspen, Oak	High Density Log	4.2	68	81-110	
34	4130 - Aspen	High Density Pole	9.3	26	51-80	Some quaking aspen and black oak on north end.
35	4130 - Aspen	High Density Sapling	10.9	18		
36	4130 - Aspen	High Density Sapling	6.8	6		A3 stand with some scattered mature oak overstory. Some oak regen on N. end.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4130 - Aspen	High Density Pole	18.5	26	81-110	
38	4131 - Aspen, Oak	High Density Pole	42.4	90	111-140	Aspen pole timber stand with older overstory of oak. Better SI on the south end with some nice red oak. Lower SI to the north with quaking aspen and less oak. Hold until next entry. Oak overstory age is around 90 years old. Aspen is 43 years old.
40	4125 - Black, N. Pin Oak	Medium Density	4.8	18		Somewhat open/low stocking oak stand mixed with red maple.
41	4123 - Red Oak	High Density Log	10.6	90	81-110	Red/black oak stand that was thinned in the past. Heavy red maple understory and pockets of aspen.
42	4130 - Aspen	High Density Pole	10.7	26	51-80	
43	4130 - Aspen	High Density Sapling	10.5	6		
44	4133 - Aspen, Mixed Pine	High Density Sapling	34.8	7	1-50	Stand was cut in spring of 2007. White oak, white pine and red pine were left. Regen consists of a good mix of aspen and oak saplings.
45	4130 - Aspen	High Density Pole	10.4	26	1-50	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
11	6225 - Bog	2.2	No	Unspecified	
12	6225 - Bog	1.3	No	Unspecified	
25	6225 - Bog	4.2	No	Unspecified	
27	6225 - Bog	3.3	No	Unspecified	
32	710 - Sand, Soil	1.2	No	Unspecified	
39	6225 - Bog	1.9	No	Unspecified	