



Compartment Review Presentation

Roscommon Forest Management Unit

Compartment 144

Entry Year 2015

Acreage: 1,284

County Roscommon

Management Area: Upper Muskegon

Revision Date: 08/05/2013

Stand Examiner: Jason Lewicki

Legal Description:

T21N, R03W Section 17 and 18

Identified Planning Goals:

Provide for sustainable ecosystem based management. Maintain healthy and diverse forested stands for wildlife, recreation and the production of forest products.

Soil and topography:

Soils on the uplands consist primarily of Grayling and Au Gres-Kinross-Croswell sands. Soils in the lowlands are primarily Tawas-Leaf River and Tawas Lupton Mucks.

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

The compartment is entirely under state ownership as well as much of the entire township.

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:

The Lost Twin Lakes Pathway and surrounding stands are a SCA.

Watershed and Fisheries Considerations:

This compartment lies within the Muskegeon River watershed.

Wildlife Habitat Considerations:

Mineral Resource and Development Concerns and/or Restrictions

Sections 1 & 2, T24N-R1W, Roscommon County

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 200 and 400 feet. Beneath the glacial drift is the Mississippian Marshall Sandstone. The Marshall has been used as a building stone in the past. Most of the good gravel pits are associated with upland areas. The nearest gravel pit is located in Section 10 and potential appears to be good. St. Helen Field is located 1.5 miles to the southwest. The field has produced over 8.7 million BO and 14.7 Bcf gas from the Devonian Richfield Formation. It is in secondary recovery operations currently. None of the Compartment is currently leased.

Vehicle Access:

Vehicle access is good on the far east and west sides via county roads. The central part of the compartment has limited access due to the Lost Twin Lakes pathway and lowland areas.

Survey Needs:

None needed

Recreational Facilities and Opportunities:

The Lost twin Lakes Pathway and associated parking lot lie within this compartment. Various hunting opportunities exist within this compartment.

Fire Protection:

Additional Compartment Information:

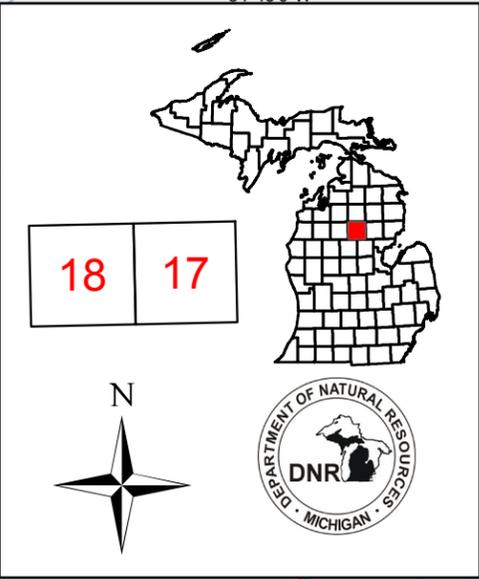
The following reports from the Inventory are attached:

- 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**

Compartment: 144
 T21N R03W
 Sections 17, 18
 County: Roscommon
 Unit: Roscommon
 YOE: 2015
 Acres: 1,284 GIS Calculated
 Examiner: Jason Lewicki
 Map Revised: 12/13/2013
 Map Phase: Web Post

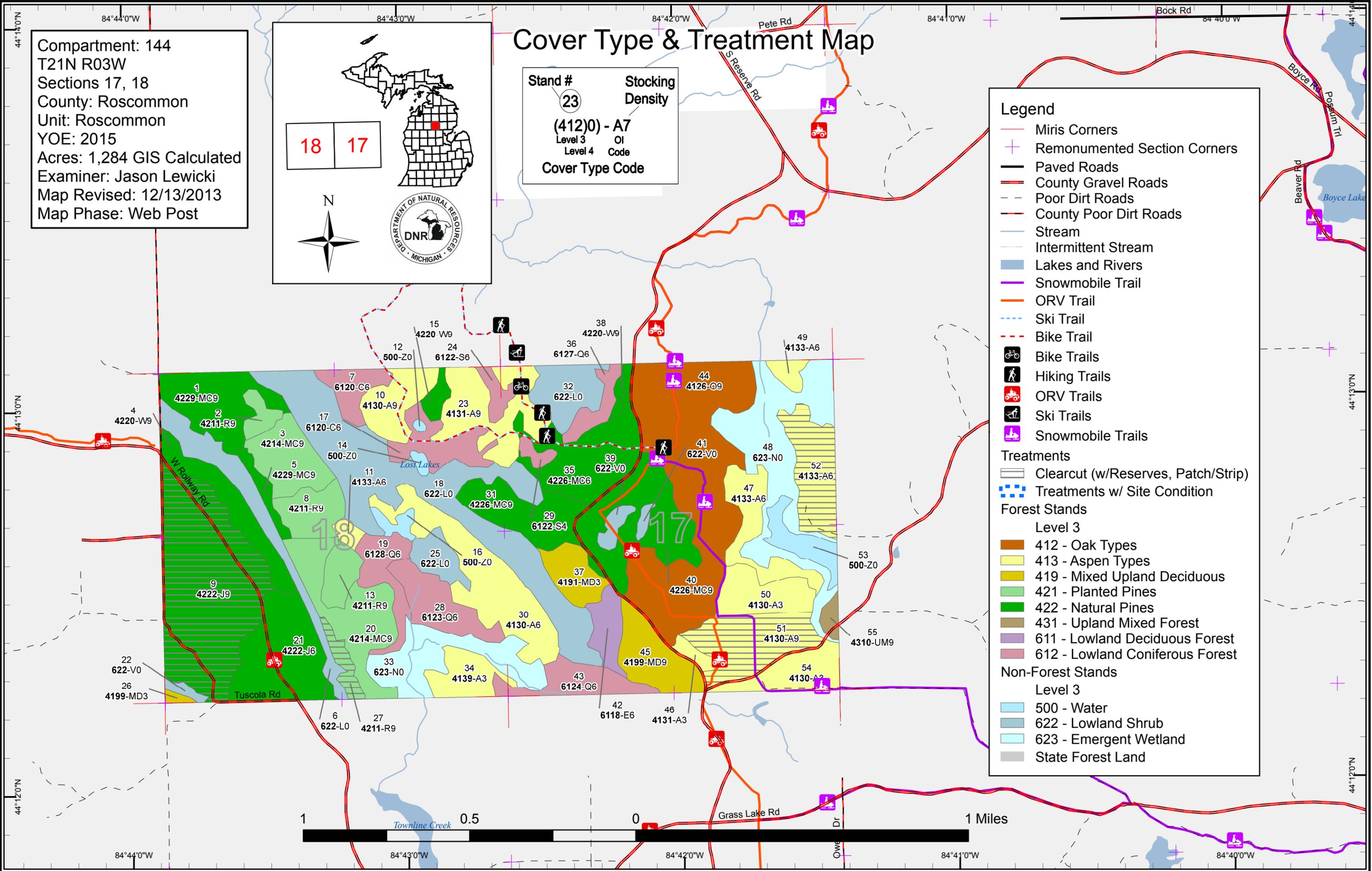
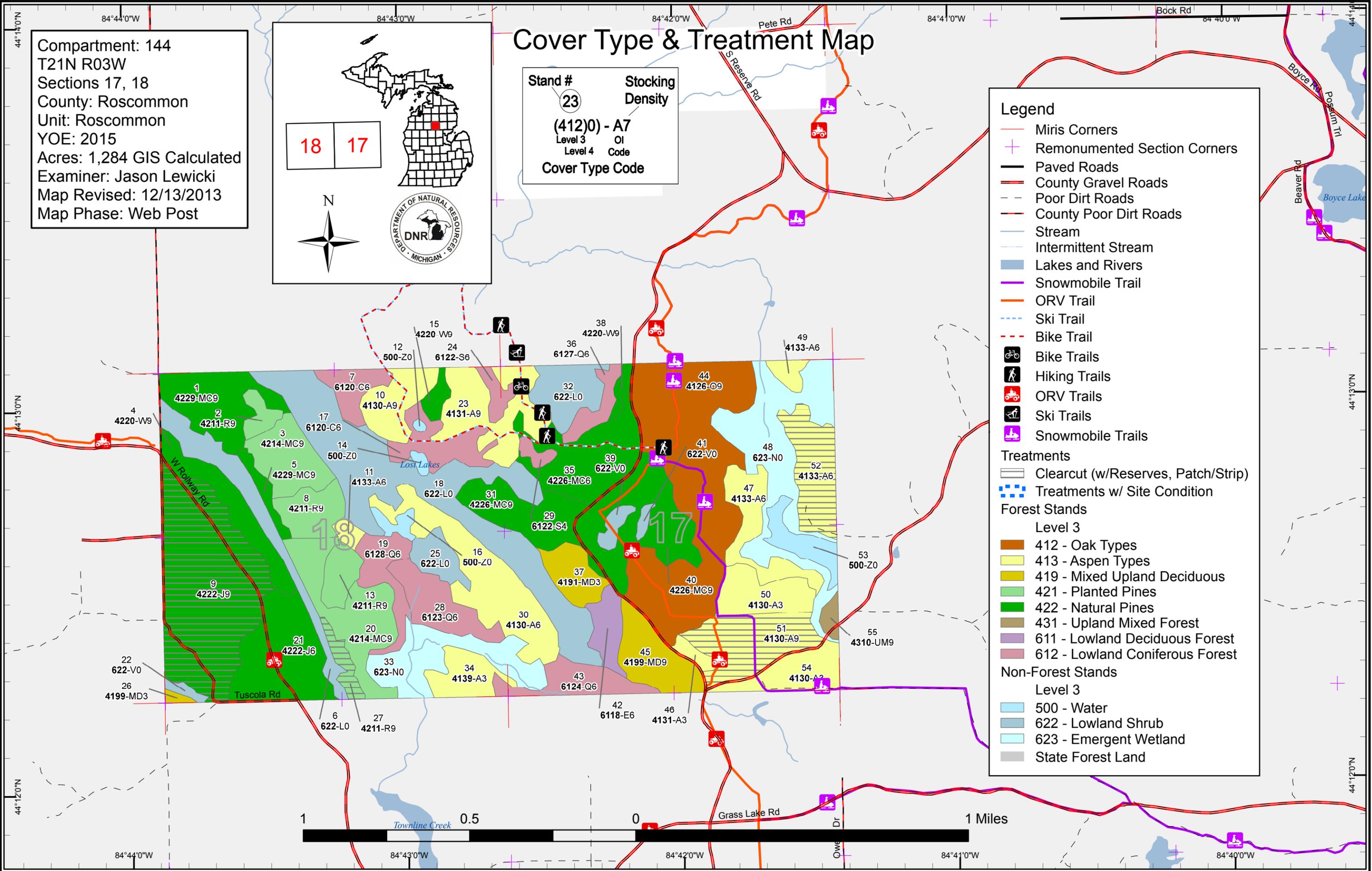


Cover Type & Treatment Map

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

Legend

- Miris Corners
 - Remonumented Section Corners
 - Paved Roads
 - County Gravel Roads
 - Poor Dirt Roads
 - County Poor Dirt Roads
 - Stream
 - Intermittent Stream
 - Lakes and Rivers
 - Snowmobile Trail
 - ORV Trail
 - Ski Trail
 - Bike Trail
 - Bike Trails
 - Hiking Trails
 - ORV Trails
 - Ski Trails
 - Snowmobile Trails
- Treatments**
- 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
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3
- 500 - Water
 - 622 - Lowland Shrub
 - 623 - Emergent Wetland
 - State Forest Land



Stand Boundary Map

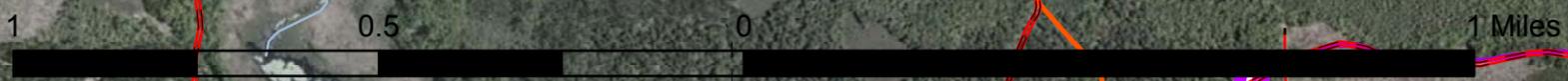
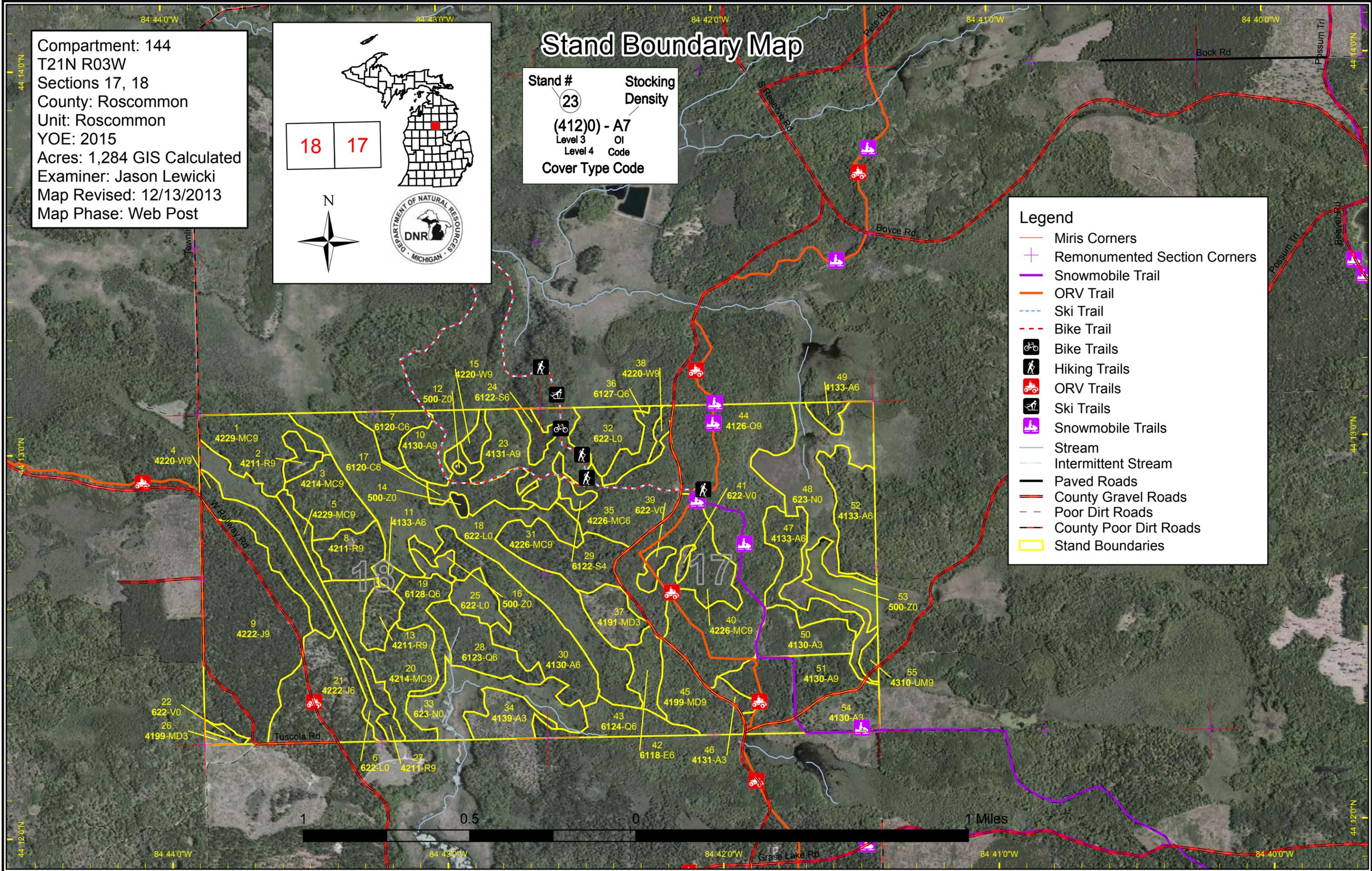
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18 17

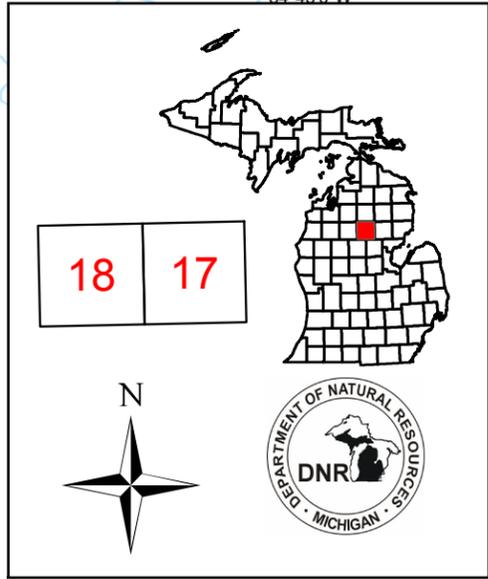


Stand # **23**
 Stacking Density
(412)0 - A7
 Level 3 OI
 Level 4 Code
 Cover Type Code

- Legend**
- Miris Corners
 - + Remonumented Section Corners
 - Snowmobile Trail
 - ORV Trail
 - - - Ski Trail
 - - - Bike Trail
 - Bike Trails
 - Hiking Trails
 - ORV Trails
 - Ski Trails
 - Snowmobile Trails
 - Stream
 - - - Intermittent Stream
 - Paved Roads
 - County Gravel Roads
 - - - Poor Dirt Roads
 - - - County Poor Dirt Roads
 - Stand Boundaries



Compartment: 144
 T21N R03W
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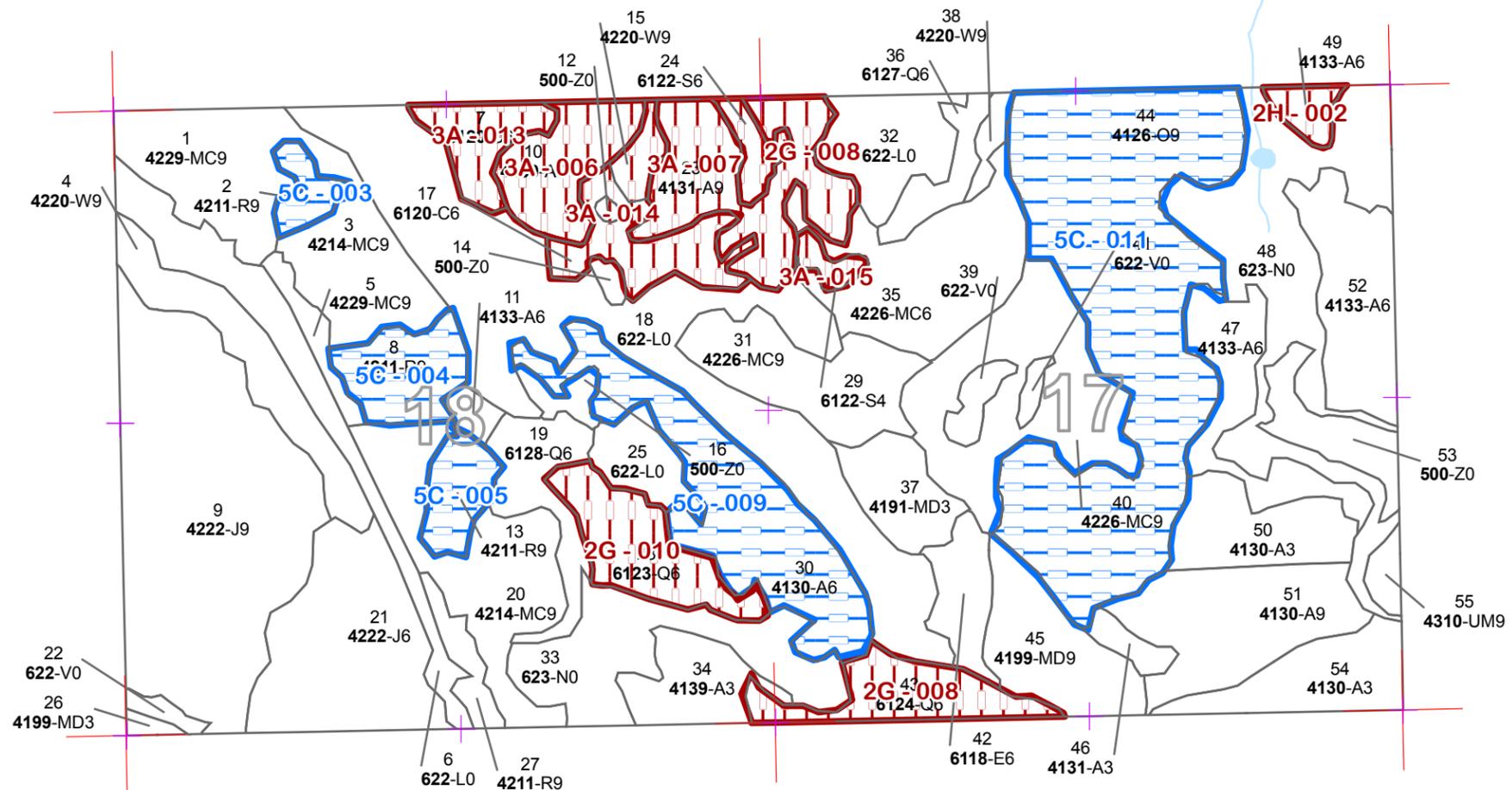


Special Conservation Areas & Site Conditions Map

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

Legend

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries
- Site Condition Available
- Available w/ Constraints (Factor - Number)
- Unavailable (Factor - Number)
- Dedicated Special Conservation Areas
- Cold Water Lakes
- Cold Water Streams



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	21	44	0	0	106	0	36	0	0	57	0	0	0	0	265
Bog	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Cedar	0	0	0	0	0	0	0	0	0	31	0	0	0	0	31
Jack Pine	0	0	0	0	46	0	102	0	0	0	0	0	0	0	148
Lowland Conifers	0	0	0	0	9	0	0	17	23	19	0	0	0	0	68
Lowland Deciduous	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12
Lowland Shrub	167	0	0	0	0	0	0	0	0	0	0	0	0	0	167
Lowland Spruce/Fir	0	0	0	0	0	3	0	6	0	0	0	0	0	0	9
Marsh	97	0	0	0	0	0	0	0	0	0	0	0	0	0	97
Mixed Upland Deciduous	2	15	0	0	0	0	0	0	0	25	0	0	0	0	42
Natural Mixed Pines	0	0	0	0	0	40	0	47	39	0	0	29	0	0	155
Oak	0	0	0	0	0	0	0	0	0	123	0	0	0	0	123
Planted Mixed Pines	0	0	0	0	0	0	0	0	63	0	0	0	0	0	63
Red Pine	0	0	0	0	0	0	0	0	40	0	0	0	0	0	40
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
Water	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20
White Pine	0	0	0	0	0	0	0	0	28	0	4	0	0	0	32
Total	315	60	0	0	162	43	138	82	193	258	4	29	0	0	1284



Report 2 – Proposed Treatment Summaries

Roscommon Mgt. Unit
Year of Entry 2015

Compartment 144
Total Compartment Acres: 1,284

Acres by Treatment Type

Commercial Harvest - 173 Tree Planting - 109 Other - 0
 Habitat Cut - 0 Opening Maintenance - 0

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen Types	65	0	0	0	0	0	65
Natural Pines	102	0	0	0	0	0	102
Planted Pines	7	0	0	0	0	0	7
Total	173	0	0	0	0	0	173



Stand	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
9	71144009-Cut	102.0	42220 - Natural Jack Pine	High Density Log	60	81-110	Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription</u> Final harvest and plant jack pine. Leave some scattered red and white pine for super canopy. Leave a few acre patch on NE side of stand for retention(heavier white pine component). Denton Creek ORV trail runs along Rollway rd which runs through the east side of this stand. Protect trails with appropriate cutting specs.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Trench and plant jack pine.</p> <p><u>Proposed Start Date:</u> 10/01/2014</p>										

27	71144027-Cut	6.6	42110 - Planted Red Pine	High Density Log	82	51-80	Harvest	Clearcut	4211 - Planted Red Pine	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription</u> Final harvest and plant red pine. Little or no retention. Stand will have some oak regeneration mixed in after harvest.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u> Trench and plant. Manage for red pine.</p> <p><u>Proposed Start Date:</u> 10/01/2014</p>										

51	71144051-Cut	36.5	4130 - Aspen	High Density Log	60	111-140	Harvest	Clearcut with Reserves	413 - Aspen	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription</u> Final harvest stand and manage for aspen. Leave a few pine for retention and super canopy. Target weeveled white pine for removal. The snowmobile and Denton Creek ORV trail run through this stand. Protect trails with appropriate cutting specs. Leave 1 brush pile per every 2 acres.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2014</p>										

52	71144052-Cut	28.4	4133 - Aspen, Mixed Pine	High Density Pole	49	51-80	Harvest	Clearcut with Reserves	413 - Aspen	Fld. Tr. Bdy. - Incomplete
<p><u>Prescription</u> Final harvest leaving a few oak and pine/acre. Push harvest into adjacent stand to the east where possible. Retention will be scattered oak and pine as well as some forested areas too wet for equipment.</p> <p><u>Specs:</u></p> <p><u>Other Comments:</u></p> <p><u>Next Steps:</u></p> <p><u>Proposed Start Date:</u> 10/01/2014</p>										

**Total Treatment
Acreage Proposed: 173.5**

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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

Compartment 144

Jason Lewicki : Examiner

Year of Entry 2015

Availability for Management

Availability for Management			Dominant Site Conditions					
Total Acres	Acres Available	Acres Not Available		No	5C	3A	2H	2G
263	202	61	Aspen	152	50	56	5	0
30		30	Cedar			30		
148	148		Jack Pine	148				
67	27	41	Lowland Conifers	27				41
12	12		Lowland Deciduous	12				
9	0	9	Lowland Spruce/Fir	0		3		6
42	42		Mixed Upland Deciduous	41	0			
154	154		Natural Mixed Pines	153	1			
123	123		Oak	0	122			
63	63		Planted Mixed Pines	63	0			
40	40		Red Pine	7	33			
4	4		Upland Mixed Forest	4				
32	27	5	White Pine	27		5		
987	841	145	Total Forested Acres	633	208	94	5	46
	85%	15%	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	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
002	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5				
Comments:							
003	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	6				
Comments:							

Report 5 – Site Conditions

Roscommon Mgt. Unit
Jason Lewicki : Examiner

Compartment 144
Year of Entry 2015

004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	17		
Comments:					
005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11		
Comments:					
006	Not Available	3A: Potential old growth / biodiversity	20	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	
Comments:					
007	Not Available	3A: Potential old growth / biodiversity	37	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	
Comments:					
008	Not Available	2G: Too wet (sensitive soils, does not include access issues)	25		
Comments:					
009	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	51		
Comments:					

Report 5 – Site Conditions

Roscommon Mgt. Unit
Jason Lewicki : Examiner

Compartment 144
Year of Entry 2015

010	Not Available	2G: Too wet (sensitive soils, does not include access issues)	22	
Comments:				
011	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	126	
Comments:				
013	Not Available	3A: Potential old growth / biodiversity	12	2G: Too wet (sensitive soils, does not include access issues)
Comments:				
014	Not Available	3A: Potential old growth / biodiversity	24	
Comments:				
015	Not Available	3A: Potential old growth / biodiversity	3	2G: Too wet (sensitive soils, does not include access issues)
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 – 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 Lake	A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200.
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.



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42290 - Natural Mixed Pine	High Density Log	33.0	82	81-110	Stand of red and white pine with higher water table than stands to the south. Fairly heavy understory of red maple saplings. A few pockets of pole size aspen. Planting cards indicate this was planted to red pine in the fall of 1931.
2	42110 - Planted Red Pine	High Density Log	6.2	82	81-110	Thinned in 1997. Old planting cards indicate a 1931 red pine plantation.
3	42140 - Planted Mixed Pine	High Density Log	24.6	80	81-110	Mix of red and white pine stand that was thinned in the past. Heavier red pine component on west side of stand. Pockets or clones of aspen that sprouted after thinning.
4	42200 - Natural White Pine	High Density Log	23.7	85	111-140	
5	42290 - Natural Mixed Pine	High Density Log	5.9	82	111-140	Strip of primarily white pine mixed with red pine along swamp edge. Appears to have never been thinned. Old planting notes indicate entire area was planted to red pine in 1931.
7	6120 - Lowland Cedar	High Density Pole	12.3	93	81-110	
8	42110 - Planted Red Pine	High Density Log	16.9	82	111-140	Old planting notes indicate area was planted to red pine in 1931.
9	42220 - Natural Jack Pine	High Density Log	102.0	60	81-110	Stand of natural 2 aged jack pine. Some heavily weaved white pine present. Some areas of scotch pine especially on the north end. Understory of poor quality oak.
10	4130 - Aspen	High Density Log	20.0	93	141-170	
11	4133 - Aspen, Mixed Pine	High Density Pole	3.3	17	81-110	
13	42110 - Planted Red Pine	High Density Log	10.7	82	1-50	
15	42201 - Natural White Pine, Mixed Deciduous	High Density Log	4.7	85		
17	6120 - Lowland Cedar	High Density Pole	18.3	93	111-140	
19	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	17.3	70		
20	42140 - Planted Mixed Pine	High Density Log	38.3	82	81-110	Stand of mixed red and white pine. Some scattered oak and some clones of bigtooth aspen especially on east side. Stand is heavy to white pine poles. Old planting records indicate area was planted to red pine in 1931.

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Roscommon Mgt. Unit

Report 8 – Forested Stands

Compartment: 144
Year of Entry: 2015

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	42220 - Natural Jack Pine	High Density Pole	46.4	41	1-50	OI indicates 1972 Yr Origin.
23	4131 - Aspen, Oak	High Density Log	36.9	93	111-140	
24	6122 - Black Spruce	High Density Pole	5.7	75	51-80	
26	4199 - Other Mixed Upland Deciduous	High Density Sapling	1.5	9		
27	42110 - Planted Red Pine	High Density Log	6.6	82	51-80	red pine stand that was thinned in the past. Appears to have had a wildfire in the past also. Some mixed pine and oak in the understory. Nice red pine site.
28	6123 - Lowland Fir	High Density Pole	22.8	85		
29	6122 - Black Spruce	Low Density Pole	3.4	55		
30	4130 - Aspen	High Density Pole	50.9	48	111-140	
31	42260 - Natural Pine, Mixed Deciduous	High Density Log	29.2	111	51-80	Variable white pine stand that was shelterwood cut in 1997 and had all hardwoods removed. Some open areas aspen, maple and white pine saps are technically in the canopy
34	4139 - Aspen, Mixed Deciduous	High Density Sapling	16.0	18		Pockets and clones of aspen with scattered oak and pine. Areas of heavy cherry. Beaver activity on north end.
35	42260 - Natural Pine, Mixed Deciduous	High Density Pole	39.7	50	111-140	Heavier to pole timber aspen on east side along reserve rd. SCA
36	6127 - Lowland Pine	High Density Pole	8.8	40	51-80	Stand had hardwoods removed in 1997.
37	4191 - Mixed Upland Deciduous with Conifer	High Density Sapling	15.1	18		Clone or patch of aspen by old landing and two track. Rest of stand is dominated by white pine and red maple. South west part of stand is wetter with some tag alder.
38	42200 - Natural White Pine	High Density Log	3.6	100	81-110	Thinned in 1997.
40	42260 - Natural Pine, Mixed Deciduous	High Density Log	46.9	70	81-110	
42	6118 - Lowland Deciduous with Cedar	High Density Pole	12.2	75	51-80	
43	6124 - Lowland Spruce- Fir	High Density Pole	18.8	93		

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Roscommon Mgt. Unit

Report 8 – Forested Stands

Compartment: 144
Year of Entry: 2015

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
44	4126 - White, Black, N. Pin Oak	High Density Log	123.1	95	81-110	
45	4199 - Other Mixed Upland Deciduous	High Density Log	25.2	93	81-110	Mlx of oak, white pine and bigtoth aspen.
46	4131 - Aspen, Oak	High Density Sapling	4.2	17		Northern has more oak and maple along with some mature red pine left after harest.
47	4133 - Aspen, Mixed Pine	High Density Pole	22.2	45	81-110	Harvest next entry???
49	4133 - Aspen, Mixed Pine	High Density Pole	4.9	49		
50	4130 - Aspen	High Density Sapling	21.0	17		
51	4130 - Aspen	High Density Log	36.5	60	111-140	Stand of mixed aspen with sawtimber scattered about. Most white pine are some what open grown and heavily weeveled.
52	4133 - Aspen, Mixed Pine	High Density Pole	28.4	49	51-80	High water table.
54	4130 - Aspen	High Density Sapling	20.7	7		
55	4310 - Pine, Oak Mix	High Density Log	3.6	93		



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
6	6229 - Mixed lowland shrub	28.7	No	Unspecified	
12	50 - Water	0.7	No	Unspecified	
14	50 - Water	1.8	No	Unspecified	
16	50 - Water	4.3	No	Unspecified	
18	6229 - Mixed lowland shrub	107.2	No	Unspecified	
22	6225 - Bog	2.5	No	Unspecified	
25	6229 - Mixed lowland shrub	11.1	No	Unspecified	
32	6229 - Mixed lowland shrub	20.0	No	Unspecified	
33	6239 - Mixed Emergent Wetland	35.8	No	Unspecified	
39	6225 - Bog	4.6	No	Unspecified	
41	6225 - Bog	2.0	No	Unspecified	
48	6239 - Mixed Emergent Wetland	61.3	No	Unspecified	
53	50 - Water	12.7	No	Unspecified	