# DNR DNR DNR

# **Compartment Review Presentation**

**Roscommon Forest Management Unit** 

Compartment 178

Entry Year 2015

Acreage: 2,205

County Ogemaw

Management Area: Kirtland's Warbler

Revision Date: 08/07/2013

Stand Examiner: Ben Wiese

**Legal Description:** 

**T24N R01E** 

#### **Identified Planning Goals:**

Provide for sustainable ecosystem based management including forest products, wildlife and recreation. Maintain healthy and diverse forested stands. Forest management objectives for this year of entry include 22 acres of aspen regeneration and 18 acres of oak seedtree harvest.

#### Soil and topography:

The topography is flat outwash plain with with low gently sloping hills. Soils are Graycalm, Grayling and Croswell sands, Allendale loamy sands and Tawas mucky peat.

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

Most of the compartment borders state-owned land but there are a couple of private inholdings and private land along the south boundary.

#### **Unique Natural Features:**

Much of the compartment provides suitable habitat for the Kirtland's warbler.

#### Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

#### **Special Management Designations or Considerations:**

Most of the compartment is part of the Kirtland's Warbler Management Area.

#### Watershed and Fisheries Considerations:

No comments or aquatic concerns.

#### Wildlife Habitat Considerations:

None noted.

#### Mineral Resource and Development Concerns and/or Restrictions

Ogemaw County 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 are the Mississippian Marshall Sandstone and Coldwater Shale. The Marshall has been used as a building stone in the past. The nearest gravel pit is located two miles to the west and potential may exist in the compartment. The Rose City Fields are located just to the north. The fields have produced over 9.3 million BO and 9.9 Bcf gas from the Devonian Richfield Formation. They are in secondary recovery operations currently. The main field also produces from the Prairie du Chien, and has produced over 31 Bcf gas and 200,000 BO. Some of the State land in the Compartment is leased for oil and gas development.

#### Vehicle Access:

Vehicle access is good, there are many forest roads scattered within the compartment.

#### **Survey Needs:**

None at this time.

#### **Recreational Facilities and Opportunities:**

There are no facilities but opportunity exists for hunting, hiking, foraging and dispersed camping.

#### **Fire Protection:**

None noted.

#### **Additional Compartment Information:**

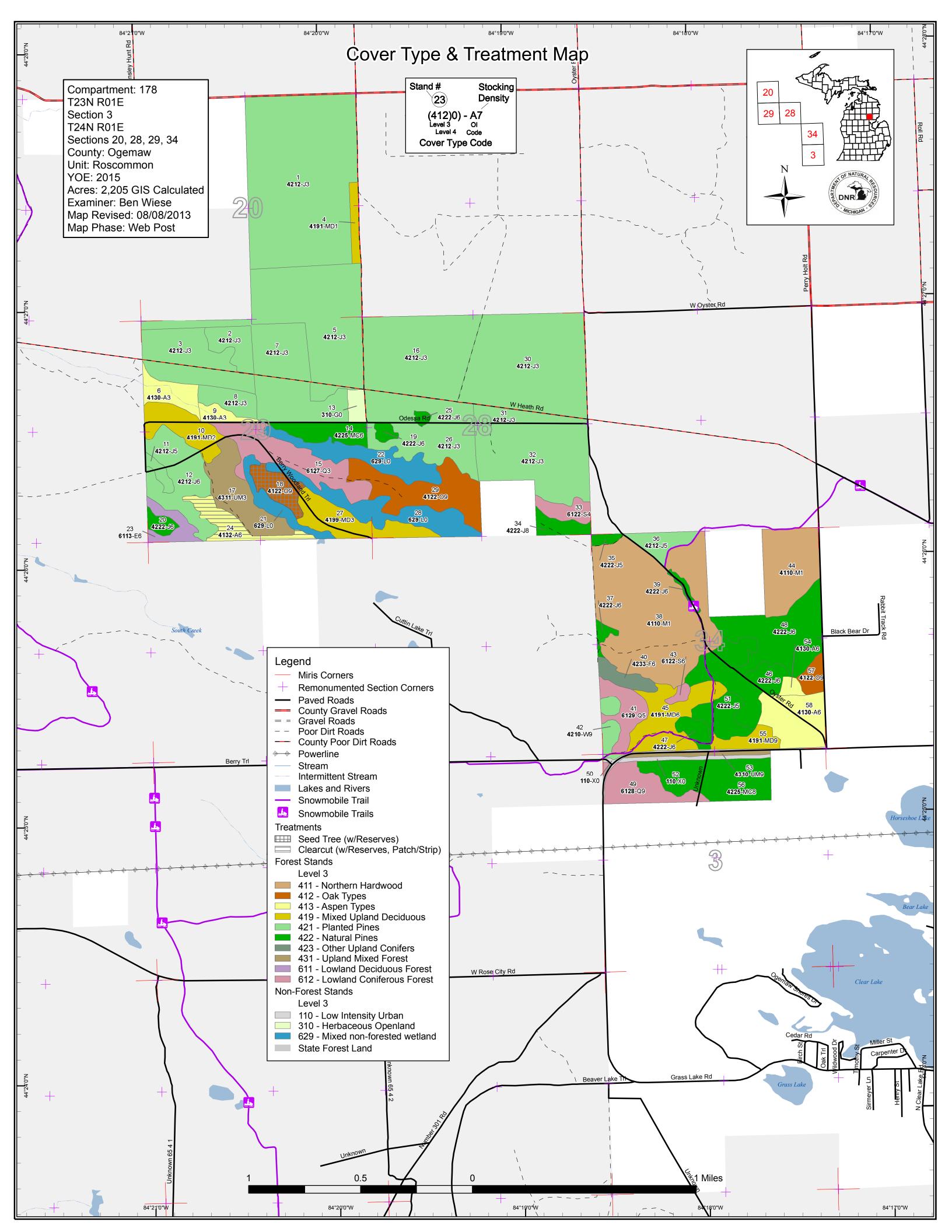
Historically jack pine stands and red pine/ white pine stands were the dominant cover type.

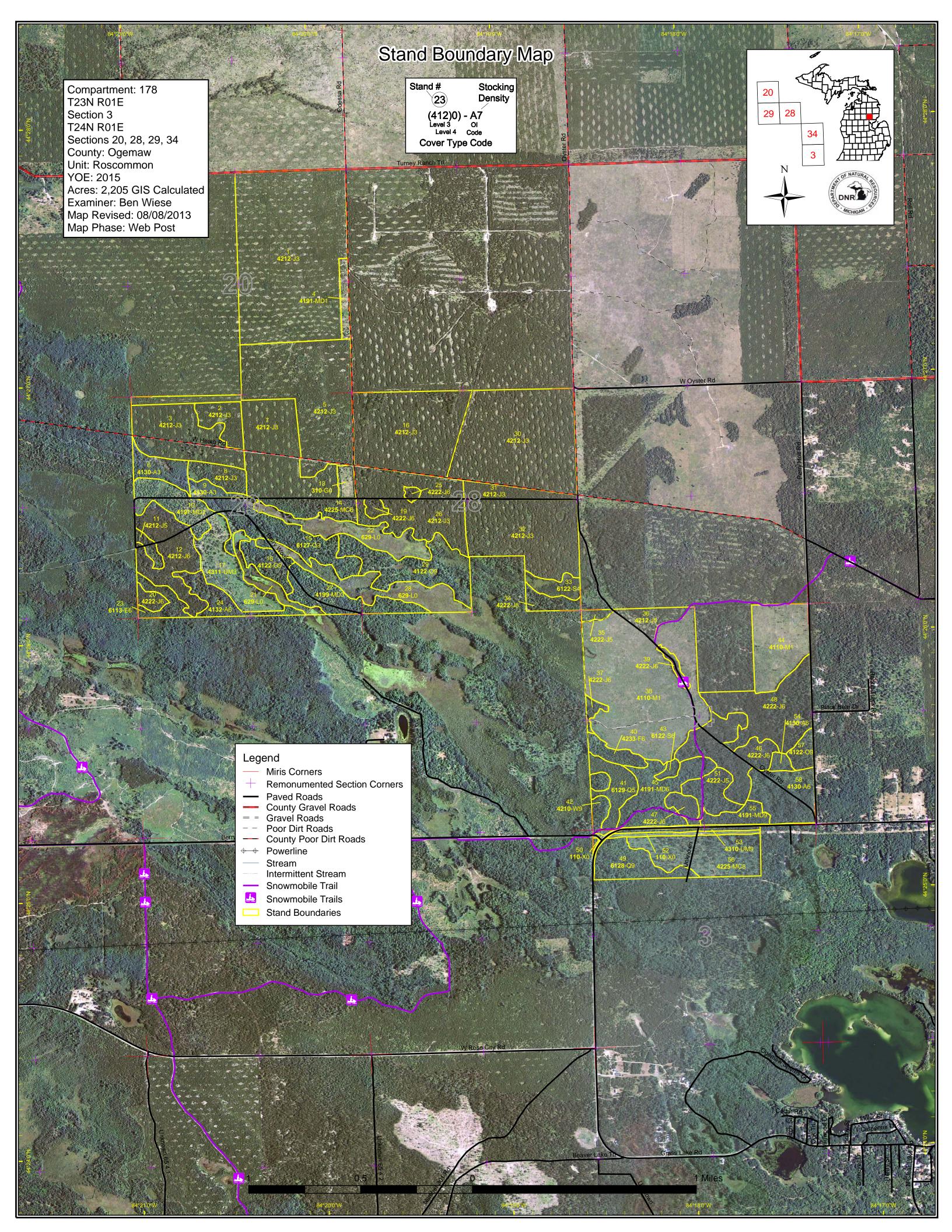
The following reports from the Inventory are attached:

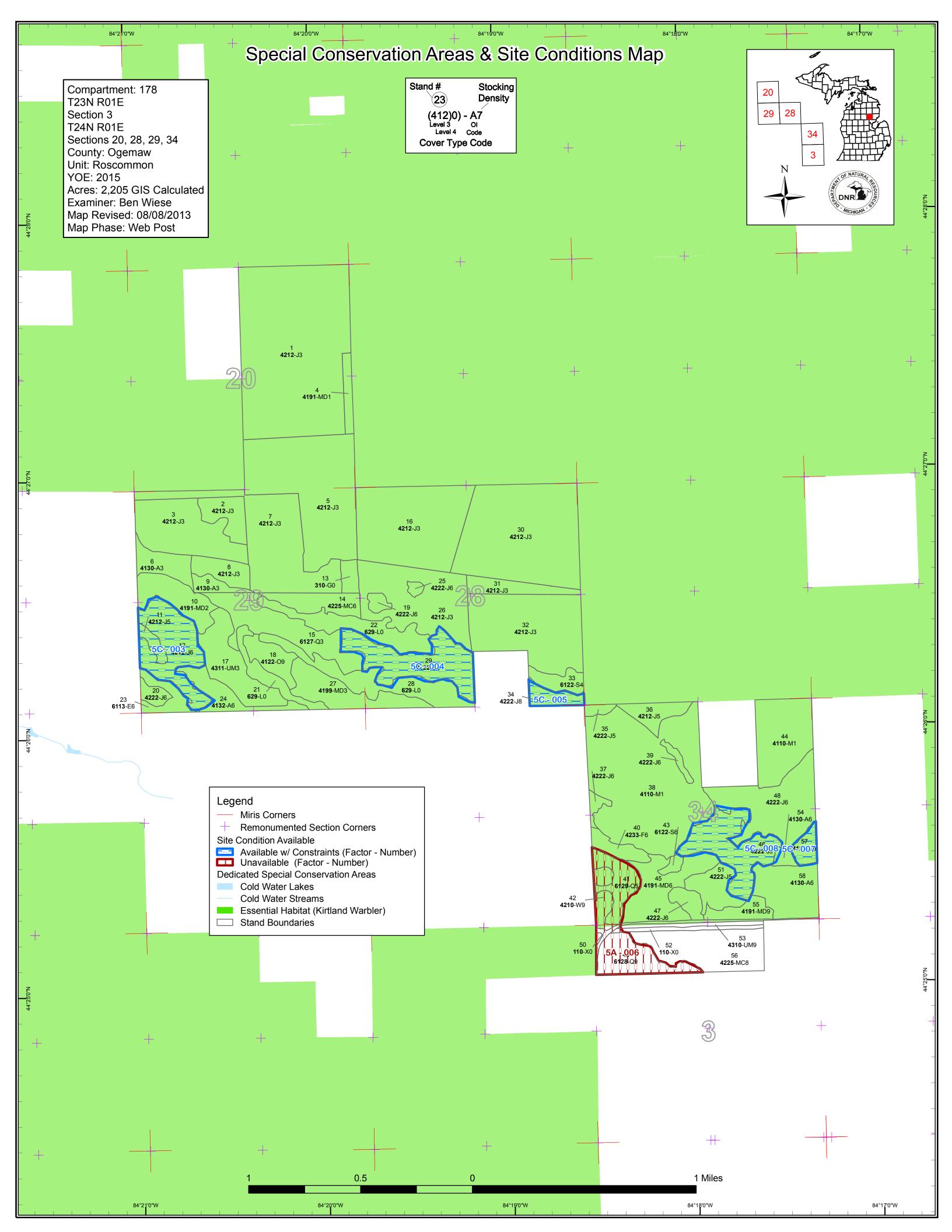
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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 178 Year of Entry 2015

Roscommon Mgt. Unit Benjamin Wiese : Examiner



	Age Class															
		6.9	70,70	Se S	or or	D. D. C.	S. S	000	18/18	St. St.	88.0	on on the second	70,70	,	8 / A	, so la
Aspen	0	0	26	40	0	22	0	4	0	0	0	0	0	0	93	
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
Jack Pine	0	251	301	466	108	62	70	0	0	0	0	0	0	0	1257	
Lowland Conifers	0	0	0	0	0	0	53	0	0	0	0	22	32	0	107	
Lowland Deciduous	0	0	0	0	0	0	13	0	0	0	0	0	0	0	13	
Lowland Shrub	97	0	0	0	0	0	0	0	0	0	0	0	0	0	97	
Lowland Spruce/Fir	0	0	0	0	12	0	4	0	0	0	0	0	0	0	16	
Mixed Upland Deciduous	0	39	37	0	0	0	13	0	0	0	45	0	0	0	134	
Natural Mixed Pines	0	0	0	0	0	0	57	0	22	0	0	0	0	0	79	
Northern Hardwood	232	0	0	0	0	0	0	0	0	0	0	0	0	0	232	
Oak	0	0	0	0	0	0	0	0	0	0	83	0	0	0	83	
Upland Mixed Forest	43	0	0	0	0	0	0	0	0	0	0	7	0	0	50	
Upland Spruce/Fir	0	0	0	0	12	0	0	0	0	0	0	0	0	0	12	
Urban	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
White Pine	0	0	0	0	0	0	0	0	0	0	11	0	0	0	11	
Total	394	290	364	506	132	84	210	4	22	0	140	29	32	0	2205	



# **Report 2 – Proposed Treatment Summaries**

Roscommon Mgt. Unit Year of Entry 2015

Compartment 178
Total Compartment Acres: 2,205

### **Acres by Treatment Type**

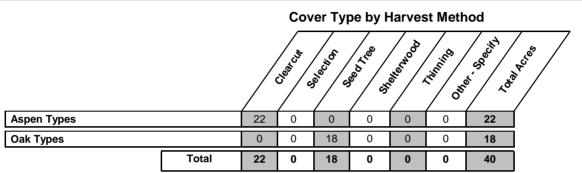
Commercial Harvest - 40

Tree Planting - 0

Other - 0

Habitat Cut - 0

Opening Maintenance - 0



Roscommon Mgt. Unit

# Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 178
Year of Entry 2015

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a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status	
18	71178018-Cut	17.8	4122 - Oak, Pine	High Density Log	102	51-80	Harvest	Seed Tree	4221 - Natural Red Pine	Cmpt. Review Proposal	

<u>Prescription</u> Seedtree harvest with the intent of releasing the already established pine. Leave some healthy large crowned oak for seed and diversity, leave <u>Specs:</u> all the pine, use protection specs but expect damage.

Other Considerable roadwork will likely be required depending on the weather and season. There are two locations where gravel and a culvert may be needed where the road goes along the edge of beaver ponds, stands 22 and 28. The future stand should be mostly mixed pine, pin oak and a component of red maple.

Next Steps:

S

Proposed Start Date: 10/01/2014

**24 71178024-Cut** 22.1 4132 - Aspen, Jack High 59 51-80 Harvest Clearcut with 413 - Aspen Cmpt. Review Pine Density Reserves Proposal Pole

<u>Prescription</u> Clearcut to regenerate the stand. Leave a few healthy large jack pine and cherry for diversity, preferably in clumps. Leave the strip along the <u>Specs:</u> south and east edge that borders private land.

south and east ougo that soldolo phrate land.

Other Other It looks like the south and east strip of this stand was a buffer from a previous harvest, we can leave it again for retention. Allow chipping in the harvest specs to make the sale more appealing to producers. The regenerated stand may not be fully stocked in the areas that are jack pine.

Depending on the season and weather gravel and a culvert may be needed where the road goes along the edge of stand 22.

Next Steps: Proposed

Start Date: 10/01/2014

Total Treatment

Acreage Proposed: 39.8

Roscommon Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 178 a Limiting Factor s Year of Entry 2015 t **Treatment** Acres CoverType Size Stand ВА **Treatment Treatment Cover Type Approval** n Method Objective Status Name Density Age Range Type #Type! **Prescription** Specs: Other Comment: **Next** Steps: Proposed

Total Treatment
Acreage Proposed:

#Type!

Start Date: # Limiting Factor

0

Compartment 178
Year of Entry 2015

Roscommon Mgt. Unit
Ben Wiese: Examiner

Availa	ability for I	Management					
Total	Acres	Acres		Domina	nt Site	<b>Cond</b>	it
Acres	Available	Not Available		No	5C	5A	
93	93		Aspen	91	2		
1256	1256		Jack Pine	1,136	120		
107	55	52	Lowland Conifers	54	1	52	
13	13		Lowland Deciduous	12	0		
16	16		Lowland Spruce/Fir	16			
134	133	1	Mixed Upland Deciduous	132	1	1	
79	78	0	Natural Mixed Pines	78		0	
232	232		Northern Hardwood	231	0		
82	82		Oak	18	64		
49	49		Upland Mixed Forest	49			
11	11		Upland Spruce/Fir	11			
11		11	White Pine			11	
2,083	2,018	64	Total Forested Acres	1,830	188	64	
	97%	3%	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
003	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	59				
(	Comments:						
004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	59				
(	Comments:						

# Report 5 – Site Conditions

Roscommon Mgt. Unit

Ben Wiese : Examiner

Compartment 178 Year of Entry 2015

005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11
C	omments:		
006	Not Available	5A: Not able to obtain desirable regeneration	68
C	omments:		
007	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9
C	omments:		
008	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	55
C	omments:		

Roscommon Mgt. Unit

Compartment: 178
Year of Entry: 2015



## 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
Comments				

Roscommon Mgt. Unit

Compartment: 178
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# 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.

Conservation Area	n Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions to stocked trout populations and those of other coldwater fish spective year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	ies (e.g., slimy sculpin) to persist from ese conditions due to substantial
HCVA	Designated Critical Habitat	Critical habitat areas are established via a consultative and coop U.S. Fish and Wildlife service for the recovery of threatened and 365, Endangered Species Protection, of the Natural Resources PA 451, and the Federal Endangered Species Act of 1973. This species plans in various stages of review. As of now only two explover Habitat.	l endangered species, as governed by Part and Environmental Protection Act, 1994 is an active program, with proposed

S	Roscommon Mgt. Unit S t			Report 8	– Forested	Stands Compartment: 178 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42120 - Planted Jack Pine	High Density Sapling	232.1	18		Jack Pine plantation that was harvested in 1995 and planted in 1995 acording to FTP W-11-562.
2	42120 - Planted Jack Pine	High Density Sapling	19.1	19		Jack pine stand that was trenched and planted the year of origin is 1994.
3	42120 - Planted Jack Pine	High Density Sapling	60.9	20		Jack Pine stand with super canopy pin oak. Jack Pine planted in spring 1993.
4	4191 - Mixed Upland Deciduous with Conifer	Low Density Sapling	8.9	18		Small open stand that my have been a fire break, It is barely 25% forested.
5	42120 - Planted Jack Pine	High Density Sapling	130.4	23		Jack pine stand managed for the Kirtland's Warbler.
6	4130 - Aspen	High Density Sapling	18.5	29	1-50	Loq qulity quaking aspen stand. Scatterd pin oak poles and logs. There is a class of super canopy quaking aspen. Small pocket of white pine in the SE corner of the stand.
7	42120 - Planted Jack Pine	High Density Sapling	92.7	20		Jack pine stand that was planted in the spring of1993. This stand is managed for the Kirtland's warbler. Blueberry and sedge is growing in the understory
8	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	16.5	23		This jack pine stand was regenerated in 1990. Parts of this stand have large pockets of cherry.
9	4130 - Aspen	High Density Sapling	8.0	23		Small aspen stand of poor quality, some of which was stagnated due to a beaver flooding which has been released. Looks like an old landing sight in the southwest part of the stand.
10	4191 - Mixed Upland Deciduous with Conifer	Medium Density	29.8	14		This stand was regenerated in 1998. The white pine was left. The oak and red maple are mostly from stump sprouts. There is a trace ammount of red maple and super canopy red pine.
11	42121 - Planted Jack Pine, Mixed Deciduous	Medium Density Pole	5.9	59	1-50	Jack pine is planted in widely spaced rows. There is mostly cherry growing in between the rows but also pin oak, red pnie, white pine and jack pine.
12	42120 - Planted Jack Pine	High Density Pole	52.1	59	111-140	Jack pine plantation that was trenched. Most of this plan is outside of the warbler plan. Good sight with a high water table. white pine saplings are scattered in the understory. There are red maple and oak seedlings in the understory.
14	42250 - Pine, Oak	High Density Pole	21.5	85	51-80	Mixed oak and pine, there is more white pine in west part of the stand, more oak in the east.
15	6127 - Lowland Pine	High Density Sapling	53.4	61	51-80	Mixed pole and sapling sized white pine stand , there are some wet areas. The aspen is mostly in the east.

s t	Roscommon Mgt. l			Report 8	– Forested	Stands Compartment: 178 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
16	42120 - Planted Jack Pine	High Density Sapling	109.1	32		Jack pine plantation that is managed for the Kirtland's warbler. There is trace ammounts of black cherry and pin oak. Sedge, lichen and blueberry are in the understory.
17	4311 - Pine, Aspen Mix	High Density Sapling	42.8	6		Mixed aspen and deciduous with some pine. The stand was regenerated 2007, the pine was left. There are some super canopy red pine.
18	4122 - Oak, Pine	High Density Log	17.8	102	51-80	Small mature pin oak stand, some mortality many healthy and in between. The sub canopy white pine and red pine are just reaching into the canopy. This stand is a good example of pine naturally regenerating under an oak canopy. Some of the pine has no room to grow because of the oak canopy.
19	42220 - Natural Jack Pine	High Density Pole	4.5	63		A small, mature jack pine stand that was not harvested when the surrounding plantation was established.
20	42220 - Natural Jack Pine	High Density Pole	6.4	47		Jack pine stand. May have seaonally wet areas
23	6113 - Lowland Maple	High Density Pole	13.1	65		Lowland maple, From the imagery it appears there is white pine in the south part of the stand. The stand was wet with hummocks.
24	4132 - Aspen, Jack Pine	High Density Pole	22.1	59	51-80	Aspen pole timber stand with a substantial component of jack pine. The aspen is ready to be harvested, there is mortality.
25	42220 - Natural Jack Pine	High Density Pole	2.5	63	1-50	A small, mature jack pine stand that was not harvested when the surrounding plantation was established.
26	42120 - Planted Jack Pine	High Density Sapling	80.2	32		Kirtland's warbler jack pine plantation, with sedge, blueberry and lichen growing inthe understory.
27	4199 - Other Mixed Upland Deciduous	High Density Sapling	36.7	25	51-80	Pin oak and red maple stand mostly from stump sprouts, regenerated in 1988. There is some scattered white pine.
29	4122 - Oak, Pine	High Density Log	55.7	102	51-80	Mature pin oak stand that was harvested in 1988. The pin oak is healthy and the core sample showed a growth response. The red maple is mostly from stump sprouts. The red and white pine are reaching into the canopy, the harvest did a good job of releasing them. There is more white pine in the east part of the stand.
30	42120 - Planted Jack Pine	High Density Sapling	144.7	32		Jack pine plantation that is being managed for the Kirtland's warbler. The understory has blueberry, lichen and sedge.
31	42120 - Planted Jack Pine	High Density Sapling	17.2	32		Jack pine plantation that is being managed for the Kirtland's warbler.
32	42120 - Planted Jack Pine	High Density Sapling	96.0	32		Jack pine plantation that is being managed for the Kirtland's warbler.

S	Roscommon Mgt. Unit S			Report 8	<ul><li>Forested</li></ul>	Stands Compartment: 178 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
33	6122 - Black Spruce	Low Density Pole	12.4	48		Lowland spruce and fir with alder sub canopy.
34	42220 - Natural Jack Pine	Medium Density Log	11.2	61	51-80	Small jack pine stand with a hunting camp. There is a pocket of white pine to the east, tha canopy is less dense to the west.  High water table.
35	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density Pole	3.7	36	1-50	Small jack pine stand with openings that are filling in with cherry. Cherry is scattered throughout the stand. There is a small ammoubt of red maple.
36	42120 - Planted Jack Pine	Medium Density Pole	15.1	36	1-50	Two-aged jack pine stand that appears to have once been a fire break but is now overgrown.
37	42220 - Natural Jack Pine	High Density Pole	4.3	45	81-110	Small natural, pole sized jack pine stand with a small ammount of balsam fir and red pine. There is some white pine and blueberry in the understory.
38	4110 - Sugar Maple Association	Low Density Sapling	177.9	3		Jack pine plantation that is being managed for the Kirtland's warbler. Cherry is scattered throughout the stand and is dense in places, sparse in others. There are a few super canopy red pine.
39	42220 - Natural Jack Pine	High Density Pole	4.2	57	51-80	This is a small jack pine stand that was not harvested when the surrounding plantation was established. This stand was intended to be retention and to mimic a vortice that is created during a wildfire.
40	42330 - Upland Fir	High Density Pole	11.6	49	81-110	Balsam fir stand that may be seasonally wet in some places. There is large super canopy red and white pine in the west part of the stand.
41	6129 - Mixed Coniferous Lowland Forest	Medium Density Pole	21.9	117		Lowland mixed stand, mostly cedar with some spruce, fir and white pine, There is standing water and alder in scattered pockets. The age estimate was made from a cedar core taken from a stand to the south.
42	42100 - Planted White Pine	High Density Log	11.4	107	111-140	Multi part mature white pine stand with red pine, oak and red maple. The red maple is mostly in the south of the stand near the road. Good pine sight, likely because of the high water table. There is a dense balsam fir understory and a small ammount of birch scattered throughout.
43	6122 - Black Spruce	High Density Pole	3.6	64		Small lowland spruce and white pine, there is standing water at the time of the inventory. The red pine in the stand seems to be of the same age class as the red pine in the stand south of the road.
44	4110 - Sugar Maple Association	Low Density Sapling	53.8	2		Newly established jack pine plantation. The stand was clearcut, chipped, trenched and planted. There is a considerable ammount of black cherry which is currently the canopy species and the jack pine is considered sub-canopy.

s t	Roscommor	n Mgt. Unit		Report 8	– Forested	Stands Compartment: 178 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
45	4191 - Mixed Upland Deciduous with Conifer	High Density Pole	45.4	107	81-110	This is a dry upland stand. Jack pine is the dominant species, but there is a mix of many others that vary in density and distribution. The stand is mostly two-aged, there is a cohort of large pin oak that is beginning to senesce and a cohort of everything else. The quaking aspen is in scattered pockets mostly in the north and east. There is red pine and white pine unevenly distributed in the sub-canopy. The balsam fir is mostly in the south part of the stand. This is a difficult stand to age and type due to the variability of the canopy classes and species mix. There is an old plow line that runs through the stand.
46	42220 - Natural Jack Pine	High Density Pole	51.5	60	111-140	Jack pine pole sized stand with some logs. The sub-canopy is mostly blck cherry and white pine. There is some aspen scattered in small pockets throughout the stand. There is a small ammount of pin oak.
47	42220 - Natural Jack Pine	High Density Pole	9.1	44	51-80	Pole size jack pine with white pine, fir and some There is a small ammount of white oak and red pine.
48	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	66.6	49	81-110	Jack pine stand with some pin oak. The pin oak is scattered in pockets and also individually. The jack pine is mostly of one cohort but some are super canopy. There are small ope areas throughout the stand.
49	6128 - Lowland Coniferous, Mixed Deciduous	High Density Log	31.5	129	81-110	Lowland mixed conifer and deciduous, the stand is quite wet in the center where the concentration of cedar is highest The cedar is healthy and grwoing well it is relativesly large. The edages of the stand are more upland with a concentration of balsam fir and red maple. The sub canopy is mostly balsam fir that is reaching the canopy in places. There is a trace ammount of super canopy red pine and some white and black oak along the east edge near the road.
51	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density Pole	21.3	48	1-50	Jack pine stand with low stocking. Black cherry saplings are abundant. There is a small ammount of white oak, red maple and balsam fir. Red pine grows excellent on this sight.
53	4310 - Pine, Oak Mix	High Density Log	6.9	117		Long narrow stand less than a half chian wide that acts as a buffer strip. It is mixed pine and oak. This is a likely representation of what the stand to the south was like.

4130 - Aspen

4191 - Mixed Upland

Deciduous with Conifer

54

55

High Density

Pole

High Density

Log

4.5

13.1

78

68

51-80

111-140

Mature quaking aspen stand with some mortality. There are

quaking aspen saplings in the understory especially in the more open areas. There is a very small ammount of pin oak.

Log size red pine, pole size quaking aspen and red maple make up the majority of this stand. There is a high water table and the pine is growing very well.

S t a n d	Roscommon Mgt. Unit			Report 8 – Forested Stands			Compartment: 178 Year of Entry: 2015	DNR DNR
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	MICHIGAN
56	42250 - Pine, Oak	Medium Density Log	57.2	64		Harvested in 2007, this stand is mostly two-aged. Mature red pine and white oak were left. The sub canopy makes up the rest of the stand. There is a pole/sapling class of white pine at low density throughout the stand. The stand is regenerating naturally jack pine and red pine sedlings and saplings are becoming established. There are some areas especially the west side of the road were the stocking is low, these areas add good diversity to the stand and create small wildlife openings. Aspen is well stocked to the east side of the road. Cherry is established throughout the stand. The red pine is growing vigorously due to the high water table. There is a small pond in the NE part of the stand.		
57	4122 - Oak, Pine	High Density Log	9.3	107	81-110	Mature, healthy pin oak stand withe small ammounts of red maple and white oak.		
58	4130 - Aspen	High Density Pole	40.1	38	51-80	Quaking aspen mixed with pin oak, there is some super canopy red pine. The sub canopy is black cherry white pine and a small ammount of red maple and jack pine.		

# Report 9 - Nonforested Stands

Compartment: 178 Year of Entry: 2015



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
13	3102 - Grass	7.2	No	Unspecified	
21	629 - Mixed non-forested wetland	15.9	No	Unspecified	
22	629 - Mixed non-forested wetland	37.2	No	Unspecified	
28	629 - Mixed non-forested wetland	44.3	No	Unspecified	Beaver flooding
50	11 - Low Intensity Urban	7.3	No	Unspecified	
52	11 - Low Intensity Urban	7.3	No	Unspecified	Power Line ROW, grass.