



Roscommon Forest Management Unit Compartment Review Presentation

Compartment #151

Entry Year: 2012

Compartment Acreage: 1293

County: Roscommon

Revision Date: 7/12/2010

Stand Examiner: J. Hartman

Legal Description: T21N R4W sections 8 and 17

Management Area: Upper Muskegon

Management Goals: Follow normal procedures for prescriptions during this year of entry while acknowledging that the compartment is within a proposed matrix level Biodiversity Stewardship Area (BSA) that may affect the long-term management goals.

Soil and Topography: The compartment is part of a large outwash plain where the site quality is primarily driven by the depth to the water table. The PArVHa habitat type is prevalent throughout the upland portions of the compartment.

Ownership Patterns, Development, and Land Use in and Around the Compartment: It is solid state land within and surrounding the compartment.

Unique, Natural Features: Wood turtles have been documented. Great blue heron, bald eagle, osprey, and massasauga have been documented in the vicinity. There is potential for ramshead orchid, calypso orchid, and limestone oak fern in the swamps.

Archeological, Historical, and Cultural Features: None identified.

Special Management Designations or Considerations: Some lowland hardwood and non-forested wetland stands were included in the proposed old growth from the 2000 plan. These stands were not carried forward during this year of entry. However, a small stand of old-growth white pine/hemlock was found and tagged as "unique site" for tracking purposes. Most of the compartment, excluding northwest of Paddle Trail was also nominated as part of a Biodiversity Stewardship Area (BSA) through a separate process.

Watershed and Fisheries Considerations: The wetlands within this compartment feed Wolf Creek which flows through the southeast portion of the compartment. Wolf Creek flows into the Muskegon River directly to the west.

Wildlife Habitat Considerations: There is a maintained opening complex in the northwest corner of the compartment. The mix of upland and lowland areas provide habitat for an array of wildlife species.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations. The Saginaw is quarried for clay in the State. There are no nearby gravel pits in the area. The nearest gravel pit is located

three miles to the south. Gravel potential is thought to be limited. Headquarters Field lies four miles to the southeast. 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. All of the State land is currently leased for oil and gas development.

Vehicle Access: The Canoe Camps Road overpass is the primary access to the area. Other ways could be from Falmouth Road via Jeffs Road in Missaukee County or from Barney Lake Road via the Snowbowl Road exit. Various forest road two-tracks and recreational trails provide additional access.

Survey Needs: None necessary.

Recreational Facilities and Opportunities: A snowmobile trail runs along a county road in the southern part of the compartment and an ORV trail crosses through the very southeastern corner.

Fire Protection: The best water point would be where at the bridge crossing Wolf Creek. Most pine plantations have been thinned to the point that sustained crown fire isn't probable. Several wetland complexes would also limit large fire growth, but may hinder mop up efforts in dry summers.

➤ **The following reports from the Inventory are attached:**

- ◆ **Total Acres by Cover Type and Age Class**
- ◆ **Proposed Treatment Summary**
- ◆ **Proposed Treatments – No Limiting Factors**
- ◆ **Proposed Treatments – With Limiting Factors**
- ◆ **Stand Details (Forested and Nonforested)**
- ◆ **Dedicated and Proposed Special Conservation Areas**

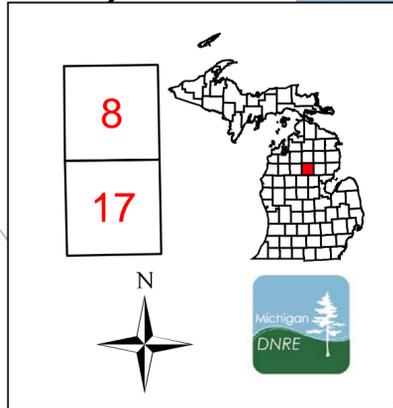
➤ **The following information is displayed, where pertinent, on the attached compartment maps:**

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

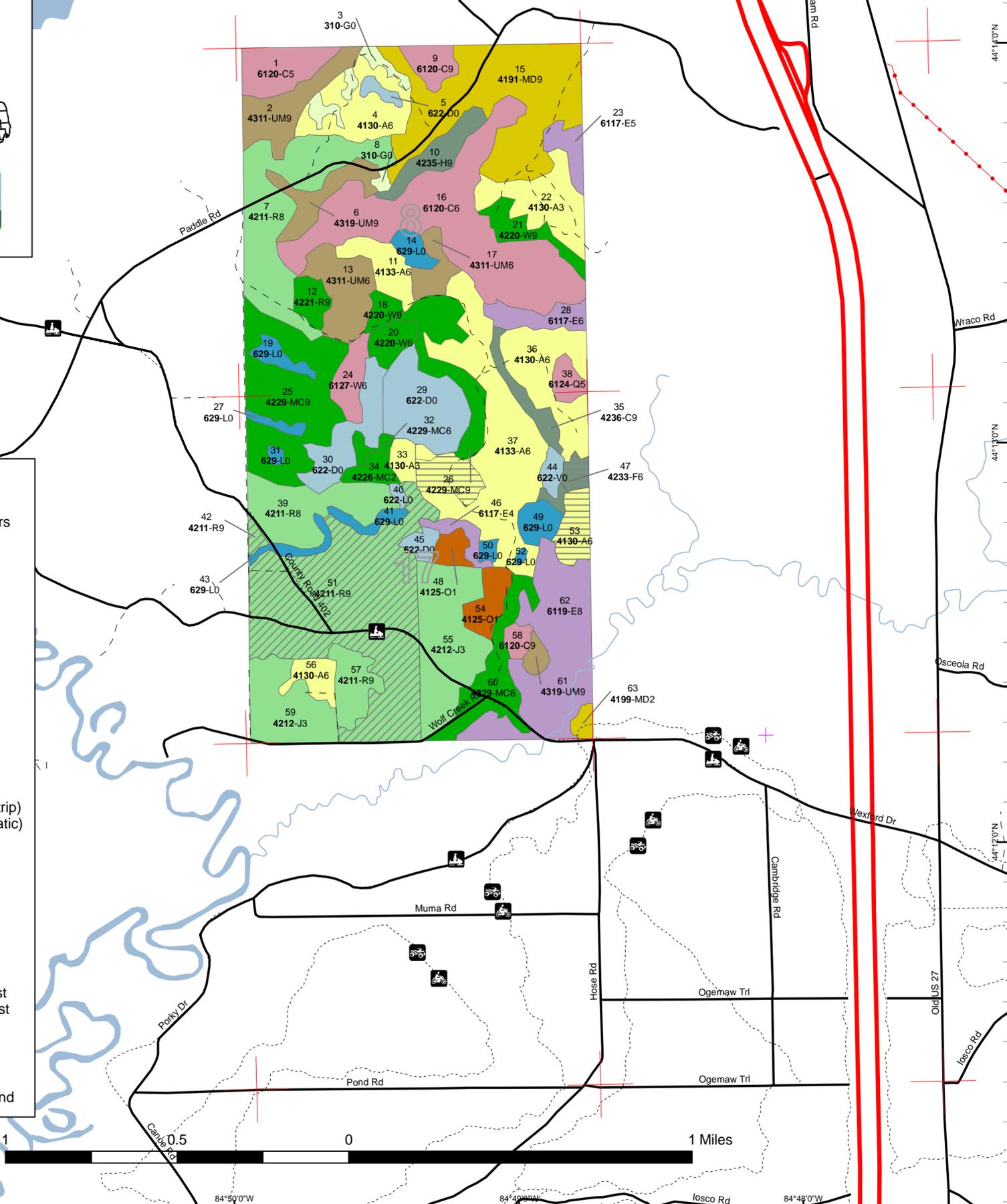
Cover Type & Treatment Map

Compartment 151
 T21N, R04W, Sec. 08, 17
 County: Roscommon
 Unit: Roscommon
 YOY: 2012
 Acres: 1,275 GIS Calculated
 Stand Examiner: Jason Hartman
 Map Revised: 08/27/2010
 Map Phase: Pre-Review

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



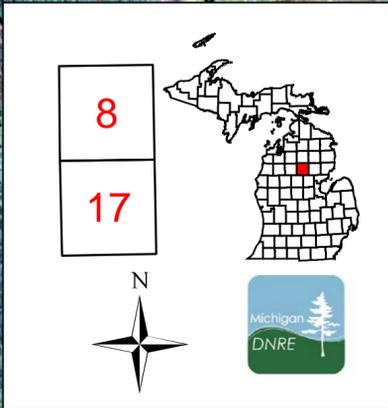
- Legend**
- Miris Corners
 - Remonumented Section Corners
 - Cable
 - Pipe
 - Power
 - Highway
 - Paved Roads
 - Poor Dirt Roads
 - Trails
 - US Highway
 - ORV Trails
 - Motorcycle Trails
 - Snowmobile Trails
 - Intermittent Stream/Drain
 - Stream
 - Lakes and Rivers
- Treatments**
- Clearcut (w/Reserves, Patch/Strip)
 - Thinning (Crown, Low, Systematic)
- Forest Stands**
- Level 3
- 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
 - 422 - Natural Pines
 - 423 - Other Upland Conifers
 - 431 - Upland Mixed Forest
 - 611 - Lowland Deciduous Forest
 - 612 - Lowland Coniferous Forest
- Non-Forest Stands**
- Level 3
- 310 - Herbaceous Openland
 - 622 - Lowland Shrub
 - 629 - Mixed non-forested wetland



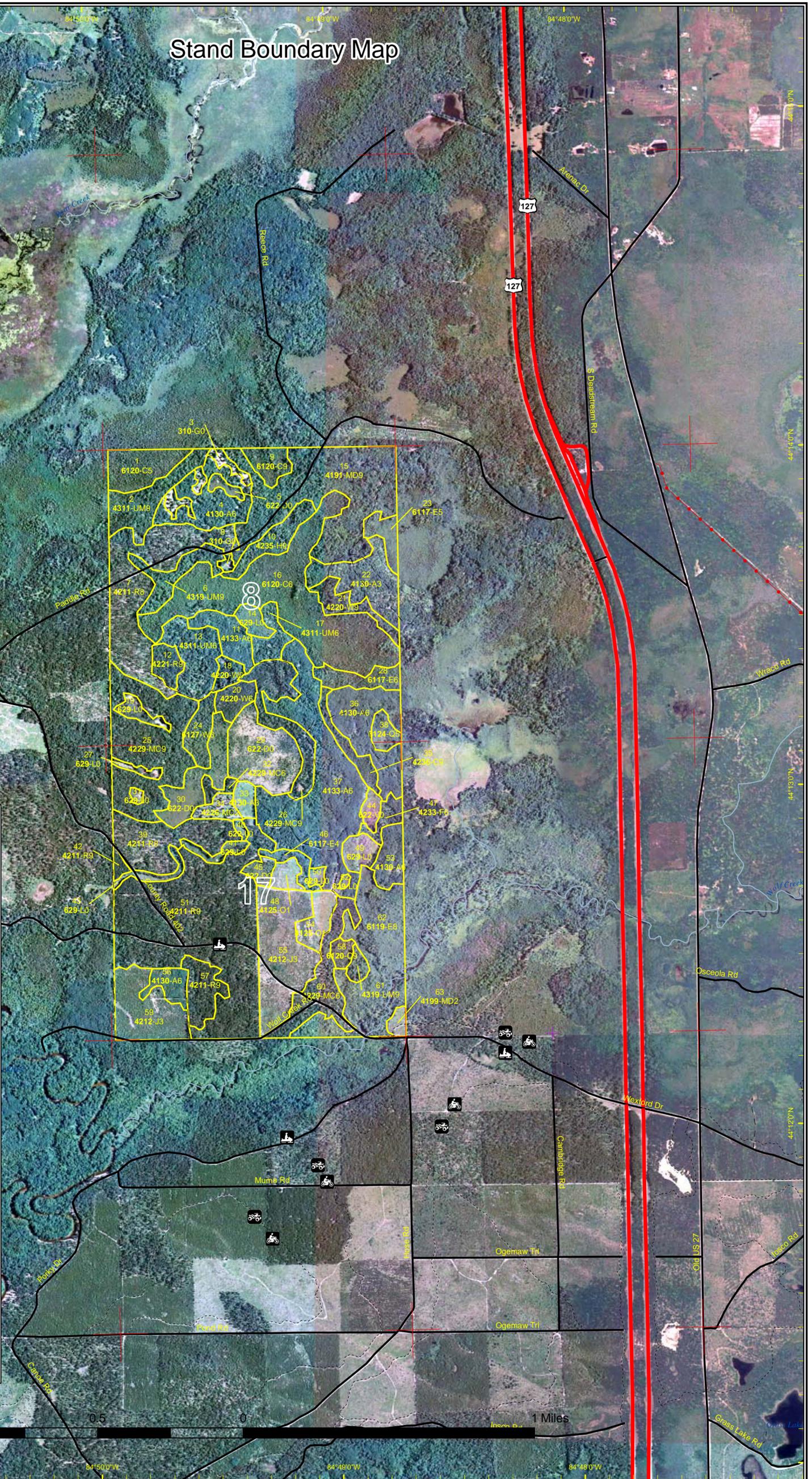
Stand Boundary Map

Compartment 151
 T21N, R04W, Sec. 08, 17
 County: Roscommon
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Stocking Density
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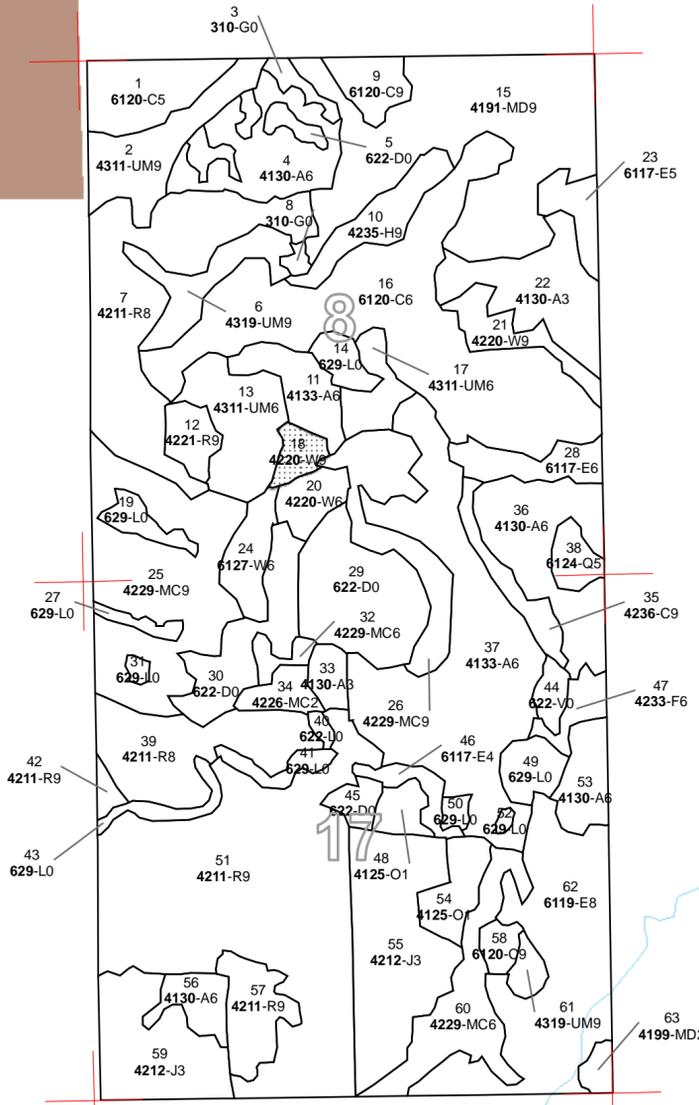
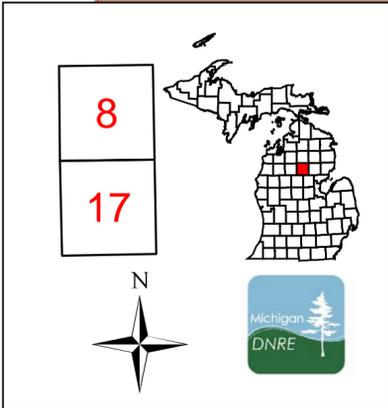
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Dedicated & Proposed Special Conservation Area Map

Compartment 151
 T21N, R04W, Sec. 08, 17
 County: Roscommon
 Unit: Roscommon
 YOE: 2012
 Acres: 1,275 GIS Calculated
 Stand Examiner: Jason Hartman
 Map Revised: 08/27/2010
 Map Phase: Pre-Review

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



- Legend**
- Miris Corners
 - ⊕ Remonumented Section Corners
 - Stand Boundaries
 - Proposed Special Conservation Areas**
 - ▨ SCA - Special Conservation Area
 - ▩ SCA Removal
 - Dedicated Special Conservation Areas**
 - Cold Water Streams
 - Wildlife Management Areas
 - Forest Stands**
 - Level 3**
 - 412 - Oak Types
 - 413 - Aspen Types
 - 419 - Mixed Upland Deciduous
 - 421 - Planted Pines
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84°51'0"W 84°50'0"W 84°49'0"W 84°48'0"W

44°15'0"N

44°13'0"N

44°13'0"N

44°12'0"N

44°15'0"N

44°14'0"N

44°13'0"N

44°12'0"N

Table 1 – Total Acres by Cover Type and Age Class

Data updated before 10:00 AM



	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	0	5	37	14	27	134	0	0	0	0	0	0	0	0	0	217
Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Cedar	0	0	0	0	0	0	0	0	0	0	0	9	137	0	146	
Hemlock	0	0	0	0	0	0	0	0	0	0	0	0	14	0	14	
Herbaceous Openland	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
Jack Pine	0	0	78	0	0	0	0	0	0	0	0	0	0	0	78	
Lowland Conifers	0	0	0	0	0	11	0	0	0	6	0	0	0	0	17	
Lowland Deciduous	0	0	0	0	0	12	0	0	0	74	0	0	0	6	92	
Lowland Shrub	38	0	0	0	0	0	0	0	0	0	0	0	0	0	38	
Mixed Upland Deciduous	0	0	3	0	0	0	0	0	0	0	0	0	86	0	90	
Natural Mixed Pines	0	6	0	0	0	56	0	0	62	0	0	0	0	0	124	
Oak	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17	
Red Pine	0	0	0	0	0	0	0	69	187	0	0	0	0	0	256	
Treed Bog	64	0	0	0	0	0	0	0	0	0	0	0	0	0	64	
Upland Mixed Forest	0	0	0	24	0	0	25	0	23	0	0	0	4	0	76	
Upland Spruce/Fir	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6	
White Pine	0	0	0	0	0	0	8	0	0	0	0	0	17	0	25	
Total	117	28	119	38	27	219	34	0	91	249	80	0	9	258	6	1275



Table 2 – Proposed Treatment Summaries

Data updated before 10:00 AM

Roscommon Mgt. Unit
Year of Entry 2012

Compartment 151
Total Compartment Acres: 1275

Acres by Treatment Type

Commercial Harvest - 165	Site Prep - 0	Tree Planting - 0	Prescribed Burn - 0	Other - 0
Habitat Cut - 0	Opening Maintenance - 0	Tree Seeding - 0	Pesticide - 0	

Cover Type by Harvest Method

	Clearcut	Selection	Seed Tree	Shelterwood	Thinning	Other - Specify	Total Acres
Aspen	24	0	0	0	0	0	24
Red Pine	0	0	0	0	136	0	136
Upland Spruce/Fir	4	0	0	0	0	0	4
Total	29	0	0	0	136	0	165



Data updated before 10:00 AM

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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
37 71151037_sm all-Cut	12.8	4133 - Aspen, Mixed Pine	High Density Pole	46	Harvest	Clearcut with Reserves	Aspen, Mixed Pine	Cmpt. Review Proposal

Prescription: Clear-cut w/ reserves. Mark scattered mast trees and large pines to leave. Leave all conifer less than 4" dbh. Cover type objective of aspen/mixed pine

Other Comments: Leave turnaround at the southwest corner of the stand and close off the old two tracks bordering and through the young aspen stand to the west. Fix a hole in the road along the east edge as well as another hole about 1/4 mile to the north along the same road.

Next Steps:

42 71151042-Cut	2.4	42110 - Planted Red Pine	High Density Log	89	Harvest	Crown Thinning	Natural Mixed Pine	Cmpt. Review Proposal
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Prescription: Red pine and white pine planted among some old red pine monarchs. Thin to 90-110 sq/ft. Sa

Specs:

Other Comments:

Next Steps:

47 71151047-Cut	4.4	42330 - Upland Fir	High Density Pole	46	Harvest	Clearcut with Reserves	Aspen, Spruce/Fir	Cmpt. Review Proposal
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Prescription: Clear-cut with reserves in order to sustain aspen component in this stand.

Specs:

Other Comments: Leave arm along the beaver dam out of the sale. Close off the road coming into it from the west before it reaches the drainage at the end and leaving a small parking space for trapper. Access for the sale will be from the north instead.

Next Steps:

51 71151051-Cut	133.8	42110 - Planted Red Pine	High Density Log	89	Harvest	Crown Thinning	Natural Red Pine, Mixed Deciduous	Cmpt. Review Proposal
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Prescription: Thin to 90-110 ft. Favor white pine where present. Also protect understory jack pine, oak, white pine, and red pine. Could be a prep contract if needed.

Specs:

Other Comments: Close off old two track in the northeast arm before it crosses that drainage. Don't allow hauling along the snowmobile trail during snowmobile season. Add recreation trail specs to the contract.

Next Steps:

53 71151053-Cut	11.6	4130 - Aspen	High Density Pole	46	Harvest	Clearcut with Reserves	Aspen, Mixed Pine	Cmpt. Review Proposal
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Prescription: Clear-cut with reserves leaving all oak and pine and use islands for aspen retention.

Specs:

Other Comments: Access from the north through stands 36 and 47. Treatment will dip into the compartment to the east some.

Next Steps:

Next Steps:

**Total Treatment
Acreage Proposed: 165.1**



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Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
 Specs:

Other
 Comment:

Next
 Steps:

Limiting Factor and No
 Treatment Reason

**Total Treatment
 Acreage Proposed: 0**

Data updated before 10:00 AM

**Out of YOE -- Treatments
Prescribed with No Limiting Factor**

Year of Entry: 2012



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
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Prescription
Specs:

Other
Comments:

Next
Steps:

**Total Treatment
Acreage Proposed: 0**

Stand	Roscommon Mgt. Unit		5 – Forested Stands			Compartment: 151	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2012	
1	6120 - Lowland Cedar	Medium Density Pole	19.2	125			
2	4311 - Pine, Aspen Mix	High Density Log	22.6	75			Part of the contiguous aspen cut where all pine was left. Some aspen is in the understory and some is in the canopy. There are also some huge white pine supercanopy trees present. There is a small bog in the southwest portion of the stand. Aspen is mostly bigtooth, but quaking is also present.
4	4130 - Aspen	High Density Pole	26.9	30			Poor quality quaking aspen mixed with oak and pine surrounding a managed opening.
6	4319 - Mixed Upland Forest	High Density Log	15.6	55			
7	42110 - Planted Red Pine	Medium Density Log	61.0	74	51-80		Detroit News Plantation that was established and supplemented in 1934, 1936, and 1938. It was originally heavier to white pine, but thinning in 2003 favored red pine. Heavy understory of aspen and red maple with some oak stump sprouts.
9	6120 - Lowland Cedar	High Density Log	9.4	125			Heavy dead and down. Part of a larger stand in the compartment to the north.
10	42350 - Upland Hemlock	High Density Log	14.2	125	171-200		Slightly upland ridge along swamp edge. Supercanopy white pine and hemlock with fire scars over log/pole canopy dominated by hemlock.
11	4133 - Aspen, Mixed Pine	High Density Pole	13.8	29			Hummocky ground with heavy white pine regeneration along the perimeter and scattered within.
12	42210 - Natural Red Pine	High Density Log	7.7	76	111-140		Scattered old natural monarchs. Portions are probably plantation. Very similar to the stand to the south, but quality is better and it has more aspen.
13	4311 - Pine, Aspen Mix	High Density Pole	23.8	29			Two-aged. Scattered white pine and red pine was left within this cut when it was done in the 80's. Has heavier jack pine and oak regen to the south along an old skid trail. Some oak in both cohorts. Scattered rp,wp, and oak is much older than 50 as well.
15	4191 - Mixed Upland Deciduous with Conifer	High Density Log	86.5	125	81-110		Very mixed stand with multiple aged classes in the canopy. Oak is a mix of pin, red, and black. Most of the oak and pine is from the original cohort and some regenerated with the aspen and red maple. Some of the oak and aspen is breaking up, but would wait until white pine poles can be thinned.
16	6120 - Lowland Cedar	High Density Pole	104.5	125			Looks like everything but cedar may have been cut in portions of this stand during the 60's
17	4311 - Pine, Aspen Mix	High Density Pole	9.7	55			Part of the large aspen stand, but had enough white pine component to call it a separate stand.
18	42200 - Natural White Pine	High Density Log	5.4	150	171-200		Old growth pine stand. Wasn't able to get a good age. Likely 150+



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Roscommon Mgt. Unit

5 – Forested Stands

Compartment: 151
Year of Entry: 2012

Data updated before 10:00 AM

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
20	42200 - Natural White Pine	High Density Pole	8.4	55	141-170	Excellent quality white pine poles likely seeded in from the stand to the north. High BA becoming stagnant.
21	42200 - Natural White Pine	High Density Log	11.2	125	141-170	Excellent quality natural white pine and red pine along swamp edge. Thinned in 1994. Understory is mixed with white pine and red maple stump sprouts.
22	4130 - Aspen	High Density Sapling	28.3	16		
23	6117 - Lowland Deciduous, Mixed Coniferous	Medium Density Pole	8.2	90		
24	6127 - Lowland Pine	High Density Pole	11.1	48		Two-aged. High water table hummocky mix of poles, saps, and logs. Transitions into tree bog to east.
25	42290 - Natural Mixed Pine	High Density Log	61.6	83	111-140	Multiple ages in the canopy. Old fire scarred monarchs 125yrs, Log red pine, white pine, and some jack pine 83 yrs, Log jack pine 65 yrs, and pole white pine and jack pine 40 yrs. There is an old plow line on the ridge around the bog. There are big canopy gaps in some places with white pine poles coming in. Terrain is rolling and hillier on the south side flattening out more to the north. Wetland inclusions are surrounded by jack pine pole timber. Tall huckleberry ground cover.
26	42290 - Natural Mixed Pine	High Density Log	25.1	46		Jack pine poles mixed with original monarch red pine, some small log red pine, and poles. RP age is on small logs (90 yrs). Monarchs are about 125 yrs. Some small wetland inclusions on the south edge. Jack pine is doing fine.
28	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	11.7	46		Two aged stand. Aspen cutting in the surrounding area likely spread down in to this stand. It has a nice component of birch and ash regeneration mixed with log trees that were left.
32	42290 - Natural Mixed Pine	High Density Pole	3.6	48	81-110	Two-aged, but dominant size class is poles. More red pine logs in the east arm. Tiny stand on an upland ridge along bog.
33	4130 - Aspen	High Density Sapling	5.3	6		
34	42260 - Natural Pine, Mixed Deciduous	Medium Density	6.4	6		Sapling stand with heavy supercanopy of red pine and white pine.
35	42360 - Upland Cedar	High Density Log	9.3	112		Thin corridor of upland cedar mixed with white pine. In somewhat of a drain, but likely rare that water is ever on the surface. Huge white pine on the edges. Birch is mostly dead.
36	4130 - Aspen	High Density Pole	33.7	46		Mix of QA, BTA, and balsam. This stand provides access to more aspen to the southeast.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
37	4133 - Aspen, Mixed Pine	High Density Pole	88.6	46		Quaking aspen mixed with white pine in some spots and bigtooth aspen mixed with balsam and red maple in others. Also has some areas that are jack pine and oak mixtures with some nice quality pole sized oak. There is a piece of bigtooth aspen on a hill in the sw arm that is stagnant and declining in spots.
38	6124 - Lowland Spruce-Fir	Medium Density Pole	6.2	90		
39	42110 - Planted Red Pine	Medium Density Log	34.5	89	81-110	Recently thinned. Fairly open grown and branchy. Oak stump sprout regen mixed with a little jack pine regen. Higher BA to the east.
42	42110 - Planted Red Pine	High Density Log	3.9	89	141-170	Planted among natural red pine monarchs.
46	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	5.9	Uneven Age		Skinny lowland stand with broken canopy.
47	42330 - Upland Fir	High Density Pole	6.5	46		Skinny piece to the west is a beaver dam. Heavy fir mixed with aspen.
48	4125 - Black, N. Pin Oak	Low Density Sapling	5.8	7		Typed as a J8 before harvest. Probably some of the jack pine that was planted in the 20's. Clearcut in 2002 with Block 1073. Mostly oak stump sprouts.
51	42110 - Planted Red Pine	High Density Log	133.8	89	111-140	Planted to red pine and jack pine in 1921 among scattered red pine monarchs. Jack pine and oak was spec cut in 1992. Highly variable BA due to spec cutting and not marking. Overall BA swings 120,160,150,90,150,210,150.
53	4130 - Aspen	High Density Pole	11.6	46		Aspen has alot of hypoxalon and poor form. Heavy current and historical beaver activity. Difficult access across beaver dam, but you could also get in from the north. Stand extends into the compartment to east with the only access from this side.
54	4125 - Black, N. Pin Oak	Low Density Sapling	10.8	6		Harvested in 2003 and then burned in the Canoe Camps Fire in 2004. Barely meets standard for a forested stand. Look at again in the summer
55	42120 - Planted Jack Pine	High Density Sapling	47.7	17		
56	4130 - Aspen	High Density Pole	8.8	19		Jack pine planted through regenerating aspen
57	42110 - Planted Red Pine	High Density Log	15.1	89	111-140	Part of the larger surrounding red pine that was planted in 1921. The understory in this piece burned in a light summer wildfire in 2009 that functioned like a prescribed fire. Not all understory was topkilled, but good proportion was.
58	6120 - Lowland Cedar	High Density Log	4.2	120		

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Roscommon Mgt. Unit

5 – Forested Stands

Compartment: 151
Year of Entry: 2012

Data updated before 10:00 AM

	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
59	42121 - Planted Jack Pine, Mixed Deciduous	High Density Sapling	30.4	17		Linear marsh included. Aspen and cherry mixed in along the south line.
60	42290 - Natural Mixed Pine	High Density Pole	27.2	45	51-80	Multiple ages, but mostly poletimber. Has some big 100+ year old red pine and white pine, a 70 year old class small log red pine, and a 45 year old class of mostly white pine poles. Long skinny stand with roads all through it. Portions of the understory burned in the Canoe Camps Fire in 2004. The jack pine is falling apart in a couple of spots.
61	4319 - Mixed Upland Forest	High Density Log	3.9	120	51-80	Huge fire scarred white pine on an upland knoll surrounded by swamp. Thick white pine understory.
62	6119 - Mixed Lowland Deciduous Forest	Medium Density Log	65.9	94		
63	4199 - Other Mixed Upland Deciduous	Medium Density	3.4	17		



Stand	Cover Type	Acres	Gen Cmts:
3	3105 - Mixed Upland Herbaceous	8.4	
5	6224 - Treed Bog	3.1	
8	3105 - Mixed Upland Herbaceous	1.6	Old oil well site.
14	629 - Mixed non-forested wetland	5.7	
19	629 - Mixed non-forested wetland	5.5	
27	629 - Mixed non-forested wetland	3.1	
29	6224 - Treed Bog	34.1	Mixed leatherleaf, alder, cattail, etc. with scattered white pine and jack pine in clumps.
30	6224 - Treed Bog	22.1	
31	629 - Mixed non-forested wetland	1.3	
40	6229 - Mixed lowland shrub	1.4	Mixed alder and cattail
41	629 - Mixed non-forested wetland	5.0	
43	629 - Mixed non-forested wetland	5.3	
44	6225 - Bog	4.4	
45	6224 - Treed Bog	4.7	
49	629 - Mixed non-forested wetland	8.1	
50	629 - Mixed non-forested wetland	2.1	
52	629 - Mixed non-forested wetland	0.8	

**7 – 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.

Data updated before 10:00 AM

Stand	SCA Type	SCA Name	Acres	Comments
18	Unique Site - SCA	71151018	5.4	



8 – 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.

Data updated before 10:00 AM

ERA = Ecological Reference Area
HCVA = High Conservation Value Area
SCA = Special Conservation Area

Conservation Area	Type	Description
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	Habitat Area	An area that provide some specific need for the life cycle of wildlife species, including State Wildlife Areas and Waterfowl Production Areas, deer wintering complexes in lowland conifer communities, grassland openings and savannas. Habitat areas are distinct from critical habitat designated for recovery of endangered or threatened species (such as Kirtland's warbler or piping plover areas) in that they are more general in nature, are not primarily associated with threatened or endangered species, and are not covered by species recovery plans that are developed in cooperation with Federal agencies.