



**ROSCOMMON FOREST MANAGEMENT UNIT
COMPARTMENT REVIEW PRESENTATION**

COMPARTMENT # 111 ENTRY YEAR: 2013

Compartment Acreage: 1640 County: Roscommon

Revision Date: 06-29-2011

Stand Examiner: Ben Wiese

Legal Description: T22N R04W sections 19, 20, 21, 27, 29, and 30

Management Area: Houghton Lake Wetlands

Management Goals: Provide for sustainable ecosystem based management. Maintain healthy and diverse forested stands for wildlife, recreation and the production of forest products. Timber harvests to thin overstocked stands to increase growth of residual trees, and also to regenerate aspen, sugar maple, red oak, and ash.

Soil and Topography: Surface soils include glacial outwash sand and gravel and postglacial alluvium peat and muck. Soils include Tawas-Leafriver mucks, Tawas-Lupton mucks, Deford Muck, Dawson-Loxley peat, Rubicon sand, Graycalm sand, Morganlake sand, and Crosswell sand. Topography ranges from rolling upland hills to flat wetlands and bogs.

Ownership Patterns, Development, and Land Use in and Around the Compartment: The compartment is broken into several areas; adjacent ownership is a mix of private and state. Many small private parcels surround Barney Lake which lies within the central part of the compartment.

Unique, Natural Features: Historical bald eagle nest.

Archeological, Historical, and Cultural Features: None noted.

Special Management Designations or Considerations: None noted

Watershed and Fisheries Considerations: None noted.

Wildlife Habitat Considerations: Deer, grouse, turkey, bear, birds.

Mineral Resource and Development Concerns and/or Restrictions: Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and peat and muck. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are Jurassic Ionia Formation and Pennsylvanian Grand River and Saginaw Formations. The Saginaw is quarried for clay elsewhere in the State. Gravel pits are located in Sections 29 and 30 and potential is thought to be good in Sections 29 and 30. Nellsville Field is

located one-half mile to the north. The field has produced over 75,000 BO from the Devonian Dundee and Richfield Formations. Most of the State land is currently leased for oil and gas development.

Vehicle Access: There is good access in the southwest of the compartment. Access is limited for the rest due to lowland and private ownership.

Survey Needs: None at this time

Recreational Facilities and Opportunities: Opportunities include hunting.

Fire Protection: Cover types include wetlands, lowland hardwood, and cedar, upland oak and aspen.

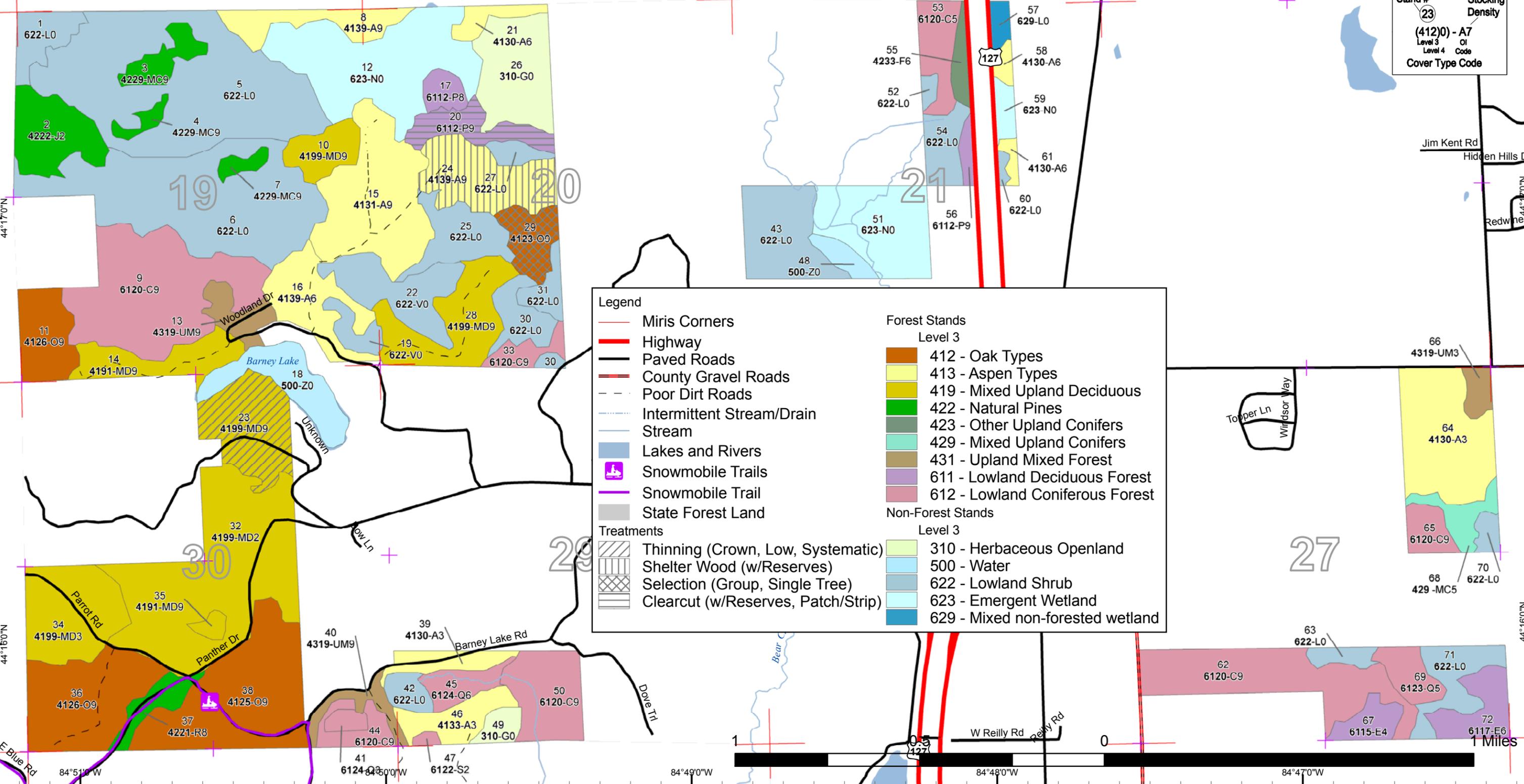
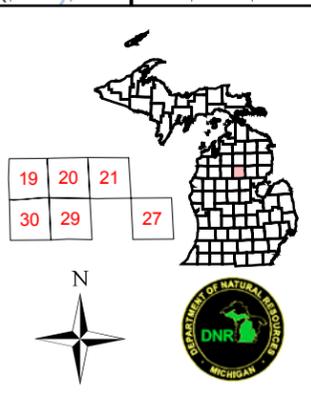
Additional Compartment Information:

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

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

Cover Type & Treatment Map

Compartment 111
 T22N, R04W, Sec. 19-21, 27, 29-30
 County: Roscommon
 Unit: Roscommon
 YOE: 2013
 Acres: 1,645 GIS Calculated
 Stand Examiner: Ben Wiese
 Map Revised: 8/15/2011
 Map Phase: Pre-Review



Legend

- Miris Corners
- Highway
- Paved Roads
- County Gravel Roads
- Poor Dirt Roads
- Intermittent Stream/Drain
- Stream
- Lakes and Rivers
- Snowmobile Trails
- Snowmobile Trail
- State Forest Land

Forest Stands

Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland

Treatments

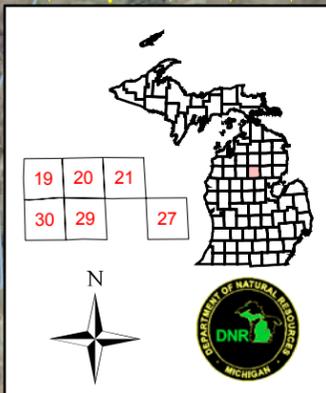
- Thinning (Crown, Low, Systematic)
- Shelter Wood (w/Reserves)
- Selection (Group, Single Tree)
- Clearcut (w/Reserves, Patch/Strip)

Stand #
 (23)
 (4120) - A7
 Level 3
 Level 4
 Code
 Cover Type Code

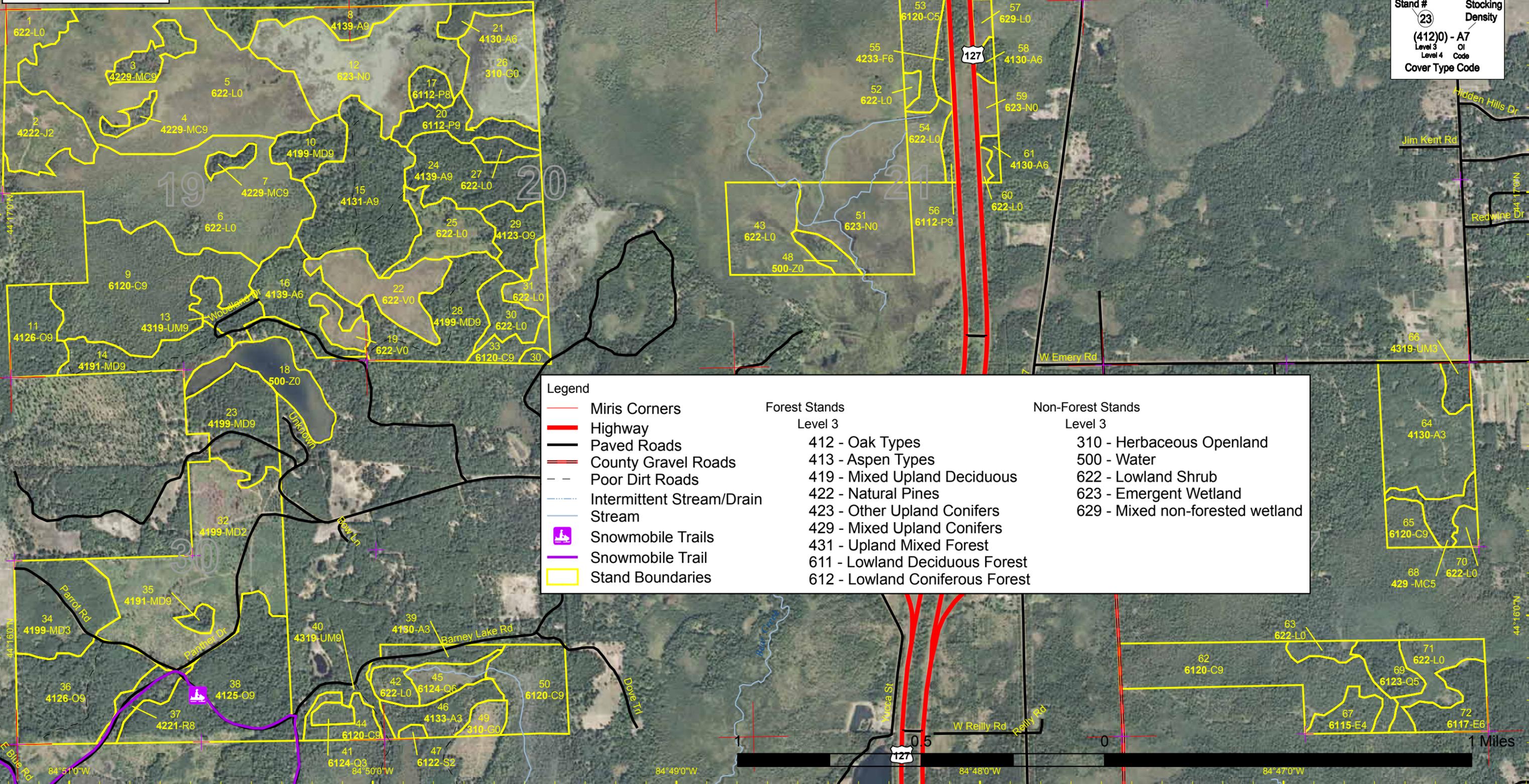


Stand Boundary Map

Compartment 111
 T22N, R04W, Sec. 19-21, 27, 29-30
 County: Roscommon
 Unit: Roscommon
 YOE: 2013
 Acres: 1,645 GIS Calculated
 Stand Examiner: Ben Wiese
 Map Revised: 8/15/2011
 Map Phase: Pre-Review



Stand #
 (23)
 (4120) - A7
 Level 3
 Level 4
 Code
 Cover Type Code

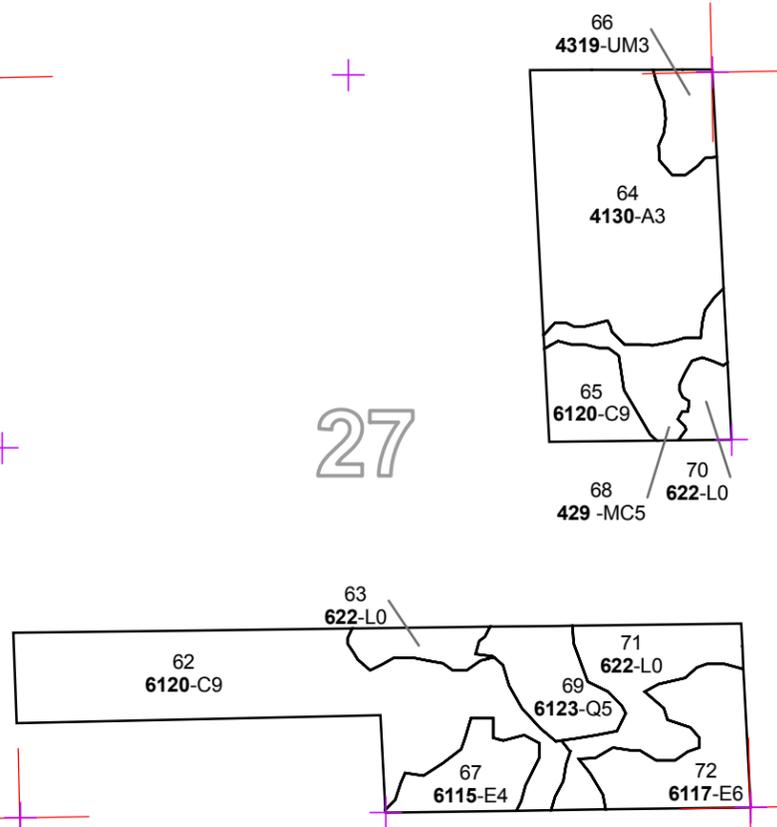
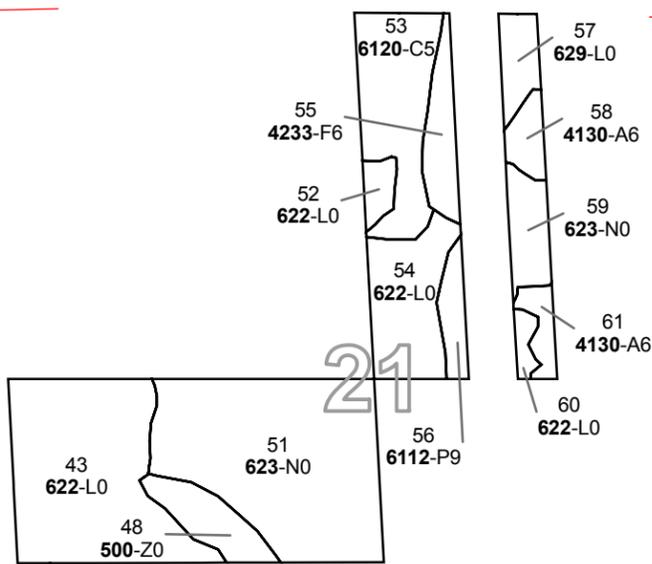
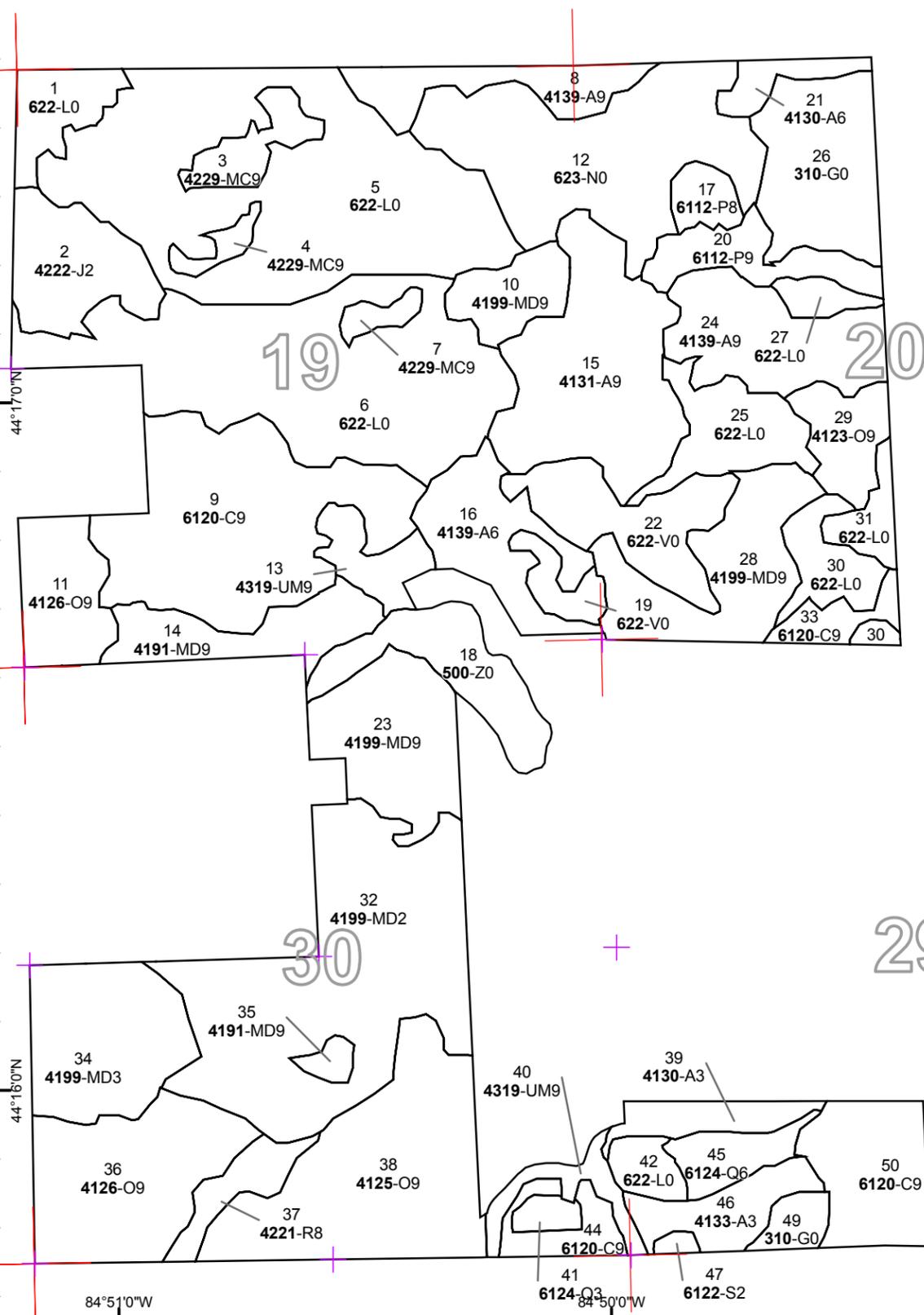


Legend

	Miris Corners	Forest Stands	Non-Forest Stands
	Highway	Level 3	Level 3
	Paved Roads	412 - Oak Types	310 - Herbaceous Openland
	County Gravel Roads	413 - Aspen Types	500 - Water
	Poor Dirt Roads	419 - Mixed Upland Deciduous	622 - Lowland Shrub
	Intermittent Stream/Drain	422 - Natural Pines	623 - Emergent Wetland
	Stream	423 - Other Upland Conifers	629 - Mixed non-forested wetland
	Snowmobile Trails	429 - Mixed Upland Conifers	
	Snowmobile Trail	431 - Upland Mixed Forest	
	Stand Boundaries	611 - Lowland Deciduous Forest	
		612 - Lowland Coniferous Forest	

1 Miles

Dedicated & Proposed Special Conservation Area Map



Legend

- Miris Corners
- + Remonumented Section Corners
- Stand Boundaries

Forest Stands

Level 3

- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 431 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest

Non-Forest Stands

Level 3

- 310 - Herbaceous Openland
- 500 - Water
- 622 - Lowland Shrub
- 623 - Emergent Wetland
- 629 - Mixed non-forested wetland

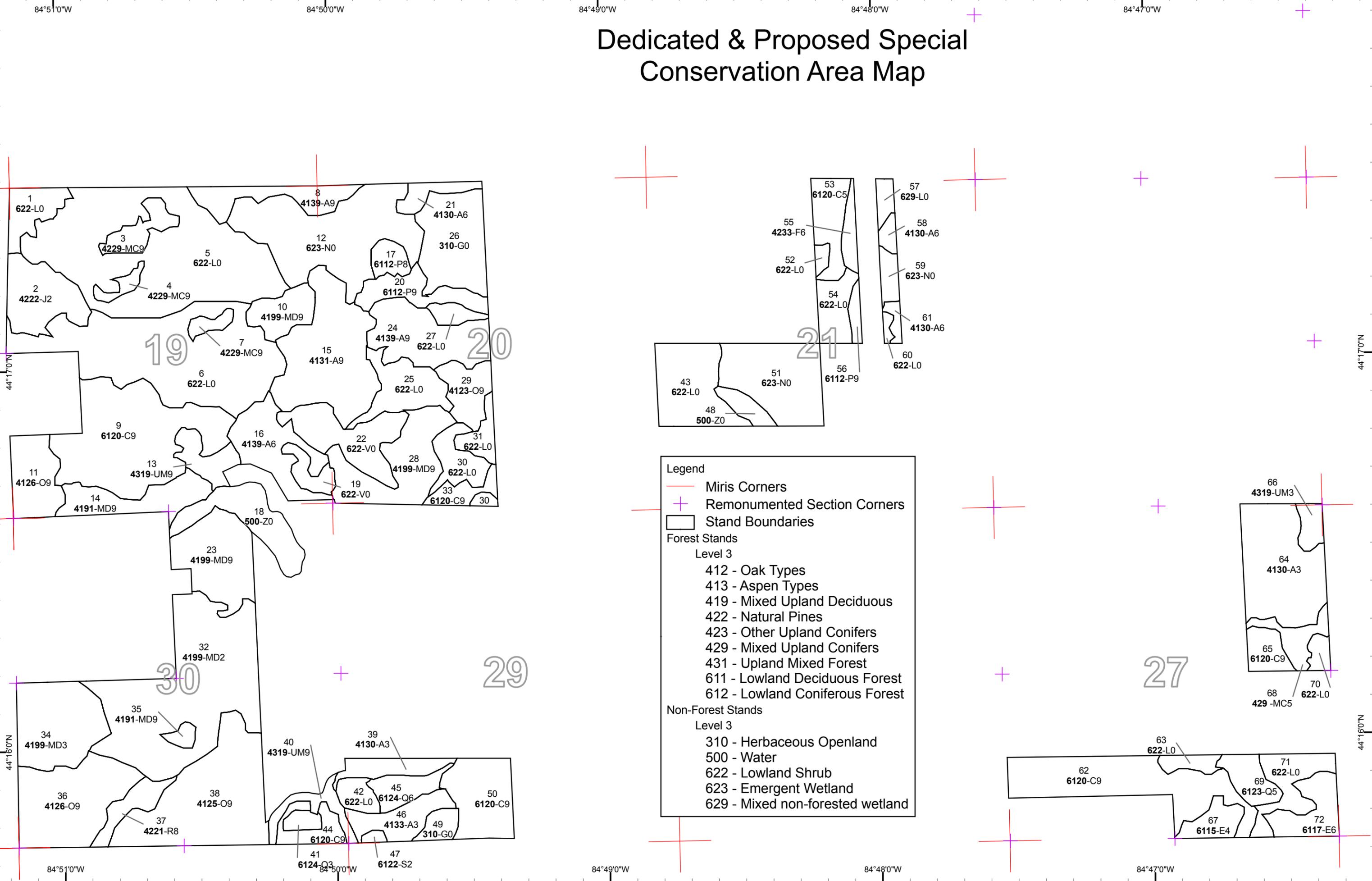


Table 1 – Total Acres by Cover Type and Age Class

Benjamin Wiese : Examiner



	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	0	78	0	60	7	6	47	0	35	0	0	0	0	0	233
Bog	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
Cedar	0	0	0	0	0	0	0	0	0	0	0	0	105	101	0	206
Herbaceous Openland	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
Jack Pine	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	27
Lowland Aspen/Balsam Poplar	0	0	0	0	0	7	4	0	0	17	0	0	0	0	0	27
Lowland Conifers	0	0	0	0	4	23	0	0	0	0	0	0	0	0	0	26
Lowland Deciduous	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	27
Lowland Shrub	380	0	0	0	0	0	0	0	0	0	0	0	0	0	0	380
Lowland Spruce/Fir	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Marsh	117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117
Mixed Upland Deciduous	0	106	40	0	0	0	0	0	37	39	15	23	0	0	0	260
Natural Mixed Pines	0	0	0	0	0	0	0	4	0	0	11	4	0	0	0	19
Oak	0	0	0	0	0	0	0	0	0	0	85	22	0	48	0	155
Red Pine	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10
Upland Conifers	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
Upland Mixed Forest	0	0	6	0	0	21	0	0	0	0	0	0	0	0	0	27
Upland Spruce/Fir	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Water	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
Total	608	106	124	27	64	86	16	61	48	91	111	49	105	149	0	1645



Table 2 – Proposed Treatment Summaries

Roscommon Mgt. Unit
Year of Entry 2013

Compartment 111
Total Compartment Acres: 1645

Acres by Treatment Type

Commercial Harvest - 103	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

	<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	0	0	0	35	0	0	35
Lowland Aspen/Balsam Poplar	17	0	0	0	0	0	17
Mixed Upland Deciduous	0	0	0	0	36	0	36
Oak	0	15	0	0	0	0	15
Total	17	15	0	35	36	0	103



Stand	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
20	71111020-Cut	16.9	6112 - Lowland Aspen	High Density Log	80	Harvest	Clearcut with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal

Prescription: Clearcut with reserves. Leave sugar maple, red oak and some ash and red maple for future seed source. Leave good red maple poles to grow into logs.

Other Comments: Access will be through private. Stand may be seasonally wet, consider winter harvest. Road will need to built into stand.

Next Steps:

23	71111023-Cut	35.8	4199 - Other Mixed Upland Deciduous	High Density Log	84	Harvest	Low Thinning	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal
----	--------------	------	-------------------------------------	------------------	----	---------	--------------	-------------------------------------	-----------------------

Prescription: Heavy low thinning. Residual BA should be 70-80. Leave best formed healthy trees. Remove most aspen except a few for future snags and CWD. Leave most single stem red maple. Manage for a future condition of mixed upland.

Other Comments: Stand composition changes south of Snowbowl Road, some areas may be sparse.

Next Steps:

24	71111024-Cut	35.2	4139 - Aspen, Mixed Deciduous	High Density Log	80	Harvest	Shelter Wood with Reserves	4139 - Aspen, Mixed Deciduous	Cmpt. Review Proposal
----	--------------	------	-------------------------------	------------------	----	---------	----------------------------	-------------------------------	-----------------------

Prescription: Harvest using a shelterwood with reserves leaving 30-50 ba of dominant well formed red oak, sugar maple and other hardwoods for a seed source. Eagle nest along border with stand 25, implement appropriate guidelines.

Other Comments: Access will be through private. Will need to build road for access, may need to "freeze in." This site has the potential to grow quality hardwoods. After harvest consider scarification.

Next Steps:

29	71111029-Cut	15.1	4125 - Black, N. Pin Oak	High Density Log	92	Harvest	Single Tree Selection	4125 - Black, N. Pin Oak	Cmpt. Review Proposal
----	--------------	------	--------------------------	------------------	----	---------	-----------------------	--------------------------	-----------------------

Prescription: Thin to a residual BA of 70-80. Leave the best formed and quality oak. Leave birch, cut aspen except for a few for snag and CWD creation. Try not to cut quality single stem red maple. Open up around the oak to encourage regeneration.

Other Comments: Access will be through private. Road will need to be built, may need to "freeze in." If not enough oak stump sprouts scarification may necessary.

Next Steps:

**Total Treatment
Acreage Proposed: 103.0**

S
t
a
n
d

Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
----------------	-------	------------------	--------------	-----------	----------------	------------------	----------------------	-----------------

#Error

Prescription
Specs:

Other
Comment:

Next
Steps:

Limiting Factor and No
Treatment Reason

Total Treatment
Acreage Proposed: 0

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

Year of Entry: 2013



Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
71048_OutOfY OE_1-Cut	2.2				Harvest	Low Thinning	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> thin to 120 SF by concentrating on improving the quality of the stand, no retention other than residual RP, save areas heavy to oak understory <u>Specs:</u> where possible</p> <p><u>Other</u> cut with stand to the west in 71046 <u>Comments:</u></p> <p><u>Next</u> manage for utility poles next YOE <u>Steps:</u></p>								
71048_OutOfY OE-Cut	4.0			0	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<p><u>Prescription</u> final harvest for aspen mgmt., mark oak SL to leave for wildlife mast, mark R/W pine SL for diversity, no retention other than marked leave <u>Specs:</u> trees, address green-up concerns on the east side of this stand if still a problem, dormant season cut to promote vigorous sprouting of the older aspen in the stand, any regeneration to a fully stocked stand is acceptable, trench and plant RP if regeneration fails</p> <p><u>Other</u> cut with stand to the west in 71046 <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>								
71118_OutOfY OE-Cut	6.6			0	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
<p><u>Prescription</u> final harvest for aspen mgmt. mark or leave all oak for diversity/retention/visuals. buffer low marshy ground on southwest. leave out any wetter <u>Specs:</u> areas in the north part of the stand for BMP reasons. leave out areas with heavy R/W pine component for diversity/retention/visuals. Any regeneration of aspen/oak/pine to a fully stocked stand is acceptable. regeneration alternative is to plant red pine if stand is not fully stocked but this is unlikely.</p> <p><u>Other</u> treat with stand to the west in 71117, add proper protection specs to ensure trail status open to snowmobiles during hauling <u>Comments:</u></p> <p><u>Next</u> <u>Steps:</u></p>								
71165_OutOfY OE-Cut	5.1				Harvest	Low Thinning	42260 - Natural Pine, Mixed Deciduous	Cmpt. Review Proposal
<p><u>Prescription</u> thin to 90-120 SF/Acre so as to enhance old growth/bio-diversity characteristics <u>Specs:</u></p> <p><u>Other</u> stand has a dense A/RM understory which will need to be addressed with appropriate sale specs, save W3 understory where possible, treat <u>Comments:</u> stand to the west in 71163 when this stand is treated (same stand)</p> <p><u>Next</u> <u>Steps:</u></p>								
Total Treatment Acreage Proposed:	17.9							

Stand	Roscommon Mgt. Unit		5 – Forested Stands			Compartment: 111	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2013	
2	42221 - Natural Jack Pine, Mixed Deciduous	Medium Density	27.3	20			
3	42290 - Natural Mixed Pine	High Density Log	11.2	91			
4	42290 - Natural Mixed Pine	High Density Log	4.0	61			
7	42290 - Natural Mixed Pine	High Density Log	4.1	101			
8	4139 - Aspen, Mixed Deciduous	High Density Log	18.8	60	81-110		Nice aspen stand stand with red maple. Small part of a large stand mostly located to the north in compartment 110.
9	6120 - Lowland Cedar	High Density Log	78.2	115	111-140		
10	4199 - Other Mixed Upland Deciduous	High Density Log	14.6	92	81-110		Some areas with open understory & large canopy oak and maple.
11	4126 - White, Black, N. Pin Oak	High Density Log	22.1	107	81-110		Nice oak. Lots of white pine stumps with fire scars. White pine regenerating in understory. Trail runs along east edge of stand. Stand is part of a much larger stand to the west in the adjacent compartment.
13	4319 - Mixed Upland Forest	High Density Log	11.7	40	81-110		Oak on hilltops. Red maple sub-canopy dense in east part very little in west.
14	4191 - Mixed Upland Deciduous with Conifer	High Density Log	23.2	107	51-80		Canopy species and composition is variable.
15	4131 - Aspen, Oak	High Density Log	60.4	30	51-80		Looks like aspen was removed ~30 years ago. could not find cut records.
16	4139 - Aspen, Mixed Deciduous	High Density Pole	27.9	60	51-80		Low basal area aspen and mixed maple/conifer.
17	6112 - Lowland Aspen	Medium Density Log	7.0	48	51-80		
20	6112 - Lowland Aspen	High Density Log	16.9	80	81-110		Aspen with mixed deciduous.
21	4130 - Aspen	High Density Pole	7.3	40	81-110		
23	4199 - Other Mixed Upland Deciduous	High Density Log	35.8	84	81-110		Stand is along south side of Barney Lake and next to a residential area. Trees are healthy, aspen is beginning to senesce. More pine to west and bigtooth aspen to east. Red maple sub-canopy is dense in places.



S t a n d	Roscommon Mgt. Unit		5 – Forested Stands			Compartment: 111	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Year of Entry: 2013	
24	4139 - Aspen, Mixed Deciduous	High Density Log	35.2	80	81-110	Nice stand, sugar maple, quality red oak, nice hardwoods. Low ridges and some wet areas.	
28	4199 - Other Mixed Upland Deciduous	High Density Log	37.4	74	81-110	Jack pine in southeast corner. Red maple sub-canopy dense in areas.	
29	4123 - Red Oak	High Density Log	15.1	92	81-110	Nice red maple and red oak. More birch to the north and central part of stand. Scattered basswood sugar maple, black cherry and white ash.	
32	4199 - Other Mixed Upland Deciduous	Medium Density	105.8	7			
33	6120 - Lowland Cedar	High Density Log	7.6	115			
34	4199 - Other Mixed Upland Deciduous	High Density Sapling	40.2	17	81-110		
35	4191 - Mixed Upland Deciduous with Conifer	High Density Log	3.2	88			
36	4126 - White, Black, N. Pin Oak	High Density Log	48.5	129	51-80	Scattered pockets of aspen saplings. Removed aspen, red maple and jack pine in 1994. Stand is healthy.	
37	42210 - Natural Red Pine	Medium Density Log	10.4	69	51-80	Looks like there was a fire in the understory.	
38	4125 - Black, N. Pin Oak	High Density Log	69.7	97	81-110	Nice mature mixed upland stand. Areas of dense white pine understory. Stand is healthy.	
39	4130 - Aspen	High Density Sapling	11.1	17			
40	4319 - Mixed Upland Forest	High Density Log	9.0	40	81-110		
41	6124 - Lowland Spruce- Fir	High Density Sapling	3.9	35			
44	6120 - Lowland Cedar	High Density Log	9.9	114	111-140	Oak and aspen near road and higher elevation areas.	
45	6124 - Lowland Spruce- Fir	High Density Pole	10.9	40			
46	4133 - Aspen, Mixed Pine	High Density Sapling	16.0	17		Stand was harvested in 1994.	
47	6122 - Black Spruce	Medium Density	1.5	40			



S t a n d	Roscommon Mgt. Unit		5 – Forested Stands			Compartment: 111 Year of Entry: 2013	General Comments:
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		
50	6120 - Lowland Cedar	High Density Log	28.7	204	81-110	Lots of standing dead cedar.	
53	6120 - Lowland Cedar	Medium Density Pole	16.4	125	51-80	Trace paper birch and elm.	
55	42330 - Upland Fir	High Density Pole	6.0	50			
56	6112 - Lowland Aspen	High Density Log	3.6	50			
58	4130 - Aspen	High Density Pole	3.2	50			
61	4130 - Aspen	High Density Pole	2.8	50			
62	6120 - Lowland Cedar	High Density Log	55.6	129	81-110	Scattered super canopy white pine. Some areas of stand are only 50 -75% canopy closure.	
64	4130 - Aspen	High Density Sapling	50.4	17			
65	6120 - Lowland Cedar	High Density Log	9.5	117	200+	Nice stand, healthy trees. Scattered super canopy white pine. Balsam fir saplings in open areas.	
66	4319 - Mixed Upland Forest	High Density Sapling	6.3	17	1-50	Shelterwood harvest in 1994, stand is now two-aged.	
67	6115 - Lowland Ash	Low Density Pole	10.0	40			
68	429 - Mixed Upland Conifers	Medium Density Pole	10.3	70	51-80	Trace black cherry in canopy. Lots of blowdown.	
69	6123 - Lowland Fir	Medium Density Pole	11.7	40	51-80	Scattered super canopy white pine. Alder dense in places.	
72	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	17.3	49	51-80		





Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
1	6220 - Alder/willow	13.9	No	Unspecified	
5	6220 - Alder/willow	124.1	No	Low (NonForested)	3/4 acre pocket of phragmites in central part of stand.
6	6220 - Alder/willow	102.7	No	Unspecified	
12	6230 - Cattail	71.1	N/A	Unspecified	Leatherleaf, sweetfern, cattail, alder.
18	50 - Water	25.8	N/A	Unspecified	
19	6225 - Bog	7.4	No	Unspecified	
22	6225 - Bog	28.7	No	Unspecified	
25	6220 - Alder/willow	21.4	No	Unspecified	
26	3102 - Grass	36.6	N/A	Unspecified	Patches of open water and alder.
27	6220 - Alder/willow	5.3	No	Unspecified	
30	6220 - Alder/willow	14.7	No	Unspecified	
31	6220 - Alder/willow	7.7	No	Unspecified	
42	6220 - Alder/willow	7.0	No	Unspecified	
43	6220 - Alder/willow	33.2	No	Unspecified	
48	50 - Water	6.4	No	Unspecified	
49	3102 - Grass	6.1	No	Unspecified	Scattered pin oak stump sprouts and white pine seedlings.
51	6230 - Cattail	40.7	No	Unspecified	
52	6220 - Alder/willow	2.2	No	Unspecified	



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
54	6220 - Alder/willow	13.2	No	Unspecified	
57	629 - Mixed non-forested wetland	4.2	N/A	Unspecified	
59	6230 - Cattail	5.4	N/A	Unspecified	
60	6220 - Alder/willow	1.5	No	Unspecified	
63	6220 - Alder/willow	5.6	No	Unspecified	
70	6220 - Alder/willow	4.3	No	Unspecified	
71	6220 - Alder/willow	18.6	No	Unspecified	Scattered balsam fir.



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.

Stand	SCA Type	SCA Name	Acres	Comments



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.

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	Research and Military Areas	These areas provide facilities and lands specifically dedicated for research, or other purposes. They include the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research Area, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of High and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino Wildlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman Nursery, and over 144,000 acres of Military Lands.