



Compartment Review Presentation

Roscommon Forest Management Unit

Compartment 71154

Entry Year 2018

Acreage: 1,275

County Roscommon

Management Area: Upper Muskegon

Revision Date: 2016-08-04

Stand Examiner: Dale Ekdom

Legal Description:

T21N R4W Sections 20 & 29

Identified Planning Goals:

Vegetation management in the Upper Muskegon management area (MA) will provide forest products; maintain or enhance wildlife habitat; protect areas of unique threatened, endangered and special concern species; and provide for forest-based recreational uses. Timber management for this 10-year period will focus on harvesting older jack pine and balancing age class distributions of oak, aspen and red pine. Wildlife habitat management objectives include perpetuating early-successional communities for species adapted to young forests for hunting and other wildlife-related recreation. Expected trends within this 10-year planning period are the need to manage exotic species (especially Phragmites and glossy buckthorn), the need to continue to manage cover types for a balanced age-class distribution and an expected increase in recreation pressure

Soil and topography:

Terrain is mostly level to slightly rolling except in the south end of the compartment which has some steeper slopes and bowls. Soils are Grayling and Roselawn sands in the upland areas and Rifle peat in the lowlands along Wolf Creek and in the swamps in the south end of the compartment.

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

This compartment consists of a solid block of state land and is surrounded by state land.

Unique Natural Features:

There are historical records of kirtland's warblers in this compartment but none have been recorded in recent years. There are recent records of Northern Long Eared Bat (NLEB) and Eastern Massasauga Rattlesnake (EMR) in this compartment. Any treatments in this compartment may be influenced by the status of the NLEB and EMR.

Archeological, Historical, and Cultural Features:

None known or detected during fieldwork

Special Management Designations or Considerations:

Wolf Creek and it's adjacent flood plain is an SCA as it has been identified as a cold water trout stream.

Watershed and Fisheries Considerations:

Wolf Creek flows into the Muskegon River on the west edge of this compartment.

Wildlife Habitat Considerations:

Maintain ecosystem diversity in the compartment via habitat manipulation to benefit game species such as deer, grouse, rabbits, and turkeys as well as non-game species.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and possibly dune sand. The glacial drift thickness varies between 400 and 600 feet. Beneath the glacial drift are the Jurassic red beds and Pennsylvanian Saginaw Formation. The Saginaw is quarried for clay elsewhere in the state. Gravel pits are sparse in the area and potential appears to be limited. The nearest oil and gas production is the Headquarters Field, which is located four miles to the east. The Cranberry Lake gas storage field is located four miles to the southwest. The east half of the compartment is currently leased.

Vehicle Access:

Vehicle access to this compartment is excellent along seasonal county roads, forest two-tracks, old fire break roads, and the ORV trails.

Survey Needs:

None necessary as this compartment is 100% state-owned and is totally surrounded by state land.

Recreational Facilities and Opportunities:

This compartment is heavily used for dispersed recreation such as hunting and fishing with many traditional camping sites along Wolf Creek and the Muskegon River to the west of the compartment. This compartment also has segments of the Houghton Lake snowmobile trail and the Leota ORV trail/route. Work is on-going at this time to re-route some of the ORV trail/route to move it away from wetland areas and sandy hills to discourage and prevent resource damage in these areas.

Fire Protection:

Access for fire suppression forces is good but the remote location and hazardous fuel types make fire protection a concern in this compartment. There was a 200+ acre fire just to the north of this compartment in April, 2004.

Additional Compartment Information:**The following reports from the Inventory are attached:**

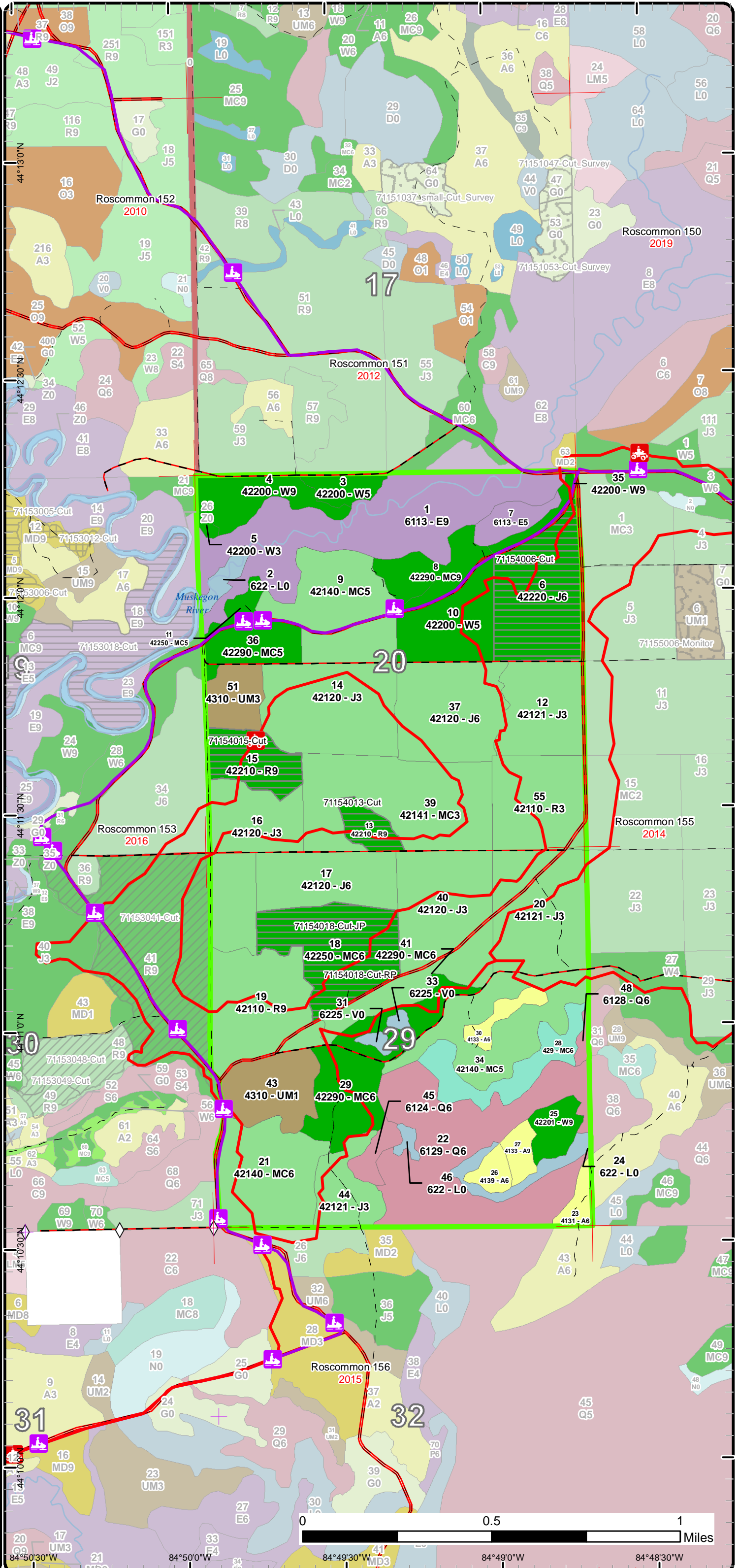
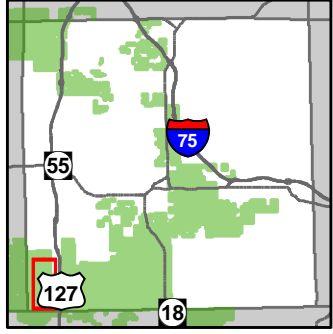
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

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

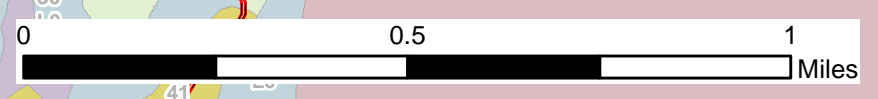
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatment Map

Compartment: 154
 T21N,R04W, Sec. 20, 29
 County: Roscommon
 Unit: Roscommon
 Mgmt Area: Upper Muskegon
 YOE: 2018
 Acres: 1275 GIS Calculated
 Examiner: Dale Ekdorn
 Map Revised: 2/9/2017
 Map Phase: Post-Review



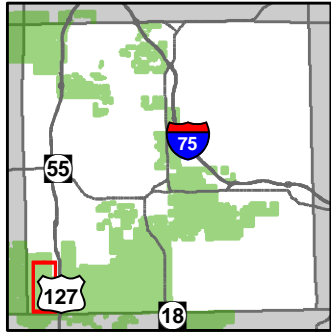
- Miris Corners
- + Remonumented Section Corners
- ◇ Field Grade GPS Corners
- ORV Trails
- Snowmobile Trails
- Designated ATV Trails
- Designated Snowmobile Trails
- County Gravel Roads
- County Poor Dirt Roads
- Poor Dirt Roads
- Rivers
- Compartment Boundary
- Clearcut (w/Reserves)
- 413 - Aspen Types
- 421 - Planted Pines
- 422 - Natural Pines
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 611 - Lowland Deciduous Forest
- 612 - Lowland Coniferous Forest
- 622 - Lowland Shrub
- Lakes



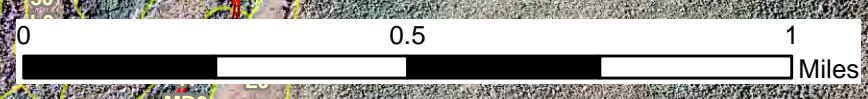
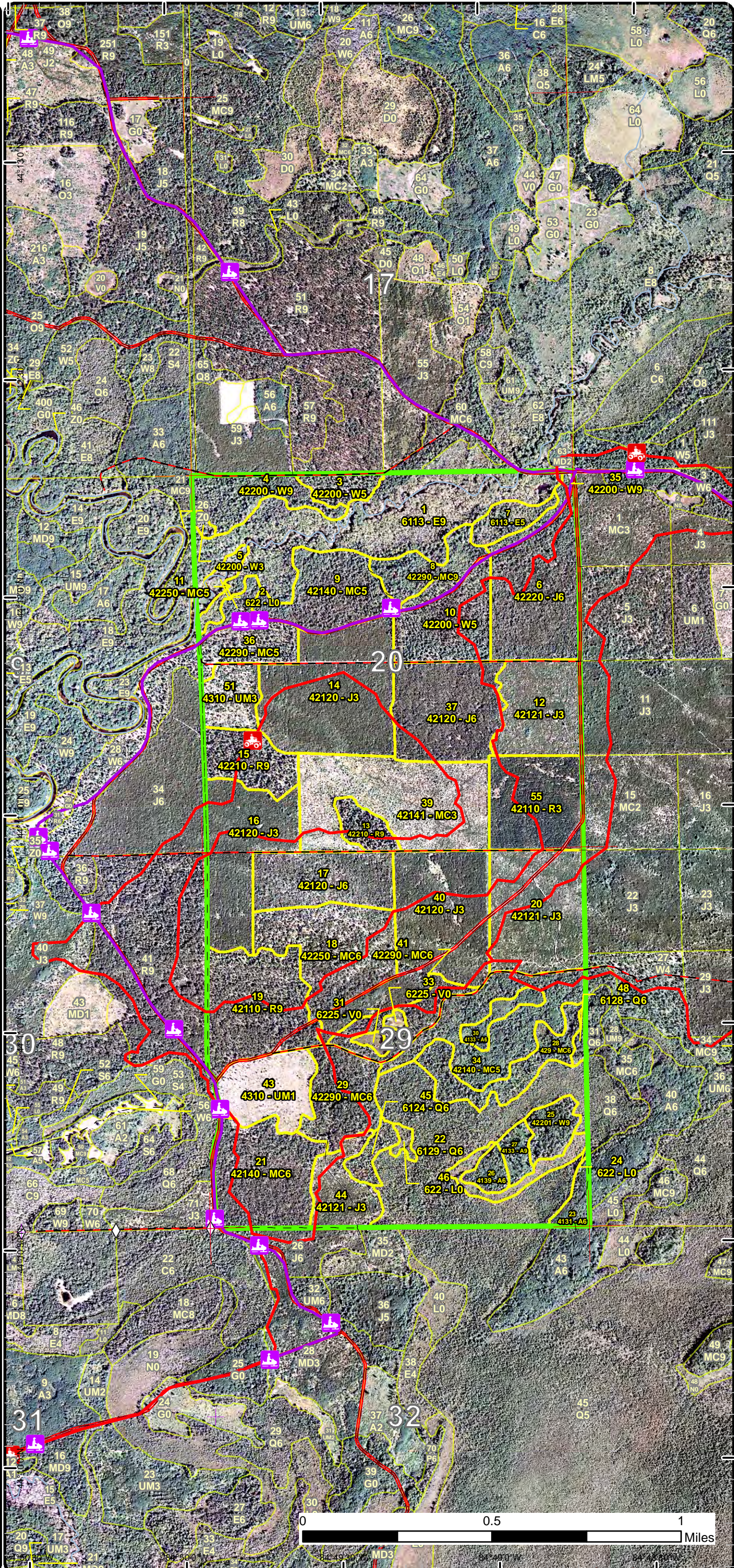
84°50'30"W 84°50'0"W 84°49'30"W 84°49'0"W

Stand Boundary Map

Compartment: 154
 T21N,R04W, Sec. 20, 29
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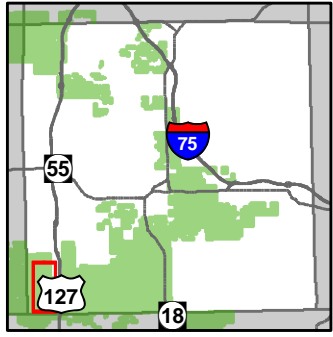


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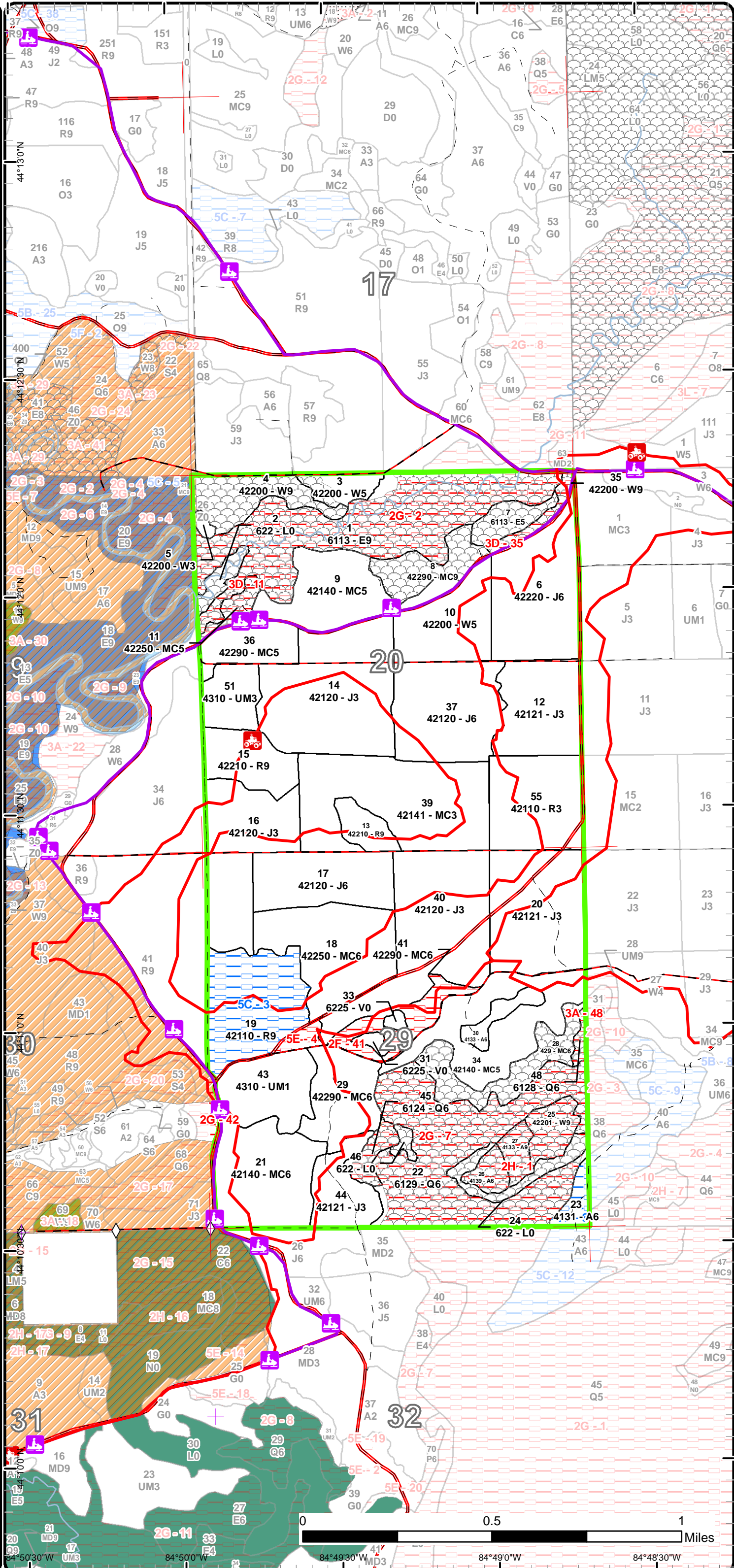


Special Conservation Areas & Site Conditions Map

Compartment: 154
 T21N,R04W, Sec. 20, 29
 County: Roscommon
 Unit: Roscommon
 Mgmt Area: Upper Muskegon
 YOE: 2018
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- Miris Corners
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- Snowmobile Trails
- Designated ATV Trails
- Designated Snowmobile Trails
- County Gravel Roads
- Gravel Roads
- County Poor Dirt Roads
- Poor Dirt Roads
- Rivers
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3A: Potential old growth / biodiversity
- 3D: Recreational / Scenic values
- 5E: Long-Term Retention
- Stand Boundaries
- Eastern Massasauga Managed Land
- Cold Water Streams
- Cold Water Lakes
- Verified Type 1 Old Growth
- Riparian Area
- Habitat Corridor



Report 1 – Total Acres by Cover Type and Age Class



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	0	0	0	7	13	7	0	0	0	0	0	0	0	0	0	0	0	26
Bog	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Jack Pine	0	0	107	185	81	52	0	0	0	0	0	0	0	0	0	0	0	0	425
Lowland Conifers	0	0	0	0	0	0	0	0	7	92	0	0	0	2	0	0	0	0	101
Lowland Deciduous	0	0	0	0	0	0	0	0	10	94	0	0	0	0	0	0	0	0	104
Lowland Shrub	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Natural Mixed Pines	0	0	0	0	27	54	0	0	18	0	17	0	0	0	0	0	0	17	133
Planted Mixed Pines	0	0	70	0	125	0	0	0	0	0	0	0	0	0	0	0	0	0	195
Red Pine	0	0	0	40	0	0	0	0	0	80	0	0	0	0	0	0	0	0	120
Upland Conifers	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	23
Upland Mixed Forest	0	28	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
White Pine	0	0	0	2	9	35	0	0	6	0	22	0	11	0	0	0	0	0	85
Total	22	28	177	243	249	154	7	0	34	124	211	0	11	0	2	0	0	17	1278



Report 2 – Treatment Summary

Roscommon Mgt. Unit
Year of Entry: 2018

Acres of Harvest

Compartment 154
Total Compartment Acres: 1,275

Commercial Harvest - 130
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Jack Pine	52	0	0	0	0	0	0	0	0	52
Natural Mixed Pines	48	0	0	0	0	0	0	0	0	48
Red Pine	31	0	0	0	0	0	0	0	0	31
Total	130	0	0	0	0	0	0	0	0	130

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	130	0	0	0	0	0	0	0	0	130
Next Step	0	167	109	0	61	0	240	0	0	577
Total	130	167	109	0	61	0	240	0	0	707



Standa	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
6	71154006-Cut	51.7	42220 - Natural Jack Pine	Poletimber Well	44	Unspecified	Harvest	Clearcut with Retention	4221 - Natural Red Pine	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription final harvest and regenerate to red pine, chip tops or burn slash to eliminate the scots pine seed source prior to trenching and planting, manage
Specs: for a red pine/oak mix so no herbicide, leave up to 2 acres of the northern tip and up to 2 acres of 1/4-1/2 acre islands which are heavy to R/W pine along Porky Drive/Hose Road and/or the ORV trail for retention and visual, leave some or all oak for mast, use specs to protect the ORV trail

Next Step Burn, Slash; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)
Treatments:

Acceptable Regen: Any combination of planted red pine and naturally regenerated species to a fully stocked stand

Other Comment:

Proposed Start Date: 10/01/2017

13	71154013-Cut	9.5	42210 - Natural Red Pine	Sawtimber Well	91	51-80	Harvest	Clearcut	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final Harvest and trench/plant red pine, no herbicide as MO is for a mixed stand of red pine and oak, leave oak for mast and diversity and white
Specs: pine for diversity, no retention due to the size of the stand, use specs to protect the ORV trail

Next Step SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Roller Chopping;
Treatments: Burn, Slash

Acceptable Regen: Any combination of planted red pine and naturally regenerated species to a fully stocked stand

Other Comment: consider Rx burn for slash reduction if stand does not get chipped, timing of Rx burn should not hold up regeneration of the stand

Proposed Start Date: 10/01/2017

15	71154015-Cut	21.1	42210 - Natural Red Pine	Sawtimber Well	91	81-110	Harvest	Clearcut with Retention	412 - Oak Types	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription Final harvest and manage for oak, put 2 or 3 quarter to half acre islands along ORV trail for retention/visual, protect advanced oak regeneration
Specs: by using a 4" spec, use specs to protect the ORV trail

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable Regen: Any combination of oak and other species to a fully stocked stand

Other Comment: best access will be thru St #34 in 71153 to the west

Proposed Start Date: 10/01/2017

18	71154018-Cut-JP	31.7	42250 - Pine, Oak	Poletimber Well	43	81-110	Harvest	Clearcut with Retention	42121 - Planted Jack Pine, Mixed Deciduous	Even-Aged	Draft Field Boundary
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Habitat Cut: No**Site Condition:**

Prescription clear-cut with reserves and trench/plant jack pine north of the ORV trail to manage for a mix of jack pine and oak, place some retention islands
Specs: along the ORV trail so they also function for visual, mark up to 2 oak per acre and 2 R/W pine per acre for wildlife mast and diversity, use ORV specs to protect the ORV trail

Next Step SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr); SitePrep, Roller Chopping
Treatments:

Acceptable Regen: any combination of planted jack pine and naturally regenerated species to a fully stocked stand

Other Comment: refer to the Massasauga Plan where necessary

Proposed Start Date: 10/01/2017



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Approval Status
18	71154018-Cut- RP	16.3	42250 - Pine, Oak	Poletimber Well	43	81-110	Harvest	Clearcut with Retention	42111 - Planted Red Pine, Mixed Deciduous	Even-Aged	Draft Field Boundary

Habitat Cut: No**Site Condition:**

Prescription clear-cut with reserves and trench/plant red pine south of the ORV trail, manage for a mix of red pine and oak, place retention islands along
Specs: Hose Road so they also function for visual, mark up to 2 oak per acre and up to 2 R/W pine per acre for wildlife mast and diversity, use ORV specs to protect the ORV trail

Next Step SitePrep, Roller Chopping; SitePrep, Trenching; Planting, Initial Plant; Monitoring, Artificial Regen(1yr); Monitoring, Artificial Regen(3yr)
Treatments:

Acceptable any combination of planted red pine, and naturally regenerated species to a fully stocked stand

Regen:

Other consult Massasauga CCAA guidelines for timing and other specifics when developing cutting specs

Comment:

Proposed Start Date: 10/01/2017

**Total Treatment
Acreage Proposed: 130.3**

Report 4 – Site Conditions

Roscommon Mgt. Unit
Dale Ekdom : Examiner

Compartment: 154
Year of Entry: 2018

Availability for Management

Total Acres	Acres Available	Acres Available With Condition	Acres Not Available
26	7	7	13

Dominant Site Conditions

	Total Acres	Acres Available	Acres Available With Condition	Acres Not Available	Dominant Site Conditions								
					5C	2F	2G	2H	3A	3D	5E		
26	7	7	7	13	Aspen	7			13				
4	4	0	0	0	Bog		0						
425	425	0	0	0	Jack Pine								
101	2	0	0	100	Lowland Conifers			97		2			
104	12	0	0	92	Lowland Deciduous			92					
18	17	0	0	0	Lowland Shrub			0					
134	110	0	0	23	Natural Mixed Pines		17				6		
194	194	0	0	0	Planted Mixed Pines								
120	70	46	46	4	Red Pine	46							4
23	23	0	0	0	Upland Conifers								
44	44	0	0	0	Upland Mixed Forest								
84	68	0	0	17	White Pine			0	11		6		
1,275	975	52	52	248	Total Forested Acres	52	17	189	24	2	12		4
	76%	4%	4%	19%	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
1	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
2	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	92	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Floodplain of Wolf Creek, retain as BMP buffer							

Report 4 – Site Conditions

Roscommon Mgt. Unit

Dale Ekdor : Examiner

Compartment: 154

Year of Entry: 2018

3	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	46	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	5E: Long-Term Retention	4	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Retention left when Stand 3 final harvested and Stand 19 was thinned.....keep as retention for when Stand 19 is harvested in some future YOE							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	97	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
8	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	3D: Recreational / Scenic values	6	3J: Water quality / BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
35	Unavailable	3D: Recreational / Scenic values	6	3J: Water quality / BMPs (stream, river, or lake)	3G: Other Influence zones - See comments	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Roscommon Mgt. Unit

Dale Ekdorn : Examiner

Compartment: 154

Year of Entry: 2018

41	Unavailable	2F: Too steep	17	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments: retain over-story until understory WP takes over as the featured stand, too steep in spots and too wet in spots to treat, understory WP too thick to treat w/o causing heavy damage. allow to convert to WP and other sub-canopy species							
42	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	3	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
48	Unavailable	3A: Potential old growth / biodiversity	2	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	Unspecified	Unspecified	Unspecified
Comments:							



Report 5 – 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
	Potential Old Growth		SCA Removal	158
Comments				
This area no longer meets the criteria to be classified as a Special Conservation Area.				
	Potential Old Growth		SCA Removal	161
Comments				
This area no longer meets the criteria to be classified as a Special Conservation Area.				



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

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

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

Conservation Area	Type	Description
SCA	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	6113 - Lowland Maple	Sawtimber Well	94.0	83	51-80	Stand is in the floodplain of Wolf Creek and is periodically flooded during spring runoff and periods of heavy rain, black ash is pretty well gone and stand is dominated by red maple which is just at log size, Wolf Creek is a cold water trout stream, no treatments necessary or desired in these muck soils.
3	42200 - Natural White Pine	Poletimber Medium	9.2	39	1-50	Most of the Jack Pine and Oak over-story was removed in 2000, most white pine is approx. 35-40 years old but there are older and younger cohorts of white pine in this stand and lots of oak saplings also, stand is at least 2-aged and approaching all-aged status, recommend no treatment at this time but possibly thin next YOE if the BA is high enough
4	42200 - Natural White Pine	Sawtimber Well	21.7	91	81-110	Stand is very variable in both terrain and size/species of trees, some parts are heavy to red pine or white pine and other parts are heavy to hardwoods, white pine saplings are present thru-out the under-story ranging from only light stocking to full stocking, overall, stand is 2 aged going towards all-aged, stand has a few potholes which have legacy size white and red pine around the edges which may be older than the main stand, terrain is a transition zone between the upland to the north and the wetlands to the south, recommend maintaining stand in a natural state as a buffer on the Wolf Creek floodplain and managing long term for possible type 1 or 2 old growth, very unique stand for the Roscommon FMU
5	42200 - Natural White Pine	Sapling Well	1.8	26	Immature	Appears to have been originally prescribed as a habitat cut but was eventually cut commercially in 1991 to regenerate hardwoods for deer browse, stand is now almost all pole-size white pine with few hardwoods remaining probably due to heavy deer browse on the hardwoods and an abundant seed source for the WP in adjacent stands, RSH sighted when doing field inspection on this stand, this stand slops over into the compt to the west for approx. 1/2 acre
6	42220 - Natural Jack Pine	Poletimber Well	51.7	44	Unspecified	Nice J6 stand but contains scots pine from seed source that was originally planted in 1919 but was still present when cut in 1973, could cut or hold as needed but it is a good candidate to final harvest and regenerate, eliminate the scots pine seed source as much as possible when treated
7	6113 - Lowland Maple	Poletimber Medium	9.6	73	81-110	Lower/wetter stand than stands to the south but not as wet as the stand to the north in the wolf Creek floodplain, water table close to the surface with standing water in spots. stand is a mix of red maple, aspen, white birch, ash, and some oak with scattered white pine and NWC, stand is probably operable with cautions due to the high water table. doing well on its own so recommend no treatment at this time, maintain stand as a buffer on Wolf Creek
8	42290 - Natural Mixed Pine	Sawtimber Well	17.2	93	51-80	Nice natural mixed pine stand, 2 aged going towards all aged, mostly white pine L-P but has a few areas heavy to red maple logs/saps or red pine logs, other areas are W6, white pine saplings in the understory thru-out the stand ranging from W1 to W3, middle part along boundary with Stand 1 is mostly hardwoods and slightly lower ground, smallest WP except for youngest saplings are just at or below pole size, recommend holding 10 years and then thinning when smallest WP poles are more merchantable, maintain now as a buffer on Wolf Creek



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
9	42140 - Planted Mixed Pine	Poletimber Medium	33.7	38	51-80	Bulk of stand is just past sapling stage and needs to grow another 10 years before treatment as parts are still in transition from J3 to J6, part of this stand was sprayed in the early 1980's for jack pine budworm, stand has scattered R/W pine and Oak SL's and XL's in the super-canopy
10	42200 - Natural White Pine	Poletimber Medium	34.9	42	81-110	Cut the hardwoods and jack pines out of this stand in 2000, now this stand is mostly W/R pine poles but also has scattered jack pine saplings and poles, oldest red pine was planted in 1931, no treatment necessary or desired at this time
11	42250 - Pine, Oak	Poletimber Medium	6.2	42	81-110	2-Aged stand with oak over-topping white pine, stand has a steep bank to the Wolf Creek floodplain and is heavily used for camping, recommend allowing to convert fully to white pine without further treatment and allow the oak to come down on it's own to protect the W3 from logging damage, BMP issues due to steep bank and rec. issues due to the camping
12	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	34.9	16	Immature	J3 planted May 2001
13	42210 - Natural Red Pine	Sawtimber Well	9.5	91	51-80	R9 stand which was thinned in July 1989, RP with an oak understory. also scattered R/W/J pine saplings and seedlings and scattered WP, JP, and oak logs., final harvest and trench/plant red pine and manage for a mix of red pine and oak (No Herbicide)
14	42120 - Planted Jack Pine	Sapling Well	69.6	27	Immature	Cut 1988, planted to jack pine in 1990
15	42210 - Natural Red Pine	Sawtimber Well	21.1	91	81-110	Removed jack pine and oak in 1989, Thinned in spring 2010 to 90 SF, good understory of oak/jack pine developing, not ready for thinning treatment yet OR could harvest and re-plant to RP or manage for oak - if re-planted to RP, stand would be a mix of red pine and oak, best access would be on SE - NW 2T thru J6 to Porky Drive, 2T on west edge is too hilly and sandy
16	42120 - Planted Jack Pine	Sapling Well	47.9	27	Immature	Cut 1988 and planted 1990, some jack pine is approaching pole-size, mixed planting of some red pin volunteers especially on the west part adjacent to the R9 stand in 71153
17	42120 - Planted Jack Pine	Poletimber Well	34.7	39	Unspecified	Stand was seeded in 1978 and is now in the process of converting to J6, some spots are solidly pole-size with decent height and diameters but the bulk of the stand is still fairly short and has barely merchantable diameters, recommend holding this stand until next YOE before treating
18	42250 - Pine, Oak	Poletimber Well	48.0	43	81-110	Stand has multiple ages of all species, possible choppers choice in 1973/74?, hillier terrain in this stand, jack pine ranges from SL size to sapling size, RP is mostly SL size, ORV trail goes thru stand from NE to SW, oldest trees are starting to decline and break-up, recommend final harvesting stand and regenerating to jack pine and manage or a stand of mix of oak and jack pine



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
19	42110 - Planted Red Pine	Sawtimber Well	49.4	94	81-110	Removed oak and jack pine in 1989, Thinned Spring 2010 most of understory is from the 1989 thinning but some from 2010 also, SE corner between losco and Hose Roads was left unthinned in 2010
20	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	52.2	16	Immature	CUT 2000, REGEN. TO JP IN 2001, scattered WP poles also
21	42140 - Planted Mixed Pine	Poletimber Well	45.5	39	81-110	Stand was seeded in 1978 and parts are still converting from a 4" J3 stand to a merchantable J6 stand, oak is mostly older along with some of the red pine, terrain is mostly upland but there are a few wetter potholes scattered thru-out the stand, jack pine ranges from saplings to pole-size with a scattering of SL JP, recommend holding this stand until next YOE as some of the jack pine is still sub-merchantable
22	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	92.0	91	51-80	wet conifer swamp with tab alder of balsam fir in the understory
23	4131 - Aspen, Oak	Poletimber Well	6.5	53	Unspecified	Same stand as Stand #40 in 71155 and Stand #43 in 71156, part of a long arm of aspen with swamp on 3 sides, BTA clones interspersed with areas heavier to oak P/L and WP poles/saps, north and west edge along swamp are heavy to R/W pine logs, manage with adjacent stands in adjacent compt's at some point (71155 in 2024 YOE?), avoid areas heavy to oak/pine where possible when treated to increase diversity
25	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	11.0	117	81-110	WP SL/XL stand sounded by low wet ground, no access, possible candidate in some future YOE for Type 1 or 2 Old Growth
26	4139 - Aspen, Mixed Deciduous	Poletimber Well	6.0	40	Unspecified	Upland aspen stand surrounded by lowland, no access
27	4133 - Aspen, Mixed Pine	Sawtimber Well	6.6	40	1-50	over-mature aspen stand surrounded by lowland, no access
28	429 - Mixed Upland Conifers	Poletimber Well	23.3	87	81-110	upland mixed with lowland, water table close or at the surface thru-out, white pine understory is almost pole size and stand is converting/converted to white pine, hold and evaluate next YOE for treatment with Stand #30 and 34
29	42290 - Natural Mixed Pine	Poletimber Well	27.2	39	51-80	Stand is heavy to pole-size jack pine in spots, other spots are heavy to SL size RP (planted) with pole-size white pine, other spots are a mix of everything, overall the east part has more jack pine and the west part has more R/W pine, stand has scattered oak SL's thru-out, heavy recreational use in this stand with the ORV trails, could cut now but recommend holding until younger jack pine is mature
30	4133 - Aspen, Mixed Pine	Poletimber Well	6.9	39	Unspecified	Stand is clones of BTA separated by areas heavier to WP/JP, aspen is still fairly small diameter overall, recommend holding until next YOE and then treating with surrounding stands



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	42140 - Planted Mixed Pine	Poletimber Medium	44.9	39	51-80	north end of the stand is on a steep slope and there are a few wet bowls scattered thru-out the stand. bulk of the stand is level/rolling terrain and stand is a mix of jack pine, white pine, red pine, and oak with most of stand being a J6 but with many areas heavy to red pine, white pine or both. scattered oak and R/W pine XL's thru-out stand. stand does not appear to be planted but I found planting/seeding records. recommend holding stand and evaluating next YOE for treatment
35	42200 - Natural White Pine	Sawtimber Well	5.6	78	51-80	Small, narrow stand between Porky Drive and Wolf Creek floodplain, terrain is upland at road but slopes gradually into the floodplain, W9W3 with small component of jack pine, red pine, and hardwoods, converting/converted to WP/hardwoods from jack pine, retain as buffer on creek, too small/narrow to do anything with and doing well on its own
36	42290 - Natural Mixed Pine	Poletimber Medium	18.0	76	51-80	removed HW/JP over-story in 2009 and left all R/W pine plus some R/W SL oak for mast, now O2J2R7W5, under-story is mostly 1989 YOO but some 2009 YOO also, possibly remove over-story or thin again in 10-20 years after O/J under-story develops more
37	42120 - Planted Jack Pine	Poletimber Well	46.5	39	Unspecified	JP seeded 1978, parts of this stand are J6/parts are still J3, scattered RP/Oak SL
39	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Well	69.5	16	Immature	stand was planted to red pine in 2001 but there are lots of natural oak and jack pine saplings also which cam in after the cut in 2000
40	42120 - Planted Jack Pine	Sapling Well	67.5	27	Immature	final harvested 1989, planted 1990, J3 but has several small A3 clones scattered thru-out stand, also scattered oak SL's and R/W pine poles
41	42290 - Natural Mixed Pine	Poletimber Well	17.0	47	81-110	terrain is pretty hilly with numerous steep-sided bowls interior to the stand, heavy W3 understory (circa 1985 YOO) thru-out mixed with red pine, jack pine, and oak saplings also, threee-aged going towards multi-aged with most WP around 45-50 years old, recommend allowing to convert fully to the understory species w/o treatment due to the steep terrain and thick
43	4310 - Pine, Oak Mix	Sapling Poor	27.9	6	Immature	Final Harvested Spring 2011, planted to red pine in 2015, should be a fully stocked stand next YOE after red pine takes off
44	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	20.1	16	Immature	CUT 2000, REGENERATED TO JACK PINE IN 2001
45	6124 - Lowland Spruce-Fir	Poletimber Well	6.8	87	51-80	wet depression with a steep hill on the west and conifer swamp on the east. older black spruce, balsam fir, and white pine with a few hardwoods also, E6 converting to conifer species, too wet to operate and no good access due to the other terrain issues
48	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	2.4	136	Unspecified	(data from St#31 in 71155), soft spongy wet soils with standing water in many spots, los of blow-down in spots, mostly pole-size species but scattered WP XL's

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Roscommon Mgt. Unit

Report 7 – Forested Stands

Compartment: 154
Year of Entry: 2018



	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
51	4310 - Pine, Oak Mix	Sapling Well	15.6	28	Immature	Removed all species but RP in 1989, removed red pine overstory in 2010 and now managing for J/O understory which was estb. in 1989, also some regeneration from 2010 cut
55	42110 - Planted Red Pine	Sapling Well	39.6	27	Immature	Final harvested 1988, planted to red pine in 1990 (possibly mixed planting with JP), RP growing well with some approaching pole-size



Stand	Cover Type	Acres	Managed Site	General Comments:
2	622 - Lowland Shrub	5.6	No	"L" TYPE AT CONFLUENCE OF MUSKEGON RIVER AND WOLF CREEK
24	622 - Lowland Shrub	9.7	No	
31	6225 - Bog	2.1	No	OPIC - FMD: OI Stand Year Origin was
33	6225 - Bog	1.5	No	leather-leaf bog with scattered trees on the edge
46	622 - Lowland Shrub	2.3	No	