# DNR MICHIGAN

# **Compartment Review Presentation**

**Roscommon Forest Management Unit** 

Compartment 71137 Entry Year 2017 Acreage: 1,287

**County Roscommon** 

Management Area: Upper Muskegon

Revision Date: 2015-08-05

Stand Examiner: Dale Ekdom

**Legal Description:** 

T21N R3W Sections 1 & 2

#### **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 level to gently rolling in the middle of the compartment, hilly with some steep slopes in the SE corner, and low/wet in the SW corner of the compartment.

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

Compartment is solid state ownership with state land surrounding except on the east side and 2 private parcels to the north and NE. The private property to the east is Mid Forest Lodge.

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

None

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

None

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

None

#### **Watershed and Fisheries Considerations:**

Steep hills need to be taken into account in any treatments on slopes so as to avoid erosion. The SW corner of the compartment is the edge of a large beaver dam and pond complex.

#### 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 other non-game species.

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

Surface sediments consist of ice-contact and glacial outwash sand and gravel and postglacial alluvium. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift are the Mississippian Bayport Limestone and Michigan Formation. The Bayport is quarried for limestone and the Michigan is quarried for gypsum elsewhere in the state. No active gravel pits are located in the area but there is some potential. Headquarters Field is located four miles to the southwest. The field has produced over 11.3 million bbls of oil and 4.2 Bcf of gas from multiple Devonian formations and the Mississippian Marshall Sandstone, respectively. It is in secondary recovery operations currently. The entire compartment is currently leased for oil and gas exploration and development.

#### **Vehicle Access:**

Vehicle access to all areas of the compartment is excellent via state highway M-18, seasonal county roads, and forest two-tracks created every ¼ mile as fire breaks in the pine areas of the compartment.

#### **Survey Needs:**

None necessary at this time.

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

This compartment contains the Waco Road ORV trailhead as well as an ORV trail and ORV route. Waco Road is a seasonal county road which is groomed/maintained as a snowmobile trail during the snowmobile season. Utilize forest management practices to curtail further damage by off road vehicle use and other trespasses issues.

If harvest activities occur during the snowmobile season of December 1 thru March 31 a snow bed must be preserved on Designated Snowmobile Trails. Ensure logging activity does not obliterate the designated trails by limiting the number of crossings. All stumps within 20 feet of the trail shall be Flush-Cut to ensure stumps do not result in unsafe conditions. Assure 'logging ahead' warning signs are placed on the designated trails and snowmobile trails during logging activity.

#### **Fire Protection:**

Volatile fuel types such as jack pine and red pine are abundant in this compartment.

Access and response times are good to this area due to M-18, county roads, forest roads, and old fire breaks/40 roads in the compartment. Areas with steeper terrain and low/wet terrain could hinder suppression activities.

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

A large portion of Section 1 burned in the 2005 Boyce Lake Fire and most of the red pine stands which burned were salvaged and re-planted to red pine. There was also some supplemental jack pine plantings done after some young J3 stands were burned in this same fire.

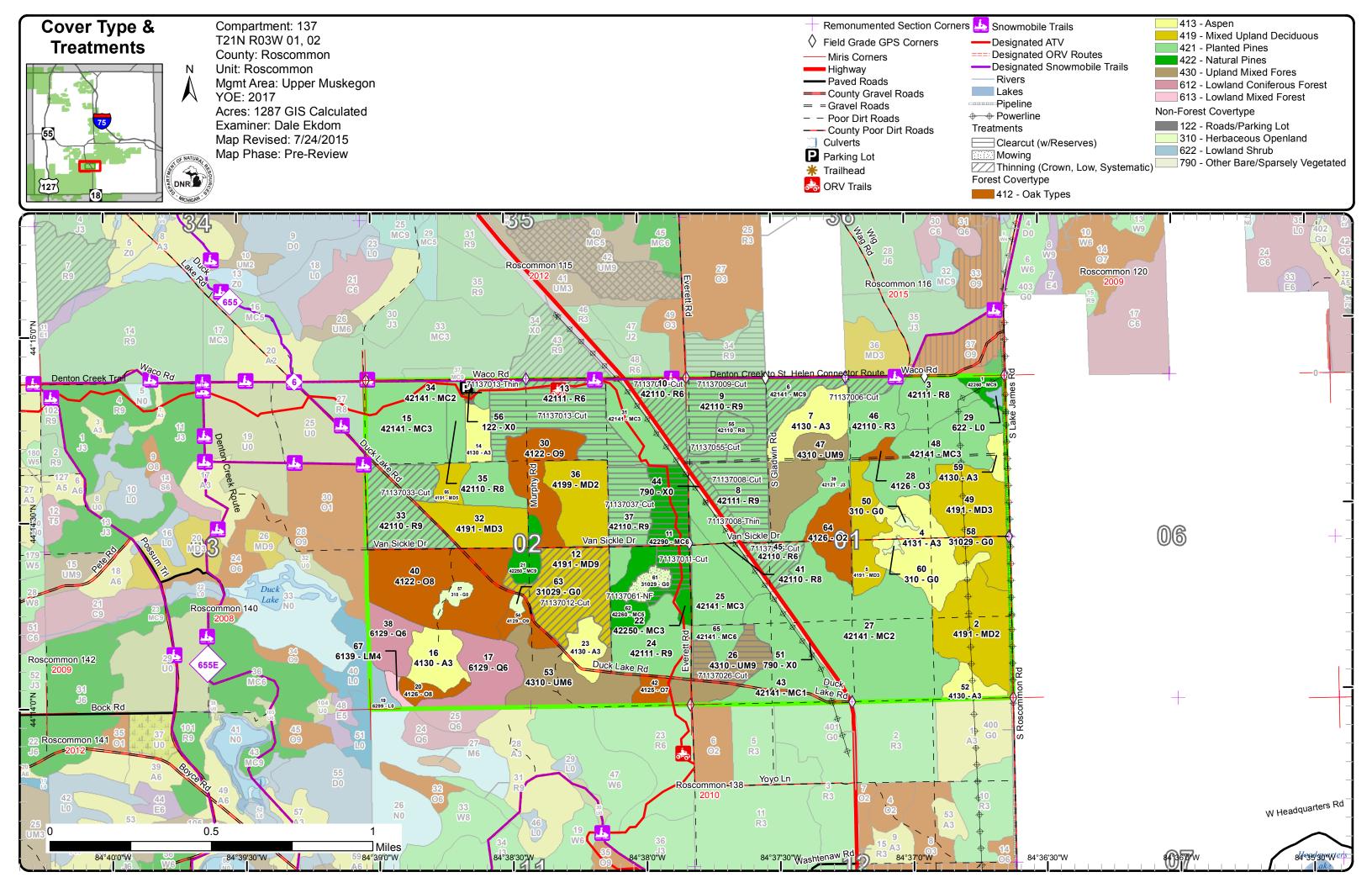
Proposed treatments for this year-of-entry include 174 acres of final harvests in mature red pine, 74 acres of thinning in red pine, and 59 acres of thinning in oak/pine cover-types.

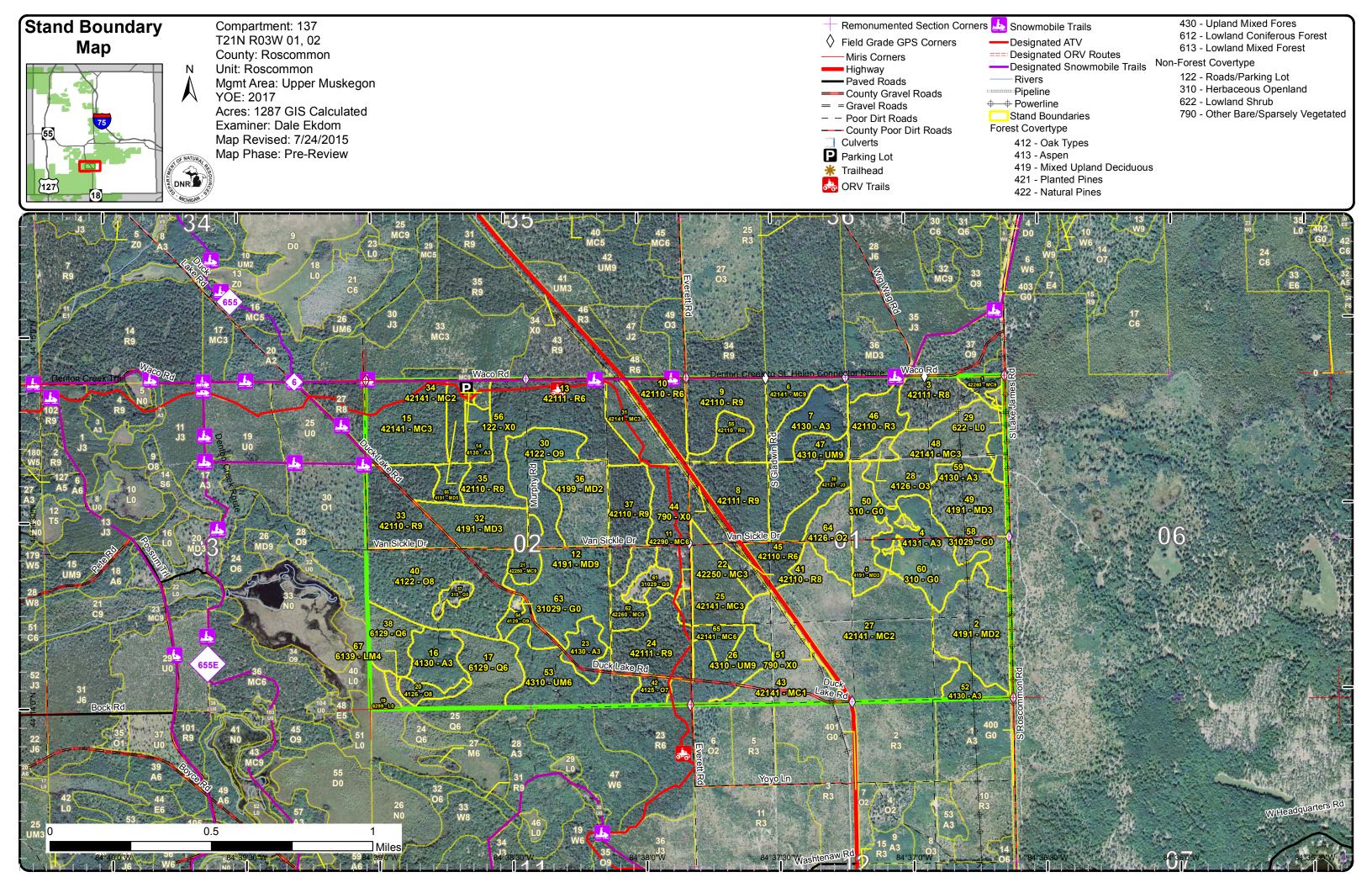
#### The following reports from the Inventory are attached:

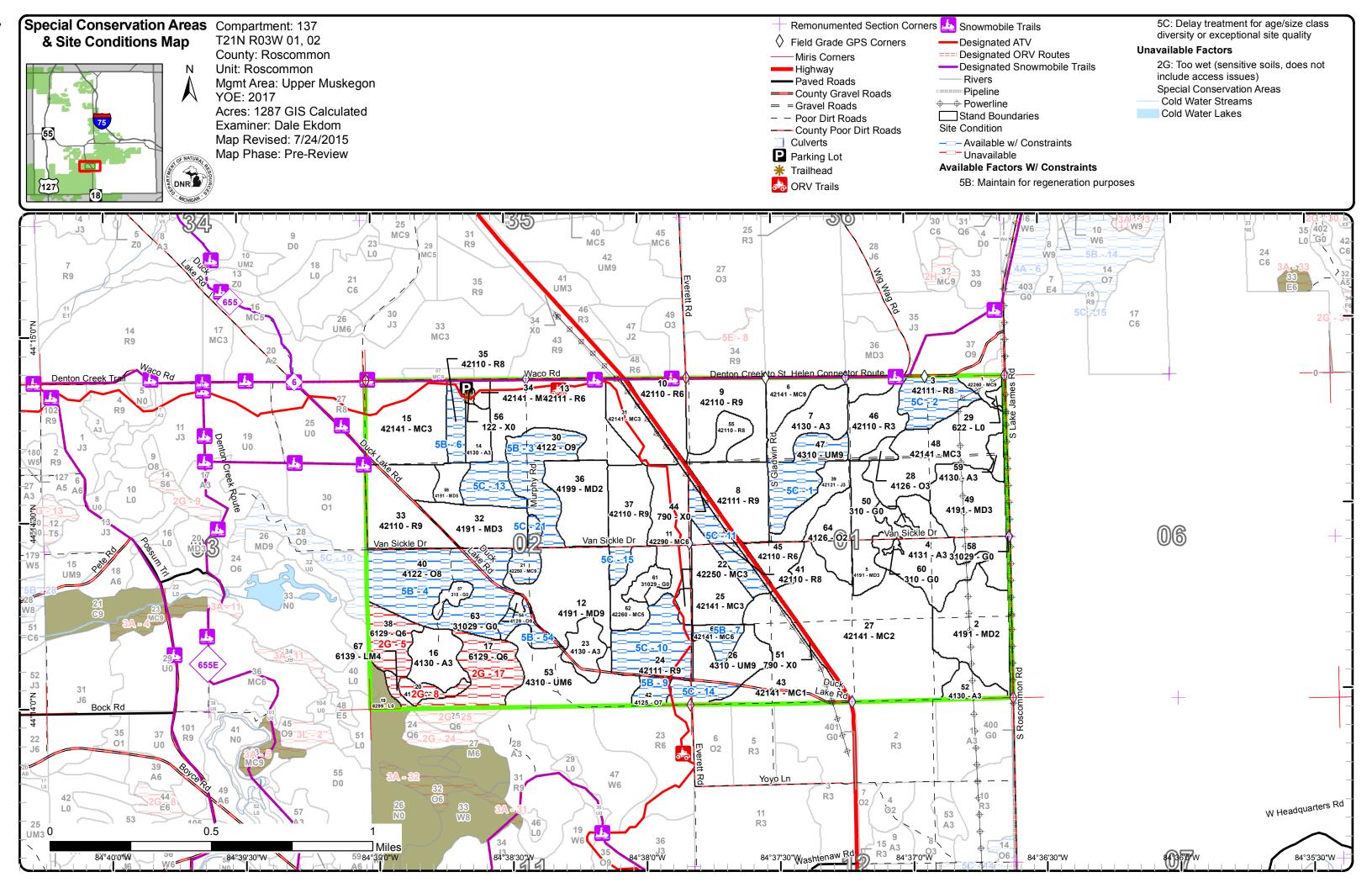
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

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







Report 1 – Total Acres by Cover Type and Age Class

Compartment

Year of Entry

DNR DNR

Mgt. Unit : Examiner

Age Class

	No.	Ko S	2° / 2°	\$ \ \	· / ~	§ / £	S. S	3/8		R. S.	\$ 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ 6,	00,00	, 2, / <sub>2</sub> ,		\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ig S	Z Jue		,
	#Error	#Error	######	#Error	######	#Error	<b>#####</b>	#Error	######	#Error	<b>#####</b>	#Error	#Error	#Error	#Error	#Error	#Error	#Error		İ
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



#### **Report 2 – Treatment Summary**

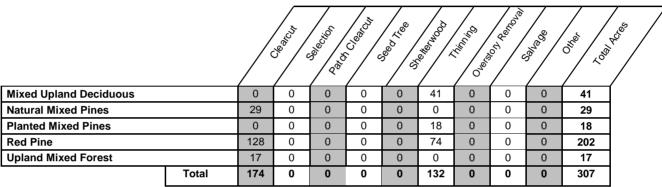
# Roscommon Mgt. Unit Year of Entry: 2017

**Acres of Harvest** 

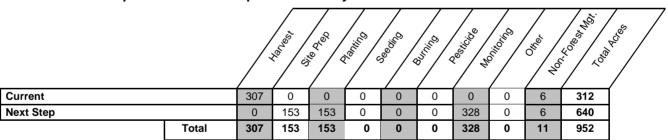
Compartment 137
Total Compartment Acres: 1,287

Commercial Harvest - 307 Harvests with Site Condition - 0 Next Step Harvest - 0 Habitat Cut - 0

#### **Cover Type by Harvest Method**



#### **Proposed and Next Step Treatments by Harvest Method**



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Compartment: 137

Year of Entry: 2017

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
6	71137006-Cut	17.9	42141 - Planted Mixed Pine, Mixed Deciduous	Sawtimber Well	86	51-80	Harvest	Crown Thinning	429 - Mixed Upland Conifers	Even-Aged	Proposal

**Habitat Cut: No Site Condition:** 

Prescription cut all aspen, red maple, and jack pine and thin oak/pine to 90 SF/acre residual, favor good quality red oak and white oak over poorer quality

black/pin oak, release suppressed pine where possible by thinning those areas heavy to pine Specs:

Next Step Treatments:

<u>Acceptable</u> Regen:

Other Old next step comments:

Comment:

10/1 /2016 **Proposed Start Date:** 

42111 - Planted 21.9 Sawtimber 91 141-Clearcut with 42111 - Planted Even-Aged 71137008-Cut Harvest Proposal Red Pine, Mixed Well 170 Retention Red Pine. Deciduous

Mixed Deciduous

**Habitat Cut: No Site Condition:** 

Prescription Final harvest main part of stand and then trench/re-plant to red pine, mark a few oak (esp. WO) for mast, place at least two 1/4 - 1/2 acre retention islands (1 on the north edge and one on the east edge) in stand for retention and visual, protect RR grade during logging operations Specs:

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

Treatments:

Acceptable any mix of planted red pine and natural oak to a fully stocked stand is acceptable regeneration

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

8 71137008-5.2 42111 - Planted Sawtimber 91 141-Harvest Low Thinning 4211 - Planted Even-Aged Proposal Thin Red Pine, Mixed Well 170 Red Pine

Deciduous

**Habitat Cut: No Site Condition:** 

Prescription thin part between RR grade and M-18 and use this as a visual buffer for cuts to the northeast, thin to 110 SF target residual to improve the Specs: quality of the stand, protect RR grade during logging operations

Next Step Treatments:

Acceptable

Regen:

Old next step comments:

Comment:

Other

Proposed Start Date: 10/1 /2016

71137009-Cut 32.2 42110 - Planted Sawtimber 141-Harvest Clearcut with 42111 - Planted Even-Aged Proposal Red Pine Well 170 Retention Red Pine, Mixed

Prescription Final harvest and trench/re-plant to RP, place 3-4 half-acre retention islands along Waco Rd., Van Sickle Rd, and the forest road on the east

Deciduous

edge for retention and visual, mark oak (especially WO) for mast Specs:

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

**Treatments:** 

**Habitat Cut: No** 

Acceptable Any combination of planted red pine and natural hardwoods to a fully stocked stand

**Site Condition:** 

Regen:

Other Old next step comments:

Comment:

10/1 /2016 **Proposed Start Date:** 

Next Step **Treatments:** 

Acceptable Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

71137011-Cut 29.2 42290 - Natural Poletimber 49 81-110 Harvest Clearcut with 42111 - Planted Even-Aged Proposal Mixed Pine Well Retention Red Pine,

Mixed Deciduous

**Habitat Cut: No Site Condition:** 

Prescription Final harvest and plant RP, leave a small island in the NE corner of the stand, leave the extreme SW portion of the stand, and buffer the grassy

opening for retention Specs:

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

**Treatments:** 

Acceptable any mix of conifers and hardwood to fully stocked stand is acceptable regeneration

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

Crown Thinning 71137012-Cut 40.8 4191 - Mixed Sawtimber 91 111-Harvest 4199 - Other Even-Aged Proposal **Upland Deciduous** Well 140 Mixed Upland

with Conifer

Deciduous

**Habitat Cut: No Site Condition:** 

Prescription crown thinning to improve the quality of the stand, thin to a target residual of 90 SF by first removing all aspen, red maple, and jack pine and then Specs: mark oak to the target BA favoring good white oak over poor black oak and red oak over black oak, eliminate steeper bowls with frost pockets,

narrow arms, and areas heavy to WP understory - these areas will function as retention and for diversity

Next Step Treatments:

<u>Acceptable</u> Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

71137013-Cut 43.9 42111 - Planted Sawtimber 90 141-Harvest Clearcut with 42111 - Planted Even-Aged Proposal Red Pine, Mixed Red Pine. Well 170 Retention

Deciduous Mixed Deciduous

**Habitat Cut: No Site Condition:** 

Prescription final harvest and plant red pine, leave part south of 2T for next time, leave up to four 1/2-1 acre retention islands along the "40 " roads, Specs:

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

Treatments:

Acceptable any mix of pine and oak to a fully stocked stand is acceptable regeneration

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

Next Step **Treatments:** 

<u>Acceptable</u>

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

71137037-Cut 21.0 42110 - Planted Sawtimber 91 51-80 Harvest Clearcut with 4129 - Mixed Even-Aged Proposal Oak

Red Pine Well Retention

**Habitat Cut: No Site Condition:** 

Prescription remove RP over-story and manage for the oak understory, leave WP for diversity and visual on ORV trail, leave part south of the ORV rail and cut with Stand 62 in some future YOE, plant RP as alternate if oak is destroyed during harvest, leave a 1-2 acre island or one to two 1/2-3/4 acre Specs:

islands in the south part of the cut for retention and visual on the ORV trail

Next Step

Treatments:

Acceptable any combination natural oak regeneration mixed with natural pine regeneration to a fully stocked stand

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

Roscommon Mgt. Unit Report 4 -- Treatments Compartment: 137 s Year of Entry: 2017 t а **Treatment** Acres Stand Size Stand BA **Treatment Treatment Cover Type Approval** Age n CoverType Method Objective Name Density Age Range Type Structure **Status** d 42110 - Planted 4211 - Planted 45 71137045-Cut 10.5 Poletimber 171-Harvest Low Thinning Even-Aged Proposal Red Pine Well 200 Red Pine **Habitat Cut: No Site Condition:** Prescription Thin to 110 SF to improve the quality of the stand, watch out for narrow gauge RR grade Specs: Next Step Treatments: <u>Acceptable</u> Regen: Other Old next step comments: Comment: **Proposed Start Date:** 10/1 /2016 71137055-Cut 9.0 42110 - Planted Sawtimber 88 51-80 Harvest Clearcut with 42111 - Planted Even-Aged Proposal Red Pine Medium Retention Red Pine, Mixed Deciduous **Habitat Cut: No Site Condition:** 

Prescription Final harvest and manage for oak and planted red pine mix, Leave an island along M-18 for visual and retention or just thin out along the SW

arm for visual/retention, protect oak understory where feasible Specs:

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

**Treatments:** 

Acceptable any combination of oak or planted red pine to a fully stocked stand is acceptable regeneration

Regen:

Other Old next step comments:

Comment:

**Proposed Start Date:** 10/1 /2016

**Total Treatment** 

306.6 Acreage Proposed:

## **Report 5 – Site Conditions**

Roscommon Mgt. Unit

Dale Ekdom : Examiner

Year of Entry: 2017

Compartment: 137

Availa	ability for	Managemer	nt				
Total	Acres	Acres Avail	Acres		Domina	nt Site	Cond
Acres	Available	With Condition	Not Available		5B	5C	2G
108	108	0	0	Aspen			0
13	13	0	0	Bare/Sparsely Vegetated			
19	18	0	0	Herbaceous Openland	0		
13	13	0	0	Jack Pine			
43	0	0	42	Lowland Conifers			42
3	0	0	3	Lowland Mixed Forest			3
7	7	0	0	Lowland Shrub			
200	200	0	0	Mixed Upland Deciduous			
59	50	9	0	Natural Mixed Pines		9	
132	21	105	6	Oak	105		6
293	286	7	0	Planted Mixed Pines	7		
310	220	90	0	Red Pine	9	81	
87	53	33	0	Upland Mixed Forest		33	0
1	1	0	0	Urban			
1,287	991	244	51	Total Forested Acres	122	123	51
•	77%	19%	4%	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.

					Other Site Condition	Other Site Condition	Other Site Condition
1	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	25	Unspecified	Unspecified	Unspecified	Unspecified
Coi	mments:						
2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	19	Unspecified	Unspecified	Unspecified	Unspecified
Соі	mments:						

# Report 5 – Site Conditions

Roscommon Mgt. Unit

Dale Ekdom : Examiner

3	Available	5B: Maintain for regeneration purposes	30	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
4	Available	5B: Maintain for regeneration purposes	62	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
5	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	16	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
6	Available	5B: Maintain for regeneration purposes	10	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
7	Available	5B: Maintain for regeneration purposes	7	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						
8	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	9	Unspecified	Unspecified	Unspecified	Unspecified
	Comments:						

# Report 5 – Site Conditions

Roscommon Mgt. Unit

Dale Ekdom : Examiner

9	Available	5B: Maintain for regeneration purposes	6	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
10	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	30	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
11	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	15	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
13	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	14	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
14	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						
15	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	4	Unspecified	Unspecified	Unspecified	Unspecified
C	omments:						

Report 5 - Site	<b>Conditions</b>
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Roscommon Mgt. Unit

Dale Ekdom : Examiner

17	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	26 Unspecified		Unspecified	Unspecified	Unspecified
C	Comments:						
21	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	5B: Maintain for regeneration purposes	Unspecified	Unspecified	Unspecified
C	Comments:						
54	Available	5B: Maintain for regeneration purposes	8	Unspecified	Unspecified	Unspecified	Unspecified
C	Comments:						

Mgt. Unit

Compartment: #Type! Year of Entry:

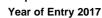


#### Report 6 - PROPOSED SPECIAL CONSERVATION AREA\* (SCA) DETAILS

\* 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: 137





### Report 7 – 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.

Conservati Area	ion Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen stocked trout populations and those of other coldwater ficonditions for coldwater fishes may occur in Michigan la groundwater inflows, or are located in colder (northern) a Director's action and designated as trout resources by F	ish species to persist from year to year. Suitable kes if they are relatively deep, have substantial areas of the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxyg stocked trout populations and those of other coldwater fi year to year. Coldwater streams in Michigan typically pro contributions of groundwater to their stream flows. Such designated as trout resources by Fisheries Order 210.	ish species (e.g., slimy sculpin) to persist from ovide these conditions due to substantial

s t		Mgt. Unit		Report 8	- Forested Stands	Compartment: Year of Entry:	DNR DNR
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN
			#Type!				



Stand	Cover Type	Acres	Managed Site	General Comments:
19	6299 - Lowland Shrub (OI)	5.3	No	Part of larger wetland complex to the west and south
44	790 - Other Bare/Sparsely Vegetate	9.2	No	M-18 ROW / Power-line ROW with narrow strip of trees between the highway and M-18, Retain as visual buffer for any cuts on the west side of M-18
63	31029 - Grass (OI)	1.4	No	"GRASSY" BOWL WITH LOTS OF SANDY 2T'S, SHOOTING RANGE AND PARTY SPOT