

ROSCOMMON FOREST MANAGEMENT UNIT COMPARTMENT REVIEW PRESENTATION

COMPARTMENT # 10 ENTRY YEAR: 2013

Compartment Acreage: 1428 County: Roscommon

Revision Date: 07-21-2011

Stand Examiner: Jason Lewicki

Legal Description: T24N R02W sections 10, and 15

Management Area: AuSable Outwash

Management Goals: Provide for sustainable ecosystem based management. Maintain healthy and diverse forested stands for wildlife, recreation and the production of forest products.

Soil and Topography: Topography is generally flat with large wetland areas both forested and non forested. Soils range from grayling sands on the uplands to Tawas-Lupton Mucks on the lowlands

Ownership Patterns, Development, and Land Use in and Around the Compartment: This compartment lies just to the east of the Village of Roscommon and is intermixed with state and private landholdings.

Unique, Natural Features: South Branch of the AuSable River is a designated natural river and bisects the compartment.

Archeological, Historical, and Cultural Features: None known

Special Management Designations or Considerations: South Branch of the AuSable River is a designated natural river

Watershed and Fisheries Considerations: South Branch of the AuSable River is a designated natural river and bisects the compartment.

Wildlife Habitat Considerations: Deer, grouse, turkey, bear

Mineral Resource and Development Concerns and/or Restrictions: Sections 3, 10 and 15, T24N-R2W, Roscommon County

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 Mississippian Michigan Formation and Marshall Sandstone. The Michigan is quarried for gypsum in the State and the Marshall has been used as a building stone. Most of the nearby gravel pits are associated with upland areas. The nearest gravel pit is located two miles to the west. Gravel potential in Section 3 may be good. St. Helen Field lies

three miles to the east. The field has produced over 8.7 million BO and 14.7 Bcf gas from the Devonian Richfield Formation. It is in secondary recovery operations currently. Section 3 is currently leased for oil and gas development.

Vehicle Access: There is good vehicle access on the north and far south sides of the AuSable river due to it being primarily high and dry. M-18 lies on it's north border and M-76 runs near it's south border. Vehicle access is fairly poor throughout the center of the compartment due to large wetland areas

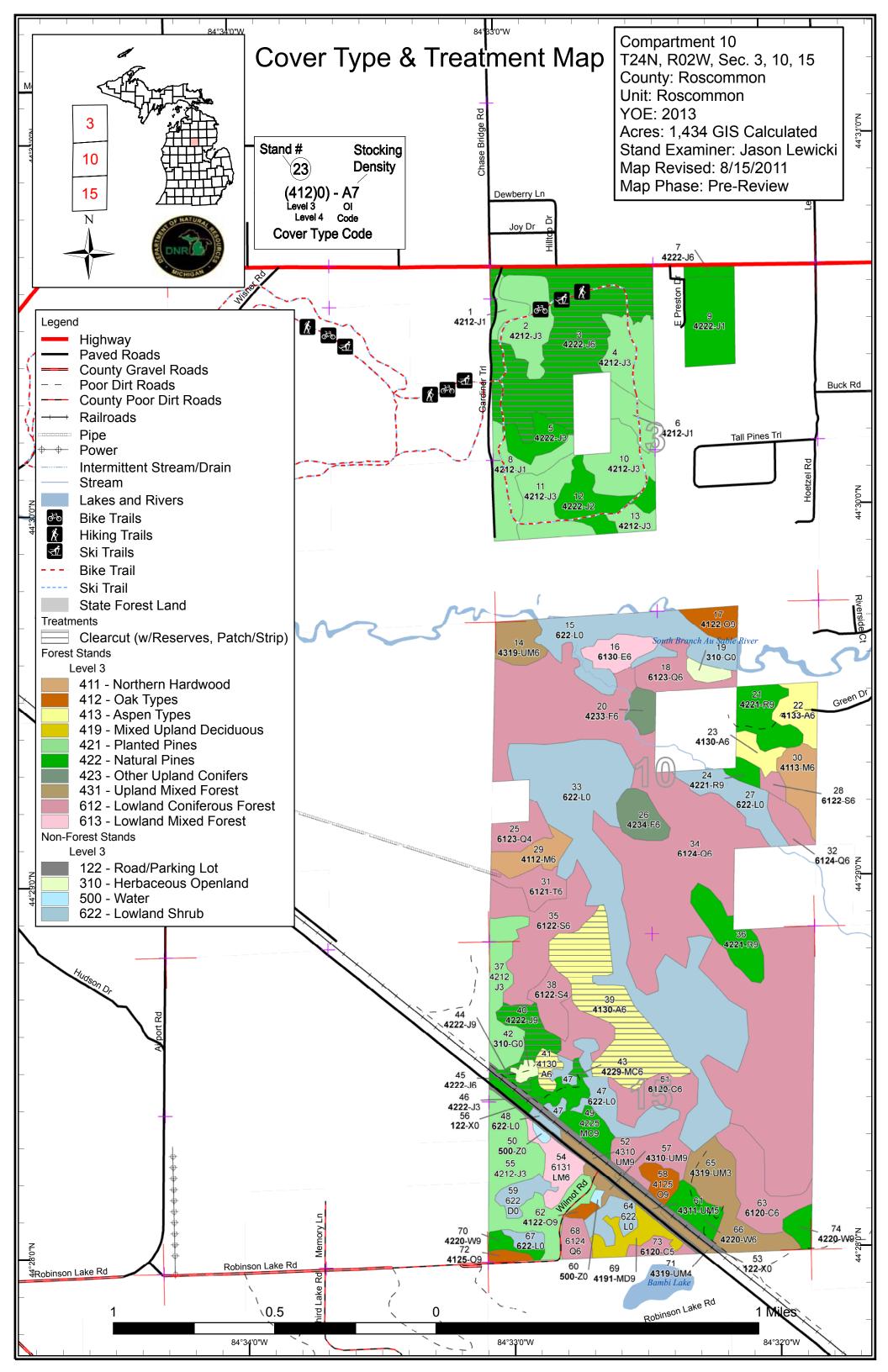
Survey Needs: None at this time

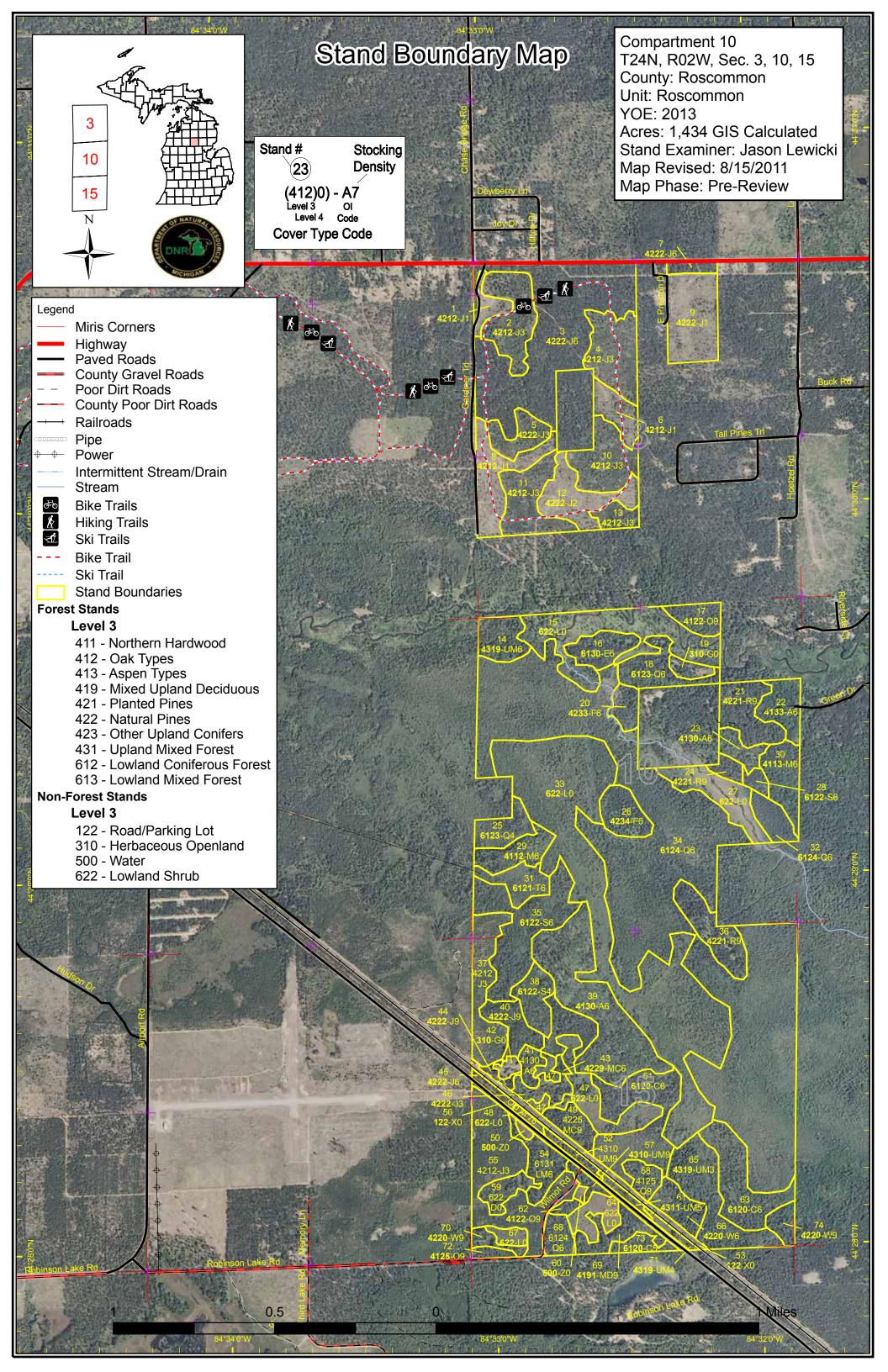
Recreational Facilities and Opportunities: Opportunities include hunting, fishing, cross country skiing and hiking along the Tisdale Triangle designated state pathway.

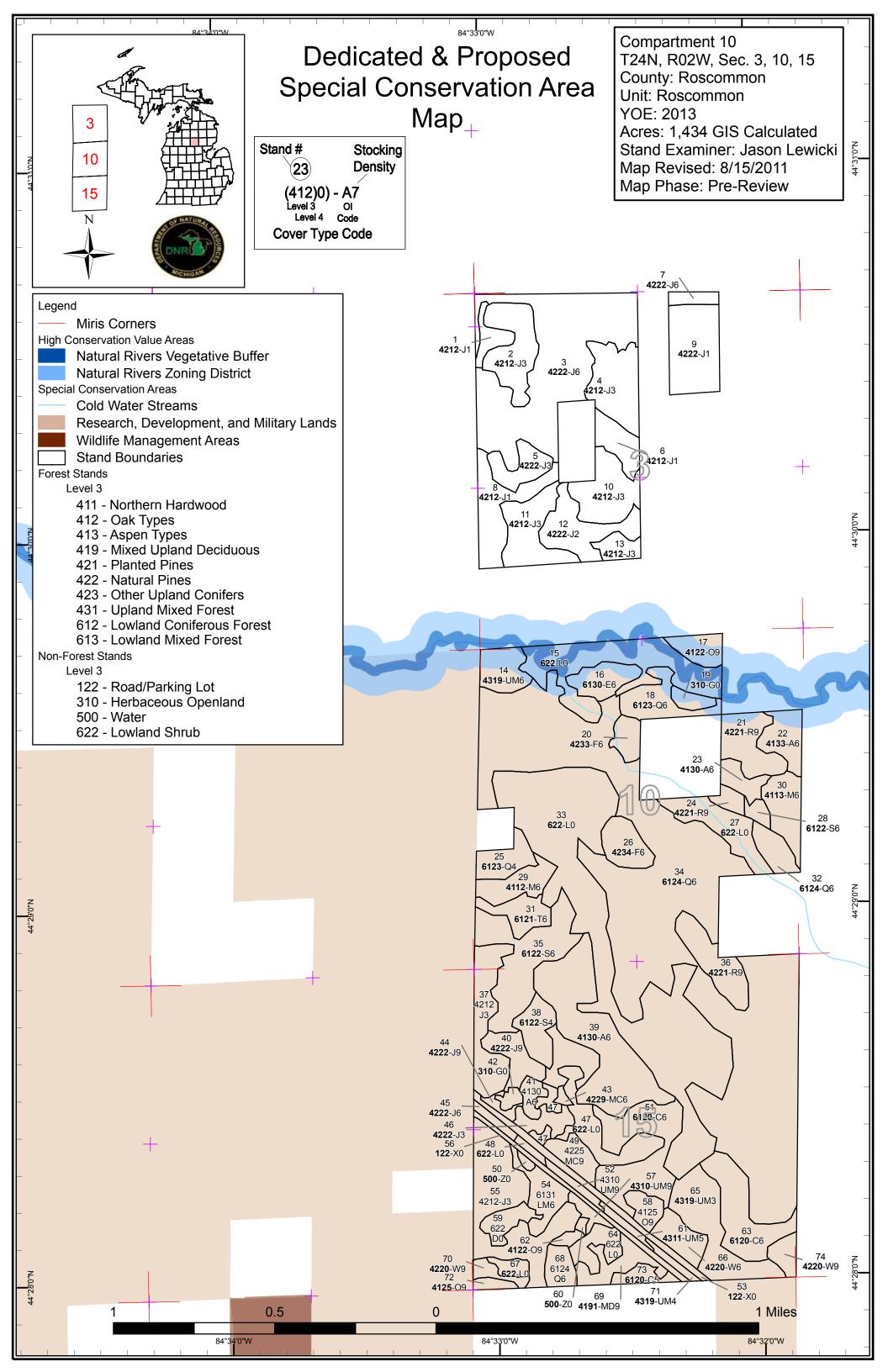
Fire Protection: There are large areas of jack pine cover types especially on the north side of the river which could pose a potential threat for large wildfires. Access for suppression is good there as well as being fairly close to South Branch Township, Higgins Township and DNR offices.

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







Jason Lewicki : Examiner



							Age (Class									
	, North	Do No.	\$ /	0,0	, p	, S. J.	LO'AS	\$ /	80.00	R. J.	\$ 6	8 /	00,00	81,27	Sy Su	8	, **
Aspen	0	0	0	0	0	56	0	0	23	0	0	0	0	0	0	80	ĺ
Cedar	0	0	0	0	0	0	0	0	0	0	5	61	0	0	0	66	[
Herbaceous Openland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
Jack Pine	0	85	177	0	0	0	0	95	13	0	0	0	0	0	0	371	[
Lowland Conifers	0	0	0	0	0	0	0	34	0	0	0	7	301	0	0	342	[
Lowland Mixed Forest	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	23	[
Lowland Shrub	246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	246	[
Lowland Spruce/Fir	0	0	0	0	0	0	0	60	0	0	0	0	0	0	3	63	ĺ
Mixed Upland Deciduous	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	[
Natural Mixed Pines	0	0	0	0	0	0	0	0	1	0	9	0	0	0	0	10	[
Northern Hardwood	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	27	[
Oak	0	0	0	0	0	0	0	0	0	0	15	5	0	0	0	19	[
Red Pine	0	0	0	0	0	0	0	0	39	0	0	0	0	0	0	39	[
Tamarack	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	11	[
Treed Bog	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	ĺ
Upland Mixed Forest	0	0	0	29	0	0	0	17	3	0	0	4	0	0	0	53	ĺ
Upland Spruce/Fir	0	0	0	12	0	0	0	0	0	0	0	0	0	0	7	19	[
Urban	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	[
Water	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	[
White Pine	0	0	0	0	0	10	0	0	0	0	0	6	4	0	0	20	ĺ
Total	281	85	177	41	0	66	0	267	80	0	40	82	305	0	10	1434	



Table 2 – Proposed Treatment Summaries

Roscommon Mgt. Unit

Compartment 010 Year of Entry 2013 **Total Compartment Acres: 1434**

Acres by Treatment Type

Commercial Harvest - 164 Site Prep - 0 Tree Planting - 0 Prescribed Burn - 0 Other - 0

Habitat Cut - 0 Tree Seeding - 0 Pesticide - 0 Opening Maintenance - 0

Cover Type by Harvest Method

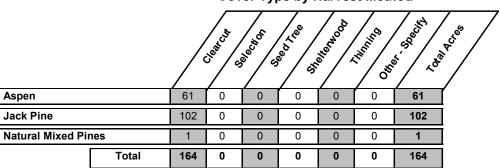


Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 010 Year of Entry 2013

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a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
3	71010003-Cut	88.6	42220 - Natural Jack Pine	High Density Pole	65	Harvest	Clearcut with Reserves	42120 - Planted Jack Pine	Cmpt. Review Proposal

Prescription Final harvest and plant jack pine. Protect ski trail, no winter harvesting. Apply retention along M-18 and by leaving some super canopy pine and oak. Stand should end up a mix of jack pine and oak. Specs:

High Density Pole 43

Other Comments:

<u>Next</u>

Trench and plant jack pine.

Steps:

39

s

4130 - Aspen

Harvest

Clearcut with Reserves

4130 - Aspen

Cmpt. Review Proposal

Specs:

71010039-Cut 56.1

<u>Prescription</u> Final harvest stand and regenerate aspen. There is a small wet swale that must be crossed in order to access stand for harvesting operations. This swale must be either frozen in, filled in using multiple culverts or some type of mats used to cross with logging equipment. Retention will be used along swamp edges. Use "rabbitat" spec to place brush piles along the swamp edges.

<u>Other</u>

Comments:

<u>Next</u> Steps:

71010040-Cut 11.1 42220 - Natural High Density Log Harvest Clearcut with 42120 - Planted Jack Cmpt. Review 40 75 Jack Pine Reserves Pine Proposal

Prescription Final harvest in winter or dry summer due to high watertable. Final harvest 2" spec and manage for jack pine by seeding or planting. Use rabitat Specs: spec along swamp edge. Retention should be applied along swamp edges. Apply "rabbitat" spec and place brush piles on north edge.

Other_

Comments:

Trench and plant/seed jack pine. <u>Next</u>

Steps:

4130 - Aspen Cmpt. Review 71010041-Cut 4.5 High Density Pole 75 Clearcut 4130 - Aspen Harvest Proposal

Prescription Final harvest and regenerate aspen for age class diversity and habitat. Consider no retention due to size. Use "rabbitat" spec for placing brush Specs: piles along swamp edge.

Other_

Comments:

<u>Next</u>

Steps:

71010043-Cut 42290 - Natural Clearcut 4191 - Mixed Upland 1.2 High Density Pole 75 Harvest Cmpt. Review Mixed Pine Deciduous with Proposal Conifer

Prescription Fanal harvest stand and let regenerate naturally. Will accept any mix of regeneration from oak, maple and pine. If natural regeneration is not Specs: sufficient, plant to jack pine.

<u>Other</u>

Comments:

<u>Next</u>

Steps:

Table 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 010 Year of Entry 2013

22	OF	NAT	JRA	
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100	DN	IRU	-	835
/	M	CHIG	AN.	1
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a n d	Treatment Name	Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
44	71010044-Cut	2.3	42220 - Natural	High Density Log	75	Harvest	Clearcut	42120 - Planted Jack Pine	Cmpt. Review

Prescription Final harvest and manage for jack pine. Plant or seed back to jack pine. Use retention on east side of grass opening where jack pine may not

Specs: be as mature.

<u>Other</u> Comments:

<u>Next</u> Trench and plant/seed jack pine.

Steps:

S

Total Treatment

Acreage Proposed: 163.8

Roscommon Mgt. Unit Table 4 -- Treatments Prescribed with Compartment: 010 a Limiting Factor s Year of Entry 2013 t Approval Status Stage1 **Treatment** n Treatment Acres Size Stand **Treatment Cover Type** Name CoverType Density Method Objective Age Type d #Error **Prescription** Specs: <u>Other</u> Comment: <u>Next</u> Steps: Limiting Factor and No

Total Treatment Acreage Proposed:

Treatment Reason

0

Out of YOE -- Treatments Prescribed with No Limiting Factor

Year of Entry: 2013

									Archigan .
Treatme Name		Acres	Stage1 CoverType	Size Density	Stand Age	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
71048_Ou OE_1-C		2.2				Harvest	Low Thinning	42111 - Planted Red Pine, Mixed Deciduous	Cmpt. Review Proposal
Prescription Specs:		o 120 SF b e possible	by concentrating on i	mproving the qua	ality of the	stand, no rete	ntion other than residual I	RP, save areas heavy to	o oak understory
Other Comments:	cut w	iht stand to	the west in 71046						
Next Steps:	mana	age for utili	ty poles next YOE						
71048_Ou OE-Cu		4.0			0	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
Prescription Specs:	trees	, address (green-up concerns o	n the east side o	f this stand	d if still a proble	R/W pine SL for diversity, em, dormant season cut t ench and plant RP if rege	to promote vigorous spr	
Other Comments:	cut w	ith stand to	the west in 71046						
Next Steps:									
71118_Ou OE-Cu		6.6			0	Harvest	Clearcut with Reserves	4131 - Aspen, Oak	Cmpt. Review Proposal
Prescription Specs:	areas reger	in the nor	th part of the stand f	or BMP reasons	. leave out	areas with hea	suals. buffer low marshy g avy R/W pine component rration alternative is to pla	for diversity/retention/v	isuals. Any
Other Comments:	treat	with stand	to the west in 71117	, add proper pro	tection spe	ecs to ensure t	rail staus open to snowm	obiles during hauling	
Next Steps:									

Prescription thin to 90-120 SF/Acre so as to enhance old growth/bio-diversity characteristics

Specs:

stand has a dense A/RM understory which will need to be addressed with appropriate sale specs, save W3 understory where possible, treat

Harvest

Low Thinning

42260 - Natural

Pine, Mixed

Deciduous

Cmpt. Review

Proposal

Comments: stand to the west in 71163when this stand is treated (same stand)

Next Steps:

Total Treatment

71165_OutOfY 5.1

OE-Cut

Acreage Proposed: 17.9

S t	Roscommon Mgt. Unit			5 – Fo	orested Sta	Compartment: 010 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42121 - Planted Jack Pine, Mixed Deciduous	Low Density Sapling	5.7	3		Stand was harvested leaving all oak and pine under 4" and theen was plated with jack pine. There is also some oak stump sprouts present.
2	42120 - Planted Jack Pine	High Density Sapling	22.4	16		Stand may have been seeded? Good oak mixture.
3	42220 - Natural Jack Pine	High Density Pole	88.6	65	51-80	2 aged jack pine stand. Majority of stand is around 65 years old with a 85 year old sawlog jack pine component. Older jack pine is experiencing decline and mortality. A few red pine and oak scattered about. Oak seedlings in understory. 2 aged scenario results in a higher risk for wildfire and budworm attacks. Tisdale ski trail meanders through stand.
4	42120 - Planted Jack Pine	High Density Sapling	22.7	17		Plantation with oak sprouts mixed in along with some older supercanopy oak.
5	42220 - Natural Jack Pine	High Density Sapling	10.7	17		
6	42121 - Planted Jack Pine, Mixed Deciduous	Low Density Sapling	10.3	3		Stand was harvested leaving all oak and pine under 4" and theen was plated with jack pine. There is also some oak stump sprouts present.
7	42220 - Natural Jack Pine	High Density Pole	3.9	65	51-80	Thin strip of jack pine that was left as buffer fo stand to the south. Along M-18
8	42120 - Planted Jack Pine	Low Density Sapling	21.3	3		Stand was harvested leaving all oak and pine under 4" and theen was plated with jack pine. There is also some oak stump sprouts present.
9	42220 - Natural Jack Pine	Low Density Sapling	27.4	6		
10	42120 - Planted Jack Pine	High Density Sapling	21.1	17		
11	42120 - Planted Jack Pine	High Density Sapling	21.1	17		
12	42220 - Natural Jack Pine	Medium Density	20.8	3		Stand was harvested leaving all oak and pine under 4" and then was planted with jack pine. There is also some oak stump sprouts present.
13	42120 - Planted Jack Pine	High Density Sapling	6.0	17		
14	4319 - Mixed Upland Forest	High Density Pole	11.9	65		
16	6130 - Fir, Aspen, Maple	High Density Pole	11.3	65		

S t	Roscommon Mgt. Unit			5 – Foi	rested Sta	nds Compartment: 010 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
17	4122 - Oak, Pine	High Density Log	8.5	95		
18	6123 - Lowland Fir	High Density Pole	14.7	62	81-110	Mostly balsam fir stand with some mixed aspen including balsam poplar. Black ash swale runs through stand and broadens out towards creek. Ash is currently infested with EAB and therefore will not be in canopy species.
20	42330 - Upland Fir	High Density Pole	6.6	Uneven Age	51-80	Stand goes from red pine saw timber on high ground then drops down to creek with old rotten aspen and balsam fir. There is a black ash component but it is heavily infested with EAB.
21	42210 - Natural Red Pine	High Density Log	17.4	75	111-140	Nice stand of natural red pine sawtimber. Some lower areas with some balsam fir and nice white pine.
22	4133 - Aspen, Mixed Pine	High Density Pole	12.0	75	81-110	Landlocked by PVT and AuSable river.
23	4130 - Aspen	High Density Pole	6.9	75	81-110	A mixed aspen stand with some red maple and pine mixed in. Landlocked by private property and AuSable River.
24	42210 - Natural Red Pine	High Density Log	3.9	75	141-170	Small stand of natural red pine on north edge of creek. Landlocked by private property and the AuSable River.
25	6123 - Lowland Fir	Low Density Pole	10.6	65	1-50	
26	42340 - Upland Spruce/Fir	High Density Pole	11.9	26	1-50	Upland islan in the middle of swamp. Stand was habitat cut in 1984. Now is a mix of balsam fir and white pine.Some aspen and patches of jack pine.
28	6122 - Black Spruce	High Density Pole	3.2	Uneven Age	81-110	Lowland but operable. Nice black spruce stand mixed with some balsam fir and aspen.
29	4112 - Maple, Beech, Cherry Association	High Density Pole	12.4	65	81-110	Red maple pole timber stand mixed with some bigtooth aspen and paper birch. A few scattered jack pine. Some larger 24"+ white pine on far west side along section line.
30	4113 - R.Maple, Conifer	High Density Pole	14.5	65	51-80	Red maple and balsam fir stand with a few aspen . Thick balsam fir understory.
31	6121 - Tamarack	High Density Pole	10.6	65	1-50	Tamarack swamp with some cedar and dead and dying ash(EAB). Some open areas dominated by tag alder and willow.

32

6124 - Lowland Spruce- High Density Fir Pole

8.4

65

81-110

s t	Roscommon Mgt. Unit			5 – Fo	orested Sta	nds Compartment: 010 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
34	6124 - Lowland Spruce- Fir	High Density Pole	301.0	110	51-80	Large Q type that in areas is dominated by tamarack and balsam fir. Some scattered cedars and birch. Tag alder and willow is thick in understory especially in more open areas. Stand is large and am sure species composition changes throughout as only small areas were seen. A tamarack was cored at least 110 years old, riings were almost undistinguishable in areas.
35	6122 - Black Spruce	High Density Pole	48.3	65	51-80	
36	42210 - Natural Red Pine	High Density Log	17.5	70	111-140	Natural red pine stand on island in swamp. Balsam fir understory. A few open spots. Some red maple and quaking aspen mixed in and along small openings.
37	42120 - Planted Jack Pine	High Density Sapling	22.3	16		Jack pine stand that appears to be trenched and seeded. A good mix of oak.
38	6122 - Black Spruce	Low Density Pole	11.6	65	1-50	Low density stand of spruce with open areas dominated by tag alder. Some black ash that is infested with EAB.
39	4130 - Aspen	High Density Pole	56.1	43	51-80	Por quality quaking aspen stand with some jack pine and old oak mixed in. Scattered balsam fir in understory. Hypoxylon present.
40	42220 - Natural Jack Pine	High Density Log	11.1	75	111-140	Nice jack pine sawtimber stand mixed with black spruce on a high water table. Some quaking aspen mixed in on south end.
41	4130 - Aspen	High Density Pole	4.5	75	51-80	Poor quality quaking aspen stnad with some scattered pin oak.Stand is in decline and has some mortality.
43	42290 - Natural Mixed Pine	High Density Pole	1.2	75	51-80	Small little island of pine and oak mix. Road will need to be constructed through this stand to reach larger aspen stand to the north east.
44	42220 - Natural Jack Pine	High Density Log	2.3	75	81-110	Small stand of mature jack pine that partially surrounds grass opening. Higher and drier than preinventory stand 70. Areas of good advanced oak regeneration. Stand has somewhat high water table.
45	42220 - Natural Jack Pine	High Density Pole	2.6	65	51-80	
46	42220 - Natural Jack Pine	High Density Sapling	7.0	16		Stand regenerating to a good mix of natural pines and some oak. A few wet spots that were not cut that contain some larger maple,birch ect.
49	42250 - Pine, Oak	High Density Log	8.5	90	81-110	Natural stand of jack pine and oak mixed with some white pine. Some red maple and red pine. More of an oak component on SE side of stand. No easy access for harvesting.
51	6120 - Lowland Cedar	High Density Pole	35.4	100	81-110	Cedar with understory of balsam fir and tag alder. Some small areas of slightly higher areas with some hardwoods. More black spruce on north end

S t	Roscommon Mgt. Unit			5 – F	orested Sta	nds Compartment: 010 Year of Entry: 2013
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
52	4310 - Pine, Oak Mix	High Density Log	3.3	75	51-80	Mixed pine, oak stand.
54	6131 - Hemlock, White Pine, Maple, Birch	High Density Pole	11.8	60	81-110	Wet white pine stand mixed with red maple. Scattered and clumped large white pine.
55	42120 - Planted Jack Pine	High Density Sapling	43.4	17		
57	4310 - Pine, Oak Mix	High Density Log	3.5	100	81-110	Small stand along M-76. Poor quality oak and white pine mix.
58	4125 - Black, N. Pin Oak	High Density Log	6.3	95	51-80	Stand is landlocked by swamp or railroad. Mix of oak, aspen and balsam fir.
61	4311 - Pine, Aspen Mix	Medium Density Pole	2.7	65	51-80	Some planted red pine with some aspen and oak on north edge of stand along tracks. Some wet non forested areas.
62	4122 - Oak, Pine	High Density Log	2.1	100	81-110	Old stand of poor quality oak and jack pine. Balsam fir and white pine understory. Some white pine making it into canopy. Small acerage.
63	6120 - Lowland Cedar	High Density Pole	25.8	105	81-110	A few hemlocks on higher drier spots.
65	4319 - Mixed Upland Forest	High Density Sapling	29.0	26		Young aspen mixed with older age class of balsam fir and white pine left from harvest. Must have cut all hardwoods and aspen and left conifers??? Conifers act as supercanopy above aspen. Some wet pockets. Far east end has small area of planted/seeded jack pine from adjacent harvest.
66	42200 - Natural White Pine	High Density Pole	10.3	40	81-110	Pole timber white pine stand with some red pine mixed in. A few stump sprout maple and oak from harvest.
68	6124 - Lowland Spruce- Fir	High Density Pole	7.0	100	81-110	Black spruce and cedar swamp.
69	4191 - Mixed Upland Deciduous with Conifer	High Density Log	11.3	90	51-80	
70	42200 - Natural White Pine	High Density Log	3.9	110	111-140	White pine stand mixed with some jack pine. More jack pine component to S & E. Some large diameter 110+ yr old white pine. Small bog in center of stand.
71	4319 - Mixed Upland Forest	Low Density Pole	2.6	60	51-80	
72	4125 - Black, N. Pin Oak	High Density Log	2.7	100	81-110	Old, low quality sawtimber stand with heavy white pine understory. Some white pine making into canop.
73	6120 - Lowland Cedar	Medium Density Pole	5.0	90	111-140	

S t	Roscommo	n Mgt. Unit		5 – Fo	orested Stai	Compartment: 010 Year of Entry: 2013	DNR
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	MICHIGAN
74	42200 - Natural White Pine	High Density Log	5.5	105	141-170	Small stand of large diameter white pine mixed wit pine. A few hemlock mixed in.	h some red

6 - Nonforested Stands

Compartment: 010 Year of Entry: 2013



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
15	622 - Lowland Shrub	43.7	No	Unspecified	Lowland areas around AuSable River.
19	3102 - Grass	4.1	No	Unspecified	
27	622 - Lowland Shrub	18.3	No	Unspecified	
33	622 - Lowland Shrub	147.4	No	Unspecified	
42	3102 - Grass	2.4	No	Unspecified	
47	6229 - Mixed lowland shrub	22.2	No	Unspecified	
48	622 - Lowland Shrub	1.7	No	Unspecified	
50	50 - Water	1.1	No	Unspecified	
53	122 - Road/Parking Lot	11.4	No	Unspecified	
56	122 - Road/Parking Lot	7.7	No	Unspecified	
59	6224 - Treed Bog	7.5	No	Unspecified	
60	50 - Water	0.9	No	Unspecified	
64	622 - Lowland Shrub	9.1	No	Unspecified	
67	622 - Lowland Shrub	3.6	No	Unspecified	

Compartment: 010 Year of Entry: 2013



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.

Conservatio Area	n Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area	
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen conditions 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.		
HCVA	Natural Rivers	There are two Natural Rivers datasets which are derived from spatial buffers set from an established and approved distance from the river centerlines. The Natural Rivers Zoning District is a 400 foot buffer for most Natural Rivers. The Vegetative Buffer ranges from 25 to 100 feet. To view specific Zoning Districts and Vegetative Buffers for each Natural River see the table located on the I:\Documentation\GDSE data folder.		
SCA	Research and Military Areas	include the 5,847 acre Forest Fire Experiment Station, the 12,000 Area, the Beaver Islands Archipelago Wildlife Research Area (the High and Hog Islands, all state owned land on Beaver, South Forest	se areas provide facilities and lands specifically dedicated for research, or other purposes. They ude the 5,847 acre Forest Fire Experiment Station, the 12,000 acre Houghton Lake Wildlife Research a, the Beaver Islands Archipelago Wildlife Research Area (that includes most of Garden Island, all of a and Hog Islands, all state owned land on Beaver, South Fox and North Fox Islands), the Cusino dlife Research Area, the 3,000 acre Hunt Creek Fisheries Research Station, the 125 acre Wyman sery, and over 144,000 acres of Military Lands.	