

Compartment Review Presentation

Newberry Forest Management Unit

Compartment 18
Entry Year 2015

Acreage: 2,935
County Luce

Management Area: Deer Park

Revision Date: 09/04/2013

Stand Examiner: Scott Kentner

Legal Description:

T49N R11W Section(s) 13,14,15,22,23,24

T49N R10W Section(s) 18,19

Identified Planning Goals:

To maintain a healthy, sustainable forest ecosystem with additional emphasis on recreational needs.

Soil and topography:

Rubicon sand; part of the Two Hearted Lake Plain which includes gently rolling sand plains, bisected by a steep east – west escarpment.

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

Surrounded by State-owned lands, with private lands just to the north of the compartment boundary around Muskallonge Lake

Unique Natural Features:

Diversity of age classes within the jack pine type.

Archeological, Historical, and Cultural Features:

No Archeological, Historical, or Cultural Features known.

Special Management Designations or Considerations:

Watershed and Fisheries Considerations:

Fisheries Values: None

Fisheries Concerns: There are no waterbodies in this compartment, so Fisheries has no concerns at this time.

Wildlife Habitat Considerations:

This compartment is located in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. It is almost entirely comprised of jack pine and mature red and white pine with a small oak component. This is consistent with presettlement records indicating an extensive pine forest ecosystem. Oak and possibly white pine components have increased in the current species composition of this compartment from what existed in presettlement times.

In a predominantly pine forest ecosystem, maintaining a variety of age and size classes and retaining as much structural diversity in managed stands as possible will be important in achieving wildlife objectives. Mast producing species, suitable nest and den trees, and snags will be retained where they occur. The oak throughout this compartment provides an excellent supply of hard mast for wildlife and therefore black bear, white-tailed deer, and squirrels are likely to be common. Wildlife featured species in this management area include American marten, piping plover, Kirtland's warbler, and red crossbill.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand and gravel. There is insufficient data to determine the glacial drift thickness. The Cambrian Munising Formation and Precambrian Jacobsville Sandstone subcrop below the glacial drift. The Jacobsville has been used as a building stone in the past. There are no gravel pits in the area, and potential appears to be limited. There is no economic oil and gas production in the UP.

Vehicle Access:

Approximately 24 miles north of Newberry via Co Rd 407; south of Muskallonge Lake

Survey Needs:

None

Recreational Facilities and Opportunities:

Both the Pine Ridge and Two Heart ORV trails run throughout the compartment. The Pine Ridge trail traverses stands 8, 28, 35, 53 and 54. Do not skid along the trail and keep the trail clear of logging slash and debris. If trail marker trees are to be cut, work with the trails analyst or Rec Spec to place carsonite posts with trail markers. Opportunities for hunting, hiking, berry picking, wildlife viewing. The Perch Lake Rustic Campground is located on the east side of County Road 407, just outside of the SE corner of the compartment.

Fire Protection:

Large fire runs are possible because of the continuous conifer cover type. Access has fire lanes on the section lines and some scattered trail roads throughout. Most trail roads will need work to be used as fire lines. Two small communities could be at risk, Perch Lake is with 1/2 mile to the east and Deer Park(Muskellunge Lake) to the north.

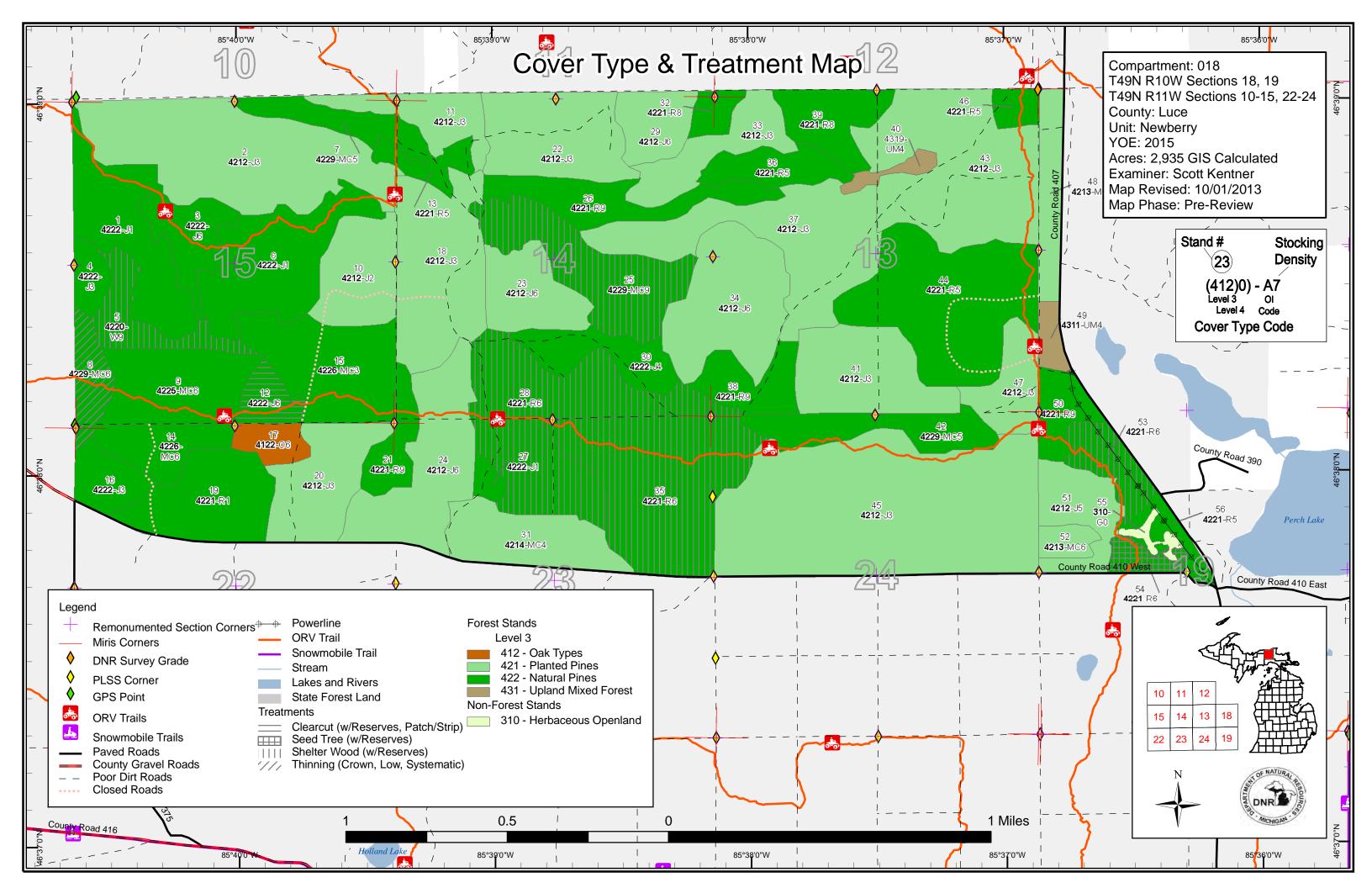
Additional Compartment Information:

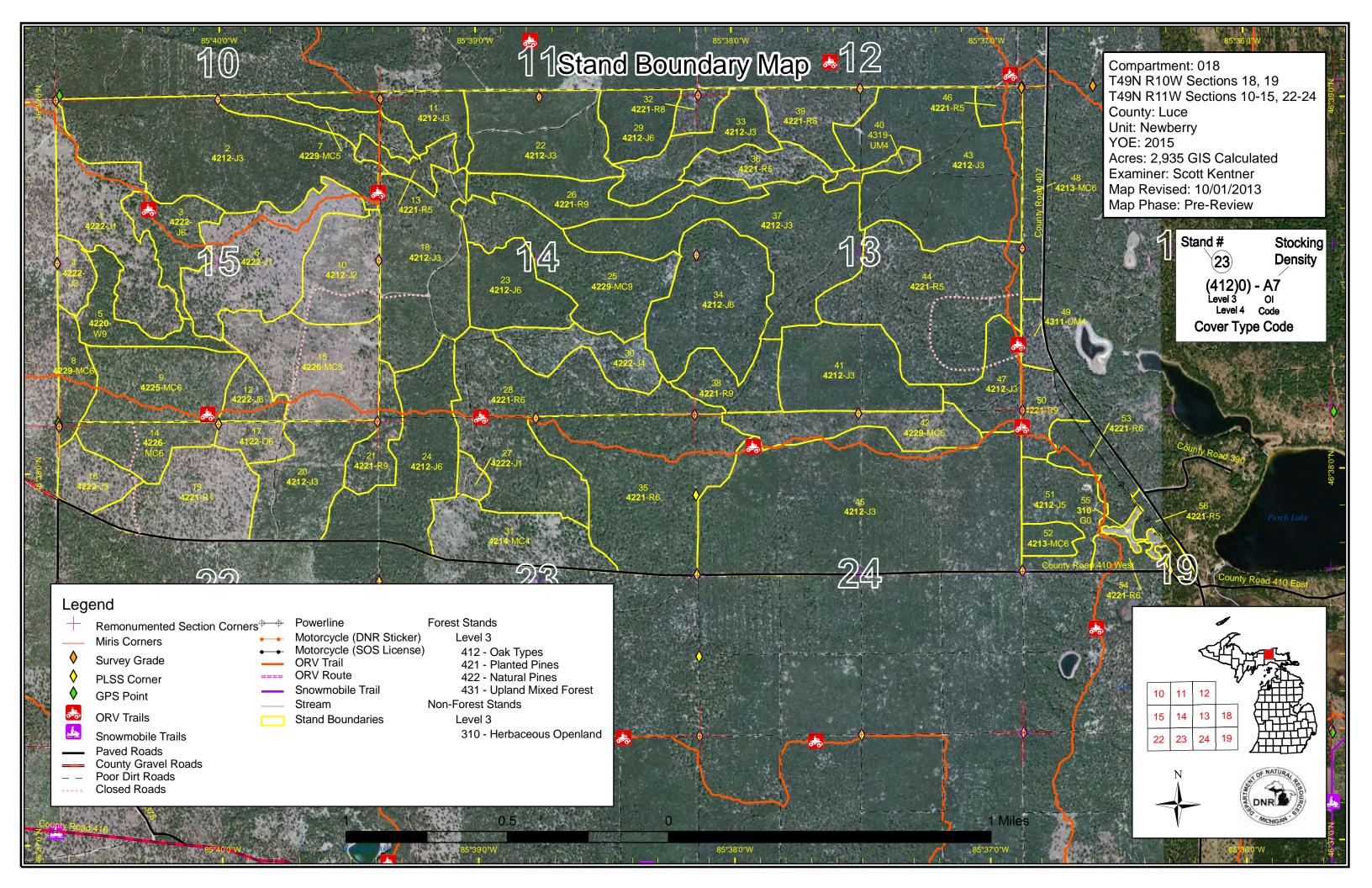
The following reports from the Inventory are attached:

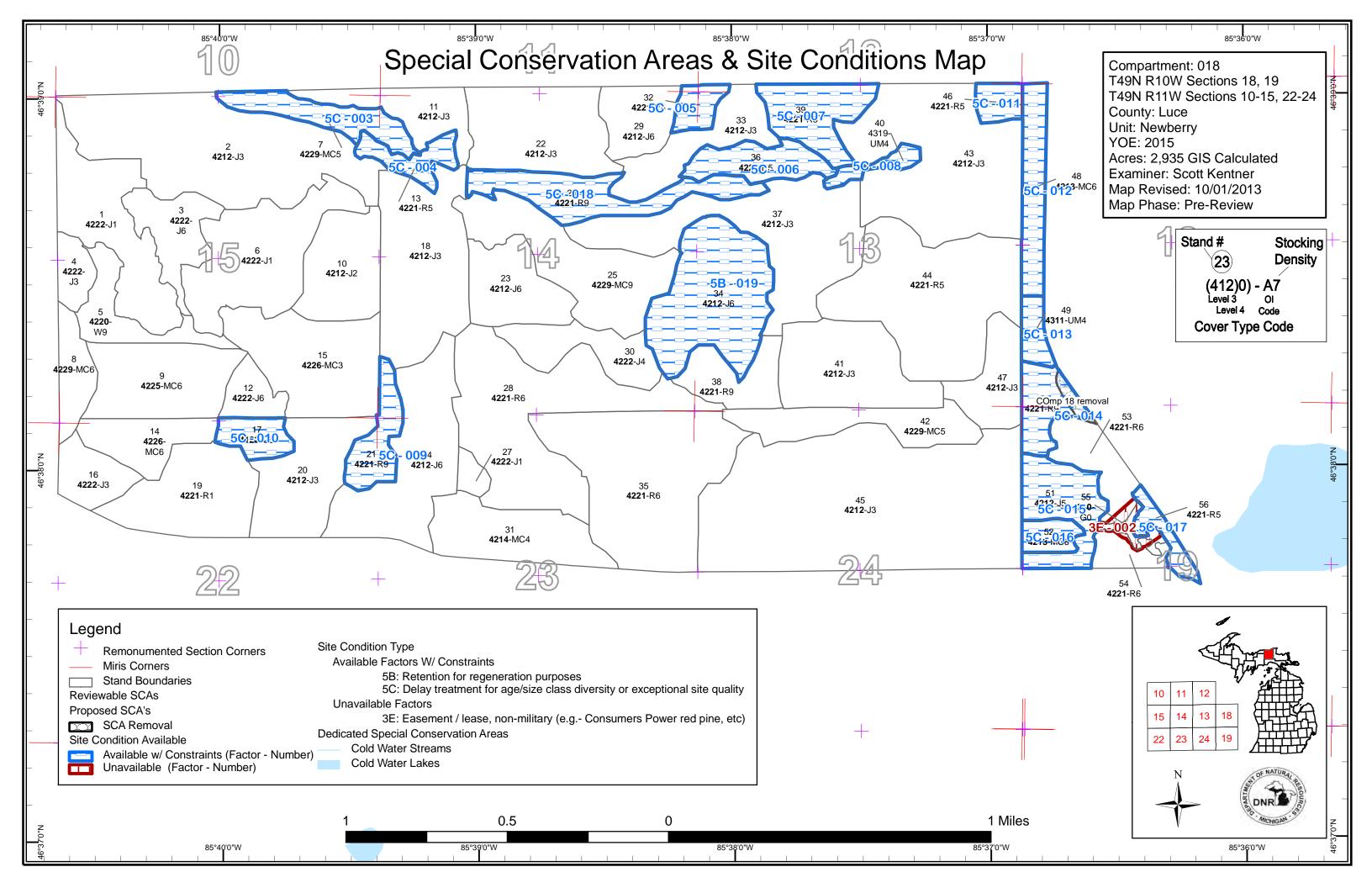
Total Acres by Cover Type and Age Class Cover Type by Harvest Method Proposed Treatments – No Limiting Factors Proposed Treatments – With Limiting Factors Stand Details (Forested and Nonforested) Dedicated and Proposed Special Conservation Areas Site Condition Details

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







Scott Kentner: Examiner



Age Class																
		6.9	\$7.0	62.	No. No.	AD AS	\$5.5°	80	No.	\$0.50 G	99,	\$ 100	70,73	ZOX JE	P. P.	S. S
Herbaceous Openland	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	[
Jack Pine	156	237	311	501	332	39	87	17	0	0	0	0	0	0	1679	
Natural Mixed Pines	0	78	32	45	0	64	0	22	0	0	109	0	0	0	350	
Oak	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	
Planted Mixed Pines	0	0	0	11	30	0	0	0	0	0	0	0	0	56	97	
Red Pine	96	0	0	128	0	0	0	0	0	46	266	205	0	0	741	
Upland Mixed Forest	0	0	0	0	0	0	0	0	0	11	8	0	0	0	19	
White Pine	0	0	0	0	0	0	0	29	0	0	0	0	0	0	29	
Total	257	315	343	684	362	102	87	68	0	72	384	205	0	56	2935]



Report 2 – Proposed Treatment Summaries

Newberry Mgt. Unit Year of Entry 2015

Compartment 018 **Total Compartment Acres: 2,935**

Acres by Treatment Type

Commercial Harvest - 436

(Habitat Cut)Natural Pines

Natural Pines

Tree Planting - 0

Other - 0

12

402

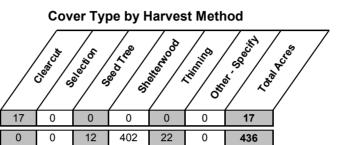
Habitat Cut - 17

Opening Maintenance - 0

Total

17

0



22

0

452

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 018
Year of Entry 2015

DNR DNR

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
5	42018005-Cut	29.4	42200 - Natural White Pine	High Density Log	79]	111-140	Harvest	Shelter Wood with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal
_										

<u>Prescription</u> Shelterwood with reserves, Cut Red and White Pine within stand to 40 - 50 BA. Leave all Decidious species.

Pole

Specs:

Other Comments:

Next Scarify stand to promote regeneration.

Steps:

Proposed

Start Date: 10/01/2014

8 42018008-Cut 21.8 42290 - Natural High 76 111-140 Harvest Low Thinning 4221 - Natural Red Cmpt. Review Mixed Pine Density Pine Proposal

<u>Prescription</u> Remove all Jack Pine. Remove 1/3 of Red Pine volume, residual basal area should be between 60-80. Leave all other species.

Specs:

Other ORV trail runs through this stand.

Comments:

Next Steps:

Proposed

Start Date: 10/01/2014

12 42018012-Cut 16.7 42220 - Natural High 78 Harvest Clearcut with 4122 - Oak, Pine Cmpt. Review

Jack Pine Density Reserves Proposal

Pole

Prescription Clear-cut all Red, White and Jack Pine. Leave all Oak, Maple and Red or White pine 18 inches or over in DBH.

Specs:

Other ORV trail runs through this stand.

Comments:

Next Scarify, if possible, to promote pine species.

Steps:

<u>Proposed</u>

Start Date: 10/01/2014

25 42018025-Cut 79.8 42290 - Natural High 106 141-170 Harvest Shelter Wood 4221 - Natural Red Cmpt. Review Mixed Pine Density Log with Reserves Pine Proposal

Prescription Mark Red and White pine to reduce Basal area to 40-50. Remove all Jack pine. Leave all Oak, Maple, Paper Birch, Beech.

Specs:

Other Comments:

Next Scarify stand to promote regeneration.

Steps:

Proposed

Start Date: 10/01/2014

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 018
Year of Entry 2015

No Con Chi

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
28	42018028-Cut	130.6	42210 - Natural Red Pine	High Density Pole	103	81-110	Harvest	Shelter Wood with Reserves	42290 - Natural Mixed Pine	Cmpt. Review Proposal

Prescription Mark stand to reduce Red and White pine basal area to 40 - 50. Remove all Jack pine. Leave all other species and scattered "Larger diameter

Specs: White Pine".

Other ORV trail runs through this stand.

Comments:

Next Scarify stand to promote regeneration.

Steps:

S

<u>Proposed</u>

Start Date: 10/01/2014

35 42018035-Cut 135.0 42210 - Natural High 114 81-110 Harvest Shelter Wood 42290 - Natural Cmpt. Review with Reserves Mixed Pine Proposal

Pole

<u>Prescription</u> Reduce Red and White pine Basal area to 40 - 50. Remove all Jack pine. Leave all other species and "Scattered larger diameter white pine".

Specs:

Other ORV trail runs through this stand.

Comments:

Next Scarify stand to promote regeneration.

Steps:

Proposed

Start Date: 10/01/2014

53 42018053-Cut 27.0 42210 - Natural High 110 141-170 Harvest Shelter Wood 4221 - Natural Red Cmpt. Review With Reserves Pine Proposal

Pole

Prescription Reduce Red Pine Basal area to 40 - 50. Focus on removing poor quality trees to promote future poles. Leave all decidious trees.

Specs:

Other ORV trail runs through this stand.

Comments:

Next Scarify stand to promote regeneration.

Steps:

Proposed

Start Date: 10/01/2014

54 42018054-Cut 12.2 42210 - Natural High 111 111-140 Harvest Seed Tree with 4221 - Natural Red Cmpt. Review Red Pine Density Reserves Pine Proposal

Pole

<u>Prescription</u> Seed tree harvest. Mark Red and White pine seed trees to leave. Residual should be between 10 - 30 BA. Leave all decidious trees.

Specs:

Other ORV trail runs through this stand.

Comments:

Scarify stand after harvest.

Next Steps:

<u>Proposed</u>

Start Date: 10/01/2014

Total Treatment

Acreage Proposed: 452.4

Newberry Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 018 a Limiting Factor s Year of Entry 2015 t **Treatment** Acres CoverType Size Stand ВА **Treatment Treatment Cover Type Approval** n Objective Method Status Name Density Age Range Type #Type! #Type! **Prescription** Specs: Other Comment: <u>Next</u> Steps: <u>Proposed</u> #Type! Start Date:

Total Treatment

Limiting Factor

Acreage Proposed: 0.0

Newberry Mgt. Unit

Scott Kentner: Examiner

Avail	ability for I	Vianagement					
Total	Acres	Acres		Dominar	nt Site	Con	ditions
Acres	Available	Not Available		No	5C	5B	3E
1678	1678		Jack Pine	1,553	39	87	
350	350		Natural Mixed Pines	320	29		
16	16		Oak		16		
97	97		Planted Mixed Pines	56	41		
740	738	3	Red Pine	529	209		3
19	19		Upland Mixed Forest		19		
29	29		White Pine	29			
2,929	2,927	3	Total Forested Acres	2,487	353	87	3
	100%	0%	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
002	Not Available	3E: Easement / lease, non- military (e.g Consumers Power red pine, etc)	7	3E: Easement / lease, non-military (e.g Consumers Power red pine, etc)			
	Comments: Cell phone tower						
	•						
003	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	29				
C	Comments:						
004	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16				
C	Comments:						

Newberry Mgt. Unit Scott Kentner: Examiner

005	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12	
Co	mments:			
006	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	28	
Co	mments:			
007	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	37	
Co	mments:			
800	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	8	
Co	mments:			
009	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	23	
Co	mments:			
010	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	16	
Co	mments:			

Newberry Mgt. Unit Scott Kentner: Examiner

011	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11
Co	mments:		
012	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	30
Co	mments:		
013	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11
Co	mments:		
014	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	24
Co	mments:		
015	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	39
Co	mments:		
016	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11
Co	mments:		

Newberry Mgt. Unit Scott Kentner: Examiner

017	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11
Co	omments:		
018	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	48
Co	mments:		
Re	etain until next in	ventory cycle, due to Pine Martir	n Habitiat.
019	Available	5B: Retention for regeneration purposes	87
Co	omments:		

Compartment: 018
Year of Entry: 2015



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
COmp 18 removal	Other SCA		SCA Removal	3.9
Comments				
Does not meet old growt	th criteria.			

Newberry Mgt. Unit Compartment: 018

Year of Entry 2015



Report 7 - 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.

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 of stocked trout populations and those of other coldwater fis conditions for coldwater fishes may occur in Michigan lak groundwater inflows, or are located in colder (northern) a Director's action and designated as trout resources by Fisher	sh species to persist from year to year. Suitable tes if they are relatively deep, have substantial treas of the state. Such lakes are established by				
Stream st ye co		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.					

s t				Report 8	Forested	Stands Compartment: 018 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	42220 - Natural Jack Pine	Low Density Sapling	72.3	5	1-50	Recently harvested Red Pine seed tree. Jack pine regeneration coming up under Red pine trees.
2	42120 - Planted Jack Pine	High Density Sapling	149.6	15		Jack Pine Plantation.
3	42220 - Natural Jack Pine	High Density Pole	33.8	35	81-110	Mixed Pine stand with oak. Thick residual but overalll small sized trees, younger looking stand.
4	42220 - Natural Jack Pine	High Density Sapling	14.2	11	1-50	Red Pine tree with Jack Pine coming up under seed trees. Red Maple scattered throughout stand.
5	42200 - Natural White Pine	High Density Log	29.4	79	111-140	White pine stand with Red pine. Log sized trees with basal area.
6	42220 - Natural Jack Pine	Low Density Sapling	83.8	5		Jack Pine stand, young in age with redsidaul Red pine mixed in.
7	42290 - Natural Mixed Pine	Medium Density Pole	29.4	108	1-50	White Pine stand, Red Pine mixed in but short in size. Jack Pine is small and fill in gaps between large White Pine and Red Pine Trees.
8	42290 - Natural Mixed Pine	High Density Pole	21.8	76	111-140	1/2 Red pine and 1/2 Jack pine stand. Jack pine is mature, Red pine is the same size. Some Oak, Paper birch and Red maple mixed in stand.
9	42250 - Pine, Oak	High Density Pole	63.5	55	51-80	Mixed Pine and deciduous trees (mostly oak). Pole sized stand.
10	42120 - Planted Jack Pine	Medium Density	49.4	15		Jack pine Plantation with Red Pine residual as scattered seed trees.
11	42120 - Planted Jack Pine	High Density Sapling	35.3	47		Jack Pine Plantation. Planted 47 years ago.
12	42220 - Natural Jack Pine	High Density Pole	16.7	78		Jack Pine stand with mixed Red Pine and Oak. Some pole sized Jack Pine and Red Pine. 2 to 3 stick trees.
13	42210 - Natural Red Pine	Medium Density Pole	16.0	116	1-50	Small sand, open Red pine with small Paper birch, White Pine and Red Maple.
14	42260 - Natural Pine, Mixed Deciduous	High Density Pole	32.3	25	81-110	White Pine stand with mixed Oak, Red Maple, and Paper Birch. Small Red Pine, pole sized trees mixed in with large White pine.
15	42260 - Natural Pine, Mixed Deciduous	High Density Sapling	78.1	15		Jack Pine is young in understory, Red pine and White Pine are left as residual. Maple and Oak found in stand rangeing all sizes. Oak is pole sized.
16	42220 - Natural Jack Pine	High Density Sapling	23.8	15		Jcak Pine sapplings coming up under a Red Pine seed tree hravest.

S	Newberry Mgt. Unit			Report 8 –	Forested	Stands Compartment: 018 Year of Entry: 2015		
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:		
17	4122 - Oak, Pine	High Density Pole	15.7	91	51-80	Oak stand, scubby oak mixed with Pine. Pine short in stature.		
18	42120 - Planted Jack Pine	High Density Sapling	95.1	25		Jack Pine Plantation. Planted in 1988.		
19	42210 - Natural Red Pine	Low Density Sapling	64.8	5	1-50 Red pine stand, thinned recently harvested. Residual Red pine with Red Maple sapplings bewteen trees.			
20	42120 - Planted Jack Pine	High Density Sapling	58.2	25	Jack Pine Plantation. Planted in 1988.			
21	42210 - Natural Red Pine	High Density Log	23.4	101	81-110	Red pine with Jack Pine that is pole size. Red Short in height, just fell into the log size class.		
22	42120 - Planted Jack Pine	High Density Sapling	72.6	23		Jack Pine Plantation. Planted 23 years ago.		
23	42120 - Planted Jack Pine	High Density Pole	43.2	47		Jack Pine Plantation. Planted 47 years ago.		
24	42120 - Planted Jack Pine	High Density Pole	84.2	43		Jack Pine Plantation, Planted in 1970. Pole size.		
25	42290 - Natural Mixed Pine	High Density Log	79.8	106	141-170	Red pine and white pine pole stand. High Basal Area.		
26	42210 - Natural Red Pine	High Density Log	47.9	104	111-140	Middle of stand is nice red pine, edges are less stocked, Jackpine pockets throughout stand.		
27	42220 - Natural Jack Pine	Low Density Sapling	6.9	22		Low Basal area of red pine with pockets of thicker Jack pine mixed in.		
28	42210 - Natural Red Pine	High Density Pole	130.6	103	81-110	Varying age classes and scattered species of pine.		
29	42120 - Planted Jack Pine	High Density Pole	29.8	36		Jack Pine plantation, Pole size.		
30	42220 - Natural Jack Pine	Low Density Pole	36.4	21	1-50	Open, scattered Red Pine anmd White Pine with Jack Pine filling in the gaps. Jack Pine patchy.		
31	42140 - Planted Mixed Pine	Low Density Pole	55.9	Uneven Age	1-50	Open clearcut area, was harvested in 2008, Seed trees of Red Pine left as residual. Jack pine in understory.		
32	42210 - Natural Red Pine	Medium Density Log	11.6	97	1-50	Thinned Red pine stand, wihtin the last 10 years.		
33	42120 - Planted Jack Pine	High Density Sapling	41.7	23		Jack Pine Plantation. Planted in 1990.		

S	Newberry Mgt. Unit			Report 8	– Forested	Stands Compartment: 018 Year of Entry: 2015	
t a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:	
34	42120 - Planted Jack Pine	High Density Pole	86.6	69		Jack Pine Plantation. Planted in 1944.	
35	42210 - Natural Red Pine	High Density Pole	135.0	114	81-110	Mix of Red pine and Jack Pine. Red Pine is a little larger in some areas, but in pockets younger in age. Jack is patchy, but thick when present.	
36	42210 - Natural Red Pine	Medium Density Pole	27.5	107	1-50	Open Red pine and White Pine mix. Pole to log sized trees.	
37	42120 - Planted Jack Pine	High Density Sapling	112.3	36		Jack Pine Plantation, planted in 1977.	
38	42210 - Natural Red Pine	High Density Log	30.9	5		Mostly Jack pine mixed in with Red pine, Jack pine is young.	
39	42210 - Natural Red Pine	Medium Density Log	37.0	106	1-50	Recently harvested Red Pine, low basal area left as residual.	
40	4319 - Mixed Upland Forest	Low Density Pole	8.1	108	1-50	Open area with scattered red pine and paper birch, transition area between stands.	
41	42120 - Planted Jack Pine	High Density Sapling	69.5	37		Jack Pine plantation. Planted in 1976	
42	42290 - Natural Mixed Pine	Medium Density Pole	44.6	34	51-80	Short wood, mix of Red and White pine, bushy trees with many gaps between trees. Jack pine found in some gaps	
43	42120 - Planted Jack Pine	High Density Sapling	136.1	42	Jack Pine plantation, planted in 1971.		
44	42210 - Natural Red Pine	Medium Density Pole	127.8	37	51-80	Short, patchy red pine and white pine. Jack pine is young.	
45	42120 - Planted Jack Pine	High Density Sapling	255.3	37	Jack Pine Plantation. Planted in 1976.		
46	42210 - Natural Red Pine	Medium Density Pole	10.5	93	51-80 Mixed Bag of pine species: From Large to small in size of all pine species.		
47	42120 - Planted Jack Pine	High Density Sapling	33.0	45	81-110	Jack pine plantation that has become grown in with a mix of Red pine that, in places, is more dominate then the plantation. Plantation was furrowed.	
48	42130 - Planted Scotch Pine	High Density Pole	30.2	45	111-140	Trenched and planted Scotch pine, with Red pine and White pine intermixed in clumps throughout stand. Red and White pine much older that plantation.	
49	4311 - Pine, Aspen Mix	Low Density Pole	10.6	94	51-80	Open mix of Aspen and Red pine. White pine was scattered in the understory.	

S t a n	Newberry Mgt. Unit			Report 8 – Forested Stands			Compartment: 018 Year of Entry: 2015	DNR
	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	MICHIGAN S
50	42210 - Natural Red Pine	High Density Log	23.8	94	51-80	Mix of Red pine an	d Aspen. hilly along powerline. E hemlock near highway.	ast edge has
51	42120 - Planted Jack Pine	Medium Density Pole	38.7	50	171-200	Jack pine Plantatio	n with scattered clumps of log s	ize Red pine.
52	42130 - Planted Scotch Pine	High Density Pole	11.1	35	141-170	Scotch pine Plantation with scattered Jack pine and larger red pine mixed in.		nd larger red
53	42210 - Natural Red Pine	High Density Pole	29.1	110	141-170	Many Red Pin	e trees of pole size, Thick canop	by cover.
54	42210 - Natural Red Pine	High Density Pole	13.5	111	111-140	Pole stand th	at will be a log stand geiven a fe	w years

81-110

Red pine and White mix, some small aspen in openings.

42210 - Natural Red

Pine

56

Medium Density Pole

11.3

111

Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
55	3102 - Grass	5.5	Yes	Low	