

Newberry Forest Management Unit Compartment Review Presentation Compartment 77 Entry Year: 2012

Compartment Acreage: 1515 County: Luce

Revision Date: 9/23/2010

Stand Examiner: Tori Irving

Legal Description: T47N R8W Section 4-6

Identified Planning Goals ('Management Area' or 'RMU', if applicable):

Charcoal Grade Management Area

Management Goals:

Timber, wildlife, recreation, and fisheries are the main uses of this area. The goal is to manage for all of these simultaneously and to provide, enhance and perpetuate their uses through proper management. Forest treatments prescribed will help ensure the sustainability of the forest resource and continue to enhance the quality of the wildlife habitat.

Soil and Topography:

The soil types in this compartment include: Wallace Sand, Hendrie-Annanias comples, Carbondale-Luption-Tawas, Zandi silt, Tawas-Spot-Finch, and Paquin Spot Complex. The compartment is mostly low ground with some ridges occurring throughout the landscape.

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

There is a private parcel in the middle of the compartment boundary just west of the Charcoal Grade. There is another private parcel in Section 6. The surrounding ownership is both state and private.

Unique, Natural Features:

Michigan Natural Features Inventory (MNFI) lists potential for red-shouldered hawk, goshawk, great blue heron rookery, eagle, and osprey. Potential for moose and wolf and potential for wood turtle.

Archeological, Historical, and Cultural Features:

There is evidence of archeological sites in this compartment.

Special Management Designations or Considerations:

None at this time.

Watershed and Fisheries Considerations:

Moderate. Both Savage and Penny Creeks are classified Type 1 for natural brook trout. Even so, their close proximity to the Tahquamenon River, which is not trout water, may allow some pike, muskies, or walleyes seasonal into this section of stream. The Tahquamenon River draws people from other continents, who especially target the muskies.

Wildlife Habitat Considerations: Compartment 77 lies in the central portion of Luce county and is in the Grand Marais Sandy End Moraine and Outwash ecological sub-subsection. The compartment is comprised generally of mixed swamp conifer with lowland hardwoods and a few ridges of northern hardwoods with numerous streams throughout the compartment. The compartment lies in the Hulbert deer yard which

supports high numbers of deer during stressful winter periods. Stand diversity is generally quite high. Wildlife objectives will seek to maintain that diversity. The compartment is heavily used for hunting recreation.

Some large aspen will be retained in harvested stands for future softwood snags and many stands will retain large white pine as a component. Hardwood stands are likely to contain vernal pools which will be protected during harvest operations to preserve wetland wildlife habitat. Potential raptor nest trees will be left in harvested stands and travel corridors along streams and drainages will be preserved during harvest. White-tailed deer, black bear, fisher, marten, coyotes, gray wolves, ruffed grouse, woodcock, and snowshoe hare are expected to use this compartment.

Mineral Resource and Development Concerns and/or Restrictions:

Surface sediments consist of lacustrine (lake) sand and gravel and minor peat and muck. There is insufficient data to determine the glacial drift thickness. The Ordovician Black River and Prairie du Chien Formations subcrop below the glacial drift. These formations are used for stone/dolomite. Gravel pits are located two miles to the north, and potential appears to be limited. There is no economic oil and gas production in the UP.

Vehicle Access:

The compartment is accessed by the Charcoal Grade. During the winter months, it is only accessible by snowmobile.

Survey Needs:

There are no known corners in the Charcoal Grade area. The proposed treatments in the area will not require any confirmation of private property lines.

Recreational Facilities and Opportunities:

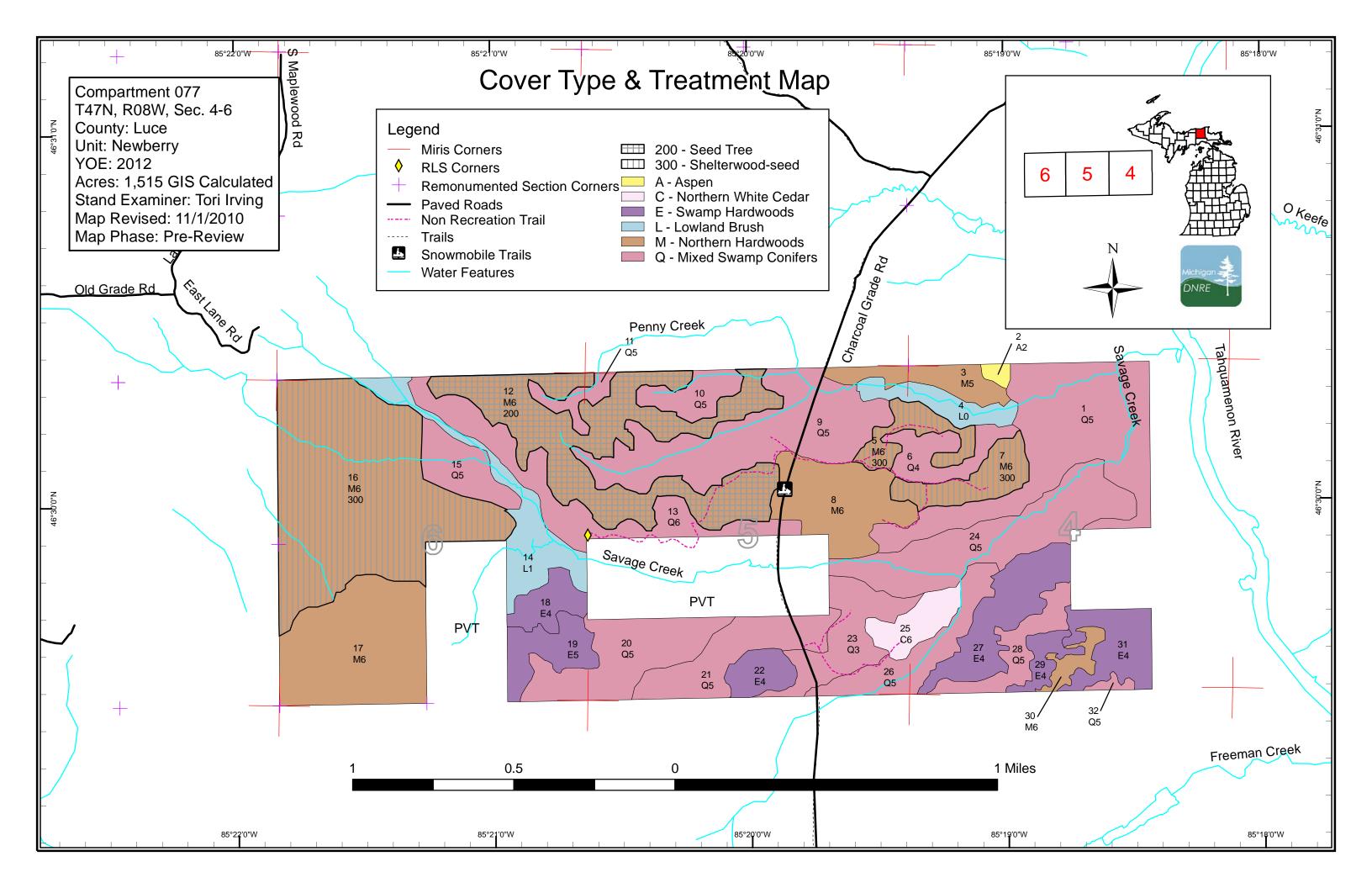
The Charcoal Grade is part of the snowmobile trail in the winter and is heavily used.

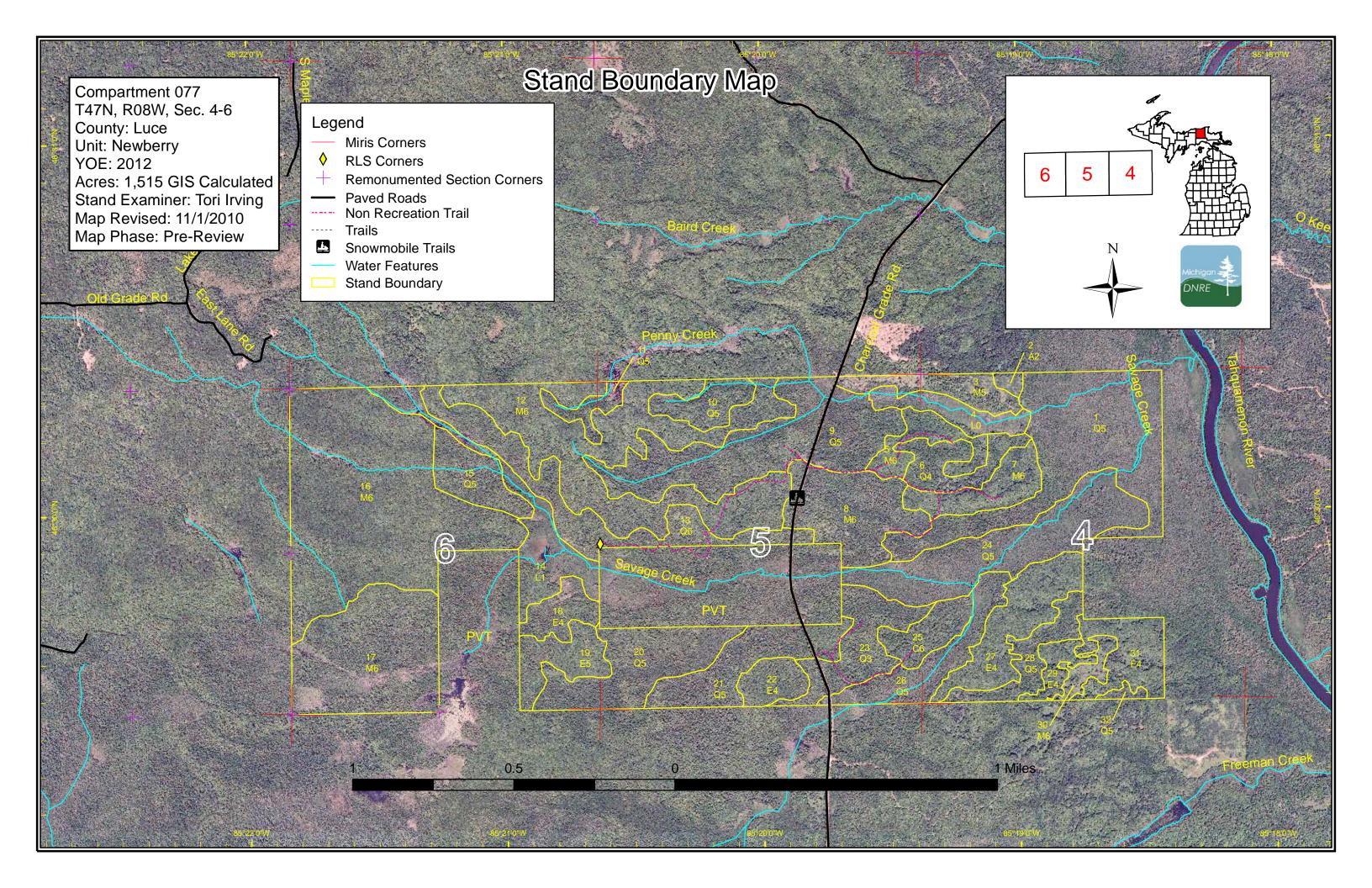
Fire Protection: Large fire growth potential will be low because of lowland cover types. Risk to private properties would be low. Modified suppression tactics may need to be used because of the operability of heavy equipment in the lowland cover types.

Additional Compartment Information:

None at this time.

- ➤ The following reports from the Inventory are attached:
 - **♦** Total Acres by Cover Type and Age Class
 - **♦** Proposed Treatment Summary
 - **♦** Proposed Treatments No Limiting Factors
 - **♦** Proposed Treatments With Limiting Factors
 - **♦ Stand Details (Forested and Nonforested)**
 - **♦ Dedicated and Proposed Special Conservation Areas**
- The following information is displayed, where pertinent, on the attached compartment maps:
 - ♦ Base feature information, stand boundaries, cover types, and numbers
 - **♦** Proposed treatments
 - ♦ Details on the road access system





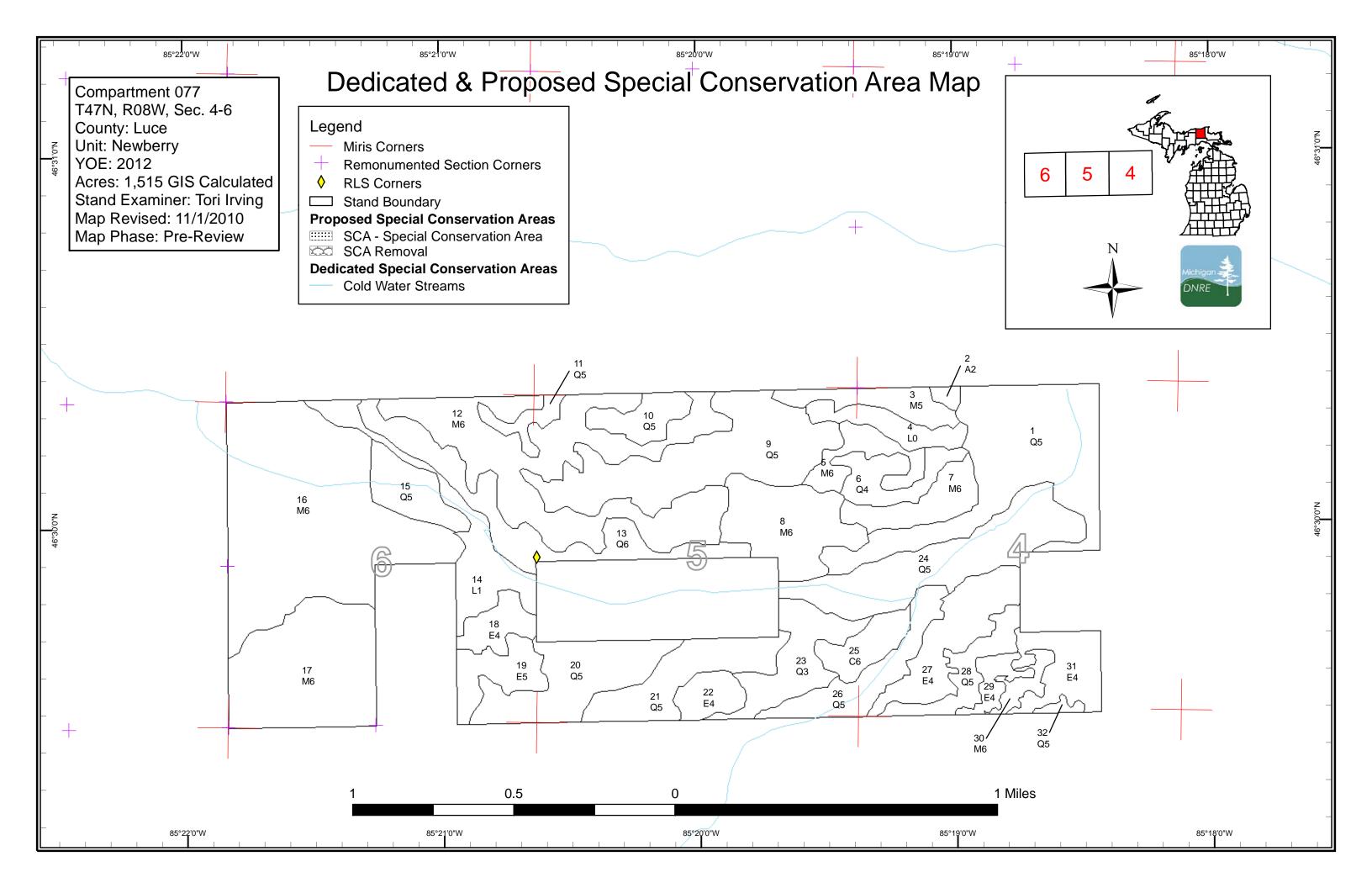


TABLE 3: Page 1 of 1

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Michigan Department of Natural Resources - Operations Inventory System Individual Compartment Report

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 77

Table 3

(acres shown in boxes) STAND AGE CLASS

COVER TYPE	Not Coded	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- 159	All Aged	Total
Aspen		3																	3
Cedar										21									21
Lowlnd Brush	21																	45	66
Mx Swmp Cnfr					62			25		139		125						323	674
Swamp Hrdwds										127								26	153
Upland Hdwds		24			59													515	598
Total	21	27			121			25		287		125						909	1515

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Michigan Department of Natural Resources - Operations Inventory System Individual Compartment Report

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 77

Table 3A

(acres shown in boxes)

MANAGEMENT OBJECTIVE TYPE

COVER TYPE	Α	S	V	С	G	Н	J	I	L	Р	N	Q	Χ	0	В	R	K	Υ	F	Е	Т	D	U	М	Z	W	Total
A Aspen	3																										3
C Cedar				21																							21
L Lowlnd Brush									66	6																	66
Q Mx Swmp Cnfr												674															674
E Swamp Hrdwds																				153	3						153
M Upland Hdwds																			207					391			598
Total	3			21					66	6		674							207	153	3			391			1515

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Michigan Department of Natural Resources - Operations Inventory System Individual Compartment Report

TABLE 10: Page 1 of 1

LAKE SUPERIOR STATE FOREST

NEWBERRY FOREST MGT UNIT

LUCE COUNTY

COMPARTMENT: 77

Table 10 - COMPARTMENT VOLUME SUMMARY - ALL STANDS

COMPARTMENT SUMMARY

TOTAL \	/OLUME	CUT VOLUME
Hardwood	15201 Cds	Hardwood 7421 Cds
Hardwood	89 Mbf	Hardwood 88 Mbf
Softwood	6345 Cds	Sum CutVol 7597 Cds
Sum TotVol	21724 Cds	
Total Cn	npt Acres	Acres Proposed For Cut
151	5	Acres Meeting Silv Criteria
		Acres Not Meeting Silv Crite

Acres Unable to Determine Silv Criteria For.....

						With NO Lir	miting Factors	•		•
Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
5	М6	22	0	60	NORTHERN	LOW	SHELTERWOOD-	1		

Proposed Treatments

SEED

Compartment: 77

Entry Year: 2012

comnts Fmd: This stand has large aspen, balsam fir, patches of sugar maple, and occasional white spruce. There is some sapling sized yellow birch and ironwood scattered in the stand. The maple on this site is not very good quality. Remove red maple, sugar maple, balsam fir, and aspen. Leave large canopy white spruce and all yellow birch. Acceptable species includes any mix of northern hardwood species with a component of mixed conifer species.

QUALITY

HARDWOOD

Wld: leave a few trees with forks/crotches up high, greater than half way up for hawk nests.try to protect the cedar regen on the edges.No cutting in October/November so we don't draw and hold deer in here.

 7	М6	28	0	60	NORTHERN	LOW	SHELTERWOOD-	1
					HARDWOOD	QUALITY	SEED	

- comnts Fmd: This stand has large aspen, balsam fir, patches of sugar maple, and occasional white spruce. There is some sapling sized yellow birch and ironwood scattered in the stand. The maple on this site is not very good quality. Remove red maple, sugar maple, balsam fir, and aspen. Leave large canopy white spruce and all yellow birch. Acceptable species includes any mix of northern hardwood species with a component of mixed conifer species.
 - Wld: leave a few trees with forks/crotches up high, greater than half way up for hawk nests. Leave a few large aspen for grouse winter feeding sites. Try to protect the cedar regen on the edges. No cutting in October/November so we don't draw and hold deer in here.

12 I	М6	147	0	60	NORTHERN HARDWOOD	MATURE	SEED TREE	1		
comnts Fmd:	Stand	contains h	nelock,	white sp	ruce, cedar, red map	le, and scattered	ellow birch. S	ome of the red map	ole is large and old.	The stand

- CC supressed and is not longer productive. There is some red maple regeration present. Treat with a seed tree cutting and leave 30-40 BA. Treat stands 49, 26, and 32 from Compartment 50 with this stand. Acceptable species includes any mix of northern hardwood species with a component of mixed conifer species.
 - Wld: retain a componetn of the large white pine for hawk/owl nest sites. Retain hemlock, especially in small groupings for roosting and nesting sites for owls and warblers and for cover and food for deer. Watch for vernal pools in the eastern part fo the stand. Leave a yellow birch component for future soft snags for use by chickadees and woodpeckers and for food sources for grouse and cedar waxwings. Likely site for raptor nests so also please leave some trees with crotches/forks up high (greater that half way). No cutting in October/November so we don't draw and hold deer in here.

Total Acres......

NEWBERRY FOREST MGT UNIT

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						with Limiti	ng Factors			
Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
16	М6	207	0	50	SPRUCE-FIR (UPLANDS- INCLUDING	UNEVENAGE D	SHELTERWOOD- SEED	3		

Proposed Treatments

Compartment: 77

Entry Year: 2012

TREATMENT LIMITING FACTORS: Bridge needed (portable bridge not available or inadequate)

SPRUCE)

Road needed (resources not presently available)

Too wet

NEWBERRY FOREST MGT UNIT

Land survey needed

comnts Fmd: Seedling and sapling sized beech is present in the understory. There is some supercanopy white pine present, low quality hardwoods with small diameters, scattered spruce and hemlock. There are some snags scattered thoughout the stand as well. There is some evidence of water along the edge of the stand. Shelterwood stand leaving all hemlock and spruce. Has to be a winter cut. Acceptable species includes any mix of northern hardwood species with a component of mixed conifer species.

Wld: leave super canopy white pine trees for nesting sites for owls and for bears. Leave hemlock and a mix of conifers for warbler nesting sites and for owl roosting/nesting sites and for cover for deer. Northern hardwood forests with coniferous components benefit many species including norther flying squirrel and red tail hawks. Leave some large beech for future woody debris for travel cover for small mammals and amphibians and feeding sites for marten, bear, owls and snakes.

Total Acres...... 207

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	N	EWBE	RRY	f FOF	REST	ΓMG	T UN	IT Stai	nd Level Inf	ormatio	n Compa	artment: 77	Entry Y	ear: 2012
S t		Under	A C		avg.						nt Packets Gloss ions and code d	sary of Terms" do lefinitions.	cument link	on web site
a n d	Type- Size Dnsty	Story- Stkng Level	r e s	Age	D B H	Tot. BA	Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
1	Q 5	Q 3	125	107	8	40	35	mixed swamp conifer	immature	Υ		40-49 years	0	
con		Info	o wet erior stand	t quality I is sap	/pole	sized 1		nifer types. It border	rs the Penny C	reek Mix (028-03-01, Con	nplete 10/18/07).	There are	some super
2	A 2	A 0	ру, s 3	awlog 3	size/c	quality 0	white 80	pine. aspen (upland)	immature	N		60-69 years	0	
con	nnts Fmd							er (1-2inch diameter) 01. Completed 10/1				. *	**Stand ha	rvested as
3	M 5	A 3	24	3	6	40	60	northern hardwood	in process of regeneration	N		50-59 years	0	
con	nnts Fmd	red 1	maple	e. Ther	e is so	ome ur	dersto	stand. There is some ry regeneration of re k needed in 2011.						
4	L 0	L 0	21		0	0	35	lowland brush	nonstocked	N		not scheduled	0	
con	nnts Fmd	: Wet	, swa	mpy aı	rea.									
5	M 6	M 2	22		9	80	60	northern hardwood	low quality	N	shelterwood- seed	within 0-9 years	s 1	
con	nnts Fmd	iron Leav	wood ve lar	l scatte ge can	ered in opy w	the st hite sp	and. T	fir, patches of sugar he maple on this site and all yellow birch.	is not very go	od quality.	Remove red ma	aple, sugar maple	, balsam fi	r, and aspen.
	Wld							es up high, greater the e don't draw and hol		for hawk	nests.try to prot	ect the cedar reg	en on the e	dges.No
6	Q 4	М 3	25	65	8	30	60	mixed swamp conifer	low quality	N		30-39 years	0	
con	nnts Fmd			type ar l balsa				ow quality hardwoo	ds. Some cedar	pockets w	vith spruce and o	other low quality	trees. Then	re is some
7	M 6	M 2	28		9	80	60	northern hardwood	low quality	N	shelterwood- seed	within 0-9 years	s 1	
con	nnts Fmd	iron Leav	wood ve lar	l scatte ge can	ered in opy w	the st hite sp	and. T	fir, patches of sugar the maple on this site and all yellow birch.	is not very go	od quality.	Remove red ma	aple, sugar maple	, balsam fi	r, and aspen.
	Wld	: leave	e a fe	w trees to prot	s with tect th	forks/ e ceda	crotche r reger	es up high, greater the on the edges. No c	nan half way up outting in Octol	o for hawk per/Novem	nests.Leave a fe ber so we don't	ew large aspen fo draw and hold d	r grouse wi eer in here.	inter feeding
8	M 6	М 3	59	36	7	70	70	northern hardwood	two aged	N		40-49 years	0	
con	nnts Fmd	is a l	little	more u	ıpland	l than t	the rest	ck with white spruce t of the area. This sic ckets of sawlog size	le has some ye	llow birch				
9	Q 5		108	87	8	50	30	mixed swamp conifer	immature	Y		20-29 years	0	
con	nnts Fmd			-		_	-	and the Charcoal Grasome areas. There is			-	ough the stand. I	t is a low q	uality stand

	N	EWBE	ERR	Y FOI	RES	ΓMG	T UNI	T Sta	and Level Inf	ormatio	n Comp	artment: 77	Entry Y	ear: 2012
S t a	Cover Type-	Story-	r		avg. D						nt Packets Glose ions and code o	sary of Terms" d definitions.	ocument linl	on web site
n d	Size Dnsty	Stkng Level		Age	B H	Tot. BA	Site Indx	Mgt Obj	Condition	Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
10	Q 5	Q 2	20	87	8	50	30	mixed swamp conifer	immature	Υ		20-29 years	0	
com	nts Fmd							are full of tag alder				gh the stand. It is	a low quali	ty stand and it
11	Q 5	Q 2	11	87	8	50	30	mixed swamp conifer	immature	Y		20-29 years	0	
com	nnts Fmd							nd the Charcoal Grome areas. There is				ough the stand.	It is a low q	uality stand
12	M 6	F 3	147		10	120	60	northern hardwood	mature	Υ	seed tree	within 0-9 year	s 1	
com		sup Tre with	ressec at star h a co	d and is nds 49, ompone	s not l , 26, a ent of	onger nd 32 mixed	produc from C conifer	e, cedar, red maple tive. There is some compartment 50 with species.	e red maple rege th this stand. Ac	ration preso ceptable sp	ent. Treat with pecies includes	a seed tree cutting any mix of north	ng and leave nern hardwo	30-40 BA. od species
	Wld	nest yell wax	ing si ow bi wing	tes for rch con s. Like	owls mpone ly site	and want for for ra	arblers future ptor ne	ite pine for hawk/o and for cover and f soft snags for use b sts so also please low and hold deer in	food for deer. W by chickadees ar eave some trees	atch for ve d woodpec	ernal pools in the okers and for fo	ne eastern part fo od sources for g	the stand. I rouse and co	Leave a edar
13	Q 6	S 2	62	36	8	110	70	mixed swamp conifer	low quality	N		20-29 years	0	
com	nnts Fmd	hav	e bee	n wind	throw	n. Thi	s area i	very low quality tro s is flooded and ver ch, and a lot to tag	ry wet. It is part					
14	L 1	L 1	45		4	0	30	lowland brush	nonstocked	N		not scheduled	I 0	
com	nnts Fmd				-			he drainage area of slide and tracks nea	-	There are s	some Q and C-t	ypes scattered or	n the north a	and south
15	Q 5	Q 2	28		8	40	35	mixed swamp conifer	immature	N		not scheduled	I 0	
com	nts Fmd	son	ne sca	ttered	pocke	ts of lo	og and j	with good species of pole sized hemlock were checked has ev	and yellow bird	ch. There a	re some seedlin	g/sapling sized l	eech pocke	
16	M 6	F 3	207		8	80	50	spruce-fir (uplands- including upland black spruce)	- unevenaged	N :	shelterwood- seed	within 0-9 year	s 3	
		Treatm	ent Li	miting	Facto	rs:		' /						
		R To	oad n	eeded	(resou	ırces r	-	ot available or inade ently available)	equate)					
com	nnts Fmd	sma wat	all dia er alo	meters	, scatt edge	ered spot of the	pruce a stand. S	s present in the und nd hemlock. There Shelterwood stand cies with a compon	are some snags leaving all hem	scattered to	houghout the storuce. Has to be	and as well. The	ere is some e	evidence of
	Wld	: leav	e sup s and cies in	er cand for ow cludin	opy w l roos g nor	hite pi ting/ne ther fly	ne trees esting si ing squ	s for nesting sites for ites and for cover for airrel and red tail h ing sites for marter	or owls and for or deer. Northernawks. Leave so	bears. Learn hardwoo	ve hemlock and d forests with o	coniferous compo	onents bene	fit many

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	N	EWBE	RR	Y FO	RES	T MG	T UN	IIT Star	nd Level Inf	ormation	Compa	artment: 77	Entry Y	/ear: 2012
S t	Cover	Under Story-	•		avg.					er descripti	t Packets Gloss ons and code d	ary of Terms" definitions.	ocument lin	k on web site
a n d	Size Dnsty	Stkng Level	r e s	Age	D B H	Tot. BA	Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
17	M 6	M 1	101		9	80	60	northern hardwood	unevenaged	N		10-19 years	0	
con	nts Fmd	l: Site	qual	ity is s	uffici	ent to j	procuc	e a quality stand in the	he future. Cut i	n ten years	s. Trees need to	gain some mor	e height.	
18	E 4	Q 3	18	87	8	30	30	swamp hardwoods	low quality	Υ		40-49 years	0	
con	nts Fmd	: Tree	es are	escatte	ered a	nd ther	e is no	t a lot of timber in th	nis stand. There	was also s	cattered aspen t	hrough the stan	d.	
19	E 5	Q 3	26		8	40	50	swamp hardwoods	immature	N		30-39 years	0	
con	nnts Fmd							nber. Reproducing fi e property. If ever tre				stand is treated	, it will need	d survey work
20	Q 5	S 2	58		8	40	35	mixed swamp conifer	immature	N		60-69 years	0	
con	nnts Fmd	beav	ver a	ctivity.	Ther	e are s	cattere	oruce, hemlock, tama d pockets of wet area or regeneration.						
21	Q 5	S 2	46		8	40	35	mixed swamp conifer	immature	N		60-69 years	0	
con	nnts Fmd	beav	ver a	ctivity.	Ther	e are so	cattere	oruce, hemlock, tama d pockets of wet area regeneration.						
22	E 4	Q 3	16	87	8	30	30	swamp hardwoods	low quality	Υ		40-49 years	0	
con	nts Fmd	l:												
23	Q 3	Q 1	41		4	0	30	mixed swamp conifer	in process of regeneration	N		60-69 years	0	
con	nts Fmd	: The	re are	e spars	ely sc	attered	l hemle	ock, cedar, and balsa	m fir scattered t	hrough the	stand.			
24	Q 5	Q 1	85		8	50	35	mixed swamp conifer	immature	N		20-29 years	0	
con	ints Fmd							is stand is a low area harvesting takes plac		er spruce o	component. The	e quality of the s	site is fair bu	ut needs more
25	C 6	Q 3	21	87	9	90	30	cedar	immature	N		10-19 years	0	
con	ınts Fmd	l: Stan	nd ha	s mana	ageme	nt by l	eaver	s. This is a stand of t	fair quality and	volume.				
26	Q 5	S 2	37		8	40	35	mixed swamp conifer	immature	N		60-69 years	0	
con	nnts Fmd	beav	ver a	ctivity.	Ther	e are s	cattere	oruce, hemlock, tama d pockets of wet area or regeneration.						
27	E 4	Q 3	48	87	8	30		swamp hardwoods	low quality	Υ		40-49 years	0	
con	ınts Fmd	l: Tree	es are	e scatte	ered aı	nd ther	e is no	t a lot of timber in th	nis stand. There	was also s	cattered aspen t	hrough the stan	d.	
28	Q 5	Q 1	25		8	50	35	mixed swamp conifer	immature	N		20-29 years	0	
con	nnts Fmd		_					is stand is a low area		er spruce o	component. The	e quality of the s	site is fair bu	ut needs more

volume accumulation before any harvesting takes place.

	N	EWBE	RR	Y FOI	RES	T MG	T UN	IT Stai	nd Level Inf	ormation	n Comp	partment: 77	Entry	Year: 2012
S t		Under	A C		avg.						t Packets Glo ons and code	ssary of Terms" do	ocument lin	k on web site
a n d	Type- Size Dnsty	Story- Stkng Level	r e s	Age	D B H	Tot. BA	Site Indx	Mgt Obj	Condition	Silv. Criteria Met?	Method Cut	Trtmt. Period	Harvest Priority	Cultural Need
29	E 4	Q 3	12	87	8	30	30	swamp hardwoods	low quality	Υ		40-49 years	0	
com	ınts Fmd	: Tree	s are	scatte	red ar	nd ther	e is no	t a lot of timber in th	is stand. There	was also s	cattered asper	n through the stand	d.	
30	M 6	F 3	10		10	110	60	northern hardwood	mature	Υ		not scheduled	I 0	
_	Treatment Limiting Factors: Land survey needed Potential or designated old growth Comnts Fmd: This stand contains many red maple sawlogs. Best quality tree for site is yellow birch, white pine, and white spruce. Save seed source for these species and create large reproduction gaps. Summer logging would help reproduce these species as well. Harvest yellow birch that are sawlog size. Stand was prescribed but designated potential old growth at the review. Previous SCA-POG designation will be removed at compartment review. This stand does not show the characteristics of old growth and has been cut in the past. Wld: maintain some sawlog yellow birch for wildlife trees													
31	E 4	Q 3	33	87	8	30	30	swamp hardwoods	low quality	N		40-49 years	0	
com	ınts Fmd	: Tree	s are	scatte	red ar	nd ther	e is no	t a lot of timber in th	is stand. There	was also s	cattered asper	n through the stand	d.	
32	Q 5	Q 1	3		8	50	35	mixed swamp conifer	immature	N		20-29 years	0	
com	nts Fmd		•					s stand is a low area parvesting takes place		ier spruce (component. T	he quality of the s	ite is fair b	ut needs more
Т	otal Acr	es	1	515										

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