FOREST STAND DELINEATION REPORT Bureau of Engraving and Printing Currency Production Facility Beltsville Agricultural Research Center



December 2019

Prepared For:

Bureau of Engraving and Printing Washington, DC

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FOREST STAND DELINEATION REPORT BUREAU OF ENGRAVING AND PRINTING BELTSVILLE AGRICULTURAL RESEARCH CENTER

I. Introduction

The United States Department of Treasury (USDT) Bureau of Engraving and Printing (BEP) proposes to construct and operate a new currency production facility within the existing Beltsville Agricultural Center (BARC) in Prince George's County, Maryland. The new facility would replace BEP's current Currency Production Facility located in Washington, D.C. with a more modern facility that meets production needs. A smaller, strategically located, modern currency production facility would streamline work production and flow processes while increasing operational safety and security. Construction of such a facility would also reduce BEP's operational footprint within the national capital region by approximately 27 percent.

BARC, as a whole, is 6,850 acres of land northeast of Washington, D.C. The new currency production facility would be an approximately 1 million square foot facility located on a 104-acre site in the Central Farm area of BARC, along Poultry Road.

II. Site Description

BEP is a 104-acre parcel of land within the exiting BARC, in Beltsville, Maryland. It is bisected by Poultry Road, which runs north south. The property consists of cropland, forest, pasture, wetlands and paved and unpaved roads. In general, surface water appears to drain from the northeast to the southwest border of the property.

Sixteen abandoned buildings, which were dedicated to poultry research, are located in the center of the site. The western portion of the site is comprised of cropland and pasture. The eastern area of the site is comprised of forest and pasture with two buildings and one small shed. One of the buildings was dedicated to poultry research and one currently serves as BARC's Wildlife Office. The shed is used by the Wildlife Office to store animal traps and related paraphernalia. 188 specimen trees are located throughout the property.

The geology at BEP consists of Lower Cretaceous sediments of the Potomac Group, which consists of the Patuxent, the Arundel, and the Patapsco Formations, respectively decreasing in age. The Patuxent and Patapsco Formations are composed primarily of sand and gravel and comprise the most prevalent water bearing aquifers in Prince George's County. The Arundel is mostly clay and creates artesian conditions in the underlying Patuxent Formation in some locations.

III. Methodology

Prior to field investigations, topographic maps, county soil surveys, and Maryland Department of Natural Resources digital aerial orthophotographs were reviewed to identify probable forest stand boundaries. The project area was field investigated in September and October 2019 to identify,

delineate and characterize forest stands. Forest stands were distinguished primarily by differences in species composition and successional stage.

A full Forest Stand Delineation was conducted between 10 September and 1 October 2019. A 1/10 acre fixed plot sampling technique was used to assess forest stand conditions and forest structure. Sampling plots were chosen so as to be evenly distributed throughout the stand. A stick flag was placed in the center of each plot and along the perimeter of the circular plot in each of the four cardinal directions. The plot center was marked in the field with pink tape flagging and the stand and plot number labeled with a black marker. All additional forest stand and forest structure procedures for data collection follow guidelines of the State Forest Conservation Technical Manual (Third edition, 1997). The priorities of the stands are given according to the guidelines in the Technical Manual. Priority 1 stands have wetlands, specimen trees, streams, steep slopes, and/or other sensitive areas. In some cases a stand can have a sensitive area within its boundaries, but be a low quality stand based upon quality of vegetation, presence of invasive species or other values. These are noted in the stand descriptions.

IV. Results

Four forest stands, of two cover types, were identified within the study area. The cover types were red maple/black cherry and oak/hickory with differing species of oak being the co-dominant or dominant species. Stand variations result from changes in topographic position, degree of slope, and amount and type of historical human disturbance. Forest stand conditions and forest structure were assessed at sample plots within the stand as detailed in the following stand description (see also Appendix A). A summary of forest conditions within the stand is included in Appendix B. The attached map depicts the approximate location of the sampling plots and boundary of forest cover type within the study area. A brief description of the forest stand is as follows:

<u>Stand 1</u>

Sample Plots:	2
Successional Stage:	Late
Priority:	1
Cover Type:	Red Maple/Black Cherry

Stand 1 is co-dominated by red maple (*Acer rubrum*) and sweet gum (*Liquidambar styraciflua*) of size class 20-29.9" diameter at breast height (dbh), with approximately 80% canopy closure. Other trees in the canopy included willow oak (*Quercus phellos*), pin oak (*Quercus palustris*), green ash (*Fraxinus pennsylvanica*), black locust (*Robinia pseudoacacia*), box elder (*Acer negundo*), big-tooth aspen (*Populus grandidentata*), American holly (*Ilex opaca*), eastern red cedar (*Juniperus virginiana*), southern red oak (*Quercus falcata*) and persimmon (*Diospyros virginiana*).

The understory from 3' to 20' tall averages 80% coverage, and includes red maple, black gum, sweet gum, black cherry (*Prunus serotina*), American holly, persimmon, pin oak, northern dewberry (*Rubus flagellaris*), flowering dogwood (*Cornus florida*), poision ivy (*Toxicodendron radicans*), Tartarian

honeysuckle (*Lonicera tatarica*), viburnum spp., and common greenbrier (*Smilax rotundifolia*). Invasive species included Japanese orange (*Poncirus trifoliata*), Japanese barberry (*Berberis thunbergii*), and common privet (*Ligustrum vulgare*).

Common herbaceous and woody species 0' to 3' tall consist of red maple, southern red oak, northern dewberry, American holly, southern red oak, Oriental bittersweet (*Celastrus orbiculatus*) and invasive Japanese stilt grass (*Microstegium vimineum*), with approximately 100% coverage.

Invasive species observed were Japanese barberry, Japanese stilt grass, Tartarian honeysuckle, and Japanese honeysuckle with a high coverage of 70%. The wildlife value of the stand is moderate due to the presence of cover and forage, mostly in the form of hard mast. The stand rates a Priority 1 for retention because of its late successional stage, wetlands, and specimen trees.

Environmental Features

Stand 1 contains Wetland 1 and one specimen tree, but has a dense understory of invasive species.

Stand 2

Sample Plots:	4
Successional Stage:	Mature
Priority:	1
Cover Type:	Oak/hickory

Stand 2 is dominated by white oak (*Quercus alba*), of size class 20-29.9" diameter at breast height (dbh), with approximately 60% canopy closure.

The understory from 3' to 20' tall averages 60% coverage, and includes common privet, viburnum spp., red maple, American holly, persimmon, pin oak, white oak, low-bush blueberry (*Vaccinium angustifolium*), willow oak, common greenbrier, mockernut hickory (*Carya tomentosa*), black cherry, and Japanese stilt grass.

Common herbaceous and woody species 0' to 3' tall consist of white oak, common greenbrier, persimmon, American holly, willow oak, mockernut hickory, black cherry, sweet gum, and black oak (*Quercus velutina*), with approximately 100% cover.

Invasive species observed in one sample plot were Japanese honeysuckle (*Lonicera japonica*), Tartarian honeysuckle, Oriental bittersweet, common privet, Japanese barberry, and Japanese stilt grass, with a low coverage of 25%. The wildlife value of the stand is medium due to the presence of cover and forage, mostly in the form of hard mast. The stand rates a Priority 1 for retention because of its mature successional stage, specimen trees and lack of invasive species.

Environmental Features

Stand 2 contains 33 specimen trees and has a very low occurrence of invasive species.

Stand 3

Sample Plots:2Successional Stage:MidPriority:2Cover Type:Red Maple/Black Cherry

Stand 3 is dominated by red maple and black cherry, of size class 20-29.9" diameter at breast height (dbh), with approximately 60% canopy closure.

The understory from 3' to 20' tall includes sweet gum.

Common herbaceous and woody species 0' to 3' tall consist of white oak, Tartarian honeysuckle, Japanese honeysuckle, common privet, common blackberry (*Rubus fruticosus*), American holly, white avens (*Geum canadense*), poison ivy, Japanese orange, partridgeberry (*Mitchella repens*), sweet gum, willow oak, persimmon, Asiatic dayflower (*Commelina communis*), Japanese stilt grass, white oak, and Virginia creeper (*Parthenocissus quinquefolia*)

Invasive species observed in one sample plot were Japanese honeysuckle, Tartarian honeysuckle, Japanese stilt grass, Japanese barberry, multiflora rose (*Rosa multiflora*), Asiatic dayflower, and common privet, with approximately 60% cover. The wildlife value of the stand is medium due to the presence of cover and forage, mostly in the form of hard mast. The stand rates a Priority 2 for retention because of its mid successional stage and lack of specimen trees.

Environmental Features

Stand 2 contains one specimen tree and has a high occurrence of invasive species. There are no sensitive areas in the stand.

Stand 4

Sample Plots:	2
Successional Stage:	Mature
Priority:	1
Cover Type:	Oak/hickory

Stand 3 is dominated by white oak, of size class 20-29.9" diameter at breast height (dbh), with approximately 60% canopy closure.

The understory from 3' to 20' tall includes black cherry, red maple, red elm (*Ulmus rubra*), flowering dogwood, white oak, mockernut hickory, Japanese orange, and American holly.

Common herbaceous and woody species 0' to 3' tall consist of white oak, Tartarian honeysuckle, Japanese honeysuckle, American holly, willow oak, persimmon, green ash, northern arrowwood (*Viburnum dentatum*), common greenbrier, mockernut hickory, wild yam (*Dioscorea villosa*), and persimmon.

Invasive species observed in one sample plot were Tartarian honeysuckle, Japanese honeysuckle, and common privet, with a coverage of 50%. The wildlife value of the stand is moderate due to the presence of cover and forage, mostly in the form of hard mast. The stand rates a Priority 1 for retention because of its mature successional stage, stream, and 12 specimen trees.

Environmental Features

Stand 4 contains 12 specimen trees and a stream. It has a moderate amount of invasive species cover.

V. CONCLUSIONS

Four forest stands were delineated and assessed on the site, comprised of two cover types – red maple/black cherry and mixed oak. There are 47 specimen trees within the forest stands on-site, and an additional 141 specimen trees located throughout the remainder of the site. Invasive species coverage is moderate to high in Stands 1, 3, and 4, but is relatively low in Stand 2. All four stands have specimen trees and Stands 1 and 4 have wetlands or a stream. Stands 1, 2 and 4 rank as Priority 1 retention stands due to the presence of sensitive areas (wetlands and streams), specimen trees and the mature successional stage. Stand 3 ranks as Priority 2 for retention because of its lack of sensitive areas, young successional stage and high invasive coverage.

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APPENDIX A

Field Sampling Data Sheets

Property: BEP	Prepared By: DRC/MAJA	
Owner: BARC	Stand #: 1	Plot #: 1
Forest Cover Type: Red maple/black cherry	Date: 10/01/2019	
Plot Size: 1/10 Acre (37.5' radius)		

TREE SPECIES Crown Position I Willow Oak Black Gum	Tree	es 2-{ dbh	5.9"													-		
Crown Position I Willow Oak		dbh			Number of Number Trees 2-5.9" Trees 6-11			" Number of Trees				er of -29.9" Num			of	Average Tree Height		
Crown Position I Willow Oak				dbh			12-19.9" dbh				dbh	Trees >30" dbh			-	(ft)		
			Other	Dom		Other	Dom			Dom		Other	Dom	CoD		(14)	Total	
Black Gum			1														1	
			5			1											6	
Red Maple		10			6						1						17	
Sweet Gum		4			4			1									9	
Pin Oak									1								1	
Green Ash																	0	
Black Locust						2											2	
Box Elder			4														4	
Bigtooth Aspen						1												
Persimmon			1														1	
Total Number of Trees per Size Class		25			14			2	1								41	
Number & Size of Standing Dead Trees																	0	
ist of Woody Plant Sp	ecies	s 3'-2	0':				Ca	anopy	Closu	re:		Percer	t of Inv	asive (Plot Succession	al Stage:		
lowering Dogwood, Japan	nese C	Drange	e, Com		rivet,	С	Ν	E	S	%	per Plo	ot (all la	yers):					
Inknown Viburnum, Japan Greenbrier, Tartarian Hone					9	Y	Υ	Υ	Y	Ν	80		55	%		Late		
ist of Understory Spec	cies (0'-3':					Under	storv	Cover	3'-20'	:	List o	of Mai	or Inv	asive	Species		
'irginia creeper, Japanese	Stiltgr	rass, s	sensitiv	/e fern	,	С	Ν	E	S	W	%		lot (Á			•		
nistle, Southern Red Oak, ∣ łolly	North	ern De	ewberr	y, Ame	erican	Y	Y	Ν	Y	Y	80	-	Grass, J	apanes	e Barbe	erry, Common Priv oanese Honeysuck		
Rare, etc. Species? N	No					Herb	aceou	IS & V	Voody	Cover	0'-3':	HABIT	AT: Wh	at spec	cies pre	esent?		
· · ·	١o					С	N	Ε	S	W	%		ailed de	•				
	No					Y	Y	Y	Y	Y	100				n, confi	guration:		
Disease?		1 ^r	Y	Ŷ	ř	ľ	100		-			-	.4					
nsects/Infestation? T			Down	ed W	oody D	ebris:			P8	atCH, CO	nuguou	s with off-site fores	51					
Exotic Plants? citrus							Ν	Е	S	W	%	Wildlife	e cover	/food/v	vater?			
Leaf litter? Light							N	Y	Y	Y	80	Food						
owned woody debris: N	Noder	rate				Y	IN	T	T	1	00	Stand	corrido	r/patch	1?			
UNCTION: Where is stand ir	n relati	ion to	sensiti	ve area	s on si	ite?												

Comments:

Mild west facing slope

Property: BEP	Prepared By: DRC/MAJA	
Owner: BARC	Stand #: 1	Plot #: 2
Forest Cover Type: Red maple/black cherry	Date: 10/01/2019	
Plot Size: 1/10 Acre (37.5' radius)		

Basal Area in Square Feet per Acre: 70					SIZ		ss o	F TRE	ES >2	0' HEI	GHT	WITH		MPLE	PLO	г	
	-	mber	-		Number of Number of							r of				Average	
	Tre	es 2-{	5.9"	Tree	es 6-1	11.9" Number of Trees Trees						29.9"		Imber		Tree Height	
TREE SPECIES		dbh			dbh		12-19.9" dbh				dbh	Trees >30" dbh				(ft)	
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total
Red Maple		1			2			2			1						6
Sweet Gum			1			3						1					5
Black Cherry		2			5			1									8
Sassafrass						1			1								2
Eastern Red Cedar						1											1
Southern red Oak			1														1
Persimmon						1											1
³ American Holly						1											1
,																	0
Total Number of Trees per Size Class 5 14					14			4			2						25
Number & Size of Standing Dead Trees																	0
ist of Woody Plant S	pecie	s 3'-2	0':				Ca	anopy	Closu	re:						Plot Successiona	al Stage:
lapanese Orange, Tartar						С	Ν	E	S	W	%	per Plot (all layers):					
Barberry, Common Prive Dak, Persimmon, Poisior		ican H	olly, So	outherr	n red	Y	Υ	Υ	Ν	Υ	80		70	1%		Late	;
ist of Understory Sp	ecies	0'-3':					Under	storv	Cover	3'-20'		List of Major Invasive Species					
Stilt Grass, Pin Oak, This			Bittersw	veet		С	N	E	S	W	%		lot (A				
						Y	N	Y	Y	Y	80	-	•	-		tal bittersweet, com	imon priv
Rare, etc. Species?	No					Herb	aceou	IS & V	loody	Cover	0'-3':	HABIT	AT: Wh	nat spe	cies pr	esent?	
Specimen Trees?	No					C	N	E	S	W	%			-	-	nite-tailed Deer, squ	uirrel
Historic Sites?	No					Y										guration:	
Disease? No							Ν	Y	Y	Y	80		-			-	
Insects/Infestation? Bagworm							Down	ed W	oody D	ebris		1	Pa	atch, co	ontiguou	is with off-site fores	st
Exotic Plants?	Yes					С	Ν	Ε	S	W	%	Wildlif	e cover	/food/\	water?		
Leaf litter?						Y	Y	N	v	N	<u></u>	food co	over and	d water	availab	le	
	ě – – – – – – – – – – – – – – – – – – –								Y	N	60						
Downed woody debris:	Light											Stand	corrido	or/patcl	1?		

Comments:

Dense understory of invasive species

Property: BEP	Prepared By: DRC/MAJA	
Owner: BARC	Stand #: 2	Plot #: 1
Forest Cover Type: Oak/hickory	Date: 09/10/2019	
Plot Size: 1/10 Acre (37.5' radius)		
Basal Area in Square		

Basal Area in Square Feet per Acre: 90		SIZE CLASS OF TREES >20' HEIGHT WITHIN SAMPLE PLOT Number of Number of Average															
	Nu	Imber	r of	Nu	-					-	-				1 20	Average	
	Tre	es 2-	5.9"	Tree	es 6-1	1.9"	Number of Trees			Trees 20-29.9"			.9" Number of			Tree Height	
TREE SPECIES		dbh			dbh						dbh		Trees >30" dbh			(ft)	
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom		Other	Dom		Other	(11)	Total
¹ White Oak													2				2
² Black Cherry			1			1											2
³ Red Maple			3			3											6
⁴ Flowering Dogwood		3													3		
⁵ Black Oak	1							1								2	
⁶ American Holly																0	
⁷ Black Gum	1															1	
8																	0
9																	0
Total Number of Trees																	
per Size Class		9			4			1			0			2			16
Number & Size of Standing Dead Trees	1			2													3
List of Woody Plant S							Ca	anopy	[,] Closu	re:					Cover	Plot Succession	al Stage:
Common Privet, Viburnun	n Spec	ies, R	ed Map	ole,		С	Ν	Е	S	W	%	per Plo	per Plot (all layers):				
American Holly						Y	Y	Y	Y	Y	100		25	5%		Mature	
List of Understory Sp	ecies	0'-3':					Under	rstory	Cover	3'-20'		List o	of Maj	or Inv	asive	Species	
White Oak, Common Gre	enbrier	r, Pers	immon	, Amer	ican	С	Ν	Ε	S	W	%	per P	Plot (A	ll Lay	ers):		
Holly, Willow Oak						Y	Υ	Y	Y	Y	100	Hor				arberry, Oriental E uckle, Common Pr	
Rare, etc. Species?	No					Herb	aceou	is & V	Voody	Cover	0'-3':	HABIT	AT: W	nat spe	cies pr	esent?	
Specimen Trees?	Yes					С	Ν	Е	S	W	%		quirrel a	-	-		
Historic Sites?	No					Y	Y	Y	Y	Y	100	Habita	t size, l	ocatio	n, confi	guration:	
Disease?	No					ľ	Ť	Ť	Ť	ř	100	Linear	strip or	n easter	rn edge	of property, contig	uous with off-
Insects/Infestation?										ebris					site	forest	
Exotic Plants?		С	Ν	Ε	S	W	%	Wildlif	e covei	r/food/v	water?						
Leaf litter? Light							Ν	Ν	Y	Ν	20	Cover	and wat	ter			
Downed woody debris:		N			1		20	Stand	corrido	or/patch	ו?						
FUNCTION: Where is stand	in rela	tion to	sensiti	ve area	is on s	ite?											
Comments:																	

Comments: Area is in moderate drought. Understory shrubs and groundcover have wilted leaves.

Property: BEP	Prepared By: DRC/MAJA	4
Owner: BARC	Stand #: 2	Plot #: 2
Forest Cover Type: Oak/hid	ckory Date: 09/10/2019	
Plot Size: 1/10 Acre (37.5' ra	dius)	
Basal Area in Square		

Basal Area Feet per Ac	•		SIZE CLASS OF TREES >20' HEIGHT WITHIN SAMPLE PLOT Number of Number of Average																
	-	Nu	ımbeı	r of	Nu										Average				
		Tre	es 2-	5.9"	Tree	es 6-1	1.9"	Num	ber of	Trees	Tree	s 20-2	29.9"	Nu	ımber	of	Tree Height		
TREE SI	PECIES		dbh			dbh		12-19.9" dbh			dbh			Tree	s >30'	" dbh	(ft)		
Crown	Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total	
¹ White Oal	k													1				1	
² Black Oal	<			1			1			1								3	
³ Black Che	erry			1			1											2	
⁴ Sweet Gu	ım						1			1								2	
⁵ Red Mapl	е			6			2			1								9	
⁶ Scarlett C)ak			1	1													2	
⁷ Persimmo	on			1														1	
8																		0	
9																		0	
	Total Number of Treesper Size Class106							3		0		1				20			
Number & S Standing De		2																2	
List of Woo	ody Plant S	pecie	s 3'-2	0':				Ca	anopy	/ Closu	re:		Percent of Invasive Cover Plot Successiona					al Stage:	
Persimmon, /	American Ho	olly					C N E S W					%	per Plot (all layers):						
							Y	Y	Y	Y	Ν	80		10)%	Matu	re		
List of Und	erstory Sp	ecies	0'-3':					Under	rstory	Cover	3'-20'	:	List of Major Invasive Species						
Common Gre							С	Ν	E	S	W	%	per F	lot (Å	II Lay	ers):	•		
							N	Y	Y	Y	Υ	80	Comm	ion Priv	et, Orie	ntal Bitt	ersweet, Tartarian	Honeysuckle	
Rare, etc. S	Species?	No					Herb	асеог	ıs & V	Voody	Cover	· 0'-3':	HABIT	AT: W	nat spe	cies pr	esent?		
Specimen		Yes					C	N	E	S	W	%	1						
Historic Sit		No					Y	Y	Y	Y	Y	100	Habita	t size, I	ocatio	n, conf	iguration:		
Disease?		No						-			•			D	atch cr	ntique	s with off-site fore	et	
Insects/Infe					oody D				r.		Jinguot		л						
Exotic Plan		С	Ν	Е	S	W	%	Wildlif	e cove	r/food/\	water?								
Leaf litter? Light								Y	Y	N	Ν	60	-	and foo					
Downed wood	-	Light					Y						Stand	corrido	or/patcl	1?	Patch		
FUNCTION: W	here is stand	in rela	tion to	sensiti	ve area	s on s	ite?												
Comments	:																		
Dense com	mon areent	orier																	

Dense common greenbrier

Property: BEP									Prepared By: DRC/MAJA								
Owner: BARC									Stand	#: 2						Plot #: 3	
Forest Cover Type:	Oak/h	ickory	٧						Date:	10/01/	2019						
Plot Size: 1/10 Acre (37.5' r	adius)														
Basal Area in Square Feet per Acre: 70		SIZE CLASS OF TREES >20' HEIGHT WITHIN SAMPLE PLOT															
	Νι	umbei	r of	Nu	ımber	of			Number of							Average	
	Tre	es 2-	5.9"	Tree	es 6-1	1.9"	Num	ber of	f Trees Trees 20-29.9" Number of						of	Tree Height	
TREE SPECIES									.9" dbh dbh Trees >			s >30'	' dbh	(ft)			
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total
¹ Black Oak			3			1						1					5

0

Ε

Y

Е

Ν

Ε

Y

Ε

Ν

Canopy Closure:

Understory Cover 3'-20'

S

Υ

S

Υ

S

Υ

S

Ν

Downed Woody Debris:

1

1

3

%

80

%

60

Herbaceous & Woody Cover 0'-3': HABITAT: What species present?

%

100

%

20

W

Ν

W

Y

W

Y

W

Ν

1

Percent of Invasive Cover Plot Successional Stage:

Tartarian Honeysuckle

Patch, contiguous with off-site forest

1

per Plot (all layers):

20%

per Plot (All Layers):

White-breasted Nuthatch

Wildlife cover/food/water?

Stand corridor/patch?

Cover and food

List of Major Invasive Species

Habitat size, location, configuration:

2

1

1

3

1

С

Y

С

Ν

С

Υ

С

Υ

Ν

Υ

Ν

Y

Ν

Υ

Ν

Ν

9

1

2

1

2

1

9

Comments:

Leaf litter?

Willow Oak

Red Maple

Virginia Pine

Sweet Gum

Black Cherry

Post Oak

White Oak

Total Number of Trees per Size Class

Number & Size of

American Holly

Common Greebrier

Rare, etc. Species?

Insects/Infestation?

Downed woody debris:

Specimen Trees?

Historic Sites?

Exotic Plants?

Disease?

Standing Dead Trees

List of Woody Plant Species 3'-20':

List of Understory Species 0'-3':

American Holly, White Oak, Willow Oak, Black Oak,

No

No

No

No

Yes

Light

Light

FUNCTION: Where is stand in relation to sensitive areas on site?

Yes

Southern Red Oak

3

Δ

6

More open understory than other plots in stand

3

2

2

1

4

3

1

1

22

2

Mature

Property: BEP	Prepared By: DRC/LJ	
Owner: BARC	Stand #: 2	Plot #: 4
Forest Cover Type: Oak/hickory	Date: 10/01/2019	
Plot Size: 1/10 Acre (37.5' radius)		
Basal Area in Square		

Basal Area in Square Feet per Acre: 120	SIZE CLASS OF TREES >20' HEIGHT WITHIN SAMPLE PLOT																
	Nu	ımber	r of	Nu	mber						Imber					Average	
	Tre	es 2-	5.9"	Tree	es 6-1	1.9"	Num	ber of	Trees	Tree	s 20-	29.9"	Nu	mber	of	Tree Height	
TREE SPECIES		dbh			dbh		-	·19.9"			dbh		-		" dbh		
Crown Position	Dom	CoD	Other	Dom		Other		CoD	Other	Dom		Other		CoD		(14)	Total
¹ White Oak								1			2						3
² Red Maple						3											3
³ Chestnut Oak		5			8			2			1						16
⁴ Northern Red Oak		1			2												3
⁵ Mockernut Hickory			4														4
6																	0
7																	0
8																	0
9																	0
Total Number of Trees per Size Class	10 13							3			3			0			29
Number & Size of Standing Dead Trees				1													1
List of Woody Plant S						Canopy Closure:							nt of Inv		Cover	Plot Succession	al Stage:
Mockernut Hickory, Amer	ican H	olly, Pi	in Oak,	White	Oak,	С	Ν	ш	S	W	%	per Pl	ot (all la	iyers):			
Sweet Gum						Y	Y	Ν	Ν	Υ	60		8	%		Matu	ire
List of Understory Sp	ecies	0'-3':					Under	storv	Cover	3'-20'	:	List	of Mai	or Inv	asive	Species	
American Holly,White Oa				y, Swe	et	С	Ν	E	S	W	%		lot (Á			•	
Gum, Low-bush Blueberr Common Greenbrier, Bla			, Willov	v Oak,		N	N	Y	Y	Ν	40		Honeysı	ickle, J	apanes	e Barberry, Orienta Japanese Stilt Gra	
Rare, etc. Species?		•	Troos	2-5.9"	dhh	Horb	2000	16 & V	Voody	Cover	· 0'_3'·						
Specimen Trees?	No		11003	2-0.0	ubri	C	N	E	S	W	<u> </u>		A1. WI	iai spe	cies pr	esentr	
Historic Sites?	No								-			Habita	tsize l	ocatio	n confi	guration:	
Disease?	Yes					Y	Y	Y	Y	Y	100	i labita				-	
Insects/Infestation?	No						Down	ed W	oody D	ebris	:		Pa	atch, co	ontiguou	is with off-site fore	st
Exotic Plants?	No					С	N	E	S	W	%	Wildlif	e covei	/food/\	water?		
Leaf litter?	Moderate							v	Y	v	~~~	wildlife	and co	ver			
Downed woody debris:	Mode	rate/h	neavy			N	N	Y	Ŷ	Y	60	Stand	corrido	r/patcl	ı?		
FUNCTION: Where is stand	UNCTION: Where is stand in relation to sensitive areas on					ite?											
Comments:																	

Nice oak stand-understory fairly clear, bordered by old fence

Property: BEP	Prepared By: DRC/LJ	
Owner: BARC	Stand #: 2	Plot #: 5
Forest Cover Type: Oak/hickory	Date: 10/01/2019	
Plot Size: 1/10 Acre (37.5' radius)		

Basal Area in Square Feet per Acre: 80					SIZ		ss o	FTRE	EES >2	0' HEI	GHT	wітні	N SAI	MPLE	PLO	г	
		ımber			ımbeı	r of				Nu	ımber	r of				Average	
	Tre	es 2-{	5.9"	Tree	es 6-1		-		Trees	Tree	s 20-2	29.9"		Imber		Tree Height	
TREE SPECIES	D	dbh	011	D	dbh			-19.9"			dbh			s >30'		(ft)	Tatal
Crown Position	Dom	CoD	Other	Dom	CoD	Other 3	Dom	CoD	Other 2	Dom	CoD	Other	Dom	CoD	Other		Total 5
																	-
² Red Maple			10			1			1								12
³ Black Cherry			1			2											3
⁴ Black Oak								1									1
⁵ Black Gum			1			3			1								5
^ô Sweet Gum			3			3											6
⁷ Mockernut Hickory			1														1
⁸ Bitternut Hickory									1								1
9																	0
								l]		
Total Number of Trees per Size Class		16			12			6			0			0			34
Number & Size of																	
Standing Dead Trees												_					0
List of Woody Plant S									Closu				nt of Inv		Cover	Plot Successiona	al Stage:
Red Maple, Black Gum, E						С	Ν	Е	S	W	%	per Pic	ot (all la	iyers):			
Mockernut Hickory, White greenbrier, Common gree		Poison	i ivy, C	at		Y	Υ	Y	Y	Y	100		79	%		Matu	re
List of Understory Sp	ecies	0'-3':					Under	rstory	Cover	3'-20'	:	List o	-		asive	Species	
Black Cherry, American H	Holly, S	weet G		Villow (Dak,	С	Ν	E	S	W	%		lot (Á			•	
Cat Greenbrier, Blackbe	rry, Pig	nut Hio	ckory			Y	Y	Y	Y	Y	100	Japane	ese Bar	berry, C	Commor	n Privet, Japanese	Honeysuc
Rare, etc. Species?	No					Herb	aceou	is & V	Voody	Cover	· 0'-3':	HABIT	AT: Wh	nat spe	cies pr	esent?	
Specimen Trees?	No					С	Ν	Ε	ร์	W	%					eer, Eastern Blueb	ird, Northe
Historic Sites?	No					Y	Y	Y	Y	Y	100	Habita	t size, l	ocatio	n, confi	guration:	
Disease?	No					-	•		-	•			P	atch co	ontiquou	s with off-site fore	st
Insects/Infestation?	No						Down		oody D			Patch, contiguous with off-site forest					
Exotic Plants?	No					С	Ν	Е	S	W	%	Wildlif	e cover	r/food/\	water?		
Leaf litter?	Mode					N	Y	N	Y	Y	60	Cover and Food					
Downed woody debris:	Mode								•			Stand corridor/patch? Patch					
				ve area													

Property: BEP	Prepared By: DRC/LJ	
Owner: BARC	Stand #: 3	Plot #: 1
Forest Cover Type: Red maple/black cherry	Date: 10/01/2019	
Plot Size: 1/10 Acre (37.5' radius)		

	Numbe rees 2- dbh m CoD 3	-	-	umber es 6-1 dbh	1.9"					ımber s 20-2		Nu	mber	of	Average Tree Height	
Red Maple White Oak Black Cherry		Other	Dom	CoD	-	12-19.9" dbh			dbh		Trees	s >30'	' dbh	(ft)		
White Oak Black Cherry	3			000	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total
Black Cherry							1									4
	1			8												8
Mockernut Hickory	1															1
		4			2											6
Sweet Gum		1			1			1								3
																0
																0
																0
																0
Total Number of Trees per Size Class							11 2						0			22
Number & Size of Standing Dead Trees								0			0 Percent of Invasive Cover Plot Successional Stage					0
ist of Woody Plant Spec	ies 3 -2	0:			_			Closu			per Plo			Sover	FIOI SUCCESSION	ii Staye.
Vhite Oak					C Y	N Y	E N	S Y	W N	% 60		60			Mid	
ist of Understory Specie	es 0'-3':					Under	story	Cover	3'-20'	:	List o	f Maje	or Inv	asive	Species	
/hite Oak, Tartarian Honeys			9		С	Ν	E	S	W		per P	-			•	
loneysuckle, Common Prive lolly, White Avens, Poison Iv				n	Y	Y	Y	Y	Y	100	N	lultiflora			n Honeysuckle, Ja Common Privet	panese
are, etc. Species? No			-		Herb	aceou	is & V	Voody	Cover	0'-3':	HABIT	AT: Wh	at spe	cies pre	esent?	
pecimen Trees? No					С	N	E	S	W	%			-	-	cker, White Breasted	Nuthatch
listoric Sites? No															guration:	
Disease? No					Y	Y	N	Y	Y	80					s with off-site fores	st
nsects/Infestation? No Exotic Plants? No					С	N	E	oody D S	W		Wildlife		15 I I			
	derate				C	IN		3	vv	%	Cover a			vater ?		
	derate				Y	Ν	Y	Y	Ν	60	Stand of			2	Patch	
UNCTION: Where is stand in r		oonoiti	vo oroo	o on oi	+02						Stanu	Jonnuo	i/patci	11	Тасп	

FOREST STAND DELINEATION

Field Sampling Data Sheet																	
Property: BEP									Prepa	red By	V: DR	RC/LJ					
Owner: BARC									Stand		·					Plot #: 2	
Forest Cover Type:									Date: '	10/01/	2019						
Plot Size: 1/10 Acre (3	37.5' ra	adius	,)										_		_		
Basal Area in Square Feet per Acre: 70					SIZ	E CL/	ASS O	F TRE	EES >2(0' HEI	GHT	WITH	IN SAI	MPLE	PLO	г	
	Nu	umber	r of	Nu	Imper			<u> </u>			Imbei					Average	
		es 2-			es 6-1		Num	ber of	f Trees	-	s 20-		Nu	ımber	of	Tree Height	
TREE SPECIES		dbh			dbh		-	12-19.9" dbh		dbh		-	s >30'	-	(ft)		
Crown Position	Dom	CoD		Dom	CoD	Other			Other	Dom		Other			Other		Total
¹ Mockernut Hickory			6			1											7
² Black Cherry			9			2											11
³ Red Maple			2														2
Sweet Gum												1					1
⁵ Bitternut Hickory									1								1
6																	0
7																	0
8																	0
9																	0
Total Number of Trees per Size Class		17			3			1			1			0			22
Number & Size of Standing Dead Trees																	0
List of Woody Plant S							Ca	anopy	/ Closu	re:					Cover	Plot Successiona	al Stage:
Mockernut Hickory, White	e Oak, v	Japan	ese ora	ange		С	Ν	E	S	W	%	per Pl	ot (all la	ayers):			
						Y	Υ	Ν	Y	Υ	80		60)%		Mid	
List of Understory Sp	List of Understory Species 0'-3':								Cover	3'-20'	:	List	of Maj	or Inv	asive	Species	
Patrdige Berry, Blackberr	Berry, Blackberry, Tartarian Honeysuckle,						N	E	S	W	%	per F	Plot (Å	ll Lay	ers):	-	
	Japanese Honeysuckle, White Oak, Sweet Gum, Willow Oak,Japanese Barberry, Persimmon, Asiatic Dayflower,											nese Stilt Grass					
Rare, etc. Species?	No					Herb	aceou	us & V	Voody	Cover	0'-3':	3':HABITAT: What species present?					
Specimen Trees?	No					С	Ν	Е	S	W	%						
Historic Sites?	No					v	v	V	v	v	100	Habita	nt size, l	location	n, confi	iguration:	

Υ

Ν

Υ

Υ

Е

Ν

Υ

С

Ν

Y

S

Ν

Downed Woody Debris:

100

%

20

Υ

W

Ν

No

No

No

light

Moderate

FUNCTION: Where is stand in relation to sensitive areas on site?

Disease?

Leaf litter?

Comments:

Insects/Infestation?

Downed woody debris:

Exotic Plants?

Wildlife cover/food/water?

Stand corridor/patch?

Cover and food

Patch, contiguous with off-site forest

Patch

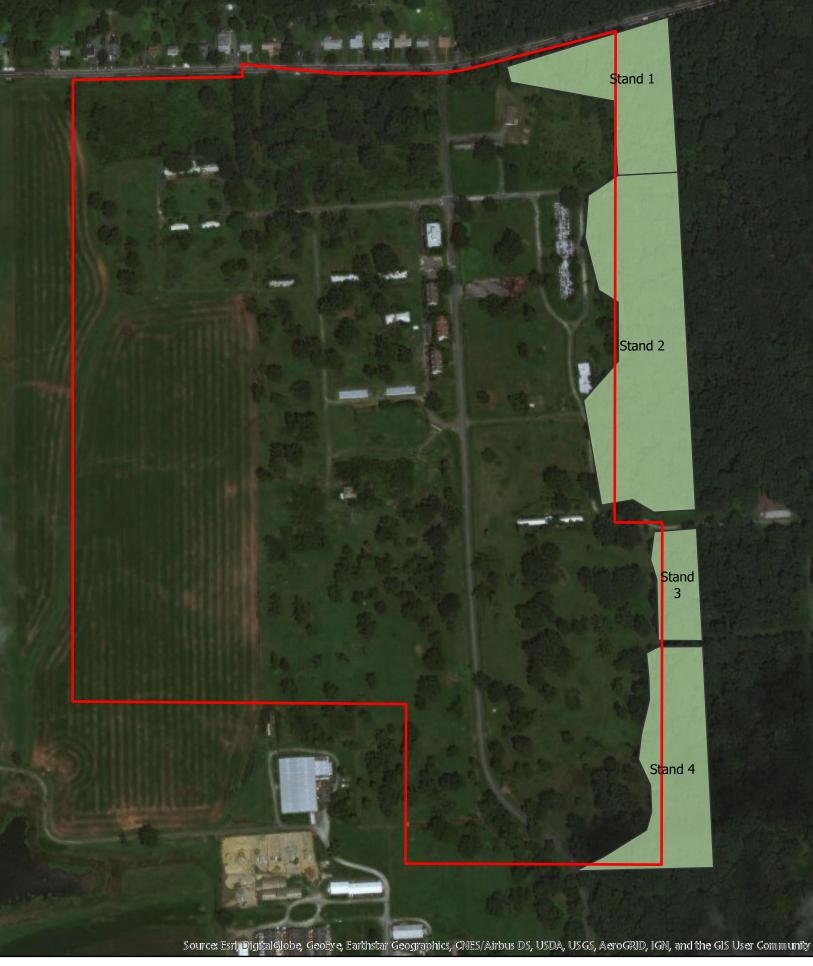
Property: BEP									Prepa	rod B							
Owner: BARC									Stand		y. Dr	C/LJ				Plot #: 1	
Forest Cover Type: 1	Vixed	Oak							Date:		2019					110(#. 1	
Plot Size: 1/10 Acre (3)						Dutoi								
Basal Area in Square			<i>,</i>														
Feet per Acre:							ASS O	F TRE	ES >2				N SA	MPLE	PLO		
	-	Imbei	-	-	mbei	-				-	Imbei	-				Average	
	Tre	es 2-	5.9"	Tree	es 6-1	1.9"	-		Trees	Tree	s 20-2	29.9"	-	Imber	-	Tree Height	
TREE SPECIES Crown Position	Dom	dbh CoD	Other	Dom	dbh CoD	Other		19.9" CoD	dbh Other	Dom	dbh CoD	Other		s >30' CoD	" dbh Other	(ft)	Total
¹ White Oak	Dom	COD	Other	Dom	COD	Other	Dom	COD	Other	Dom	COD	Other		COD	Other		
2													1				1
² Mockernut Hickory			9			1											10
³ Black Cherry			1			1											2
⁴ Red Maple			5			5											10
⁵ Slippery Elm						1											1
⁶ Flowering Dogwood			1														1
7																	0
8																	0
9												0					0
Total Number of Trees per Size Class		16			8			0			0			1			25
Number & Size of Standing Dead Trees	2																2
List of Woody Plant S	pecie	s 3'-2	0':				Ca	anopy	Closu	re:			nt of Inv		Cover	Plot Succession	al Stage:
White Oak,Mockernut Hic	kory, F	Red Ma	aple, C	herry E	Black	С	Ν	Е	S	W	%	per Pl	ot (all la	iyers):			
						Y	Y	Y	Y	Y	100		60	1%		Matu	re
List of Understory Sp	ecies	0'-3':					Under	story	Cover	3'-20'	:					Species	
Green Ash, Northern Arro		d, Com	imon G	Greenbi	rier,	С	Ν	Ε	S	W	%	per F	Plot (A	ll Lay	ers):		
American Holly, White Oa	ak					Ν	Ν	Y	Υ	Y	60		Tartaria	in Hone	eysuckle	e, Japanese Honey	/suckle
Rare, etc. Species?		Herb	aceou	is & V	loody	Cover	· 0'-3':	HABIT	AT: W	nat spe	cies pr	esent?					
Specimen Trees?		С	Ν	Ε	S	W	%	Blue J	ay, Red	-bellied	woodpe	ecker					
Historic Sites?	No				Y	Y	Y	Y	Y	100	Habita	t size, l	ocatio	n, confi	guration:		
Disease?	No					Downed Woody Debris:							P	atch, co	ontiguou	is with off-site fore	st
Insects/Infestation?								-		r							
Exotic Plants? Leaf litter?	Yes Mode	rate				С	N	Е	S	w	%						
Downed woody debris:	light	ale				Y	Ν	Ν	Ν	Ν	20	O Cover and food Stand corridor/patch? Patch					
FUNCTION: Where is stand	<u> </u>	tion to	sensiti	ve area	s on s	ite?						otana	connac	inputoi		1 dtorr	
. ee north milliono lo otulia			2011010														

Comments:

									Drana	rad Di							
Property: BEP Owner: BARC									Prepa Stand		<u>/: UR</u>	(C/LJ				Plot #: 2	
	Mixed	Oak							Date:		2010					PI01 #: 2	
Plot Size: 1/10 Acre (3									Date.	10/01/	2013						
Basal Area in Square		aurac	<u>/</u>	—	—												
Feet per Acre: 60					SIZ	E CL/	ASS O	FTR	EES >2	0' HEI	GHT	WITH	IN SAI	MPLE	PLO	Г	
	Nu	umber	r of	Νι	umber						umber					Average	
	Tre	es 2-	5.9"	Tre	es 6-1	11.9"	Num	ber of	f Trees	Tree	es 20-2	29.9"	Nu	umber	r of	Tree Height	
TREE SPECIES		dbh	!		dbh		12-	-19.9"	dbh		dbh		Trees	s >30'	" dbh	(ft)	
Crown Position	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other	Dom	CoD	Other		Total
¹ White Oak													3				3
² Red Maple			10			2											12
³ Mockernut Hickory			<u>ا</u>		\square	ļ'											0
⁴ Black Cherry		<u> </u>	ļ'		L	2					 '						2
5		<u> </u>	<u> </u> '		\square	<u> </u>					 '					l	0
6			<u> </u> '			<u>ا</u>											0
7																	0
8																	0
9																	0
Total Number of Trees per Size Class		10			4	0					0			3			17
Number & Size of Standing Dead Trees																	0
List of Woody Plant S	pecie	es 3'-2	20':			1	Ca	anopy	/ Closu	re:	·,					Plot Succession	al Stage:
White Oak, Red Elm, Moc	- kernut	t Hickc	ory, Jar	Janese	;	С	Ν	E	S	W	%	per Ple	ot (all la	yers):			
Orange						Y	Y	Y	Y	Y	100		30)%		Matu	re
List of Understory Spo	ecies	0'-3':					Under	rstorv	Cover	3'-20'	ļ!	list			asive	Species	
White Oak, American Holl				de. Gre	en	С	N	E	S	W	. %		Plot (A			Openie	
Ash, Mockernut Hickory, V Common Greenbrier, pers	Willlow	v Oak,	Wild Y	′am,		Y	Y	N	Y	Y	80		-	-	kle, Jap	oanese Honeysuck Privet	le, Common
	No					Herh	aceor	15 & V	Voody	Cover	0'-3'	HABIT	·AT· Wł	nat sna	cies nr	esent?	
	Yes					C	N	E	S	W	%			-	•		
	No								-		<i>,</i> ,	Habita	t size. I	ocatio	n. confi	iguration:	
Disease?	no					Y	Y	Y	N	Y		80 Habitat size, location, configuration: Patch, contiguous with off-site forest					
	No								oody D			r atch, contiguous with on-site torest					
	No					С	Ν	Е	S	W	%	% Wildlife cover/food/water?					
	Mediu light	um				N	Ν	Ν	N	Ν	0	-	and foo		h7	Patch	
· · · · ·	<u> </u>	tion to	sonsit	ive are:	e on s	ito?			<u> </u>		<u> </u>	Stand	Corrigo	Πραιοι	11	1 dton	
Comments:	NCTION: Where is stand in relation to sensitive areas o omments:																

APPENDIX B

Forest Stand Map



Proposed Site Boundary
Forest Stands

Г

N 0 0.02

0 0.0**2**.04 0.08 0.12 0.16 Miles

APPENDIX C

Specimen Tree List

BEP Spec	imen Trees			
#	Scientific Name	Common Name	DBH	Condtion
ST1	Quercus alba	White Oak	39.9	Very Good
ST2	Quercus alba	White Oak	32	Very Good
ST3	Quercus alba	White Oak	33	Good
ST4	Quercus alba	White Oak	34.5	Very Good
ST5	Quercus alba	White Oak	54	Good
ST6	Quercus alba	White Oak	35	Very Good
ST7	Quercus alba	White Oak	33	Good
ST8	Quercus alba	White Oak	36	Very Good
ST9	Quercus alba	White Oak	42	Very Good
ST10	Liquidambar styraciflua	Sweet Gum	34	Very Good
ST11	Quercus alba	White Oak	37	Very Good
ST12	Liquidambar styraciflua	Sweet Gum	34	Fair
ST13	Acer rubrum	Red Maple	36	Fair
ST14	Quercus alba	White Oak	40.5	Fair
ST15	Quercus alba	White Oak	32	Good
ST16	Quercus alba	White Oak	35	Good
ST17	Quercus alba	White Oak	43	Good
ST18	Quercus alba	White Oak	55	Fair
ST19	Quercus alba	White Oak	53	Fair
ST20	Quercus palustris	Pin Oak	37	Poor
ST21	Quercus phellos	Willow Oak	58	Fair
ST22	Quercus phellos	Willow Oak	35.75	Fair
ST23	Quercus phellos	Willow Oak	52	Poor
ST24	Quercus alba	White Oak	53	Very Good
ST25	Quercus alba	White Oak	48	Poor
ST26	Quercus alba	White Oak	45	Poor
ST27	Quercus alba	White Oak	34	Good
ST28	Quercus alba	White Oak	37	Good
ST29	Quercus alba	White Oak	33	Good
ST30	Quercus alba	White Oak	37	Good
ST31	Quercus alba	White Oak	46	Good
ST32	Quercus alba	White Oak	33.5	Good
ST33	Quercus alba	White Oak	37	Poor
ST34	Quercus alba	White Oak	33	Good
ST35	Quercus alba	White Oak	36	Good
ST36	Liquidambar styraciflua	Sweet Gum	33	Fair
ST37	Quercus alba	White Oak	48	Fair
ST38	Liquidambar styraciflua	Sweet Gum	34	Poor
ST39	Quercus alba	White Oak	40	Fair
ST40	Quercus alba	White Oak	45	Good
ST41	Quercus alba	White Oak	43	Fair
ST42	Quercus alba	White Oak	45	Poor
ST43	Quercus alba	White Oak	51	Good
ST44	Quercus alba	White Oak	41	Good
ST45	Quercus alba	White Oak	33	Good

ST46	Quercus alba	White Oak	48	Fair
ST47	Quercus alba	White Oak	46	Fair
ST48	Quercus alba	White Oak	44	Good
ST49	Quercus alba	White Oak	38.5	Good
ST50	Quercus alba	White Oak	51	Poor
ST51	Quercus alba	White Oak	40	Good
ST52	Quercus alba	White Oak	37.5	Good
ST53	Liquidambar styraciflua	Sweet Gum	30.5	Fair
ST54	Quercus alba	White Oak	37	Poor
ST55	Quercus alba	White Oak	37	Good
ST56	Quercus alba	White Oak	39	Fair
ST57	Quercus alba	White Oak	40	Good
ST58	Quercus alba	White Oak	34	Good
ST59	Quercus alba	White Oak	37.5	Good
ST60	Liquidambar styraciflua	Sweet Gum	30	Poor
ST61	Liquidambar styraciflua	Sweet Gum	33	Good
ST62	Quercus stellata	Post Oak	35	Good
ST63	Quercus alba	White Oak	33.5	Poor
ST64	Quercus stellata	Post Oak	31	Fair
ST65	Quercus alba	White Oak	35	Good
ST66	Acer rubrum	Red Maple	40.5	Very Poor
ST67	Quercus alba	White Oak	38	Good
ST68	Liquidambar styraciflua	Sweet Gum	38	Good
ST69	Liquidambar styraciflua	Sweet Gum	31	Fair
ST70	Liquidambar styraciflua	Sweet Gum	30.5	Good
ST71	Liquidambar styraciflua	Sweet Gum	33	Good
ST72	Liquidambar styraciflua	Sweet Gum	34	Good
ST73	Liquidambar styraciflua	Sweet Gum	33	Fair
ST74	Liquidambar styraciflua	Sweet Gum	31	Fair
ST75	Liquidambar styraciflua	Sweet Gum	31	Fair
ST76	Liquidambar styraciflua	Sweet Gum	35	Very Poor
ST77	Liquidambar styraciflua	Sweet Gum	36	Very Poor
ST78	Liquidambar styraciflua	Sweet Gum	44	Fair
ST79	Liquidambar styraciflua	Sweet Gum	37	Good
ST80	Liquidambar styraciflua	Sweet Gum	36	Poor
ST81	Liquidambar styraciflua	Sweet Gum	31	Very Poor
ST82	Liquidambar styraciflua	Sweet Gum	30.5	Fair
ST83	Liquidambar styraciflua	Sweet Gum	31	Fair
ST84	Nyssa sylvatica	Black Gum	30	Poor
ST85	Liquidambar styraciflua	Sweet Gum	34	Fair
ST86	Liquidambar styraciflua	Sweet Gum	30	Good
ST87	Liquidambar styraciflua	Sweet Gum	46	Very Good
ST88	Liquidambar styraciflua	Sweet Gum	30	Fair
ST89	Liquidambar styraciflua	Sweet Gum	32	Fair
ST90	Nyssa sylvatica	Black Gum	33.5	Poor
ST91	Quercus palustris	Pin Oak	60	Good
ST92	Quercus alba	White Oak	45	Fair

ST93Liquidambar styracifluaST94Liquidambar styracifluaST95Liquidambar styracifluaST96Liquidambar styracifluaST97Liquidambar styracifluaST98Liquidambar styracifluaST99Liquidambar styraciflua	Sweet Gum Sweet Gum Sweet Gum Sweet Gum Sweet Gum Sweet Gum Pin Oak Sweet Gum Sweet Gum Sweet Gum Sweet Gum	31 35 34 30 33 31 34 42 31 35 32	Fair Fair Good Very Poor Fair Fair Good Poor Poor
ST95Liquidambar styracifluaST96Liquidambar styracifluaST97Liquidambar styracifluaST98Liquidambar styraciflua	Sweet Gum Sweet Gum Sweet Gum Sweet Gum Pin Oak Sweet Gum Sweet Gum Sweet Gum Sweet Gum	34 30 33 31 34 42 31 35	Fair Good Very Poor Fair Fair Good Poor
ST96Liquidambar styracifluaST97Liquidambar styracifluaST98Liquidambar styraciflua	Sweet Gum Sweet Gum Sweet Gum Sweet Gum Sweet Gum Sweet Gum Sweet Gum Sweet Gum	30 33 31 34 42 31 35	Good Very Poor Fair Fair Good Poor
ST97Liquidambar styracifluaST98Liquidambar styraciflua	Sweet Gum Sweet Gum Sweet Gum Pin Oak Sweet Gum Sweet Gum Sweet Gum Swamp White Oak	33 31 34 42 31 35	Very Poor Fair Fair Good Poor
ST98 Liquidambar styraciflua	Sweet Gum Sweet Gum Pin Oak Sweet Gum Sweet Gum Sweet Gum Swamp White Oak	31 34 42 31 35	Fair Fair Good Poor
	Sweet Gum Pin Oak Sweet Gum Sweet Gum Sweet Gum Swamp White Oak	34 42 31 35	Fair Good Poor
	Pin Oak Sweet Gum Sweet Gum Sweet Gum Swamp White Oak	42 31 35	Good Poor
	Sweet Gum Sweet Gum Sweet Gum Swamp White Oak	31 35	Poor
ST100 Quercus palustris	Sweet Gum Sweet Gum Swamp White Oak	35	
ST101 Liquidambar styraciflua	Sweet Gum Swamp White Oak		Poor
ST102 Liquidambar styraciflua	Swamp White Oak	32	
ST103 Liquidambar styraciflua	•		Very Poor
ST104 Quercus bicolor	•	35	Good
ST105 Acer rubrum	Red Maple	33	Fair
ST106 Quercus alba	White Oak	35	Good
ST107 Quercus phellos	Willow Oak	37	Very Good
ST108 Quercus alba	White Oak	37	, Very Good
ST109 Quercus alba	White Oak	36	Poor
ST110 Quercus alba	White Oak	35	Good
ST111 Quercus alba	White Oak	34	Poor
ST112 Quercus alba	White Oak	34	Good
ST113 Quercus alba	White Oak	35	Good
ST114 Quercus alba	White Oak	33	Good
ST115 Quercus alba	White Oak	42	Poor
ST116 Liquidambar styraciflua	Sweet Gum	30	Good
ST117 Carya glabra	Pignut Hickory	30	Good
ST118 Quercus phellos	Willow Oak	49	Very Good
ST119 Carya glabra	Shagbark Hickory	33	Good
ST120 Quercus alba	White Oak	33	Poor
ST121 Quercus alba	White Oak	39	Fair
ST122 Quercus alba	White Oak	36	Good
ST123 Acer rubrum	Red Maple	35	Good
ST124 Liquidambar styraciflua	Sweet Gum	37	Fair
ST125 Quercus stellata	Post Oak	35	Fair
ST126 Quercus palustris	Pin Oak	38	Poor
ST127 Quercus alba	White Oak	36	Good
ST128 Quercus alba	White Oak	42	Good
ST129 Quercus alba	White Oak	33	Good
ST130 Quercus alba	White Oak	33	Good
ST131 Quercus alba	White Oak	33	Good
ST132 Quercus alba	White Oak	35	Fair
ST133 Quercus alba	White Oak	41	Good
ST134 Liquidambar styraciflua	Sweet Gum	33	Good
ST135 Quercus alba	White Oak	40	Good
ST136 Quercus alba	White Oak	45	Fair
ST137 Quercus alba	White Oak	46	Good
ST138 Quercus alba	White Oak	43	Good
ST139 Liquidambar styraciflua	Sweet Gum	31	Good

ST140	Liquidambar styraciflua	Sweet Gum	32	Fair
ST141	Quercus alba	White Oak	41	Poor
ST142	Quercus alba	White Oak	33	Fair
ST143	Quercus alba	White Oak	35	Good
ST144	Quercus alba	White Oak	33	Good
ST145	Quercus palustris	Pin Oak	38	Good
ST146	Quercus alba	White Oak	38.5	Good
ST147	Liquidambar styraciflua	Sweet Gum	45	Fair
ST148	Quercus alba	White Oak	36	Good
ST149	Quercus alba	White Oak	44	Good
ST150	Quercus alba	White Oak	53	Good
ST151	Quercus alba	White Oak	34	Good
ST152	Quercus alba	White Oak	46	Good
ST153	Quercus alba	White Oak	45	Good
ST154	Quercus alba	White Oak	48	Good
ST155	Quercus alba	White Oak	46	Good
ST156	Quercus alba	White Oak	38	Poor
ST157	Quercus palustris	Pin Oak	52	Fair
ST158	Quercus alba	White Oak	39	Good
ST159	Acer ruburm	Red Maple	36	Good
ST160	Quercus alba	White Oak	35	Very Good
ST161	Quercus stellata	Post Oak	31	Good
ST162	Quercus velutina	Black Oak	31	Poor
ST163	Quercus prinus	Chestnut Oak	36	Poor
ST164	Quercus alba	White Oak	58	Good
ST165	Acer rubrum	Red Maple	50	Good
ST166	Quercus alba	White Oak	36	Good
ST167	Quercus alba	White Oak	33	Good
ST168	Quercus alba	White Oak	31	Good
ST169	Liquidambar styraciflua	Sweet Gum	32	Good
ST170	Quercus alba	White Oak	30	Good
ST171	Quercus alba	White Oak	36	Good
ST172	Quercus cocina	Scarlett Oak	41	Fair
ST173	Quercus alba	White Oak	31	Good
ST174	Quercus alba	White Oak	47	Very Poor
ST175	Quercus alba	White Oak	40	Good
ST176	Quercus alba	White Oak	31	Good
ST177	Quercus alba	White Oak	34	Poor
ST178	Quercus alba	White Oak	34	Good
ST179	Quercus alba	White Oak	32	Good
ST180	Quercus alba	White Oak	33	Poor
ST181	Quercus alba	White Oak	31	Good
ST182	Quercus alba	White Oak	31	Good
ST183	Quercus alba	White Oak	32	Good
ST184	Quercus alba	White Oak	36	Good
ST185	Quercus alba	White Oak	33	Good
ST186	Quercus alba	White Oak	33	Good

ST187	Liriodendron tulipifera	Tulip poplar	38	Poor
ST188	Liquidambar styraciflua	Sweet Gum	30	Fair

