HUC 031001 Peace

HUC 6 Watershed

Climate Change Atlas Tree Species

Current and Potential Future Habitat, Capability, and Migration

USDA Forest Service Northern Research Station Landscape Change Research Group Iverson, Peters, Prasad, Matthews

 sq. km
 sq. mi
 FIA Plots

 Area of Region
 9,557.2
 3,690.1
 105

Species Information

The columns below provide breif summaries of the species associated with the region and described in the table on the next pages. Definitions are provided in the Excel file for this region.

Genus	Species						Potentia	al Change	in Habitat Suitability	Capability	to Cope o	r Persist	Migratio	n Poten	tial
Ash	1			N	1odel			Scenario	Scenario		Scenario	Scenario		SHIFT	SHIFT
Hickory	2	Abur	ndance	R	eliability	Adaptability		RCP45	RCP85		RCP45	RCP85		RCP45	RCP85
Maple	1	Abundant	3	High	9	8	Increase	10	12	Very Good	2	5	Likely	0	0
Oak	6	Common	6	Medium	21	30	No Change	9	7	Good	8	5	Infill	9	8
Pine	2	Rare	18	Low	13	5	Decrease	7	7	Fair	5	6	Migrate	4	7
Other	15	Absent	12	FIA	1		New	8	8	Poor	3	2		13	15
-	27		39		44	43	Unknown	10	10	Very Poor	6	6			
							-	44	44	FIA Only	1	1			

Potential Changes in Climate Variables

Temperatu	ıre (°F)				
	Scenario	2009	2039	2069	2099
Annual	CCSM45	59.5	60.5	61.4	61.4 🛶 🛶
Average	CCSM85	59.5	60.5	62.0	63.5
	GFDL45	59.5	61.7	62.3	62.8
	GFDL85	59.5	61.0	62.9	65.1
	HAD45	59.5	60.5	61.9	62.6
	HAD85	59.5	60.9	62.4	64.6
Growing	CCSM45	64.7	65.6	66.4	66.4
Season	CCSM85	64.7	65.6	67.0	68.6 🛶 🔶
May—Sep	GFDL45	64.7	66.9	67.4	68.1
	GFDL85	64.7	66.3	68.1	70.5
	HAD45	64.7	66.1	67.1	67.9
	HAD85	64.7	66.3	68.1	70.0
Coldest	CCSM45	51.0	52.3	52.9	52.8
Month	CCSM85	51.0	51.9	52.5	53.5
Average	GFDL45	51.0	52.8	53.0	53.4
	GFDL85	51.0	52.6	53.4	54.1
	HAD45	51.0	51.1	51.9	52.2
	HAD85	51.0	51.6	52.1	53.3
Warmest	CCSM45	65.9	66.8	67.3	67.3
Month	CCSM85	65.9	66.8	67.7	68.7 🛶 🔶
Average	GFDL45	65.9	67.4	68.1	68.5
	GFDL85	65.9	67.6	68.6	69.9
	HAD45	65.9	67.2	67.7	68.1
	HAD85	65.9	67.3	68.3	69.2

Precipitation (in)												
	Scenario	2009	2039	2069	2099							
Annual	CCSM45	34.2	35.9	35.4	37.9 🛶 🔶							
Total	CCSM85	34.2	35.5	35.4	33.6 🛶 🛶							
	GFDL45	34.2	39.4	40.5	41.6							
	GFDL85	34.2	37.2	43.0	38.8 🛹 🔶							
	HAD45	34.2	35.9	36.3	36.7							
	HAD85	34.2	33.2	34.9	33.9 🛶 🛶							
Growing	CCSM45	23.0	24.3	23.5	25.3 ++++							
Season	CCSM85	23.0	23.8	24.1	21.8 ++++							
May—Sep	GFDL45	23.0	25.7	25.8	25.4							
	GFDL85	23.0	24.7	27.1	23.9 +++++							
	HAD45	23.0	23.7	24.3	22.6 ++++							
	HAD85	23.0	22.1	21.1	20.4 +++++							

NOTE: For the six climate variables, four 30-year periods are used to indicate six potential future trajectories. The period ending in 2009 is based on modeled observations from the PRISM Climate Group and the three future periods were obtained from the NASA NEX-DCP30 dataset. Future climate projections from three models under two emission scenarios show estimates of each climate variable within the region. The three models are CCSM4, GFDL CM3, and HadGEM2-ES and the emission scenarios are the 4.5 and 8.5 RCP. The average value for the region is reported, even though locations within the region may vary substantially based on latitude, elevation, land-use, or other factors.

Unknown

9

34

9

34

Cite as: Iverson, L.R.; Prasad, A.M.; Peters, M.P.; Matthews, S.N. 2019. Facilitating Adaptive Forest Management under Climate Change: A Spatially Specific Synthesis of 125 Species for Habitat Changes and Assisted Migration over the Eastern United States. Forests. 10(11): 989. https://doi.org/10.3390/f10110989.



HUC 031001 Peace

HUC 6 Watershed

USDA Forest Service Northern Research Station Landscape Change Research Group Iverson, Peters, Prasad, Matthews

Climate Change Atlas Tree Species Current and Potential Future Habitat, Capability, and Migration

Scientific Name Pinus elliottii	Range		%Cell	FIAsum	FIAiv ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO N
Pinus elliottii	NIDU												
i mas cinottii	NDH	High	60.5	974.5	26.0 No change	No change	Medium	Abundant	Good	Good			1 1
Sabal palmetto	NDH	Medium	60.5	539.7	20.6 No change	Sm. inc.	Medium	Abundant	Good	Very Good			0 2
Quercus virginiana	NDH	High	76	535.5	19.8 No change	Sm. inc.	Medium	Abundant	Good	Very Good			1 3
Quercus laurifolia	NDH	Medium	71.3	175.2	6.8 No change	No change	Medium	Common	Fair	Fair			1 4
Acer rubrum	WDH	High	44.1	106.2	9.9 Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1 5
Pinus palustris	NSH	Medium	22.9	82.2	12.2 Sm. inc.	No change	Medium	Common	Good	Fair			1 6
Taxodium distichum	NSH	Medium	14	66.5	13.4 Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good	Infill ++	Infill ++	1 7
Quercus nigra	WDH	High	38.2	64.0	7.1 Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1 8
Taxodium ascendens	NSH	Medium	10.3	60.6	7.5 Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1 9
Magnolia virginiana	NSL	Medium	32.8	42.5	4.6 Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair			1 10
Nyssa biflora	NDH	Medium	17.7	27.7	4.3 Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair			1 11
Ulmus americana	WDH	Medium	24	25.7	4.2 Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	1 12
Liquidambar styraciflua	WDH	High	4.8	23.3	5.6 No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2 13
Fraxinus caroliniana	NSL	FIA	16.1	12.5	3.0 Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0 14
Carya aquatica	NSL	Medium	3.6	9.1	2.9 Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0 15
Celtis laevigata	NDH	Medium	6.4	7.9	5.4 No change	Lg. inc.	Medium	Rare	Poor	Good	Infill +	Infill ++	2 16
Gordonia lasianthus	NSH	Medium	5.8	6.7	2.5 Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2 17
Quercus laevis	NSH	Medium	3.9	4.8	3.8 No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2 18
Prunus serotina	WDL	Medium	4.7	4.2	3.1 No change	No change	Low	Rare	Very Poor	Very Poor			2 19
Morus rubra	NSL	Low	2.4	3.0	1.4 Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0 20
Persea borbonia	NSL	Low	9.2	2.6	0.8 Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	1 21
Carya glabra	WDL	Medium	1.2	1.5	1.4 Sm. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			2 22
Quercus incana	NSL	Low	3.1	1.0	2.5 Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0 23
Diospyros virginiana	NSL	Low	5.6	1.0	0.8 Very Lg. dec.	Very Lg. dec.	High	Rare	Lost	Lost			0 24
Salix nigra	NSH	Low	4.6	0.9	3.4 Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0 25
Quercus phellos	NSL	Low	5.1	0.9	0.6 Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0 26
le Carpinus caroliniana	WSL	Low	1.2	0.7	0.7 No change	No change	Medium	Rare	Poor	Poor	Infill +		2 27
Pinus clausa	NDH	High	0	0	0 New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3 28
Pinus echinata	WDH	High	0	0	0 New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3 29
Pinus serotina	NSH	Medium	0	0	0 New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate ++	3 30
Pinus taeda	WDH	High	0	0	0 New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3 31
Acer pensylvanicum	NSL	Medium	0	0	0 Unknown	Unknown	Medium	Absent	Unknown	Unknown			0 32
Asimina triloba	NSL	Low	0	0	0 Unknown	Unknown	Medium	Absent	Unknown	Unknown			0 33
Cornus florida	WDL	Medium	0	0	0 Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0 34
Fraxinus pennsylvanica	WSH	Low	0	0	0 New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3 35
llex opaca	NSL	Medium	0	0	0 Unknown	Unknown	Medium	Modeled	Unknown	Unknown		U	0 36
Magnolia acuminata	NSL	Low	0	0	0 Unknown	Unknown	Medium	Absent	Unknown	Unknown			0 37
Nyssa sylvatica	WDL	Medium	0	0	0 New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3 38
w Ostrya virginiana	WSL	Low	0	0	0 New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3 39
Planera aquatica	NSL	Low	0	0	0 Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0 40
	NSL	Medium	0	0	0 Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0 41
			0	0	0 Unknown	Unknown			Unknown	Unknown			0 42
Quercus stellata	WDH	High	0	0	0 New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3 43
			0	0									0.0
	Quercus virginianaQuercus laurifoliaAcer rubrumPinus palustrisTaxodium distichumQuercus nigraTaxodium ascendensMagnolia virginianaNyssa bifloraUlmus americanaLiquidambar styracifluaFraxinus carolinianaCarya aquaticaCeltis laevigataGordonia lasianthusQuercus laevisPrunus serotinaMorus rubraPersea borboniaCarya glabraQuercus incanaDiospyros virginianaSalix nigraQuercus phellosPinus carolinianaPinus serotinaPinus carolinianaJinus carolinianaPinus carolinianaIde Carpinus carolinianaPinus carolinianaPinus carolinianaPinus serotinaPinus serotinaPinus serotinaPinus serotinaPinus serotinaPinus serotinaPinus serotinaPinus serotinaPinus serotinaPinus taedaAcer pensylvanicumAsimina trilobaCornus floridaFraxinus pennsylvanicaIlex opacaMagnolia acuminataNyssa sylvaticaW Ostrya virginianaPlanera aquaticaQuercus pagodaQuercus texana	Quercus virginianaNDHQuercus laurifoliaNDHAcer rubrumWDHPinus palustrisNSHTaxodium distichumNSHQuercus nigraWDHTaxodium ascendensNSHMagnolia virginianaNSLNyssa bifloraNDHUlmus americanaWDHFraxinus carolinianaNSLCarya aquaticaNSHGordonia lasianthusNSHQuercus laevisNSHPurunus serotinaWDLMorus rubraNSLCarya glabraWDLQuercus incanaNSLCarya glabraWDLQuercus phellosNSLSalix nigraNSHPinus carolinianaWSLPinus carolinianaWSLSalix nigraNSHPinus carolinianaWSLPinus carolinianaWSLPinus carolinianaWSLPinus carolinianaWSLPinus carolinianaWSLPinus carolinianaWSLPinus carolinianaWSLPinus carolinianaWSLPinus carolinianaWSLPinus taedaWDHAcer pensylvanicumNSLAsimina trilobaNSLMagnolia acuminataNSLNyssa sylvaticaWDLPlanera aquaticaNSLQuercus pagodaNSLQuercus texanaNSH	Quercus virginianaNDHHighQuercus laurifoliaNDHHediumAcer rubrumWDHHighPinus palustrisNSHMediumTaxodium distichumNSHMediumQuercus nigraWDHHighTaxodium ascendensNSHMediumMagnolia virginianaNSLMediumMyssa bifloraNDHMediumUlmus americanaWDHHighFraxinus carolinianaNSLFlACarya aquaticaNSHMediumQuercus laevisNSHMediumQuercus laevisNSHMediumQuercus laevisNSLLowPersea borboniaNSLLowCarya glabraWDLMediumQuercus incanaNSLLowQuercus incanaNSLLowPinus carolinianaNSLLowQuercus incanaNSLLowQuercus phellosNSLLowPinus carolinianaNSLLowPinus causaNDHHighPinus echinataWDHHighPinus taedaWDHHighAcer pensylvanicamNSLLowAsimina trilobaNSLLowIlex opacaNSLLowNyssa sylvaticaWDLMediumMagnolia acuminataNSLLowNysa sylvaticaWDLMediumMagnolia acuminataNSLLowNysa sylvaticaWDLMediumMagnolia acuminataNSLLow <td>Quercus virginianaNDHHigh76Quercus laurifoliaNDHMedium71.3Acer rubrumWDHHigh44.1Pinus palustrisNSHMedium14Quercus nigraWDHHigh38.2Taxodium ascendensNSHMedium10.3Magnolia virginianaNSLMedium32.8Nyssa bifloraNDHMedium24Liquidambar styracifluaWDHHigh4.8Fraxinus carolinianaNSLFIA16.1Carya aquaticaNSLMedium3.6Celtis laevigataNDHMedium3.9Prunus serotinaWDLMedium3.9Prunus serotinaNSLLow9.2Carya glabraWDLMedium1.2Quercus incanaNSLLow9.2Carya glabraNSLLow5.6Salix nigraNSLLow5.1lev Carpinus carolinianaNSLLow5.1Diospyros virginianaNSLLow5.1Pinus clausaNDHHigh0Pinus clausaNDHHigh0Quercus phellosNSLLow5.1lev Carpinus carolinianaNSLLow5.1Pinus clausaNDHHigh0Pinus clausaNDHHigh0Pinus clausaNSLLow0Pinus taedaWDHHigh0Acer pensylvanicaNSLMedium0<</td> <td>Quercus virginianaNDHHigh76535.5Quercus laurifoliaNDHMedium71.3175.2Acer rubrumWDHHigh44.1106.2Pinus palustrisNSHMedium1466.5Quercus nigraWDHHigh38.264.0Taxodium ascendensNSHMedium10.360.6Magnolia virginianaNSLMedium12.342.5Nyssa bifloraNDHMedium2425.7Ulmus americanaWDHHigh3.69.1Liquidambar styracifluaWDHHigh3.69.1Celtis laevigataNDHMedium2425.7Quercus laevisNSLFIA16.112.5Carya aquaticaNSLKedium3.69.1Quercus laevisNSHMedium5.86.7Quercus laevisNSHMedium3.94.8Prunus serotinaWDLMedium4.11.0Diospyros virginianaNSLLow2.11.0Quercus incanaNSLLow2.11.0Quercus phellosNSLLow5.61.0Salix nigraNSHMedium00.0Pinus carolinianaNSLLow5.10.0Quercus phellosNSLLow5.10.0Pinus carolinianaNSLLow5.10.0Pinus carolinianaNSLLow00.0Pinus caroliniana<td>Quercus virginianaNDHHigh76535.519.8No changeQuercus laurifoliaNDHMedium71.3175.26.8No changeAcer rubrumWDHHigh44.1106.29.9Sm. inc.Pinus palustrisNSHMedium22.982.212.2Sm. inc.Taxodium distichumNSHMedium1466.513.4Sm. inc.Quercus nigraWDHHigh38.264.07.1Sm. inc.Taxodium ascendensNSHMedium28.222.74.3Lg. inc.Magnolia virginianaNSLMedium24.25.46.5No changeIguidambar styracifluaWDHMedium24.225.74.2Sm. inc.Ulmus americanaWDHMedium36.69.12.9Sm. dec.Celtis laevigataNSLFIA16.112.53.0UnknownCarya aquaticaNSLMedium3.69.12.9Sm. dec.Quercus laevisNSHMedium3.69.12.5Lg. inc.Quercus laevisNSHMedium3.94.83.8No changePrunus serotinaNSLLow2.43.01.4Sm. dec.Quercus incanaNSLLow9.22.60.8Lg. inc.Quercus incanaNSLLow3.11.02.5Sm. dec.Quercus portinaNSLLow5.61.00.8Very</td><td>Quercus virginianaNDHHigh76535.519.8No changeSm. inc.Quercus laurifoliaNDHMedium71.3175.26.8No changeNo changeAcer rubrumWDHHigh44.1106.29.9Sm. inc.No changePinus palustrisNSHMedium1466.513.4Sm. inc.No changeTaxodium distichumNSHMedium1466.513.4Sm. inc.Sm. inc.Quercus nigraWDHHigh38.264.07.1Sm. inc.Sm. inc.Taxodium ascendensNSHMedium12.842.54.6Sm. inc.Sm. inc.Magnolia virginianaNSHMedium2425.74.2Sm. inc.Sm. inc.Ulmus americanaWDHMedium23.35.6No changeFrainus carolinianaNSLFiA16.112.53.0UnknownCarya aquaticaNSLMedium3.69.12.9Sm. dec.Sm. dec.Sm. dec.Gordonia lasianthusNSHMedium3.66.72.5Ig. inc.Ig. inc.Quercus laevisNSHMedium3.66.72.5Ig. inc.Ig. inc.Quercus laevisNSHMedium3.94.83.8No changeNo changePrunus serotinaNSLLow9.22.60.8Ig. inc.Ig. inc.Quercus laevisNSHMedium1.21.4Sm. dec.</td><td>Quercus virginianaNDHHigh76535.519.8No changeSm. inc.MediumQuercus laurifoliaNDHMedium71.317.5.26.8No changeNo changeMediumAcer rubrumWDHHigh44.1106.29.9Sm. inc.Sm. inc.HighPinus palustrisNSHMedium1466.513.4Sm. inc.Lg. inc.MediumQuercus nigraWDHHigh38.266.513.4Sm. inc.Sm. inc.MediumTaxodium ascendensNSHMedium13.660.67.5Lg. inc.MediumMagnolia virginianaNSLMedium17.72.74.3Lg. inc.MediumMysa bifforaNDHMedium17.72.74.3Lg. inc.MediumUlmus americanaNSLFiA16.112.53.0UnknownNACarya aquatiaNSHMedium6.47.95.4No changeNo changeMediumGordonia lasianthusNSHMedium3.69.12.5Sm. dec.Sm. dec.MediumQuercus laevisNSHMedium3.1No changeNo changeNo changeIcwPrunus serotinaNSLLow2.43.01.4Sm. dec.Lg. inc.HediumQuercus laevisNSHMedium3.11.02.5Sm. dec.Lg. inc.HediumQuercus laevisNSHMedium3.11.0<</td><td>Quercus virginianaNDHHigh76535.519.8No changeSm. inc.MediumAbundantQuercus laurífoliaNDHMedium71.3175.26.8No changeNo changeMediumCommonPinus palustrisNSHMedium22.982.212.2Sm. inc.Lg. inc.MediumCommonTaxodium distichumNSHMedium1466.513.4Sm. inc.Lg. inc.MediumCommonQuercus nigraWDHHigh38.264.07.5Lg. inc.Lg. inc.MediumCommonTaxodium ascendensNSHMedium12.77.4.3Lg. inc.MediumCommonMysas biforaNDHMedium12.77.4.3Lg. inc.MediumRareUlmus americanaWDHHigh4.8.23.3S.6No changeMediumRareCarya aquaticaNSLMedium3.69.12.9Sm. dec.MediumRareGordonia lasinthusNSHMedium3.67.5Lg. inc.MediumRareQuercus laevisNSHMedium3.67.12.9Sm. dec.MediumRareQuercus laevisNSHMedium3.69.12.9Sm. dec.MediumRareQuercus laevisNSHMedium3.94.83.8No changeNo changeHighRareQuercus laevisNSHMedium3.94.83.8No chang</td><td>Quercus virginianaNDHHigh76535.519.8No changeSm. inc.MediumAbundantGoodQuercus laurífoliaNDHNDH44.110629.9Sm. inc.Sm. inc.HighCommonVery GoodPinus palustrisNSHMedium2.982.212.2Sm. inc.No changeMediumCommonGoodTaxodium distichumNSHMedium1466.513.4Sm. inc.MediumCommonGoodQuercus nigraWDHHigh36.264.07.1Sm. inc.MediumCommonGoodTaxodium ascendensNSHMedium12.82.54.5Sm. inc.MediumCommonVery GoodMagnola virginianaNSLMedium2.82.57.4St. inc.Sm. inc.MediumRareFairUlmus americanaWDHMedium2.77.74.3Ig. inc.Sm. inc.MediumRareFairUlquidamber styracifluaNSLFIA15.112.53.0UnknownUnknownNARareFoorCarya aquaticaNSLMedium5.86.72.5Ig. inc.MediumRareGoodQuercus lacisNSHMedium4.74.23.1No changeNo changeMediumRareFoorCarya aquaticaNSLMedium5.86.72.5Ig. inc.Ig. inc.MediumRareFoorPrunus</td><td>Ouercus virginiana NDH High Quercus laurifolia NDH High High 75 53.5 19.8 No change Medium Aundant Good Very Good Quercus laurifolia NDH High 20.2 2.2 2.2 So. Tan. No change Medium Common Fair Fair Acer rubrum WDH High 44.1 10.5 2.9 So. No. change Medium Good Very Good Taxodium disthum NSH Medium 14 66.5 13.4 Sm. Inc. Medium Common Good Very Good Quercus nigra WDH High 32.8 64.0 7.1 Sm. Inc. Medium Common Good Very Good Magnolia virginiana NSH Medium 24.2 5.4 5.0 Inter. Medium Rare Fair Fair Fair Julmus americana WDH Hedium 24 2.5 Junc. Sm. Inc. Medium Rare Fa</td><td>Ourreus virginiana NDH High 76 535.5 19.8 No change Michum Mondam Good Very Good Quercus laurifolia NDH High 71.3 172.2 6.8 No change Mighum Common Fair Fair Acer rubrum WDH High 22.9 22.2 12.2 Sm. inc. Mondam Common Good Very Good High Common Good Very Good High Common Service Very Good High Common Good Very Good High Common Good Very Food <td< td=""><td>Outcome NPH Pile 76 935.5 19.8 No change Medium Common Good Very Good Very Good Acer rubrum WDH High 44.1 106.2 9.9 Sn. Inc. High Common Good Very Good Very Good Very Good Very Good Init Init</td></td<></td></td>	Quercus virginianaNDHHigh76Quercus laurifoliaNDHMedium71.3Acer rubrumWDHHigh44.1Pinus palustrisNSHMedium14Quercus nigraWDHHigh38.2Taxodium ascendensNSHMedium10.3Magnolia virginianaNSLMedium32.8Nyssa bifloraNDHMedium24Liquidambar styracifluaWDHHigh4.8Fraxinus carolinianaNSLFIA16.1Carya aquaticaNSLMedium3.6Celtis laevigataNDHMedium3.9Prunus serotinaWDLMedium3.9Prunus serotinaNSLLow9.2Carya glabraWDLMedium1.2Quercus incanaNSLLow9.2Carya glabraNSLLow5.6Salix nigraNSLLow5.1lev Carpinus carolinianaNSLLow5.1Diospyros virginianaNSLLow5.1Pinus clausaNDHHigh0Pinus clausaNDHHigh0Quercus phellosNSLLow5.1lev Carpinus carolinianaNSLLow5.1Pinus clausaNDHHigh0Pinus clausaNDHHigh0Pinus clausaNSLLow0Pinus taedaWDHHigh0Acer pensylvanicaNSLMedium0<	Quercus virginianaNDHHigh76535.5Quercus laurifoliaNDHMedium71.3175.2Acer rubrumWDHHigh44.1106.2Pinus palustrisNSHMedium1466.5Quercus nigraWDHHigh38.264.0Taxodium ascendensNSHMedium10.360.6Magnolia virginianaNSLMedium12.342.5Nyssa bifloraNDHMedium2425.7Ulmus americanaWDHHigh3.69.1Liquidambar styracifluaWDHHigh3.69.1Celtis laevigataNDHMedium2425.7Quercus laevisNSLFIA16.112.5Carya aquaticaNSLKedium3.69.1Quercus laevisNSHMedium5.86.7Quercus laevisNSHMedium3.94.8Prunus serotinaWDLMedium4.11.0Diospyros virginianaNSLLow2.11.0Quercus incanaNSLLow2.11.0Quercus phellosNSLLow5.61.0Salix nigraNSHMedium00.0Pinus carolinianaNSLLow5.10.0Quercus phellosNSLLow5.10.0Pinus carolinianaNSLLow5.10.0Pinus carolinianaNSLLow00.0Pinus caroliniana <td>Quercus virginianaNDHHigh76535.519.8No changeQuercus laurifoliaNDHMedium71.3175.26.8No changeAcer rubrumWDHHigh44.1106.29.9Sm. inc.Pinus palustrisNSHMedium22.982.212.2Sm. inc.Taxodium distichumNSHMedium1466.513.4Sm. inc.Quercus nigraWDHHigh38.264.07.1Sm. inc.Taxodium ascendensNSHMedium28.222.74.3Lg. inc.Magnolia virginianaNSLMedium24.25.46.5No changeIguidambar styracifluaWDHMedium24.225.74.2Sm. inc.Ulmus americanaWDHMedium36.69.12.9Sm. dec.Celtis laevigataNSLFIA16.112.53.0UnknownCarya aquaticaNSLMedium3.69.12.9Sm. dec.Quercus laevisNSHMedium3.69.12.5Lg. inc.Quercus laevisNSHMedium3.94.83.8No changePrunus serotinaNSLLow2.43.01.4Sm. dec.Quercus incanaNSLLow9.22.60.8Lg. inc.Quercus incanaNSLLow3.11.02.5Sm. dec.Quercus portinaNSLLow5.61.00.8Very</td> <td>Quercus virginianaNDHHigh76535.519.8No changeSm. inc.Quercus laurifoliaNDHMedium71.3175.26.8No changeNo changeAcer rubrumWDHHigh44.1106.29.9Sm. inc.No changePinus palustrisNSHMedium1466.513.4Sm. inc.No changeTaxodium distichumNSHMedium1466.513.4Sm. inc.Sm. inc.Quercus nigraWDHHigh38.264.07.1Sm. inc.Sm. inc.Taxodium ascendensNSHMedium12.842.54.6Sm. inc.Sm. inc.Magnolia virginianaNSHMedium2425.74.2Sm. inc.Sm. inc.Ulmus americanaWDHMedium23.35.6No changeFrainus carolinianaNSLFiA16.112.53.0UnknownCarya aquaticaNSLMedium3.69.12.9Sm. dec.Sm. dec.Sm. dec.Gordonia lasianthusNSHMedium3.66.72.5Ig. inc.Ig. inc.Quercus laevisNSHMedium3.66.72.5Ig. inc.Ig. inc.Quercus laevisNSHMedium3.94.83.8No changeNo changePrunus serotinaNSLLow9.22.60.8Ig. inc.Ig. inc.Quercus laevisNSHMedium1.21.4Sm. dec.</td> <td>Quercus virginianaNDHHigh76535.519.8No changeSm. inc.MediumQuercus laurifoliaNDHMedium71.317.5.26.8No changeNo changeMediumAcer rubrumWDHHigh44.1106.29.9Sm. inc.Sm. inc.HighPinus palustrisNSHMedium1466.513.4Sm. inc.Lg. inc.MediumQuercus nigraWDHHigh38.266.513.4Sm. inc.Sm. inc.MediumTaxodium ascendensNSHMedium13.660.67.5Lg. inc.MediumMagnolia virginianaNSLMedium17.72.74.3Lg. inc.MediumMysa bifforaNDHMedium17.72.74.3Lg. inc.MediumUlmus americanaNSLFiA16.112.53.0UnknownNACarya aquatiaNSHMedium6.47.95.4No changeNo changeMediumGordonia lasianthusNSHMedium3.69.12.5Sm. dec.Sm. dec.MediumQuercus laevisNSHMedium3.1No changeNo changeNo changeIcwPrunus serotinaNSLLow2.43.01.4Sm. dec.Lg. inc.HediumQuercus laevisNSHMedium3.11.02.5Sm. dec.Lg. inc.HediumQuercus laevisNSHMedium3.11.0<</td> <td>Quercus virginianaNDHHigh76535.519.8No changeSm. inc.MediumAbundantQuercus laurífoliaNDHMedium71.3175.26.8No changeNo changeMediumCommonPinus palustrisNSHMedium22.982.212.2Sm. inc.Lg. inc.MediumCommonTaxodium distichumNSHMedium1466.513.4Sm. inc.Lg. inc.MediumCommonQuercus nigraWDHHigh38.264.07.5Lg. inc.Lg. inc.MediumCommonTaxodium ascendensNSHMedium12.77.4.3Lg. inc.MediumCommonMysas biforaNDHMedium12.77.4.3Lg. inc.MediumRareUlmus americanaWDHHigh4.8.23.3S.6No changeMediumRareCarya aquaticaNSLMedium3.69.12.9Sm. dec.MediumRareGordonia lasinthusNSHMedium3.67.5Lg. inc.MediumRareQuercus laevisNSHMedium3.67.12.9Sm. dec.MediumRareQuercus laevisNSHMedium3.69.12.9Sm. dec.MediumRareQuercus laevisNSHMedium3.94.83.8No changeNo changeHighRareQuercus laevisNSHMedium3.94.83.8No chang</td> <td>Quercus virginianaNDHHigh76535.519.8No changeSm. inc.MediumAbundantGoodQuercus laurífoliaNDHNDH44.110629.9Sm. inc.Sm. inc.HighCommonVery GoodPinus palustrisNSHMedium2.982.212.2Sm. inc.No changeMediumCommonGoodTaxodium distichumNSHMedium1466.513.4Sm. inc.MediumCommonGoodQuercus nigraWDHHigh36.264.07.1Sm. inc.MediumCommonGoodTaxodium ascendensNSHMedium12.82.54.5Sm. inc.MediumCommonVery GoodMagnola virginianaNSLMedium2.82.57.4St. inc.Sm. inc.MediumRareFairUlmus americanaWDHMedium2.77.74.3Ig. inc.Sm. inc.MediumRareFairUlquidamber styracifluaNSLFIA15.112.53.0UnknownUnknownNARareFoorCarya aquaticaNSLMedium5.86.72.5Ig. inc.MediumRareGoodQuercus lacisNSHMedium4.74.23.1No changeNo changeMediumRareFoorCarya aquaticaNSLMedium5.86.72.5Ig. inc.Ig. inc.MediumRareFoorPrunus</td> <td>Ouercus virginiana NDH High Quercus laurifolia NDH High High 75 53.5 19.8 No change Medium Aundant Good Very Good Quercus laurifolia NDH High 20.2 2.2 2.2 So. Tan. No change Medium Common Fair Fair Acer rubrum WDH High 44.1 10.5 2.9 So. No. change Medium Good Very Good Taxodium disthum NSH Medium 14 66.5 13.4 Sm. Inc. Medium Common Good Very Good Quercus nigra WDH High 32.8 64.0 7.1 Sm. Inc. Medium Common Good Very Good Magnolia virginiana NSH Medium 24.2 5.4 5.0 Inter. Medium Rare Fair Fair Fair Julmus americana WDH Hedium 24 2.5 Junc. Sm. Inc. Medium Rare Fa</td> <td>Ourreus virginiana NDH High 76 535.5 19.8 No change Michum Mondam Good Very Good Quercus laurifolia NDH High 71.3 172.2 6.8 No change Mighum Common Fair Fair Acer rubrum WDH High 22.9 22.2 12.2 Sm. inc. Mondam Common Good Very Good High Common Good Very Good High Common Service Very Good High Common Good Very Good High Common Good Very Food <td< td=""><td>Outcome NPH Pile 76 935.5 19.8 No change Medium Common Good Very Good Very Good Acer rubrum WDH High 44.1 106.2 9.9 Sn. Inc. High Common Good Very Good Very Good Very Good Very Good Init Init</td></td<></td>	Quercus virginianaNDHHigh76535.519.8No changeQuercus laurifoliaNDHMedium71.3175.26.8No changeAcer rubrumWDHHigh44.1106.29.9Sm. inc.Pinus palustrisNSHMedium22.982.212.2Sm. inc.Taxodium distichumNSHMedium1466.513.4Sm. inc.Quercus nigraWDHHigh38.264.07.1Sm. inc.Taxodium ascendensNSHMedium28.222.74.3Lg. inc.Magnolia virginianaNSLMedium24.25.46.5No changeIguidambar styracifluaWDHMedium24.225.74.2Sm. inc.Ulmus americanaWDHMedium36.69.12.9Sm. dec.Celtis laevigataNSLFIA16.112.53.0UnknownCarya aquaticaNSLMedium3.69.12.9Sm. dec.Quercus laevisNSHMedium3.69.12.5Lg. inc.Quercus laevisNSHMedium3.94.83.8No changePrunus serotinaNSLLow2.43.01.4Sm. dec.Quercus incanaNSLLow9.22.60.8Lg. inc.Quercus incanaNSLLow3.11.02.5Sm. dec.Quercus portinaNSLLow5.61.00.8Very	Quercus virginianaNDHHigh76535.519.8No changeSm. inc.Quercus laurifoliaNDHMedium71.3175.26.8No changeNo changeAcer rubrumWDHHigh44.1106.29.9Sm. inc.No changePinus palustrisNSHMedium1466.513.4Sm. inc.No changeTaxodium distichumNSHMedium1466.513.4Sm. inc.Sm. inc.Quercus nigraWDHHigh38.264.07.1Sm. inc.Sm. inc.Taxodium ascendensNSHMedium12.842.54.6Sm. inc.Sm. inc.Magnolia virginianaNSHMedium2425.74.2Sm. inc.Sm. inc.Ulmus americanaWDHMedium23.35.6No changeFrainus carolinianaNSLFiA16.112.53.0UnknownCarya aquaticaNSLMedium3.69.12.9Sm. dec.Sm. dec.Sm. dec.Gordonia lasianthusNSHMedium3.66.72.5Ig. inc.Ig. inc.Quercus laevisNSHMedium3.66.72.5Ig. inc.Ig. inc.Quercus laevisNSHMedium3.94.83.8No changeNo changePrunus serotinaNSLLow9.22.60.8Ig. inc.Ig. inc.Quercus laevisNSHMedium1.21.4Sm. dec.	Quercus virginianaNDHHigh76535.519.8No changeSm. inc.MediumQuercus laurifoliaNDHMedium71.317.5.26.8No changeNo changeMediumAcer rubrumWDHHigh44.1106.29.9Sm. inc.Sm. inc.HighPinus palustrisNSHMedium1466.513.4Sm. inc.Lg. inc.MediumQuercus nigraWDHHigh38.266.513.4Sm. inc.Sm. inc.MediumTaxodium ascendensNSHMedium13.660.67.5Lg. inc.MediumMagnolia virginianaNSLMedium17.72.74.3Lg. inc.MediumMysa bifforaNDHMedium17.72.74.3Lg. inc.MediumUlmus americanaNSLFiA16.112.53.0UnknownNACarya aquatiaNSHMedium6.47.95.4No changeNo changeMediumGordonia lasianthusNSHMedium3.69.12.5Sm. dec.Sm. dec.MediumQuercus laevisNSHMedium3.1No changeNo changeNo changeIcwPrunus serotinaNSLLow2.43.01.4Sm. dec.Lg. inc.HediumQuercus laevisNSHMedium3.11.02.5Sm. dec.Lg. inc.HediumQuercus laevisNSHMedium3.11.0<	Quercus virginianaNDHHigh76535.519.8No changeSm. inc.MediumAbundantQuercus laurífoliaNDHMedium71.3175.26.8No changeNo changeMediumCommonPinus palustrisNSHMedium22.982.212.2Sm. inc.Lg. inc.MediumCommonTaxodium distichumNSHMedium1466.513.4Sm. inc.Lg. inc.MediumCommonQuercus nigraWDHHigh38.264.07.5Lg. inc.Lg. inc.MediumCommonTaxodium ascendensNSHMedium12.77.4.3Lg. inc.MediumCommonMysas biforaNDHMedium12.77.4.3Lg. inc.MediumRareUlmus americanaWDHHigh4.8.23.3S.6No changeMediumRareCarya aquaticaNSLMedium3.69.12.9Sm. dec.MediumRareGordonia lasinthusNSHMedium3.67.5Lg. inc.MediumRareQuercus laevisNSHMedium3.67.12.9Sm. dec.MediumRareQuercus laevisNSHMedium3.69.12.9Sm. dec.MediumRareQuercus laevisNSHMedium3.94.83.8No changeNo changeHighRareQuercus laevisNSHMedium3.94.83.8No chang	Quercus virginianaNDHHigh76535.519.8No changeSm. inc.MediumAbundantGoodQuercus laurífoliaNDHNDH44.110629.9Sm. inc.Sm. inc.HighCommonVery GoodPinus palustrisNSHMedium2.982.212.2Sm. inc.No changeMediumCommonGoodTaxodium distichumNSHMedium1466.513.4Sm. inc.MediumCommonGoodQuercus nigraWDHHigh36.264.07.1Sm. inc.MediumCommonGoodTaxodium ascendensNSHMedium12.82.54.5Sm. inc.MediumCommonVery GoodMagnola virginianaNSLMedium2.82.57.4St. inc.Sm. inc.MediumRareFairUlmus americanaWDHMedium2.77.74.3Ig. inc.Sm. inc.MediumRareFairUlquidamber styracifluaNSLFIA15.112.53.0UnknownUnknownNARareFoorCarya aquaticaNSLMedium5.86.72.5Ig. inc.MediumRareGoodQuercus lacisNSHMedium4.74.23.1No changeNo changeMediumRareFoorCarya aquaticaNSLMedium5.86.72.5Ig. inc.Ig. inc.MediumRareFoorPrunus	Ouercus virginiana NDH High Quercus laurifolia NDH High High 75 53.5 19.8 No change Medium Aundant Good Very Good Quercus laurifolia NDH High 20.2 2.2 2.2 So. Tan. No change Medium Common Fair Fair Acer rubrum WDH High 44.1 10.5 2.9 So. No. change Medium Good Very Good Taxodium disthum NSH Medium 14 66.5 13.4 Sm. Inc. Medium Common Good Very Good Quercus nigra WDH High 32.8 64.0 7.1 Sm. Inc. Medium Common Good Very Good Magnolia virginiana NSH Medium 24.2 5.4 5.0 Inter. Medium Rare Fair Fair Fair Julmus americana WDH Hedium 24 2.5 Junc. Sm. Inc. Medium Rare Fa	Ourreus virginiana NDH High 76 535.5 19.8 No change Michum Mondam Good Very Good Quercus laurifolia NDH High 71.3 172.2 6.8 No change Mighum Common Fair Fair Acer rubrum WDH High 22.9 22.2 12.2 Sm. inc. Mondam Common Good Very Good High Common Good Very Good High Common Service Very Good High Common Good Very Good High Common Good Very Food <td< td=""><td>Outcome NPH Pile 76 935.5 19.8 No change Medium Common Good Very Good Very Good Acer rubrum WDH High 44.1 106.2 9.9 Sn. Inc. High Common Good Very Good Very Good Very Good Very Good Init Init</td></td<>	Outcome NPH Pile 76 935.5 19.8 No change Medium Common Good Very Good Very Good Acer rubrum WDH High 44.1 106.2 9.9 Sn. Inc. High Common Good Very Good Very Good Very Good Very Good Init Init

