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 10,556 4,075.8 111

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	4				Model			Scenario	Scenario		Scenario	Scenario		SHIFT	SHIFT
Hickory	0	Abu	ndance		Reliability	Adaptability		RCP45	RCP85		RCP45	RCP85		RCP45	RCP85
Maple	1	Abundant	1	High	8	7	Increase	11	11	Very Good	3	3	Likely	1	1
Oak	6	Common	12	Medium	22	26	No Change	9	10	Good	8	9	Infill	7	8
Pine	4	Rare	15	Low	9	6	Decrease	6	5	Fair	4	4	Migrate	0	2
Other	13	Absent	8	FIA	2		New	3	4	Poor	5	4	•	8	11
<u>-</u>	28	_	36	•	41	39	Unknown	12	11	Very Poor	6	6			
							•	41	41	FIA Only	2	2			
										Unknown	10	9			
Potential Changes in Climate Variables										38	37				

Potential Changes in Climate Variables

Temperatu	ıre (°F)				
	Scenario	2009	2039	2069	2099
Annual	CCSM45	60.0	61.0	62.0	62.0
Average	CCSM85	60.0	61.1	62.5	64.1
	GFDL45	60.0	62.3	62.8	63.4
	GFDL85	60.0	61.6	63.5	65.8
	HAD45	60.0	61.0	62.4	63.2
	HAD85	60.0	61.4	62.9	65.2
Growing	CCSM45	65.4	66.3	67.1	67.2
Season	CCSM85	65.4	66.3	67.8	69.5
May—Sep	GFDL45	65.4	67.6	68.1	68.9
	GFDL85	65.4	67.0	68.9	71.3
	HAD45	65.4	66.8	67.9	68.7
	HAD85	65.4	67.0	68.9	70.9
Coldest	CCSM45	51.2	52.5	53.1	53.0
Month	CCSM85	51.2	52.1	52.7	53.7
Average	GFDL45	51.2	52.9	53.2	53.6
	GFDL85	51.2	52.8	53.6	54.3
	HAD45	51.2	51.2	52.0	52.3
	HAD85	51.2	51.6	52.2	53.4
Warmest	CCSM45	66.7	67.6	68.1	68.1
Month	CCSM85	66.7	67.6	68.5	69.5
Average	GFDL45	66.7	68.3	68.9	69.4
	GFDL85	66.7	68.4	69.5	70.7
	HAD45	66.7	68.2	68.6	69.0
	HAD85	66.7	68.2	69.2	70.1

Precipitation (in)												
	Scenario	2009	2039	2069	2099							
Annual	CCSM45	33.1	34.8	34.3	36.7 ◆◆◆◆							
Total	CCSM85	33.1	34.6	34.2	33.0							
	GFDL45	33.1	38.6	39.6	41.0							
	GFDL85	33.1	35.9	42.1	38.7							
	HAD45	33.1	33.7	33.6	34.2							
	HAD85	33.1	31.2	32.6	31.3							
Growing	CCSM45	21.4	22.8	21.7	23.6							
Season	CCSM85	21.4	22.6	22.2	20.3							
May—Sep	GFDL45	21.4	24.2	24.4	24.1							
	GFDL85	21.4	23.1	25.7	23.3							
	HAD45	21.4	21.6	21.3	19.9							
	HAD85	21.4	19.8	18.5	17.8							

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.

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HUC 030901 Kissimmee

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Current and Potential Future Habitat, Capability, and Migration

Sash pine Pinus elliottii NDH High 55,5 742 30.1 Sm. inc. No change Medium Abundant Very Good Good 1 1 1 1 1 1 2 2 2 2	Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO N
Pond cypress Taxodium ascendens NSH Medium 16.8 390.5 24.6 Sm. inc. Sm. inc. Medium Common Good Good Infill + Infill + 1 3 3 10ngled pine Pinus plaustris NSH Medium 37.3 23.9 13.3 Ig. inc. Ig. inc. Medium Common Fair Fair 1 1 1 1 1 1 1 1 1	slash pine	Pinus elliottii	NDH	High	55.5	742.4	30.1 Sm. inc.	No change	Medium	Abundant	Very Good	Good			1 1
Registright Pinus palustris NSH Medium 24,9 269,8 22,8 No.change No.change Medium Common Fair Fair	live oak	Quercus virginiana	NDH	High	56.9	396.0	14.7 Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1 2
cabbage palmetto Sabal palmetto NDH Medium 37.3 232.9 13.3 Lg. Inc. Lg. Inc. Medium Common Very Good Very Good 0 5 red maple Acer rubrum WDH High 29.5 170.2 8.4 Sm. Inc. High Common Very Good Very Good 1 6 bald cypers Taxodium distichum NSH Nedlum 18.7 18.7 20.3 No. Anne. No. Change Medium Common Poor Infill + 1 7 swamp tupelo Nyssa biflora NDH Medium 38.7 117.1 5.1 Sm. Inc. Sm. Inc. Medium Common Foor Poor Infill +	pond cypress	Taxodium ascendens	NSH	Medium	16.8	390.5	24.6 Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1 3
Red maple Acer rubrum WDH High 29.5 170.2 8.4 Sm. inc. Sm. inc. High Common Very Good Very Good Sald 1 6 Sald Cypress Taxodium districtum NSH Medium 18.8 148.7 20.3 No change No	longleaf pine	Pinus palustris	NSH	Medium	24.9	269.8	22.8 No change	No change	Medium	Common	Fair	Fair			1 4
bald cypress Taxodium distichum NSH Medium 18.8 148.7 20.3 No change No change Low Common Fair Fair Fair Fair Swamp tupelo Nysas pilifora NDH Medium 38.7 17.1 5.1 Sm. inc. Sm. inc. Medium Common Good Good 1.9 9 1.0	cabbage palmetto	Sabal palmetto	NDH	Medium	37.3	232.9	13.3 Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			0 5
Swamp tupelo Nyssa biflora NDH Medium 25.5 122.8 7.6 No change No change Low Common Poor Poor Infill + Infill + 0 8	red maple	Acer rubrum	WDH	High	29.5	170.2	8.4 Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good			1 6
Raurel oak Quercus laurifolia NDH Medium 38.7 11.7 5.1 Sm. inc. Sm. inc. Medium Common Good Good 1 9	bald cypress	Taxodium distichum	NSH	Medium	18.8	148.7	20.3 No change	No change	Medium	Common	Fair	Fair			1 7
Persea borbonia NSL Low 21.4 88.5 5.6 Sm. dec. No change High Common Fair Good 1 10	swamp tupelo	Nyssa biflora	NDH	Medium	25.5	122.8	7.6 No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	0 8
Sweetbay Magnolia virginiana NSL Medium 21.5 80.2 7.1 Sm. inc. Sm. inc. Medium Common Good Good Infill + Infill + 1 12 12 12 12 14 14 15 14 15 15 15 15	laurel oak	Quercus laurifolia	NDH	Medium	38.7	117.1	5.1 Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1 9
Indibility-bay Gordonia lasianthus NSH Medium 11.6 66.3 7.7 Sm. inc. Sm. inc. Medium Common Good Good Infill ++ Infill ++ 1 12 Water oak Quercus nigra WDH High 11.8 54.2 7.5 Sm. inc. Sm. inc. Medium Common Good Good Infill ++ Infill ++ 1 12 12 Medium Common Good Good Infill ++ Infill ++ 1 12 12 Medium Common Good Good Infill ++ Infill ++ 1 12 12 Medium Common Good Good Infill ++ Infill ++ 1 12 12 Medium Common Good Good Infill ++ Infill ++ 1 12 Medium Common Good Good Infill ++ Infill ++ 1 12 12 Medium Common Good Good Infill ++ Infill ++ 1 12 Medium Common Good Good Infill ++ Infill ++ 1 12 Medium Common Good Good Infill ++ Infill ++ 1 12 Medium Common Good Good Infill ++ Infill ++ 1 12 Medium Common Good Good Infill ++ Infill ++ 1 12 Medium Common Common Good Good Infill ++ Infill ++ 1 12 Medium Common	redbay	Persea borbonia	NSL	Low	21.4	88.5	5.6 Sm. dec.	No change	High	Common	Fair	Good			1 10
water oak Quercus nigra WDH High 11.8 54.2 7.5 Sm. inc. Sm. inc. Medium Common Good Good Infill ++ Infill ++ 1 13 sand pine Pinus clausa NDH High 8.7 45.6 16.5 No change No change Low Rare Very Poor Very Poor Very Poor Dorn Dispyros virginiana NSH FIA 1.9 23.1 12.2 Unknown Unknown NA Rare FIA Only F	sweetbay	Magnolia virginiana	NSL	Medium	21.5	80.2	7.1 Sm. inc.	Sm. inc.	Medium	Common	Good	Good			1 11
sand pine Pinus clausa NDH High 8.7 45.6 16.5 No change No change Low Rare Very Poor Very Poor Very Poor 0 15 2 14 pumpkin ash Fraxinus profunda NSH FIA 1.9 23.1 12.2 Unknown Unknown NA Rare FIA Only FIA Only 0 15 pond pine Pinus serotina NSH Medium 7.9 18.2 10.1 No change No change Low Rare Very Poor Very Poor Very Poor 2 16 turkey oak Quercus laevis NSH Medium 7.5 15.8 5.3 No change No change No change Low Rare Very Poor Very Poor Very Poor 2 16 turkey oak Quercus laevis NSH Medium NSL Low 9.5 15.8 5.3 No change No cha	loblolly-bay	Gordonia lasianthus	NSH	Medium	11.6	66.3	7.7 Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1 12
pumpkin ash Fraxinus profunda NSH FIA 1.9 23.1 12.2 Unknown Unknown NA Rare FIA Only FIA Only 0 15 pond pine Pinus serotina NSH Medium 7.9 18.2 10.1 No change No change Low Rare Very Poor Very Poor 2 16 turkey oak Quercus laevis NSH Medium 5.6 15.8 5.3 No change No change High Rare Fair Fair Infill + Infill + 2 17 common persimmon Diospyros virginiana NSL Low 9.5 14.3 4.8 Lg. dec. Lg. dec. High Rare Poor Poor 1 18 Carolina ash Fraxinus caroliniana NSL FIA 16.7 14.0 8.8 Unknown Unknown NA Rare FIA Only FIA Only 0 19 American elm Ulmus americana WDH Medium 4.1 12.5 3.2 No change Sm. inc. Medium Rare Poor Fair Infill + Infill + 2 20 green ash Fraxinus pennsylvanica WSH Low 0.9 9.6 10.1 No change No change Medium Rare Poor Poor Infill + Infill + 2 21 sweetgum Liquidambar styraciflua WDH High 0.9 2.5 2.6 No change No change Medium Rare Poor Poor Infill + Infill + 2 22 white ash Fraxinus americana WDL Medium 2.1 1.9 1.1 Lg. inc. Lg. inc. High Rare Good Good 9.2 23 bluejack oak Quercus incana NSL Low 1.3 0.9 1.3 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor Very Poor 0 25 sugarberry Celtis laevigata NDH Medium 3.8 0.3 1.4 Lg. inc. Lg. inc. Medium Rare Very Poor Very Poor Very Poor 0 25 willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor Very Poor 0 27 Schortleaf pine Pinus echinata WDH High 0.9 0.0 0 New Habitat New Habitat New Habitat New Habitat Medium Absent Unknown Unknown 10 30 Schortleaf pine Acer pensylvanicum NSL Medium 0.0 0 0 Unknown Unknown Medium Absent Unknown Unknown 10 30 Schortleaf pine Acer pensylvanicum NSL Medium NSL Medium 0.0 0 Unknown Unknown Medium Absent Unknown Unknown 10 NSL Unknown 10 NSL Medium NSL Medium NSL Medium Absent Unknown Unknown 10 NSL Unkno	water oak	Quercus nigra	WDH	High	11.8	54.2	7.5 Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	1 13
pond pine Pinus serotina NSH Medium 7.9 18.2 10.1 No change No change Low Rare Very Poor Very Poor 2 16 turkey oak Quercus laevis NSH Medium 5.6 15.8 5.3 No change No change High Rare Fair Fair Infill + Infill + 2 17 common persimmon Diospyros virginiana NSL Low 9.5 14.3 4.8 Lg. dec. Lg. dec. High Rare Poor Poor Poor 1 18 Carolina ash Fraxinus caroliniana NSL FIA 16.7 14.0 8.8 Unknown Unknown NA Rare FIA Only FIA Only FIA Only Diagree ash Fraxinus pennsylvanica WSH Low 0.9 9.6 10.1 No change No change Medium Rare Poor Poor Infill + Infill + 2 21 sweetgum Liquidambar styraciflua WDH High 0.9 2.5 2.6 No change No change Medium Rare Poor Poor Infill + Infill + 2 22 blackgum Nyssa sylvatica WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Poor Poor Very Poor	sand pine	Pinus clausa	NDH	High	8.7	45.6	16.5 No change	No change	Low	Rare	Very Poor	Very Poor			2 14
turkey oak Quercus laevis NSH Medium 5.6 15.8 5.3 No change No change High Rare Fair Fair Infill + Infill + 2 17 common persimmon Diospyros virginiana NSL Low 9.5 14.3 4.8 Lg. dec. Lg. dec. High Rare Poor Poor 1 18 Carolina ash Fraxinus caroliniana NSL FIA 16.7 14.0 8.8 Unknown Unknown NA Rare FIA Only FIA Only 0 19 American elm Ulmus americana WDH Medium 4.1 12.5 3.2 No change Sm. inc. Medium Rare Poor Fair Infill + Infill + 2 20 green ash Fraxinus pennsylvanica WSH Low 0.9 9.6 10.1 No change No change Medium Rare Poor Poor Infill + Infill + 2 22 blackgum Nyssa sylvatica WDL Medium 2.1 1.9 1.1 Lg. inc. Lg. inc. High Rare Good Good Poor Poor Infill + 2 23 white ash Fraxinus americana WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Very Poor Ver	pumpkin ash	Fraxinus profunda	NSH	FIA	1.9	23.1	12.2 Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0 15
common persimmon Diospyros virginiana NSL Low 9.5 14.3 4.8 Lg. dec. Lg. dec. High Rare Poor Poor Poor 1 18 Carolina ash Fraxinus caroliniana NSL FIA 16.7 14.0 8.8 Unknown Unknown NA Rare FIA Only FIA Only 0 19 American elm Ulmus americana WDH Medium 4.1 12.5 3.2 No change Sm. inc. Medium Rare Poor Fair Infill + Infill + 2 20 green ash Fraxinus pennsylvanica WSH Low 0.9 9.6 10.1 No change No change Medium Rare Poor Poor Infill + Infill + 2 21 sweetgum Liquidambar styraciflua WDH High 0.9 2.5 2.6 No change No change Medium Rare Poor Poor Infill + Infill + 2 22 blackgum Nyssa sylvatica WDL Medium 2.1 1.9 1.1 Lg. inc. Lg. inc. High Rare Good Good 2 23 white ash Fraxinus americana WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor 0 24 bluejack oak Quercus incana NSL Low 1.3 0.9 1.3 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor 0 24 bluejack oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. inc. Medium Rare Good Good 2 26 willow oak Quercus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New H	pond pine	Pinus serotina	NSH	Medium	7.9	18.2	10.1 No change	No change	Low	Rare	Very Poor	Very Poor			2 16
Carolina ash Fraxinus caroliniana NSL FIA 16.7 14.0 8.8 Unknown Unknown NA Rare FIA Only FIA Only 0 19 American elm Ulmus americana WDH Medium 4.1 12.5 3.2 No change Sm. inc. Medium Rare Poor Fair Infill + Infill + 2 20 green ash Fraxinus pennsylvanica WSH Low 0.9 9.6 10.1 No change No change Medium Rare Poor Poor Infill + Infill + 2 21 sweetgum Liquidambar styraciflua WDH High 0.9 2.5 2.6 No change No change Medium Rare Poor Poor Infill + Infill + 2 22 blackgum Nyssa sylvatica WDL Medium 2.1 1.9 1.1 Lg. inc. Lg. inc. High Rare Good Good Good 2 23 white ash Fraxinus americana WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor Very Poor 0 25 sugarberry Celtis laevigata NDH Medium 3.8 0.3 1.4 Lg. inc. Lg. inc. Medium Rare Good Good Good 2 26 willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor Very Poor 0 27 eastern redcedar Juniperus virginiana WDH Medium 0.0 0 0 New Habitat New Habitat Medium Absent New Habitat New Ha	turkey oak	Quercus laevis	NSH	Medium	5.6	15.8	5.3 No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2 17
American elm Ulmus americana WDH Medium 4.1 12.5 3.2 No change Sm. inc. Medium Rare Poor Fair Infill+ Infill+ 2 20 20 green ash Fraxinus pennsylvanica WSH Low 0.9 9.6 10.1 No change No change Medium Rare Poor Poor Infill+ Infill+ 2 21 sweetgum Liquidambar styraciflua WDH High 0.9 2.5 2.6 No change No change Medium Rare Poor Poor Poor Infill+ Infill+ 2 22 blackgum Nyssa sylvatica WDL Medium 2.1 1.9 1.1 Lg. inc. Lg. inc. High Rare Good Good Good 2 23 white ash Fraxinus americana WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor Very Poor 0 25 sugarberry Celtis laevigata NDH Medium 3.8 0.3 1.4 Lg. inc. Lg. inc. Medium Rare Good Good Good 2 26 willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor Very Poor 0 27 eastern redcedar Juniperus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New	common persimmon	Diospyros virginiana	NSL	Low	9.5	14.3	4.8 Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1 18
green ash Fraxinus pennsylvanica WSH Low 0.9 9.6 10.1 No change No change Medium Rare Poor Poor Infill + Infill + 2 21 sweetgum Liquidambar styraciflua WDH High 0.9 2.5 2.6 No change No change Medium Rare Poor Poor Infill + Infill + 2 22 blackgum Nyssa sylvatica WDL Medium 2.1 1.9 1.1 Lg. inc. Lg. inc. High Rare Good Good Good 2 23 white ash Fraxinus americana WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor 0 24 bluejack oak Quercus incana NSL Low 1.3 0.9 1.3 Sm. dec. Sm. dec. Medium Rare Very Poor Very Poor 0 25 sugarberry Celtis laevigata NDH Medium 3.8 0.3 1.4 Lg. inc. Lg. inc. Medium Rare Good Good 2 26 willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 27 eastern redcedar Juniperus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New Ha	Carolina ash	Fraxinus caroliniana	NSL	FIA	16.7	14.0	8.8 Unknown	Unknown	NA	Rare	FIA Only	FIA Only			0 19
Sweetgum Liquidambar styraciflua WDH High 0.9 2.5 2.6 No change Medium Rare Poor Poor Infill + 2 22 blackgum Nyssa sylvatica WDL Medium 2.1 1.9 1.1 Lg. inc. Lg. inc. High Rare Good Good 2 23 white ash Fraxinus americana WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor 0 24 bluejack oak Quercus incana NSL Low 1.3 0.9 1.3 Sm. dec. Sm. dec. Medium Rare Very Poor Very Poor 0 25 sugarberry Celtis laevigata NDH Medium 3.8 0.3 1.4 Lg. inc. Lg. inc. Medium Rare Good Good 2 26 willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 27 eastern redcedar Juniperus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New H	American elm	Ulmus americana	WDH	Medium	4.1	12.5	3.2 No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2 20
blackgum Nyssa sylvatica WDL Medium 2.1 1.9 1.1 Lg. inc. Lg. inc. High Rare Good Good 2 2 23 white ash Fraxinus americana WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor 0 24 bluejack oak Quercus incana NSL Low 1.3 0.9 1.3 Sm. dec. Sm. dec. Medium Rare Very Poor Very Poor 0 25 sugarberry Celtis laevigata NDH Medium 3.8 0.3 1.4 Lg. inc. Lg. inc. Medium Rare Good Good 2 26 willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 27 eastern redcedar Juniperus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New Hab	green ash	Fraxinus pennsylvanica	WSH	Low	0.9	9.6	10.1 No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2 21
white ash Fraxinus americana WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor 0 24 bluejack oak Quercus incana NSL Low 1.3 0.9 1.3 Sm. dec. Sm. dec. Medium Rare Very Poor Very Poor 0 25 sugarberry Celtis laevigata NDH Medium 3.8 0.3 1.4 Lg. inc. Lg. inc. Medium Rare Good Good 2 26 willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 27 eastern redcedar Juniperus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New	sweetgum	Liquidambar styraciflua	WDH	High	0.9	2.5	2.6 No change	No change	Medium	Rare	Poor	Poor		Infill +	2 22
white ash Fraxinus americana WDL Medium 0.9 1.5 1.6 Sm. dec. Sm. dec. Low Rare Very Poor Very Poor 0 24 bluejack oak Quercus incana NSL Low 1.3 0.9 1.3 Sm. dec. Sm. dec. Medium Rare Very Poor Very Poor 0 25 sugarberry Celtis laevigata NDH Medium 3.8 0.3 1.4 Lg. inc. Lg. inc. Medium Rare Good Good 2 26 willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 27 eastern redcedar Juniperus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New	blackgum	Nyssa sylvatica	WDL	Medium	2.1	1.9	1.1 Lg. inc.	Lg. inc.	High	Rare	Good	Good			2 23
sugarberry Celtis laevigata NDH Medium 3.8 0.3 1.4 Lg. inc. Lg. inc. Medium Rare Good Good 2 26 willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 27 eastern redcedar Juniperus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New Hab	white ash	Fraxinus americana	WDL	Medium	0.9	1.5	1.6 Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0 24
willow oak Quercus phellos NSL Low 0.7 0.1 0.1 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 27 eastern redcedar Juniperus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New Hab	bluejack oak	Quercus incana	NSL	Low	1.3	0.9	1.3 Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0 25
eastern redcedar Juniperus virginiana WDH Medium 0.2 0.1 0.0 Lg. dec. Lg. dec. Medium Rare Very Poor Very Poor 0 28 shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat N	sugarberry	Celtis laevigata	NDH	Medium	3.8	0.3	1.4 Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2 26
shortleaf pine Pinus echinata WDH High 0 0 0 New Habitat New Habit	willow oak	Quercus phellos	NSL	Low	0.7	0.1	0.1 Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0 27
striped maple Acer pensylvanicum NSL Medium 0 0 0 Unknown Unknown Medium Absent Unknown Unknown 0 30	eastern redcedar	Juniperus virginiana	WDH	Medium	0.2	0.1	0.0 Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0 28
	shortleaf pine	Pinus echinata	WDH	High	0	0	0 New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3 29
Application of the Control of the Co	striped maple	Acer pensylvanicum	NSL	Medium	0	0	0 Unknown	Unknown	Medium	Absent	Unknown	Unknown			0 30
serviceberry Ameianchier spp. NSL Low U U U U Unknown Unknown Absent Unknown Unknown 0 31	serviceberry	Amelanchier spp.	NSL	Low	0	0	0 Unknown	Unknown	Medium	Absent	Unknown	Unknown			0 31
pignut hickory Carya glabra WDL Medium 0 0 0 Unknown Unknown Medium Absent Unknown Unknown 0 32	pignut hickory	Carya glabra	WDL	Medium	0	0	0 Unknown	Unknown	Medium	Absent	Unknown	Unknown			0 32
flowering dogwood Cornus florida WDL Medium 0 0 0 Unknown Unknown Medium Modeled Unknown Unknown 0 33	flowering dogwood	Cornus florida	WDL	Medium	0	0	0 Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0 33
American holly Ilex opaca NSL Medium 0 0 0 Unknown Unknown Medium Modeled Unknown Unknown 0 34	American holly	llex opaca	NSL	Medium	0	0	0 Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0 34
eastern hophornbeam; ironw Ostrya virginiana WSL Low 0 0 Unknown Unknown High Modeled Unknown Unknown 0 35	eastern hophornbeam; iron	w Ostrya virginiana	WSL	Low	0	0	0 Unknown	Unknown	High	Modeled	Unknown	Unknown			0 35
black cherry Prunus serotina WDL Medium 0 0 0 New Habitat New Habitat Low Absent New Habitat New Habitat Likely + Likely + 3 36	black cherry	Prunus serotina	WDL	Medium	0	0	0 New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3 36
cherrybark oak; swamp red o Quercus pagoda NSL Medium 0 0 0 Unknown Unknown Medium Modeled Unknown Unknown 0 37	cherrybark oak; swamp red	o: Quercus pagoda	NSL	Medium	0	0	0 Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0 37
post oak Quercus stellata WDH High 0 0 0 New Habitat New Habitat High Absent New Habitat New Habitat Migrate + 3 38	post oak	Quercus stellata	WDH	High	0	0	0 New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3 38
black locust Robinia pseudoacacia NDH Low 0 0 Unknown Unknown Medium Absent Unknown Unknown 0 39	black locust	Robinia pseudoacacia	NDH		0	0	0 Unknown	Unknown	_	Absent	Unknown	Unknown			
American mountain-ash Sorbus americana NSL Low 0 0 0 Unknown New Habitat Low Absent Unknown New Habitat 0 40	American mountain-ash	Sorbus americana	NSL	Low	0	0	0 Unknown	New Habitat	Low	Absent	Unknown	New Habitat			0 40
winged elm Ulmus alata WDL Medium 0 0 0 Unknown Unknown Medium Modeled Unknown Unknown 0 41				Medium	0	0									

