

Prince William Forest Park

National Park

Climate Change Atlas Tree Species

Current and Potential Future Habitat, Capability, and Migration

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
yellow-poplar	Liriodendron tulipifera	WDH	High	79.2	1168.82	15.59	Lg. dec.	Lg. dec.	High	Abundant	Good	Good			1	1
white oak	Quercus alba	WDH	Medium	68.1	1031.37	14.89	Sm. dec.	Lg. dec.	High	Abundant	Good	Good			1	2
Virginia pine	Pinus virginiana	NDH	High	61.4	662.02	10.45	Lg. dec.	Lg. dec.	Medium	Abundant	Fair	Fair			0	3
red maple	Acer rubrum	WDH	High	74.9	661.72	9.22	No change	No change	High	Abundant	Very Good	Very Good			1	4
sweetgum	Liquidambar styraciflua	WDH	High	43	618.94	12.85	Sm. inc.	Sm. inc.	Medium	Abundant	Very Good	Very Good			1	5
American beech	Fagus grandifolia	WDH	High	56.6	419.21	7.77	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	6
eastern redcedar	Juniperus virginiana	WDH	Medium	48.9	370.94	7.94	No change	No change	Medium	Common	Fair	Fair			1	7
chestnut oak	Quercus prinus	NDH	High	32.4	297.21	11.29	Lg. dec.	Lg. dec.	High	Common	Fair	Fair			1	8
blackgum	Nyssa sylvatica	WDL	Medium	71.3	297.14	3.94	No change	No change	High	Common	Good	Good			1	9
loblolly pine	Pinus taeda	WDH	High	16.9	288.05	13.61	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	10
mockernut hickory	Carya alba	WDL	Medium	49.7	275.95	5.33	No change	No change	High	Common	Good	Good			1	11
southern red oak	Quercus falcata	WDL	Medium	40.1	272.41	5.7	Sm. inc.	Lg. inc.	High	Common	Very Good	Very Good			1	12
pignut hickory	Carya glabra	WDL	Medium	51.9	264.58	4.89	Sm. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	13
black oak	Quercus velutina	WDH	High	43.6	238.09	4.86	Sm. inc.	No change	Medium	Common	Good	Fair			1	14
American holly	Ilex opaca	NSL	Medium	41.9	203.65	3.78	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	15
northern red oak	Quercus rubra	WDH	Medium	42.7	187.05	4.6	Sm. dec.	Sm. dec.	High	Common	Fair	Fair			1	16
black locust	Robinia pseudoacacia	NDH	Low	25.5	145.02	8.63	Lg. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	17
scarlet oak	Quercus coccinea	WDL	Medium	33.3	116.24	3.73	Sm. dec.	Lg. dec.	Medium	Common	Poor	Poor			0	18
white ash	Fraxinus americana	WDL	Medium	32.9	105.14	4.74	Sm. inc.	Sm. inc.	Low	Common	Fair	Fair			1	19
pin oak	Quercus palustris	NSH	Low	11.6	93.7	8.08	Lg. dec.	Sm. dec.	Low	Common	Very Poor	Poor		Infill +	0	20
green ash	Fraxinus pennsylvanica	WSH	Low	14.7	88.22	7.93	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	21
American elm	Ulmus americana	WDH	Medium	25	76.81	4.42	Sm. inc.	Lg. inc.	Medium	Common	Good	Very Good			1	22
willow oak	Quercus phellos	NSL	Low	20.9	73.65	2.92	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	23
black walnut	Juglans nigra	WDH	Low	18.6	67.46	3.64	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor			0	24
flowering dogwood	Cornus florida	WDL	Medium	28.9	66.83	2.16	No change	No change	Medium	Common	Fair	Fair			1	25
post oak	Quercus stellata	WDH	High	14.4	58.61	3.57	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	26
bitternut hickory	Carya cordiformis	WSL	Low	8.1	58.53	7.21	No change	No change	High	Common	Good	Good			1	27
black cherry	Prunus serotina	WDL	Medium	35	55.03	1.78	Lg. inc.	Lg. inc.	Low	Common	Good	Good			1	28
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	25	54.24	2.28	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	29
hackberry	Celtis occidentalis	WDH	Medium	15.7	52.56	4.19	Sm. dec.	No change	High	Common	Fair	Good			1	30
sycamore	Platanus occidentalis	NSL	Low	19.1	50.81	5.91	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good			1	31
bigtooth aspen	Populus grandidentata	NSL	Medium	12.8	46.96	3.68	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	32
eastern redbud	Cercis canadensis	NSL	Low	5.8	39.97	6.89	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	33
boxelder	Acer negundo	WSH	Low	12.2	38.42	4.22	Sm. dec.	Sm. inc.	High	Rare	Poor	Good			1	34
sassafras	Sassafras albidum	WSL	Low	23.3	38.03	1.87	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	35
common persimmon	Diospyros virginiana	NSL	Low	18.9	26.98	1.73	No change	Lg. inc.	High	Rare	Fair	Good			1	36
river birch	Betula nigra	NSL	Low	10.4	25.08	2.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			1	37
shortleaf pine	Pinus echinata	WDH	High	9.3	24.28	2.62	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	1	38
slippery elm	Ulmus rubra	WSL	Low	9.3	21.4	2.31	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	39
ailanthus	Ailanthus altissima	NSL	FIA	10.1	16.77	2.63	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	40
cherrybark oak; swamp red o	Quercus pagoda	NSL	Medium	2	13.8	2.69	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good	Infill ++	Infill ++	2	41
eastern white pine	Pinus strobus	WDH	High	2.3	13.25	5.72	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	42
swamp chestnut oak	Quercus michauxii	NSL	Low	1.2	13.01	11.22	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	43
pawpaw	Asimina triloba	NSL	Low	6.5	11.94	1.53	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	44
sweet birch	Betula lenta	NDH	High	4.6	11.05	2.38	Lg. dec.	Lg. dec.	Low	Rare	Very Poor	Very Poor			0	45
paulownia	Paulownia tomentosa	NSL	FIA	5.4	6.2	0.94	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	46
silver maple	Acer saccharinum	NSH	Low	1.2	5.28	4.55	No change	No change	High	Rare	Fair	Fair		Infill +	2	47
shagbark hickory	Carya ovata	WSL	Medium	3.5	5.16	1.48	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	48
serviceberry	Amelanchier spp.	NSL	Low	2.3	4.38	1.89	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	49
sourwood	Oxydendrum arboreum	NDL	High	1.2	3.39	2.92	Sm. inc.	No change	High	Rare	Good	Fair		Infill +	2	50
honeylocust	Gleditsia triacanthos	NSH	Low	2.3	3.32	1.43	Lg. dec.	Sm. inc.	High	Rare	Poor	Good			2	51
red mulberry	Morus rubra	NSL	Low	1.2	2.75	2.37	Lg. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	52
sugar maple	Acer saccharum	WDH	High	2.3	2.7	1.17	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	53

Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
blackjack oak	Quercus marilandica	NSL	Medium	2.3	2.57	1.11	No change	Lg. inc.	High	Rare	Fair	Good			2	54
pitch pine	Pinus rigida	NSH	High	1.2	2.01	1.73	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	55
eastern hemlock	Tsuga canadensis	NSH	High	1.2	1.62	1.4	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	56
Norway maple	Acer platanoides	NSL	FIA	4.6	1.51	5.19	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	57
cucumber tree	Magnolia acuminata	NSL	Low	1.2	1.48	1.28	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	58
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	1.2	1.25	1.08	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	59
pond pine	Pinus serotina	NSH	Medium	1.2	1.18	1.02	Very Lg. dec.	Very Lg. dec.	Low	Rare	Lost	Lost			0	60
quaking aspen	Populus tremuloides	WDH	High	1.1	1.1	0.93	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	61
sweetbay	Magnolia virginiana	NSL	Medium	1.2	0.7	0.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	62
laurel oak	Quercus laurifolia	NDH	Medium	1.2	0.65	0.56	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	63
winged elm	Ulmus alata	WDL	Medium	1.2	0.3	0.26	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	64
slash pine	Pinus elliotii	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate ++	3	65
longleaf pine	Pinus palustris	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	66
bald cypress	Taxodium distichum	NSH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	67
florida maple	Acer barbatum	NSL	Low	0	0	0	Unknown	New Habitat	High	Absent	Unknown	New Habitat		Migrate +	3	68
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	69
mountain maple	Acer spicatum	NSL	Low	0	0	0	Unknown	Unknown	High	Absent	Unknown	Unknown			0	70
yellow birch	Betula alleghaniensis	NDL	High	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	71
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	72
water hickory	Carya aquatica	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	73
pecan	Carya illinoensis	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	74
shellbark hickory	Carya laciniosa	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	75
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	76
sugarberry	Celtis laevigata	NDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	77
black ash	Fraxinus nigra	WSH	Medium	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	78
loblolly-bay	Gordonia lasianthus	NSH	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	79
water tupelo	Nyssa aquatica	NSH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	80
swamp tupelo	Nyssa biflora	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	81
redbay	Persea borbonia	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +		3	82
water elm	Planera aquatica	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	83
pin cherry	Prunus pensylvanica	NSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	84
overcup oak	Quercus lyrata	NSL	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	85
chinkapin oak	Quercus muehlenbergii	NSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +		3	86
water oak	Quercus nigra	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	87
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	88
bluejack oak	Quercus incana	NSL	Low	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			3	89
black willow	Salix nigra	NSH	Low	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Likely +	Likely +	3	90
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	91