



# HUC 090201 Upper Red

## HUC 6 Watershed Climate Change Atlas Tree Species

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### Current and Potential Future Habitat, Capability, and Migration

Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
bur oak	Quercus macrocarpa	NDH	Medium	33.6	330.6	18.4	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	2	1
quaking aspen	Populus tremuloides	WDH	High	19.5	308.7	15.1	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	2	2
American basswood	Tilia americana	WSL	Medium	26.9	204.5	11.2	No change	Sm. dec.	Medium	Common	Fair	Poor	Infill +	Infill +	2	3
sugar maple	Acer saccharum	WDH	High	12.5	166.0	11.2	No change	Sm. dec.	High	Common	Good	Fair	Infill ++	Infill +	2	4
boxelder	Acer negundo	WSH	Low	28.1	157.9	17.6	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	2	5
tamarack (native)	Larix laricina	NSH	High	4.3	136.5	17.0	No change	No change	Low	Rare	Very Poor	Very Poor			2	6
green ash	Fraxinus pennsylvanica	WSH	Low	41.8	132.4	11.1	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	2	7
American elm	Ulmus americana	WDH	Medium	32.2	122.2	6.9	Sm. inc.	Sm. inc.	Medium	Common	Good	Good	Infill ++	Infill ++	2	8
black ash	Fraxinus nigra	WSH	Medium	17.9	106.7	7.8	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	2	9
northern red oak	Quercus rubra	WDH	Medium	13.4	81.4	6.6	Sm. inc.	No change	High	Common	Very Good	Good	Infill ++	Infill ++	2	10
paper birch	Betula papyrifera	WDH	High	10.6	78.0	4.3	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	2	11
bigtooth aspen	Populus grandidentata	NSL	Medium	6.8	55.5	7.8	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	2	12
red pine	Pinus resinosa	NSH	Medium	4.4	51.9	13.6	No change	No change	Low	Rare	Very Poor	Very Poor			2	13
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	16.4	48.1	3.2	Sm. inc.	No change	High	Rare	Good	Fair	Infill ++	Infill +	2	14
balsam fir	Abies balsamea	NDH	High	4.7	38.4	5.0	Sm. dec.	No change	Low	Rare	Very Poor	Very Poor			2	15
white spruce	Picea glauca	NSL	Medium	6.2	31.7	6.3	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	16
jack pine	Pinus banksiana	NSH	Medium	2.2	27.4	8.6	Sm. dec.	Sm. dec.	High	Rare	Poor	Poor	Infill +	Infill +	2	17
balsam poplar	Populus balsamifera	NSH	Medium	6.2	23.6	2.5	Lg. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	18
northern pin oak	Quercus ellipsoidalis	NSH	Medium	1.8	20.8	10.1	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	19
eastern cottonwood	Populus deltoides	NSH	Low	5.1	18.2	25.7	Sm. inc.	Sm. inc.	Medium	Rare	Fair	Fair	Infill +	Infill +	2	20
red maple	Acer rubrum	WDH	High	2.7	13.9	2.4	Sm. inc.	Sm. inc.	High	Rare	Good	Good			2	21
Siberian elm	Ulmus pumila	NDH	FIA	3.8	12.6	31.9	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	22
black cherry	Prunus serotina	WDL	Medium	8.2	11.5	1.3	Sm. inc.	Sm. inc.	Low	Rare	Poor	Poor	Infill +	Infill +	2	23
black spruce	Picea mariana	NSH	High	1.6	10.5	5.0	Sm. dec.	No change	Medium	Rare	Very Poor	Poor		Infill +	2	24
eastern white pine	Pinus strobus	WDH	High	3	10.0	4.6	Sm. inc.	No change	Low	Rare	Poor	Very Poor	Infill +		2	25
chokecherry	Prunus virginiana	NSLX	FIA	11.2	4.3	0.9	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	26
pin cherry	Prunus pensylvanica	NSL	Low	0.8	3.7	1.4	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	27
serviceberry	Amelanchier spp.	NSL	Low	2.3	3.4	1.0	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0	28
slippery elm	Ulmus rubra	WSL	Low	4.1	2.1	3.6	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	29
hackberry	Celtis occidentalis	WDH	Medium	1	1.7	1.7	Lg. inc.	Lg. inc.	High	Rare	Good	Good			2	30
rock elm	Ulmus thomasii	NSLX	FIA	0.6	1.1	1.7	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	31
yellow birch	Betula alleghaniensis	NDL	High	0.3	0.7	1.7	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	32
mountain maple	Acer spicatum	NSL	Low	0.8	0.6	0.3	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			0	33
black willow	Salix nigra	NSH	Low	1.2	0.6	6.4	No change	Lg. inc.	Low	Rare	Very Poor	Fair			2	34
black walnut	Juglans nigra	WDH	Low	0.3	0.4	1.2	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	35
peachleaf willow	Salix amygdaloides	NSLX	FIA	1.3	0.1	1.6	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	36
wild plum	Prunus americana	NSLX	FIA	1.3	0.1	1.5	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	37
ashe juniper	Juniperus ashei	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	38
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3	39
northern white-cedar	Thuja occidentalis	WSH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate ++	3	40
silver maple	Acer saccharinum	NSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	41
American hornbeam; musclev	Carpinus caroliniana	WSL	Low	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	42
bitternut hickory	Carya cordiformis	WSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	43
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	44
flowering dogwood	Cornus florida	WDL	Medium	0	0	0	Unknown	Unknown	Medium	Modeled	Unknown	Unknown			0	45
American beech	Fagus grandifolia	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	46
white ash	Fraxinus americana	WDL	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat		Migrate +	3	47



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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
honeylocust	Gleditsia triacanthos	NSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	48
red mulberry	Morus rubra	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	49
white oak	Quercus alba	WDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	50
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	51
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	52
black oak	Quercus velutina	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	53
live oak	Quercus virginiana	NDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	54
black locust	Robinia pseudoacacia	NDH	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat		Migrate +	3	55
American mountain-ash	Sorbus americana	NSL	Low	0	0	0	Unknown	Unknown	Low	Absent	Unknown	Unknown			0	56
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			0	57