HUC 070102 Upper Mississippi-Crow-Rum

HUC 6 Watershed

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	sq. km	sq. mi	FIA Plots
Area of Region	22,114	8,538.2	333

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
Ash	3
Hickory	1
Maple	4
Oak	4
Pine	4
Other	32
	48

Abundance	
Abundant	1
Common	20
Rare	27
Absent	19
	67

	Model Reliability	Adaptability
High	14	19
Medium	24	35
Low	23	11
FIA	6	
	67	**65**

Potential Change in Habitat Suitability	Scenario RCP45	Scenario RCP85
Increase	14	14
No Change	16	16
Decrease	12	12
New	16	16
Unknown	9	9
	67	**67**

Capability to Cope or Persist	Scenario RCP45	Scenario RCP85
Very Good	7	3
Good	7	14
Fair	9	8
Poor	10	8
Very Poor	7	7
FIA Only	4	4
Unknown	3	3
	47	**47**

Migration Potential	SHIFT RCP45	SHIFT RCP85
Likely	2	1
Infill	30	28
Migrate	3	4
	35	**33**

Potential Changes in Climate Variables

Temperature (°F)

	Scenario	2009	2039	2069	2099
Annual Average	CCSM45	40.5	41.9	44.1	44.5
	CCSM85	40.5	42.6	45.0	47.7
	GFDL45	40.5	43.4	44.6	45.7
	GFDL85	40.5	43.0	45.5	49.2
	HAD45	40.5	42.8	45.6	47.1
	HAD85	40.5	43.2	46.6	50.7
Growing Season May—Sep	CCSM45	56.3	57.7	59.6	60.0
	CCSM85	56.3	58.4	60.7	63.9
	GFDL45	56.3	59.4	61.0	62.5
	GFDL85	56.3	59.1	61.9	66.1
	HAD45	56.3	58.5	60.8	62.4
	HAD85	56.3	58.6	61.9	66.0
Coldest Month Average	CCSM45	15.3	16.6	18.4	18.8
	CCSM85	15.3	16.7	18.4	20.3
	GFDL45	15.3	18.1	19.2	19.6
	GFDL85	15.3	18.2	19.5	21.8
	HAD45	15.3	16.5	19.7	19.7
	HAD85	15.3	19.3	22.1	24.7
Warmest Month Average	CCSM45	61.1	62.9	64.0	64.4
	CCSM85	61.1	63.9	65.4	67.3
	GFDL45	61.1	63.5	64.7	65.8
	GFDL85	61.1	64.2	65.6	68.1
	HAD45	61.1	63.5	64.8	66.0
	HAD85	61.1	64.2	65.9	68.7

Precipitation (in)

	Scenario	2009	2039	2069	2099
Annual Total	CCSM45	22.0	22.8	22.6	22.1
	CCSM85	22.0	21.9	21.6	21.9
	GFDL45	22.0	24.4	25.7	23.5
	GFDL85	22.0	24.5	26.7	25.6
	HAD45	22.0	23.8	22.9	23.5
	HAD85	22.0	23.2	23.3	24.8
Growing Season May—Sep	CCSM45	14.0	14.1	13.7	13.3
	CCSM85	14.0	13.5	12.5	12.1
	GFDL45	14.0	15.6	16.0	14.2
	GFDL85	14.0	15.7	16.0	14.6
	HAD45	14.0	14.3	13.2	13.3
	HAD85	14.0	13.8	12.5	12.5

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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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO	N
quaking aspen	Populus tremuloides	WDH	High	49.5	729.2	16.9	Sm. dec.	Sm. dec.	Medium	Abundant	Fair	Fair	Infill +	Infill +	0	1
northern red oak	Quercus rubra	WDH	Medium	44.9	466.1	12.2	Sm. dec.	Sm. dec.	High	Common	Fair	Fair	Infill +	Infill +	1	2
bur oak	Quercus macrocarpa	NDH	Medium	53.6	465.4	11.2	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	1	3
green ash	Fraxinus pennsylvanica	WSH	Low	62.3	442.0	10.5	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	4
American basswood	Tilia americana	WSL	Medium	44.2	393.0	10.9	Sm. dec.	Sm. dec.	Medium	Common	Poor	Poor	Infill +	Infill +	0	5
American elm	Ulmus americana	WDH	Medium	65.3	379.5	8.0	No change	Sm. inc.	Medium	Common	Fair	Good	Infill +	Infill ++	1	6
black ash	Fraxinus nigra	WSH	Medium	32.8	325.3	9.8	Sm. dec.	Sm. dec.	Low	Common	Poor	Poor	Infill +	Infill +	0	7
boxelder	Acer negundo	WSH	Low	46.7	242.2	9.6	Sm. inc.	No change	High	Common	Very Good	Good	Infill ++	Infill ++	1	8
paper birch	Betula papyrifera	WDH	High	28	193.6	7.1	No change	No change	Medium	Common	Fair	Fair	Infill +	Infill +	1	9
red maple	Acer rubrum	WDH	High	28.3	185.8	5.6	Sm. inc.	Sm. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	1	10
northern pin oak	Quercus ellipsoidalis	NSH	Medium	16.1	177.3	9.2	Sm. inc.	No change	High	Common	Very Good	Good	Infill ++	Infill ++	2	11
sugar maple	Acer saccharum	WDH	High	25	152.3	6.2	Sm. inc.	No change	High	Common	Very Good	Good	Infill ++	Infill ++	1	12
red pine	Pinus resinosa	NSH	Medium	9.9	139.1	12.7	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	2	13
tamarack (native)	Larix laricina	NSH	High	6.4	111.0	9.8	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	2	14
eastern hophornbeam; ironw	Ostrya virginiana	WSL	Low	36.4	91.9	3.9	Sm. inc.	No change	High	Common	Very Good	Good	Infill ++	Infill ++	1	15
silver maple	Acer saccharinum	NSH	Low	12.5	74.5	12.4	Lg. inc.	Lg. inc.	High	Common	Very Good	Very Good	Infill ++	Infill ++	2	16
black cherry	Prunus serotina	WDL	Medium	27.4	67.4	3.2	Lg. inc.	Lg. inc.	Low	Common	Good	Good	Infill ++	Infill ++	1	17
white oak	Quercus alba	WDH	Medium	9.9	63.7	6.1	No change	No change	High	Common	Good	Good	Infill ++	Infill ++	2	18
eastern white pine	Pinus strobus	WDH	High	7.2	61.1	5.8	No change	No change	Low	Common	Poor	Poor	Infill +	Infill +	2	19
eastern cottonwood	Populus deltoides	NSH	Low	3.2	55.8	7.1	No change	Sm. inc.	Medium	Rare	Poor	Fair	Infill +	Infill +	2	20
eastern redcedar	Juniperus virginiana	WDH	Medium	19.3	54.4	7.5	Lg. inc.	Lg. inc.	Medium	Common	Very Good	Very Good	Infill ++	Infill ++	1	21
black willow	Salix nigra	NSH	Low	10	53.6	10.9	Lg. dec.	Sm. inc.	Low	Common	Very Poor	Fair		Infill +	2	22
black spruce	Picea mariana	NSH	High	1	46.8	14.3	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			2	23
bigtooth aspen	Populus grandidentata	NSL	Medium	10.5	43.5	4.7	No change	Sm. dec.	Medium	Rare	Poor	Very Poor	Infill +		1	24
white spruce	Picea glauca	NSL	Medium	7.8	38.3	7.6	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	25
Siberian elm	Ulmus pumila	NDH	FIA	7.4	32.4	7.4	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	26
slippery elm	Ulmus rubra	WSL	Low	20.7	29.2	3.2	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	1	27
balsam fir	Abies balsamea	NDH	High	0.8	28.2	13.3	No change	No change	Low	Rare	Very Poor	Very Poor			2	28
yellow birch	Betula alleghaniensis	NDL	High	6	24.9	3.5	No change	No change	Medium	Rare	Poor	Poor	Infill +	Infill +	2	29
Scots pine	Pinus sylvestris	NSH	FIA	2.8	23.7	8.6	Unknown	Unknown	NA	Rare	NNIS	NNIS			0	30
hackberry	Celtis occidentalis	WDH	Medium	15.3	22.3	3.4	Lg. inc.	Lg. inc.	High	Rare	Good	Good	Infill ++	Infill ++	2	31
northern white-cedar	Thuja occidentalis	WSH	High	0.1	20.4	2.3	Sm. inc.	Lg. inc.	Medium	Rare	Fair	Good	Infill +		2	32
butternut	Juglans cinerea	NSLX	FIA	10.6	20.4	2.4	Unknown	Unknown	Low	Rare	FIA Only	FIA Only			0	33
jack pine	Pinus banksiana	NSH	Medium	2.3	19.0	6.3	No change	No change	High	Rare	Fair	Fair	Infill +	Infill +	2	34
black walnut	Juglans nigra	WDH	Low	2.4	12.8	4.4	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	35
chokecherry	Prunus virginiana	NSLX	FIA	8.3	8.9	1.1	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	36
bitternut hickory	Carya cordiformis	WSL	Low	4.5	5.8	1.4	No change	Sm. inc.	High	Rare	Fair	Good	Infill +		2	37
American hornbeam; muscle	Carpinus caroliniana	WSL	Low	3.1	5.4	1.1	Sm. dec.	Sm. dec.	Medium	Rare	Very Poor	Very Poor			0	38
serviceberry	Amelanchier spp.	NSL	Low	2.5	5.0	1.2	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	39
pin cherry	Prunus pensylvanica	NSL	Low	4.2	3.7	0.9	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	40
balsam poplar	Populus balsamifera	NSH	Medium	0.6	2.4	2.1	Lg. dec.	Lg. dec.	Medium	Rare	Very Poor	Very Poor			0	41
peachleaf willow	Salix amygdaloides	NSLX	FIA	3.6	1.0	2.0	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	42
wild plum	Prunus americana	NSLX	FIA	0.5	1.0	2.2	Unknown	Unknown	Medium	Rare	FIA Only	FIA Only			0	43
American mountain-ash	Sorbus americana	NSL	Low	0.5	0.8	1.9	Sm. dec.	Sm. dec.	Low	Rare	Very Poor	Very Poor			0	44
black locust	Robinia pseudoacacia	NDH	Low	1.1	0.7	3.6	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	45
river birch	Betula nigra	NSL	Low	0	0.4	0.1	Very Lg. dec.	Very Lg. dec.	Medium	Rare	Lost	Lost			0	46
white ash	Fraxinus americana	WDL	Medium	0.6	0.4	1.1	Lg. inc.	Lg. inc.	Low	Rare	Fair	Fair	Infill +	Infill +	2	47

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red mulberry	Morus rubra	NSL	Low	1.1	0.2	0.8	Lg. inc.	Lg. inc.	Medium	Rare	Good	Good			2	48
eastern hemlock	Tsuga canadensis	NSH	High	0	0	0	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat			3	49
striped maple	Acer pensylvanicum	NSL	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	50
mountain maple	Acer spicatum	NSL	Low	0	0	0	New Habitat	Unknown	High	Absent	New Habitat	Unknown	Likely +		3	51
pignut hickory	Carya glabra	WDL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	52
shagbark hickory	Carya ovata	WSL	Medium	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	53
black hickory	Carya texana	NDL	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0	54
mockernut hickory	Carya alba	WDL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			3	55
eastern redbud	Cercis canadensis	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	56
honeylocust	Gleditsia triacanthos	NSH	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	57
Osage-orange	Maclura pomifera	NDH	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate +	3	58
sycamore	Platanus occidentalis	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	59
swamp white oak	Quercus bicolor	NSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3	60
laurel oak	Quercus laurifolia	NDH	Medium	0	0	0	Unknown	Unknown	Medium	Absent	Unknown	Unknown			0	61
blackjack oak	Quercus marilandica	NSL	Medium	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			2	62
Shumard oak	Quercus shumardii	NSL	Low	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			0	63
post oak	Quercus stellata	WDH	High	0	0	0	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat			2	64
black oak	Quercus velutina	WDH	High	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Likely +	Likely +	3	65
sassafras	Sassafras albidum	WSL	Low	0	0	0	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			3	66
winged elm	Ulmus alata	WDL	Medium	0	0	0	Unknown	New Habitat	Medium	Absent	Unknown	New Habitat			0	67