



Seine-Rat River

Medium Carbon Emissions (RCP4.5)

Climate Variable	Season	1981-2010 (Baseline)	2021-2050			2051-2080		
			L	M	H	L	M	H
Mean Temperature	Annual	2.8 °C	4.0 °C	4.6 °C	5.3 °C	5.2 °C	5.7 °C	6.1 °C
	Winter	-14.9 °C	-13.9 °C	-12.7 °C	-11.4 °C	-12.1 °C	-11.0 °C	-10.0 °C
	Spring	2.9 °C	3.8 °C	4.6 °C	5.5 °C	4.8 °C	5.5 °C	6.2 °C
	Summer	18.2 °C	19.0 °C	19.7 °C	20.2 °C	20.2 °C	20.8 °C	21.3 °C
	Fall	4.7 °C	5.8 °C	6.4 °C	7.0 °C	6.9 °C	7.4 °C	8.0 °C
Precipitation	Annual	540.4 mm	537.3 mm	571.9 mm	604.6 mm	547.8 mm	571.7 mm	603.7 mm
	Winter	70.6 mm	71.9 mm	78.5 mm	87.9 mm	73.9 mm	82.0 mm	90.2 mm
	Spring	116.0 mm	110.6 mm	125.4 mm	141.6 mm	113.7 mm	131.6 mm	148.0 mm
	Summer	231.2 mm	209.5 mm	233.4 mm	260.4 mm	204.4 mm	222.5 mm	238.0 mm
	Fall	122.4 mm	123.3 mm	134.7 mm	146.2 mm	123.0 mm	135.6 mm	147.4 mm
Days ≥ 30 °C	Annual	9.5 days	13.2 days	19.9 days	26.6 days	21.7 days	29.2 days	36.6 days
Days ≤ -30 °C	Annual	10.9 days	2.5 days	6.0 days	9.6 days	1.0 days	3.3 days	5.8 days
Frost-Free Period	Annual	122.0 days	121.2 days	135.9 days	150.9 days	128.4 days	143.2 days	157.7 days
Date of First Fall Frost		Sep 20	Sep 16	Sep 26	Oct 06	Sep 19	Sep 29	Oct 09
Date of Last Spring Frost		May 21	May 01	May 13	May 28	May 01	May 09	May 17
5 °C Degree Days	Annual	17397.6	17428.0	17443.2	17455.3	17449.6	17459.6	17470.6
10 °C Degree Days	Annual	960.3	1090.6	1172.6	1255.6	1255.4	1344.0	1427.5
Freeze-Thaw Cycles	Annual	65.1 cycles	50.6 cycles	60.1 cycles	70.6 cycles	54.3 cycles	62.1 cycles	71.1 cycles
Days Precip ≥ 10 mm	Annual	13.4 days	12.9 days	14.8 days	16.5 days	12.7 days	14.8 days	16.7 days
Days Precip ≥ 20 mm	Annual	3.8 days	3.1 days	4.4 days	5.5 days	3.4 days	4.3 days	5.1 days

High Carbon Emissions (RCP8.5)

Climate Variable	Season	1981-2010 (Baseline)	2021-2050			2051-2080		
			L	M	H	L	M	H
Mean Temperature	Annual	2.8 °C	4.1 °C	4.9 °C	5.6 °C	5.9 °C	7.1 °C	8.3 °C
	Winter	-15.0 °C	-13.3 °C	-12.1 °C	-11.0 °C	-11.1 °C	-9.4 °C	-7.6 °C
	Spring	2.9 °C	3.9 °C	4.6 °C	5.5 °C	5.2 °C	6.3 °C	7.4 °C
	Summer	18.2 °C	19.6 °C	20.1 °C	20.7 °C	21.2 °C	22.3 °C	23.3 °C
	Fall	4.7 °C	6.0 °C	6.8 °C	7.5 °C	7.8 °C	8.9 °C	10.0 °C
Precipitation	Annual	543.6 mm	526.7 mm	572.3 mm	606.3 mm	555.9 mm	587.9 mm	621.2 mm
	Winter	71.9 mm	69.7 mm	78.2 mm	88.9 mm	74.1 mm	86.6 mm	97.1 mm
	Spring	116.1 mm	110.4 mm	129.3 mm	148.2 mm	132.5 mm	148.0 mm	164.1 mm
	Summer	231.5 mm	210.4 mm	228.7 mm	250.3 mm	194.0 mm	219.6 mm	242.9 mm
	Fall	124.0 mm	118.2 mm	136.0 mm	150.6 mm	116.6 mm	133.6 mm	151.1 mm
Days ≥ 30 °C	Annual	9.4 days	16.2 days	23.1 days	32.4 days	31.7 days	43.9 days	56.8 days
Days ≤ -30 °C	Annual	11.2 days	1.9 days	5.0 days	8.9 days	0.3 days	1.8 days	3.8 days
Frost-Free Period	Annual	122.1 days	123.4 days	138.6 days	153.7 days	140.2 days	155.2 days	171.0 days
Date of First Fall Frost		Sep 20	Sep 20	Sep 29	Oct 11	Sep 25	Oct 06	Oct 18
Date of Last Spring Frost		May 21	May 03	May 13	May 28	Apr 25	May 04	May 12
5 °C Degree Days	Annual	17398.3	17425.0	17445.3	17466.8	17477.6	17498.1	17519.5
10 °C Degree Days	Annual	957.8	1165.0	1238.9	1336.4	1422.6	1573.6	1753.6
Freeze-Thaw Cycles	Annual	64.8 cycles	51.5 cycles	60.4 cycles	69.4 cycles	51.9 cycles	58.6 cycles	66.5 cycles
Days Precip ≥ 10 mm	Annual	13.6 days	12.7 days	14.9 days	16.8 days	13.3 days	15.6 days	17.5 days
Days Precip ≥ 20 mm	Annual	3.8 days	3.2 days	4.4 days	5.5 days	3.6 days	4.5 days	5.5 days