



# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

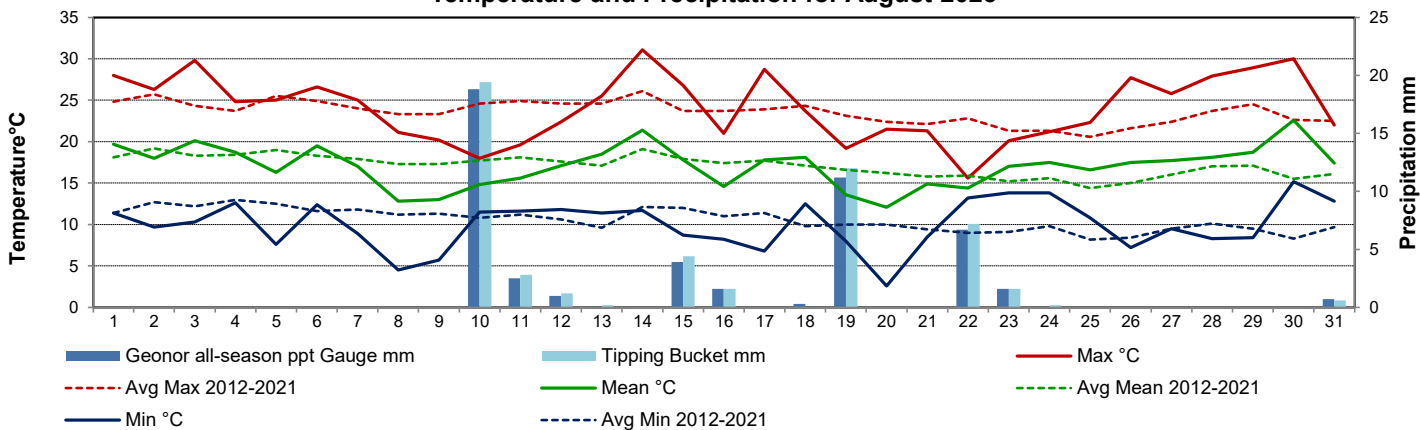
Preliminary **August 2023**

Day	Temperature						Degree-days			Precipitation			Relative Humidity		Station Pressure <i>corrected to sea level</i>	
	Max	Avg Max	Min	Avg Min	Mean	Avg Mean	Growing	Heating	Cooling	Geonor all-season ppt Gauge	Tipping Bucket	Notes	Max ½ hr Avg	Min ½ hr Avg	Max ½ hr Avg	Min ½ hr Avg
	°C	2012-2021	°C	2012-2021	°C	2012-2021	5°C base	18°C base	18°C base	mm	mm		%	%	mbar	mbar
1	28.0	24.8	11.4	11.4	19.7	18.1	14.7	0.0	1.7	0.0	0.0		100	40	1015	1012
2	26.3	25.7	9.7	12.7	18.0	19.2	13.0	0.0	0.0	0.0	0.0		100	44	1017	1014
3	29.8	24.3	10.3	12.2	20.1	18.3	15.1	0.0	2.1	0.0	0.0		100	44	1017	1009
4	24.8	23.7	12.6	13.0	18.7	18.4	13.7	0.0	0.7	0.0	0.0		98	47	1019	1013
5	25.0	25.5	7.6	12.5	16.3	19.0	11.3	1.7	0.0	0.0	0.0		100	45	1020	1019
6	26.6	24.9	12.4	11.6	19.5	18.3	14.5	0.0	1.5	0.0	0.0		94	45	1020	1017
7	25.0	24.0	8.9	11.8	17.0	17.9	12.0	1.0	0.0	0.0	0.0		97	42	1016	1012
8	21.1	23.3	4.5	11.2	12.8	17.3	7.8	5.2	0.0	0.0	0.0		100	50	1014	1013
9	20.2	23.3	5.7	11.3	13.0	17.3	8.0	5.0	0.0	0.0	0.0		100	49	1014	1007
10	18.0	24.6	11.5	10.8	14.8	17.7	9.8	3.2	0.0	18.8	19.4		100	76	1007	1000
11	19.6	24.9	11.6	11.2	15.6	18.1	10.6	2.4	0.0	2.5	2.8		100	86	1010	1000
12	22.4	24.6	11.8	10.6	17.1	17.6	12.1	0.9	0.0	1.0	1.2		99	52	1015	1010
13	25.5	24.6	11.4	9.6	18.5	17.1	13.5	0.0	0.5	0.0	0.2		100	52	1019	1015
14	31.1	26.1	11.7	12.1	21.4	19.1	16.4	0.0	3.4	0.0	0.0		98	37	1016	1011
15	26.8	23.7	8.7	12.0	17.8	17.9	12.8	0.2	0.0	3.9	4.4		100	36	1016	1004
16	21.0	23.7	8.2	11.0	14.6	17.4	9.6	3.4	0.0	1.6	1.6		99	54	1012	1002
17	28.7	23.9	6.8	11.4	17.8	17.7	12.8	0.2	0.0	0.0	0.0		100	38	1012	998
18	23.7	24.3	12.5	9.8	18.1	17.1	13.1	0.0	0.1	0.3	0.0		96	53	1003	995
19	19.2	23.1	8.0	10.0	13.6	16.6	8.6	4.4	0.0	11.2	12.0		98	52	1021	1003
20	21.5	22.4	2.6	10.0	12.1	16.2	7.1	5.9	0.0	0.0	0.0		100	41	1024	1020
21	21.3	22.1	8.5	9.4	14.9	15.8	9.9	3.1	0.0	0.0	0.0		99	62	1021	1018
22	15.6	22.8	13.2	9.0	14.4	15.9	9.4	3.6	0.0	6.7	7.2		100	92	1018	1013
23	20.1	21.3	13.8	9.1	17.0	15.2	12.0	1.0	0.0	1.6	1.6		100	80	1013	1010
24	21.2	21.3	13.8	9.8	17.5	15.6	12.5	0.5	0.0	0.0	0.2		100	67	1018	1010
25	22.3	20.6	10.8	8.2	16.6	14.4	11.6	1.4	0.0	0.0	0.0		100	60	1025	1019
26	27.7	21.6	7.2	8.4	17.5	15.0	12.5	0.5	0.0	0.0	0.0		100	43	1022	1012
27	25.8	22.4	9.5	9.5	17.7	16.0	12.7	0.3	0.0	0.0	0.0		98	46	1017	1013
28	27.9	23.7	8.3	10.1	18.1	17.0	13.1	0.0	0.1	0.0	0.0		100	46	1017	1015
29	28.9	24.5	8.4	9.5	18.7	17.1	13.7	0.0	0.7	0.0	0.0		100	48	1018	1012
30	30.0	22.6	15.2	8.3	22.6	15.5	17.6	0.0	4.6	0.0	0.0		88	41	1012	1002
31	22.0	22.5	12.8	9.7	17.4	16.1	12.4	0.6	0.0	0.7	0.6		98	68	1002	998
Total							373.9	44.5	15.4	48.3	51.2					
Avg	24.1	23.6	10.0	10.6	17.1	17.1	Monthly 2012 - 2021 Average			43.0	2012-2021 Average					
Extreme	31.1	35.0	2.6	1.4			374.8	56.7	28.5	201.0	2023 Cumulative ppt		100	36	1025	995
Date	14	2021	20	2019						295.3	Cumulative Average		1	15	25	18

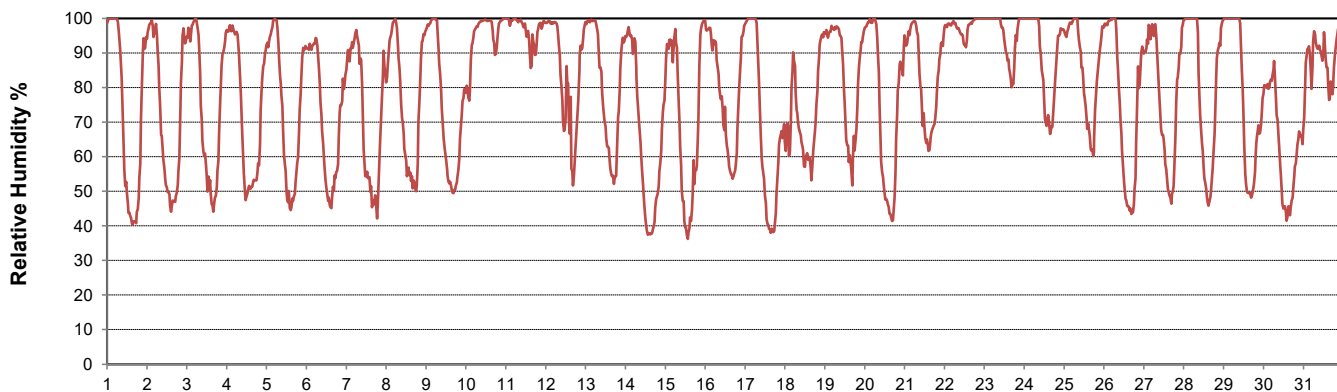
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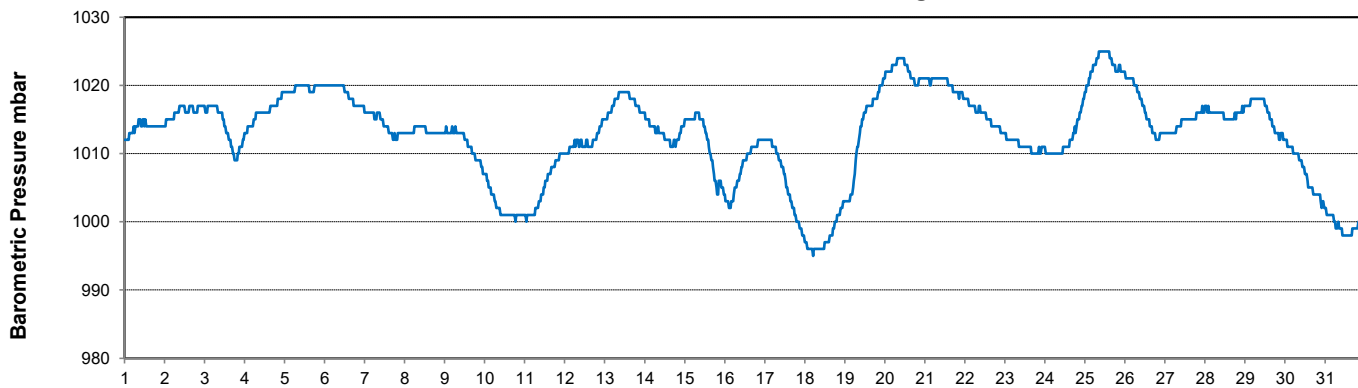
**Temperature and Precipitation for August 2023**



**Relative Humidity for August 2023**



**Barometric Pressure Corrected to Sea Level for August 2023**





# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

Preliminary

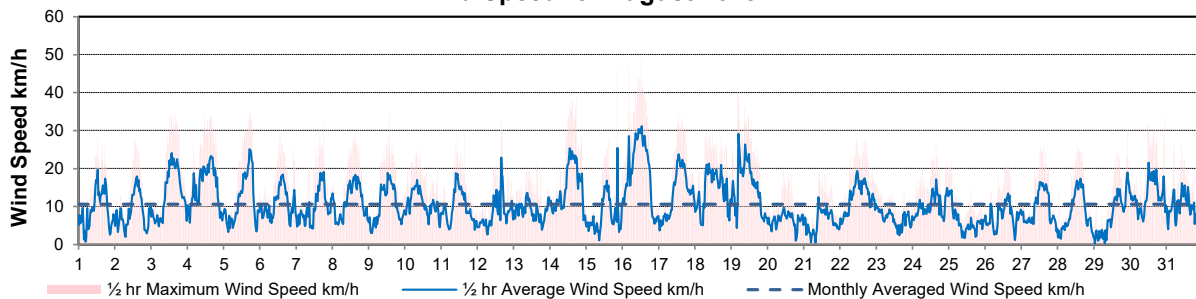
August 2023

Day	Wind Gust (10 meter)			Wind Speed (10 meter)	Soil Temperatures at 0900hrs								Radiation				
	Max	Direction	Time	Daily Average	Surface	5 cm	10 cm	20 cm	50 cm	100 cm	150 cm	300 cm	Bright Sunshine	Possible	% Possible	Global	Diffuse
	km/h			km/h	°C	°C	°C	°C	°C	°C	°C	°C	hours	hours		MJ/m <sup>2</sup>	MJ/m <sup>2</sup>
1	28.1	NNW	12:44	9.0	18.5	16.5	17.5	16.5	15.0	12.5	10.5	6.5	14.1	15.6	90.3	22.8	7.4
2	27.6	NNW	13:05	8.5	19.0	15.5	17.0	16.0	15.5	12.5	10.5	6.5	14.3	15.6	92.0	24.7	5.1
3	35.0	E	12:07	13.2	18.5	15.5	17.0	16.0	15.5	12.5	10.5	6.5	11.2	15.5	72.3	19.4	9.3
4	33.8	NNW	15:56	15.1	18.5	17.0	17.5	16.5	15.5	12.5	10.5	6.5	14.2	15.4	92.0	25.5	4.0
5	35.0	NW	17:38	11.7	16.5	15.5	17.0	16.5	16.0	12.5	10.5	6.5	9.2	15.4	59.8	20.3	8.1
6	28.7	NW	14:22	10.8	18.0	15.5	17.0	16.0	15.5	13.0	10.5	6.5	10.7	15.3	69.8	19.6	9.2
7	32.3	NNW	18:15	9.9	15.5	16.0	17.5	16.5	15.5	13.0	10.5	6.5	9.4	15.3	61.6	18.5	8.0
8	29.1	NE	15:19	11.2	14.5	14.5	16.0	16.0	16.0	13.0	11.0	6.5	12.6	15.2	82.9	21.7	7.3
9	34.2	E	14:16	10.7	14.0	14.0	15.5	15.5	15.5	13.0	11.0	6.5	6.2	15.1	41.0	15.8	10.0
10	24.9	SE	7:39	10.9	12.0	14.5	15.5	15.0	15.5	13.0	11.0	7.0	2.0	15.1	13.3	5.8	4.3
11	29.2	NW	15:47	9.9	14.0	14.5	15.5	15.0	15.0	13.0	11.0	7.0	1.1	15.0	7.3	8.9	7.3
12	32.2	N	15:38	8.4	15.0	15.0	15.5	15.0	15.0	12.5	11.0	6.5	7.6	15.0	50.8	15.7	7.8
13	21.4	W	15:05	8.9	16.5	14.5	15.5	15.0	15.0	12.5	11.0	7.0	12.0	14.9	80.5	20.7	7.2
14	38.6	NW	17:32	15.0	19.5	15.5	16.0	15.5	15.0	12.5	11.0	7.0	12.1	14.8	81.6	21.6	3.8
15	45.9	NNW	20:32	7.7	16.0	15.5	16.5	16.5	15.5	13.0	11.0	7.0	8.4	14.8	56.9	16.8	7.4
16	48.6	NNW	12:38	19.7	16.0	16.5	17.5	16.5	15.5	13.0	11.0	7.0	10.6	14.7	72.1	18.9	7.5
17	33.8	SW	13:28	13.5	14.5	14.0	15.0	15.5	15.5	13.0	11.0	7.0	13.4	14.6	91.5	20.9	6.4
18	29.4	NE	7:54	14.3	19.0	16.0	17.0	16.0	15.0	13.0	11.0	7.0	5.9	14.6	40.5	12.4	8.2
19	41.5	NNW	4:25	15.5	11.5	15.0	16.5	16.0	15.5	13.0	11.0	7.0	5.2	14.5	35.8	14.2	8.0
20	19.3	SSW	10:52	6.6	11.0	12.5	14.0	14.5	15.0	13.0	11.0	7.0	12.7	14.5	87.9	21.3	5.0
21	19.7	SSE	12:47	6.1	14.5	14.0	15.0	15.0	15.0	13.0	11.0	7.0	3.3	14.4	22.9	11.3	8.4
22	27.8	E	11:11	12.5	14.0	15.0	16.0	15.0	14.5	13.0	11.0	7.0	0.0	14.3	0.0	3.5	3.2
23	16.2	E	0:26	7.0	15.0	15.0	15.5	15.0	14.5	13.0	11.0	7.0	0.3	14.3	2.1	7.0	6.3
24	26.3	WNW	15:46	10.2	15.5	15.5	16.0	15.0	14.5	12.5	11.0	7.0	5.1	14.2	35.9	12.9	9.0
25	21.9	N	1:46	6.3	13.5	15.5	16.0	15.5	15.0	12.5	11.0	7.0	5.6	14.1	39.7	12.5	6.7
26	21.8	WSW	15:19	7.4	14.5	14.0	15.0	15.0	15.0	13.0	11.0	7.5	12.8	14.1	91.0	19.8	4.0
27	26.2	NNE	14:35	9.5	15.5	14.5	15.5	15.5	15.0	13.0	11.0	7.5	11.2	14.0	80.1	17.7	6.0
28	26.2	W	13:00	8.5	15.0	14.0	15.5	15.5	15.0	13.0	11.5	7.5	10.0	13.9	71.8	14.0	7.5
29	30.3	SSW	22:25	7.9	14.0	14.5	15.5	15.5	15.0	13.0	11.5	7.5	8.9	13.9	64.2	13.9	7.1
30	33.3	SSW	22:32	13.0	19.5	16.0	16.5	16.0	15.0	13.0	11.5	7.5	10.3	13.8	74.7	16.1	6.5
31	27.0	E	10:19	9.9	16.5	16.5	17.5	16.5	15.5	13.0	11.5	7.5	1.8	13.7	13.1	7.9	6.4
Total													262.2	455.5	57.6	502.1	212.4
Mean				10.6	15.7	15.1	16.1	15.7	15.2	12.8	11.0	6.9					
Extreme	48.6	NNW	12:38														
Date	16																

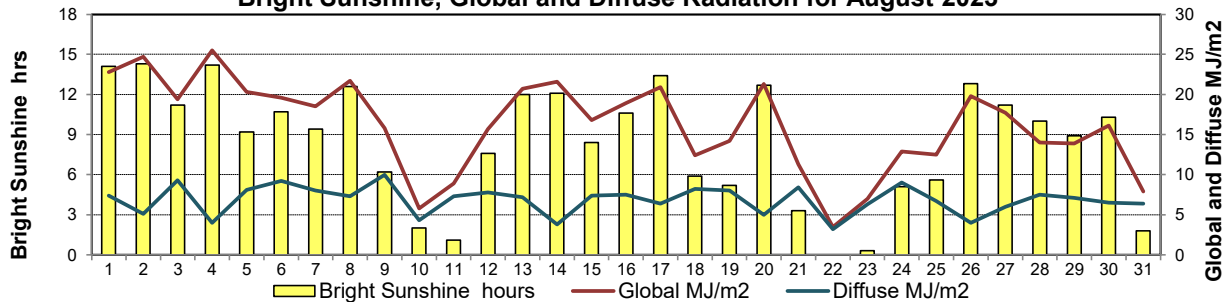
### GLOSSARY OF TERMS

Degree-days	Radiation
<b>T<sub>m</sub></b> Mean Temperature	<b>Bright Sunshine</b> is the unobstructed direct radiation from the sun, as opposed to the shading of a location by clouds or by other atmospheric obstructions.
Growing (T <sub>m</sub> -5°C); if T <sub>m</sub> ≤ 5°C then GDD = 0	
Heating (18°C-T <sub>m</sub> ); if T <sub>m</sub> ≥ 18°C then HDD = 0	
Cooling (T <sub>m</sub> -18°C); if T <sub>m</sub> ≤ 18°C then CDD = 0	<b>Diffuse</b> is radiation reaching the earth's surface after having been scattered from the direct solar beam
<b>T</b> Trace of Precipitation	<b>Global</b> is the sum of the direct solar and diffuse radiation
<b>SOG</b> Depth of snow-on-the-ground	<b>Relative Humidity</b> The ratio of the air's water vapour content of its water vapour capacity which changes with temperature.
<b>Red Cell</b> no data available	<b>Air Pressure</b> The force exerted by the weight of a column of air above a given point
Red Number manual calculation	<b>Wind Gust</b> The daily highest instantaneous value recorded irrespective of direction and/or duration

**Wind Speed for August 2023**

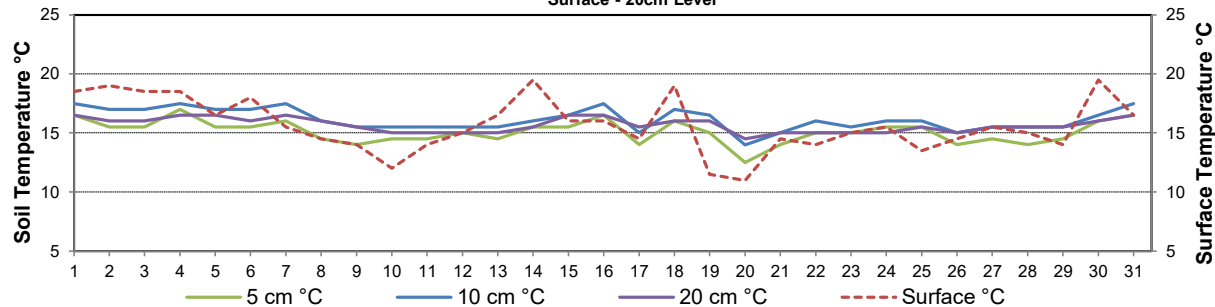


**Bright Sunshine, Global and Diffuse Radiation for August 2023**



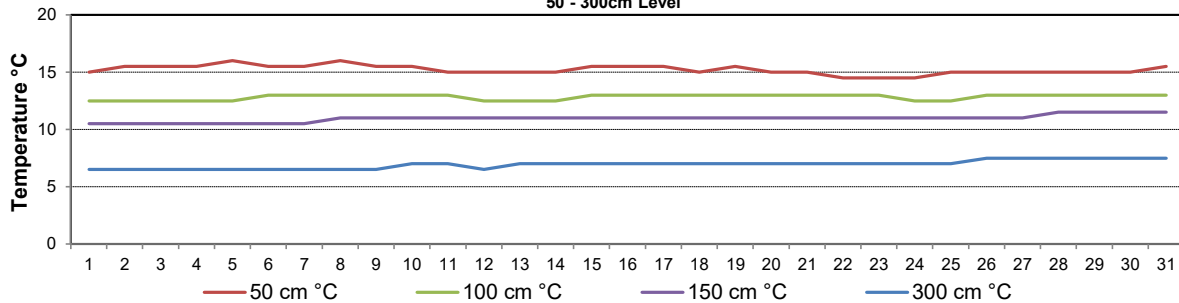
**Soil Temperatures for August 2023**

Surface - 20cm Level



**Soil Temperatures for August 2023**

50 - 300cm Level





# SRC CLIMATE REFERENCE STATION DAILY DATA REPORT

## CONSERVATION LEARNING CENTRE

Saskatchewan 53.03°N 105.77°W 451m asl Estab. 2011

**August 2023**

Day	2 meter Wind Speed			Soil Moisture at 0900 hrs (rounded to the 0.5%)			
	Daily Average	Max ½ hr Avg	½ hr Extreme Max	10 cm	20 cm	50 cm	
	km/h	km/h	km/h	% by volume (soil type is Clay Loam)			
1	4.0	12.4	19.9	20.5	24.0	35.0	
2	4.0	12.2	20.6	20.5	23.5	35.5	
3	7.0	16.3	26.8	20.0	23.5	35.5	
4	8.0	15.2	24.8	20.0	23.5	35.5	
5	5.0	15.7	23.3	20.0	24.0	35.5	
6	6.0	12.0	20.8	19.5	24.0	35.0	
7	4.0	13.0	18.9	19.5	23.5	35.0	
8	6.0	13.0	25.6	19.5	24.0	35.0	
9	5.0	13.3	26.8	19.5	24.0	34.5	
10	6.0	10.3	17.9	39.0	23.5	34.5	
11	4.0	11.1	17.2	34.0	25.5	35.0	
12	4.0	14.9	22.4	34.5	27.5	34.5	
13	5.0	9.2	15.4	33.0	28.5	34.5	
14	9.0	16.1	27.7	32.5	28.5	34.5	
15	3.0	15.0	29.8	31.5	28.5	34.5	
16	11.0	19.7	32.0	31.0	29.0	34.0	
17	8.0	15.3	23.5	30.0	29.0	34.0	
18	8.0	14.9	21.6	29.5	28.5	34.0	
19	9.0	20.0	29.1	40.0	31.5	34.0	
20	2.0	6.5	13.5	35.5	33.0	34.5	
21	2.0	6.7	13.3	34.0	32.5	34.5	
22	8.0	13.5	22.5	33.0	32.5	33.5	
23	3.0	7.7	11.6	38.0	32.5	34.0	
24	6.0	11.0	17.6	37.0	33.5	34.5	
25	3.0	9.9	17.0	36.0	33.5	34.0	
26	3.0	8.6	15.8	34.5	33.5	34.0	
27	3.0	11.6	19.3	33.5	33.0	34.0	
28	3.0	10.4	19.5	32.5	32.5	34.0	
29	3.0	10.2	17.7	31.5	32.0	34.0	
30	5.0	12.2	20.6	31.0	32.0	34.0	
31	4.0	18.0	19.0	30.0	31.0	35.0	
Total							
Mean				30	29	34.5	
Extreme	11.0	20.0	32.0	40	33.5	35.5	
Date	16.5	15.5	16.5	15.5	15.5	16	

**Summer Temperatures 2012-2023**

**Summer Precipitation 2012-2023**

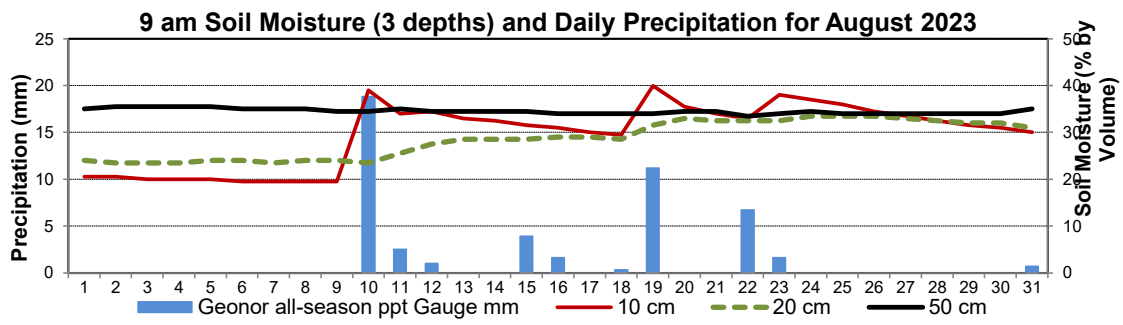
- second highest summer maximum temperature (24.9C) (2021 was warmer at 25.5C)

- third lowest summer minimum temperature (10.1C). (Summer minimum in 2018 was 9.9C and 2019 was 9.2C)

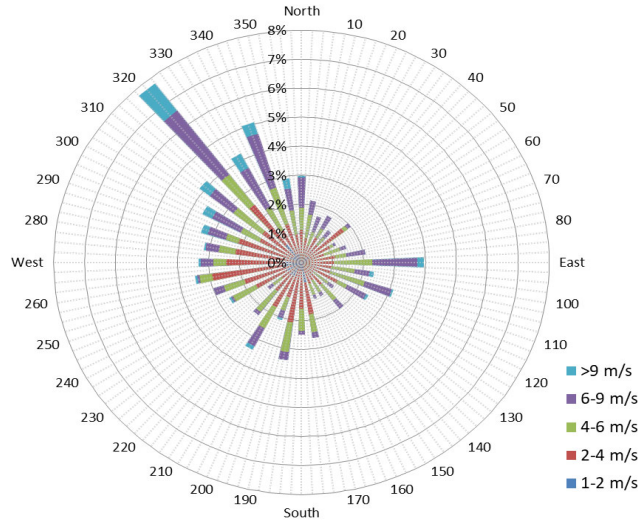
- third driest summer (139.8mm) (2017 had 78.6mm and 2019 had 132.6mm)

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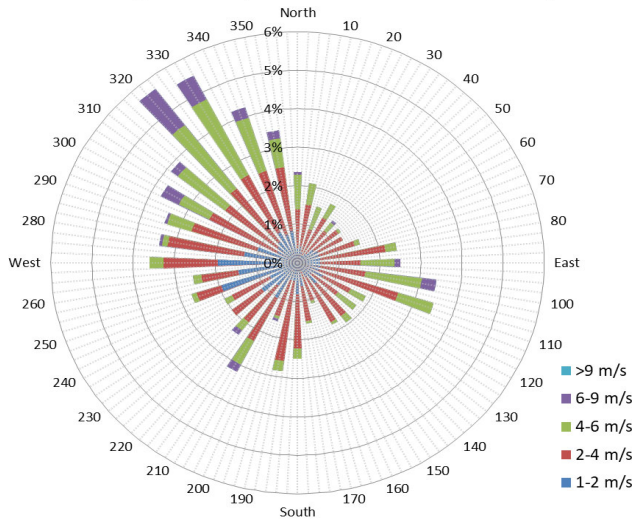




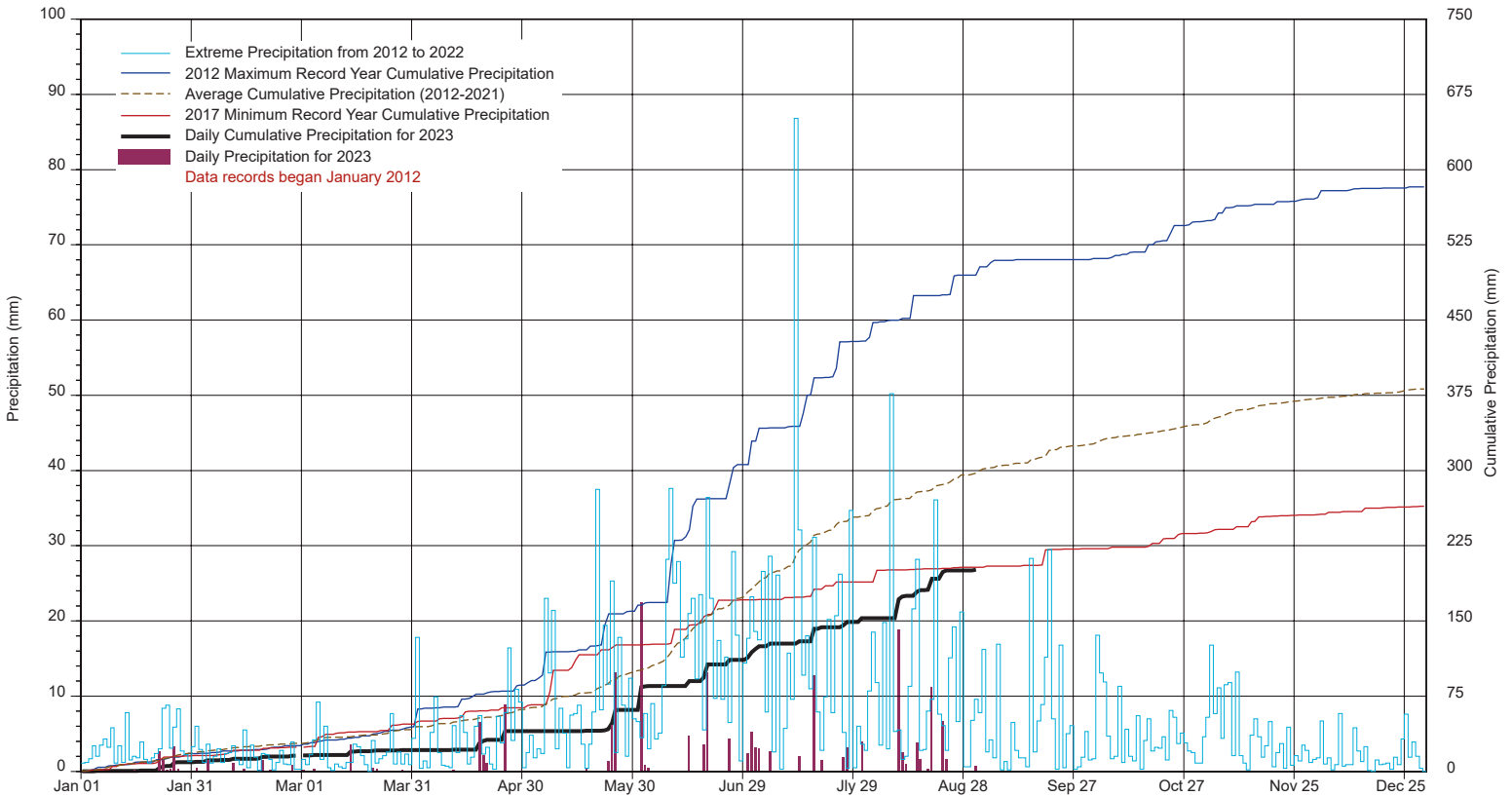
1/2 hr Maximum Wind Speed and Direction CLC August 2023



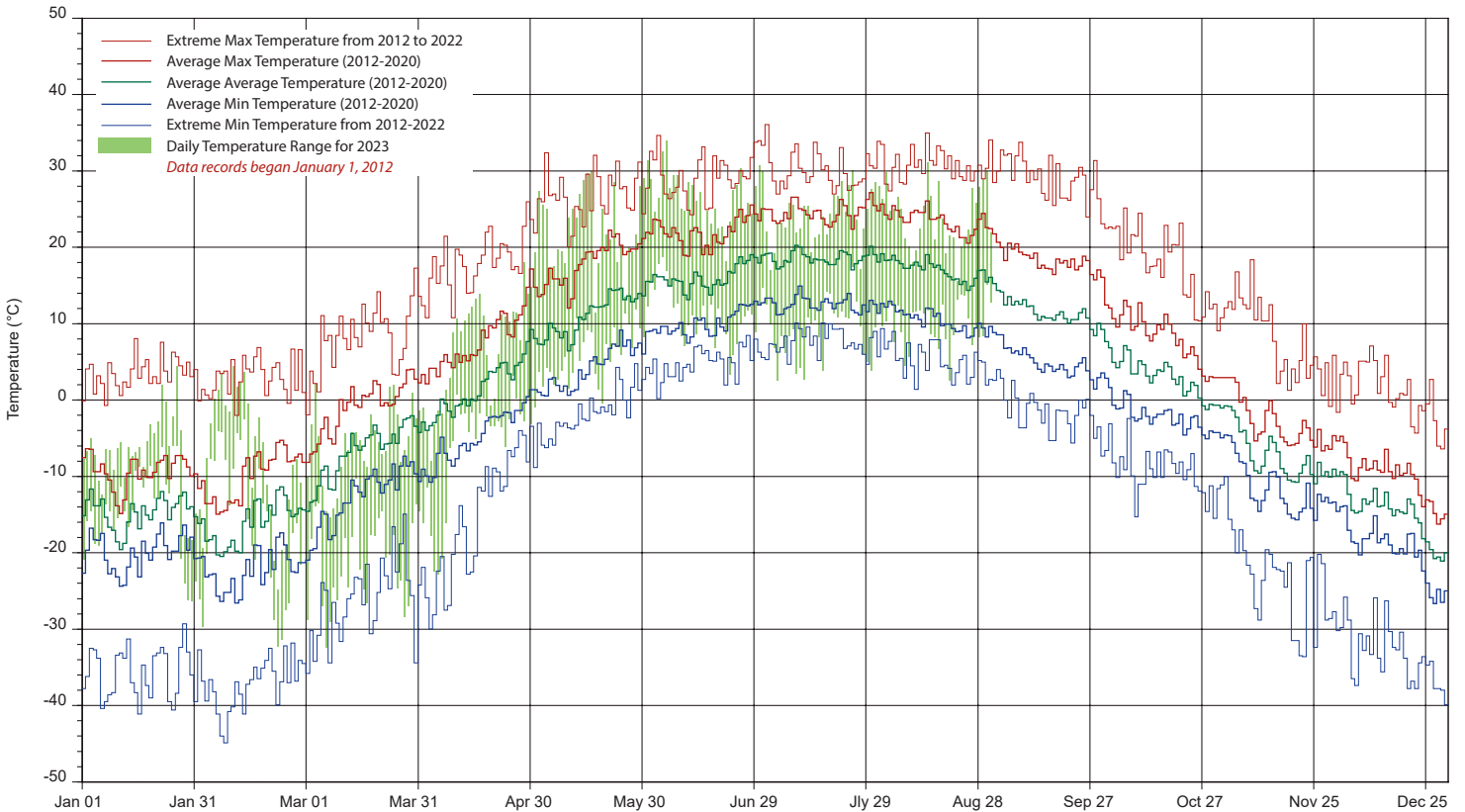
10 minute Average Wind Speed and Direction CLC August 2023



# SRC's CLIMATE REFERENCE STATION at the Conservation Learning Centre 2023 PRECIPITATION AND AVERAGE



## 2023 TEMPERATURES AND AVERAGES



SRC proudly recognizes the following CRS supporters:

