#### **New Brunswick**

# November 2021 Review December and Winter Outlook

Jill Maepea Meteorological Service of Canada Environment and Climate Change Canada December 1, 2021





### **November 2021; Climate Summary**

				Mean Temperature / Température moyenne (°C)		Total Precipitation / Précipitation totales (mm)			
		TC ID /	Station Type /	Monthly Mean /	Normal Mean /	Diff from Normal /	Monthly Total /	Normal Total /	Total as % of Normal / Total
Station Name / Nom de la		ID de	Type de		Moyenne	Écart avec	Total	Total	en % de la
station	Prov	TC	station	mensuelle	Normale	la normale	mensuel	normal	normale
BAS CARAQUET	NB	WXS	AU8	3.0	1.3	1.7	141.1	102.4	138
BAS CARAQUET	NB		DAILY				140.0	102.4	137
BATHURST A	NB	ZBF	NCA	1.4	0.8	0.7			
CHARLO AUTO	NB	ZCR	AU8	1.5	-0.7	2.3	81.1	92.3	88
MIRAMICHI RCS	NB	ACQ	AU8	2.0	0.7	1.3	103.6	100.6	103
DOAKTOWN AUTO RCS	NB	ADN	AU8	1.5	0.7	0.8	110.5	112.1	99
EDMUNDSTON	NB	ERM	AU8	0.0			74.5		
FREDERICTON INTL A	NB	YFC	NCA	1.9	1.5	0.4			
FREDERICTON CDA CS	NB	AFC	AU8	2.6	1.8	0.8	99.9	109.9	91
FUNDY PARK (ALMA) CS	NB	AFY	AU8	3.8	3.0	0.8	162.3	158.9	102
GAGETOWN AWOS A	NB	YCX	AU5	2.5	2.5	0.0			
GRAND MANAN SAR CS	NB	XGM	AU8	3.3			116.1		
KOUCHIBOUGUAC	NB	AKC	AU8	2.3	1.2	1.1	121.0	120.6	100
MECHANIC SETTLEMENT	NB	AMS	AU8	1.6			202.7		
MISCOU ISLAND (AUT)	NB	WMI	AU8	3.8			137.2		
MONCTON/GREATER									
MONCTON ROMEO LEBLANC	NB	YQM	NCH	2.7	1.9	0.9	95.1	107.2	89
INTL A									_
OAK POINT	NB		DAILY	3.2	2.5	0.7	155.6	101.8	153
RED PINES	NB	ARP	AU8	1.1	-0.1	1.1	92.9	89.4	104
SAINT JOHN A	NB	YSJ	NCH	3.1	2.3	0.8	158.9	134.1	119
ST. STEPHEN	NB	WSS	AU8	2.7			115.0		
SUSSEX FOUR CORNERS	NB	ASF	AU8	2.3	2.4	0.0	137.8	110.0	125
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	1.2	0.3	1.0	73.1	103.2	¥ <sub>71</sub>
Average				2.3	1.4	0.9	122.0	110.3	108
Max				3.8	3.0	2.3	202.7	158.9	153
Min				0.0	-0.7	0.0	73.1	89.4	71

#### **Highlights:**

The average temperature anomaly was slightly above normal (+0.9°C). All sites reported positive anomalies with Charlo reporting the largest anomaly at 2.3°C. Extreme temperature swings were not evident (no records) and remained fairly consistent through the month.

Total precipitation amounts were slightly above normal, with an average of **108%** of total precipitation. Anomalies ranged from 71% in Woodstock to 153% in Oak Point. Precipitation was confined to the last two-thirds of the month.



### November 2021; Climate Summary

#### **Events:**

**November 15-16**: "First snow". The first accumulating snow of the season occurred across portions of the north giving 5-10 cm with as much as 17 cm in St-Quentin over higher terrain.

**November 21-23**: "Fall Storm". A slow-moving intense low pressure system brought significant rain to the southeast and some gusty winds. Rainfall was generally 50-80 mm in the southeast with Crowe Brook reporting the highest amount at 128 mm.

November 26-27: "Snow Event I" Snow fell across northern and western areas with 5-15 cm. St-Quentin reported the highest amount at 20 cm.

**November 29-30**: "Snow Event II". Wintry precipitation invaded southern and eastern areas giving 5-15 cm of snow and some ice pellets/freezing rain. Moncton amassed the greatest amount at 16 cm.

Days of month with lightning in New Brunswick; none

Day of month with temperature record broken or tied in New Brunswick; none (red=maximum, blue=minimum)



#### November 2021; Provincial Climate Extremes

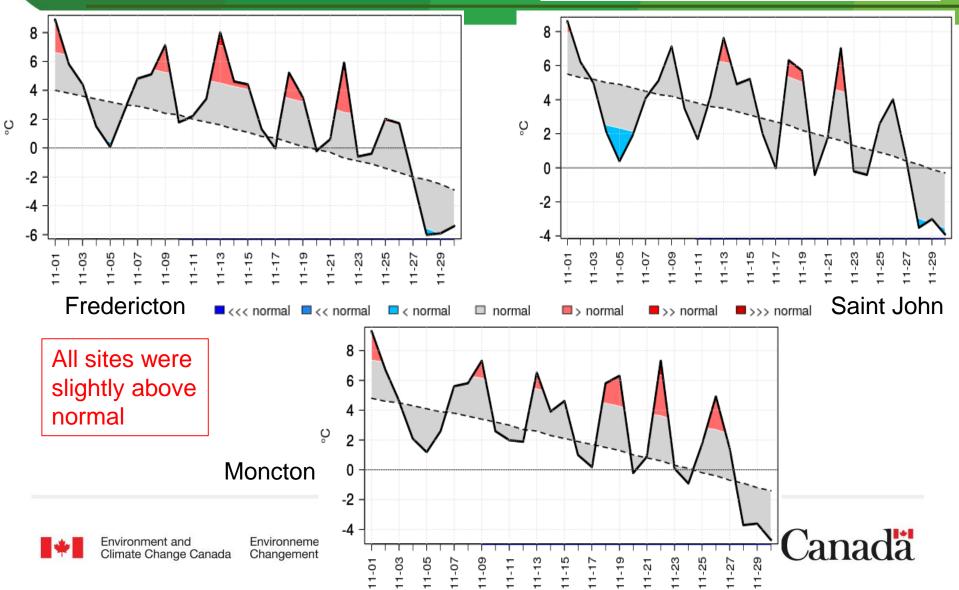
Parameter	Value	ECCC Station	Day of month
Daily Maximum Temperature	+18.0°C	St. Stephen Oak Point	9
Daily Minimum Temperature	-10.9°C	Woodstock	29
Maximum Daily Total Precipitation	93.2 mm	Mechanic Settlement	22
Daily Maximum Wind Gust	77 km/h	Grand Manan	12
Daily Minimum Wind Chill	-15	Mechanic Settlement	28





#### November 2021 - Temperature

Daily Mean Temperature (line), Long-Term Mean (dashed line) Based on gridded observations / Climatology 1981-2010 and Categories based on Standard Deviations (blue and red) Std. dev. thresholds +/- 0.7, 1.3, 2.1

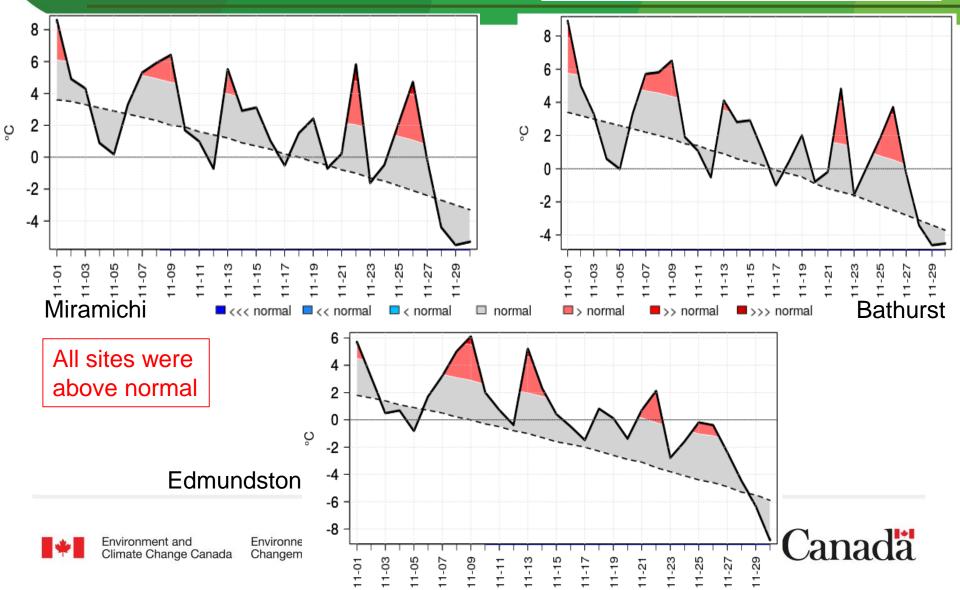


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and Categories based on Standard Deviations (blue and red)

Based on gridded observations / Climatology 1981-2010

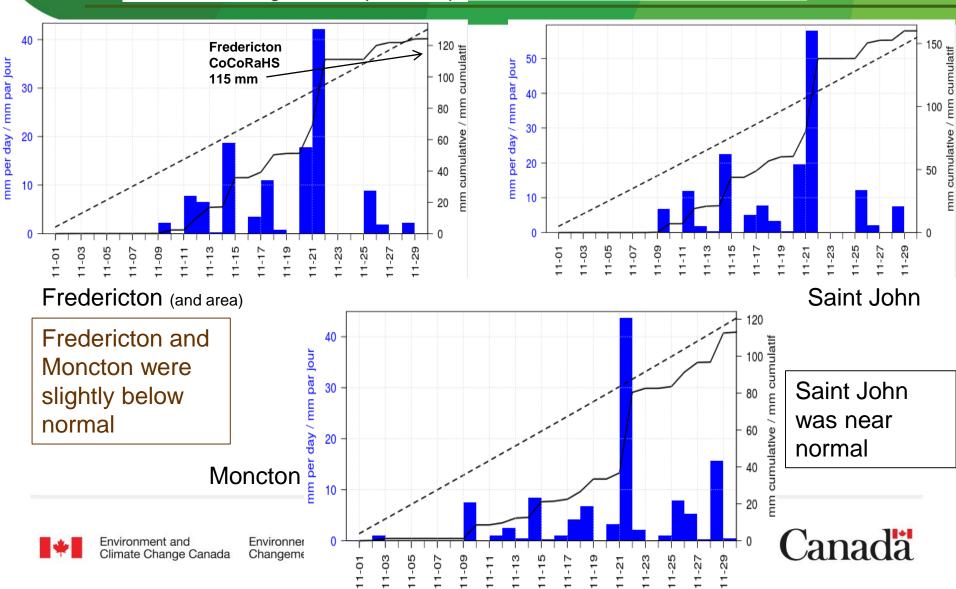
Std. dev. thresholds +/- 0.7, 1.3, 2.1



### November 2021 - Precipitation

Daily Total Precipitation (bars), Cumulative (line) and Cumulative Long-Term Mean (dashed line)

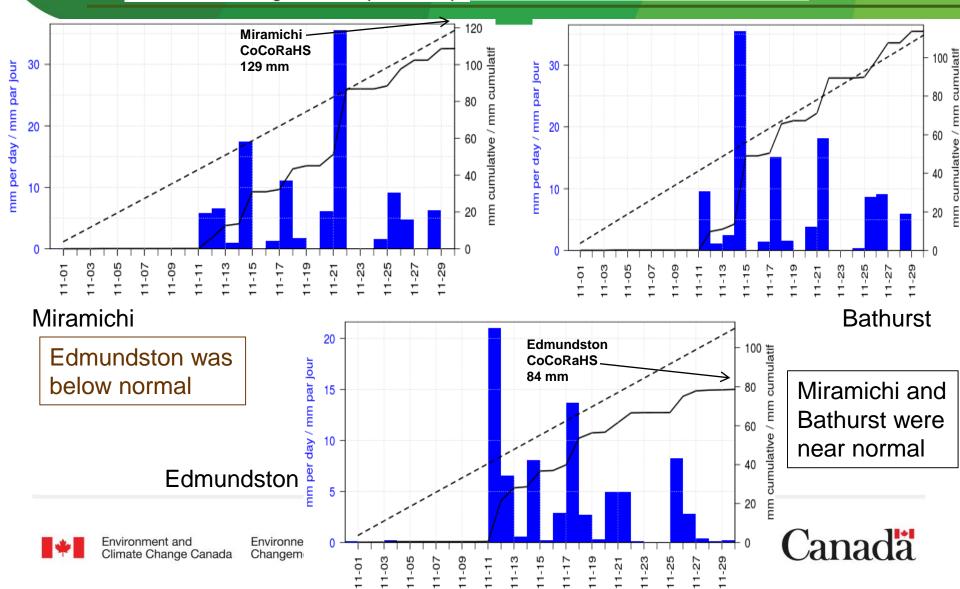
Based on ECCC gridded precipitation analysis Climatology 2002-2020



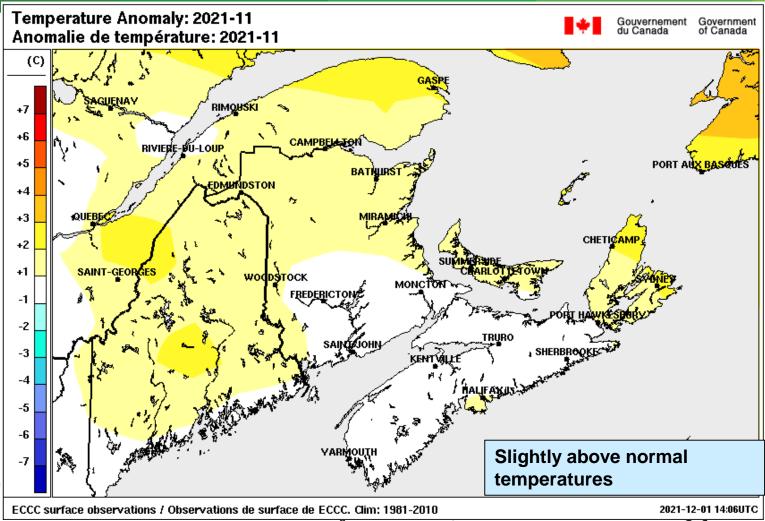
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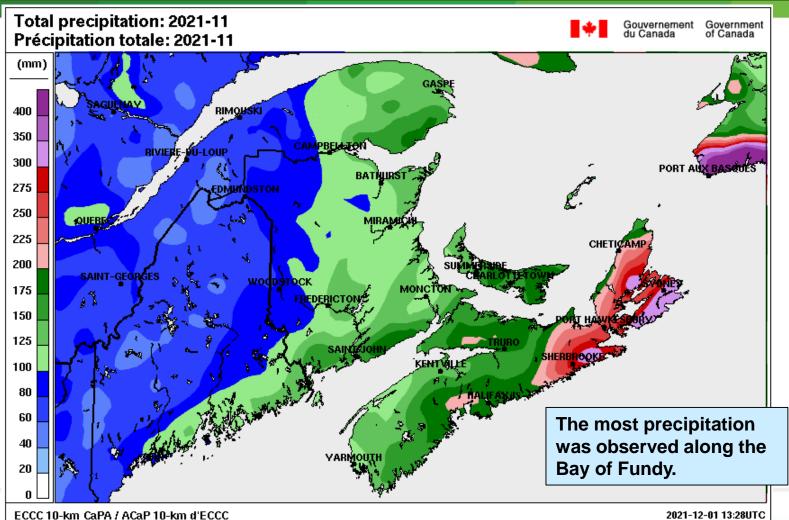
# November 2021 – Temperature departure from 1981-2010 mean







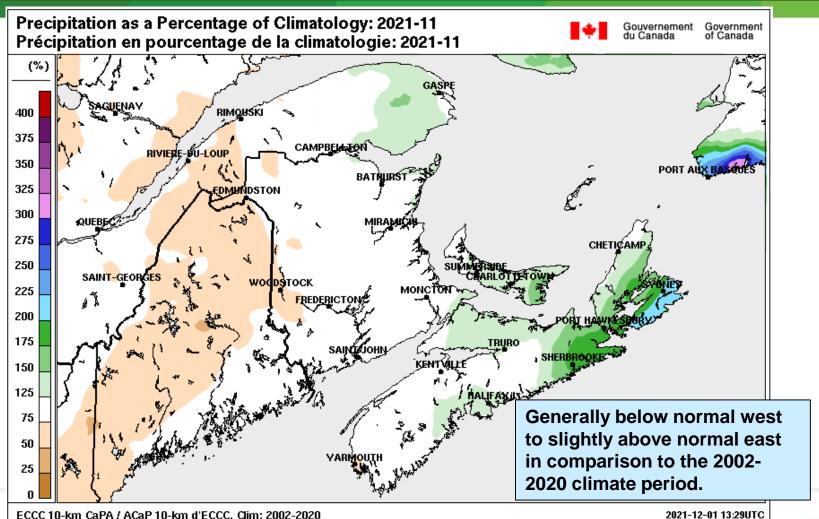
### **November 2021 – Total precipitation**







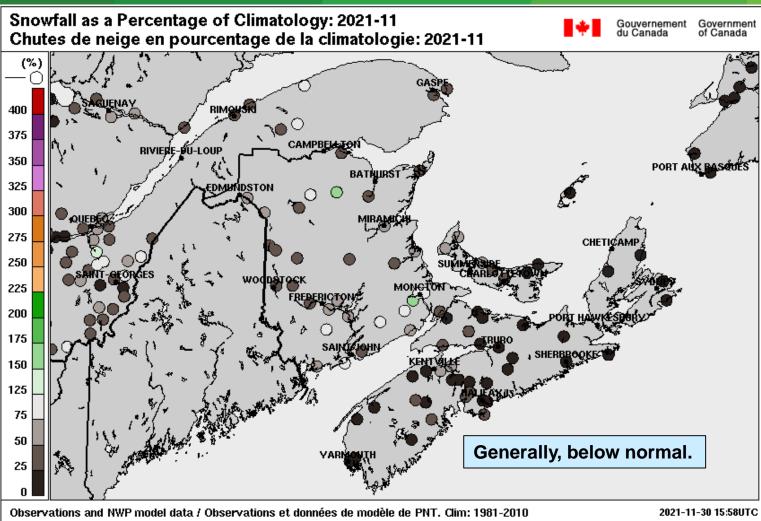
# November 2021 – Precipitation departure from 2002-2020 mean







# November 2021 – Snowfall departure from 1981-2010 mean

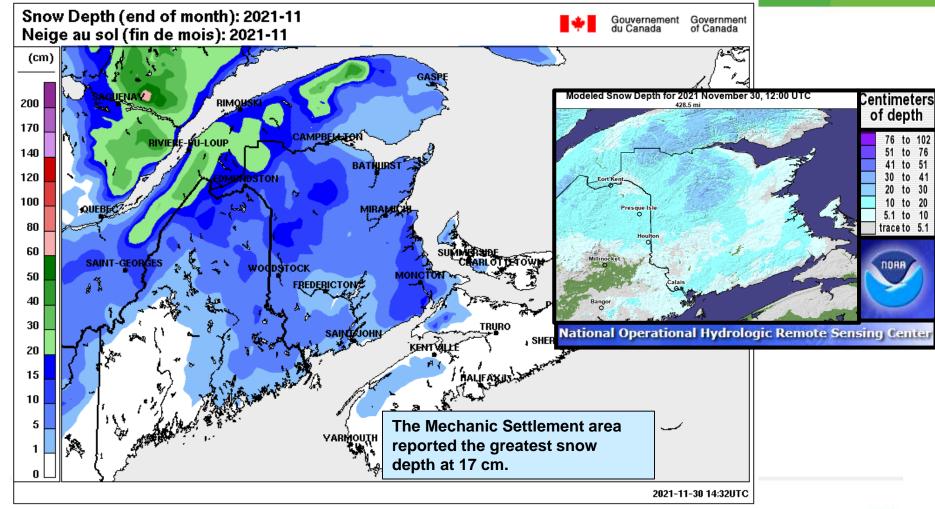






# November 2021 – Snow depth at month end

Extracted from Canadian computer model



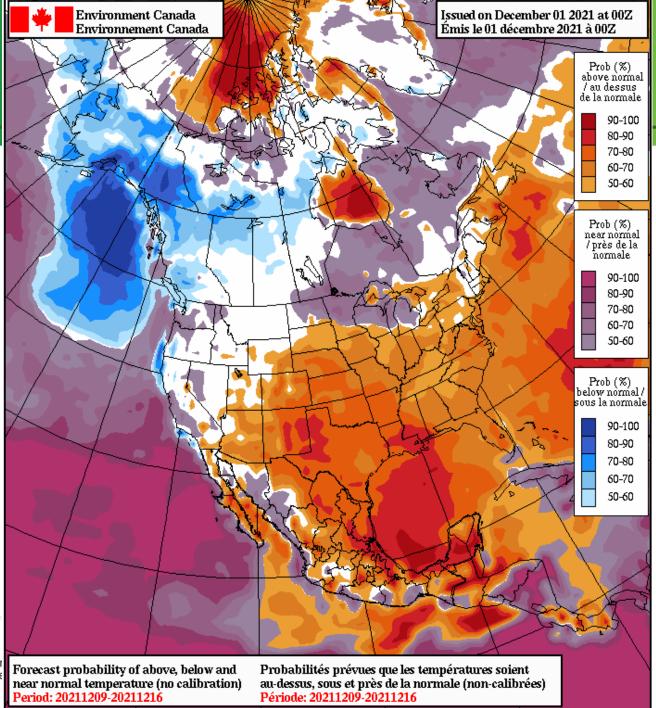




# Outlook Day 8 to 14 **Forecast**

**Period ending** December 16, 2021

Suggesting a weak signal of above normal conditions for some areas of the province.







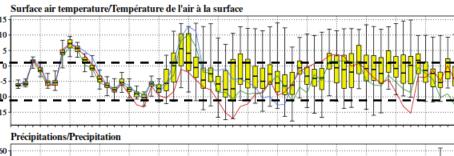


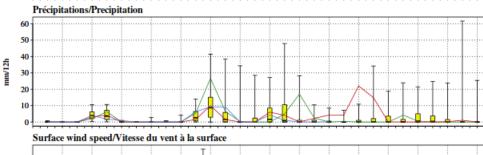
#### Fredericton

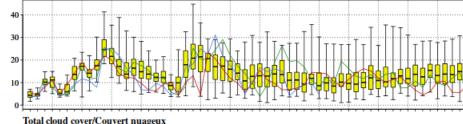
Ensemble and Deterministic Forecasts issued 1 December 2021 00 UTC Prévision d'ensemble et déterministe émises le 1 Décembre 2021 00 UTC

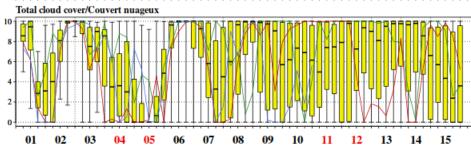
NAEFS / SPENA

#### FREDERICTON (YFC) 45.87 N 66.53 W/O









December/Décembre 2021

median/médiane

Global Model / Modèle global Control Member / Membre contrôle CMC Control Member / Membre contrôle NCEP

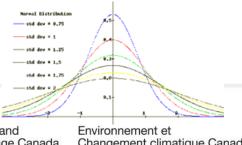
December

Normal high: -0.7C

Normal low: -10.7C \_ \_

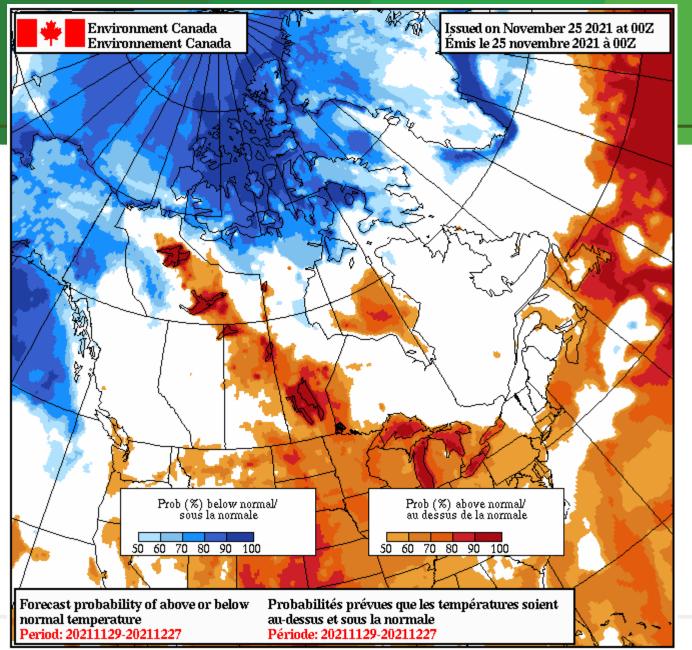
Next 15 days; ending **December 15, 2021** 

Generally suggesting above normal until near the 3rd then below normal until near the 6th then a lot of variability for the remainder of the period.





Changement climatique Canada



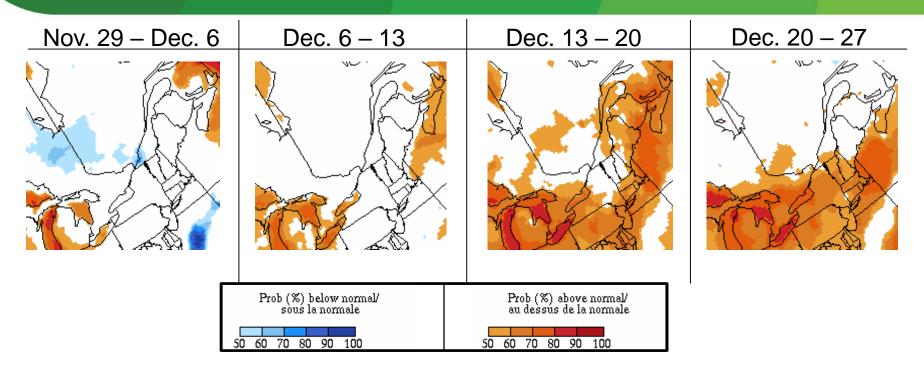
Temperature
November 29
to
December 27

CMC Monthly Forecast Product using GEPS 50km res.





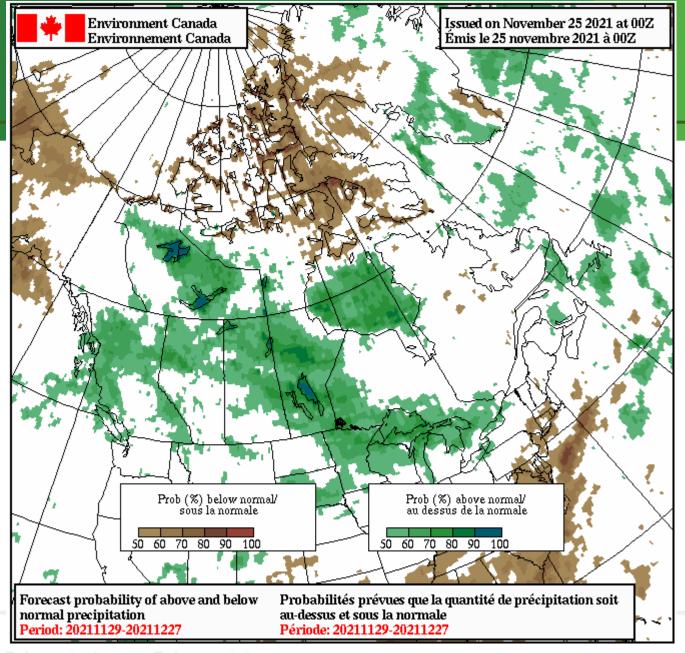
# Weekly signature from GEPS 50km resolution



Generally, no signal (near normal) for the period except a weak to moderate signal of above normal for the third week.





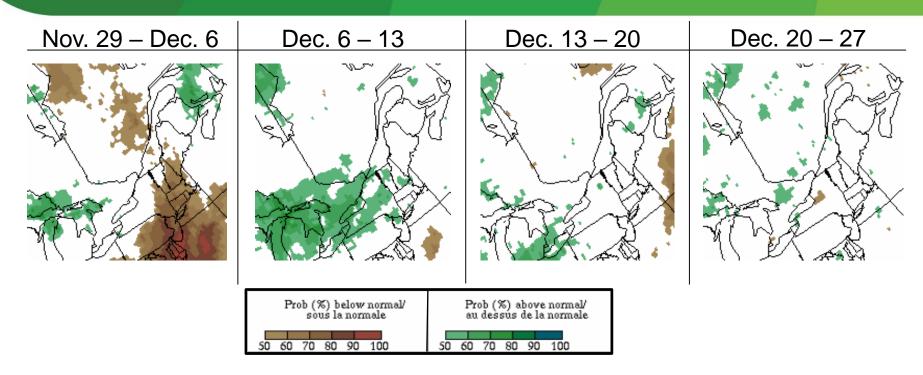


Precipitation
November 29
to
December 27

CMC Monthly Forecast Product using GEPS 50km res.



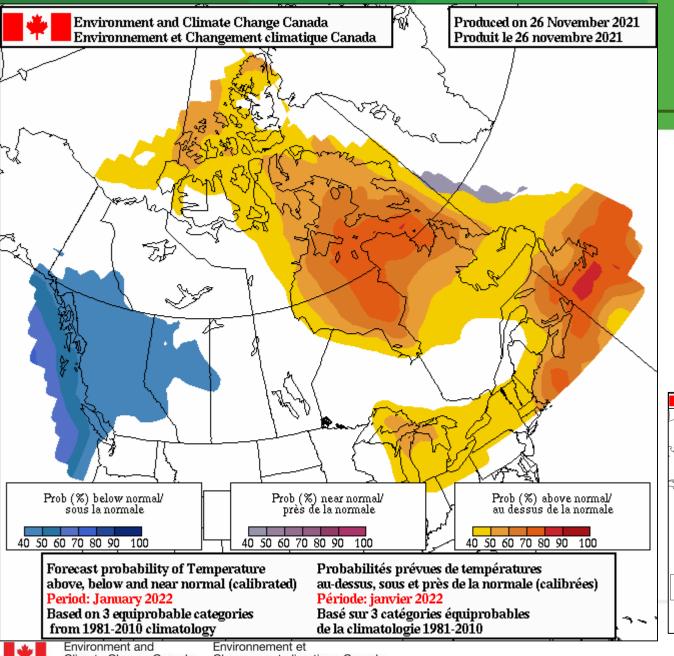
# Weekly signature from GEPS 50km resolution



Generally near normal (no signal) for the period except very localized areas of above normal for the first and third weeks.



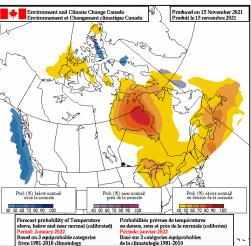




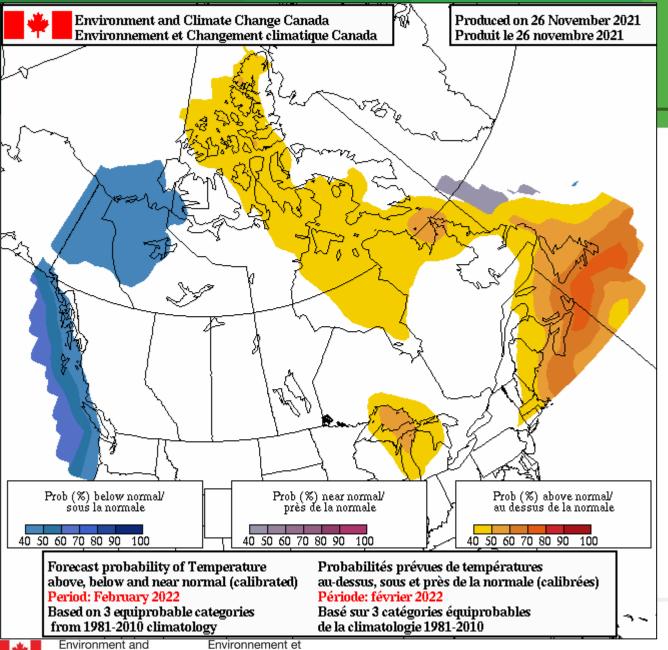
#### **Temperature January** 2022

CanSIPS (Canadian Seasonal and Interannual Prediction System) CanAM3 CanAM4 CanOM4

#### **Produced November 15**



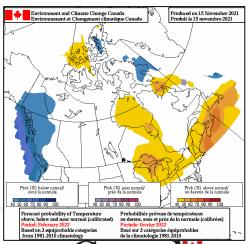




#### **Temperature February** 2022

**CanSIPS** (Canadian Seasonal and Interannual Prediction System) CanAM3 CanAM4 CanOM4

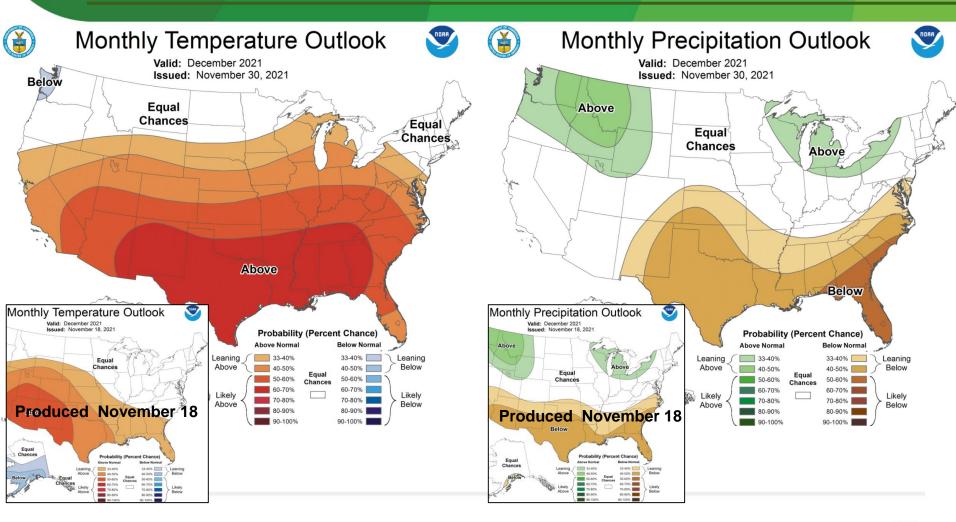
#### **Produced November 15**







#### December 2021







#### Contact

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**Environment and Climate Change** Canada Weather Pages

www.weather.gc.ca

