

# COCORAHS CANADA

## ECCEC and WIN update

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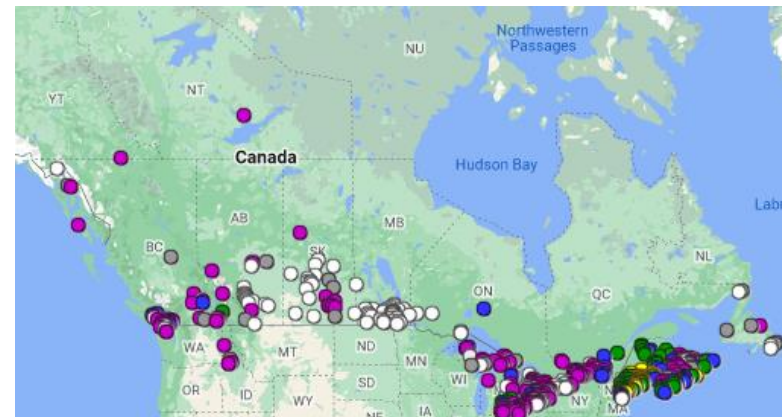
Environment and  
Climate Change Canada

Environnement et  
Changement climatique Canada

Canada

# COCORAHS CANADA

- CoCoRaHS Canada is managed by Weather Innovations (WIN) in Chatham Ontario
- ECCC (Environment and Climate Change Canada) is a supporting member of CoCoRaHS Canada since 2012 along with:
  - WIN, AAFC, & CoCoRaHS USA
  - MSC (Meteorological Service of Canada) along with partners provide in-kind support and funding to help develop the network and quality assure data
  - **Starting in 2021 ECCC has agreed to a 5-year contribution grant to help support the volunteer network and to help focus recruitment in rural areas and areas not currently covered by the network**

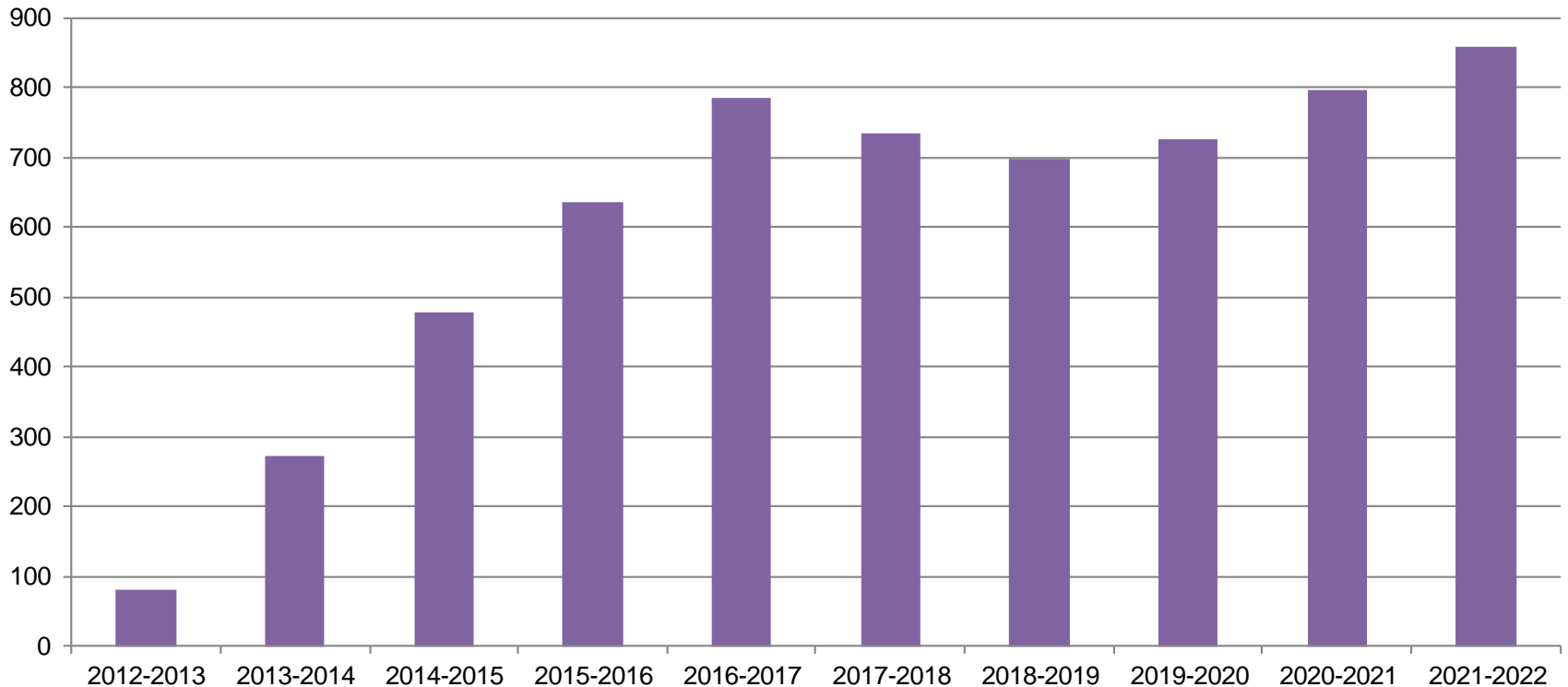


Juliet Hull ([Canada@cocorahs.org](mailto:Canada@cocorahs.org)) is the new National Volunteer Coordinator at Weather Innovations.

Doug Leonard ([douglas.leonard@ec.gc.ca](mailto:douglas.leonard@ec.gc.ca)) has replaced Rick Fleetwood after his retirement as the ECCC/MSc lead for CoCoRaHS Canada.

# CANADIAN OBSERVERS

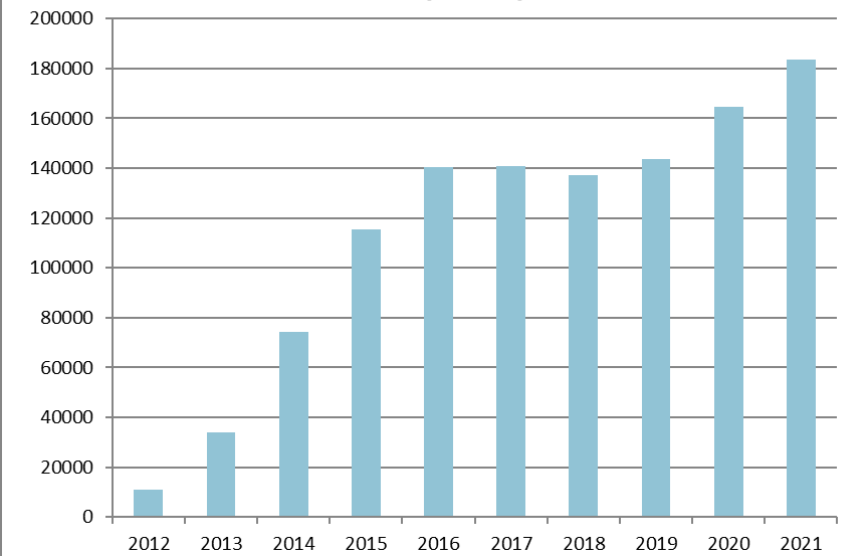
Active Observers by Year



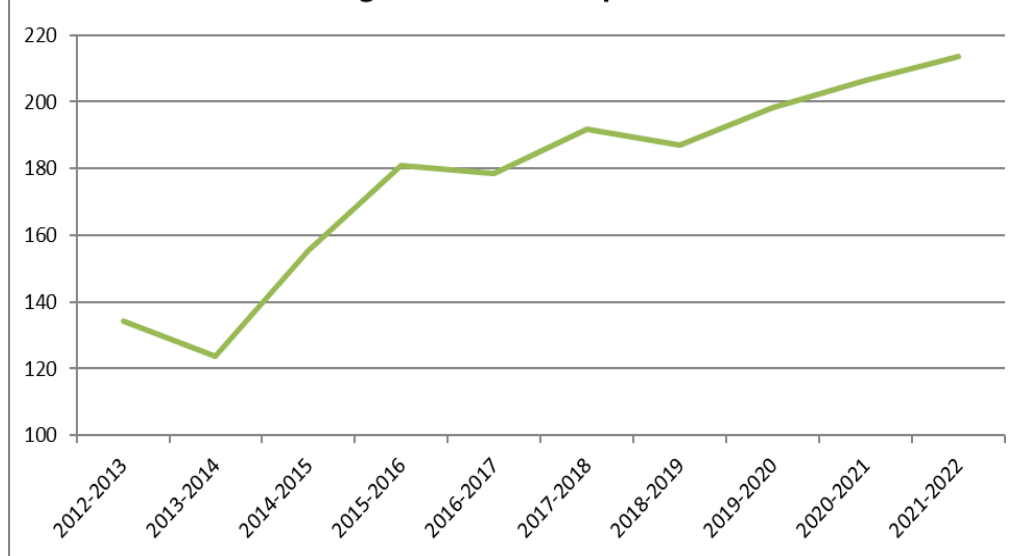
Active observers on the rise during the last 3 years!

# CANADIAN COCORAHS REPORTS

**Volunteer Reports per Year**

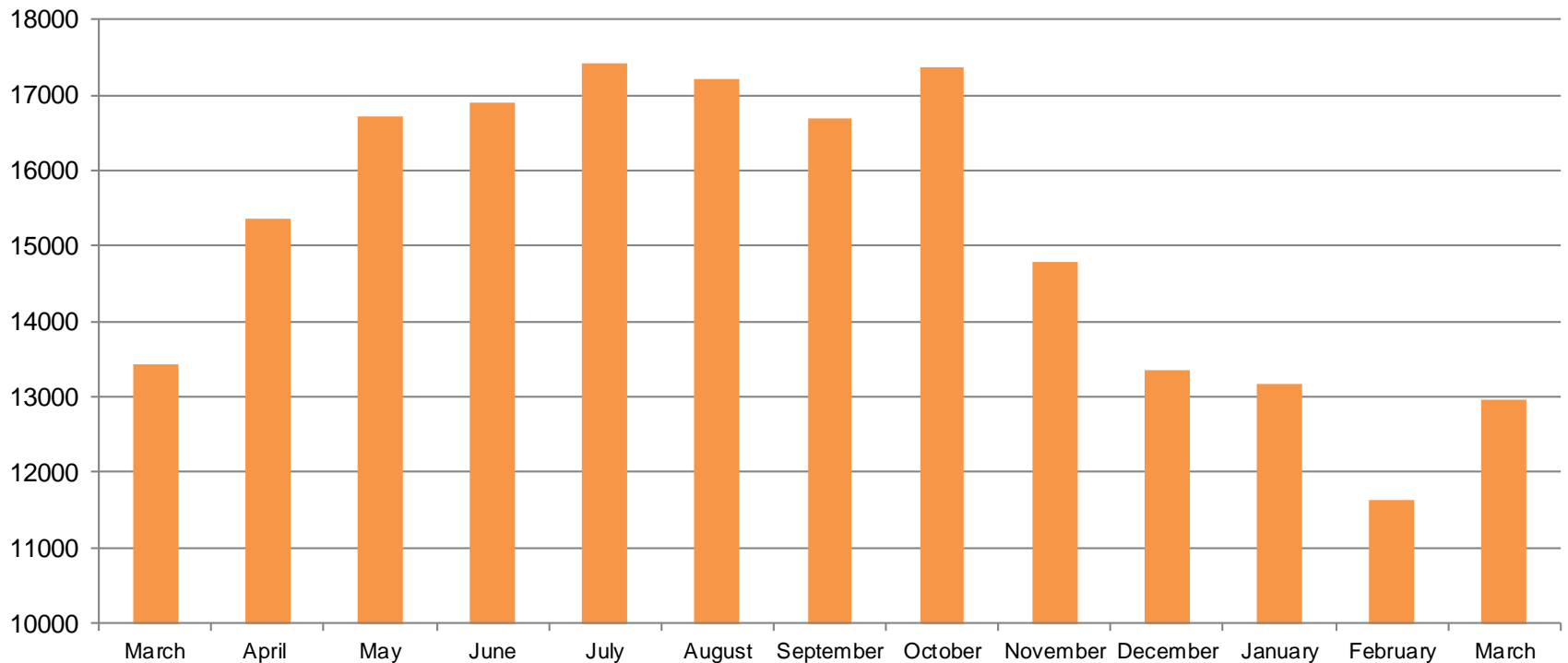


**Annual Average Number of Reports Per Observer**



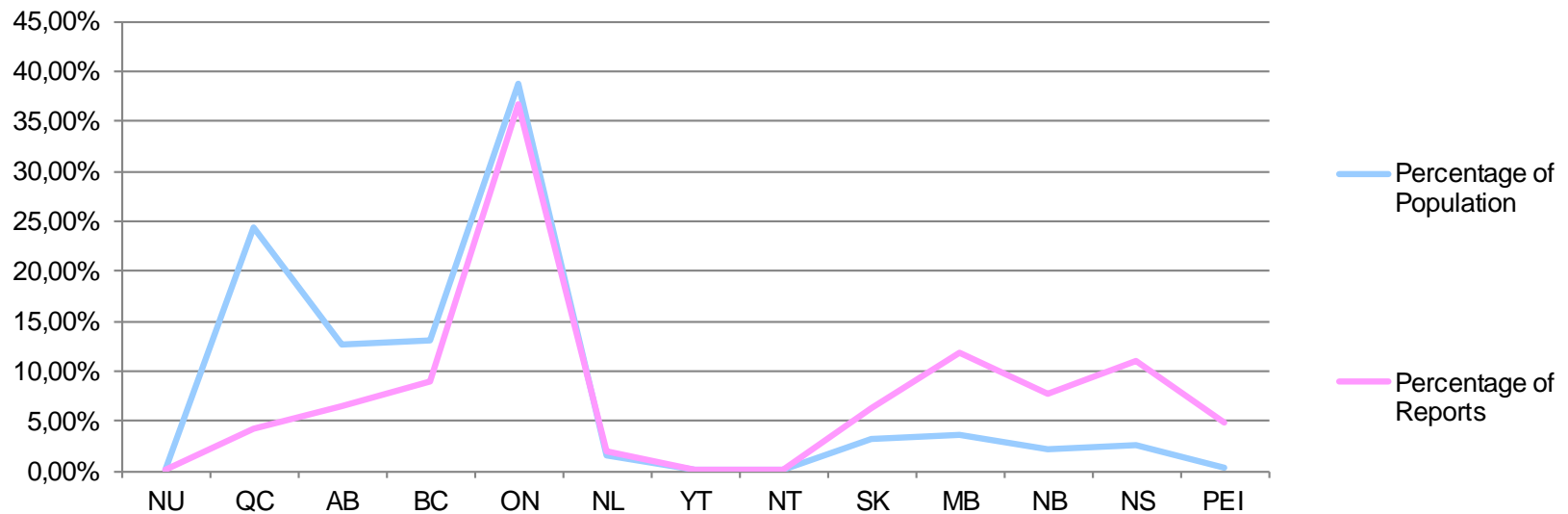
# CANADIAN COCORAHS MONTHLY OBSERVATIONS

Number of Reports Per Month  
2021-2022



# CANADIAN OBSEVERS PER PROVINCE

Comparing the Percentage of Reports to Percentage of Population



# CONSULTATION AND ENGAGEMENT

- ECCC/CoCoRaHS Canada met with the BC LEO (local Environmental Observer network) in 2021 to actively promote and recruit for CoCoRaHS
  - WIN has recently undergone some staff transitions and are actively:
    - reaching out to volunteers who were inactive over the winter
    - expanding the network by talking with school boards
    - expanding regular twitter and Facebook posts, highlighting extreme and interesting events.
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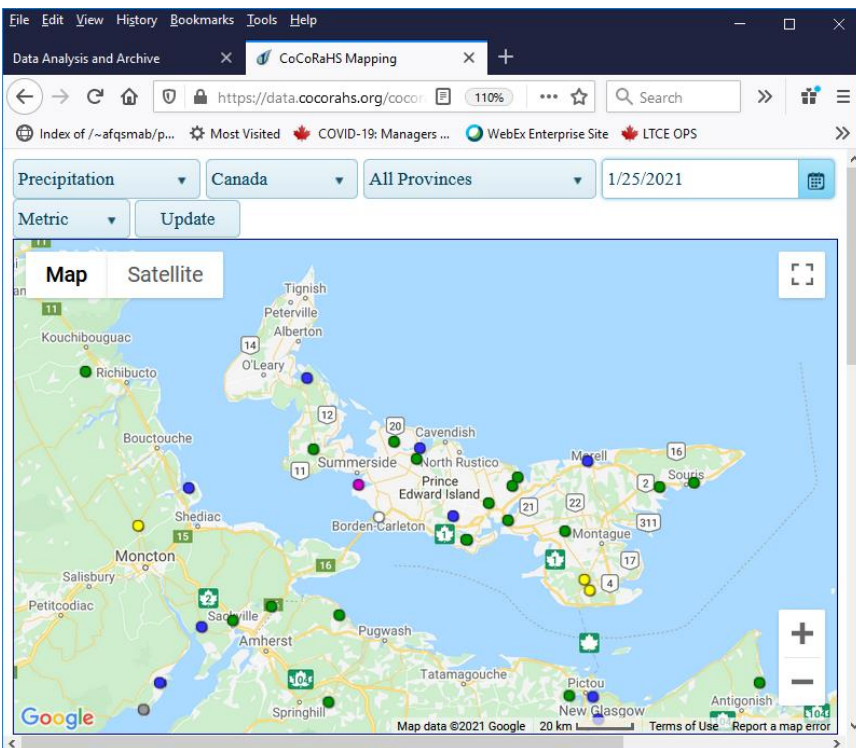
# COCORAHS PROMOTION ON ECCC SOCIAL MEDIA AND WEATHERCAN APP



- CoCoRaHS info/promotion piece added to message of the data on national App
- Done 3 times now and quite successful with new registrations (50-80 each time)
- Also some promotion via ECCC Twitter & FB with some success ...regional Twitter accts may be more effective



# WORK WITH FIRST NATIONS CONSERVATION GROUP IN PEI



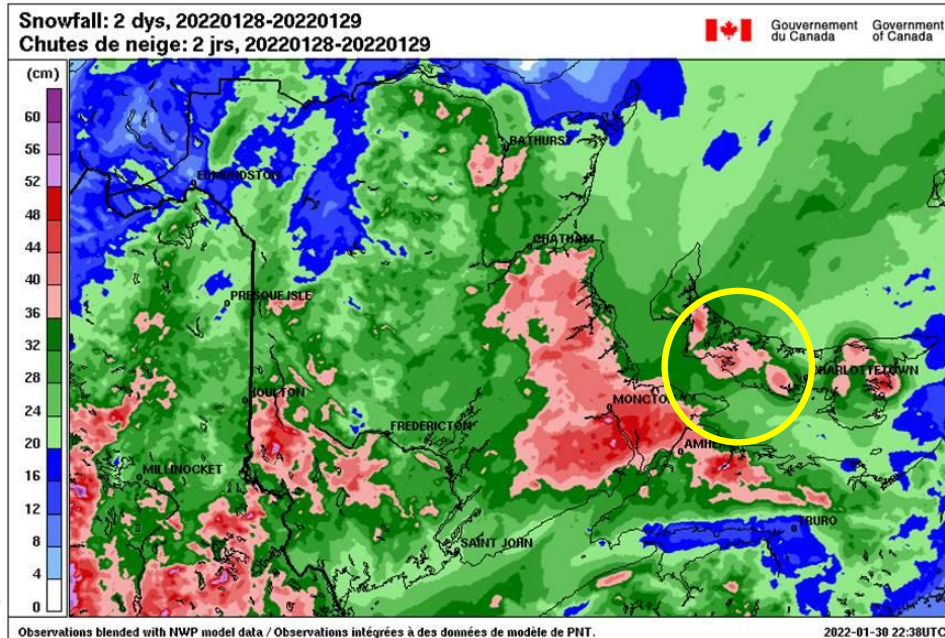
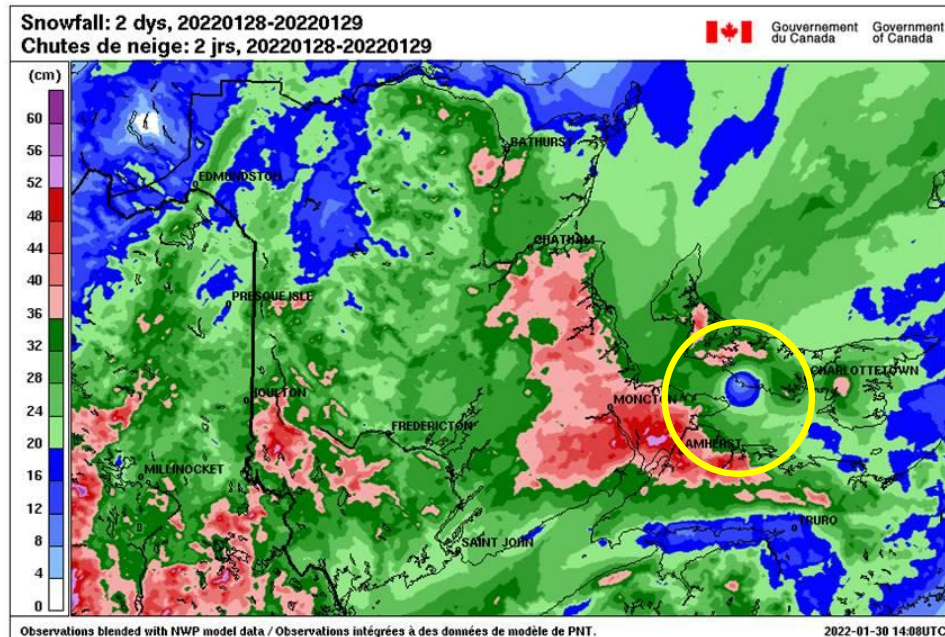
- Mi'kmaq Confederacy of PEI (MCPEI)
- Started recruitment in 2018
- Done through coordination with UPEI
- Have roughly 24 registered with ~8 active volunteers as of May 2022. Reduction from the initial 20 active volunteers who provided reports.
- Successful due to equipment distribution and hands on training

# COCORAHS DATA USES AT ECCC

- At ECCC, CoCoRaHS data is used to supplement precipitation data from ECCC networks for:
    - Clients and media
    - Storm Summary bulletins issued by forecast centres
    - MSC (Meteorological Service of Canada) precipitation/snowfall mapping
    - Monthly and seasonal climate bulletins
  - Used to help quality control ECCC station data and river flow data, when needed
  - Forecasters use the data to help verify and improve forecasts and warnings.
  - Climate services groups regularly point interested Canadians at the CoCoRaHS data when existing official observations do not suit the needs of the user.
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# DATA ERRORS

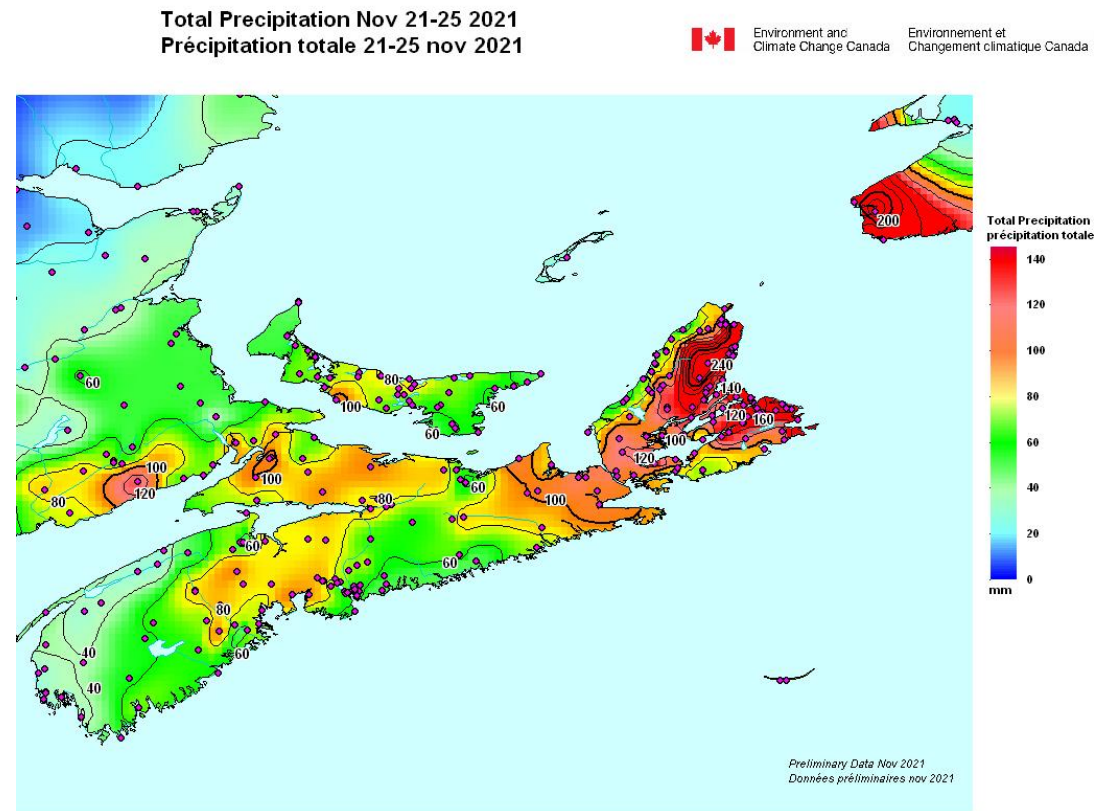
- Although not regular occurrences, occasionally we see errors in reports.
- Part of the MSC in-kind contributions is to notice likely error reports and help follow up with observers to correct the errors.
- Right – A single incorrect “zero” observation of snowfall caused some errors in snowfall estimates in southern PEI. Follow up was made with the user and the data was correctly omitted from the final snowfall map.



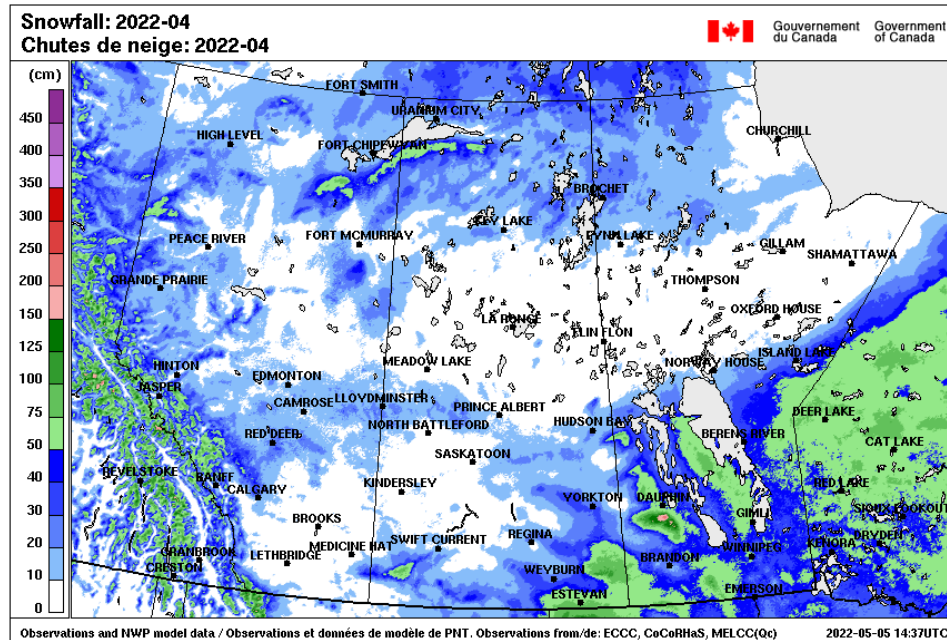
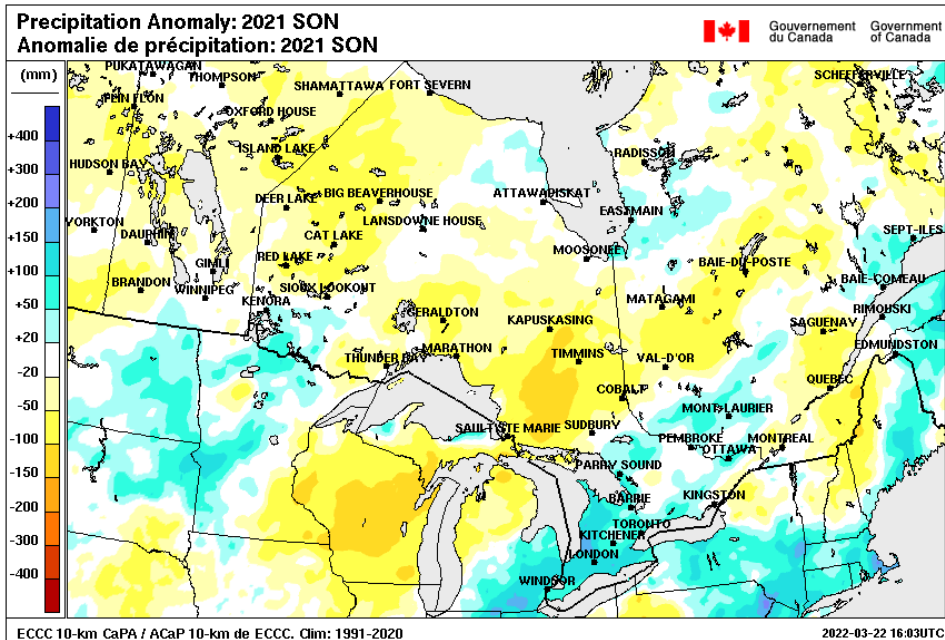


# SIGNIFICANT EVENT MAPPING

- Significant rainfall event in eastern Nova Scotia and western Newfoundland in November 2021.
- 133 CoCoRaHs stations were used to supplement ECCC and other network data.
- 402 total stations were used.
- Around 1/3 of the stations used to create this map were CoCoRaHs.
- The density and amount of CoCoRaHs stations through the Maritimes allowed a significant improvement to the ability to map this precipitation event.



# CAPA PRECIPITATION MAPPING



- CoCoRaHS data is included in the CaPA analysis since 2018.
- CaPA uses a combination of Observations, radar, and model guidance

# STORM SUMMARIES AND CLIMATE BULLETINS

## ALASKA and NORTHWESTERN CANADA

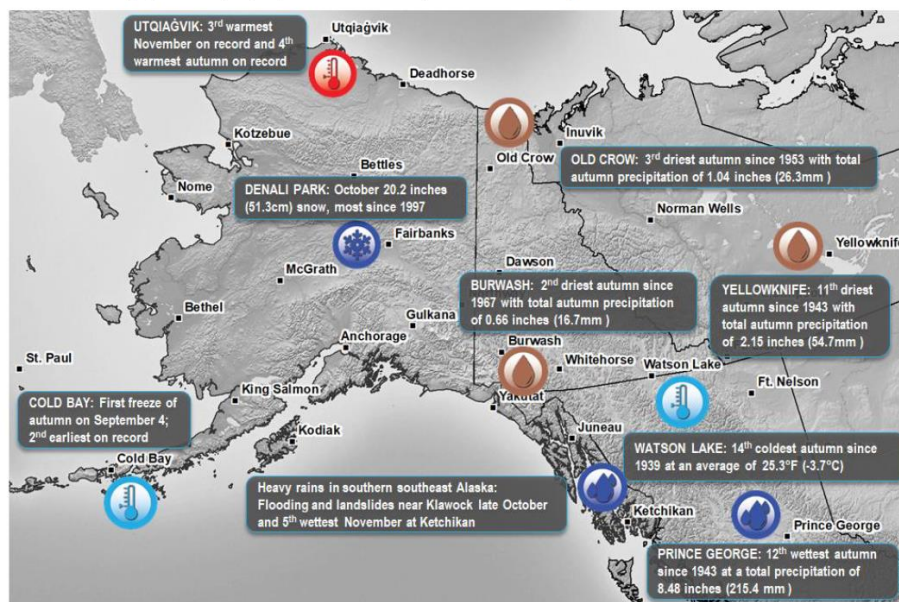
Weather & Climate Highlights and Impacts, September-November 2020; Climate Outlook January-March 2021



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AMCN15 CWHX 051521

WEATHER SUMMARY

FOR PRINCE EDWARD ISLAND

ISSUED BY ENVIRONMENT CANADA

AT 11:21 A.M. AST SATURDAY 5 FEBRUARY 2022.

### DISCUSSION.

A LOW PRESSURE SYSTEM APPROACHED THE MARITIMES FROM THE SOUTHWEST ON FRIDAY AND IS CURRENTLY PASSING JUST SOUTH OF NOVA SCOTIA. SNOW DEVELOPED WELL AHEAD OF THE SYSTEM THURSDAY NIGHT AND BECAME HEAVY AT TIMES ON FRIDAY. PRECIPITATION TAPERED TO FLURRIES THIS MORNING.

THE FOLLOWING IS A SUMMARY OF WEATHER EVENT INFORMATION RECEIVED BY ENVIRONMENT CANADA AT 10 AM SATURDAY FEBRUARY 05, 2021.

SNOWFALL: 25 TO 50 CM

WIND: NORTHEAST GUSTING TO 50 TO 70 KM/H GIVING BLOWING SNOW

SOME COCORAHs REPORTS:

FOXLEY RIVER: 43 CM

WELLINGTON: 48 CM

NEW LONDON: 32 CM

BONSHAW: 47 CM

BEDFORD CORNER: 37 CM

MORELL: 44 CM

PLEASE NOTE THAT THIS SUMMARY MAY CONTAIN PRELIMINARY OR UNOFFICIAL INFORMATION AND DOES NOT CONSTITUTE A COMPLETE OR FINAL REPORT.

END/ASPC

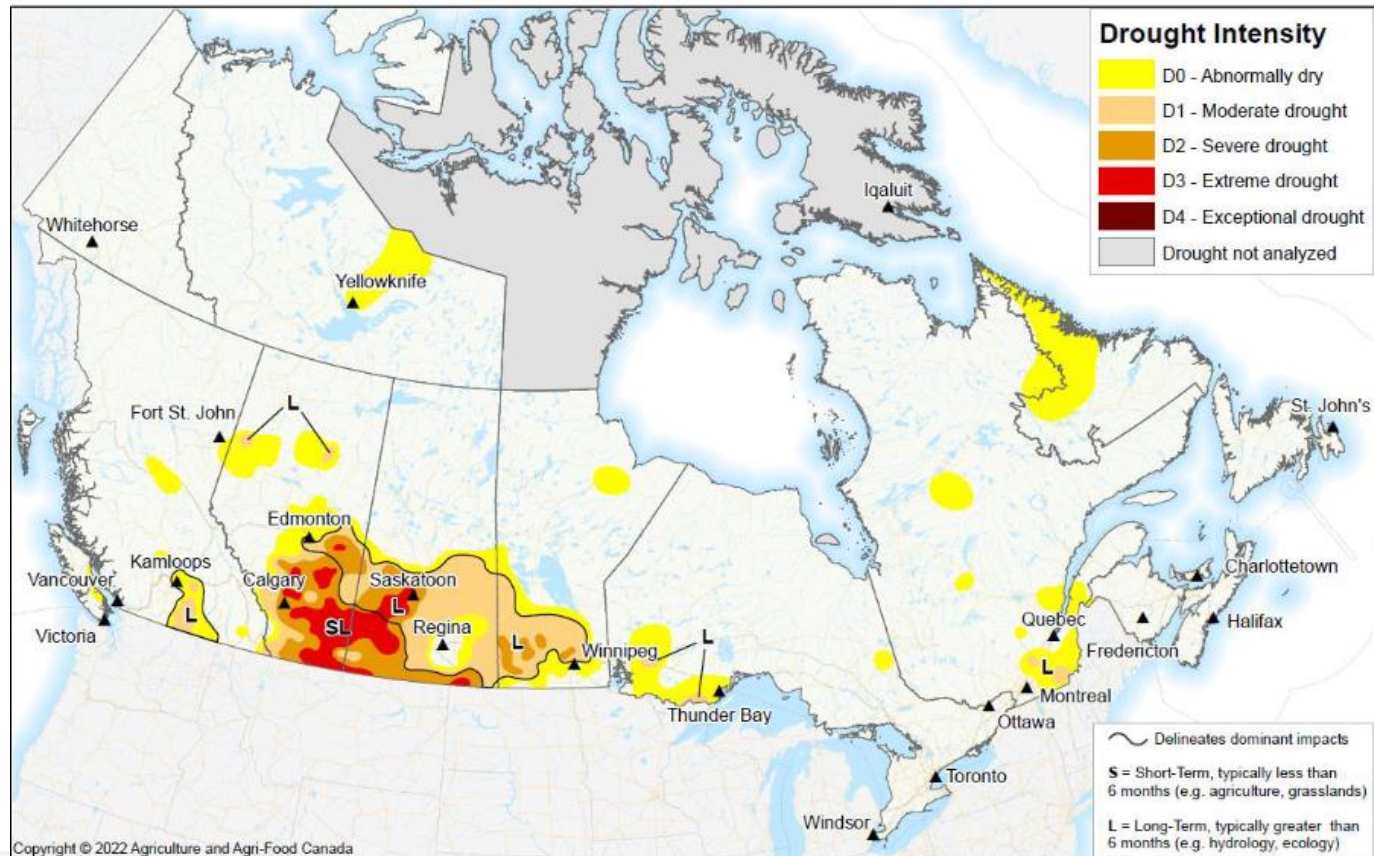
Forecasters consult the CoCoRaHS data to supplement “official” observational data



# AAFC DROUGHT MONITORING

## Canadian Drought Monitor

Conditions as of March 31, 2022



# IN THE MEDIA



**Ryan Snoddon** @ryansnoddon · Apr 20

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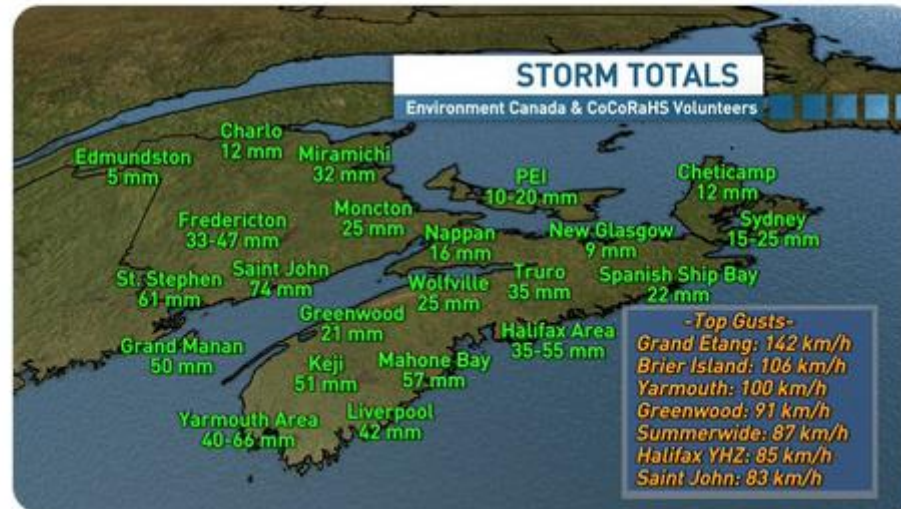
A wet and windy one indeed!

Here's a summary of some of the rainfall totals and top gusts from across the Maritimes on Tuesday & Tuesday night.

Highest totals were found in southwestern NB and NS.

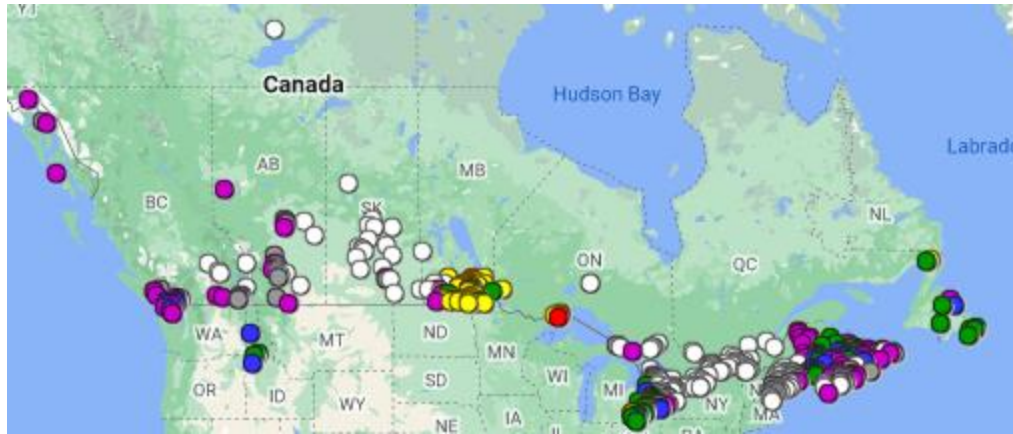
Thanks again to our [@CoCoRaHSCanada](#) volunteer observers.

[#nsstorm](#) [#nbstorm](#)





# THANKS!



# Doug Leonard

# Lead, Applied Climatology Services

## Prediction Services Operations – Atlantic and Ice

Meteorological Service of Canada / Environment and Climate  
Change Canada / Government of Canada

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