Year in Review

Ontario Flood Risk Management Workshop
Toronto, Ontario

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Winter 2017-18 - Temperatures

Temperature Anomaly: 201802
Anomalie de température: 201802

ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC. Normal: 1981–2010
Winter 2017-18 Highlights

• Ottawa Airport sets new one year precip. record. 1348 mm of total precip., old record was 1175 mm set in 1972 and long-term average is 943 mm.

• January 12-13 – significant cold front dumps 20 to 35 cm of snow in the Niagara Peninsula and E. Ontario

• February 19 to 21 –
  • thaw/rain/flood event in southern Ontario. 40 to 60 mm of rain with some parts of the Southwest reporting over 75 mm
  • Large number of daytime high records broken as temperatures soar into the teens
  • Melting snowpack, rain, ice jams combine to cause flooding in parts of the Grand River and Thames River watersheds
  • Snowpack literally wiped out in southwestern Ontario
Spring 2018 Temperatures

Temperature Anomaly: 201805
Anomalie de température: 201805

ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC. Normal: 1981-2010
Spring 2018 Precipitation

Precipitation Anomaly (% of normal): 201805
Anomalie de précipitation (% de la normale): 201805

ECCC NWP model gridded data / Données sur grille de modèle de FNT de ECCC. Normal: 2002-2016
Spring 2018 Highlights

- March ends with notable snowpack east of Georgian Bay to Ottawa Valley and northwards. Parts of northeastern Ontario had 60 to 70 cm of snow on the ground.
- Chilly April brings record snow to Wiarton (127.4 cm), Sudbury (78.1 cm), Sault Ste. Marie (72 cm), Haliburton (66.4 cm) and Barrie (48 cm).
- Wiarton crushes previous April snow record (45.4 cm in 2003)
- Wiarton also sets new April single day snowfall record with 39.6 cm on April 14 (then got 33.4 more on the 15th)
- April 14 storm brings freezing rain and huge ice pellet accumulations to parts of southern Ontario (15 to 25 cm)
Spring 2018 Highlights

- May 4 – Windstorm sweeps southern Ontario. Gusts reported as high as 126 km/h (Hamilton). Two fatalities in Milton due to falling tree, One fatality in Hamilton due to downed power line. 300,000 lose power, shingles tore off, fences down

- May 11-13 Thunderstorms dump 58 mm in Windsor and 60 to 85 mm in parts of Chatham-Kent
Summer 2018 Temperatures

Temperature Anomaly: 201808
Anomalie de température: 201808

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ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC. Normal: 1981-2010
Summer 2018 Precipitation

Precipitation Anomaly (% of normal): 201808
Anomalie de précipitation (% de la normale): 201808

ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC. Normal: 2002-2016
Summer 2018 Highlights

• June 29-30...thunderstorms dump 50 mm of rain in Wawa and 79 mm in Chapleau
• Late June – early July heatwave ends with big storms...Orangeville receives 120 mm, London 70 mm
• July 23 -25...series of thunderstorms give 82 mm to Chatham-Kent, 98 mm to Huntsville, 90 mm to Ottawa
• July...big heat in the Northeast...warmest July ever in Kapuskasing...second warmest in Earlton and Timmins
• Aug 7 - lake breeze-enhanced, slow moving thunderstorm dumps 72 mm in 2 hours in downtown Toronto...over 1 in 100 year event...Pearson Airport reports 6 mm
Forest Fire Season Recap

• 700 forest fires on average each season in Ontario
• 704 fires in 2017
• There have been 1250 fires this season...fire fighters from other provinces, U.S., Mexico provided assistance
• A number of active fires in northwestern Ontario
• July 8-20 Temagami fire...air quality issues in Timmins, New Liskeard, Kirkland Lake and North Bay
• July 20-August 20 Parry Sound 33 fire near Britt causes evacuation orders in French River, Killamey and Henvey Inlet First Nation
• Air Quality Advisories for parts of the Northwest due to B.C. Fires
Early Notification Update
3 Day Significant Weather Email

- Sent daily by 6 AM
- Mentions notable weather across the province in the coming days
- Might reference confidence of event(s) occurring
- Intended as first “tap on the shoulder” of coming notable weather
Hazardous Weather Graphics

- Late spring to early fall – Day 1 and Day 2 Thunderstorm Potential...issued every day
- Late fall to early spring – Day 3, 4 and 5 Winter Hazardous Weather...issued as required
CRTC ruled that as of March 31, 2015 broadcast media must immediately send out alerts to the public related to threats that pose an imminent threat to life or property.

Broadcast media includes:
- Over the air/Cable/satellite TV companies
- Radio stations
- Video-on-Demand companies

In addition to Alerts that are related to weather (i.e. tornado, severe thunderstorm, flash flood), Alerts related to widespread fires, biological hazards, hazardous material spills/releases, etc... could also be sent out.
Wireless Public Alerting System (WPAS)

- As of April 6, WPAS is activated for latest generation of cell phones
- Geo-referenced alerts for life-threatening conditions
- Cell phone towers within alert area will send text message to all cell phones
- Cell phones entering alert area within 15 minutes of original alert will also be sent messages
- Tornado Warnings part of system
- Select Severe Thunderstorm Warnings could also be disseminated by this method in coming years
Twitter

- Twitter handle ECCCWeatherON
- Ontario Storm Prediction Centre staff and Warning Preparedness Meteorologists will tweet
- Currently in beta-test to determine tweet content, frequency and workload implications
- Pre-watch/warning information → additional info about existing statements etc..
- On quieter weather days...tweeting interesting weather facts etc...to maintain followers...
- Tweets potentially going live this Winter
Useful for Situations like Florence

Last Thursday forecast...

GEMGlobal
- Over 75 mm or rain north of Prince Edward County
Florence

GFS
- 3.8 inches or 90 mm around Brockville

ECMWF
- No rain
Changing of the Guard

- Gerald Cheng (gerald.cheng@canada.ca) takes over in Toronto
- Peter Kimbell (peter.kimbell@canada.ca) remains in Ottawa
Thank you!