Weather Monitoring in Peel

Ontario Good Road Association
Managing Winter Operations Workshop

October 19, 2017

Climate zones in Peel

- 4 Climate zones within Peel Region
- Average Snowfall 110 cm
  Toronto International Airport 1970–2016
Weather Monitoring Tools

- RWIS - Real time data (road sensors & temperatures) and Cameras
- Daily forecasts
- Phone meteorologist 24/7/365 access
- Long range forecasts
- MTO RWIS data (Web portal)
- Road Patrol Observations
- Radio / TV reports

RWIS Monitoring

5 RWIS stations

- North (2014)
- Central (2014)
- South (2014)
- East (2015)
- Queensway South (2017)
Forecasts

- 4 times in winter months
- 2 times in summer

Weather is not only monitored in the winter; with more summer rain and wind storms, the forecast help staff prepare for anything that is coming.

Contract

- Share RWIS data with other RWIS owners and obtain data in return
- Sharing of data with other agencies at our discretion
- Pricing in contract for Area Municipalities to utilize, if they were to add infrastructure to their own roadways
Partnerships

- MTO – RWIS Sharing Agreement
- Area Municipalities (Brampton/Mississauga/Caledon)
- Peel’s Road Operation and Maintenance yards
- Credit Valley Conservation Authority
- York Region

Benefits of sharing RWIS Data

- MTO
  - Quick reference on Web portal of MTO RWIS data in and around Peel
  - Visually see weather moving towards and within the Region
- Area municipalities
  - Towers already in place
  - Same weather forecast
- Beyond the boundaries
  - Broader picture of the weather systems
  - Expand on information for operational decisions
- Forecaster of having access to more RWIS systems are:
  - More data points on the ground both for forecast input and forecast validation
  - Better coverage of the different microclimates in the region
  - Increase in the density of the overall RWIS network
**Possible Risk of Sharing**

Risk is lower between municipalities but always best to have something that clearly delineates risk, in case something should arise …even in the rarest of circumstances

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**Public Web Portal**

The Region of Peel has a Public weather page, developed by AMEC Foster Wheeler

Users include:

- All modes of transportation
- Farming Community
- Local Airport
- Contractors

- https://weather.amec.com/awx2/peel
Public Weather Website

Future Vision

- RWIS equipment installed without the tower
- Non invasive RWIS equipment
- RWIS equipment on bridges with digital messaging
- MARWIS on vehicles
- Winter Maintenance Decision Support System (MDSS)
Thank you

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