



Water Resources
Management
Division

Department of
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Conservation

Mobile Environmental Monitoring Platform



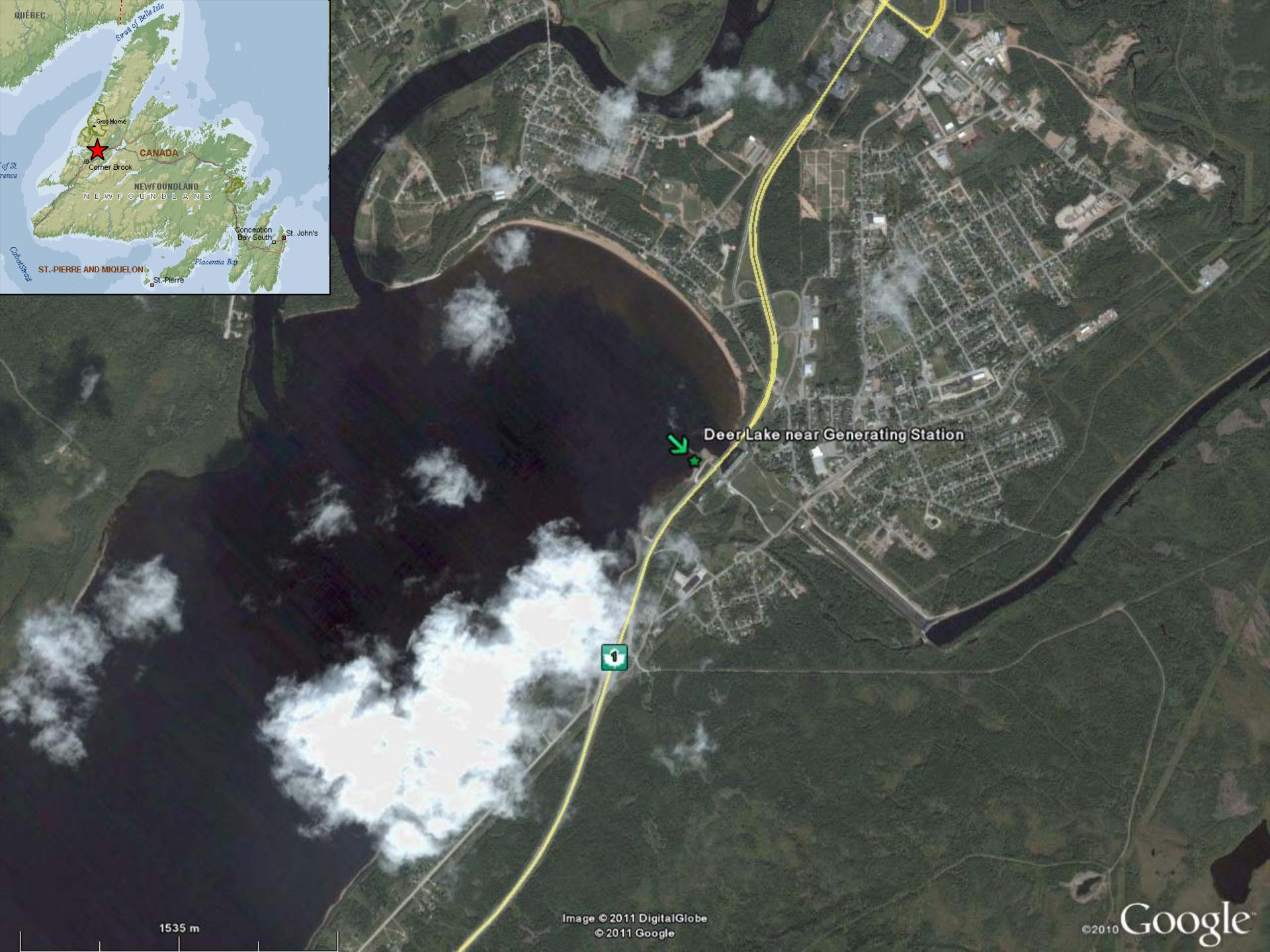
*On the road to
environmental monitoring*



Proactive Monitoring

- Baseline and Long-Term
 - (Semi-) Permanent stations
 - Environmental regulation







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Proactive Monitoring

- Meteorological Service of Canada
 - Weather and Climate



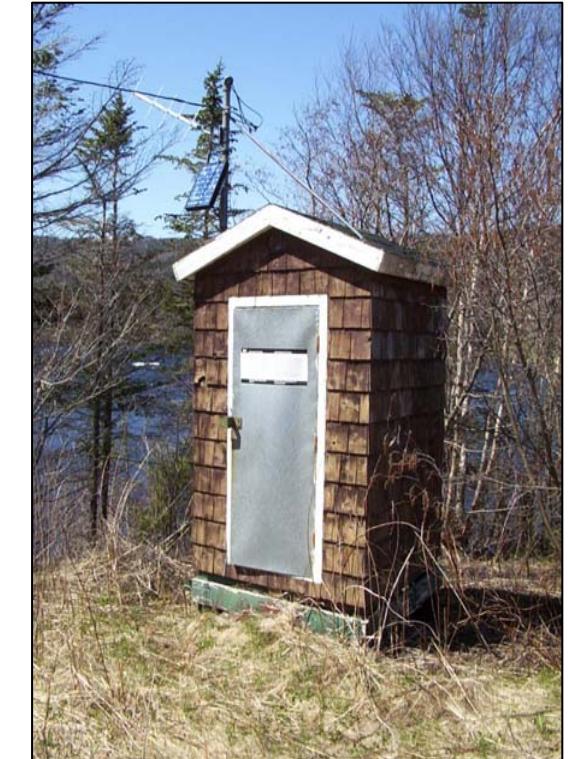


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Proactive Monitoring

- Water Survey of Canada
 - Hydrology





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Proactive Monitoring

- Government of Newfoundland-owned Water Quality Stations
 - Minipi River, Leary's Brook, Waterford River

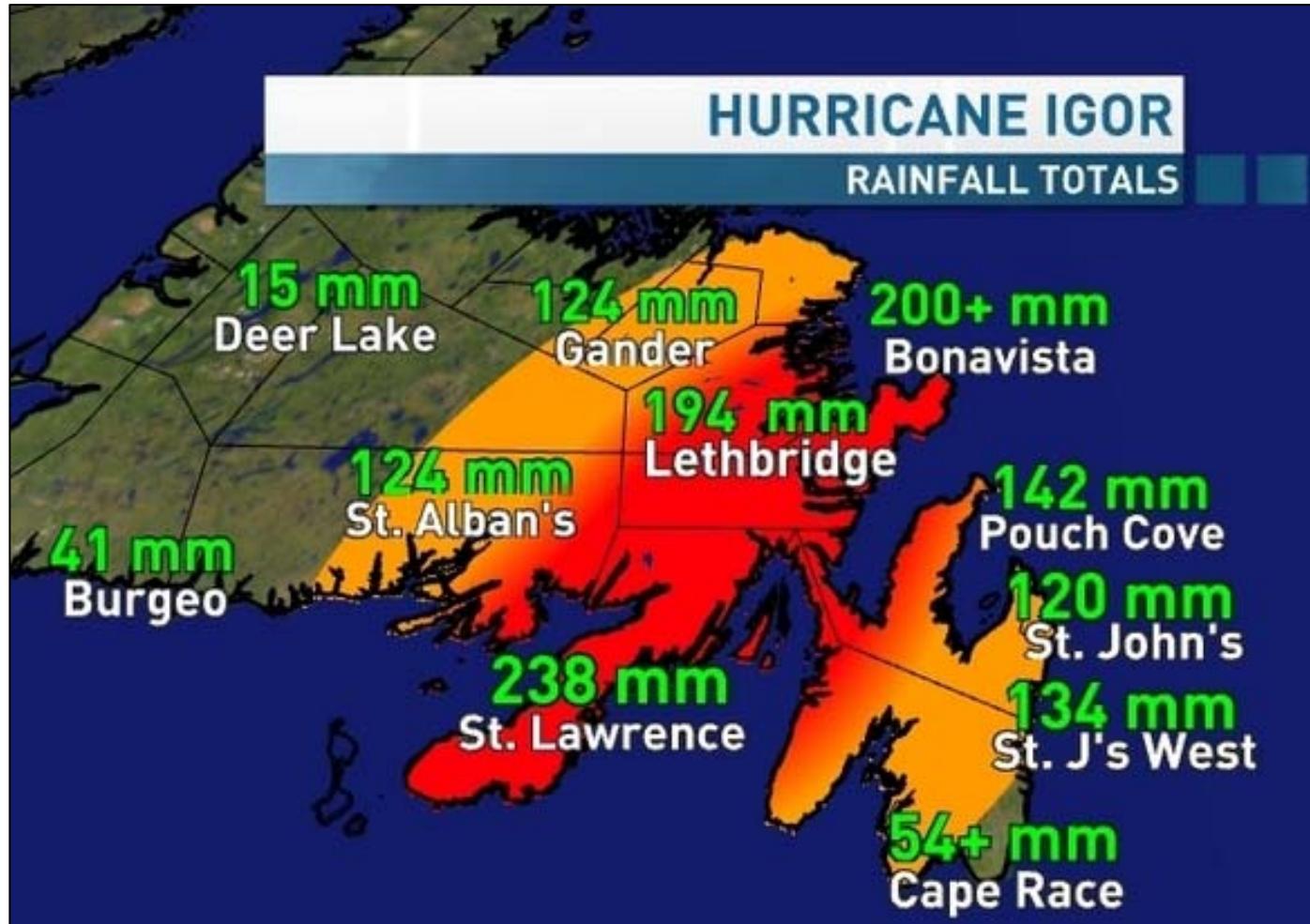




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Unforeseen Events





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Unforeseen Events





Unforeseen Events



*“On the morning of February 15, in less than an hour,
the water level rose 2.3 metres.”*

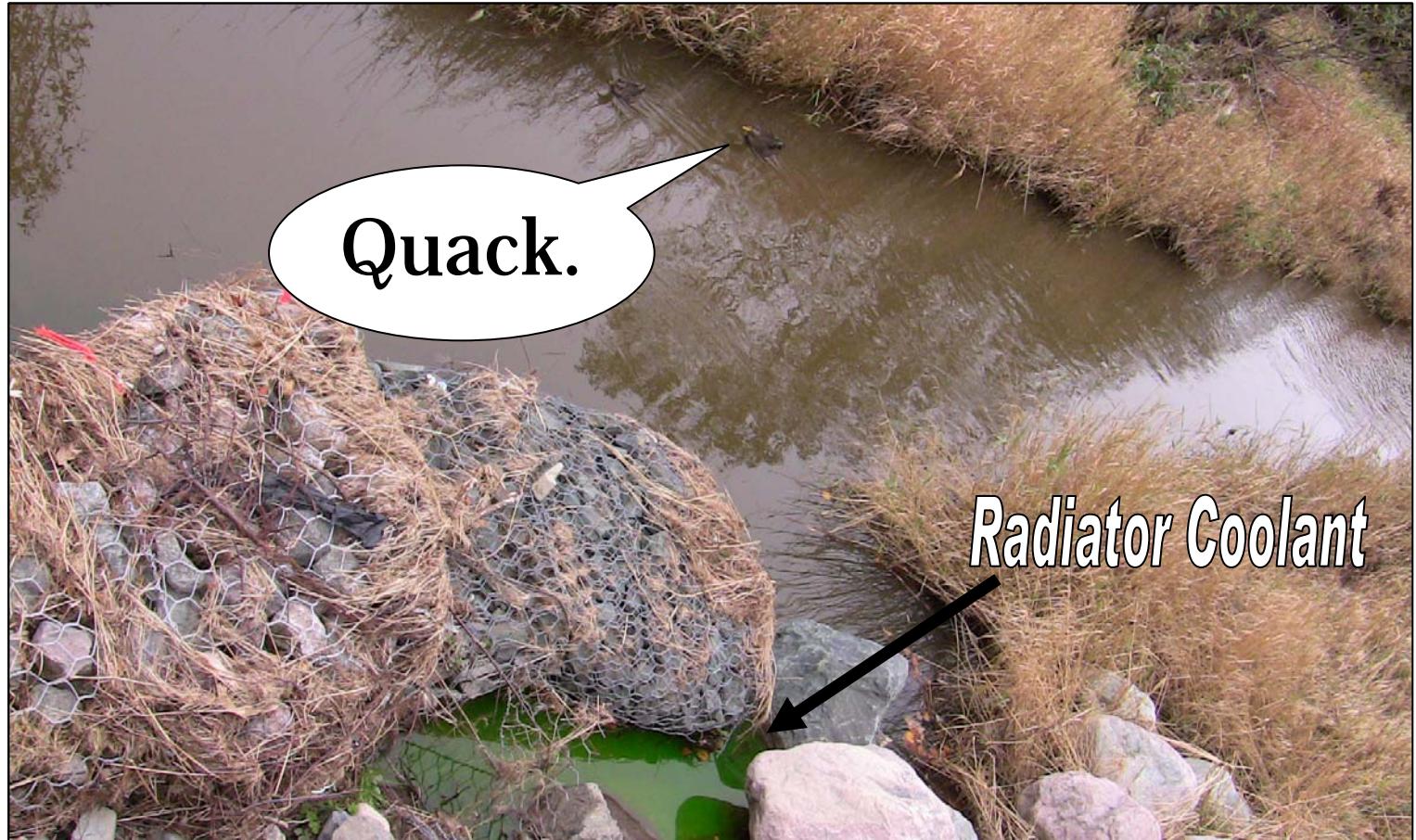
Badger Flood 2003 Situation Report, Dep. Env & Cons



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Unforeseen Events



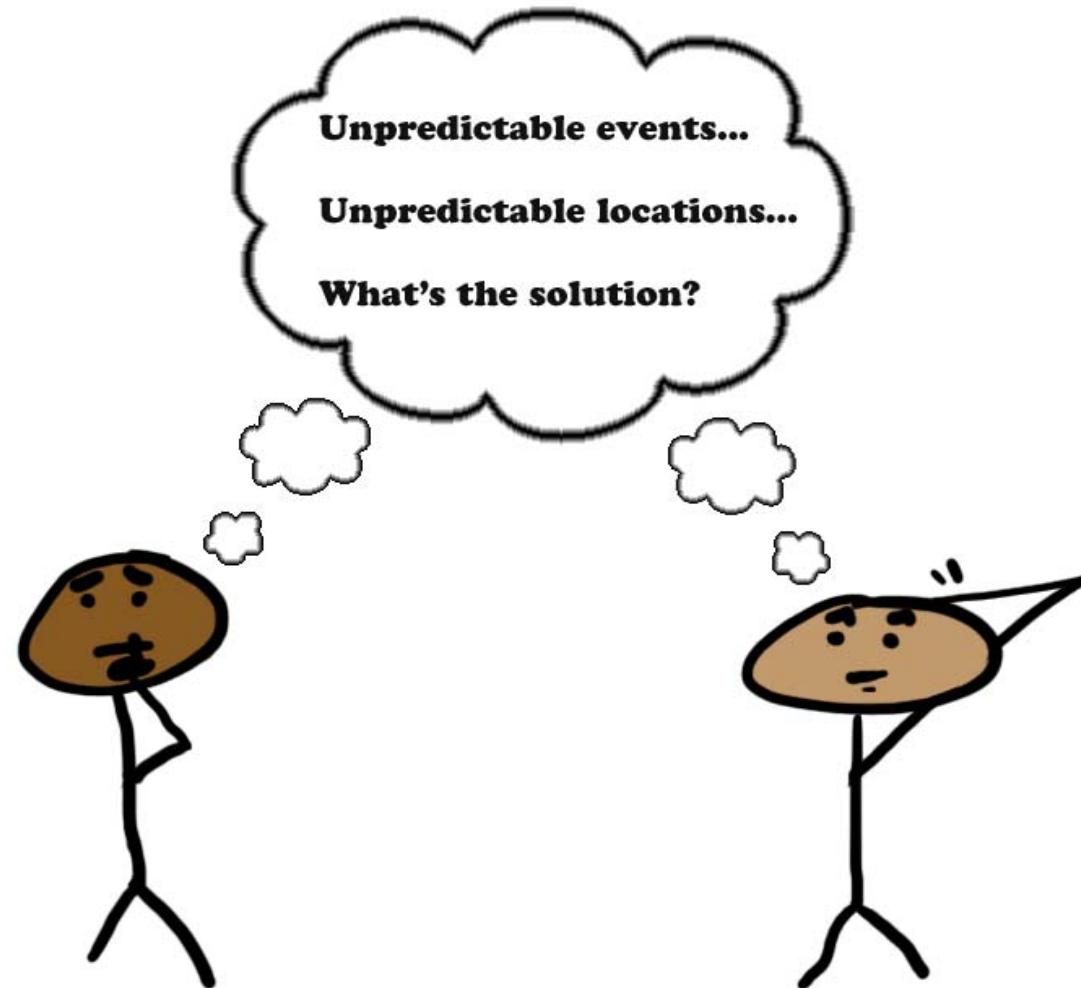
Photos: The Telegram



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Necessity the Mother of Innovation





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The solution?

- Put wheels on a standard water monitoring station
 - add a few bells and whistles...





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MEMP

- Mobile Environmental Monitoring Platform (MEMP)
 - Built for *rapid response*



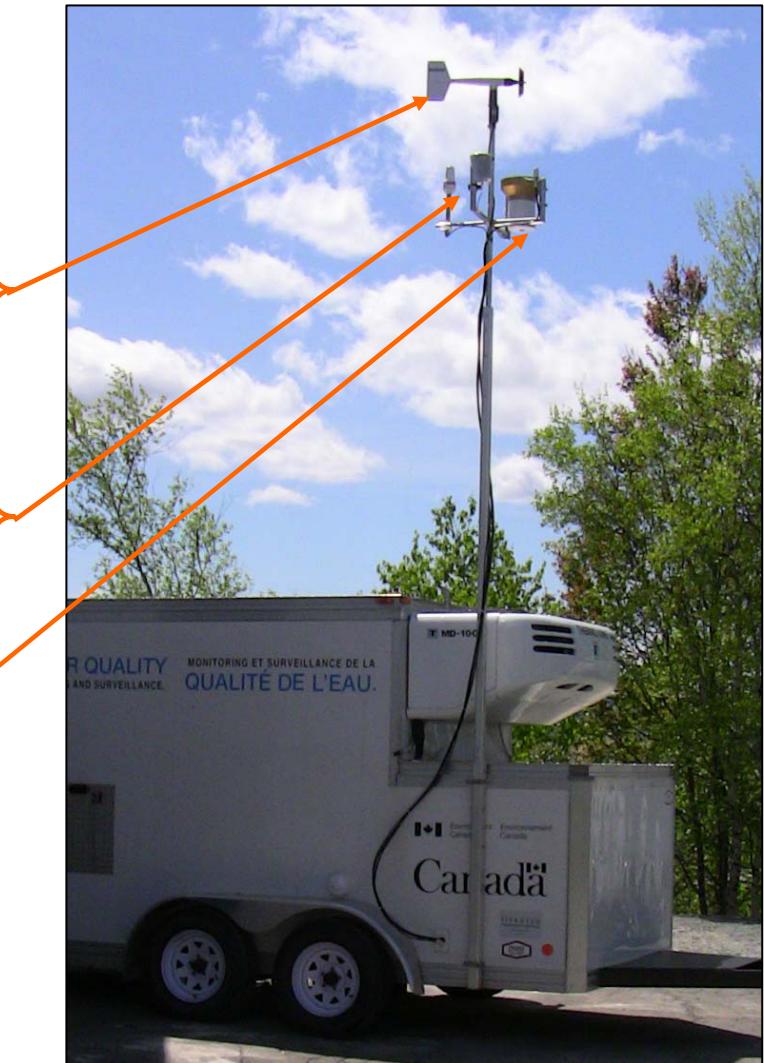


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MEMP: Capabilities

- Weather:
 - Wind Speed
 - Wind Direction
 - Temperature
 - Humidity
 - Precipitation



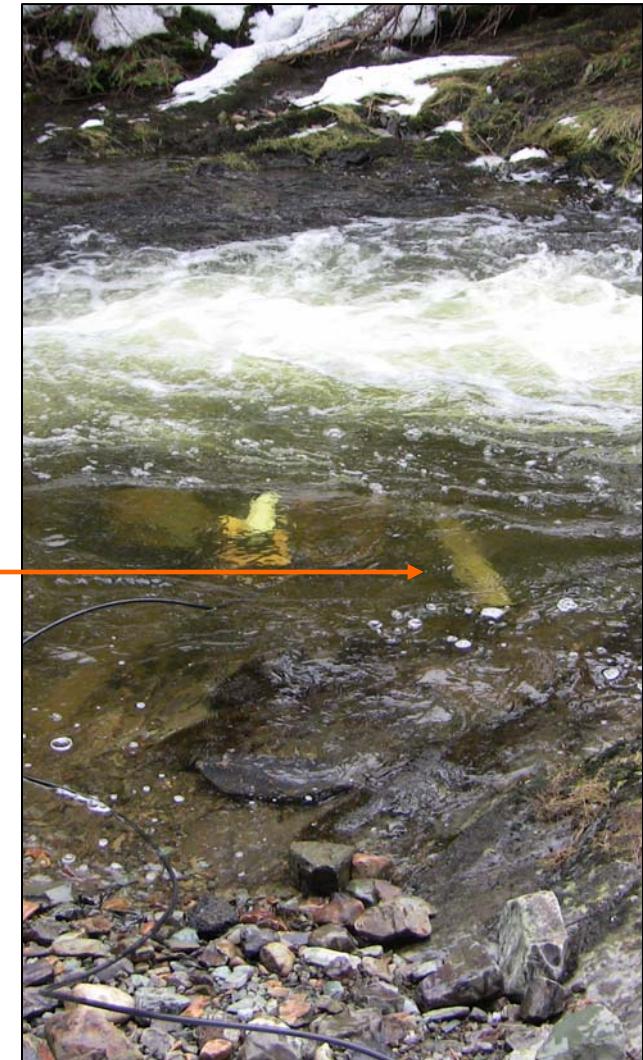
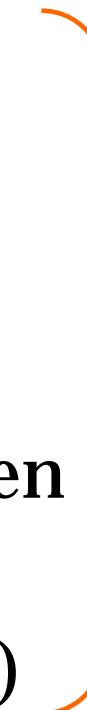


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MEMP: Capabilities

- Water Quality:
 - Temperature
 - pH
 - Conductivity
 - TDS
 - Dissolved Oxygen (% & mg/l)
 - Turbidity (NTU)





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MEMP: Capabilities

- Hydrology
 - Stage level
 - Flow (with help from our friends at WSC!)





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MEMP: Capabilities

- Autosamplers:
 - Triggered by a specified environmental variable
 - Analyze a sample for pesticide runoff (precip)
 - Analyze for acid/alkaline chemicals (pH)





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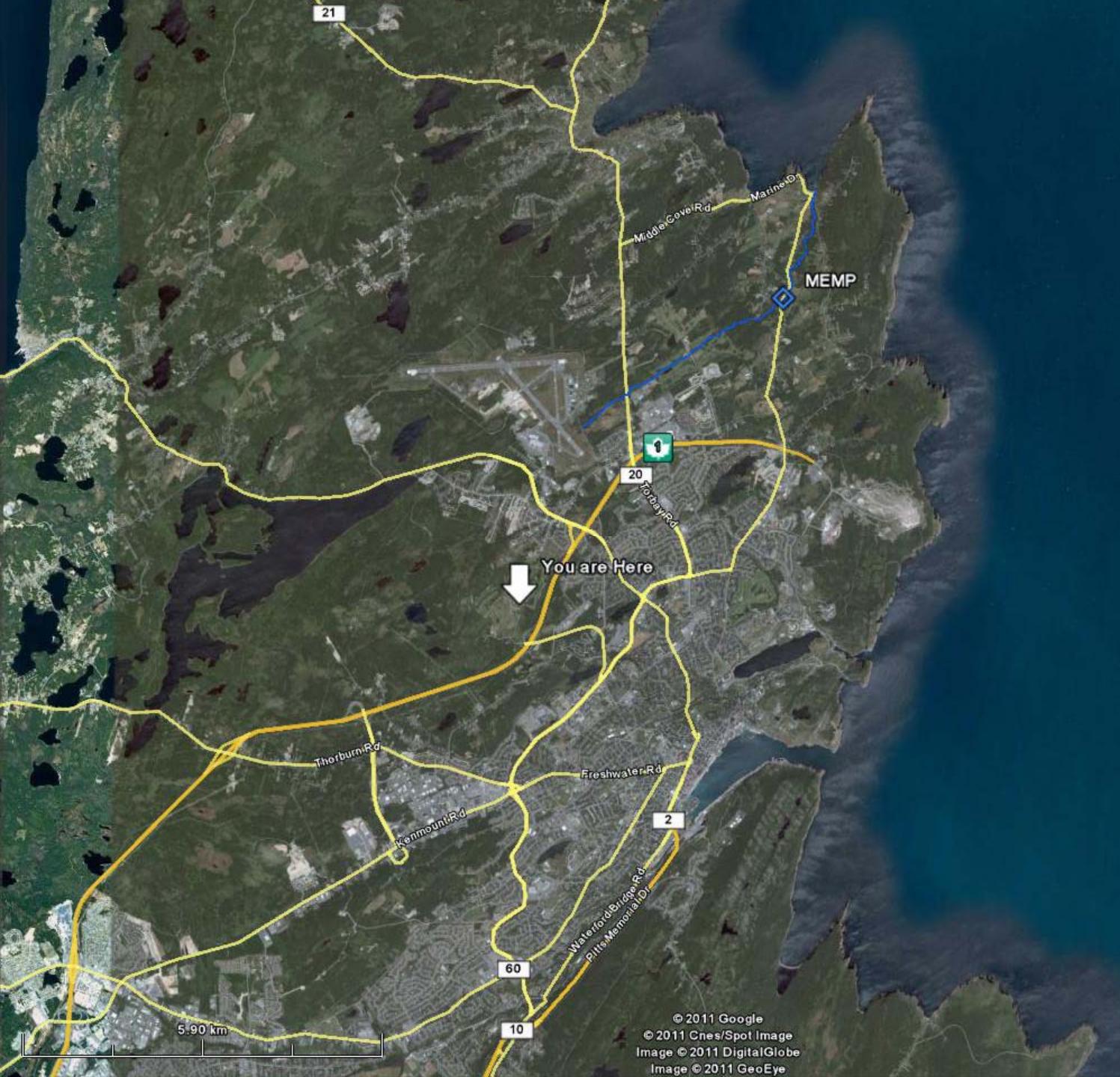
MEMP: Capabilities





Current Status

- Deployed in the town of Logy Bay – Middle Cove – Outer Cove
 - Monitoring water levels
 - Alleged impact of water levels due to Torbay Road North commercial development.





Special Thanks:

- Joe Pomeroy and staff
 - Water Quality Monitoring and Surveillance
- Howie Wills and staff
 - Water Survey of Canada