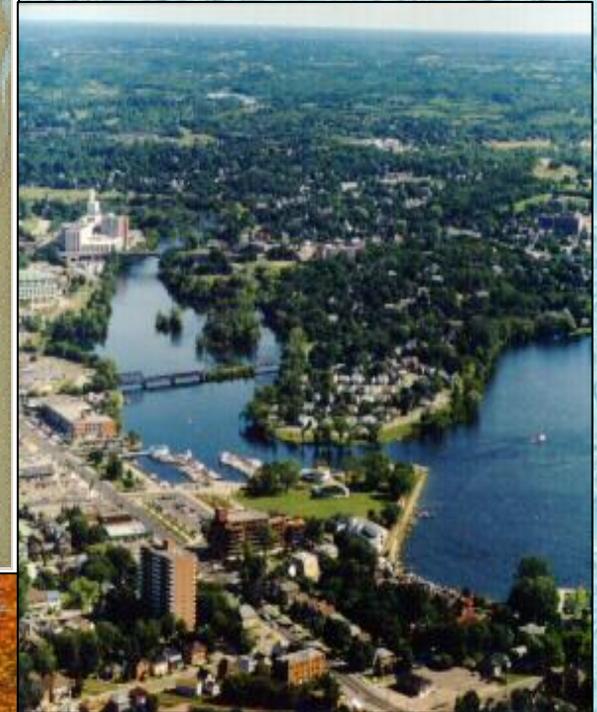
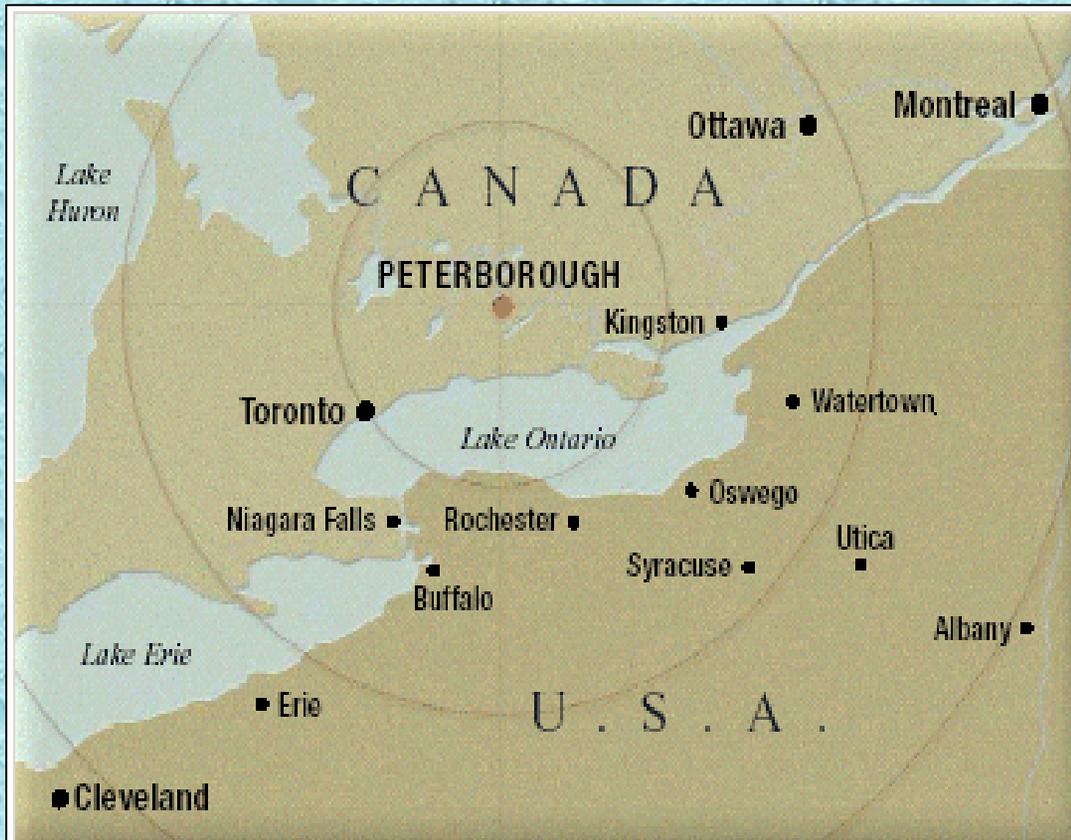


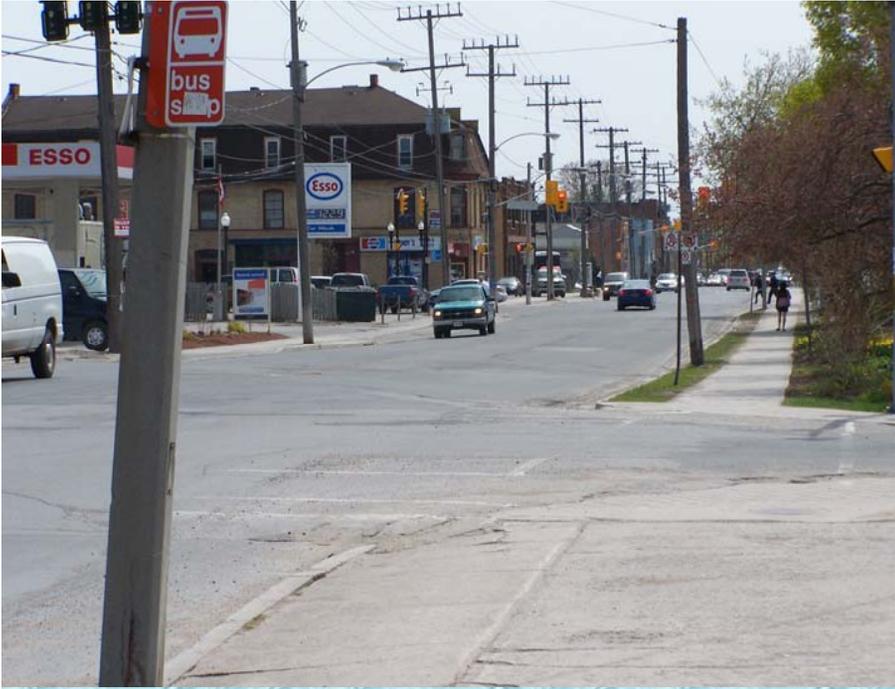
# **THE PETERBOROUGH FLOOD – FROM THE INSIDE**

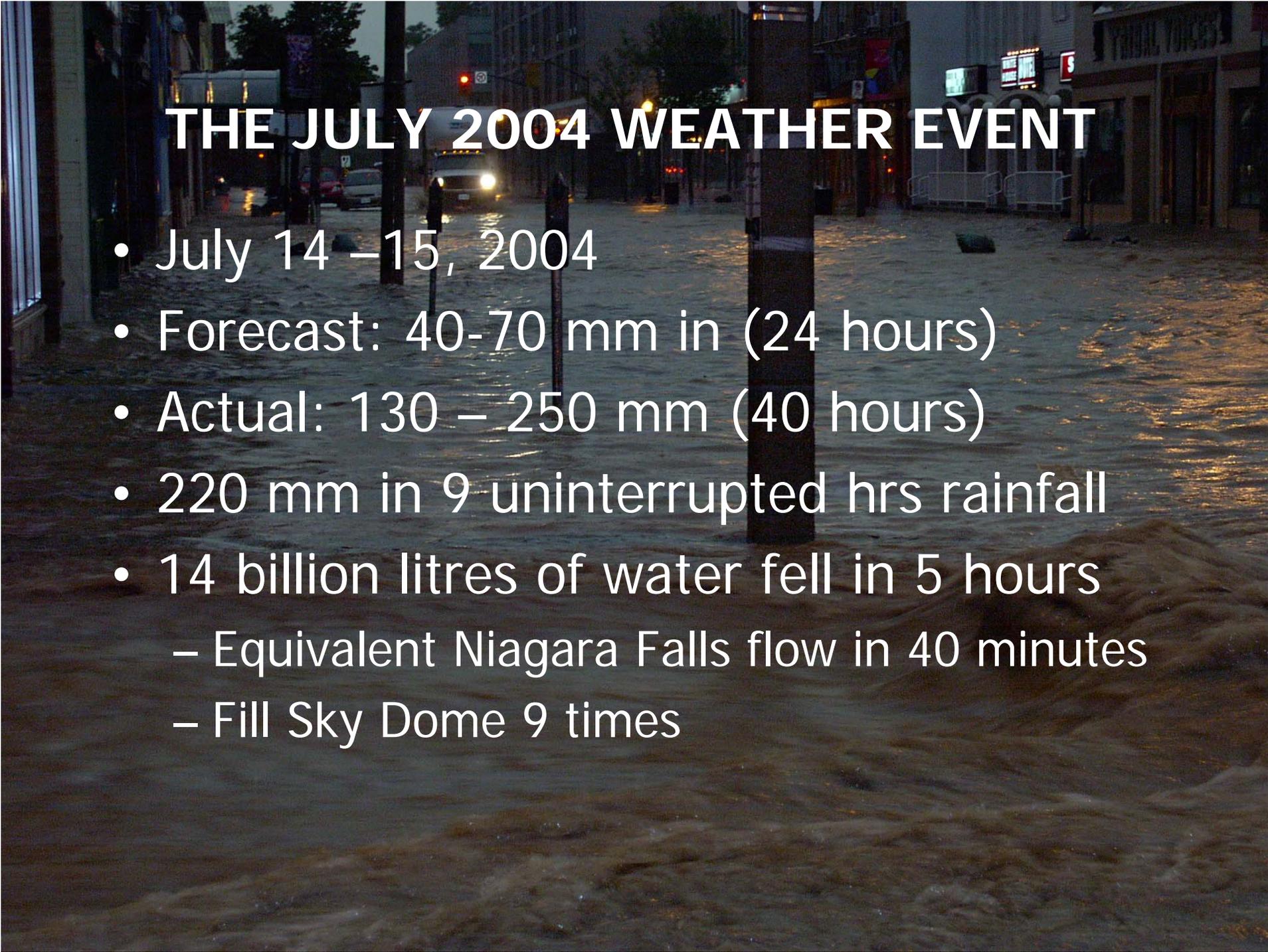
David Burritt, P.Eng.  
Otonabee Region Conservation Authority  
May 2008

# AGENDA

- The City
- The Flood Event
- The Impacts
- Observations on:
  - Communications
  - Emergency Preparedness
  - Forecasting and Analysis
- Recap



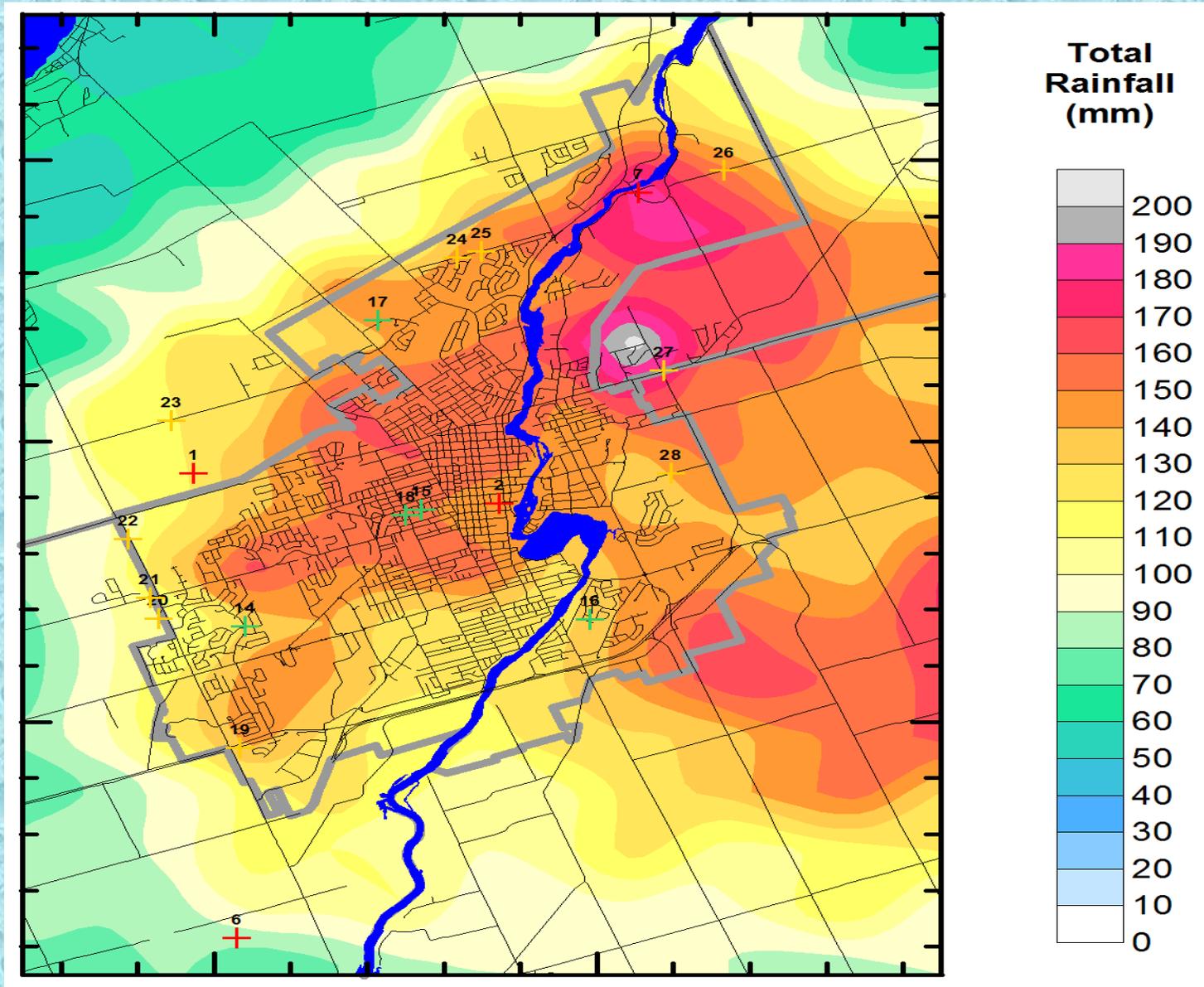




## THE JULY 2004 WEATHER EVENT

- July 14 –15, 2004
- Forecast: 40-70 mm in (24 hours)
- Actual: 130 – 250 mm (40 hours)
- 220 mm in 9 uninterrupted hrs rainfall
- 14 billion litres of water fell in 5 hours
  - Equivalent Niagara Falls flow in 40 minutes
  - Fill Sky Dome 9 times

# TOTAL RAINFALL – CITY SCALE





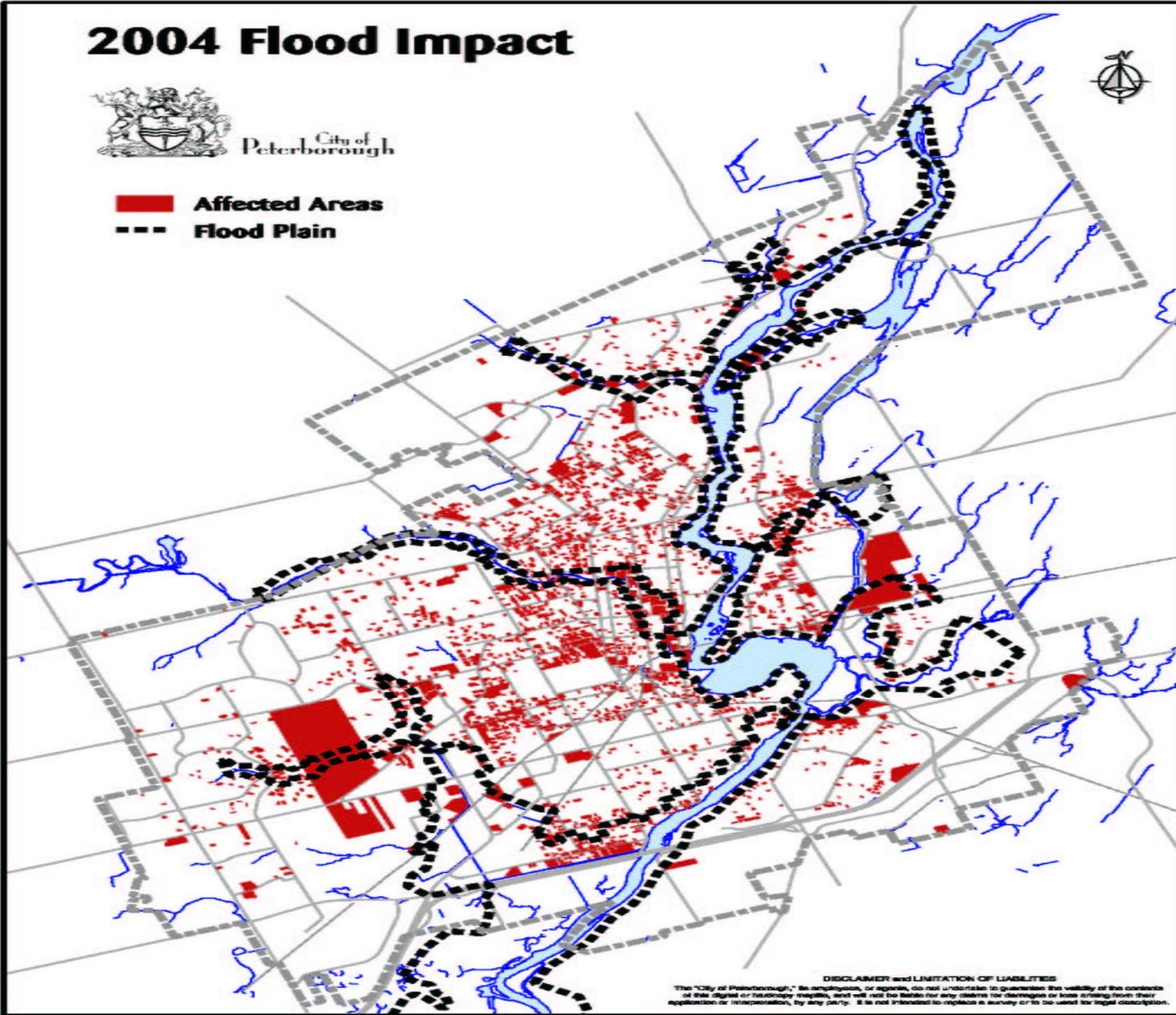
**IMPACTS**

# 2004 Flood Impact



City of  
Peterborough

- Affected Areas
- Flood Plain



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The "City of Peterborough," its employees, or agents, do not undertake to guarantee the validity of the contents of this digital or electronic map, and will not be liable for any claims for damages or loss arising from their application or interpretation, by any party. It is not intended to replace a survey or to be used for legal description.





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**ENTIRE**  
These Premises Are  
Protected By  
Video Surveillance































## **OBSERVATIONS:**

- Communications**
- Emergency Preparedness**
- Forecasting and Analysis**



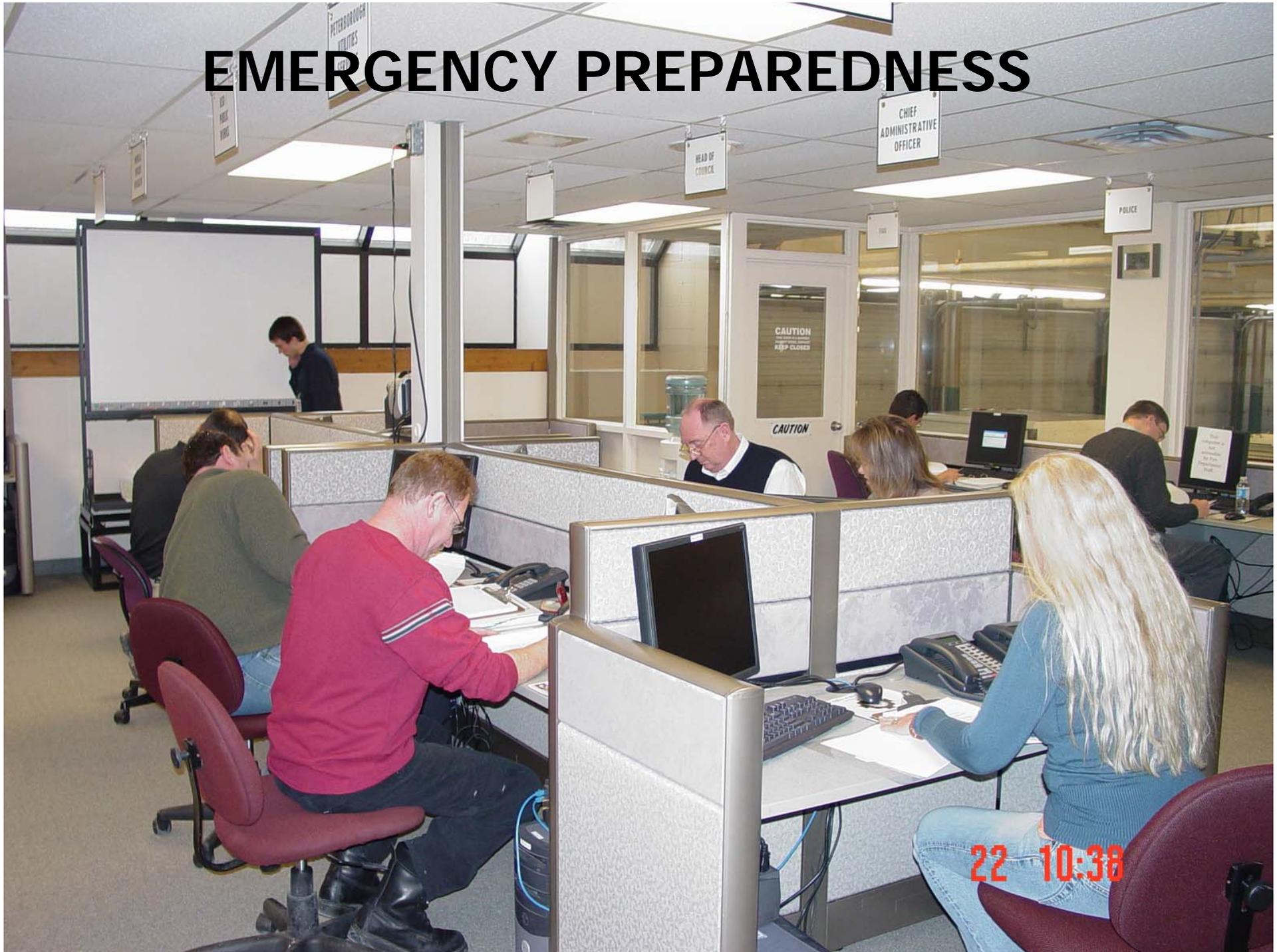
# COMMUNICATIONS

27 10:05

# COMMUNICATIONS SUMMARY

- Must be clear, accurate and fast
- Provide efficient operating space
- Train staff before events
- Benefits:
  - efficient operations
  - less unnecessary stress on staff
  - business continuity

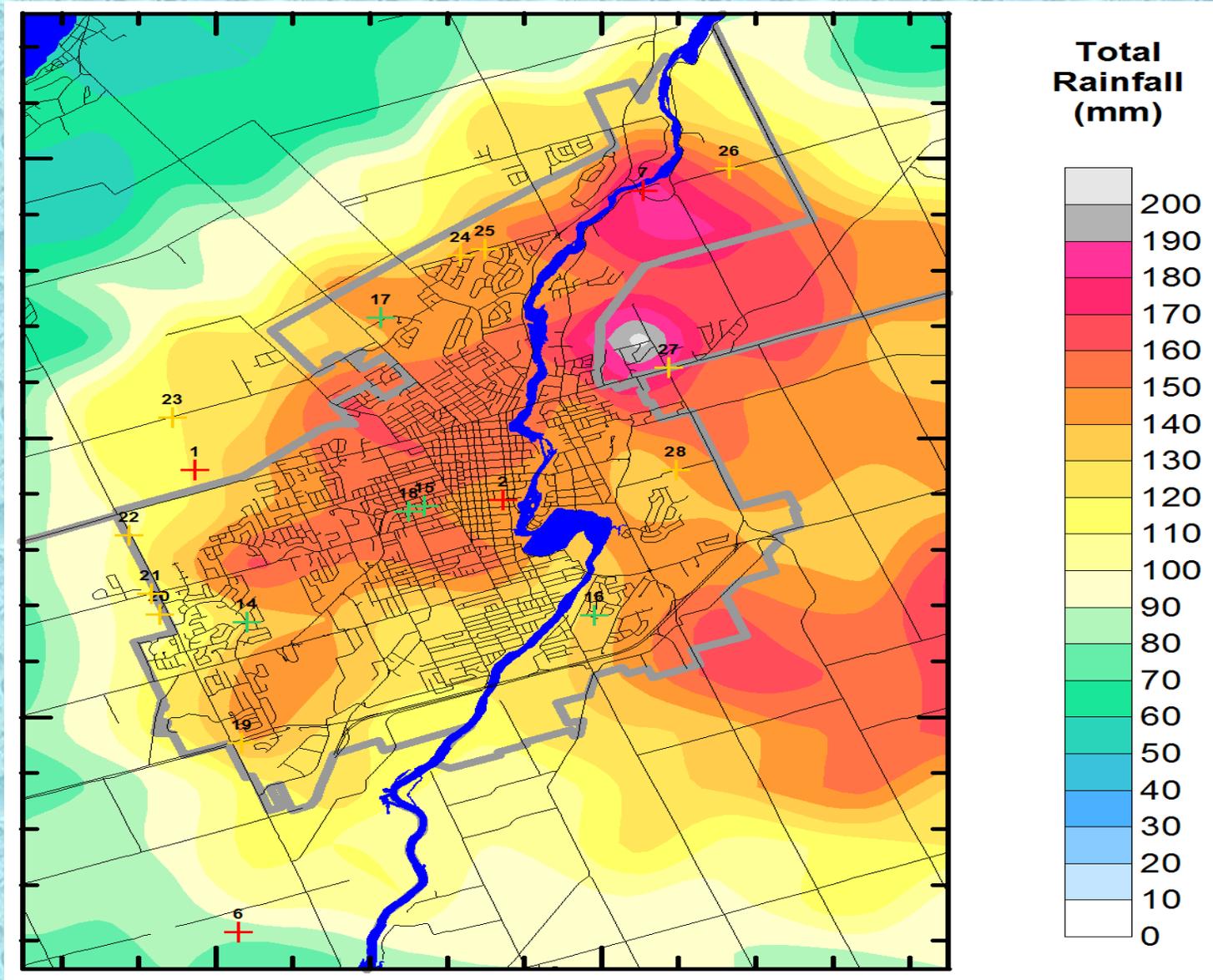
# EMERGENCY PREPAREDNESS



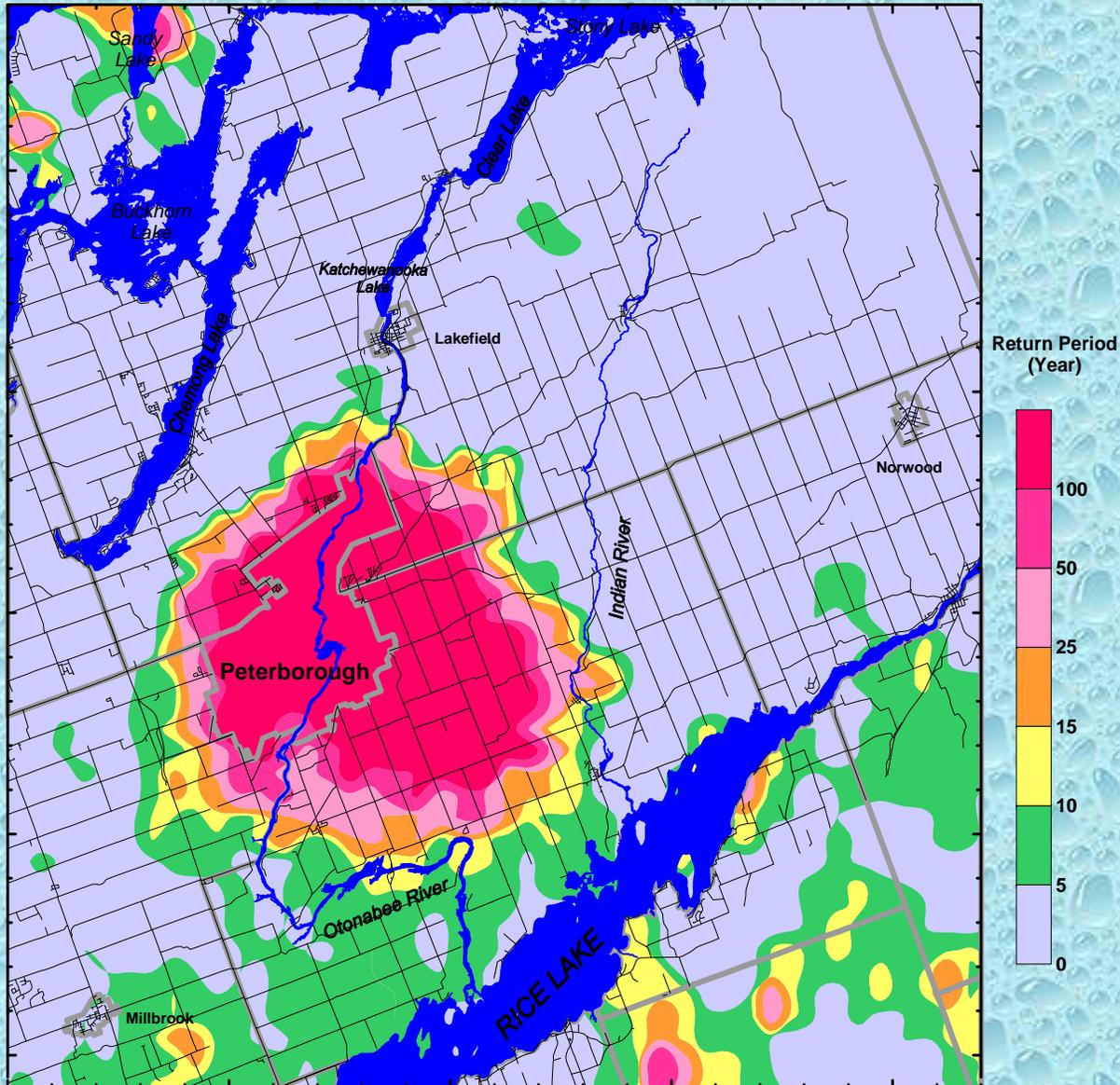
# EMERGENCY PREPAREDNESS SUMMARY

- Provide efficient operating space
- Develop emergency plans
- Train staff before events
- Benefits:
  - efficient operations
  - less unnecessary stress on staff
  - Improved public confidence
  - Increased potential for funding

# FORECASTING AND ANALYSIS



# RAINFALL EVENT RETURN PERIODS



# FORECASTING & ANALYSIS SUMMARY

- Rainfall volumes from severe storms can't be reliably forecasted
- Rely on predictive techniques
- Need Monitoring networks –rain and water levels
- Benefits:
  - More reliable forecasts and process for uncertainty
  - Monitor actual field conditions; advance warning of potential exceedances
  - Define vulnerability in urban areas –develop plans

# RECAP

- Up to 70mm forecasted but 250mm received
- Communications – invest in physical space and training
- Emergency Preparedness – invest in physical space, training and good plans
- Forecasting and Analysis – need predictive techniques and monitoring networks

Questions??



# JACKSON CREEK RIVER LEVELS - July 14-16

