

# Resiliency Planning Charrette

## *Charrette de planification de la résilience*



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# Final Program

## Resiliency Planning Charrette



### Agenda



**Date:** October 1, 2014  
**Time:** 8:30 a.m. - 4:30 p.m.  
**Location:**  
 Killarney Lake Lodge  
 Rotary Room

8:30 - 9:00		Registered Delegate Kit Distribution / Coffee & Muffins
9:00 am - 9:20 am		<b>Opening Ceremonies</b> <b>Welcome Address:</b> Eddie Oldfield – Purpose of Charrette, Overview of Program, Actionable Outcomes - 5 minutes <b>Speaker:</b> Amanda Dean, IBC-Atlantic: Impact of Disasters, Context for Disaster Mitigation / Resiliency Planning - 15 m.
9:20 am - 10:30 am		<b>Speaker Panel</b> <b>Speaker:</b> Kathy Edwards, City of Fredericton: Climate Adaptation and Resiliency efforts, MRAT project (20 minutes) <b>Speaker:</b> Jon Connor, FCM/Federation of Canadian Municipalities : Initiatives in Adaptation and Resiliency (20 minutes) <b>Speaker:</b> Jeff Hoyt, N.B. Department of Environment and Local Government: An overview of Climate Change Adaptation in New Brunswick (20 minutes) <b>Moderated Q/A</b> (10 minutes)
10:30 am		<b>Networking Break—refreshments provided</b> <b>Activity:</b> Delegates asked to <b>write/add</b> local issues, efforts, on 'Resiliency Wall' and visit displays.
10:45 am - 12:00 pm	Displays Open	<b>Moving Forward on Resiliency and Climate Adaptation - From Plan to Execution</b> <b>Table Top Discussion:</b> 1. Application/Usability of resources presented; Situation—issues, current/future state (20 minutes) 2. Mission: Resiliency Planning at local and regional levels—what is working / what is needed (20 minutes) 3. Strengthening Resiliency and Climate Adaptation among New Brunswick communities (20 minutes) <b>Share Table Highlights</b> in Plenary, Add individual items to Resiliency Wall and Map (15 minutes)
12:00 pm		<b>Lunch Break</b> <b>Activity:</b> Delegates asked to <b>add/read:</b> local issues, strategies on 'Resiliency Wall/Map', visit displays.
1:00 pm - 1:50 pm		<b>Speaker Panel</b> <b>Speakers:</b> Ron Bowles and Dawn Ursuliak, IIBC : Rural Disaster Resiliency Assessment Process/Tools (20 minutes) <b>Speaker:</b> Eddie Oldfield, Resilient Communities Working Group, National Platform : 10 Essentials for Disaster Risk Reduction (20 minutes) <b>Moderated Q/A</b> (10 minutes)
1:50 pm		<b>Networking Break—refreshments provided</b> <b>Activity:</b> Delegates asked to <b>add/read/sort</b> items on 'Resiliency Wall' and 'Map', and to visit displays.
2:00 pm - 3:15 pm		<b>Walking Through the Assessment Process—Table Top Discussion and Exercise:</b> 1. Application/Usability of RDRP Assessment Process/Report, Implementation (20 minutes) 2. Working through some of the 10 Essentials (Q/As) in groups (20 minutes) 3. Self-Assessment exercise using 10 Essentials and Dashboard (20 minutes) <b>Share Table Highlights</b> in Plenary, Add individual items to Resiliency Wall and Dashboard (15 minutes)
3:15 pm		<b>Networking Break—refreshments provided</b> <b>Activity:</b> Delegates asked to complete dashboard, <b>add/sort</b> items on 'Resiliency Wall' and see displays.
3:30 pm - 4:30 pm		<b>Moving Forward - A report on resiliency planning for NB Municipalities and RSCs:</b> <b>Recap:</b> Situation, Mission, Execution: tools, processes, strategies, outcomes – Eddie Oldfield (10 minutes) <b>Exercise:</b> Organization of items on Resiliency Wall into categories – Group or Pairs (20 minutes) <b>Plenary:</b> Discuss Category Highlights, Next Steps, Future Directions, Gaps and Opportunities – (20 minutes) <b>Evaluation &amp; Close</b> (10 minutes)
4:30 pm		Close



FEDERATION OF CANADIAN MUNICIPALITIES  
 FÉDÉRATION CANADIENNE DES MUNICIPALITÉS

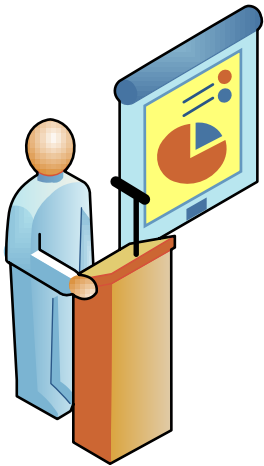
Fredericton



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# *Speaker Panels / Table Top Discussion*

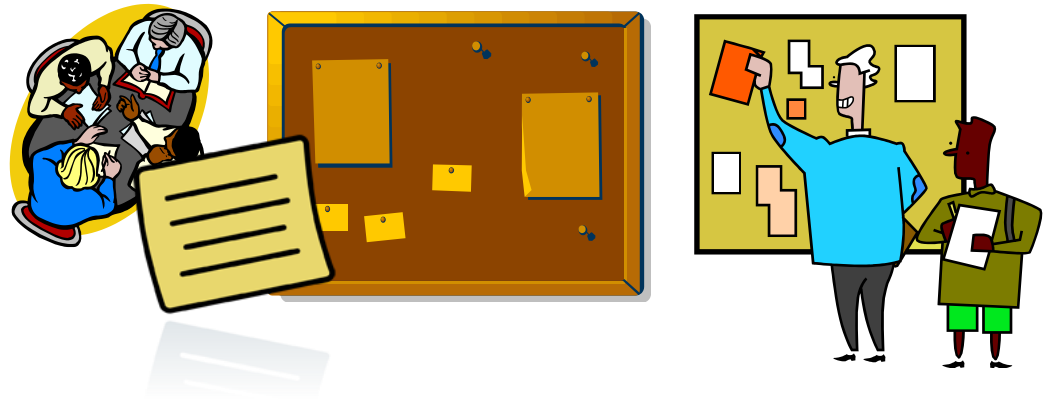


# Resiliency Wall / Activities

## Map – Issues, Gaps, Strengths



## Post-Its / Session Highlights



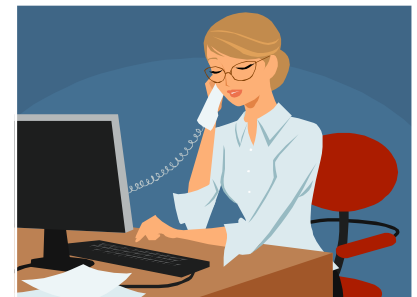
## Dashboard – 10 Essentials

1 2 3 4 5 6 7 8 9 10

City 1  
City 2  
Town 1  
Village



## Follow up Survey / Report



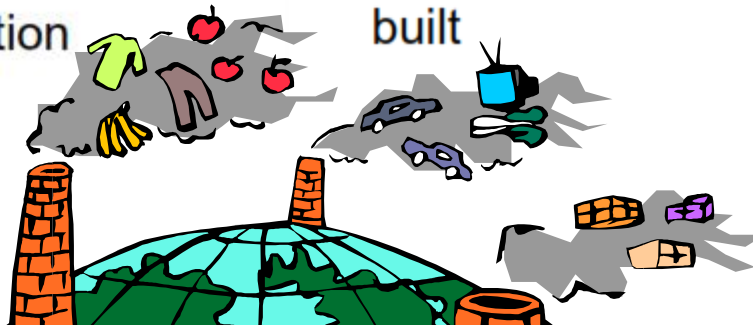


## Increased threats

- Natural threats
  - Extreme weather – climate change  
e.g. floods, severe storms, hurricanes, wildfires
  - Infectious disease – new strains exacerbated by climate factors
- Peak oil supply and escalating energy costs
- Infrastructure failure
- Human caused threats
  - Accidental – spills,
  - Nature +human interaction

## Increased vulnerability

- Increased pressure on the environment
- More fragile environment due to unsustainable land use
- Increased demand on infrastructure (water, electricity etc.)
- Aging, deteriorating infrastructure
- Interdependent infrastructure
- Insufficient new infrastructure being built



## Increased impact

- Urbanization and urban sprawl
- Increased asset density (and value) under threat
- Increased infrastructure interdependencies: especially telecommunications, energy, transportation
- Increased impact on human health through disease, heat-wave and air quality related illness and mortality



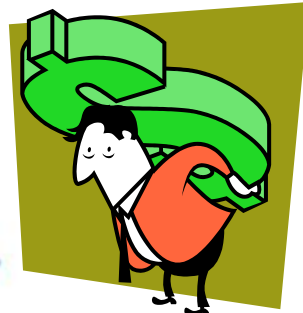
2013, the year of the costliest natural disaster in Canadian history, was also a record year in Canada for weather-related insured losses. The Insurance Bureau of Canada reported its members saw a record total of **\$3.2 billion in severe weather-related insured losses in 2013** — after four years in a row in which natural disaster-related losses topped \$1 billion.

*“Canadian communities are seeing more severe weather, especially more intense rainfall. This overburdens our sewer and stormwater infrastructure, resulting in more sewer backups in homes and businesses,” Don Forgeron, IBC*



## Increased cost of disaster recovery

- Increasing and recurring disasters - economic costs of community disasters are doubling every 10 years
- Insurance costs are doubling every five to seven years, FCM Report, 2006
- In many cases, insurance is hard to get.
- The cost of government assistance recovery programs is escalating.
  - In Canada between 1970 and 1995, federal payments totalled \$210 million. From 1997 to 2004, the cost mushroomed to \$1.4 billion to help provinces and territories offset the costs of response and of returning infrastructure and personal property to pre-disaster condition.





## Context



Increased threat  
+  
Increased vulnerability  
+  
Increased impact

### ***Hurricane Sandy***

October 2012

Largest Atlantic Hurricane on record. Second costliest hurricane in American history  
**~ \$50 billion in damages**

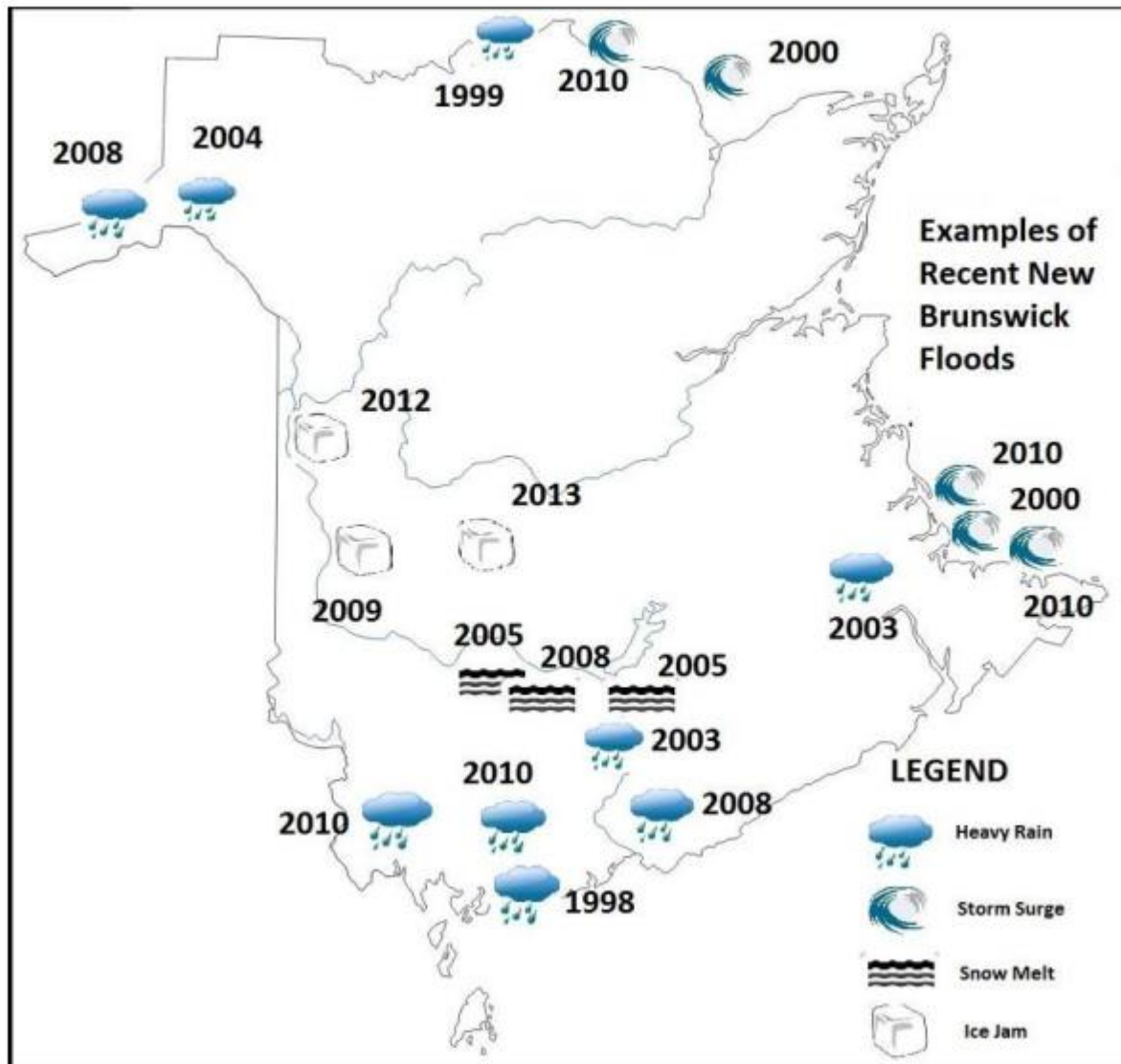


Fatalities, injuries, evacuations, property damage, loss of business, societal disruption, increased CO\$ of recovery

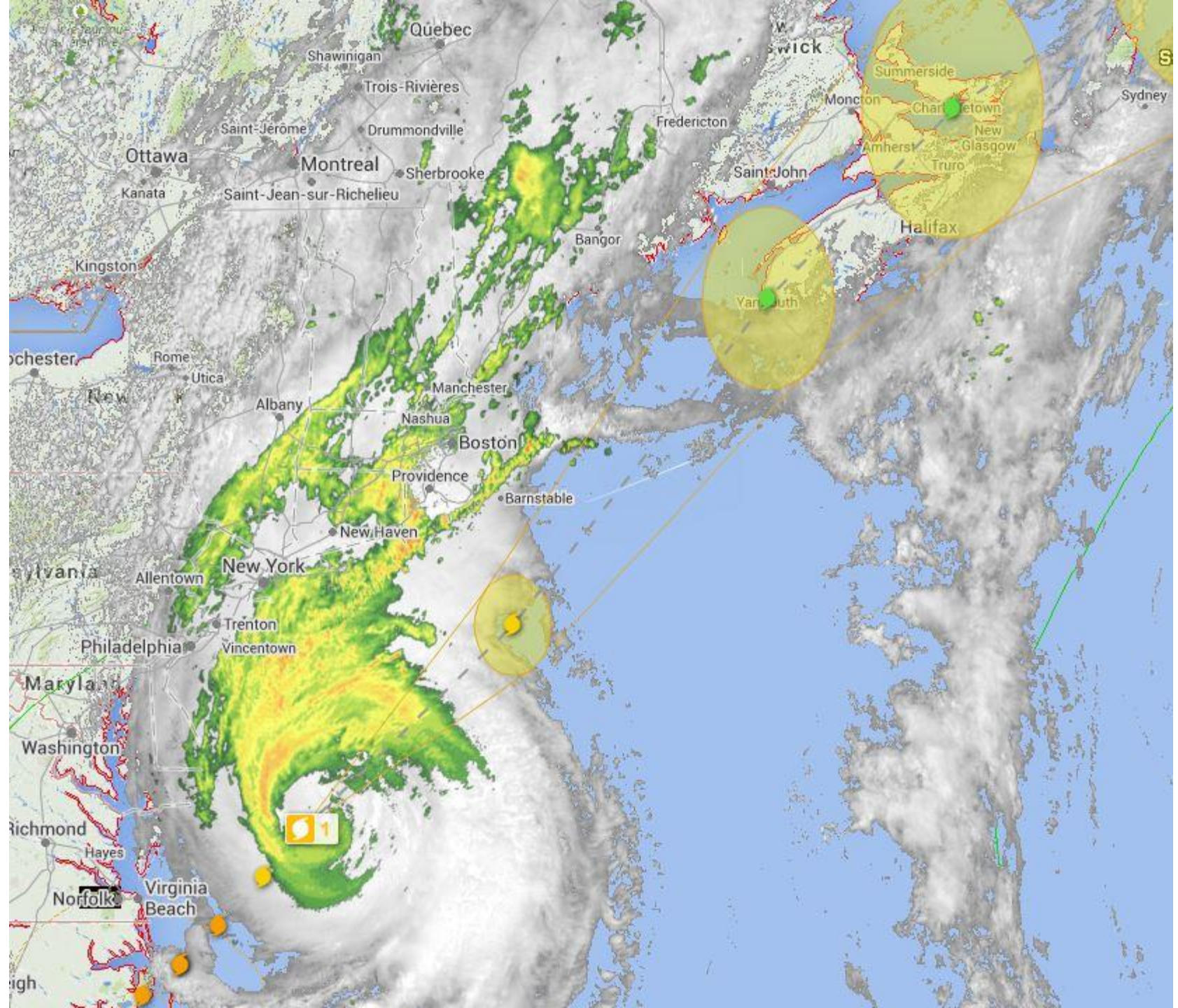


***Cumulative Risk and Cascading Impacts***

# Context: Overview of New Brunswick Floods











# **Spatial Quest Solutions**

Fredericton, NB

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