



## Resiliency Workshop, February 15, 2017

in St. George, NB



Prepared for AMANB by: Eddie Oldfield, Spatial Quest



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# Summary of Resiliency Workshop, February 15, 2017

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## Presentations

- **Eddie Oldfield** – Overview of Sendai framework; Results of AMANB projects 2014-2016; overview of FCM Green Municipal Fund

At the start of the workshop, Eddie gave an overview of the Sendai Framework for Disaster Risk Reduction (see <http://www.unisdr.org/we/coordinate/sendai-framework>), tied results of AMANB's resiliency work to the Sendai priorities and noted that our resiliency efforts align well. Eddie went through the Rural Disaster Resiliency Portal and the UN ISDR 10 Essentials for Disaster Risk Reduction - and gave a brief overview of where NB municipalities are for each Essential. He also shared what Sendai priorities these results refer to. Results of the 10 Essentials exercise conducted in 2014 demonstrated common areas for improvement among municipalities. It was noted that it would be good to periodically run the exercise using the 10 Essentials (every 2 or 3 years) for monitoring progress. Eddie also shared results of a telephone survey, outlined additional resources, and provided information on FCM Green Municipal Fund for climate risk assessment and adaptation. He noted that by 2020, NB will phase in a requirement for communities to have an adaptation plan, including communities that are not municipalities but in high risk areas. DELG is working on rules that tie infrastructure funding to the existence of climate considerations in their plans. A final suggestion was made that participants look at resiliency outside of just emergency events for tonight's session, as well as to prepare for the next event.

- **Brent Whelan, REMC, NB EMO**

Provided an overview of framework; of how communication is critical before an event as well as when an event happens, for each municipality to make a call and let REMC know how they are doing. LSDs must contact Local Service Manager.

To develop, update or review a plan, a municipality may contact the REMC for guidance in using the provincial framework. EMO plan template that is user friendly for municipalities and regions to use. Province has drafted one (December 2016) and intends to roll it out. Was just being rolled out when the ice storm hit in Miramichi. It provides a common playbook (green, yellow, red) of who to involve. Said there is increased adoption of the Incident Command System.

## Table-Top Exercise

Participants gathered around a map of the region and of their respective communities. Eddie gave overview of exercise. Throughout the group discussion, participants used maps to denote community features, potential vulnerabilities, and resiliency measures. In addition to a guide/legend the exercise relies on local knowledge and creativity. The group was receptive to this style of exercise, Good discussion around the table. Discussed various real events and how response went and whether issues were addressed. Eddie shared that all of the map data shown tonight is available on GeoNB and from the federal govt. Eddie's prompting of items to look for helped participants further their mapping.



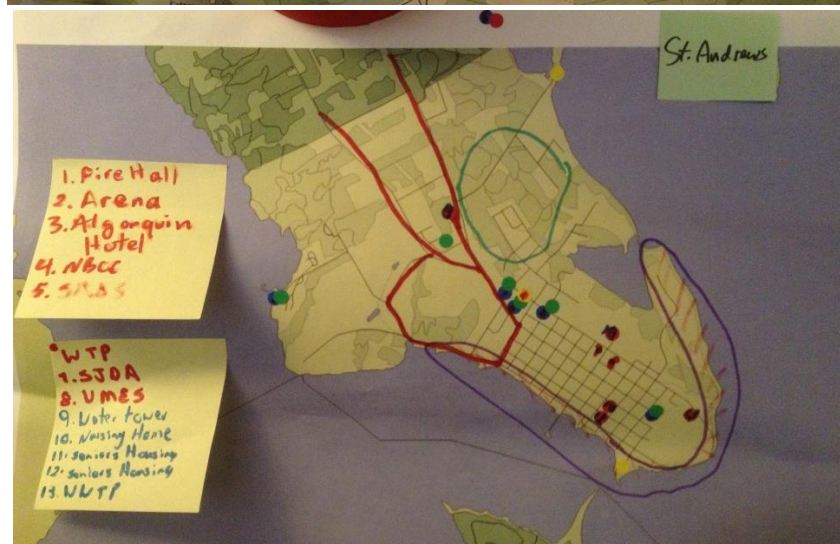
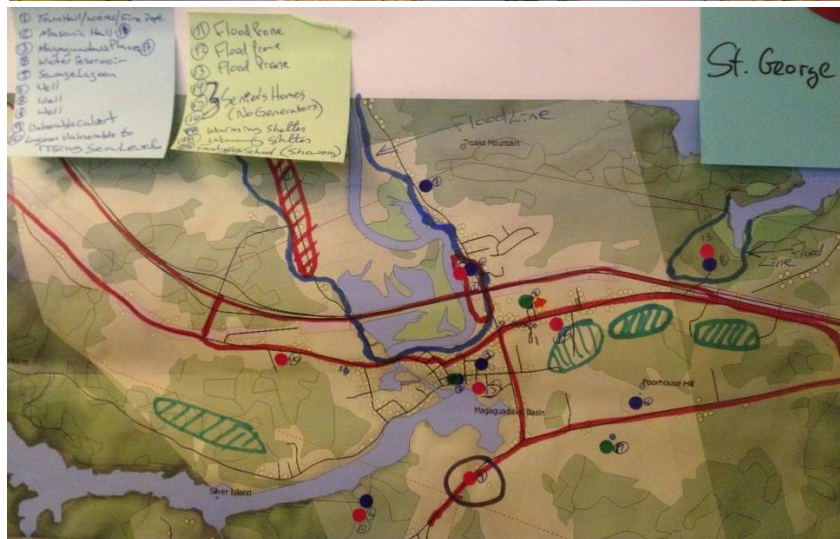
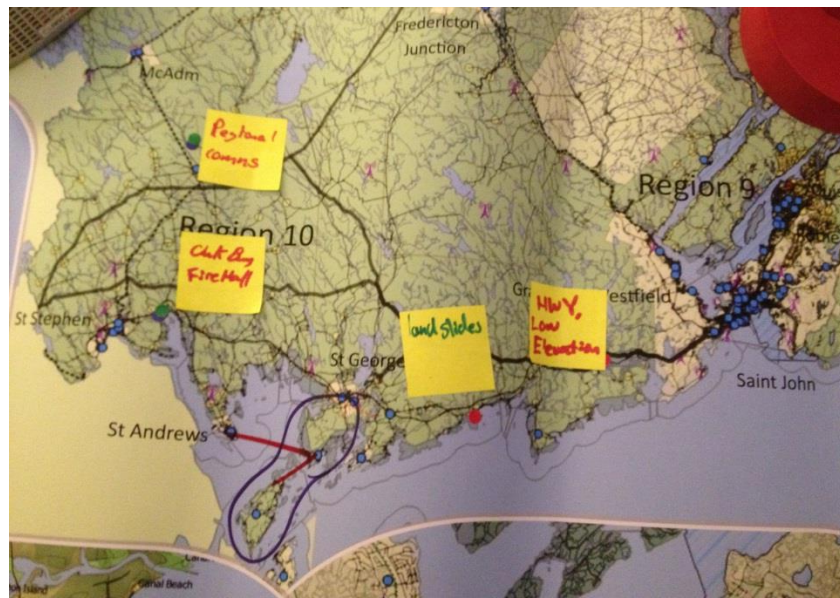
*Participants denote hazards, vulnerabilities, resiliency measures, emergency routes, and community engagement on maps during a table top exercise in St. George*

**Hazards:** Participants from each community (St. George, St. Andrews, and the RSC) identified and discussed hazards of concern, and ranked them in terms of probability and consequence. For example:

- Participants identified a high risk (probability and consequence) from: Atmospheric hazards (e.g. blizzards, extreme weather); forest fires / grass fires; and hydrological hazards, and moderate risk from power outages, hazardous material spills, erosion and landslides.

See a snapshot of the maps from the exercise below:





The color code of stickers/stickies is: Blue = community feature; Red = vulnerability; Green = asset that improves resilience or can be used during a disaster; green circle = area to encourage new development; red crosshairs = areas to discourage development; purple circle – area for resilience improvement; red lines = emergency arteries / evacuation routes; Yellow sticky with red star = location of community event.

***In addition to hazards described above, participants also highlighted the following on the maps:***

**Vulnerabilities:** To the extent possible, participants identified potential vulnerabilities from the hazards of most concern. These were identified on the map, and included: a culvert on a provincial highway which if blown would take out a route that services 10000 people in the South; other vulnerabilities included nursing homes, residences, a hospital; a few flood-prone neighborhoods; and that the region is overdue for a forest fire. Regional communications could be severed in some areas which have few towers. A sea level highway/corridor that connects the South East is vulnerable to flooding. Communities don't realize scope / scale until it (a disaster) happens.

**Assets for resilience:** Mutual aid agreements; Some communities have existing shelters and some are planning new emergency shelters (using existing buildings). These include schools, an arena in St. Andrews with backup generator, and other municipal facilities (town hall) are also considered assets. It was noted that even with generators, you need fuel for generators and that supply can be compromised.

**Adaptation/Resiliency improvements:** Communication established before events/disaster; Participants denoted possible infrastructure improvements (upgrade culvert); designated emergency shelters and back-up power; areas where development should be discouraged, as well as areas to encourage development and build back better (areas that are not vulnerable to known hazards and are accessible). It was noted that unincorporated areas aren't as well regulated in terms of building in risky areas. Need more building inspection in outlying areas. Adopt risk-based land use / planning principles. By-laws should be put in place that regulates things such as if building in a flood plain, no occupancy on first level (noted this still puts people at risk), of using waivers, of using mobile trailers, planning campgrounds/recreational uses to double as flood attenuation; and to relocate buildings after a flood outside of the flood area if possible. Work with private care providers (unregulated) which fall under Social Development, to develop emergency plans and mutual aid agreements.

**Emergency arteries:** Participants were able to draw primary emergency arteries, and secondary / alternative routes for emergency vehicles, evacuations, etc.

**Community Engagement:** Participants selected a venue to engage their community.

## **Action Planning:**

These results are captured from a rapid-fire action planning exercise, where participants are asked to mark on a sticky, based on earlier discussion, what they think the key needs are / what are some key goals and possible actions that can be taken. The answers are then read out loud and collected and arranged in categories onto a panel. The result is useful to identify unique and common needs, potential goals, and to synthesize participant's recommendations for actions, throughout the workshop, described here:

**Goals** *(These goals are based on the needs identified by participants, and are grouped thematically)*

- a) Improved public awareness, communication, and mutual aid
- b) Plans: Local and Regional plans use risk-based land use planning principles
- c) Sustainable Growth – through improved resiliency

- d) A reduction in vulnerability: municipalities adopt risk-based land use and building practices, reduce flood risk, develop resilient infrastructure, have multiple escape/evacuation routes and modes of transportation for all demographics; funding in place to support resiliency efforts;

**Actions** *(These actions were identified by participants, and are grouped thematically)*

- a) **Communication:** Awareness campaigns, Education, Training, Key leadership engagement (e.g. Mayor/council); continuity planning; Professional network advocacy; Professional and grassroots citizens alliances; Comment that having multi-stakeholder discussion is valuable. Communication established before events / disasters. Also, make sure to engage council within a year of an event, for any improvements needed.
- b) **Reduce Vulnerability:** Regional risk analysis, Modify planning act language, or introduce planning principles...; specific hazard identification; Better planning for new construction / Mitigate risk in flood prone areas, relocate buildings after a flood; climate risk assessment in infrastructure; plan diverse escape routes / modes of transportation for all demographics; need permanent funding for resiliency. Comment that province should go around to do / help with risk assessment and resilience planning, spotlight on known risks. Will need to maintain trimming / clearing vegetation to protect distribution lines. Improved building inspection and risk based land use planning, especially in outlying areas / LSDs;
- c) **Plans:** Planning together for the future; Introduce/adopt planning principles (in alignment with new legislation / Community Planning Act currently in 1<sup>st</sup> reading)

## Summary Feedback / Evaluation Forms

**What they liked best:** Participants liked the table top, the discussion, the small group.

**What they liked least:** the refreshments though not bad; nothing, it was great!

### **Biggest insights that emerged from this workshop:**

- Similar issues in many communities
- The need for resiliency in a regional plan / proposals
- The need for continued workshops of this nature

### **Actions that may be taken as a result of attending:**

- Incorporate into plans
- Focus on this issue in regional plan process
- Reinforce my concerns about hazard @culvert #9
- Better engagement

**Will the material help advance resiliency planning / projects in your community region:** Most said yes. 1 uncertain

### **Further recommendations / feedback:**

- Nice.

### **Participants:**

Brent Whelan, NB EMO

Dan Harrington, SNBSC

Sean Morton, Town of St. George

Alex Henderson, SNBSC

Kevin Theriault, Town of St. Andrews