

Disaster Support Hubs

Earthquake Preparedness Strategy Update - Priority Action #10

Update to Mayor and Council:
April 5, 2016



The Purpose of this presentation is to

- Provide a brief update on the Earthquake Preparedness Strategy
- Provide details on one of the top short-term actions: Disaster Support Hubs
- Ask for your support in promoting Emergency Preparedness Week, including our event at Science World

Earthquake Preparedness Strategy Update

Highlights – Council Directed Initiatives

- Started seismic upgrades to bridges
- Dedicated fire protection system
- Canada Task Force 1 - Heavy urban search & rescue team
- Emergency supply containers
- Emergency operations centre

Development of the Earthquake Preparedness Strategy

Concurrent implementation of Quick Win initiatives

Strategy adopted by Council in Dec 2013

Strategy Implementation

- Public Events
- Emergency Info. Plan
- Vancouver Volunteer Corps
- Cont. Bridge Upgrades
- Hardening key components of water system
- Emerg. Transportation Plan for Downtown
- Seismic Review of City Facilities
- Training & Exercises

Strategy Status

- 82 % of actions complete or in progress

Disaster Support Hubs roll-out

1990-2010

2012-2013

2014-2015

2016



Ground Shaking

Liquefaction

Fire

Landslides

Tsunamis

Impacts

Lifelines

- WATER SYSTEMS
- SEWER SYSTEMS
- ENERGY SYSTEMS
- TRANSPORTATION SYSTEMS
- COMMUNICATIONS SYSTEMS

Buildings

People

Economy

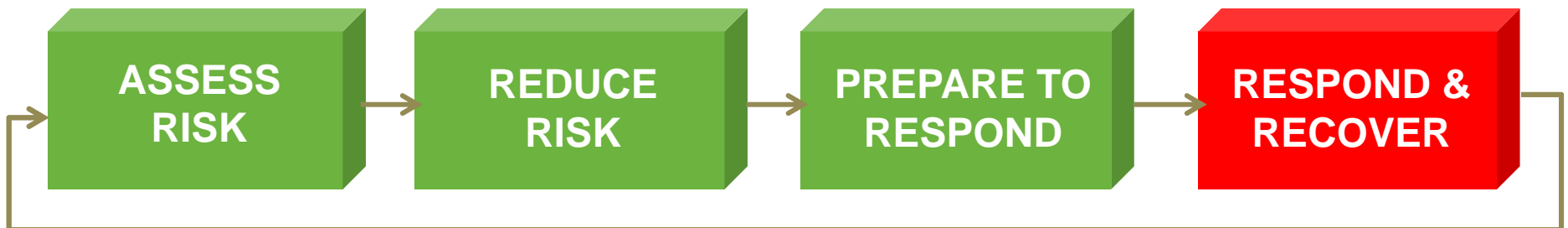


12 *Primary Actions* + **44** *Supporting Actions*

3
ACTIONS

21
ACTIONS

32
ACTIONS



✔ In Progress
✔ Complete



- ✔1. Analyze weak links in our supply chain for critical supplies and services required in earthquake response
- ✔2. Enhance inputs to earthquake impact estimation model - **COMPLETE**

- ✔3. Incorporate non-structural seismic safety program into facilities management
- ✔4. Harden key components of water system in high risk areas
- ✔5. Explore options to maintain post-earthquake transportation access to the downtown peninsula - **COMPLETE**
- ✔6. Establish a technical committee to advise City on high-risk building abatement options
- ✔7. Continue to address high-risk City facilities, prioritizing those on City Hall Campus

- ✔8. Enhance post-earthquake access to firefighting water supply
- ✔9. Update emergency communications plan (include social media & explore additional methods of communicating with public) - **COMPLETE**
- ✔10. **Develop Community Disaster Support Hubs to facilitate community-based response – IN PROGRESS (Launch May 2016)**
- ✔11. Expand public education program with new material and methods of outreach targeting vulnerable populations
- ✔12. Continue to develop business preparedness program to raise awareness and support preparedness in small and medium-sized businesses

Implementation Update

	Completed	In Progress	Remaining
# Actions	10	36	10
% Actions	18%	64%	18%

- 46 of the 56 actions (82%) are complete or in progress.
- Remaining actions are scheduled to begin in 2017 or 2018.



- Shelf-ready design to complete seismic upgrades to steel span of Granville Bridge
 - Completed 67% completed as opportunistic work during bearing replacement.
- Seismic screening of all bridge inventory to identify high risk bridges following US FHWA (Federal Highway Administration) indices methodology and this will inform future capital planning.
- Developed downtown transportation emergency plan to facilitate downtown access if bridges are damaged or closed for inspection.
- **2016: Developing post-earthquake inspection guide for bridge inventory (guides for False Creek bridges complete)**



- Performed opportunistic water main hardening as part of ongoing pipe replacement program
- Completed pilot project - 600m of Earthquake Resistant Japanese Pipe
- Updating plan for water main grid hardening
 - Maintaining coverage for fire fighting and potable water distribution
- **2016: Preparing financing and implementation plan**



Highlights - Vancouver Volunteer Corps



- Marathassa Oil Spill – Public information and safety messaging
- PMV Container Fire – On standby to support
- August 2015 Windstorm / Power outage – Roundhouse Group Lodging Centre; catch-basin cleaning
- Exercise Cold Snap – deployed to test door-to-door notification process
- Over 30 Disaster Assistance Team (DAT) call-outs supporting residents displaced from fires and other incidents



Vancouver Volunteer Corps



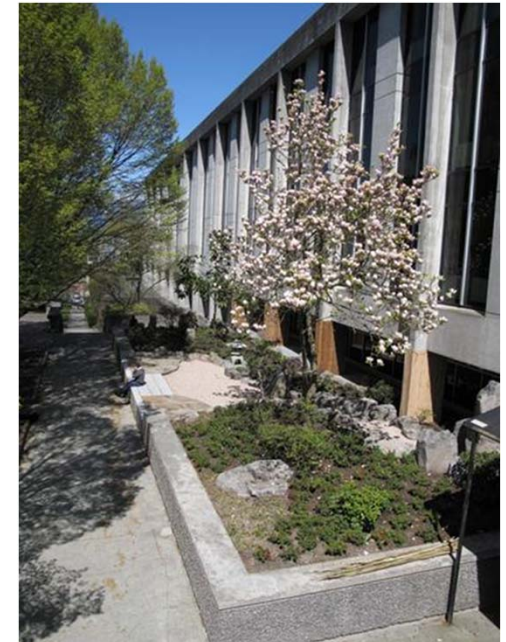
VVC at Exercise Cold Snap

2016

- Increase depth of training to improve response capacity
- Increase volunteer engagement and leadership opportunities across all programs (training, planning, drills and community outreach)
- Improvements to Volunteer Management System
- Implementation of ESS Zone Teams to increase response capacity city-wide and volunteer leadership
- Ongoing support of special event operations for civic events

- Exploring potential for detailed microzonation mapping (ground conditions) with regional and federal partners (e.g. Natural Resources Canada, Integrated Partnership for Regional Emergency Management)
- A regional microzonation map will enhance our understanding of our collective earthquake risk and can be used as an input to earthquake hazard models
- This will help the City and partners prioritize work in response and recovery planning and within risk reduction initiatives such as water main hardening

- Seismic program established for City facilities 2014
 - 170 Rapid Visual studies completed
 - 10 level 2 studies complete; 46 in progress
- East Wing Deconstruction - start Summer 2016
- West Annex seismic upgrade - start Spring 2016
- Pilot Earthquake Early Warning System (EEWS) and Strong Motion Instrumentation (SMI) at West Annex



- **Exercise Coastal Response**
- Port Alberni, June 7-10
- Testing of BC Earthquake Initial Response Plan
 - Full deployment (70 CANTF1 members)
 - Objectives: alert, activate, deploy, and setup Base of Operations, followed by other response objectives





Disaster Support Hubs

- First responders will prioritize response to life-saving incidents – capacity will be stretched
- Communities pull together and support each other
 - Families
 - Neighbours
 - Community organizations
 - Convergent volunteers and ad hoc groups (e.g. Student Army and Farmy Army in Christchurch, NZ)
- Local government needs to **enable** this community-based effort and support it where needed

Christchurch Earthquake



Student Volunteer Army and Farmy Army self-organized to help their communities.



Calgary Flood



Citizens in Calgary coordinated to clean up and help each other.

“Where the City of Calgary can make a difference is in further articulating a framework that **facilitates the optimal use of volunteers**, while at the same time **minimizing tendencies to overly control** their innovative and self-organizing aspects.”

- Conference Board of Canada, 2014

(Photos: L-R: Ted Rhodes, Calgary Herald; Lyle Aspinal, Calgary Sun)



Stanley Cup Riot



(Photos L:-R: Van City Buzz; David Warburton, Vancouver Sun)

- How can we **enable** community-based response?
- How can we as a local government **support** community-based response post-disaster?
- Where can we **deliver** post-disaster support to the community?



Disaster Support Hubs are locations where

1. Citizens can gather to support each other following an earthquake or other disaster
2. City can deliver disaster support services for all types of emergencies



City of Seattle: Emergency Communications Hubs -
Entirely volunteer organized and led.

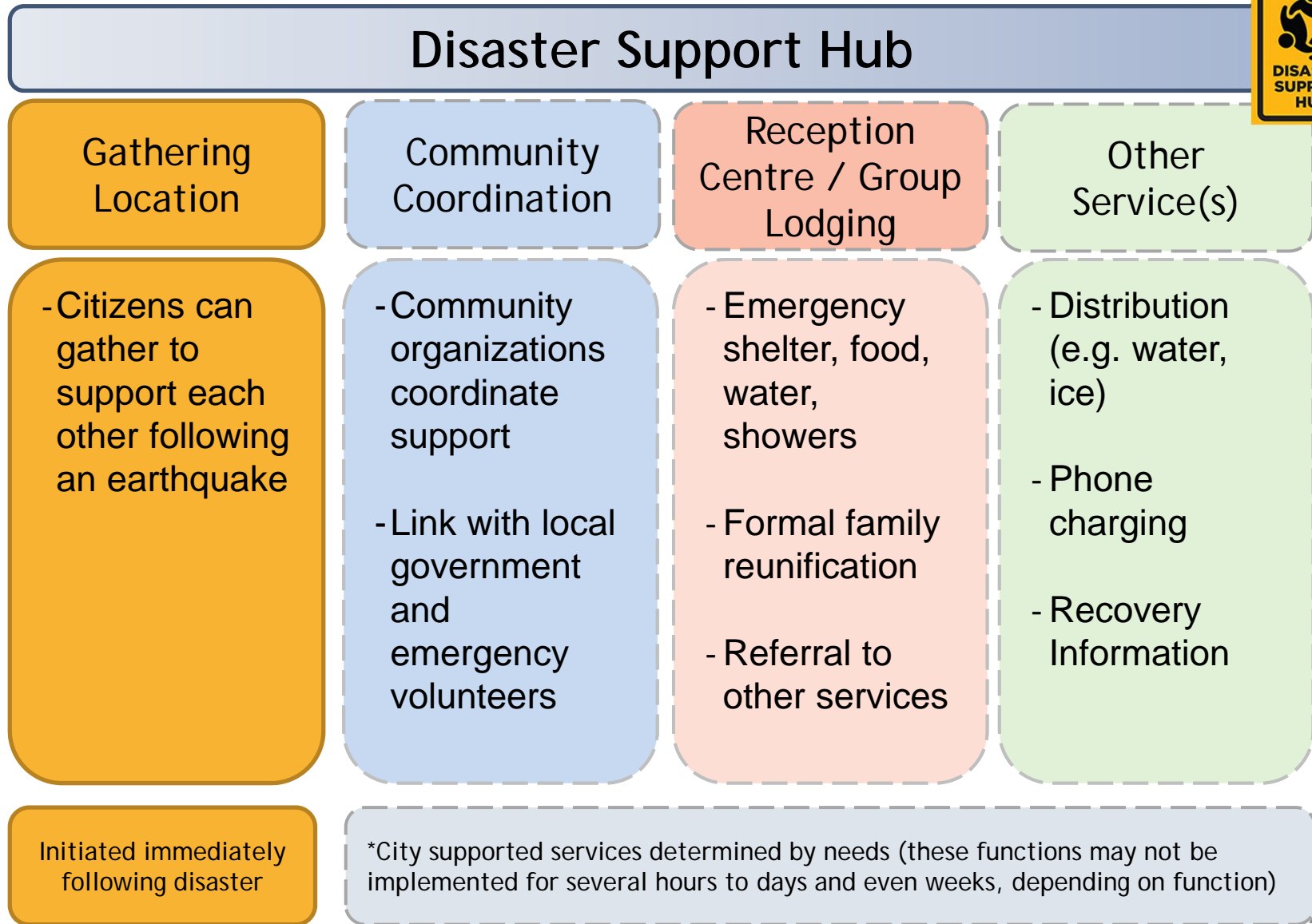
City of San Francisco :
Community Disaster Response Hubs –
Blended staff / citizen response at designated locations.

We believe in connection, not catastrophe.



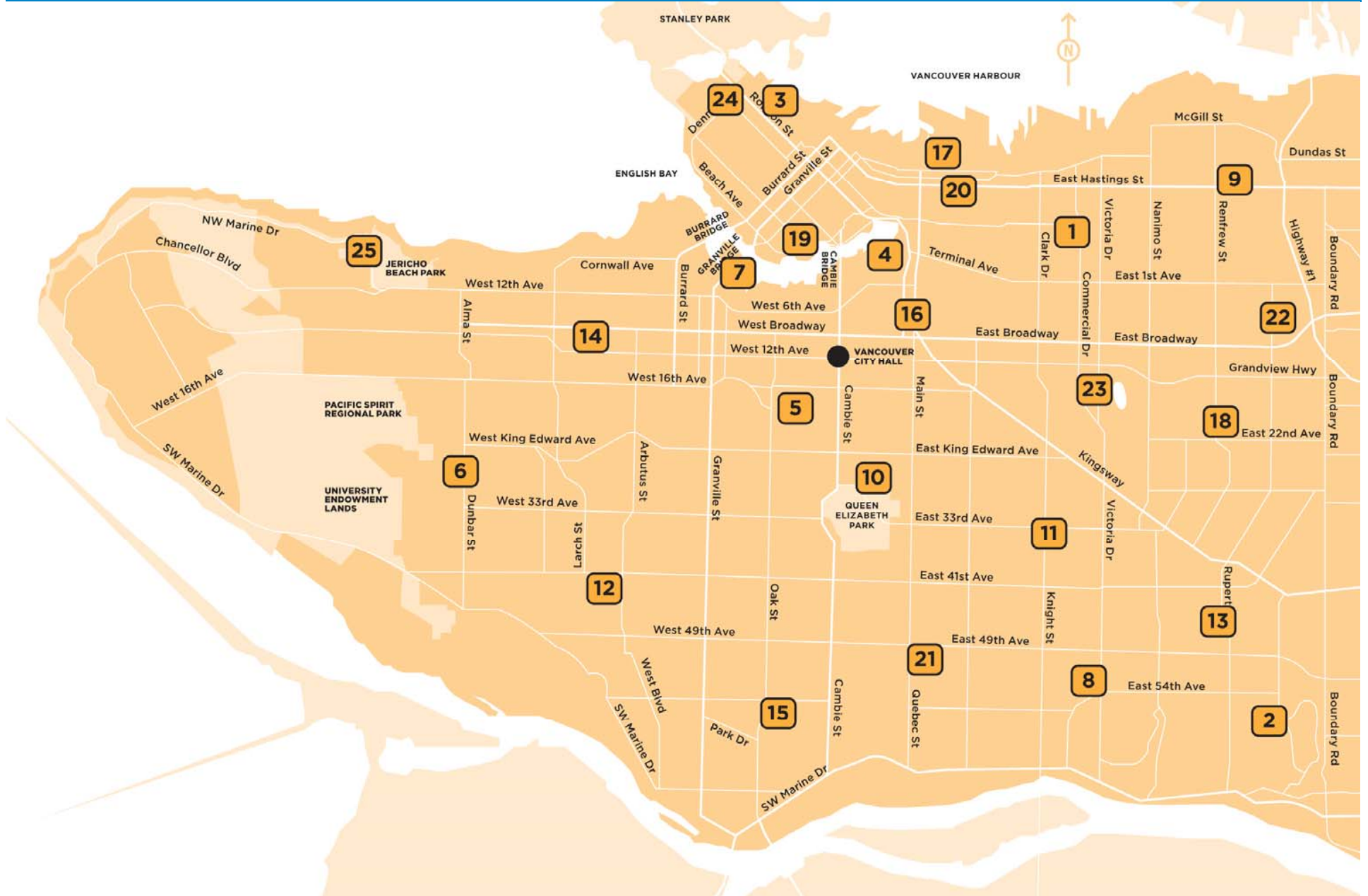
New Zealand: Sector Posts and Community Hubs -
Sector posts in place prior to 2011 EQ to identify locations for citizens to get support;
Community Hubs emerged through grassroots efforts of citizens.

Disaster Support Hub Functions



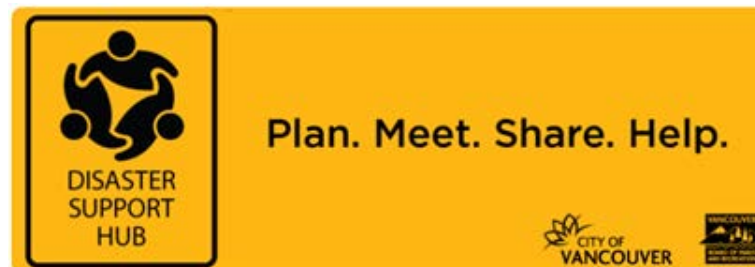
- 25 Hubs located across the City
 - 23 Parks Board community centres
 - Oppenheimer Park
 - Fraserview Library
- Selection criteria
 - Familiar areas where the community is likely to gather
 - Near outdoor space that can be utilized if facility is unsafe
 - Coverage across the City

Disaster Support Hub Locations



Hubs are a low-tech tool to enable immediate community-led response

- Meet up with family members and neighbours
- Offer services if you have specific expertise or capacity
- Share resources and supplies
- Share information



In the hours, days and weeks following an earthquake, any of the following services may be offered at Disaster Support Hubs

- Group lodging (shelter)
- Distribution of food, water and supplies
- Response and recovery information
- Coordination of community efforts

Services will depend on community impacts, need and safety.

Services during other types of emergencies

The City also has plans to activate Hubs for services during other types of emergencies:

- Group lodging centres for residents to stay after apartment or house fires
- Cooling centres during heat waves
- Warming centres during extreme cold
- Reception centres / safe gathering points for people during evacuation and shelter-in-place incidents (e.g. gas leaks, chemical fire)



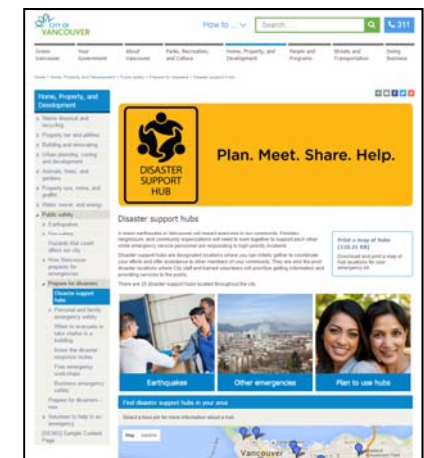
What can you do to prepare?



Disaster Support Hubs are intended to raise awareness and promote preparedness

- Know the location of Disaster Support Hubs and safe outdoor location (download the map!)
- Incorporate Hubs into household and neighbourhood plans
- Talk to your community about post-earthquake planning and how you can help each other
- Take a free emergency preparedness workshop (check vancouver.ca or call 3-1-1 for a schedule)

- Signs will be installed during April and May
- Information available on **vancouver.ca/beprepared**
- Promotion through social media, emergency preparedness courses, and during Emergency Preparedness Week event at Science World



Emergency Preparedness Week Event at Science World - April 29 & 30



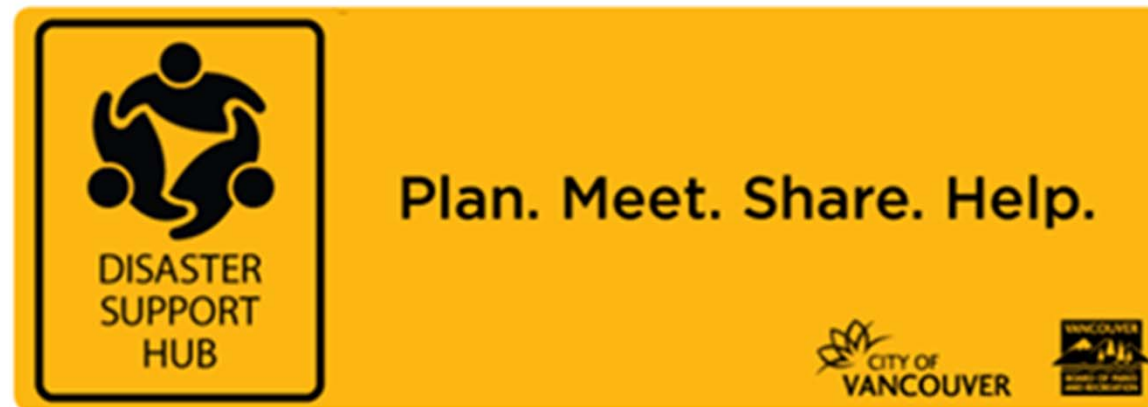
- Free two-day outdoor event for the public held in partnership with Science World and other partners
- Disaster Support Hub display and activities
- Preparedness Pavilion
- Quake Cottage earthquake simulator
- Information on the Vancouver Volunteer Corps and other ways to get involved



Quake Cottage EQ Simulator



- Over the past year we have continued to make progress on earthquake preparedness
- Residents, businesses, and government all need to do their part
- Disaster Support Hubs help facilitate the community working together as well as working with responders and the City
- **Join us at the Emergency Preparedness Week event at Science World – April 29-30**



vancouver.ca/beprepared