




City of Richmond

Report to Committee



To: Community Safety Committee **Date:** March 28, 2014
From: Phyllis L. Carlyle **File:** 09-5125-01/2014-Vol
General Manager, Law and Community Safety 01
Re: **The City's Emergency Programs and the Auditor General Report:
Catastrophic Earthquake Preparedness in BC**

Staff Recommendation

That the staff report titled "Auditor General Report: Catastrophic Earthquake Preparedness in BC and the City's Emergency Programs" dated March 28, 2014 from the General Manager, Law and Community Safety be received for information.



Phyllis L. Carlyle
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REPORT CONCURRENCE	
ROUTED TO: Facility Services	CONCURRENCE <input checked="" type="checkbox"/>
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 
APPROVED BY CAO 	

Staff Report

Origin

This report responds to the release and findings of the Auditor General's report, "Catastrophic Earthquake Preparedness" on March 25, 2014. This report is in support of Council Term Goal 1:

To ensure Richmond remains a safe and desirable community to live, work and play in, through the delivery of effective public safety services that are targeted to the city's specific needs and priorities.

Analysis

Auditor General Report Findings:

The Auditor General's report addresses the following questions:

1. Can Emergency Management BC (EMBC) demonstrate that it is prepared to manage the effects of a catastrophic earthquake?
2. Is EMBC publicly reporting on the Province's preparedness for a catastrophic earthquake?

The Auditor General's report concludes that *EMBC cannot demonstrate that it is adequately prepared to manage the effects of a catastrophic earthquake and it is not reporting publicly on the Province's preparedness.*

The report goes on to say that the recent Insurance Bureau of Canada report estimates that a catastrophic earthquake followed by a tsunami will result in damage and losses of up to \$75 billion and that there is an estimated 12% probability of a catastrophic earthquake affecting BC in the next 50 years.

The Office of the Auditor General's first 1997 audit in this area addressed all four pillars of emergency management: mitigation, preparedness, response and recovery. This year's audit report is strictly on their preparedness. While the Auditor General's report indicates that they held *expectations anticipating that in the intervening 17 years, EMBC had sufficient time to significantly improve its level of preparedness*" they found that *"EMBC, the government organization tasked with leading the Province's response to a catastrophic earthquake, has not fulfilled this part of its mandate.*

The EMBC budget is approximately the same as it was in 2006, competing with other demands for funding requests in the Province. The Auditor General concludes EMBC has limited capacity to address their broad mandate with floods and fire responses taking priority over earthquake planning and there are gaps in EMBC staffing.

The Auditor General's report states that the Province's response to an earthquake will depend on the plans of EMBC and other stakeholders and identified a number of deficiencies:

1. *EMBC's hazard risk and vulnerability analysis is not detailed enough nor up-to-date*
2. *EMBC's plans and procedures do not reflect best practices*
3. *EMBC's earthquake training, exercise and public education programs are inadequate*

4. *EMBC's plans and procedures do not outline the Minister's actions in a provincial state of emergency in sufficient detail*
5. *EMBC does not monitor stakeholder readiness and capacity and is not adequately ensuring stakeholder-plans are integrated into a coordinated provincial response*
6. *EMBC does not report publicly on the state of earthquake preparedness, resulting in individuals and stakeholders not fully understanding the risks they are facing, nor the level of preparedness they must have to protect themselves, their families and their communities*

The Auditor General's recommendations are:

1. *The Provincial government develop long-term goals for catastrophic earthquake preparedness, including the level of preparedness it expects EMBC to achieve in the next 5, 10 and 15 years.*
2. *The Provincial government ensures EMBC has the capacity necessary to address identified critical gaps and achieve government's expected level of preparedness.*
3. *EMBC develop a strategic plan to meet the Province's long-term goals. The plan should clearly demonstrate how EMBC will evaluate the effectiveness of its activities against its goals.*
4. *EMBC identify, rank and prioritize completion of its own key plans and procedures to ensure it meets its mandate to prepare and respond to a catastrophic earthquake.*
5. *EMBC regularly review its earthquake program to identify significant gaps and risks to a coordinated and integrated response, and develop actions to address them.*
6. *EMBC regularly review and evaluate its stakeholders' emergency plans and procedures to assess stakeholder readiness and capacity.*
7. *EMBC conduct regular catastrophic earthquake exercises with its stakeholders to ensure it can deliver an effective, comprehensive and integrated government-wide response to a catastrophic earthquake.*
8. *EMBC measure the effectiveness of its public preparedness initiatives at regular intervals.*
9. *EMBC report annually to British Columbians on the state of its catastrophic earthquake preparedness. The report should include an assessment of the overall state of earthquake preparedness, risks and capacity, and describe the plans and achievements of the Inter-Agency Emergency Preparedness Council (IEPC).*

Provincial Earthquake Consultation:

The Ministry of Justice recently announced a provincial consultation process on earthquake preparedness and response in order to improve British Columbia's ability to respond to a catastrophic seismic event. The Chair of the consultation is Henry Renteria, former director of California Office of Emergency Services. Consultation will involve all levels of government as well as stakeholders, including individuals and families, the media, businesses, local authorities, adjoining jurisdictions and non-governmental organizations.

The goal of the provincial consultation is to provide recommendations, through discussion with key stakeholders, on improving the ability of British Columbians to prepare for and respond to a catastrophic seismic event. Consultations will be taking place in the April to June, 2014 timeframe with the final report to the Ministry by the end of the year.

The consultation will examine the following key topics:

1. *Roles and responsibilities of all levels of government to plan for and respond to catastrophic seismic events*
2. *Roles of individuals and families*
3. *Risk assessment processes*
4. *Response planning for catastrophic seismic events*
5. *Response capacity*
6. *Mitigation strategies for catastrophic seismic events*
7. *Co-ordination structures*
8. *Technical emergency communications and warning systems*
9. *Public communications*
10. *Training and exercising programs*
11. *Volunteers*

Richmond's Relationship with EMBC:

EMBC is the coordinating agency for the provincial government's emergency management activities. EMBC provides executive coordination, strategic planning and multi-agency facilitation and continually develops effective working relationships in an increasingly complex emergency management environment. The overall purpose of EMBC is to increase life, safety and resiliency for individuals and communities throughout British Columbia.

EMBC aims to reduce the consequences of emergency events by providing support and leadership to local authorities. EMBC houses the BC Coroners Service and the Office of the Fire Commissioner with headquarters in Victoria and incorporates six regional offices in Surrey, Kamloops, Nelson, Terrace, Prince George and Victoria.

Richmond has a very positive relationship with EMBC, both with the local office for the Southwest region and in Victoria with many of the senior staff. As a result, the City enjoys a good reputation with them and is recognized for our excellent emergency program. While the City does not formally report to EMBC on its readiness, there are regular informal updates as to the City's level of emergency preparedness.

The current Auditor General's report references that the Province responded to 6,000 incidents in 2013 of which 8 were in Richmond. City staff and Emergency Programs volunteers responded to all 8 instances to provide Emergency Social Services (ESS) to evacuees from mostly residential fires.

Plans:

Section 2 (1) of the Local Authority Emergency Management Regulation of the British Columbia Emergency Program Act requires local authorities to prepare emergency plans that reflect:

"the local authority's assessment of the relative risk of occurrence and the potential impact on people and property of the emergencies or disasters that could affect all or any part of the jurisdictional area for which the local authority has responsibility."

The City conducted a Hazard Risk Vulnerability Analysis (HRVA) in 2008 to identify the risk-based hazards that the community is vulnerable to and to develop appropriate plans. This analysis identified the following hazards for Richmond:

- Aircraft incident
- Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE)
- Critical Infrastructure failure
- Dangerous Goods Spill Release
- Earthquake
- Flooding
- Medical Emergency (Pandemic)
- Severe weather

Based on this HRVA, the City of Richmond developed a number of emergency plans.

1. **Emergency Management Plan** – a comprehensive over-arching all hazard emergency response plan that:
 - a. Provides an overview of the City’s emergency management and reporting structure.
 - b. Outlines the roles and responsibilities of City staff and departments and other agencies involved in the response effort.
 - c. Provides overall strategy for the City’s emergency mitigation preparedness, response and recovery measures.
 - d. Identifies key priorities and actions to be undertaken in preparing for and responding to a major emergency or disaster.
 - e. Outlines the procedures for Declaring a State of Local Emergency and delegating the required powers.
 - f. Encompasses Richmond’s jurisdictional boundaries for response operations and the type of emergencies that are beyond routine events.
2. **Emergency Information Plan** – a comprehensive plan that provides strategies communication strategies for a core group of designated people assigned to Corporate Communication duties
3. **Emergency Social Services Plan** – a plan for the immediate needs of evacuees
4. **Evacuation Plan** – a plan that looks at the demographics of our planning areas and considerations for planning evacuations
5. **Pandemic Plan** – for continuity of government operations when numerous staff are away due to illness
6. **Dangerous Goods Spill Response Plan** – for response to a hazardous materials release
7. **Chemical Biological Radiological Nuclear Emergency (CBRNE) Response Plan** – for response to a threat of terrorism

These plans are reviewed annually after the completion of the bi-annual emergency exercises, after every major emergency and updated as needed to ensure they are current.

Work will start in 2014 on a Disaster Debris Plan to address disaster debris after a major emergency or disaster. In addition, departments such as Richmond Fire-Rescue (RFR) and City Information Technology (IT) are presently reviewing their departmental operational plans to ensure that critical business can continue when faced with an emergency.

Section 6 (1) of the British Columbia Emergency Program Act states that:

a local authority is at all times responsible for the direction and control of the local authority's emergency response.

Staff consults with neighbouring communities to ensure community emergency plans are congruent, and during a response, that actions that impact other communities are planned and jointly coordinated. EMBC holds a copy of the City's Emergency Management Plan.

Training and Exercises:

There is a comprehensive training program in place to ensure staff receive emergency management training for their role in an emergency. Incident Command System training is provided to site staff and Emergency Operations Centre (EOC) training is provided to staff identified to work in the EOC. Comprehensive training is provided to those individuals who have roles in the Emergency Information Plan, as well as those who have roles within the Emergency Call Centre. In 2013 Emergency Programs led the development of a Rapid Damage Assessment Team Guideline to formalize the program which currently has 81 trained staff with an additional 80 staff that have been identified for training. There is currently no training offered by the Province or the Justice Institute of BC (JIBC) on earthquake preparedness or response.

Emergency Programs offers staff access to emergency preparedness information through offerings of lunch and learn opportunities, access to information booths and employee purchase programs for emergency preparedness kits. Emergency Programs is currently working with Human Resources to offer on-line personal preparedness education to provide flexibility and accessibility to all staff. As of March, 2014 Emergency Programs participates in the Works Yard Core Safety program with staff by presenting an Emergency Preparedness module.

The City has a multi-year exercise program during which plans are validated and employees have an opportunity to practice their emergency response roles. This program usually involves a tabletop discussion-based exercise in spring and a functional exercise in the fall, typically in conjunction with the BC ShakeOut earthquake drop, cover and hold on drill in October. In recent years, these exercises have focused on earthquake scenarios and build upon each other in complexity with a goal of developing staff skills and abilities to respond.

The 2009 Richmond full scale exercise was a Chemical Biological Radiological Nuclear Explosive (CBRNE) scenario and validated the City's Emergency Management and CBRNE Response Plans. This exercise gave numerous staff an opportunity to practice their roles, and confirmed that the temporary EOC used during the Olympics Games was operational. These types of multi-agency exercises are resource intensive and expensive to conduct. A minimum of approximately \$110,000 would be required for a future similar scale exercise.

The City participates in other stakeholder agencies exercises where there is a benefit to the City. Examples of stakeholder agency exercises include a Translink tabletop discussion-based earthquake

exercise, YVR's tabletop and full scale exercises, and the Integrated Partnership for Regional Emergency Management (IPREM) tabletop exercises.

Emergency Facilities:

The City's primary Emergency Operations Centre (EOC) and Emergency Call Centre are located at City Hall and an EOC back up facility is located at the Works Yard. In a major earthquake these locations would require a damage assessment and alternate suitable space may be required as neither is built to current post-disaster standards.

Community Education:

A significant effort of the Emergency Programs division has been focused on community education.

1. Staff and volunteers participate in 6 – 9 community events every year by staffing display booths to educate the public to be personally prepared.
2. The Get Ready Richmond program was established in 2011 and currently includes Personal Preparedness and Fire Life Safety modules that are offered free of charge at multiple City facilities. Future modules include First Aid, Rapid Damage Assessment, Pet Preparedness, and Light Urban Search and Rescue. Additional initiatives include presenting these modules in different languages and developing online training from the City's website and videos.
3. Staff and volunteers also provide Personal Preparedness presentations upon request and in multiple languages to both the general public, and to businesses located in Richmond.
4. In the last four years, Personal Preparedness presentations have been made to over 2,500 people.

Emergency Volunteers:

The City has 90 Emergency Programs volunteers that provide a number of services to our community. All have been trained to provide essential services to evacuees in reception centre and group lodging facilities in accordance to Emergency Social Services program standards.

Emergency communication capabilities are an important function in an emergency when telephones and cellular phones may be out of service. Approximately one third of our volunteers are amateur radio operators who will be able to assist with providing emergency radio communications during an emergency. The City has an emergency communications trailer, and vehicle, that can be deployed when required. To engage our Emergency Radio Communications volunteers and exercise their skills, they also participate in many community events by providing communications services and coordination. Examples of these include the Steveston Salmon Festival, Ships to Shore, Terry Fox Run and SOS Children's Village Charity Run.

Emergency Programs volunteers, who receive additional training, present the Get Ready Richmond Personal Preparedness Workshops to the community at Community Centres and to other community groups.

Integrated Partnership for Regional Emergency Management (IPREM):

Integrated Partnership for Regional Emergency Management (IPREM) is a partnership between the Province and Metro Vancouver on behalf of the 23 local authorities to coordinate regional emergency management planning activities. Updates on their initiatives include:

1. Regional Hazard/Risk Assessment: The report was completed last fall and will be revisited every 3 – 5 years to ensure it reflects the regional hazards that may cause the greatest impact to Metro Vancouver)
2. Regional Emergency Communications Strategy: A November, 2013 workshop focused on communications between local authority Emergency Operations Centres and the South West Provincial Regional Emergency Operations Centre.
3. Regional Disaster Debris: A Regional Disaster Debris Management Working Plan is in development as an action plan to deal with regional disaster debris as a framework, guiding principles and recommendations to further the development of a regional plan.
4. Disaster Response Routes: This project has evolved from a land-based system of routes for emergency responders, equipment and supplies to use during a disaster to a multi-modal route with muster stations with access to various modes of transportation. IPREM is no longer the lead for this, but continues to represent the region and support the development of this new multi-modal disaster response routes with the Ministry of Transportation and Infrastructure as the lead.
5. All Hazard Integrated Regional Concept of Operations: This project is developing a model for how local authorities will share information and collaborate on decision making in events of regional emergency significance. A number of models were researched, extensive outreach and consultation occurred with stakeholders, and a mini workshop was held with five local authorities CAO's to validate the concept of operations. Another mini workshop will be held in May followed by a workshop with all CAO's this summer.

IPREM has limited resources and relies on stakeholder agencies to provide subject matter expertise. Richmond's Fire Chief participates in the Regional Emergency Communications Strategy Working Group and the Manager, Emergency Programs participates in the All Hazard Integrated Regional Concept of Operations Working Group.

Financial Impact

None.

Conclusion

It is a challenge for any level of government to be staffed and resourced for a catastrophic earthquake. In the City, the fundamental pieces of emergency management are in place to be built upon within the Emergency Programs work plan. In the event of a major emergency or disaster, Richmond is well positioned to respond and will work with the Province to obtain the support the City requires. Emergency Programs will bring annual updates to Council on the state of the City's emergency preparedness.



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DP:dp