

From: Shalina Kajani^{s.22}

Sent: Thursday, September 1, 2016 5:27 PM

To: OfficeofthePremier, Office PREM:EX; Clark.MLA, Christy LASS:EX; Coleman.MLA, Rich LASS:EX; Rustad.MLA, John LASS:EX; Wilkinson.MLA, Andrew LASS:EX; Letnick.MLA, Norm LASS:EX; Cadieux.MLA, Stephanie LASS:EX; Fassbender.MLA, Peter LASS:EX; Bernier.MLA, Mike LASS:EX; Bennett.MLA, Bill LASS:EX; Polak.MLA, Mary LASS:EX; deJong.MLA, Mike LASS:EX; Thomson.MLA, Steve LASS:EX; Lake.MLA, Terry LASS:EX; Wat.MLA, Teresa LASS:EX; Bond.MLA, Shirley LASS:EX; Anton.MLA, Suzanne LASS:EX; Morris.MLA, Mike LASS:EX; Oakes.MLA, Coralee LASS:EX; Stilwell.MLA, Michelle LASS:EX; Yamamoto.MLA, Naomi LASS:EX; Virk.MLA, Amrik LASS:EX; Todd Stone, Hon.; Reid.MLA, Linda LASS:EX; Ashton.MLA, Dan LASS:EX; Austin.MLA, Robin D LASS:EX; Bains.MLA, Harry LASS:EX; Barnett.MLA, Donna LASS:EX; Bing.MLA, Doug LASS:EX; Chandra Herbert.MLA, Spencer LASS:EX; Chouhan.MLA, Raj LASS:EX; Conroy.MLA, Katrine LASS:EX; Corrigan.MLA, Kathy LASS:EX; Dalton.MLA, Marc LASS:EX; Darcy.MLA, Judy LASS:EX; Dix.MLA, Adrian LASS:EX; Donaldson.MLA, Doug LASS:EX; Eby.MLA, David LASS:EX; Elmore.MLA, Mable LASS:EX; Farnworth.MLA, Mike LASS:EX; Fleming.MLA, Rob LASS:EX; Foster.MLA, Eric LASS:EX; Fraser.MLA, Scott LASS:EX; Gibson.MLA, Simon LASS:EX; Hamilton.MLA, Scott LASS:EX; Hammell.MLA, Sue LASS:EX; Heyman.MLA, George LASS:EX; Hogg.MLA, Gordon LASS:EX; Holman.MLA, Gary LASS:EX; Horgan.MLA, John LASS:EX; Hunt.MLA, Marvin LASS:EX; Huntington.MLA, Vicki LASS:EX; James.MLA, Carole A LASS:EX; Karagianis.MLA, Maurine E LASS:EX; Krog.MLA, Leonard LASS:EX; Kyllö.MLA, Greg LASS:EX; Larson.MLA, Linda LASS:EX; Lee.MLA, Richard LASS:EX; Macdonald.MLA, Norm A LASS:EX; Mark.MLA, Melanie LASS:EX; Martin.MLA, John LASS:EX; McRae.MLA, Don LASS:EX; Mungall.MLA, Michelle LASS:EX; Pimm.MLA, Pat LASS:EX; Plecas.MLA, Darryl LASS:EX; Popham.MLA, Lana LASS:EX; Ralston.MLA, Bruce H LASS:EX; Reimer.MLA, Linda LASS:EX; Rice.MLA, Jennifer LASS:EX; Robinson.MLA, Selina LASS:EX; Routley.MLA, Bill LASS:EX; Routley.MLA, Douglas G LASS:EX; Shin.MLA, Jane LASS:EX; Simons.MLA, Nicholas LASS:EX; Simpson.MLA, Shane L LASS:EX; Stilwell.MLA, Moira LASS:EX; Sturdy.MLA, Jordan LASS:EX; Sullivan.MLA, Sam LASS:EX; Sultan.MLA, Ralph LASS:EX; Tegart.MLA, Jackie LASS:EX; Thornthwaite.MLA, Jane LASS:EX; Throness.MLA, Laurie LASS:EX; Trevena.MLA, Claire F LASS:EX; Weaver.MLA, Andrew LASS:EX; Wickens.MLA, Jodie LASS:EX; Yap.MLA, John LASS:EX

Subject: MD - Cleansing Ceremony in Victoria - Sat Sep 03 @ 1 PM.pdf

Greetings,

Please see attached press release regarding delivery of a letter to the BC Legislature by the Musgamagw Dzawada'enuxw tribal leaders on Saturday, September 3rd at 1 PM.

Sincerely,

Shalina Kajani

FOR IMMEDIATE RELEASE

**When Rights Collide with Wrongs – Musgamagw
Dzawada’enuxw: Cleansing our Waters in Victoria**

Copyright

From: Don Bain [mailto:donb@ubcic.bc.ca]
Sent: Saturday, September 3, 2016 1:31 PM
To: Clark.MLA, Christy LASS:EX; OfficeofthePremier, Office PREM:EX; Henderson, Kim N PREM:EX
Cc: milliew@kingcome.ca; Midori Nicolson
Subject: Musgamagw Dzawada'enuxw: Cleansing our Waters - Fish Farms in Musgamagw Dzawada'enuxw Territories
Importance: High

From: Midori Nicolson [mailto:midorin@telus.net]
Sent: September-03-16 1:06 PM
Subject: RE: letter to the Premier

September 03, 2016

Premier Christy Clark
Premier of British Columbia
Parliament Buildings
Victoria, BC V8V 1X4

Delivered by hand September 03, 2016

Dear Premier Clark,

RE: Cleansing our Waters - Fish Farms in Musgamagw Dzawada'enuxw Territories

We, the Musgamagw Dzawada'enuxw, have travelled with much support from other nations, organizations, and concerned individuals to hand deliver this letter to your government reiterating our concerns with finfish aquaculture "fish farms", and our demand for their removal from our traditional territories.

We have never ceded our traditional territories to the provincial or federal governments of Canada and we view the destruction of wild fish by the fish farming industry as part of the long history of genocide forced on our people by the governments of Canada. Wild salmon are essential to our well-being and the well-being of our world. Since time immemorial we have protected our lands & waters for future generations.

One third of the BC salmon farming industry is using our territory without our permission and despite our clear and consistent opposition for 30 years. We can no longer tolerate being ignored by the government of BC and Canada on this issue.

The Norwegian and Japanese Atlantic salmon farming industry currently operating in our territory consists of Marine Harvest and Cermaq/Mitsubishi. Recently, Cermaq/Mitsubishi were

granted an increase of triple of the biomass of farm salmon in the Sir Edmund Bay site, despite our clear opposition. This is a major salmon migration route, but it is apparent in decision making that local knowledge and science is superseded by other factors. There are many recommendations from the 2009 Cohen Commission, one of which concluded that a moratorium be placed on the expansion of aquaculture industry and the limitation of existing licences to a renewal period of one year pending a comprehensive scientific analysis of the impact salmon farms have on wild salmon stocks. Thereafter, if salmon farms are determined to pose more than a minimal risk of serious harm to wild salmon stocks, those farms should cease operations.

There is no evidence anywhere in the world that the fish farming industry can operate without killing wild salmon.¹ Scientific research done in our territory reports up to 40% of the young salmon leaving our territory last spring were killed by sea lice from salmon farms.² The Federal Court ruled diseased salmon should not be transferred into ocean pens, but there is no clear and transparent evidence this practice has stopped at all.

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) has the unqualified endorsement of Canada and sets out minimum standards for ensuring the exercise, protection and advancement of these rights.³ We have the right to look after our food resources & our ecosystem health. The salmon farming industry is infringing on our way of life, by breaking the natural circle of life that have sustained First Nation people since time immemorial. To quote, Article 26 "Indigenous people have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired." and Article 25 "Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard."

We put the federal and provincial government of Canada and the salmon farming corporations on notice that we the Musgamagw Dzawada'enuxw are the ultimate authority in our traditional lands and waters.

On August 15, 2016, with complete support of our nation, three Musgamagw Dzawada'enuxw traditional leaders boarded the Cermaq/Mitsubishi salmon farm in the Burdwood Islands and served an eviction notice to all salmon farms in our territory. On August 18, 2016 a cleansing ceremony was a follow-up action as part of the process to remove salmon farms from Musgamagw Dzawada'enuxw territory. On August 21, 2016 a larger contingent of Musgamagw Dzawada'enuxw with support from neighboring nations boarded the Marine Harvest salmon farm at Midsummer Island to continue this process. On August 22nd, we began our journey down island to garner support and deliver this message.

We have lived within these lands for thousands of years. We have never ceded our territories. In asserting our jurisdiction, we demand that the fish farms be removed from our territories immediately. In doing this we are exercising our indigenous authority to protect our lands and waters, by upholding our responsibility to future generations in this regard.

The province of BC can assist us in achieving our vision for our territories by rescinding the

license of occupations that they approved for these companies within our traditional territories.

Our people have spoken; fish farms must be removed from our territories.

[Original signed]

Chief Okwilagame

Willie Moon

On behalf of the Traditional Leadership of the Musgamagw Dzawada'enuxw
General Delivery, Kingcome Inlet, B.C. V0N 2B0

CC:

British Columbia First Nations

British Columbia Members of Legislative Assembly

British Columbia Members of Parliament

Union of BC Indian Chiefs First Nations Summit

British Columbia Assembly of First Nations

1 http://www.fmap.ca/ramweb/papers-total/Ford_Myers_2008.pdf

2 <http://www.nrcresearchpress.com/doi/abs/10.1139/cjfas-2016-0122#.V7S5da65K7Q>

3 http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

-----Original Message-----

From: Davidson, Tamara PREM:EX
Sent: Thursday, March 10, 2016 3:01 PM
To: OfficeofthePremier, Office PREM:EX
Cc: Ross, Kara L PREM:EX
Subject: RE: Attached Image from Band Office Canon

Policy/refer to Minister

-----Original Message-----

From: OfficeofthePremier, Office PREM:EX
Sent: Thursday, March 10, 2016 2:51 PM
To: Ross, Kara L PREM:EX
Cc: Davidson, Tamara PREM:EX
Subject: FW: Attached Image from Band Office Canon

-----Original Message-----

From: Bobbi Smith [mailto:bsmith@kingcome.ca]
Sent: Thursday, March 10, 2016 2:44 PM
To: OfficeofthePremier, Office PREM:EX
Subject: FW: Attached Image from Band Office Canon

From the DFN Council, Kingcome Inlet

-----Original Message-----

From: Dzawada'enuxw Band Ofc [mailto:canon@kingcome.ca]
Sent: Thursday, March 10, 2016 2:33 PM
To: Bobbi Smith
Subject: Attached Image from Band Office Canon

No virus found in this message.

Checked by AVG - www.avg.com

Version: 2016.0.7357 / Virus Database: 4540/11790 - Release Date: 03/10/16

Page 7 to/à Page 8

Withheld pursuant to/removed as

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BC CABINET AND FIRST NATIONS LEADERS GATHERING

Dzawada'enuxw First Nation (Tsawataineuk)

Governance

- Chief Terrance Joseph Willie
Election date March 23, 2012
- Councillor Percy John Lagis
Election date March 23, 2012
- Councillor Alexander Nelson
Election date March 23, 2012
- Councillor Farron Alexander Soukochoff
Election date March 23, 2012
- Councillor Hemajalas Deedames Willie
Election date March 23, 2012

Information

- Pronunciation: za-wah-day-nook
- Location: Kingcome Inlet, 300 km northwest of Vancouver
- Member of Musgamagw Dzawada'enuxw Tribal Council
- Population: approx. 503
- Address: General Delivery
Kingcome Inlet, BC V0N 2B0

Current Activities

- Government representatives are working to build relationships with the Gwawaenuk Tribe, Kwicksutaineuk/Ah-Kwa-Mish Tribes and Dzawada'enuxw First Nation outside of the British Columbia Treaty Commission six-stage treaty process.
- Not participating in treaty process

Other/Completed Negotiations

- Dzawada'enuxw Forest Consultation and Revenue Sharing Agreement (2013)

Issues/Opportunities:

- A youth conference held in the community in late July, 2014
- This is a very remote community accessible only by water. They have interests in employment opportunities and infrastructure.
- This First Nation was impacted by serious rain water flooding in late September 2010. Clearcut logging and a receding glacier were identified as possible contributors to the flood. Damage repairs took several months.
- The nation has a history of litigation regarding concerns over finfish aquaculture. A case is currently before the Supreme Court of Canada regarding the environmental impacts of open net-pen salmon farms on the wild salmon.

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BC CABINET AND FIRST NATIONS LEADERS GATHERING

Kwikwasut'inuxw Haxwa'mis First Nation (Kwicksutaineuk/Ah-Kwa-Mish Tribes)

Governance

- Chief Robert Chamberlin
Elected May 25, 2013
- Councillor Herb Chamberlin
Elected May 25, 2013
- Councillor Sandy Johnson
Elected May 25, 2013

Information

- Pronunciation: quick-wa-sut-uh-nook
(alternatively) quick-soo-tain-nook
- Location: Gilford Island, 40 east of Port Hardy
- Member of Musgamagw Dzawada'enuxw Tribal Council
- Population: approx. 278
- Address: PO Box 10, 14 Gatu Street
Alert Bay, BC V0N 1A0

Current Activities

- Not participating in treaty process.
- Government representatives are working to build relationships with the Gwawaenuk Tribe, Kwicksutaineuk/Ah-Kwa-Mish Tribes and Dzawada'enuxw First Nation outside of the British Columbia Treaty Commission six-stage treaty process.

Other/Completed Negotiations

- No treaty related agreements.
- Kwicksutaineuk/Ah-Kwa-Mish Forest Consultation and Revenue Sharing Agreement - 2012
- Forest Interim Measures Agreement - 2009

Issues/Opportunities:

- Improvements to housing on reserve on Gilford Island

Ministry of Aboriginal Relations and Reconciliation Musgamagw Tsawataineuk (Dzawada'enuxw) Tribal Council

Governance

- Chief Charlie Williams (Gwawaenuk)
- Bernie Bunnie (Gwawaenuk)
- Chief Councilor Robert Chamberlin (Kwikwasut'inuxw Haxwa'mis)
- Councilor Herb Chamberlin (Kwikwasut'inuxw Haxwa'mis)
- Councilor Chair Terrance Joe Willie (Dzawada'enuxw)
- Councilor Percy Lagis

Information

- Pronunciation: moos-ga-muk zow-wa-dane-nook (za-wah-day-nook)
- Location: 300-400 kms northwest of Vancouver
- Members: Gwawaenuk, Dzawada'enuxw, Kwicksutaineuk/Ah-Kwa-Mish
- Population: approx. 2,477
- Address: 102-2005 Eagle Drive Campbell River, BC V9H 1R1

Current Activities

- Government representatives are working to build relationships with the Gwawaenuk Tribe, Kwicksutaineuk/Ah-Kwa-Mish Tribes and Dzawada'enuxw First Nation outside of the British Columbia Treaty Commission six-stage treaty process.
- Not participating in treaty process.

Other/Completed Negotiations

- There are no existing agreements with this Tribal Council.

Issues/Opportunities:

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Ministry of Aboriginal Relations and Reconciliation
Kwikwasut'inuxw Haxwa'mis First Nation
(Kwicksutaineuk/Ah-Kwa-Mish Tribes)

Governance

- Chief Robert Chamberlin
Elected May 25, 2013
- Councillor Tamara Alfred
Elected May 25, 2015
- Councillor Rick Johnson
Elected May 25, 2015
- Councillor Robert Scow
Elected May 25, 2015

Information

- Pronunciation: quick-wa-sut-uh-nook;
(alternatively) quick-soo-tain-nook
- Location: Gilford Island, 40 km east of
Port Hardy
- Member of Musgamagw
Dzawada'enuxw Tribal Council
- Population: approx. 304
- Address: PO Box 10, 14 Gatu Street
Alert Bay, BC V0N 1A0

Current Activities

- Not participating in treaty process.
- Government representatives are working to build relationships with the Gwawaenuk Tribe, Kwicksutaineuk/Ah-Kwa-Mish Tribes and Dzawada'enuxw First Nation outside of the British Columbia Treaty Commission six-stage treaty process.
- Government representatives have invited discussions with Kwikwasut'inuxw Haxwa'mis regarding a replacement Forest Consultation and Revenue Sharing Agreement;s.16

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Other/Completed Negotiations

- No treaty related agreements.
- Kwicksutaineuk/Ah-Kwa-Mish Forest Consultation and Revenue Sharing Agreement (2012), expired in April 2015.
- Forest Interim Measures Agreement (2009)

Issues/Opportunities:

- Improvements to housing on reserve on Gilford Island.

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Ministry of Aboriginal Relations and Reconciliation Gwawaenuk Tribe

Governance

- Chief Charlie Williams
Elected October 23, 1979

Information

- Pronunciation: gwah-way-ee-nook
- Location: Near Hopetown, BC
- Member of Musgamagw Tsawataineuk Tribal Council
- Population: 41 (AANDC Jun 15)
- Address: PO Box 344
Port McNeil, BC V0N 2R0

Current Activities

- Government representatives are working to build relationships with the Gwawaenuk Tribe, Kwicksutaineuk/Ah-Kwa-Mish Tribes and Dzawada'enuxw First Nation outside of the British Columbia Treaty Commission six-stage treaty process.
- This First Nation is heavily involved with a rehabilitation/rebuilding project of Hopetown village. The most populated site is on Hopetown Reserve #10A on the south shore of Watson Island in Grapler Sound on the mainland, approximately 350 km northwest of Vancouver.

Other/Completed Negotiations

- Gwawaenuk Tribe Interim Agreement on Forest and Range Opportunities (2008)

Issues/Opportunities:

- None.

ISSUE NOTE

Issue:

Finfish Aquaculture Licences in Broughton Archipelago

- Decisions to replace provincial licences for 21 salmon aquaculture operations in the Broughton Archipelago have been hampered by two events that in themselves influenced the province's interests going forward but also delayed the progress of First Nations consultation efforts.

Background:

- The *Morton v. British Columbia (Agriculture and Lands)*, 2009 BCSC 136 focused considerable attention on salmon farming in BC. At the time of the litigation, BC made all decisions related to salmon aquaculture. Justice Hinkson ruled that finfish aquaculture is a fishery and should be managed under the constitutional jurisdiction of the federal government. s.16
- The Inquiry into the Decline of Sockeye Salmon in the Fraser River began shortly after the provincial and federal governments completed an orderly transition of responsibilities. During this period the potentially affected First Nations associated with the Broughton salmon operations demonstrated a desire to learn if the outcome of the inquiry might influence salmon aquaculture decisions.

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- The decisions before the Ministry of Forests, Lands and Natural Resource Operations (FLNRO) are restricted to the approval of replacement tenure agreements to allow the existing salmon farm operations to continue occupation of Crown land. After more than five years of meaningful consultation with First Nations, FLNRO is very close to the conclusion of its review of all relevant information and is moving to make decisions on the 21 applications.
- DFO is responsible for making decisions related to the technical operations, environmental mitigation requirements and the species grown at these operations.

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Decision required:

- **No decision from the Minister is required. 30 day issue.** We expect that 21 tenure replacement decisions will be completed within the next 30 days.

ISSUE NOTE

Issue:

- Forest Consultation and Revenue Sharing Agreements (FCRSAs)

Background:

- In 2003, the Forest and Range Agreement (FRA) was implemented by the Ministry of Forests and Range (MFR). FRAs provided per-capita based revenue sharing and short term forest tenure opportunities in return for a consultation protocol and an acknowledgement of accommodation of Aboriginal interests on the land-base. MFR entered into 132 FRA agreements with 153 First Nations between 2004 and 2009.
- In 2010, Government authorized a new activity based revenue sharing model and the new FCRSA agreement with a three year term for forest revenue sharing based on forest harvesting activity within First Nation's traditional territory. The transition from per-capita to activity based revenue sharing was to be phased in over four years.
- FCRSAs reflect the recommendations of the Working Roundtable on Forestry, direction from the courts, and feedback from First Nations and replace existing FRAs as they expire over time.
- MARR took over the delivery of the FCRSA program from the Ministry of Forests, Lands and Natural Resource Operations in the fall of 2010 and delivers the program through its regional teams.
- The FCRSA provides an accommodation of Aboriginal interests; supports the objectives of the Transformative Change Accord, and includes planning, reporting and auditing mechanisms to meet public accountability objectives.
- As with the previous agreements, a central component of the FCRSA is a consultation protocol for forest decisions within the First Nation's traditional territory. Revenue sharing payments are made twice a year through the three year term.
- In early 2013, the FCRSA program mandate was renewed by Treasury Board until March 31, 2015. Under the original FCRSA program mandate, the 2013/14 fiscal year was to be the last year of transition from the previous per capita revenue sharing regime moving to full activity based revenue sharing in 2014/15. A two year extension to the per capita transition has been approved where required to allow further time for the forestry sector to recover.

- The revised transition formula has been designed to factor in circumstances where the forest sector has seen substantial recovery. Where First Nations are seeing the benefits of the activity based revenue sharing model they will receive activity-only revenue sharing in 2014/15
- Currently, 105 FCRSAs have been signed with First Nations.
- A review of the program will be required in 2013/14.

Decision required:

- 30 Day Issue: FCRSAs projected to be signed which will require Minister's signature

Coldwater FCRSA	FN likely to sign by June 15 2013
Dzawada'enuxw FCRSA	FN likely to sign by June 15 2013
Klahoose FCRSA	FN likely to sign by June 15 2013
Matsqui FCRSA	FN likely to sign by June 15 2013
Nooaitch	FN likely to sign by June 15, 2013
Tl'azt'en FCRSA	FN likely to sign by June 15 2013

- 60 Day Issues: FCRSAs projected to be signed which will require Minister's signature

Ahousaht FCRSA	FN likely to sign by July 15 2013
Haida Nation FCRSA	FN likely to sign by July 15 2013
Lower Nicola FCRSA	FN likely to sign by July 15 2013
Peters FCRSA	FN likely to sign by July 15 2013

Carr, Steve PREM:EX

From: Carr, Steve MNGD:EX
Sent: Friday, September 4, 2015 4:10 PM
To: Salkus, Beverley MNGD:EX
Subject: Fwd: Materials for the Cabinet/First Nation Leaders' Gathering
Attachments: TAB_02B_List_of_Attendees_150908.pdf; ATT00001.htm; TAB_03A_rev_Key_Messages_150908.pdf; ATT00002.htm; TAB_03B_Progress_Achievements_150908.pdf; ATT00003.htm; TAB_03C_Proposed_Commitment_150908.pdf; ATT00004.htm; TAB_03D_rev_FNLCO_Overview_150908.pdf; ATT00005.htm; TAB_03F_rev_TRC_Rec_summary_150908.pdf; ATT00006.htm; ATT00007.htm

Can you please print and leave on your desk, I will pick up over weekend. Thx

Steve Carr
Deputy Minister Natural Gas Development

Begin forwarded message:

From: "Caul, Doug D ABR:EX" <Doug.Caul@gov.bc.ca>
To: "BCPSA Agency DMC List" <PSADM@Victorial.gov.bc.ca>, "Jardine, Kevin EAO:EX" <Kevin.Jardine@gov.bc.ca>, "Mayhew, Neilane ABR:EX" <Neilane.Mayhew@gov.bc.ca>, "Armour, Ken ABR:EX" <Ken.Armour@gov.bc.ca>
Cc: "Taylor, Diane Ruth MTIC:EX" <Diane.R.Taylor@gov.bc.ca>, "Whitford, Kelly M MIT:EX" <Kelly.Whitford@gov.bc.ca>, "Obee, Sarah F HLTH:EX" <Sarah.Obee@gov.bc.ca>, "Shaw, Courtney EDUC:EX" <Courtney.Shaw@gov.bc.ca>, "Salkus, Beverley MNGD:EX" <Beverley.Salkus@gov.bc.ca>, "Meadows, Jennifer L AVED:EX" <Jennifer.Meadows@gov.bc.ca>, "Woodcock, Danielle CSCD:EX" <Danielle.Woodcock@gov.bc.ca>, "Weberg, Brent ABR:EX" <Brent.Weberg@gov.bc.ca>
[EX:/O=BCGOVT/OU=Victorial/cn=Recipients/cn=BRWERBER], "Olson, Alisha PREM:EX" <Alisha.Olson@gov.bc.ca>, "Grills, Kiran GCPE:EX" <Kiran.Grills@gov.bc.ca>, "Richter, Connie JAG:EX" <Connie.Richter@gov.bc.ca>, "Plamondon, Lea TRAN:EX" <Lea.Plamondon@gov.bc.ca>, "Santoso, Patricia JTST:EX" <Patricia.Santoso@gov.bc.ca>, "Cole, Linsey PSA:EX" <Linsey.Cole@gov.bc.ca>, "Kwan, Shirley JTST:EX" <Shirley.Kwan@gov.bc.ca>, "Hart, Emma FIN:EX" <Emma.Hart@gov.bc.ca>, "Cochrane, Marlene MEM:EX" <Marlene.Cochrane@gov.bc.ca>, "Hall, Donna L FLNR:EX" <Donna.Hall@gov.bc.ca>, "Crozier, Bev ENV:EX" <Bev.Crozier@gov.bc.ca>, "Benn, Jennifer MCF:EX" <Jennifer.Benn@gov.bc.ca>, "Fair, Susan P AGRI:EX" <Susan.Fair@gov.bc.ca>, "McCann, Meghan PREM:EX" <Meghan.McCann@gov.bc.ca>, "Ramsay, Launa P SDSI:EX" <Launa.Ramsay@gov.bc.ca>, "Hoskins, Jeannie JAG:EX" <Jeannie.Hoskins@gov.bc.ca>, "Sketchley, Rani ABR:EX" <Rani.Sketchley@gov.bc.ca>, "Roberts, Connie A ABR:EX" <Connie.Roberts@gov.bc.ca>, "Campbell, Carolyn ABR:EX" <Carolyn.Campbell@gov.bc.ca>
Subject: Materials for the Cabinet/First Nation Leaders' Gathering

Colleagues,

As promised, please see attached for the key documents for the Cabinet/First Nation leaders' Gathering scheduled for September 8-10. Please note, the finalized agenda will be sent to you shortly by Ken Armour.

Just to reiterate, Minister Rustad is scheduled to brief Cabinet on September 8. Cabinet Operations will be sending the material to Ministers. All Ministers will have their 1:1 meetings schedule before the event. Please contact your MO if you have any questions regarding the meeting schedule.

Attached you'll find the key documents:

- Agenda/Program: sent to you momentarily;
- List of attendees: an up-to-date list of all registrants;
- Key Messages & Recommended Response: this document includes four of the most current FN IN's;
- Progress & Achievements: BC's notable recent progress and achievements on reconciliation;
- Proposed Commitment Document: a proposed joint agenda and action plan between the FNLC and Province of BC;
- FNLC Profile: background and context of BC Assembly of First Nations, Union of BC Indian Chiefs & First Nations Summit;
- TRC Summary: a detailed summary of the 94 TRC recommendations;
- Map: Highlighting FN communities by Natural Resource Sector Region (suggest this is printed on 11X17 in colour).

Our MARR Minister's Office has been working with their counter parts in all Ministries and GCPE offices in preparation for the event. Ministries have submitted various issues notes by their GCPE directors and you'll notice we've highlighted prevalent information for four of the key issues in the Key Messages document. If you need information on any other Issues Note, please contact your GCPE director.

To ensure everyone has the same level of comfort on this event and to answer any questions you may have, we will be holding a DMC conference call Tuesday morning at 9:30.

Doug Caul
Deputy Minister
Ministry of Aboriginal Relations and Reconciliation

Greg	Louie	Chief	Ahousaht First Nation
Guy	Louie	Councilor	Ahousaht First Nation
Angie	Bailey	Chief	Aitchelitz First Nation
Donald	Sam	Councillor	Akisqnuq First Nation
Joe	Alphonse	Chief	Anaham First Nation
Shane	Gottfriedson	Regional Chief	BC Assembly of First Nations
		Interim Director of	
Elaine	Alec	Operations	BC Assembly of First Nations
Maureen	Grant	Senior Policy Advisor	BC Assembly of First Nations
Joanna	Prince	Policy Analyst	BC Assembly of First Nations
Keith	Matthew	Advisor	BC Assembly of First Nations
Dan	George	Advisor	BC Assembly of First Nations
			BC FIRST NATIONS ENERGY AND MINING COUNCIL
DAVE	PORTER	CEO	
Marvin	Yahey	Chief	Blueberry River First Nations
Norma	Pyle	Councillor	Blueberry River First Nations
Ryan	Day	Chief	Bonaparte Indian Band
Cherlyn	Billy	Councillor	Bonaparte Indian Band
Susan	Tanco	Staff Lawyer	Boothroyd First Nation
Rick	Campbell	Chief	Boothroyd Indian Band
Dolores	O'Donaghey	Chief	Boston Bar First Nation
Susan	James	Chief	Bridge River
Allison	James	ED assistant	Bridge River
			British Columbia Aboriginal Network on Disability Society (BCANDS)
Neil	Belanger	Executive Director	
Daniel	George	Chief	Burns Lake Band
Gilbert	George	Councillor	Burns Lake Band
Mike	Archie	chief	canim lake abnd
Michael	Archie	Chief	Canim Lake Band
Danny	Cresswell	Chief	Carcross/Tagish First Nation
Terry	Teegee	Tribal Chief	Carrier Sekani Tribal Council
Ben	Berland	General Manager	Carrier Sekani Tribal Council
Michelle	Edwards	Chief	Cayoose Creek Indian Band
Perry	Redan	Kukwpi7	Cayoose Creek Indian Band
Rhoda	Peters	Chief	Chawathil First Nation
Sidney	Douglas	Chief	Cheam Indian Band
Darwin	Douglas	Council	Cheam Indian Band
Wayne	Kaboni	Manager	Citxw Nlaka'pamux Assembly
Lee	Spahan	Chief	Coldwater Band
David	Walkem	Chief	Cook's Ferry Indian Band
		President of the Haida Nation	
Peter	Lantin		Council of the Haida Nation
		Council of the Haida Nation	
Robert	Davis	Old Massett representative	Council of the Haida Nation
William	Seymour	Chief	Cowichan Tribes
Jodee	Dick	Lease Officer	Cowichan Tribes
Walter	Carlick	Deputy Chief	Daylu Dena Council Lower Post
Kenneth	McMillan	Councillor	Daylu Dena Council Lower Post
Robert	Joseph	Elected Chief	Dididaht First Nation
Terry	Edgar	Council Representative	Dididaht First Nation
Norman	Davis	Chief	Doig River First Nation
Gerry	Attachie	Councillor	Doig River First Nation
Don	Harris	Chief	Douglas First Nation
Loretta	Stager	Band Administrator	Douglas First Nation
Charlene	Belleau	CHIEF	Esk'eternc
Robert	Phillips	Executive Member	First Nations Summit
		Grand Chief, Executive Member	
Ed	John		First Nations Summit
Cheryl	Casimer	Executive Member	First Nations Summit
Leah	George Wilson	Co-Chair	First Nations Summit

3) Lana	Lowe	Lands Director	Fort Nelson First Nation
3) Franklin	Alexcee	Chief Councillor	Gingolx Village Government
7) Claude	Barton	Deputy Chief Councillor	Gingolx Village Government
3) Darlene	Morgan	Chief Administrative Officer	Gitalxtaamiks Village Government
3) Gerald	Robinson	Chief Councillor	Gitalxtaamiks Village Government
0) Margery	McRae	Chief Councillor	Gitanmaax Band Council
1) Dianne	Shanoss	Executive Director	Gitanmaax Band Council
2) Tony	Morgan	Gitanyow Chief Council	Gitanyow
3) Glen	Williams	Negotiator	Gitanyow Chiefs
4) Cliff	White	Chief Councilor	Gitxaala Nation
5) Clarence	Innis	Deputy Chief Council	Gitxaala Nation
5) Celeste	Haldane	Commissioner	Gitxsan Hereditary Chiefs
7) Susan	Farlinger	Regional Director General for Pacific Region	Government of Canada
3) Paddy	Walkus	Chief	Gwa'sala-'Nakwaxda'xw First Nations
3) Robert	Joseph	Chief	Gwawaenuk First Nation
0) Charlie	Williams	Hereditary Chief	Gwawaenuk Tribe
1) Charlene	Paul	Gwawaenuk Rep	Gwawaenuk Tribe
2) Ellis	Ross	Chief Councillor	Haisla Nation Council
3) Taylor	Cross	Deputy Chief Councillor	Haisla Nation Council
4) Marilyn	Slett	Chief Councillor	Heiltsuk Tribal Council
5) Reg	Moody	Councillor	Heiltsuk Tribal Council
5) April	Charleson	Chief Councillor	Hesquiaht First Nation
7) Jessie	Jim	Councillor	Hesquiaht First Nation
3) MaryAnn	Enevoldsen	Chief	Homalco
3) Myron	Barr	Legal Council	Homalco
0) Jolleen	Dick	Councillor	Hupacasath First Nation
1) Steven	Tatoosh	Chief Councillor	Hupacasath First Nation
2) Karen	Haugen	Executive Director	Huu-ay-ahy First Nations
3) Robert	Dennis	Chief Councillor	Huu-ay-ahy First Nations
4) Allen	Gabriel	CEO	In-SHUCK-ch Nation
5) Gerard	Peters	Chief Negotiator	In-SHUCK-ch Nation
5) Marie	Quock	Chief	Iskut First Nation
7) Carol	Quock	Councillor	Iskut First Nation
3) Ronald	Frank	KCFN Member/Advisor	Ka:'yu:'k't'h'/Che:k'tles7et'h' First Nation
3) Peter	Hanson	Legislative Chief	Ka:'yu:'k't'h'/Che:k'tles7et'h' First Nation
0) Patrick	Michell	Chief	Kanaka Bar Indian Band
1) Susan	Miller	Chief	Katzie First Nation
2) Debbie	Miller	Chief Negotiator	Katzie First Nation
3) Bob	Barnes	Chief	Kispiox Band
4) Joseph	Bevan	Chief Councillor	Kitselas First Nation
5) Roxanne	Ridler	Councillor	Kitselas First Nation
3) Don	Roberts	Chief Councillor	Kitsumkalum First Nation
7) Siegi	Kriegl	Negotiations Coordinator	Kitsumkalum First Nation
3) James	Delorme	Chief	Klahoose First Nation
3) Ken	Brown	QXMC CEO	Klahoose First Nation
0) Robert	Everson	Chief	K'omoks First Nation
1) Melissa	Quocksister	Councillor	K'omoks First Nation
2) Kathryn	Teneese	Nation Chair	Ktunaxa Nation
3) Andreika Hunt	Hunt	Executive Assistant	Kwakiutl Band
4) James D.	Wilson	KDC Chairman	Kwakiutl District Council
5) John	Henderson	Vice Chair	Kwakiutl District Council
3) Coreen	Child	Chief	Kwakiutl Indian Band
7) Les	Antone	Councillor	Kwantlen FN
3) Tumia	Knott	Councillor	Kwantlen FN
3) Steven	Dick	Chief	Kwiahah
0) Robert	Scow	Councillor	Kwicksutaineuk Haxwamis

		Community Economic	
3	Zishan	Shah	Development Manager
0	Lowell	Johnson	Cosultant
1	Allan	Okabe	Band Administrator
2	Theresa	Boucher	Chief
3	Denise	Paul	Councillor
		Natural Resources	
4	Matt	Manuel	Coordinator
5	Cathy	Narcisse	Advisory
6	Rosemary	Stager	Councillor
7	Dean	Nelson	Chief
8	Aaron	Sam	Chief
9	Clarence	Basil	Councilor
0	Keith	Crow	chief
1	Lauren	Trebasket	Chief Councillor
2	Richard	Thomas	Chief Pahalicktun
		Lands & Resources	
3	Kathleen	Johnnie	Coordinator
4	Janet	Webster	Chief
5	Lawrence	Lewis	CEO/Nation Manager
6	Tommy	Harry	Acting Chief
7	Harold	Sewid	Chief
8	Derek	Orr	Chief
9	Harold	Leighton	Chief
0	Alrita	Leask	Council Member
1	John	Rustad	Minister
2	Andrew	Wilkinson	Minister
3	Stephanie	Cadieux	Minister
4	Peter	Fassbender	Minister
5	Mike	Bernier	Minister
6	Bill	Bennett	Minister
7	Mary	Polak	Minister
8	Mike	De Jong	Minister
9	Steve	Thomson	Minister
0	Terry	Lake	Minister
1	Teresa	Wat	Minister
2	Shirley	Bond	Minister
3	Suzanne	Anton	Minister
4	Rich	Coleman	Minister
5	Coralee	Oakes	Minister

Shen	Green	Deputy Chief M-I-B	Moricetown Band
1 Tanya	Michell	Counsellor	Moricetown Band
2 Wayne	Sparrow	Chief	Musqueam Indian Band
3 Wendy	Grant-John	Councillor	Musqueam Indian Band
4 Fred	Sam	Chief	Nak'azdli Whut'en
5 Anne	Sam	Councillor	Nak'azdli Whut'en
6 Kelly	Speck	Namgis Councillor	Namgis First Nation
7 Debra	Hanuse	Chief	Namgis First Nation
8 Dallas	Smith	President	Nanwakolas Council
9 Merv	Child	Executive Director	Nanwakolas Council
0 Stuart	Alec	Chief	Nazko First Nation
1 Bram	Rogachevsky	Advisor	Nazko First Nation
2 Joan	Manuel Hooper	Councillor	Neskonlith Band
3 Arthur	Anthony	Councillor	Neskonlith Band, Secwepemc Nation
4 Jeff	Munroe	Band Manager	Nicomen Indian Band
5 Donna	Gallinger	Chief	Nicomen Indian Band
6 Kevin	McKay	Executive Chairperson	Nisga'a Nation
7 Corinne	McKay	Secretary-Treasurer	Nisga'a Nation
8 Ron	Nyce	Chief Councillor	Nisgaa Village of Gitwinksihlkw
9 Charles	Morven	Deputy Chief Councillor	Nisgaa Village of Gitwinksihlkw
0 Henry	Moore	Chief Councillor	Nisga'a Village of Laxgalts'ap
1 Andrew	Robinson	CAO	Nisga'a Village of Laxgalts'ap
2 Debbie	Abbott	Executive Director	Nlaka'pamux Nation Tribal Council
3 Matt	Pasco	NNTC	Nlaka'pamux Nation Tribal Council
4 Marcel	Shackelly	Chief	Nooaitch Indian Band
5 Esther	Shackelly	Councillor	Nooaitch Indian Band
6 Archie	Little	Council	Nuchatlaht First Nation
7 Archie	Little	Councillor	Nuchatlaht Tribe
8 Walter	Michael	Tyee (Chief)	Nuchatlaht Tribe
9 Debra	Foxcroft	President	Nuu-chah-nulth Tribal Council
0 Ken	Watts	Vice President	Nuu-chah-nulth Tribal Council
1 Wally	Webber	Elected Chief Councillor	Nuxalk Nation
2 Wilma	Mack	Executive Director of Administration	Nuxalk Nation
3 Beverley	Clifton Percival	Negotiator	Office of the Gitksan Hereditary Chiefs
4 John	Ridsdale	Chief Na'Moks	Office of the Wet'suwet'en
5 Allen	Cummings	Governance Director	Office of the Wet'suwet'en
6 Byron	Louis	Chief	Okanagan Indian Band
7 Pauline	Terbasket	Executive Director	Okanagan Nation Alliance
8 Jay	Johnson	Senior Policy Advisor/Chief Negotiator	Okanagan Nation Alliance
9 Verna	Power	Old Fort Councillor	Old Fort Community
0 Barbra	Tom	Executive Director - Old Fort	Old Fort Community
1 Ken	Rea	Chief Councilor	Old Massett Village Council
2 Florence	Lockyer	Band Administrator	Old Massett Village Council
3 ROBERT	PASCO	CHIEF	OREGON JACK CREEK BAND
4 Harold	Froste	Councillor	OREGON JACK CREEK BAND
5 Tracy	Charlie	Elected Councillor	Pacheedaht First Nation
6 Arliss	Daniels	Elected Chief Councillor	Pacheedaht First Nation
7 Tom	Allan	Council	Pauquachin First Nation
8 Darlene	Henry	Council	Pauquachin First Nation
9 Ruth	Sauder	Chief Administrative Officer	Penelakut Tribe
0 Jonathan	Kruger	Chief	Penticton Indian Band
1 Derek	MacDonald	Woyenne Councillor	Pinkut Lake/Donalds Landing Community
			Pinkut Lake/Donalds Landing

		Executive Director or	
3 Ben	Chin	Communications and Issues Management	Province of B.C.
3 Sam	Oliphant	Press Secretary	Province of B.C.
3 Evan	Southern	Director of Issues Management	Province of B.C.
1 Andrew	Ives	Ministerial Assistant	Province of B.C.
2 Wade	Grant	Special Advisor	Province of B.C.
3 Doug	Caul	Deputy Minister	Province of B.C.
1 Neilane	Mayhew	Associate Deputy Minister / Chief Operating Officer	Province of B.C.
5 Carolyn	Campbell	Chief of Staff	Province of B.C.
3 Jen	Chalmers	Chief of Staff	Province of B.C.
7 Terry	Lalari	Chief of Staff	Province of B.C.
3 Joan	Dick	Chief of Staff	Province of B.C.
3 Kevin	Langlands	Ministerial Assistant	Province of B.C.
1 Cynthia	Petrie	Ministerial Assistant	Province of B.C.
1 Martina	Kapac de Frias	Ministerial Assistant	Province of B.C.
3 Greg	Moy	Executive Assistant	Province of B.C.
3 Bruce	Strongitharm	Chief of Staff	Province of B.C.
1 Katy	Merrifield	Chief of Staff	Province of B.C.
5 Jay	Denney	Chief of Staff	Province of B.C.
3 Mark	Knudsen	Ministerial Assistant	Province of B.C.
7 Matt	Holme	Chief of Staff	Province of B.C.
3 Matt	Mitschke	Chief of Staff	Province of B.C.
3 Manjit	Gill	Ministerial Assistant	Province of B.C.
3 Valerie	Richmond	Chief of Staff	Province of B.C.
1 Nick	Facey	Chief of Staff	Province of B.C.
2 Derek	Cummings	Ministerial Assistant	Province of B.C.
3 Rhonda	Larrabee	Chief	Qayqayt First Nation
1 Sharel	Wright	Band Councillor	Qayqayt First Nation
5 James	Nelson	Councillor	Quatsino
3 Marilyn	Brotchie	Councillor	Quatsino
7 Stanley	Thomas	Chief	Saik'uz First Nation
3 Albert	George	Councillor	Saik'uz First Nation
3 Kathleen	Smith	Chief	Samahquam
3 Malcolm	Smith	Councillor	Samahquam
1 Nathan	Parenteau	Chief	Saulteau First Nations
2 Janell	Jackson	Councillor	Saulteau First Nations
3 Colin	Pennier	Chief	Scowlitz
1 Olivia	Buck	Board of Director	Scw'exmx Community Health Services Society
5 Clement	Seymour	Chief	Seabird Island Band
3 Jay	Hope	Corporate Affairs Director	Seabird Island Band
7 Clifford	Casper	Councillor	Seton Lake Band
3 Larry	Casper	Chief	Seton Lake Band
3 Percy	Joe	Chief	Shackan Band
3 Lennard	Joe	Shackan Indian Band	Shackan Indian Band
1 Calvin	Craigan	Chief	shishalh First Nation
2 Garry	Feschuk	Councillor	shishalh First Nation
3 Barb	Cote	Chief	Shuswap Indian Band
3 Bonnie	Leonard	Tribal Director	Shuswap Nation Tribal Council
5 Tina	Sam	Chief	Shxwhay Village
3 Robert	Gladstone	Councillor	Shxwhay Village
7 Irene	Smith	Councillor	Shxw'owhamel First Nation
3 Lenora	Fraser	Councillor	Shxw'owhamel First Nation
3 James	Foster	Rights and Title Coordinator	Simpcw First Nation
3 Don	Matthew	Councilor	Simpcw First Nation
1 Fred	Sampson	Chief	Siska Indian Band
2 Dave	Schaepe	Dr.	Skawahlook First Nation
3 Ron	Ignace	Chief	Skeetchestn Indian Band

4	David	Bob	Chief	Snaw-naw-as-First-Nation
3	John	Wesley	Chief	Snuneymuxw First Nation
1	Ron	Sam	Chief	Songhees Nation
5	Garry	Albany	Councillor	Songhees Nation
			Council/Community Coordinator	
3	Marcella	Commodore	Coordinator	Soowahlie First Nation
7	Kevin	Kelly	Councillor	Soowahlie First Nation
3	David	Lawrence	Lands Manager	Spayum Development Ltd.
3	Wayne	Christian	Chief	Splatsin
0	George	William	Councillor	Splatsin
1	James	Hobart	Chief	Spuzzum First Nation
2	Patricia	Eidem	Councillor	Spuzzum First Nation
3	Joshua	Joseph	Councillor	Squamish Nation
1	Ian	Campbell	Cultural Liaison Negotiator	Squamish Nation
5	David	Jimmie	Chief/CEO	Squiala First Nation / Ts'elxweyeqw Tribe / Sto:lo Nation
3	Laurie	Throness	MLA	Sto:lo and more in riding
7	Doug	Kelly	President	Sto:lo Tribal Council
3	Andy	Phillips	Director	Stolo Tribal Council
3	Harvey	Paul	Chief	Sts'ailes
				Sts'ailes (formerly Chehalis Indian Band)
0	Willie	Charlie	Chief Negotiator	
1	Patrick	Harry	Chief	Stswecem'c Xgat'tem First Nation
2	Catlin	Duncan	council	Stswecem'c Xgat'tem First Nation
				Stz'uminus First Nation/Coast
3	Ray	Gauthier	CEO	Salish Development
				Stz'uminus First Nation/Coast
1	John	Elliott	Chief	Salish Development
5	Jacqueline	Bird	Councillor	Sumas
3	Dalton	Silver	Chief	Sumas First Nation
7	Millie	Alec-George	Tachet Councillor	Tachet Community
3	Delores	Alec	Tachet Councillor	Tachet Community
9	Richard	Jackson	Councillor	Tahltan BAnd
0	Geraldine	Quock	Councillor	Tahltan BAnd
1	Chad	Day	President	Tahltan Central Government
2	Heather	Hawkins	Vice President	Tahltan Central Government
3	Louise	Gordon	Spokesperson	Taku River First Nation
1	Carl	Sidney	Chief	Teslin Tlingit Council
5	Blanche	Warrington	Executive Councillor	Teslin Tlingit Council
3	Duane	Aucoin	Executive Council	Teslin Tlingit Council
				Thompson Okanagan, Aboriginal
7	Sharon	Bond	Board of Director	Tourism BC
3	Kevin	Whitney	Chief	T'it'q'et
9	Shelley	Leech	Tribal Chief	T'it'q'et First Nations Community
0	Fred	Seymour	Councillor	Tk'emlups te Secwepemc
1	Richard	Jules	Councillor	Tk'emlups te Secwepemc
2	Clint	Williams	Chief	Tla'amin First Nation
3	Dillon	Johnson	Councillor	Tla'amin First Nation
1	Francis	Frank	Chief	Tla-o-qui-aht First Nation
5	Joe	David	Councillor	Tla-o-qui-aht First Nation
3	Justa	Monk	Chief	Tl'azt'en Nation
			Economic Development	
7	Ron	Winser	Officer	Tl'azt'en Nation
3	John	Smith	Chief	Tlowitsis Tribe
9	Peyal	Gilpin	Youth	Toosey First Nation
0	Francis	Laceese	Chief	Toosey First Nation
1	Anne	Mack	Chief	Toquaht Nation
2	Sarah	Robinson	Director of Operations	Toquaht Nation
			Executive Assistant to the	
3	Tanya	Corbet	Chief	Tsawwassen First Nation
1	Bryce	Williams	Chief	Tsawwassen First Nation

Francis	Alec	Chief	TSKWAYIAWXW FIRST NATION
Jen	Thomas	Councillor	Tsleil-Waututh Nation
Maureen	Thomas	Chief	Tsleil-Waututh Nation
Carleen	Thomas	Project Manager	Tsleil-Waututh Nation
Jennifer	Thomas	Council Member	Tsleil-Waututh Nation
Gordon	Planes	Chief	Tsouke First Nation
James	Atebe	General Manager	Tzeachten First Nation
Glenda	Campbell	Chief	Tzeachten First Nation
Roshan	Danesh	Lawyer	UBCIC
Charlie	Cootes	Chief Councillor	Uchucklesaht Tribe Government
Scott	Coulson	CAO/Director of Finance	Uchucklesaht Tribe Government
Les	Doiron	President	Ucluelet First Nation
Allen	Louie	council	ulkatcho
Laurie	Vaughn	Stewardship Office Coordinator	Ulkatcho
Judy	Wilson	Secretary-Treasurer	Union of BC Indian Chiefs
Stewart	Phillip	Grand Chief	Union of BC Indian Chiefs
Bob	Chamberlin	Chief	Union of BC Indian Chiefs
Stewart	Phillip	Grand Chief, President	Union of BC Indian Chiefs
Judy	Wilson	Secretary-Treasurer	Union of BC Indian Chiefs
Bob	Chamberlin	Vice President	Union of BC Indian Chiefs
Don	Bain	Executive Director	Union of British Columbia Indian Chiefs
Andrea	Glickman	Policy Advisor	Union of British Columbia Indian Chiefs
Roshan	Danesh	Legal Advisor	Union of British Columbia Indian Chiefs
Matthew	Norris	Policy Analyst	Union of British Columbia Indian Chiefs
Harvey	McLeod	Chief	Upper Nicola Band
Ralph	Dick	Chief	We Wai Kai First Nation
Robert	Pollard	Chief	Wei Wai Kum
Roland	Willson	Chief	West Moberly First Nations
Mike	De Guevara	Councillor	Westbank First Nation
Raf	Deguevara	Manager	Westbank First Nation
KAREN	OGEN	CHIEF	WET'SUWET'EN FIRST NATION
ERWIN	TOM	COUNCILLOR	WET'SUWET'EN FIRST NATION
Ralph	Dick	Chief	WeWaiKai Nation
Brian	Assu	Councillor	WeWaiKai Nation
Michael	LeBourdais	Chief	Whispering Pines Clinton Band
Ann	Louie	Chief	Williams Lake Indian Band
Rick	Gilbert	Councillor	Williams Lake Indian Band
Darren	Patrick	Woyenne Councillor	Woyenne Community
Melvin	Joseph	Woyenne Councillor	Woyenne Community
Alexander	Chatrand	Chief Negotiator	Wuikinuxv Nation
Rose	Hanuse Hackett	Chief	Wuikinuxv Nation
Donna	Dixon	Chief	Xat'sull First Nation
Darrell	Bob	Chief	Xaxlip First Nation
Roger	William	Chief	Xeni Gwet'in, Tsilhqot'in National Government
Loretta	Williams	Councillor	Xeni Gwet'in, Tsilhqot'in National Government
Frank	Malloway	Chief	Yakweakwoose
Nicole	LaRock	Councilor	Yakweakwoose
Allen	Joseph	Chief	Yekooche First Nation
Brandon	Prince	Executive Director	Yekooche First Nation
Russell	Myers-Ross	Chief	Yunesit'in, Tsilhqot'in National Government
Jessica	Setah-Alphonse	Councillor	Yunesit'in, Tsilhqot'in National Government
Vickie	Thomas	Councilor	?aqam St. Mary's

BC CABINET AND FIRST NATIONS LEADERS' GATHERING

First Nations Leadership Council - Overview

Background/Context:

The three BC First Nation political organizations – The First Nations Summit (FNS), the Union of BC Indian Chiefs (UBCIC) and the BC Assembly of First Nations (BCAFN) formed a First Nation coalition known as the First Nations Leadership Council (FNLC) in 2005. The FNLC membership is comprised from the Executive of each organization, currently:

- BC Assembly of First Nations: Regional Chief Shane Gottfriedson comes from Tk'elmlups te Secwepemc formerly known as Kamloops Indian Band).
- Union of BC Indian Chiefs: Grand Chief Stewart Phillip of the Penticton Indian Band; Chief Bob Chamberlin of Kwicksutaineuk-Ah-kwaw-ah-mish First Nation; and Kukpi7 Judy Wilson, Chief of the Neskonlith Indian Band in the BC Interior.
- First Nations Summit: Grand Chief Ed John, hereditary Chief of the Tl'azt'en Nation; Cheryl Casimer of the Ktunaxa First Nation; and Robert Phillips of the Northern Secwepemc te Qelmucw (Shuswap) of the Canim Lake First Nation.

While the members of the FNLC work together to engage with the Province, they remain separate entities. They are mandated separately from each of their organizations and are responsible to act on the resolutions of their respective organizations. Demonstrable progress at the community level is very important to their members. The FNLC member organizations represent BC First Nations who are recognized as "rights-bearing Aboriginals" or "Status Indians" by the federal government.

Government and the FNLC engage through occasional meetings with the Premier; more frequent meetings with the Minister of MARR and Deputy Ministers, and regular meetings at the officials level on individual topics such as resource development, environmental protection, children and families, emergency management and education. MARR has also facilitated meetings between the FNLC, provincial officials and members of the British Columbia business community.

BC CABINET AND FIRST NATIONS LEADERS' GATHERING

First Nations Leadership Council Biographies

BC REGION – ASSEMBLY OF FIRST NATIONS

BACKGROUND:

The British Columbia Assembly of First Nations (BCAFN) membership is open to all First Nations in British Columbia, both in and out of the treaty process, and with historic or modern treaties. The Regional Chief is elected by those First Nations Chiefs in BC that choose to attend the BCAFN meetings.

BCAFN is a regional arm of the National Assembly of First Nations (AFN). Regional Chief Shane Gottfriedson is an Executive Member of the National AFN Executive Committee.

The BCAFN have outlined four key areas as critical to meeting their shared objective of improving the lives of First Nation peoples and ensuring practicing and thriving cultures:

- Strong and Appropriate Governance;
- Fair Land & Resource Settlements;
- Improved Education; and
- Individual Health

REGIONAL CHIEF

Shane Gottfriedson

Regional Chief, Shane Gottfriedson was elected BC Regional Chief for the BC Assembly of First Nations at the Sheraton Wall Centre in Vancouver during the 12th BCAFN Annual General Meeting on June 25, 2015.

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Shane s.22
his community in 2003. He has since served four (4) consecutive terms.

before being elected chief of

Shane has served as the Tribal Chief for the Shuswap Nation Tribal Council which concentrates on advancing Aboriginal rights and title by focussing on unity and shared territory. He also continues to advocate for the Douglas Reserve land claim and Indian Residential Day Scholars' class action suit.

In addition, Shane has served on the Chief's Governance Council, the Aboriginal Business Investment Council, Cn'nook Sauder School of Business Advisory Board, Minister Polak's Roundtable on Environment and the First Nations Gaming Commission.

BC CABINET AND FIRST NATIONS LEADERS' GATHERING

UNION OF BC INDIAN CHIEFS (UBCIC)

BACKGROUND:

Since 1969, UBCIC has consistently opposed Canada's comprehensive claims and the BC Treaty Commission treaty-making process because they believe that current treaty processes require the surrendering of Aboriginal title and rights in order to settle the land question.

UBCIC's stand on Aboriginal rights and title is based on the argument that Aboriginal title predates Crown title, and that the British, federal and provincial governments were legally obliged to make treaties with First Nations before alienating any land for settlement or other purposes.

UBCIC does not share members' names, but a significant number of First Nations in the interior, on the coast, and in other areas have joined. Most of its members are not in the BC Treaty Commission (BCTC) process. Most First Nations in the BCTC process are members of the First Nations Summit.

Political direction for UBCIC is provided by a three-person executive committee.

UBCIC EXECUTIVE COMMITTEE

Grand Chief Stewart Phillip, President:

Grand Chief Phillip is currently serving his fifth three-year term as the President of the UBCIC. In addition, he was Chief of the Penticton Indian Band for over 20 years, ending in October 2008. Prior to that, he served as a Band Councillor.

In October 2006, the Okanagan Nation, led by the Elders of the Penticton Indian Band, acknowledged his lifetime commitment to the defence of Indigenous Peoples' Title and Rights by bestowing on him the honour of the title of Grand Chief. Grand Chief Phillip continues to serve as the Chair of the Okanagan Nation Alliance.



He has taken an active role in the defence of Aboriginal Title and Rights by supporting First Nation communities. He has been involved in raising the impact of fish farms in the Broughton Archipelago, lobbying on Parliament Hill to defeat the First Nations Governance Act, standing with Elders of Treaty 8 against oil and gas development in the Peace River, burning referendum ballots with fellow chiefs in protest and has stood on the steps of the Legislature with 3000 other people under the Title and Rights Alliance banner.

BC CABINET AND FIRST NATIONS LEADERS' GATHERING

Chief Bob Chamberlin, Vice-President:

Chief Bob Chamberlin is the Chief of the Kwicksutaineuk Ah-kwa-mish First Nation, first elected in 2005. In addition to this he served for five years as Chairman of the Musgamagw-Tsawataineuk Tribal Council. Prior to being Vice-President of the UBCIC, he served as Secretary/Treasurer for one term.

Bob Chamberlin is a Traditional singer for the Kwakwakawakw people. He has also worked as an Audio Consultant where he digitized libraries of reel to reel and cassette recordings of traditional songs of his people.



Chief Chamberlin negotiated resources to rebuild much of the village of Gwa-yas-dums on Gilford Island. This included a water treatment facility, power supply, a new subdivision, six new homes and extensive renovations of existing homes.

In his role as Co-Spokesperson of the First Nation Chiefs Family and Wellness Council, Chief Chamberlin has turned his attention to address funding, resources and services for the children in care in British Columbia.

Kukpi7 Judy Wilson - Secretary-Treasurer: (No photo available)

Chief Kukpi7 Judy Wilson was elected at the 27-November 2013 UBCIC Chiefs Council Meeting.

Chief of the Neskonlith Indian Band in the BC Interior, Judy Wilson has a media background in audio-visual production, book publishing, broadcast journalism and web planning. s.22

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She is nearing completion of a First Nations Public Administration program leading to a Master's Degree in Public Relations.

BC CABINET AND FIRST NATIONS LEADERS' GATHERING

FIRST NATIONS SUMMIT

BACKGROUND

The First Nations Summit (FNS) Task Group is the Political Executive of the First Nations Summit. The Task Group is elected and authorized by Summit Chiefs in Assembly to carry out specifically-mandated tasks on issues related to treaty negotiations.

The FNS is comprised of a majority of First Nations and Tribal Councils in British Columbia, and provides a forum for First Nations to address issues related to treaty negotiations as well as other issues of common concern.

As one of the three principals of the BC Treaty Commission (BCTC) process, the First Nations Summit plays an important and ongoing role in ensuring that the process for conducting treaty negotiations is accessible to all First Nations.

The Summit does not negotiate treaties, but supports those negotiations, provides political direction, and speaks on behalf of First Nations involved in the BCTC process.

The current FNS Task Group members elected by FNS Chiefs at the June 2013 Assembly are Grand Chief Edward John, Cheryl Casimer, and Robert Phillips.

The First Nations Summit Co-Chairs are Chief Leah George-Wilson of Tsleil-Waututh Nation and Ray Harris (Shulqwilum) of Chemainus First Nation. The Co-Chairs are Executive Members responsible for the administration of the First Nations Summit. This is Ms. George-Wilson's fifth term and Mr. Harris' third term as Co-chairs.

EXECUTIVE BIOGRAPHIES

Grand Chief Edward John:

Grand Chief Edward John (Akile Ch'oh), hereditary Grand Chief of the Tl'azt'en Nation, is serving his tenth term as a member of the FNS political executive.

Chief John was a member of the tripartite BC Claims Task Force which recommended the establishment of the independent BC Treaty Commission to facilitate treaty negotiations. Chief John was also recently re-appointed by the President of the United Nations Economic and Social Council as an Indigenous Member of the United Nations Permanent Forum on Indigenous Issues (UNPFII) for North America for the term 2014-2016.

BC CABINET AND FIRST NATIONS LEADERS' GATHERING

Cheryl Casimer

Cheryl Casimer, citizen of the Ktunaxa Nation and currently resides in the community of ?aqam (St. Mary's Band), is serving her first term on the FNS political executive.

She is a former Chief and Councillor of the ?aqam First Nation and a former Co-Chair of the First Nations Summit. Ms. Casimer is a longstanding advocate for First Nations Issues and perspectives, and is committed to building better bridges of understanding between neighboring cultures.

Robert Phillips:

Robert Phillips, member of the Northern Secwepemc te Qelmucw (Shuswap) of the Canim Lake First Nation, is serving his first term with the FNS political executive.

He previously served three terms as a Commissioner of the BC Treaty Commission and also previously served as Chief Negotiator and Self-Government Director at the Northern Shuswap Tribal Council. He holds a Bachelor of Arts degree from the University College of the Fraser Valley.

Pictured left to right:

Robert Phillips, Leah George-Wilson, Ray Harris, Cheryl Casimer, and
Grand Chief Edward John





BRITISH
COLUMBIA

British Columbia Earthquake Preparedness *Consultation Report*

PREPARED FOR THE ATTORNEY GENERAL AND MINISTER OF JUSTICE

HENRY RENTERIA | DECEMBER 2014





December 19, 2014

Dear Minister Anton:

I am pleased to submit my final report for your consideration, in accordance with the terms of reference for the BC Earthquake Preparedness Consultation.

Thank you for giving me the opportunity to meet and confer with a wide variety of B.C. Stakeholders regarding their earthquake preparedness concerns and priorities. It was my honour and pleasure to be involved in this important initiative.

Through your leadership and vision, the Ministry has already begun the initial work towards a comprehensive earthquake preparedness program. Lori Wanamaker, Deputy Solicitor General, and Pat Quealey, Assistant Deputy Minister, are providing excellent executive management to guide Emergency Management BC (EMBC) in the oversight of existing strategic programs. I am thoroughly impressed with the level of expertise and professionalism exhibited throughout the EMBC organization and especially the staff. They are truly committed and take their responsibilities very seriously.

The focus of the report calls for a development of a culture of preparedness in British Columbia. Collaboration and cooperation among government, the private sector and the general public is the formula for success. Additionally the specific agencies responsible for leading preparedness efforts must have the necessary authority and resources to accomplish their goals.

It is my sincere hope that this report and the specific recommendations prove to be of value to you and the people of British Columbia.

Yours truly,
Henry R. Renteria,
The Renteria Group

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Introduction

The existence of active earthquake faults in the Pacific Northwest is well documented. While we cannot predict when, where, or how large an earthquake will be, the probability is high that a major earthquake will cause damage to highly populated areas of B.C. within 50 years. (Appendix B describes the types of earthquake B.C. is subject to and the risk these represent).

Based on significant earthquakes that have occurred throughout the world, there are many documented after-action reports and an abundance of research regarding their effects on cities and populations. Additionally, there are numerous reports and testimonials from public safety officials to remind us that efforts put in place prior to such disasters can go far in minimizing an earthquake's impacts.

In B.C., the lack of significant seismic activity near highly populated areas has resulted in widespread apathy. This has meant that earthquake preparedness has not received the day-to-day attention that other pressing needs have received. Consequently, earthquake and disaster preparedness programs have been cut or restricted in growth and resources have been devoted to other priorities and programs. Certainly, there are preparedness successes and strengths in B.C. that should be recognized, and there are numerous stakeholders who are highly committed to this issue. Overall though, it seems that progress on earthquake preparedness has been limited. Simply put, sufficient resources and priority have not been devoted to this effort.

Thus, B.C. faces a challenge. The earthquake threat has been studied and adequately assessed. Further, actions needed to mitigate an earthquake's impact have been adequately identified in numerous previous reports by organizations such as the Office of the Auditor General (OAG) of BC (See Appendix C for a list of previous reports). But on the whole, British Columbians, and the majority of their institutions, have either not made earthquake preparedness a priority, or have been unable to make significant progress on addressing this issue within existing systems and with existing resources.

In the course of consultations this summer, stakeholders voiced a wide variety of preparedness needs and put forward a multitude of recommendations, many of which are reflected in this report. However, action on a selection of these needs in isolation will not make B.C. prepared. What is required is a holistic approach with all parties recognizing that they have a role to play. Achieving progress through such an approach will depend upon creating a culture of preparedness in B.C., and ensuring that the emergency management system empowers all parties both inside and outside of governments and provides for leadership where it is required.

It is for this reason that this report's recommendations focus on getting the overall emergency management system right, and institutionalizing a culture of preparedness. Motivating, empowering, and leading individuals and agencies to tackle the many necessary preparedness enhancements must be our goal. Among the many pressing issues put forth by stakeholders, this is the crosscutting need and the pre-condition for action on all other preparedness gaps. It is this pre-condition which has been lacking historically.

While this report was commissioned by and is submitted to the Attorney General and Minister of Justice, representing the provincial government, its recommendations are not for the provincial government alone. No one agency or any one level of government can prepare B.C. for a catastrophic event. Having said that, there are opportunities for governments to show integrated leadership on this issue, and the recommendations pay particular attention to the resources and authority of the provincial government's lead emergency management agency, Emergency Management BC (EMBC).

Addressing the full scope of earthquake preparedness needs for a jurisdiction the size of B.C. is not an inexpensive proposition. Meaningful progress will require integrated leadership and additional resources. The roadmap to greater preparedness is understood by EMBC. The main obstacles are funding, staffing, and empowerment for lead agencies, such as EMBC, and a wide range of strategic partners.

Five, 10 and 20 years from now, B.C.'s state of earthquake preparedness will be more dependent on its success at moving towards a culture of preparedness and setting the conditions for action than on any specific preparedness enhancements selected for investment in the short- or medium-term.

It is with this in mind that this report's recommendations are put forth for consideration.



Executive Summary

The Earthquake Preparedness Consultation was announced by B.C.'s Attorney General and Minister of Justice on March 11, 2014. Chaired by Henry Renteria, former head of California's Office of Emergency Services and a member of the Governor's Cabinet in that capacity, its objective was to engage with B.C. stakeholders to gather feedback regarding earthquake preparedness issues and priorities (See Appendix A for a short biography of Henry Renteria). As Chair, Henry Renteria was instructed to consider this feedback, and provide recommendations to government by Dec. 31, 2014 on how British Columbians could improve their preparedness for a catastrophic earthquake.

Consultations, conducted during the April to July 2014 period, engaged with a wide variety of stakeholders both within and outside of government. Overall, stakeholder feedback reflected serious concerns regarding B.C.'s preparedness for a catastrophic earthquake, public and institutional apathy, a lack of resources devoted to the issue, and the need for additional leadership. These stakeholder concerns support the findings of other reports on earthquake preparedness which have been completed over the last 20 years, including the recent March 2014 report "*Catastrophic Earthquake Preparedness*" by the OAG of BC.

While progress has been made on earthquake preparedness, and significant work is underway currently for which involved parties should be applauded, the majority of the preparedness gaps and recommendations outlined in previous reports appear to remain valid today.

The concerns of stakeholders, and the long history of relative apathy regarding earthquake preparedness in B.C., speak to the need for systemic and cultural changes on this issue. Driving such change is the focus of this report's recommendations.

As reflected in the recommendations, governments at all levels must provide their agencies with the authority and resources required to fulfill their disaster preparedness responsibilities and provincial and federal governments must provide further funding assistance to help empower local authorities. Organizations outside of government as well as the public also have preparedness responsibilities which they must come to understand, accept and fulfil. System-wide, the expectations of different agencies and organizations must be identified, and accountability measures must be implemented. Further, enhanced plans, training and exercising need to be pursued to ensure that all elements of the system can work together seamlessly.

The recommendations in this report address these issues and suggest a path forward. They do not suggest a multitude of investments in specific emergency management capabilities (though several are noted). Rather, they are designed to set the systemic and cultural conditions for long-term change and allow British Columbians to work successfully towards greater preparedness.

A list of recommendations is provided on the next page. Key recommended actions in support of each recommendation are delineated in the "Recommendations" section, and are summarized in Appendix G: *Summary of Recommendations and Key Actions*.

LIST of RECOMMENDATIONS:

RECOMMENDATION #1: LEADERSHIP, AUTHORITY AND RESPONSIBILITY

The provincial government must provide EMBC with additional resources and the authority required to effectively deliver emergency management leadership to provincial crown agencies and local authorities. Further, EMBC must be positioned within government in such a fashion that its authority is greatly enhanced.

RECOMMENDATION #2: FUNDING AND ACCOUNTABILITY

The provincial and federal governments must implement a funding program to support local authority preparedness efforts, and leverage emergency management funding to:

- ▶ Increase emphasis on planning and mitigation; and,
- ▶ Increase local authority accountability.

RECOMMENDATION #3: INTERGOVERNMENTAL AND INTER-AGENCY COORDINATION

Federal, provincial, and local authorities, as well as other entities, such as those in the private sector, must ensure that they have the integrated plans and capacities in place to deal with a catastrophic event.

RECOMMENDATION #4: PUBLIC EDUCATION, AWARENESS AND ENGAGEMENT

EMBC, together with significant agencies at all levels of government and private sector partners, must launch a long-term and coordinated earthquake preparedness public education and awareness campaign. New funding and staff will be required.

RECOMMENDATION #5: PRIVATE SECTOR AND NON-GOVERNMENTAL ORGANIZATIONS

The Province must prepare and resource a strategy for further engagement of the private sector in emergency management planning, including mandated requirements for private sector entities.

RECOMMENDATION #6: TRAINING AND EXERCISING

The provincial government must resource EMBC with additional staff and funding to develop and implement comprehensive training and exercise strategies with partners.

RECOMMENDATION #7: PROVINCEWIDE RISK ANALYSIS

In the long-term, EMBC and its partners must develop a strategy for enhanced hazard risk and vulnerability analysis and for increasing the availability of emergency management risk data for use by local authorities, the private sector, First Nations and the public.

RECOMMENDATION #8: EMERGENCY MANAGEMENT CAPABILITY PRIORITIES

Federal, provincial, and local governments must invest in emergency management capability enhancements in such areas as alerting, logistics, urban search and rescue, rapid damage assessment, and 911.

About the Earthquake Preparedness Consultation

PURPOSE and SCOPE

On March 25, 2014, the OAG of BC released a report titled "Catastrophic Earthquake Preparedness" which focused on EMBC planning and reporting with respect to the eventuality of a damaging earthquake. The report concluded that EMBC, the lead agency at the provincial level for emergency management, was not adequately prepared for such an event. The report included nine recommendations to the provincial government, all of which were accepted.

It is worth noting that the 2014 OAG report focused only on one part of B.C.'s emergency management system – EMBC. In B.C., emergency management is a shared responsibility between the public, all levels of government, and numerous stakeholders. Thus, enhancing B.C.'s preparedness for a catastrophic earthquake, or any catastrophic event, necessarily involves all parties, not just EMBC.

Government's March 2014 response to the 2014 OAG report noted that action was already underway on a number of the report's recommendations, but that long-term efforts would have to be informed by broader stakeholder input, consistent with the principle of shared responsibility noted above. On March 11, 2014, the Province announced that between April and July, there would be extensive consultation with B.C. stakeholders regarding issues, priorities, and opportunities in the area of catastrophic earthquake preparedness.

Henry Renteria, former director of California's Office of Emergency Services (OES), and a member of the Governor's Cabinet from 2003 to 2009, and now head of the Renteria Group of consultants, was appointed the Chair of this Earthquake Preparedness Consultation initiative. As Chair, he was tasked with leading an extensive consultation with a wide range of B.C. stakeholders on improving the ability of British Columbians to prepare for and respond to a catastrophic seismic event. As an expert in the field of emergency management and leadership, Renteria was further tasked with providing concrete recommendations on how British Columbians' preparedness for such an event could be improved, taking into account stakeholder priorities.

The Terms of Reference for the Earthquake Preparedness Consultation (see Appendix D: *Terms of Reference*) created a wide scope of inquiry, allowing the Chair to draw in feedback from as wide a range of organizations on as wide a range of earthquake preparedness issues as time permitted. Further, as the consultation was initiated, it became clear that while the focus would remain on earthquake preparedness, broader disaster preparedness issues would also necessarily be considered due to the extensive overlap between preparedness requirements for a catastrophic earthquake and those for other disasters.

STAKEHOLDERS CONSULTED

As noted above, the Earthquake Preparedness Consultation canvassed a wide range of stakeholders over the April to July 2014 period. Stakeholders engaged fell into two broad categories:

- ▶ Local government and First Nations.
- ▶ Additional stakeholders, such as federal agencies, the private sector, non-governmental organizations, neighbouring jurisdictions, etc.

LOCAL GOVERNMENT AND FIRST NATIONS
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The largest category of stakeholders invited to meet with the Chair was that of local authorities and First Nations. Seventeen community sessions on earthquake preparedness were organized with meeting locations focused on those regions at highest risk from seismic events (See Appendix F: *Earthquake Preparedness Consultation: Community Sessions Schedule*).

In a May 2014 letter, Attorney General and Minister of Justice Suzanne Anton informed all local authorities (189) and First Nations (200) in B.C. about the Earthquake Preparedness Consultation and invited their participation. EMBC subsequently followed up with a written invitation for all local authorities and First Nations in B.C. to attend one of the 17 community sessions scheduled.

These community stakeholder sessions provided invaluable access to local authorities and First Nations with approximately 300 representatives from over 100 local authorities and First Nations attending at least one session (See Appendix E: *Stakeholders Engaged*).

While the community sessions provided valuable in-person opportunities for the Chair to engage directly with stakeholders, written submissions to the Earthquake Preparedness Consultation were also welcomed, and numerous local authority and First Nations representatives contributed in this fashion, frequently as an augmentation to in-person meetings.

ADDITIONAL STAKEHOLDERS
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Consistent with the concept of shared responsibility, the Chair sought to engage with a wide range of stakeholders, both within and outside of government. Thus, meetings were arranged not only with representatives of provincial ministries and federal agencies, but also private sector entities, professional associations, non-governmental organizations, representatives from emergency management and science organizations in other jurisdictions (e.g. U.S. states), etc. (See Appendix E: *Stakeholders Engaged*).

As consultations began, stakeholders meeting with the Chair were frequently able to provide additional stakeholder contact information, thus adding to the range and fulsomeness of the consultation process.

In most cases, in-person or teleconference meetings with the Chair were possible. However, in cases where this was not possible, staff from the small EMBC Earthquake Preparedness Consultation team supporting the Chair met with stakeholders separately. In these cases, the Chair was provided with briefings along with staff notes and any written material from stakeholders.

At the completion of the consultation process, over 200 stakeholders had met with the Chair and/or the earthquake preparedness consultation team. Combined with the local authority and First Nations sessions, this meant that over 500 individuals engaged in the consultation process.

STAKEHOLDER FEEDBACK

The Earthquake Preparedness Consultation was structured to provide maximum latitude for stakeholders to raise and address those issues they felt were of top priority. By design, the process was not organized to yield a formal assessment of capacities, or rigidly structured feedback appropriate for comparison across organizations. A variety of questions and/or facilitation tools were used in the course of the consultation process, but typically, stakeholders were asked the following high-level questions:

1. What are the key earthquake preparedness challenges for B.C.?
2. What are some of the successes, or strengths, to build upon?
3. What recommendations can you provide to government?

Given the number and diversity of stakeholders engaged, it is impossible for any one report to adequately reflect the wide range of issues identified and recommendations offered to government. However, despite the diversity of stakeholders who contributed to the process, distinct themes did emerge from the feedback. These themes can be broken down into two broad categories which might be termed "Strategic" and "Specific."

STRATEGIC THEMES

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Public education: The need for the public to be more aware of earthquake risks and to take action to prepare themselves.

Provincial and federal leadership and coordination: The need for senior governments to provide funding, direction, and coordination.

Performance benchmarking and accountability:

The need for standards, guidelines, and accountability measures across the emergency management system.

Regional planning: The need for more formal disaster planning to happen at the regional level.

Training and exercising: The need for enhanced and/or more coordinated training and exercising to support disaster preparedness.

SPECIFIC THEMES

.....

Emergency alerting and warnings: The need for additional technologies and processes to alert and communicate with the public.

Risk mapping and data availability: The need for stakeholders to have access to additional information on risks in their areas.

Urban search and rescue: The need for additional funding and coordination for Urban Search and Rescue capabilities.

Rapid damage assessment: The need for additional resources and coordination for assessment of damaged structures following an earthquake.

Logistics: The need for plans and processes for how to get food, water, and supplies to areas of need during a disaster.

Feedback on each of these issues is discussed further under "Recommendations." In some cases, this report's recommendations align directly with specific themes above. In other cases, these themes have informed aspects of several recommendations. In all cases, however, stakeholder feedback provides the foundational basis for the recommendations contained in this report. All stakeholders that contributed to the Earthquake Preparedness Consultation should be commended for their contributions of thought, time and energy. Without them, this report would not have been possible, and an opportunity to influence enhancements to B.C.'s disaster preparedness would have been lost.

Emergency Management in B.C.

When considering a widespread disaster event such as a catastrophic earthquake, it is natural to turn one's attention to government. Ultimately, it is government agencies which will coordinate a response, and governments also have a central role in planning, mitigating, and recovering from such events. Thus, it is justified that efforts to enhance preparedness place significant emphasis on government action. However, emergency management, and particularly preparedness, is truly a shared responsibility which starts with the individual and the family.

During a disaster, local and provincial government resources will be overwhelmed. In such an event, one's family and neighbours are likely to be the only available first responders. Individuals and families have a responsibility to be prepared for such eventualities by being aware of hazards, taking action on a personal level to mitigate their risks where appropriate (e.g. household mitigations), maintaining emergency supplies, and developing a personal/family emergency plan. Prepared families will put less pressure on overwhelmed government agencies following an earthquake and/or tsunami, allowing available resources to go where they are most needed. As is discussed under "public education", there appears to be significant room for improvement with respect to the preparedness of British Columbians on a personal and family level.

In addition to individuals and families, groups such as private sector corporations, non-governmental organizations, and others, have a responsibility to plan and prepare appropriately for disasters. Whether this responsibility is to shareholders, employees, the broader community, those dependent upon their services, or all of the above, all organizations

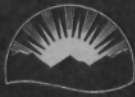
need to prepare for emergency events. As B.C. attempts to evolve towards a culture of preparedness and resilience, one objective should be for more and more organizations and agencies to learn more about how they can fulfill these responsibilities and act on that information.

As noted above, government of course has a central role in all phases of emergency management. The BC Emergency Response Management System (BCERMS) is the system the provincial government, crown agencies, and local authorities use to coordinate emergency management. Currently, BCERMS is also being expanded to recognize the critical role of multi-agency coordination for recovery activities following emergency events.

As noted in the 2014 OAG report, this framework is based on an escalating support model. Local authorities (e.g. municipalities, regional districts, and treaty First Nations) have lead responsibility for emergency management. The majority of emergency events are resolved at the local level, and the majority of planning, mitigation and recovery activities must necessarily happen at the local level. The escalating support model provides support when local and regional resources are not sufficient to address a given emergency. This model consists of the following levels:

Site Level: The vast majority of emergency incidents in the province are dealt with at what is called the site level. For such events (e.g. structure fire, vehicle incident, etc.), first responding emergency personnel and resources from nearby agencies and jurisdictions represent the response level required.

Site Support Level: When the site level response requires off-site support, an Emergency Operations Centre (EOC), frequently operated by a local authority such as a municipality or a regional district, may be activated to provide direction, coordination, and access to additional resources.



Provincial Regional Coordination Level: When the site support level (EOC) requires off-site support, often during an event with impacts beyond a single local authority, the provincial government activates one of its Provincial Regional Emergency Operation Centres (PREOCs) operated by Emergency Management BC. PREOCs coordinate the activities of provincial agencies in support of one or more EOCs, assist with situational awareness, and provide access to additional resources as required.

Provincial Central Coordination Level: When the PREOCs require support and coordination, the Province activates its Provincial Emergency Coordination Centre (PECC), in Victoria. Like the PREOCs, the PECC provides higher level coordination, situational awareness, and access to additional resources. The PECC is also the link to senior provincial decision makers at the provincial level and to federal and international resources. This linkage to federal and international resources is critical in a catastrophic event.

At all levels – from site support to the provincial central coordination level – emergency managers maintain linkages to media, private sector and non-governmental organizations, as appropriate.

EMBC, which operates the PREOCs and PECC, is responsible to British Columbians for leading the management of provincial-level emergencies and disasters, and supporting other authorities within their areas of jurisdiction. Consistent with this mission, EMBC has a lead role at the provincial level for coordinating multi-agency preparedness efforts with respect to catastrophic earthquake and tsunami.

Consistent with the provincial central coordination level responsibilities, EMBC is also responsible for maintaining B.C.'s international emergency management mutual aid agreements such as:

- ▶ The Pacific Northwest Emergency Management Arrangement with Alaska, Washington, Oregon, Idaho, and the Yukon.
- ▶ Canadian Council of Emergency Management Organizations Memorandum of Understanding (MOU) re: Inter-jurisdictional Emergency Management Assistance.
- ▶ Emergency Management Mutual Aid agreement with all provinces and territories.
- ▶ B.C.-/Alberta MOU on Interprovincial Emergency Management Assistance.

As is discussed further under "Recommendations", a consistent message received from stakeholders during the Earthquake Preparedness Consultation is that responsibility for emergency management is shared, and that for all parties to effectively fulfil their responsibilities in a coordinated fashion, integrated leadership is required.

See Appendix H: *Emergency Management Structures* for additional information.

Recommendations

B.C. faces several disaster preparedness challenges. First, the majority of individuals and institutions in B.C. remain apathetic with respect to the risk of a catastrophic earthquake. Second, despite the fact that preparedness needs have been adequately delineated in the past, emergency management systems and resources have not been conducive to effectively addressing these needs.

As noted throughout this report, emergency management is a shared responsibility. Stakeholders at all levels in B.C. appear to be willing to accept this responsibility. It is incumbent upon those in leadership positions to do their part to provide the necessary motivation, leadership, and resources to empower them to do so.

The recommendations in this report build upon the feedback submitted by stakeholders. These recommendations aim to both foster a culture of preparedness in B.C., and alter the emergency management system in such a way that individuals, agencies, and governments can effectively address B.C.'s preparedness challenges together.

RECOMMENDATION #1:

Leadership, Authority and Responsibility

RECOMMENDATION

The provincial government must provide EMBC with additional resources and the authority required to effectively deliver emergency management leadership to provincial crown agencies and local authorities. Further, EMBC must be positioned within government in such a fashion that its authority is greatly enhanced.

STAKEHOLDER FEEDBACK

During the stakeholder consultation process, there was wide acceptance that emergency management involves shared responsibility across all partners. That said, there was also the desire for the provincial and federal governments to show enhanced leadership. For example, stakeholders spoke to the need for EMBC to set overall direction with respect to catastrophic planning and to play a leadership role in coordinating the activities of the many partners involved. A number of stakeholders also argued that EMBC required the authority to set standards and establish accountability measures if it was to lead effectively. Stakeholders were also explicit that EMBC required additional resources to fulfil its mandate. Stakeholders also noted that the federal government (primarily Public Safety Canada and Aboriginal and Affairs and Northern Development Canada) needed to provide additional funding and leadership.

DISCUSSION

EMBC is the lead agency within the provincial government for emergency management. EMBC is responsible to British Columbians for leading the management of provincial level emergencies and disasters and supporting other authorities within their areas of jurisdiction; however, it is apparent that EMBC does not have the authority or the resources to effectively fulfill its mandate. The 2014 OAG report explicitly referenced the resourcing aspect of this issue, and both resources and authority were issues clearly identified by stakeholders during the consultation process.

This desire for additional resources and authority for EMBC is linked to a desire for additional leadership from EMBC. It appears that several factors have contributed to the desire for additional provincial leadership. First, there are

some areas in emergency management where leadership from senior levels of government is natural. An overarching high-level provincial plan for response and recovery with respect to a catastrophic earthquake is one relevant example. Further, numerous stakeholders noted that the federal government had recently reduced its involvement in, and funding of, emergency management activities (e.g. cancellation of the Joint Emergency Preparedness Program grants, the cessation of emergency management training program delivered by the Canadian Emergency Management College, and the reduction of Public Safety Canada and Aboriginal Affairs and Northern Development Canada regional staff in B.C., etc.). This has understandably placed additional pressure on the provincial government to play a leadership role in support of local authorities. Lastly, resource constraints throughout the emergency management sector have resulted in stakeholders looking for ways to leverage the capacities of other organizations, including the provincial government. The desire for additional provincial leadership manifested itself in a wide variety of stakeholder comments and submissions. Among these many comments, two key stakeholder messages stood out.

First, in preparation for catastrophic events with widespread implications, such as a major earthquake, stakeholders need the provincial government to develop and communicate its overarching plan before local authorities and others can effectively complete their own plans that will integrate with the provincial plan.

Secondly, some stakeholders, particularly professional emergency managers, voiced the opinion that the Province, and specifically EMBC, may need additional powers to enforce minimum emergency management standards if B.C. is to move toward a greater state of preparedness.

Stakeholders also acknowledged that any standards which may be established will mean that some local authorities or other entities will have to devote resources to meeting those standards. For their part, local authorities and others are very wary of any additional regulation or standards which may be developed, given the potential for additional costs. Local authority stakeholders frequently communicated that the solution to B.C.'s preparedness challenges should not involve the "downloading" of responsibilities to local authorities; however, if there is to be a change in how B.C. prepares for a catastrophic event, local authorities must also recognize their own responsibilities and accept the concept of shared responsibility for catastrophic planning.

Several initiatives are underway which demonstrate leadership on the part of EMBC. Progress on these appears promising, and a newly-formed partnership with other agencies (e.g. an integrated Earthquake Planning Team) suggests that EMBC has been increasingly successful in leveraging additional resources towards preparedness enhancement efforts. However, in the long run, it appears likely, based on evidence from reports dating back to 1997, that historical obstacles faced by EMBC (and its predecessor, the Provincial Emergency Program) in trying to encourage minimum preparedness efforts by other ministries and agencies will remain a significant impediment to increasing B.C.'s preparedness.

While EMBC is able to make use of sweeping powers (through the Minister of Justice) during a provincially declared State of Emergency by virtue of the *Emergency Program Act*, its ability to compel action from other agencies and authorities prior to a declaration of an emergency is very limited. This applies even within the provincial government with respect to other ministries. This is important

because just as the provincial government alone cannot prepare B.C. for a catastrophic earthquake, nor can EMBC alone prepare the provincial government for this eventuality. Emergency preparedness must be integrated into the operations of all ministries and agencies. Ultimately, B.C. requires a unified strategy that brings together the prevention, preparedness, response, and recovery capacity of all partners. A starting place is the ministries and agencies of the provincial government. Unfortunately, EMBC does not appear to have the resources and authority (formal or informal) it requires to achieve full cooperation from other provincial agencies and local authorities.

In the case of local authorities, although legislative and regulatory tools do exist which call upon local authorities to plan appropriately for emergencies, a lack of regulatory clarity, constraints on enforcement, and practical resource limitations for some communities have limited EMBC's ability to require minimum preparedness standards. This issue was also highlighted in the 2014 OAG report.

The solution to this problem appears to have several elements:

Key Actions in Support of RECOMMENDATION #1

1.1 The provincial government must augment EMBC's authority to require action of other provincial crown agencies in the realm of emergency management.

Across government, there is a need for accountability mechanisms which could contribute to unity of effort between crown ministries and agencies. A government-wide culture of preparedness and completion of integrated emergency management plans will not become a reality based on purely voluntary participation by crown agencies.

1.1.1 The provincial government must support EMBC in the establishment of preparedness requirements for other ministries and crown agencies, and establish mechanisms to track and enforce these requirements.

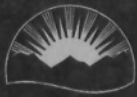
Examples of such requirements may include preparation of ministry-specific response and recovery plans, cooperation on broader provincial plans, designation and training of staff for emergency management support functions, etc. A variety of tools already used within government, such as ministerial accountability letters, executive salary holdbacks, and the Business Continuity Planning Scorecard, each provide potential examples of how other agencies could be held accountable for their emergency management responsibilities. Unless mechanisms such as these are used to drive cross-agency disaster preparedness efforts, substantial progress may be limited, as evidenced by progress between the 1997 and 2014 OAG reports on earthquake preparedness.

1.1.2 The provincial government must also address EMBC's ability to "task" or require action of other ministries and crown agencies during an emergency response.

While the existing collaborative model works during most response actions, clarity of EMBC's command function on behalf of the Crown will be needed during a catastrophic event.

1.1.3 The provincial government must position EMBC within government in such a fashion that its authority is greatly enhanced. For example, EMBC could be moved to report directly to the Office of the Premier.

In government, emergency management cuts across multiple departments and agencies, as it does in non-governmental organizations, local governments and the private sector. Success requires emergency management



goals and a shared responsibility for meeting them to be embraced by all. It also requires powerful leadership. EMBC needs to be seen across government as reflecting top objectives of the government and the Premier. Ultimately, EMBC requires the kind of positional authority adequate to effectively lead a cross-government agenda of increased preparedness and accountability. This strategy to increase the effectiveness of emergency management organizations has been successfully employed in numerous states and major cities within the United States. For example, in California, the Office of Emergency Services reports directly to the Governor and benefits from the increased influence and authority of this placement. Florida has also used this approach, as have cities such as New York and Oakland.

1.2 *The provincial government must augment EMBC's authority, staffing and budget to set minimum standards for local authority emergency management programs.*

EMBC should set minimum standards for local authority emergency management programs. While it may not be practical or desirable for EMBC to "audit" the performance of every local authority with respect to preparedness, EMBC must provide more clarity regarding the expectations of local authorities in the area of emergency management. EMBC requires increased funding and new staff to move communities towards meeting a set emergency standard. An initiative to accomplish this would likely involve a combination of regulatory requirements, incentives (e.g. qualifying for other local authority funding sources, etc.), and/or new tools or templates, supported by new funding and staff for EMBC. To this end, measures should be put in place to ensure that local authorities document and report their performance on emergency management. Standards and benchmarks should be

available to guide planning, promote improvement and monitor outcomes, as is the case in a number of U.S. jurisdictions.

1.3 *The provincial government must provide additional resources to EMBC in order for it to meet its earthquake preparedness mandate.*

The 2014 OAG report noted that EMBC does not appear to have adequate resources to fulfill its existing mandate. As the report notes, EMBC's budget has remained largely unchanged since 2006, despite increased populations, increasing frequency of emergency events, and an expanded mandate. If the provincial government sets new objectives for EMBC with respect to catastrophic earthquake preparedness, further resources, both staff and funding, will be required. Stakeholder feedback was consistent with the Auditor General's conclusions. In addition to highlighting their own funding challenges, numerous local authority and other stakeholder representatives independently pointed to the need to address EMBC's funding challenges. Clearly, there is not only broad agreement across stakeholders that the emergency management system as a whole is underfunded, but there also appears to be a common understanding that EMBC specifically is underfunded. The provincial government should undertake a formal assessment of EMBC's resource requirements in light of the 2014 OAG report recommendations, and the recommendations of this report.

1.4 *The provincial government must provide for EMBC's emergency operations centres in seismically active areas to be housed in post-disaster facilities.*

If EMBC is to provide a lead emergency coordination role in the province following a major earthquake, it will require its operations centres to be functional and safe for occupation. This requires that these facilities be located in post-disaster rated buildings, which they are not currently.

1.5 *The federal government must provide additional regional resources to Public Safety Canada, Aboriginal Affairs and Northern Development Canada, and other applicable agencies, in order for them to meet their emergency management mandates to support emergency management in B.C.*

Numerous stakeholders indicated that these agencies require more resources to provide for the necessary level of emergency management associated with their mandates and responsibilities.

RECOMMENDATION #2: Funding and Accountability

RECOMMENDATION

The provincial and federal governments must implement a funding program to support local authority preparedness efforts, and leverage emergency management funding to:

- ▶ Increase emphasis on planning and mitigation; and,
- ▶ Increase local authority accountability.

STAKEHOLDER FEEDBACK

Stakeholders that took part in the Earthquake Preparedness Consultation expressed their perspective that emergency management structures are underfunded in B.C. at all levels of government. Further, some stakeholders noted that in many respects, the way funding is structured, particularly funding to local authorities, places undue emphasis on response activities at the expense of much needed efforts centred on planning and prevention/mitigation. Stakeholders recognized and supported the concept of broadly shared responsibility for emergency management, but in a number of

respects feedback communicated that funding structures could support this concept of shared responsibility more effectively. This feedback applied to all hazards, and was not specific to earthquake preparedness.

DISCUSSION

Local Authority Resource Constraints

It is common across all sectors for stakeholders to feel that more public funding (or tax relief) is warranted for the issues of most concern to them. Thus, it was no surprise to hear from the stakeholders who contributed to the Earthquake Preparedness Consultation, that the emergency management system in B.C. is underfunded at all levels.

However, although the Earthquake Preparedness Consultation did not undertake a rigorous analysis of funding and capacities, public and institutional expectations of the emergency management system in B.C. legitimately do not appear to match the resources available. Indeed, previous reports have pointed to this resource challenge. Discussion under Recommendation #2 addresses the consistent feedback from stakeholders regarding the need for additional funding for EMBC, but stakeholders also argued strongly that additional support was required from senior levels of government for local authority emergency management activities. In many cases, particularly for smaller communities and regional districts, local authorities have limited resources and capacities to draw upon to undertake emergency management activities. This limits their ability to plan for events within their areas of responsibility, between neighbours and across their regions, and to undertake mitigations, etc. Even when funding is available, such as during response operations, smaller local authorities frequently find that they have not had the resources to put appropriate structures in place to take best advantage of

this funding (e.g. establishing relationships with contractors, implementing robust volunteer management structures, developing robust mutual aid plans, etc.).

Local authority emergency management programs, already stretched, were further constrained by the elimination of the federal Joint Emergency Preparedness Program in 2012. This program provided small grants to local authorities in support of selected emergency management priorities such as buying equipment, establishing Emergency Operations Centres, etc. The program also supported Heavy Urban Search and Rescue (HUSAR) capacity (federal cutbacks are also discussed under "Specific Emergency Management Capabilities.).

Resource challenges are also a critical challenge for many First Nations communities. Emergency management for First Nations communities on reserve lands is the responsibility of the federal government. First Nations communities which took part in the Earthquake Preparedness Consultation cited a lack of funding, training, and guidance as key factors in their state of preparedness.

Local authorities are ready and willing to fulfill their emergency management responsibilities, but for many communities, direct provincial and federal financial support is required.

Key Actions in Support of RECOMMENDATION #2

2.1 The provincial and federal governments must implement a funding program to support emergency management preparedness efforts at the local authority level.

2.2 The federal government must increase emergency management funding and personnel available to support First Nations emergency management.

Response Focus and Accountability

Numerous stakeholders pointed to the fact that emergency management structures are unduly response focussed. This is almost a universal feature of emergency management systems and is not specific to the seismic hazard. The immediacy and visibility of response activities generate greater public, political, and institutional support for response activities than for most preparedness activities. Indeed, these same factors influence funding for police and fire services versus funding for broader emergency management and mitigation. The provincial government has invested substantially in mitigation (e.g. schools seismic mitigation, the flood protection program, strategic wildfire prevention program) but these programs are hazard-specific, are necessarily funding constrained, and only modestly counterbalance the system's response focus. It is instructive that in B.C. there is little or no funding from senior levels of government for local authorities to undertake planning, yet response activities are funded at 100 per cent (i.e. local authorities are reimbursed by the province for 100 per cent of eligible cost incurred responding to emergency events). Recovery costs for local authorities and private sector claimants, for specifically designated disaster events only, are funded after the first \$1,000 at 80 per cent for non-insurable, and otherwise eligible losses. For private sector claimants the maximum claim is \$300,000.

This funding of response activities at 100 per cent of costs incurred, combined with a lack of funding for planning and mitigation, is problematic in a number of respects. First, it is not cost-effective.

Properly administered mitigation can provide significant cost benefits. For example, research on flood mitigation cited in Canada's Natural Disaster Mitigation Strategy document cites flood mitigation cost benefit ratios of between 3:1 and 5:1.

Thus, in the long-term, funding of mitigation activities can significantly reduce response costs, yet resource-constrained local authorities have minimal incentive to undertake mitigation efforts since there is only modest mitigation funding available, and 100 per cent of response costs are covered by the provincial government, even in cases where these response costs may have been avoidable.

Further, as several stakeholders noted, local authorities have incentives to promote land uses and developments in areas at risk from natural hazards. The primary revenue from such development accrues to local authorities, while response and recovery costs primarily accrue to the provincial government.

Lastly, current provincial funding mechanisms for local authorities do not require that local authorities meet any minimum criteria with respect to emergency management plans, exercises, mitigation efforts, etc. Local authorities are compensated for 100 per cent of eligible response costs and 80 per cent of eligible recovery cost regardless of whether they have completed appropriate plans, etc.

Some provisions exist to restrict recovery payments for structures built in a flood plain, multiple claims in a disaster prone area, or obvious failures to protect property but other than these provisions, accountability measures (in terms of appropriate plans etc.) are weak.

These aspects of the current system virtually ensure that avoidable expenditures are made year after year on response, while critical planning and prevention/mitigation needs are ignored.

Opportunities may exist to adjust B.C.'s emergency management funding system to correct this situation. For example, while it would be controversial, response costs reimbursement for local authorities (currently 100 per cent) could be adjusted so that local authorities bear an initial "deductible" while still ensuring that no community is forced to bear an unreasonable financial burden due to any emergency event. Federal reimbursement of provincial emergency response costs for example, requires the Province to absorb the first \$1 per person (based on population census data) for an emergency event. Federal cost sharing begins to kick in after the \$1 per person level has been reached.¹

Provincial reimbursement of local authority costs could perhaps use this model also, though any adjustments to the existing model would have to be tailored to ensure that the available federal transfers are fully accessed. Any savings from response costs could be forwarded back to local authorities to assist with planning and mitigation initiatives.

It should be noted that with respect to the seismic hazard in particular, structural mitigation efforts for public infrastructure are extremely expensive. For example, the estimated cost of upgrading dikes in the Lower Mainland to meet both projected sea level rise estimates and seismic design criteria is \$9.5 billion. At the local authority level, more modest preparedness measures, such as plans, mapping, building inventories, and non-structural mitigations may be top priorities with limited available funding.

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¹ In February 2015, Public Safety Canada announced changes to the Disaster Financial Assistance Arrangements. Changes include the fact that provinces are now responsible for one hundred percent of the first \$3 in eligible provincial expenses per capita.

Ultimately, the B.C. government should investigate what opportunities exist to align funding so that all partners have incentives to plan appropriately, undertake reasonable mitigation measures, and spend wisely. The current system does not appear to create these incentives, and opportunities to enhance B.C.'s preparedness for a catastrophic event are likely being lost as a result.

2.3 *The provincial government must link new and existing local government emergency management funding to accountabilities, such as planning and mitigation efforts.*

2.4 *The provincial government must formally assess mechanisms for local authorities to share in the costs for emergency responses, while ensuring that no community bears an undue burden.*

RECOMMENDATION #3: *Intergovernmental and Inter-Agency Coordination*

RECOMMENDATION

Federal, provincial, and local authorities, as well as other entities, such as those in the private sector, must ensure that they have the integrated plans and capacities in place to deal with a catastrophic event.

STAKEHOLDER FEEDBACK

During the consultation, stakeholders voiced the expectation that the plans and capabilities of all levels of government, and other entities, adequately account for catastrophic events, and that they be effectively integrated with one another. Stakeholders accepted that this is an area of a shared responsibility, but stressed that they expect the provincial and federal governments to provide high-level emergency management plans that other

agencies and stakeholders can link into and support with their own plans.

DISCUSSION

The need for robust disaster plans, and particularly plans which are well integrated between partners, is well understood. Such plans provide the basis for coordinated mitigation, response, and recovery efforts. Additionally, the process for the development of plans and procedures is invaluable in that it brings together key agencies and individuals leading to strong professional relationships and ongoing communication among players.

Emergency managers the world over look to catastrophic events which have taken place in other jurisdictions for lessons which can be applied to their own areas of responsibility. For example, hurricane Katrina, and the resulting devastation in New Orleans provided dramatic lessons for emergency managers across the developed world with respect to inter-agency communication. Key among these lessons was that the devastation of New Orleans was not primarily a natural disaster, but a failure of human institutions. The failure of various levels of government and multiple agencies to work together effectively on planning and mitigation efforts before the storm were key factors that led to so much damage to that city and to ineffective response and recovery efforts.

B.C. does not suffer from the intergovernmental and inter-agency dysfunction that New Orleans did. B.C. has structures that provide for integration of plans and actions between the many agencies involved in emergency management. The increased inter-agency planning and integration that occurred during preparations for the 2010 Winter Olympic and Paralympic Games show that agencies and all organizations in B.C. recognize the value of this integration. That said, there are cross-agency,

and intergovernmental gaps and challenges that must be addressed if B.C. is to be adequately prepared for a catastrophic event such as a major earthquake.

A number of these challenges are outlined below.

Provincewide Catastrophic Response and Recovery Plans

A milestone in B.C.'s progress towards preparedness will be completion of provincial level catastrophic response and recovery plans.

Development of a comprehensive catastrophic response and recovery plan for B.C. is long overdue. The need for such planning was evident in the 1997/1998 Auditor General's report, and is equally evident in the more recent 2014 OAG report. As numerous stakeholders noted during the 2014 consultation, broad provincewide plans and expectations are required to align and guide the planning of all parties involved.

To its credit, in 2014, EMBC launched a dedicated Earthquake Planning Team with representation from several other agencies, and has produced a roadmap for development of high-level immediate and sustained response plans for catastrophic earthquakes. A recovery plan will follow. Likely, this work will also provide the vast majority of the guidance required for response and recovery operations in response to other events.

EMBC's current planning efforts are well thought out and appropriately scoped to the resources available, but the value of the plans under development will depend upon resource commitments from all stakeholders. These provincial-level plans will need to be exercised and maintained, and development of numerous sub-plans will likely be required. Other ministries, and agencies at all levels, not just those currently working with EMBC on these plans, will require new resources to devote to this effort,

and to the capacities that implementation of the plans will require.

Key Actions in Support of RECOMMENDATION #3

3.1 EMBC, in concert with stakeholders, must complete provincewide catastrophic response and recovery plans. This work is already underway.

Organization-Specific Emergency Management Plans and Capacities

The roles and responsibilities of all ministries and crown agencies are being identified as part of provincial-level response and recovery planning currently being coordinated by EMBC. A society's ability to respond to and recover from a catastrophic event depends upon the preparations of a multitude of agencies, not just the preparations of lead emergency management organizations such as EMBC. All public and private entities need to devote adequate resources to their own preparations. This is not happening consistently at present.

For example, numerous stakeholders had concerns regarding the health sector's capacity to handle surge requirements in response to a catastrophic event. This represents just one example of how broad provincial plans must be backed by agency-specific plans and capacities. While it appears that significant progress has been made on emergency management and business continuity issues within the health sector, frequently with the leadership of the Ministry of Health, the remaining preparedness needs for this sector are daunting.

Emergency management is an important functional area in several ministries. They will require resourcing to enhance their catastrophic event plans and capacities. Also, a variety of ministries and agencies that may not have traditionally had active emergency management roles will also need

to become more active in developing plans for catastrophic events. For example, ministries and other agencies will have to adequately address the post-event needs of vulnerable populations such as the elderly, disabled, those facing language barriers, etc. In many jurisdictions, partnerships with non-governmental charities and faith-based groups have proven helpful in the development of robust plans for such populations. A further example is the need for planning to adequately address the significant implications of pets, livestock, animals in zoos, etc. Additionally, ministries with other capabilities, such as logistics, must consider how their capabilities would support broad provincial government disaster planning, response and recovery efforts.

The issues of vulnerable populations and animals were issues specifically raised by stakeholders during the consultation, but catastrophic event planning requirements exist across most ministries or agencies at all levels of government.

The need for organization-specific plans and capacities is one that exists across all levels of government, the private sector, and among non-governmental organizations. In the short term, the Province should lead by example, and ensure that all provincial crown agencies develop and exercise catastrophic event plans that link to provincial-level plans.

3.2 All provincial crown agencies must develop and exercise catastrophic event plans that link to provincial-level plans.

Agency-specific Business Continuity Plans and Capacities

Government and private sector agencies also have a responsibility to undertake appropriate organization-specific business continuity planning. Business continuity planning ensures that organizations delivering critical services can continue to deliver those services following disruptions. The provincial

government has a consistent cross-government approach to business continuity planning and EMBC tracks cross-ministry maintenance of plans; however, most ministry plans have undergone only modest exercising, and anecdotally, it appears that the robustness of business continuity plans among the wider population of public agencies at all levels of government, and the private sector, vary widely in B.C. This is not unexpected.

As noted elsewhere in this report, emergency management related functions system-wide are underfunded. Overall, without cross-government commitment of new resources to complete ministry and agency-specific plans, and without the resources to exercise and implement these plans in practice, preparedness will not increase substantially. A parallel situation appears to exist in the private sector. The provincial government should lead by example and ensure that all crown agencies have realistic business continuity plans in place that have been fully exercised. This would require additional funding across ministries and agencies.

3.3 All provincial crown agencies must complete and exercise realistic business continuity plans.

Provincial Coordination Teams

Effective management of catastrophic events frequently requires senior levels of government (e.g. a provincial or territorial government in Canada or a state government in the U.S.) to deploy teams of staff to provide direct assistance in support of local authorities, particularly in smaller communities. Such teams can provide emergency coordination, communication, technical, or other expertise within a local authority. EMBC is currently in the early process of planning for how such teams could be deployed, but new resources at EMBC and other agencies would have to be identified to support such deployments.

3.4 *The provincial government must implement mechanisms, such as Provincial Coordination Teams, to support all authorities during emergency events.*

Out-of-Province Assistance

B.C. has numerous agreements in place which provide for outside assistance to B.C. following a catastrophic event. In some cases, the procedures development and exercising required to effectively capitalize on these agreements has not been undertaken. As with gaps identified elsewhere, EMBC, other ministries, and local authorities do not appear to have sufficient resources to undertake this work currently.

3.5 *EMBC, and other provincial government partners, must be provided with additional funding and staff to complete work required to operationalize and exercise out of province assistance agreements and associated procedures.*

Mutual Aid and Provincially Allocated Resources

When a local government or community becomes overwhelmed and cannot respond on its own to a major incident, assistance from neighbouring local authorities, local authorities elsewhere in the region, and/or the Province will be requested. In larger events especially, coordination and allocation of additional outside assets and resources can be required of the Province. Such assets and resources may be drawn from other local authorities, other crown agencies (provincial or federal), private sector suppliers, or even international jurisdictions.

Seamless sharing and allocation of limited resources is critical across a wide variety of capabilities, such as police, fire, EMS, public works, Critical Infrastructure (CI), as well as goods such as food, water, and medical supplies. Ensuring efficient distribution and/or reallocation of resources during a catastrophic event, requires a strong

shared understanding of how such assistance is administered. This includes, among other considerations, a shared awareness of operational processes, prioritization criteria, reimbursement provisions, and liability coverages.

While policy and processes supporting such resource sharing and allocation is well understood in some areas, it appears that some policy development and communication work remains to establish clarity among all key stakeholders regarding how such resource allocation would be undertaken, who would reimburse whom under what circumstances, and how the liability exposures would be managed for those providing and receiving assistance.

3.6 *EMBC and partners must complete the work required to clarify procedures with respect to provincially directed mutual aid between local authorities, and allocation of out-of-province aid to local authorities during a catastrophic event.*

Regional Emergency Management

Stakeholders stressed the importance of regional planning for catastrophic event preparedness, but noted that progress on such region-wide planning in some areas has been limited. Across the board, there appeared to be no stakeholders that disagreed that region-wide planning was appropriate, though no consistent recommendations emerged regarding how it should be accomplished.

It has become a truism of emergency management that natural disasters do not respect jurisdictional boundaries. Neighbouring jurisdictions must work together if plans, mitigations, responses and recovery actions are to be effective. This is particularly true for catastrophic events. Unsurprisingly then, the desire for increased region-wide coordination on emergency management was

a strong theme within the stakeholder feedback during the consultation.

Currently, regional coordination frameworks appear to be established in some areas and weak in others. Metro Vancouver, for example, participates in the Integrated Partnership for Regional Emergency Management (IPREM) along with the provincial government. While not fully tested by a significant regional emergency, IPREM does provide for the identification of regionally relevant emergency management priorities and coordinates joint action on those priorities between the provincial government, the regional district, the region's municipalities, and other entities as necessary. Other areas, such as some parts of Vancouver Island, have implemented mechanisms that allow for both coordinated planning and some coordination during larger response operations.

Despite some successes, challenges still remain with respect to regional coordination in emergency management. Additional progress on planning coordination would be desirable in some areas, and for most areas, there has been limited progress on concepts of operations for regional coordination during response and recovery, or for regional communication of priorities to PREOCs with respect to allocation of scarce resources.

In some respects, it is not surprising that regional coordination is not more advanced in all areas. There are a number of challenges which have likely slowed progress. For one, regional coordination has not been mandated by the Province, as it has been in some U.S. states. Resource challenges, such as lack of staff and time, to support such planning efforts also appear to have been a factor for municipalities, regional districts, and at EMBC.

Particularly acute challenges exist with integration of many First Nations communities into regional planning. Emergency management on First Nations reserves is the responsibility of the federal government; however, First Nations consistently reported that they did not have the resources, the training or the support to implement effective emergency management programs and the capability to link effectively with neighbouring local authorities. A lack of federal funding for mitigation efforts on reserve lands has also frequently hampered broader mitigation efforts which must be done on a regional basis.

To date, EMBC appears to have pursued a voluntary and flexible model in pursuit of additional regional emergency management coordination. While a flexible approach is likely still warranted, as different models will work for different areas of the province, if B.C. is to make significant progress on catastrophic preparedness, additional regional coordination may need to be mandated at the provincial level. Consideration should also be given to the utility of "disaster councils" at the regional level, such as have been used in some U.S. jurisdictions. These councils are one mechanism of pulling together multiple stakeholders, both public and private, to coordinate planning activities.

3.7 The provincial government must mandate that all local authorities participate in regional planning, training and exercises.

3.8 The provincial government must support regional planning efforts directly through funding to local authorities, and indirectly through creation of additional EMBC positions to guide and support this work.

3.9 The federal government must ensure that First Nations communities on reserves have adequate resources to effectively participate in regional planning efforts.

Overall, B.C. has good foundational elements in place that provide a basis for inter-ministry and inter-governmental coordination, and coordination between governments, the private sector and non-governmental organization; however, as noted previously, adequate planning for a catastrophic event has not taken place, and the frameworks for inter-organizational cooperation have not been fully matured. The provincial government should lead by example, and ensure that new resources are devoted to undertaking this work within all provincial agencies and entities (e.g. crown corporations).

RECOMMENDATION #4:
***Public Education, Awareness
and Engagement***

RECOMMENDATION

EMBC, together with significant agencies at all levels of government and private sector partners, must launch a long-term and coordinated earthquake preparedness public education and awareness campaign. New funding and staff will be required.

STAKEHOLDER FEEDBACK

When asked what B.C. could do to improve its preparedness for a catastrophic event such as a major earthquake, the majority of stakeholders stressed additional and improved public education as a key priority. Indeed, it was the single highest priority put forth in the course of the Earthquake Preparedness Consultation. Many felt that the general public, the business community and many public officials, were apathetic or uninformed when it came to the risk of a catastrophic earthquake, and that increased public education efforts, coordinated across multiple partners, was needed.

DISCUSSION

Likely because B.C. has not experienced a major damaging earthquake in recent memory, there seems to be a sense among the public that it is not an immediate concern. This apathy is problematic. When a serious earthquake happens in British Columbia, response resources will likely be overwhelmed. A public that is aware and prepared can put less pressure on scarce resources. A prepared public is also part of a broader system of preparedness. Evidence from other jurisdictions and other public safety initiatives speaks to the value of public education. Done well, public education can:

- ▶ Save lives and reduce suffering;
- ▶ Reduce response and recovery burdens on governments;
- ▶ Improve community resiliency following emergency events; and,
- ▶ Build broad support for public and volunteer sector safety initiatives.

The key to achieving these benefits is a public education program that not only increases awareness, but drives actual behavior and cultural change among members of the public. Such actions may include preparing family plans, participating in emergency neighbourhood plans, preparing earthquake kits, and volunteering in emergency management roles. An engaged public can also help drive improved preparedness at workplaces and within the private and Non-Governmental Organizations (NGO) sector broadly.

Stakeholders provided quite specific and consistent feedback on how they felt earthquake (and broader emergency management) public education should be delivered in B.C., noting that:

- ▶ Additional public education is required.
- ▶ Messaging should be consistent between the many agencies involved.
- ▶ Messaging should be consistent over time.
- ▶ Multiple different methods and media should be used, including social media.
- ▶ Campaigns and initiatives from various agencies should be integrated and/or coordinated.
- ▶ Strategies should be based on empirical evidence, and success at changing preparedness behavior (as opposed to simply increasing awareness) should be formally measured.
- ▶ School-age children should be engaged through the Kindergarten to Grade 12 school system.
- ▶ The specific message regarding 72 hours of public self-reliance should be clarified and reassessed. Originally, the 72 hours of being on your own message was based on moderate-sized events and intended to communicate to the public that first responders may not be available for the first 72 hours due to overwhelming response needs. However, in recent years, the 72 hours message seems to be understood more as a recommendation that households maintain 72 hours worth of supplies. Recent disasters around the world have shown that victims can and will be largely on their own for days or even weeks following catastrophic events. Additionally, any message that encourages the public to be self-reliant should also include the need to customize their preparedness needs to the makeup of their families (i.e. special needs, medication, pets, etc.). Thus, current preparedness messaging should be clarified with the public.

In parallel with the Earthquake Preparedness Consultation, EMBC conducted a specific needs assessment focused on public education during the spring and summer of 2014. This effort included a scoping of EMBC's current public education needs and practices, interviews with B.C. stakeholders having specific involvement with public education, and a review of the scientific/academic literature on the topic. In reviewing the findings of that study, it is encouraging to note that the feedback from the broader population of stakeholders engaged during the Earthquake Preparedness Consultation aligns well with best practice and academic research on public education. This needs assessment should serve not only to support the feedback from stakeholders, but can also offer additional tools and findings which EMBC and partners will undoubtedly find useful in the development of future initiatives.

The above stakeholder feedback and the findings of the EMBC public education needs assessment provide a useful package of actions which could be included in any coordinated public education campaign. Based on experiences in California and other U.S. states, several other factors are also worthy of consideration as planning progresses:

Accounting for community specific hazards in conjunction with wider public education campaigns. While consistent messaging is key to successful public education campaigns, special attention will need to be paid to ensuring that local considerations are accounted for effectively.

Engaging school children and their families. Informed children can become aware adults, and frequently children can act as ambassadors to carry public safety messages home to parents and neighbors. In B.C. and elsewhere, the fire service has engaged children and families effectively in this way. This may provide a useful model in some respects for broader public safety

education initiatives. As an added benefit, programs in secondary schools in other jurisdictions have at times also contributed to individuals becoming public safety volunteers or entering public safety professions. To enhance school curriculum, consideration should also be given to developing resources related to general knowledge of the threats that exist in B.C., basic emergency preparedness, and an understanding of how the emergency management planning and response operates in B.C. Schools should be encouraged to provide opportunities for basic First Aid and CPR training for teachers, students and other personnel. Development of curriculum resources to support curriculum would likely involve the Ministry of Education in partnership with key education partners and emergency management stakeholders.

Capitalizing on high-profile individuals such as elected officials or celebrities. Recruitment of high-level government officials or celebrities from the arts and sports fields can provide visibility and longevity to preparedness campaigns. This model has been used successfully in some other jurisdictions, and is one technique worthy of consideration in B.C.

Citizen training. While not always considered an element of public education per-se, consideration should be given to increasing the take-up of basic training such as first aid and community emergency preparedness among citizens in B.C. The true first responders in many emergency situations are coworkers, neighbors, family and people in the general vicinity of an emergency. Resources devoted to improving the basic skills of citizens can be expected to save lives and reduce suffering significantly during a major event. B.C. also requires a more robust program for recruiting, coordinating, insuring, and organizing available emergency management volunteers, including

convergent volunteers. Models and materials from other jurisdictions such as the neighborhood based emergency response teams based throughout California and now available through the United States' Federal Emergency Management Agency (FEMA) as CERT (Community Emergency Response Teams), may provide useful examples for application in B.C.

In summary, it appears that many of the stakeholders and agencies involved in earthquake preparedness public education are supportive of a change in approach. EMBC, with partners, is currently planning new public education activities which would start to capitalize on the findings of the recent needs assessment and feedback from stakeholders during the Earthquake Preparedness Consultation. This is to be commended. For long-term change to be effective however, and for partners to jointly launch a successful long-term public education campaign, additional action and commitment of resources from the provincial government and other partners will be required.

Key actions in support of RECOMMENDATION #4

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4.1 All partners, with EMBC leadership, must establish a mechanism to jointly develop and deliver long-term and coordinated earthquake preparedness public education.

4.2 All partners must contribute to developing and implementing resources in support of curriculum in this area for kindergarten to grade 12.

4.3 All levels of government, and involved partners outside of government, must devote additional resources to support coordinated earthquake preparedness public education.

4.4 Senior elected officials, at all levels, must demonstrate visible and vocal support for a culture of preparedness. Inclusion of earthquake preparedness initiatives in a Speech from the Throne, for example, would be an excellent example of such support.

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RECOMMENDATION #5:

Private Sector and Non-government Organizations

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RECOMMENDATION

The Province must prepare and resource a strategy for further engagement of the private sector in emergency management planning, including mandated requirements for private sector entities.

STAKEHOLDER FEEDBACK

Stakeholders in B.C. expect all partners to fulfill their emergency management responsibilities. Stakeholder feedback included the theme that owners of Critical Infrastructure (CI), including those in the private sector, should be planning for catastrophic events. The term "Critical Infrastructure" refers to those physical and information technology facilities, networks, services and assets, which, if disrupted or destroyed, would have a serious impact on the health, safety, security or economic well-being of Canadians or the effective functioning of governments in Canada." For their part, private sector CI asset holders noted government needs to be clear regarding government's expectations of them, and that they have resource constraints that restrict their activities, just as do governments.

DISCUSSION

A consistent theme throughout this report has been that of shared responsibility. Where the individual and various levels of government are concerned, this shared responsibility is relatively intuitive. We are all responsible to undertake reasonable precautions for our homes and families, and governments have an explicit responsibility to help communities prepare for, respond to, and recover from emergencies and disasters.

While less front of mind, other entities such as private sector corporations and NGOs also have emergency management responsibilities. Entities such as companies that provide critical goods and services (e.g. food, fuel, and telecommunications) have a responsibility to those that depend upon those services. It is incumbent upon all such organizations to appropriately plan for, and have the capacity to address, emergency situations, (including business continuity planning) and to coordinate with other partners in their planning.

It is also incumbent upon government to provide leadership and frameworks that facilitate engagement by private sector (and not-for-profit) entities in government's emergency management preparedness efforts.

Involvement of the private sector in emergency management offers numerous benefits for all partners. Private sector entities benefit from a more thorough understanding of government's plans, opportunities to influence those plans, and participating in systems which can offer timely resources to protect or restore impacted private assets. Governments benefit through a better understanding of CI vulnerabilities and capabilities, and more seamless coordination among both public and private asset holders.

In some jurisdictions, private sector companies such as large retailers have also partnered with governments to provide private sector expertise and products in direct support of government's emergency operations (e.g. logistics capacity, and much needed products such as water, tarps, etc.). In some U.S. jurisdictions, retailers such as Home Depot have also taken an active role in public education efforts and resiliency facilitation through free home preparedness instruction and prominent display of preparedness materials within stores.

Work by EMBC to date with CI partners outside of direct government has been sensible, and appears to have been appropriately scoped to available resources, particularly considering a system-wide reduction in attention to CI following completion of the 2010 Winter Olympic and Paralympic Games. B.C., consistent with federally established frameworks, has established a formal system of connections with private and public entities across a variety of "CI" sectors (e.g. transportation, communications, etc.). A CI Provincial Steering Committee, with numerous key CI asset holders represented helps oversee this linkage between EMBC and industry. EMBC also includes explicit objectives with respect to CI planning and engagement within its Strategic Plan. There are also promising examples of operational linkages to the private sector such as those outlined in the EMBC PECC and PREOC guidelines, and demonstrated during the 2014 wildfire season.

However, if B.C. is going to significantly enhance its preparedness for a catastrophic event, a number of challenges related to engagement of the private sector will have to be tackled. These include:

- ▶ Uneven participation by private sector partners. For example, not all 10 of the federally designated CI sectors are represented on the Province's CI Steering Committee.
 - ▶ Information sharing and confidentiality barriers. For example, CI organizations are frequently reluctant to share proprietary data if they lack confidence in government's ability to keep this information confidential.
 - ▶ Lack of clarity regarding the Province's emergency powers following a catastrophic event (e.g. the Province's ability, under a Provincial Declaration of Emergency, to direct the service restoration priorities of private sector corporations).
- INSURANCE INDUSTRY**
- Along with traditional CI asset holders, such as utilities and transportation companies, the insurance industry also has a critical role in any jurisdiction's preparedness efforts. Working to ensure that insurance providers can remain solvent following a catastrophic event (a current issue being worked on by British Columbia and federal regulators), working towards high uptake of insurance coverage for individuals and businesses, and ensuring that the public understands the role of government versus insurance are all areas where the insurance industry can productively partner with government. In some jurisdictions, government has even partnered with the insurance industry in the delivery of insurance. Insurance industry submissions to the Earthquake Preparedness Consultation highlighted numerous such areas where there are opportunities in B.C. and Canada for the insurance industry to further contribute to disaster resilience such as public education, innovative provisions for post-disaster insurance deductible loans, a strata property strategy, enhanced resiliency for the industry, etc.

- ▶ CI planning and coordination resource limitations at EMBC (technology systems and staffing).

Thus, additional engagement of the insurance industry with respect to disaster preparedness appears to be warranted at the national and the provincial levels.

Key actions in support of RECOMMENDATION #5

5.1 *The provincial government must augment EMBC's resources for CI coordination and expand the Provincial CI Steering Committee's coverage to include all 10 federally designated (recognized) CI sectors.*

5.2 *EMBC must conduct focused discussions with CI partners to determine mechanisms for enhanced coordination (e.g. addressing confidentiality barriers to information sharing).*

5.3 *The provincial government must provide guidance and templates for the preparation of emergency and business continuity plans for crown agencies and critical private sector services.*

5.4 *As a backstop to voluntary engagement, the provincial and federal government must mandate appropriate private sector preparedness, including sharing of CI information and engagement in joint planning with emergency management organizations.*

5.5 *EMBC must clarify and communicate its powers to direct actions by CI asset owners (e.g. restoration priorities) during and following a catastrophic event, and clarify provincial expectations of CI asset owners.*

5.6 *Existing and future contracts executed by the Province with private sector vendors must reference services, materials and equipment that may be needed and used during response and recovery activities.*

5.7 *The provincial government, and the federal government, must engage with the insurance industry to determine how this industry can contribute further to disaster resilience and to identify how governments can enable insurers to expand their participation without jeopardizing their continued existence.*

RECOMMENDATION #6: Training and Exercising

RECOMMENDATION

The provincial government must resource EMBC with additional staff and funding to develop and implement comprehensive training and exercise strategies with partners.

STAKEHOLDER FEEDBACK

Training: Stakeholders voiced support for emergency management training that was accessible, integrated across delivering institutions, and based on agreed-upon standards. Stakeholders also supported delivery of training to as broad an audience as possible, given that individuals in a wide variety of roles can have a role to play in supporting emergency management activities.

Exercising: Stakeholders evidenced wide agreement on the importance of exercises, and just as wide agreement that most organizations do not have adequate resources to exercise adequately. Stakeholders supported a provincial exercise framework building towards increasingly complex exercises, but noted that additional support (financial and staff assistance) would be required in order for many partners to participate.

DISCUSSION

Training and exercising are cornerstones of effective emergency management, whether preparing for day-to-day minor events, or rare, catastrophic ones.

Training that is well-designed, matched appropriately to organizational functions, and delivered effectively must be a priority for any emergency management organization. While this may verge on common sense for conventional roles such as police and fire, it can sometimes be overlooked or given lower priority with respect to general emergency management functions such as planning, emergency co-ordination, or recovery.

Like training, opportunities to engage in exercises are absolutely critical for an effective emergency management program. Exercises give individuals, agencies, and broader multi-agency systems the opportunity to test operational procedures and plans, identify gaps and weaknesses, and perhaps most importantly, strengthen inter-agency working relationships by building a common operating picture essential for clear communication and coordination of actions among emergency response and other organizations.

Without appropriate training and exercising, no jurisdiction can achieve an appropriate level of preparedness.

Given the importance of training and exercising then, it came as little surprise that the need for a focus on training and exercising came through loud and clear from stakeholders.

Training

There are a variety of ways that emergency managers can access training in B.C. For example, with respect to local authorities, training for emergency management professionals, as well as elected officials and other staff, is available both in person and on-line from EMBC and through EMBC-

sponsored training delivered through the Justice Institute of BC (JIBC). In addition, the JIBC and other key academic and educational institutions collectively offer a wide variety of emergency management training for emergency management practitioners that support degree, diploma and certificate programs. During the Earthquake Preparedness Consultation, stakeholders did note that there is a significant amount of emergency management training available in B.C. However, system-wide, there are training challenges and opportunities for enhancements, including:

Access: While stakeholders noted that, on the whole, there is a significant amount of training available in the province, some practitioners have experienced challenges in accessing training, whether due to limited time or travel budgets. EMBC has also been constrained by limited numbers of regional staff available to deliver training and limited travel budgets. Stakeholders were very supportive of alternative modes of training delivery such as the webinars hosted by EMBC, but noted that face-to-face training was also essential.

Integration: It appears that there are opportunities to better integrate the training that is available from various agencies and institutions. EMBC already participates in advisory committees in cooperation with individual training delivery institutions, but a provincewide integrated approach to emergency management training has not yet been fully realized. Courses and programs (including degree programs) offer materials for entry level emergency managers, for senior officials, and for specific functions covering all phases of emergency management, but taken as a whole, the training and educational opportunities available across the province do not represent an integrated curriculum. A more cooperative and integrated training network would be a key tool in achieving this.

Standards and guidelines: Training standards and guidelines need to be more fully developed. While standards and guidelines are well established in some areas (e.g. Incident Command System training, Emergency Social Services training, etc.), in many cases there are no broader standards or guidelines that clarify what training is required to fulfill a given function. For example, guidelines are required to demonstrate what minimum requirements are needed for individuals whose job it is to manage emergencies at the local level, such as those in the critical role of a local authority Emergency Program Coordinator (EPC). The increasing scope and scale of emergency events and demographic pressures, among other factors, are necessitating increased professionalism in emergency management. Additional rigor is needed to assess the qualifications and experience of candidates for emergency management roles, to guide career development (e.g. what formal courses/training are expected for increasing levels of responsibility) and determine what criteria should be used to judge the quality of training.

To address these challenges, B.C. requires an emergency management training strategy that features an integrated approach among training providers. Training, like all aspects of emergency management, is also an area of shared responsibility. However, the provincial government is in a position to bring multiple involved parties together to address some of the issues above and further improve emergency management training.

Exercises

As important as training is, it is incomplete before it has been exercised. Training, combined with exercising is perhaps the single most reliable strategy to ensure preparedness and an effective response.

EMBC-led exercising is on the increase. For example, EMBC is in the process of filling two positions that will be dedicated to organizing and implementing exercises. Also, EMBC's strategic plan released in Spring 2014 includes explicit objectives related to exercising. These objectives appear to be appropriate given the available resources.

However, if B.C. is going to substantially enhance its preparedness for a catastrophic event, additional funding and staff will be required. Jurisdictions elsewhere which have made a concerted effort to address earthquake and disaster preparedness have developed and implemented robust exercise strategies that involve increasing numbers of partners in exercises that increase over time in size and complexity. A well-planned schedule of exercises, including drills, tabletop and functional exercises over a multi-year timeframe is essential. Functional exercises should, for example, be scheduled once a year. Full-scale exercises which are more labor intensive and costly should be scheduled every 3 years or so.

High-level exercise strategies (e.g. for a province or a state) necessarily include all levels of government and key elements of the private and non-governmental sectors, and include participation by senior officials as well as community members. Such strategies also account for recovery and mitigation considerations, in addition to response operations. Ultimately, full participation in these exercises must be mandatory for all key public sector, private sector and NGO partners.

While an absolutely critical element of preparedness, robust exercise programs are expensive. Dependent on the diverse scale of stakeholder engagement, the cost of a single full-scale, multi-day integrated exercise can cost millions of dollars. For example, the Washington State Evergreen Exercise held in 2012 cost approximately \$2.5 million (not including in-kind support). This exercise included participation from local, county, state and federal governments, First Nations, corporate stakeholders and cross-border engagement, in a multi-day, multi-site exercise event. Adequate financial support from senior levels of government to emergency management organizations, all involved ministries/ departments and local authorities is essential. Local governments and others, consistent with their shared responsibility for exercising, will also have to devote additional resources to exercising.

Key actions in support of RECOMMENDATION #6

6.1 *The provincial government must work with partners to develop an emergency management training strategy that improves access, increases integration between delivery organizations, and includes consistent training guidelines. Federal participation and funding will be required to ensure adequate training opportunities for all regional federal staff in B.C., as well as First Nations communities.*

6.2 *The provincial government, with partners, must develop and implement a robust, provincial exercise strategy that includes full-scale exercises. Additional provincial resources (funding and people) will be required. Federal funding and people will be required to ensure adequate participation by national and regional federal assets, in addition to First Nations.*

RECOMMENDATION #7: *Provincewide Risk Analysis*

RECOMMENDATION

In the long-term, EMBC and its partners must develop a strategy for enhanced hazard risk and vulnerability analysis, and for increasing the availability of emergency management risk data for use by local authorities, the private sector, First Nations and the public.

STAKEHOLDER FEEDBACK

Stakeholders participating in the Earthquake Preparedness Consultation communicated a desire for greater availability of risk data for their geographic areas. In many cases, the required data was of a mapping/geospatial nature. For example:

- ▶ Tsunami wave height and inundation modelling.
- ▶ Building stock and vulnerability analysis.
- ▶ Slope stability data.
- ▶ Micro-zonation for earthquake risks such as liquefaction.
- ▶ Earthquake fault locations.

In other cases, stakeholders such as local authorities expressed concerns regarding assessments of risks and vulnerabilities with respect to less geospatial-specific factors such as vulnerable populations, aging infrastructure, or disrupted supply routes. Smaller, remote communities in particular frequently voiced concerns regarding vulnerabilities around supply chains and isolation following a major event.

It was also clear during the consultation process that even on an individual and family level, there was a desire for greater data accessibility. At the individual level, access to such data may influence actions such as selection of a home to purchase, or development of a basic family emergency plan.

DISCUSSION

The 2014 OAG of BC Report titled "Catastrophic Earthquake Preparedness" specifically speaks to the regulatory and good practice requirements for emergency management organizations in B.C., such as local authorities and EMBC, to prepare detailed Hazard Risk and Vulnerability Analyses (HRVAs) to guide emergency management plans. HRVAs help planners identify what hazards (e.g. floods, interface fires, earthquakes) need to be considered for specific areas within their jurisdictions, what impacts these hazards may cause, and what people or infrastructure are most at risk. As also noted in the 2014 OAG report, the last all-hazards provincewide HRVA for B.C. was in 1997. No HRVA specific to catastrophic earthquake has been completed.

An appropriate understanding of hazards, risks, and vulnerabilities is a cornerstone of appropriate planning, not only for emergency management organizations, governments, and CI asset owners, but also for individuals. For example, emergency planners and the public in Greater Victoria can access a detailed online map of tsunami hazard planning areas in the region. Resources such as this can assist governments, private sector entities, and homeowners to plan appropriately. HRVAs combine information such as this, across all hazards, together with other sources of data, to create a comprehensive assessment of hazards, risks, and vulnerabilities.

All local authorities in B.C. are required to prepare plans that account for the hazards in their specific areas. Thus, to varying degrees of specificity, local authority plans are intended to account for specific local needs and associated response actions/resources. However, many local authorities, and some other stakeholders such as private sector CI owners, voiced the desire for either greater access to data, or additional assistance in assessing hazards, risks, and vulnerabilities.

With respect to access to risk data (whether for professionals or families), there are a number of related issues. In some cases, risk data exists, but its availability may not have been communicated widely (e.g. Lower Mainland liquefaction risk mapping was one such data set which was discussed during the consultation). In other cases, information may be held confidentially due to legitimate competitiveness concerns. Many private sector companies have already conducted internal hazards identification processes to identify vulnerabilities within their own infrastructure. The sharing of this information, while ensuring confidentiality for proprietary matters, will be very important and relevant to life safety and rapid recovery in the event of a catastrophic earthquake or other disaster. In further cases, the desired data may have to be created, though at a substantial cost (e.g. tsunami inundation modelling for additional areas of B.C.'s coast). Lastly, publicly available data from various sources may not be consolidated into a format which can be easily accessed by those who require it for planning.

In the long-term, more extensive use of emergency management information management systems may offer some solutions. Examples of such systems include ETeam, already in use by EMBC, and Hazus. Hazus, a Geographic Information System-enabled risk assessment software package

may offer opportunities to consolidate, analyze, and communicate risk data. A staged approach where data regarding earthquake, tsunami, CI, and landslides are incrementally added to this, or a similar system, may be a practical option, though implementation funding would be required.

Implicitly, stakeholders' desire for enhanced risk data availability, and assistance with identifying hazards for their local areas, seems to support the need for an updated HRVA for B.C. or HRVAs done at the regional level (e.g. for the six EMBC regions).

Ideally, a provincewide HRVA would identify potential hazards and vulnerabilities within different planning areas. Local plans could then incorporate these findings and managers can design scenarios for their training and exercise programs. HRVA enhancements would require additional funding.

However, a formal HRVA may add little value if it simply re-formats and consolidates existing analyses which are already informing planning, and which are of a general, provincewide nature. Further, no single HRVA will ever address all the geographically or vulnerability specific issues of each community or stakeholder.

A provincewide HRVA will, however, add value if it is part of a wider strategy to assist local authorities and other stakeholders to access the data they need to plan appropriately. Ultimately, local authorities and other stakeholders are the experts on their own geographic areas, their operations, and their vulnerabilities. They do, however, need to know what data is available, be able to access it, and in some cases, be provided with assistance or partnerships to develop it.

Key Actions In Support of RECOMMENDATION #7

7.1 All partners must assess opportunities to develop, consolidate and share sources of risk data. Such work could include development and sharing of additional tsunami inundation modelling, inventories of public essential services facilities, building stock inventories, mapping of hazardous materials locations, etc.

7.2 Governments must provide additional funding to support the enhanced use of geospatial data within emergency management information systems, and assessment of unique issues such as vulnerable populations, hazardous materials, or animals. Often, these unique risks and vulnerabilities can be overlooked or inadequately considered in emergency plans due to lack of data, complexity, confidentiality concerns, etc.

7.3 The Province must fund a small, dedicated EMBC team to lead HRVA efforts at the provincial level and assist local authorities with local HRVA needs.

Note: Key action 5.4 also supports recommendation 7:

5.4 As a backstop to voluntary engagement, the provincial and federal governments must mandate appropriate private sector preparedness, including sharing of CI information and engagement in joint planning with emergency management organizations.

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RECOMMENDATION #8:

Emergency Management Capability Priorities

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RECOMMENDATION

Federal, provincial, and local governments must invest in emergency management capability enhancements in such areas as alerting, logistics, urban search and rescue, rapid damage assessment, and 911.

STAKEHOLDER FEEDBACK

In the course of the consultation, stakeholders pointed to numerous specific emergency management capabilities which require additional investment. Some of the most commonly referenced were rapid damage assessment, alerting, urban search and rescue, and logistics. Additionally, several key emergency management agencies spoke to the need for additional situational awareness tools.

DISCUSSION

Previous reports on the topic of earthquake preparedness in B.C. have pointed to the need for additional emergency management capacity in a multitude of important areas. This report has focused on the emergency management frameworks and culture in B.C. rather than highlighting those specific capabilities in need of additional resources, support, or coordination. However, the emergency management capabilities highlighted in the next section are several of the specific capabilities which were of primary concern for stakeholders, in addition to very broad capability areas such as the health care system, transportation infrastructure, etc.

To effect real change in the area of disaster preparedness, system-wide and cultural change need to be the top priorities for B.C. However, as opportunities present themselves for greater commitment of time and resources to specific functions, the following capabilities should be given early consideration.

Key Actions In Support of RECOMMENDATION #8

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Emergency Alerting:

A very common theme heard from stakeholders during the consultation was the desire for enhanced emergency alerting. Stakeholders spoke to the need both for improved alerting of local authorities and those with emergency response responsibilities, and improved alerting for the public. Desired functionality included an improved Provincial Emergency Notification System (PENS), smart-phone alerting applications, broadcast interruption alerts, community sirens, use of social media, etc. The issue of alerting appears to have been a long-standing one in B.C. For example, PENS, the tsunami notification system used by EMBC, has been the subject of several Union of BC Municipalities (UBCM) resolutions in past years which have called for the system to be improved. EMBC currently has several initiatives underway or planned which could improve emergency alerting in B.C. An upgrade to PENS is one such initiative. As noted by stakeholders, having effective alerting mechanisms in place is a key element of catastrophic preparedness, and a key factor in empowering the public to take responsibility for their own safety.

While the consultation process did not include an assessment of resources being earmarked for future alerting initiatives, any new functionality in this regard will require additional resources at the provincial level. Certainly, involved stakeholders in B.C., including the provincial government, need to be assessing existing and emerging technologies and their applicability to the alerting need.

8.1 EMBC, and other partners, must select and implement improved emergency alerting mechanisms for British Columbians including both new technologies and operational practices.

Logistics:

Broadly speaking, logistics is the management of the movement of goods. In an emergency management and catastrophic event planning context, it normally refers to the movement of critical resources (e.g. food, fuel, water, medicine) into the impact area, as well as distribution of those resources to where they are needed. While stakeholders did not necessarily use emergency management terminology such as “logistics,” concern over how much-needed resources would be brought into communities following a major earthquake was one of the most commonly heard concerns from stakeholders during the consultation process.

As of Fall 2014, EMBC is already taking steps towards addressing this issue with the creation of several new dedicated logistics positions within EMBC. This is a very sensible and encouraging development that is appropriately scaled to current plan maturity and available resources. In the medium to longer term though, any logistics plans developed by this team will require the commitment of partners, and will need to be exercised. Ultimately, for British Columbians to have confidence that logistics plans and capacity can address a catastrophic event, additional resources will be required. Logistics planning and exercising undertaken by Washington State, which faces similar earthquake and tsunami hazards to B.C., provides a good example of the resource requirements of a more fully matured emergency management logistics capability. These resource requirements are substantial.

8.2 The provincial government and other partners must establish and resource a framework and capacity for post-disaster logistics. At the provincial government level, such a framework will need to include ministries and agencies well beyond EMBC alone.

Urban Search and Rescue (USAR):

While definitions and understanding of what constitutes “urban search and rescue” may vary, numerous stakeholders expressed the desire for enhanced and coordinated urban search and rescue capacity in B.C.

B.C.’s HUSAR capacity was reduced when federal funding was cut to the Vancouver Task Force 1 HUSAR team at the end of 2012, but a partnership between the City of Vancouver and EMBC have enabled this team to continue, albeit at a reduced capacity. Federal funding was also eliminated for the other HUSAR teams in Canada, along with funding for HUSAR exercise and coordination functions. The reduction in B.C.’s HUSAR capacity was commonly referred to as a concern by stakeholders during the consultation. All stakeholders in B.C. should insist that the federal government reinstate HUSAR funding and coordination resources.

In a variety of ways, a number of stakeholders also expressed the desire for greater leadership and coordination with respect to what might be termed light urban search and rescue, which may include the use of Ground (Wilderness) Search and Rescue volunteers, or specially trained USAR volunteers. While there are a variety of groups providing USAR capability in B.C., approaches, training, and governance is varied. An opportunity may exist for EMBC to work with partners to achieve additional coordination and enhanced capacity in the USAR realm. Additional federal funding and engagement will also be required to achieve optimal linkages to HUSAR capacities and standards, and enhance HUSAR capacity.

8.3 The provincial government and other partners must establish and resource a framework and capacity for urban search and rescue, with particular emphasis on light and medium urban search and rescue capacity.

Rapid Damage Assessment (RDA):

Following a major earthquake, a significant determinant of how effective the response and early recovery activities will be the efficacy of RDA, the process of coordinating structure assessment efforts and consolidating and disseminating the results of those assessments for emergency managers. This process can save lives, reduce the draw on other resources, and improve resiliency when done well. Numerous stakeholders cited RDA as a key catastrophic event preparedness challenge. B.C. currently has frameworks in place for RDA, but these frameworks have not been explored, resourced or exercised to the point where they could be fully utilized in a catastrophic event. Substantial work is required to fully develop and then implement RDA standards, training, and policies. Further, organizations to lead the program and technology to support RDA have not been fully determined. EMBC's planning accounts for this gap but like other preparedness gaps, closing it will require new funding and staff as well as the commitment of partners.

8.4 The provincial government and other partners, must establish and resource a framework and capacity for rapid damage assessment, including use of appropriate technology.

Immediate Response Situational Awareness:

The immediate response plan currently under development will cover the initial several days following a catastrophic event. During this initial period, assessing the scope of the impacts, saving lives, and setting the conditions for a sustained response and recovery will be the primary objectives. At the provincial level, priorities will be determined by the PECC based on information provided through PREOCs, from local authorities, and/or directly from certain large agencies. As has been the experience in other jurisdictions,

immediately following a major earthquake a large portion of the data required for situational awareness will come from calls to 911 dispatch centres. EMBC, like most emergency management organizations, has no direct access to aggregated 911 data. In the long-term, this situational awareness gap and the overall capacity and resiliency of the 911 system during a catastrophic event is something EMBC should explore with partners.

Of note, the Ministry of Justice is considering opportunities to increase functionality and efficiencies in the network of facilities that accept 911 calls (Public Safety Answer Points). Such an initiative should offer opportunities to build additional resiliency for the 911 system, and establish improved linkages between the 911 system and emergency management structures.

8.5 The provincial government, local authorities, and key partners must assess opportunities to enhance the resiliency and capacity of the 911 system, and establish situational awareness linkages between the 911 system and emergency management structures.

As noted above, the specific gaps, capabilities and issues highlighted here by no means constitute a complete list of the issues that catastrophic planning must address or the capabilities that EMBC and/or its partners must develop or enhance. Numerous others abound, and indeed stakeholders identified a number of them (e.g. EMBC's radio communications capabilities). Further, EMBC's existing earthquake planning roadmap considers many more issues than have been discussed above. However, the above items have been noted here in order to provide specific examples of catastrophic response and recovery plans and capabilities that must be covered off and which will unavoidably require additional resources to address.

Conclusion

The same location and geography that makes B.C. so beautiful, also makes it subject to numerous natural hazards such as a catastrophic earthquake, which could cause significant loss of life, damage to property, and lasting economic impacts. Events around the world offer a glimpse of what B.C. could expect from an event within its own borders. Understandably, British Columbians have an expectation that governments at all levels, and other providers of critical services, have planned and prepared for such disasters.

As a number of reports have highlighted previously, governments and other agencies are not adequately prepared for an event like a catastrophic earthquake. Further, despite the fact that this issue has been publicly reported on previously, significant preparedness enhancements provincewide seem to have been elusive.

Efforts at widespread preparedness improvements can only be successful when there is a clear vision, sufficient resources and strong political will. All too frequently, these factors are present only after a significant emergency event has already taken place. At present, British Columbians have the opportunity to tackle preparedness improvements before a catastrophic earthquake is experienced here. This report was commissioned to gain a better understanding of stakeholder priorities as this work is undertaken.

As noted, stakeholders in B.C. expect governments and other organizations to prepare for disasters. However, stakeholders in B.C. also accept the concept of shared responsibility for emergency management. This report has highlighted a number of the priorities identified by those stakeholders. It also sets out recommendations designed to pivot B.C.'s culture and its emergency management structures towards a situation where stakeholders are empowered and accountable, and where agencies, such as EMBC, have the resources and authority to deliver the integrated leadership for which stakeholders voiced a need.

Leaders at all levels must demonstrate the political will necessary to elevate and highlight the importance of preparedness for a catastrophic event. Political and other leaders must use every means available to them to communicate the importance of preparedness and provide the leadership which stakeholders communicated was lacking. The path to greater preparedness is relatively clear. The key is ensuring that agencies with preparedness responsibilities, importantly but certainly not exclusively EMBC, have the empowerment, staff and resources to undertake and complete this important work.

While this report was commissioned by, and has been delivered to, the provincial government, ultimately, B.C.'s commitment to these recommendations and to preparedness in general, is a responsibility shared by all.

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Appendix A: *Henry Renteria Bio*

HENRY R. RENTERIA

Chair, Earthquake Preparedness Consultation

Henry Renteria is an emergency management and public safety consultant. He works with government, private industry and non-profit agencies to promote and implement preparedness, response, recovery and mitigation programs. He has expertise in Emergency Operations Centers, Incident Command Systems, Crisis Intervention and disaster related legislation and funding.

He served as the Director of the California Governor's Office of Emergency Services (OES) from 2003 to 2009 and was a member of the Governor's Cabinet in that capacity. As OES Director he managed the State response and recovery to numerous local, regional and state disasters, including the 2007 Southern California wildfires, the largest in California's history. As a member of the Governor's Cabinet, he was responsible for coordinating all state agencies and resources in preparing for, responding to and recovering from human-caused and natural disasters. He helped coordinate the merger of the OES with the Office of Homeland Security to create the new California Emergency Management Agency.

Prior to his state appointment, Mr. Renteria served as the Director of the City of Oakland Office of Emergency Services for 18 years. While in Oakland he managed the City's response to six Presidential Declared disasters including the 1989 Loma Prieta Earthquake and the 1991 Oakland Hills Firestorm. As a result of legislation from the Firestorm, he served on the coordinating committee that created the California Standardized Emergency Management System (SEMS).

Additionally, he coordinated the state's first Emergency Manager's Mutual Aid program in response to the 1994 Northridge Earthquake. He was in Japan in 1995 when the Kobe Earthquake struck. He remained in Kobe for 10 days and personally witnessed the response and early recovery efforts.

Additionally, Mr. Renteria served as Executive Director of Crisis Intervention of Houston, a United Way Agency providing 24-hour crisis intervention and suicide prevention programs. He is a current member of the Board of Directors for Crisis Support Services of Alameda County and a former member of the Board of Directors for American Red Cross of the San Francisco Bay Area. He is also a past recipient of the Jefferson Award, presented by the American Institute for Public Service.

Appendix B: *The Risk to B.C. (Earthquake and Tsunami)*

Emergency planners in B.C. must know the risks to their jurisdictions and plan for a wide variety of hazard types. It is illustrative that provincial planning documents identify 57 separate hazards for consideration. However, relatively few hazard types hold the potential to overwhelm B.C.'s collective ability to respond. Earthquakes and tsunamis are perhaps the primary two hazards that do hold this potential and thus must be considered in B.C.'s catastrophic planning. It is for this reason that media stories, emergency planning scenarios, and the Earthquake Preparedness Consultation initiative focus on earthquakes and tsunamis.

To contextualize discussion on earthquake and tsunami preparedness, it is helpful to describe what earthquakes and tsunamis are, the different types of earthquakes, what damage they can cause, how they are measured, and what the specific risk is to B.C.

EARTHQUAKES in B.C.

B.C. is a very seismically active area, and has the highest earthquake risk in Canada. Areas near the coast are at greater risk though it should be noted that nowhere in B.C. is immune from earthquakes.

While it may be common knowledge that B.C. is earthquake country, understanding of the causes of earthquakes and tsunamis is less widespread. At the most basic level, earthquakes are caused where moving tectonic plates that make up the earth's surface come into contact and create friction. That friction causes energy to build up until it is released as "stuck" plates become "unstuck."

The energy released in this process is what causes the ground to shake. Numerous factors affect how strongly this shaking is felt by individuals and the damage caused to structures: the depth of the earthquake, the distance from the event's epicentre, the type of soil or rock in a given location, and the duration of the shaking. Earthquakes are measured by magnitude and intensity. Magnitude is a measure of physical energy released or the strength of an earthquake and is commonly described using the Richter scale. Seismic activity is also described by an intensity scale — the Modified Mercalli Intensity scale — that describes the effects of an earthquake on people and buildings (See table below).

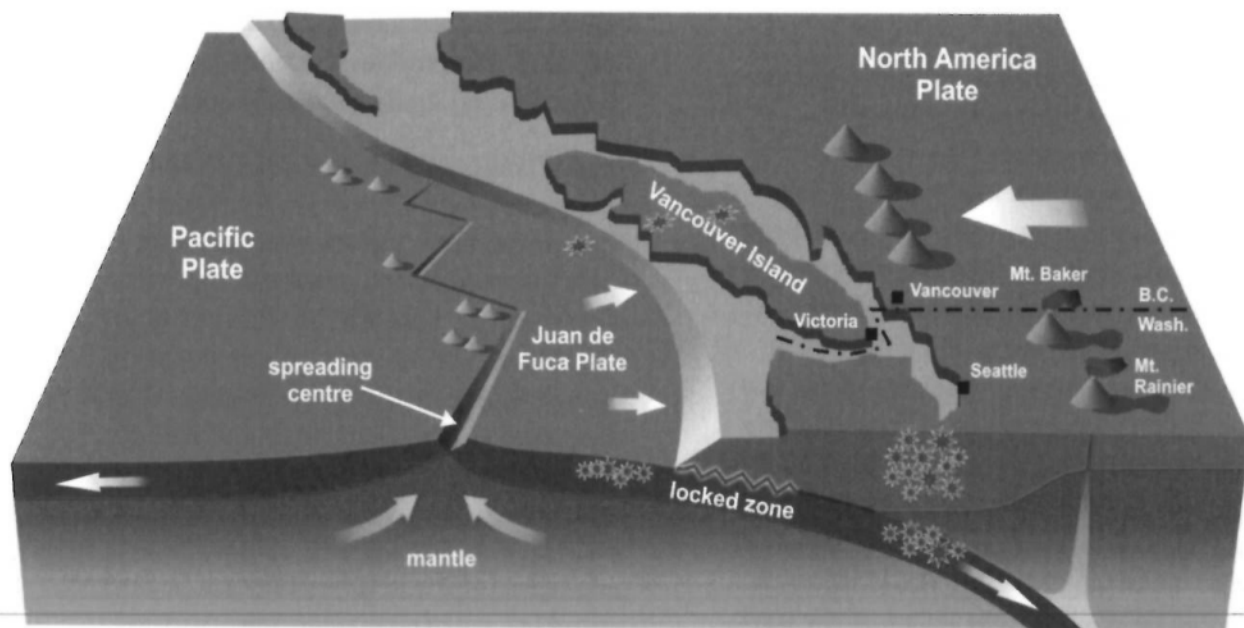
MMI INTENSITY		PERCEPTION DESCRIPTION
I	Instrumental	Not felt
II	Just Perceptible	Felt by only a few people on upper floors of tall buildings
III	Slight	Felt by people lying down, seated on hard surfaces, or in the upper floors of tall buildings
IV	Perceptible	Felt indoors by many, by few outside, and windows rattle
V	Rather Strong	Generally felt by everyone; sleeping people may be awakened
VI	Strong	Trees sway, chandeliers swing, bells ring, some damage from falling objects
VII	Very Strong	General alarm; walls and plaster crack
VIII	Destructive	Felt in moving vehicles, chimneys collapse, poorly constructed buildings seriously damaged

TYPES OF EARTHQUAKES

The land mass of B.C. exists on top of the North American Plate. Off the west coast of Vancouver Island and extending down to Northern California is the Cascadia Subduction Zone – a giant fault approximately 1,100 km long. This plate interface has the Juan de Fuca Plate colliding with the North American Plate – with the former being forced beneath the latter in a process called subduction. The geology and geometry of the plates and the collision of these plates causes several types of earthquakes:

- ▶ Shallow earthquakes in the North American plate
(e.g. M7.3 in 1946 near Courtenay)
- ▶ Deep earthquakes in the subducting oceanic plate
(e.g. 2001 M6.8 Nisqually earthquake near Olympia, Washington, that was felt in Victoria and the lower mainland)
- ▶ Large subduction zone earthquakes that occur between the interface of the Juan de Fuca plate and North American plate. (The Big One) (e.g. M9 Cascadia earthquake in 1700).

THE CASCADIA SUBDUCTION ZONE IN CROSS SECTION



▶ Adapted from Riddihough, 1978 and provided by
Natural Resources Canada at the Pacific Geoscience Centre

HOW BIG AND HOW OFTEN?

.....

Our region experiences hundreds of small earthquakes each year, but the vast majority of these are too small to be detected without specialized instruments. However, approximately once per decade, the movement of the tectonic plates beneath the surface can produce shaking strong enough to cause damage. Luckily, most of these earthquakes occur in remote areas. These relatively frequent earthquakes originate in the North America Plate and the Juan de Fuca Plate.

Earthquakes originating in the North America Plate are shallow and can reach magnitudes of 7.5. At this magnitude, shaking could be expected to last 20-60 seconds and aftershocks should be anticipated.

Earthquakes originating in the Juan de Fuca Plate are deeper underground, and can also reach magnitudes of 7.5. At this magnitude, shaking could be expected to last 15-30 seconds and aftershocks would be less likely.

Much rarer than the above are Cascadia subduction zone earthquakes. These earthquakes occur approximately every 300-800 years, but can reach magnitudes higher than 9, making them among the largest in the world. Such earthquakes produce shaking for several minutes, over a wide geographical area. Hundreds of aftershocks can also be expected. The last one to be recorded was in 1700. Seismologists have determined that there is a high probability that the next Cascadia event will occur within the next 200 years. Such an earthquake can be expected to be especially damaging because the shaking can last for several minutes, although the most intense shaking for B.C. would be approximately 150km off the coast. When a Cascadia subduction zone earthquake does occur, it is also expected to create a destructive tsunami (see the following section).

EARTHQUAKE PROBABILITIES IN B.C.

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B.C.'s largest known earthquake was the magnitude 9.0 Cascadia subduction zone earthquake in 1700. However, there have been numerous earthquakes of magnitude 7.0 or higher since 1900, the most recent being a magnitude 7.7 in Haida Gwaii in 2012. There have also been more modest earthquakes such as the April 2014 magnitude 6.5 earthquake 117 km west of Gold River. Thankfully, recent earthquakes have not resulted in any fatalities, often due to their remote locations.

Taking all of this into consideration, what is the risk of an earthquake and/or tsunami causing significant damage to a densely populated area in B.C. in the coming years? While earthquakes cannot be predicted, certain areas have a higher probability of experiencing damaging ground motions caused by earthquakes.

The Geological Survey of Canada has produced a simplified seismic hazard map for Canada (see next page) that provides an idea of the likelihood of experiencing strong earthquake shaking.

2010 SEISMIC HAZARD MAP FOR CANADA

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The map illustrates that the west coast and south Vancouver Island, and the southwest tip of mainland B.C. have a 30 per cent probability every 50 years of experiencing strong shaking to cause significant damage in buildings (<http://www.earthquakescanada.nrcan.gc.ca/hazard-alea/simphaz-eng.php>). So, while risk varies by location in B.C., the risk of a serious earthquake is real. Further, a catastrophic earthquake impacting an urban coastal area such as Victoria or Metro Vancouver would have short- and long-term implications for all British Columbians.

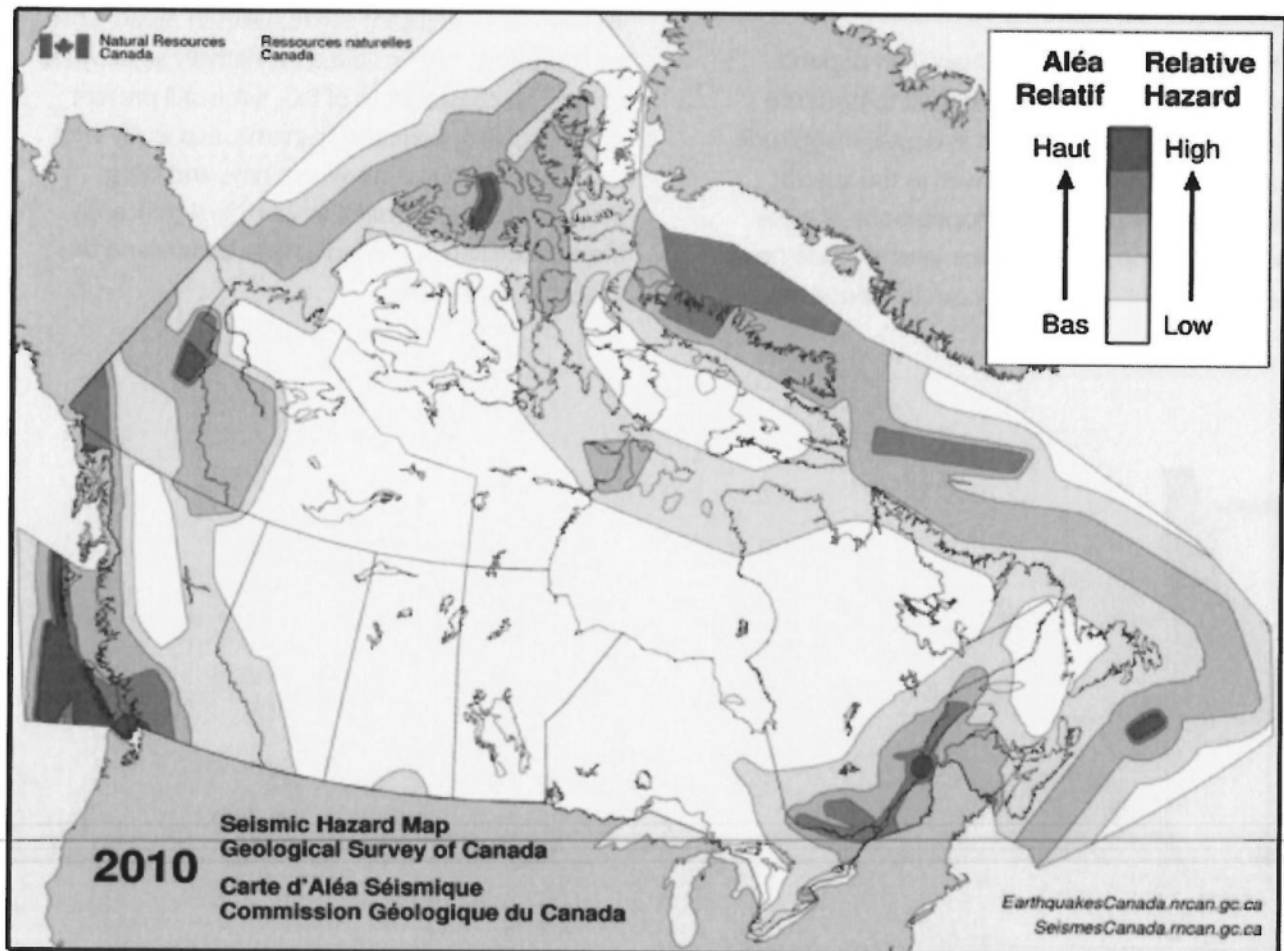


DAMAGE CAUSED BY EARTHQUAKES

While it is intuitive that earthquakes can cause building damage or even collapse due to ground shaking, there are a variety of other effects associated with earthquakes. First, even in a building which is not seriously damaged, falling and flying objects can cause serious injuries. Second, ground shaking can damage other assets or impact the land in unexpected ways. For example, damaged gas lines and power lines can contribute to fires. Flooding is also an issue. Damaged dams and dikes, blocked rivers, broken water mains and ruptured storm

drains are all possibilities. Earthquakes can also cause significant landslides (rockslides, debris slides, debris torrents, land slumps, etc.) which can cause direct damage and hamper response efforts. Yet another secondary effect of earthquakes is liquefaction, which is the process of soils losing their strength and becoming more fluid. This can dramatically impact the foundations of buildings and other structures.

Lastly, perhaps a more well-known secondary effect of earthquakes, and certainly a serious risk for B.C., is that of tsunamis.



TSUNAMI

Earthquakes are by far the most common cause of tsunamis. A large earthquake beneath the ocean floor can push water upwards, creating a series of these potentially large ocean waves. Damaging tsunamis are a rare, but serious risk for many coastal areas in B.C. The graphic on the next page shows the BC Tsunami Notification Zones. Areas A, B, and C are at greatest risk from tsunami. Area D has some moderate risk. Area E is considered to have low risk.

In geographic areas at risk, beaches open to the ocean or by bay entrances, as well as tidal flats and the shores of coastal rivers or inlets exposed to the open ocean are especially vulnerable to tsunamis.

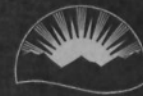
The destructiveness of a tsunami can depend on a wide variety of factors related to both the associated earthquake such as depth, magnitude and duration of shaking, as well as the specific coastal area impacted. The topography of a bay or inlet, the topography of the land, the tide height, and numerous other factors can influence wave

height and the inundation area of a tsunami. Where the necessary data is available, scientists and emergency planners use sophisticated models to predict safe and unsafe areas for specific coastal locations.

The most significant tsunami risk for B.C. is a tsunami from the next Cascadia Subduction Zone earthquake discussed previously. The tsunami from such an event could be expected to cause widespread destruction along the west coast of Vancouver Island.

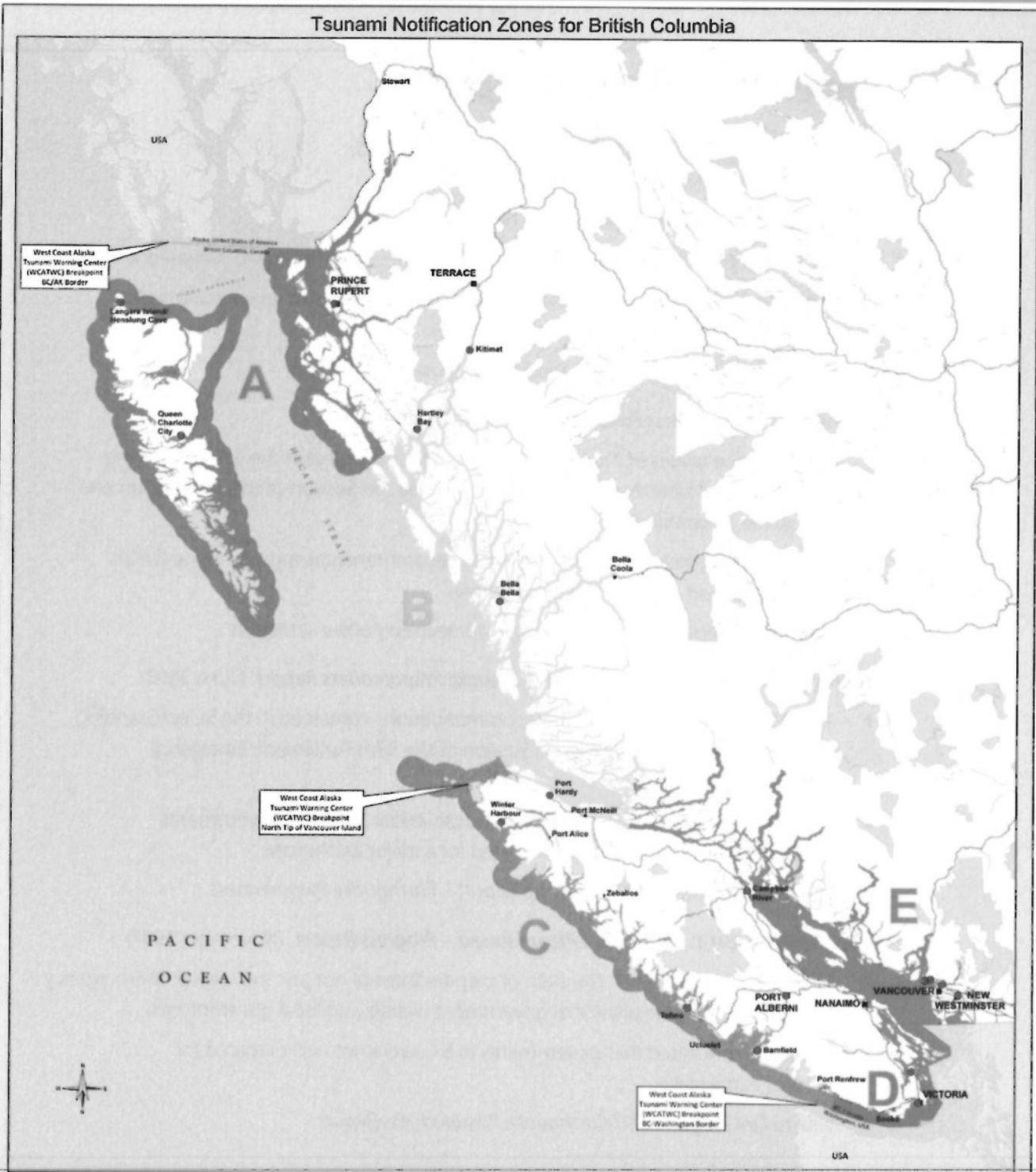
It is noteworthy that tsunamis can also be caused by a large earthquake in a distant location elsewhere in the Pacific Ocean (tele-tsunamis). While recent significant earthquakes in Japan, Chile, and Indonesia have resulted in relatively small wave heights for coastal areas of B.C., risk is still present to the province from tele-tsunamis, especially with the effect of resonances within bays and inlets that can increase tsunami amplitude significantly. More modelling is needed to fully understand this aspect of tsunami risk.





B.C. EARTHQUAKE PREPAREDNESS: CONSULTATION REPORT

Tsunami Notification Zones for British Columbia



Tsunami Notification Zones

ZONE A THE NORTH COAST AND HAIDA Gwaii

ZONE B THE CENTRAL COAST AND NORTHWEST VANCOUVER ISLAND (INCLUDING KITIMAT, BELLA COOLA, AND PORT HARDY)

ZONE C THE OUTER WEST COAST OF VANCOUVER ISLAND FROM LAKE TUSTI TO PORT HARDY

ZONE D THE STRAIT OF JUAN DE FUCA FROM JORDAN RIVER TO GREATER VICTORIA INCLUDING THE SANICH PENINSULA

ZONE E THE STRAIT OF GEORGIA INCLUDING THE GULF ISLANDS, GREATER VANCOUVER AND JOHNSTOWN ISLAND

Notifications		
Symbol	Message	Action
	Warning: tsunami	Get evacuation route
	Strong earthquake	Stay away from the coast
	Strong tide rise or fall	Stay away from the shore
	Wave surge or hole	No action required

B.C. Tsunami Notification Zones

Tsunami are rare but serious events, with waves of several metres high inundating the shore and causing significant damage to property and infrastructure. In some cases, tsunamis can cause significant loss of life and property. The B.C. Tsunami Notification Zones are designed to provide the public with information on the potential for tsunamis in different areas of the province. This information is intended to help the public prepare for and respond to a tsunami.

Legend

City
District Municipality
Town
Village
Unincorporated Indian Reserves

New Group
Fishes
Regional District
Designated Region
Designated Area

Scale: 0 to 100 km

Prepared by: BC Emergency Management
April 2015

Appendix C: Previous Reports

OFFICE OF THE AUDITOR GENERAL (OAG) OF BC REPORTS:

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Catastrophic Earthquake Preparedness (March 2014)

- ▶ The OAG report focused on EMBC's role with respect to earthquake preparedness.
- ▶ Report includes nine recommendations to government, all of which have been accepted by government (Ministry of Justice).
- ▶ Link to OAG report: *OAG Catastrophic Earthquake_FINAL.pdf*

Earthquake Preparedness Follow Up Report (May 2005)

- ▶ Report on the results of the OAG's second follow up review of the Select Standing Committee on Public Accounts' 4th Report of the 3rd Session of the 36th Parliament: *Earthquake Preparedness*.
- ▶ This PAC report includes and endorses the recommendations made in the OAG's 1997/1998 Report 1: *Earthquake Preparedness*.
- ▶ Link to OAG report: *2005 Earthquake Preparedness Follow Up Report*

Follow-up of Performance Report 1: Earthquake Preparedness Report (June 2002)

- ▶ An OAG follow-up report on the recommendations contained in the Select Standing Committee's 4th report of the 3rd Session of the 36th Parliament: *Emergency Preparedness in BC*.
- ▶ The OAG report concluded that both the provincial and local governments in B.C. were not yet adequately prepared for a major earthquake.
- ▶ Link to OAG report: *2002 Follow Up Report – Earthquake Preparedness*

1997/1998 Report 1: Earthquake Preparedness – Progress Report (November 1997)

- ▶ The OAG audit examined the state of preparedness of not just the Provincial Emergency Program but also the provincial government overall, and local governments.
- ▶ The audit concluded that governments in B.C. were not well prepared for a major earthquake.
- ▶ Link to OAG report: *1997 Earthquake Preparedness Report*

**INTERNAL AUDIT AND ADVISORY SERVICES,
*Report on Emergency Management Preparedness and Response (June 2007):***
.....

***Report on Emergency Management Preparedness and Response of the Internal Audit
and Advisory Services***

- ▶ The *Report on Emergency Management Preparedness and Response* evaluated only preparedness planning (including testing and training), and response. Prevention, mitigation and recovery activities were out of scope for this review.
- ▶ The review found that B.C.'s emergency management response capability to be in varying stages of maturity, with the hazard-specific response plans the most developed programs and the non pro-active communities that have less comprehensive plans at the other end of the spectrum.
- ▶ Link to the Internal Audit & Advisory Services Report: http://www.fin.gov.bc.ca/ocg/ias/pdf_Docs/Emergency%20Management%20Report%20Release.pdf

**STANDING COMMITTEE ON PUBLIC ACCOUNTS FOURTH REPORT:
*Third Session, Thirty-sixth Parliament (June 7, 1999):***
.....

Fourth Report of the Select Standing Committee on Public Accounts

- ▶ The *Fourth Report* covers the work of the PAC on the matter of *Earthquake Preparedness: Performance Audit*.
- ▶ The PAC had a further 28 recommendations in addition to OAG's 1997/98 recommendations.
- ▶ A summary of the recommendations (OAG and the SSCPA) can be found in appendix C and D of the March 2014 OAG Report: *Catastrophic Earthquake Preparedness*.
- ▶ Link to the Select Standing Committee on Public Accounts (SSCPA) – *Fourth Report*: <https://www.leg.bc.ca/cmt/36thParl/cmt12/1999/4report/index.htm>

Appendix D: *Earthquake Consultation – Terms of Reference*

BRITISH COLUMBIA EARTHQUAKE RESPONSE CONSULTATION PROJECT

TERMS OF REFERENCE

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Purpose

The goal of this 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.

Guiding Considerations

Guiding considerations in the development of recommendations will include:

- ▶ Overall public safety impact
- ▶ Affordability
- ▶ Practicality (e.g. implementation requirements, ability of partners to participate, timelines, etc.)

Scope

This emergency management consultation regarding catastrophic seismic events will directly involve all levels of government.

The Province will also seek the input and engagement of additional stakeholders, including: individuals and families, the media, business, local authorities including First Nations, adjoining provincial, federal and state jurisdictions, as well as non-governmental organizations.

Community consultation activities will focus on those regions at highest risk from seismic events.

Key Topics Within Scope

Roles and Responsibilities of all Levels of Government to Plan for and Respond to Catastrophic Seismic Events

To determine if the roles and responsibilities are clearly set out and understood by all levels of government, and if necessary, to recommend methods to improve clarity and understanding.

Roles of Individuals and Families

To gauge the preparedness of individuals and families for catastrophic events (e.g. family plans, earthquake kits, insurance, etc.) and recommend approaches to improving individual and family preparedness as required.

Risk Assessment Processes

To identify key issues and opportunities with respect to risk assessment processes, relevant to catastrophic seismic events, and provide recommendations for improvements as appropriate.

Response Planning for Catastrophic Seismic Events

To identify key issues and opportunities with respect to response plans, capacities, and processes, and provide recommendations for improvements as required.

Response Capacity

To identify key issues and opportunities with respect to response capacity and provide recommendations for improvements as appropriate (e.g. targeted investments within B.C., mutual aid arrangements with other jurisdictions, etc.).

Mitigation Strategies for Catastrophic Seismic Events

To identify key issues and opportunities with respect to mitigation strategies and provide recommendations for improvements as appropriate.

Coordination Structures

To identify key issues and opportunities with respect to existing coordination structures for response to catastrophic events and provide recommendations for improvements as appropriate.

Technical Emergency Communications and Warning Systems

To identify key issues and opportunities with respect to emergency management technical communications and warning systems and provide recommendations for improvements as appropriate.

Public Communications

To identify key issues and opportunities with respect to public communications before, during, and after a catastrophic seismic event and provide recommendations for improvements as appropriate.

Training and Exercising Programs

To identify key issues and opportunities with respect to training and exercising for response to catastrophic events, and provide recommendations for improvements as appropriate.

Volunteers

To identify key issues and opportunities with respect to the utilization of volunteers in response to a catastrophic seismic event and provide recommendations for improvements as appropriate.

Timelines

- ▶ Announcement of consultation, including Terms of Reference & Chair March 11, 2014
- ▶ Information gathering complete ... July 31, 2014
- ▶ Final report to be delivered to Ministry of Justice December 31, 2014



Appendix E: Stakeholders Engaged

STAKEHOLDER ORGANIZATION

BRITISH COLUMBIA CROWN ORGANIZATIONS	
BC Safety Authority	Ministry of Natural Gas Development: ▶ Office of Housing and Construction Standards
Insurance Corporation BC (ICBC)	Ministry of Health
Ministry of Advanced Education	Ministry of Jobs, Tourism and Skills Training
Ministry of Agriculture	Ministry of Justice: ▶ BC Coroners Service ▶ Office of the Fire Commissioner ▶ Police Services
Ministry of Children and Family Development	Ministry of Social Development and Social Innovation
Ministry of Education	Ministry of Technology, Innovation and Citizens' Services
Ministry of Energy and Mines	Ministry of Transportation and Infrastructure
Ministry of Environment	Office of the Clerk and Sergeant-at-Arms
Ministry of Finance	WorkSafeBC
Ministry of Forests, Lands and Natural Resource Operations	
FEDERAL GOVERNMENT	
Security and Emergency Management Advisory Committee (SEMAC):	
▶ Aboriginal Affairs and Northern Development Canada (AANDC)	▶ Joint Task Forces (Pacific) (Canadian Forces)
▶ Canada Border Services Agency (CBSA)	▶ Natural Resources Canada
▶ Canada Revenue Agency (CRA)	▶ Public Health Agency of Canada
▶ Canadian Coast Guard	▶ Public Safety Canada
▶ Department of Fisheries and Oceans (DFO)	▶ Royal Canadian Mounted Police (RCMP)
▶ Industry Canada	▶ Transport Canada
Defense Research Development Canada (DRDC)/ Resiliency Working Group	

OTHER STATES AND PROVINCES

Alberta	Western Regional Emergency Management Advisory Committees (WREMAC) / Pacific Northwest Emergency Management Arrangement: <ul style="list-style-type: none"> ▶ State of Alaska ▶ State of Idaho ▶ State of Oregon ▶ State of Washington ▶ British Columbia ▶ Yukon Territory
Cascadia Region Earthquake Workgroup (CREW)	

EDUCATION – K TO 12

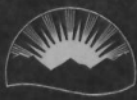
BC Association of School Business Officials (BCASBO)	BC Teachers' Federation (BCTF)
BC School Superintendents Association (BCSSA)	Federation of Independent Schools' Association (FISA)
BC School Trustees' Association (BCSTA)	Ministry of Education

EDUCATION – UNIVERSITIES AND OTHER POST-SECONDARY INSTITUTIONS

British Columbia Institute of Technology (BCIT)	University of the Fraser Valley (UFV)
Ministry of Advanced Education	University of Victoria (UVIC)
Okanagan College	Vancouver Community College (VCC)
Simon Fraser University (SFU)	Vancouver Film School (VFS)
University of British Columbia (UBC)	Vancouver Island University

HEALTH SECTOR

BC Centre for Disease Control	Health Emergency Management BC
BC Emergency Health Services: <ul style="list-style-type: none"> ▶ BC Ambulance Service 	Lower Mainland Health Authority
Courtenay Medical Health Officer VIHA	Medical Health Officers
First Nations Health Authority	Ministry of Health (Emergency Management Unit)
Fraser Northern Health Authority	Public Health Agency of Canada
Vancouver Coastal Health Authority	
Health Canada, First Nations Inuit Health Branch	Vancouver Island Health Authority



HOUSING SECTOR

Aboriginal Housing Management Association	Homeowner Protection Office
Applied Science Technologist and Technicians and Technologists of British Columbia	Managers of Strata & Rental Owners
Architectural Institute of British Columbia	Manufactured Home Park Owners' Alliance of BC
BC Housing	Ministry of Natural Gas Development: ► Office of Housing and Construction Standards
BC Non-Profit Housing Association	New Chelsea Society
Canadian Condominium Institute – Vancouver Chapter	Tenant Resource and Advisory Centre
Condominium Home Owners Association (CHOA) of BC	

ANIMAL WELFARE ORGANIZATIONS

Society for Prevention of Cruelty to Animals (SPCA)	Canadian Disaster Animal Rescue Team
Canadian Veterinary Medical Association	Ministry of Agriculture

RECOVERY NGOS

Canadian Red Cross

Integrated Disaster Recovery Council of BC:

- | | |
|---|--|
| ► BC Housing | ► Ministry of Justice - EMBC |
| ► Buddhist Compassion Relief Tzu Chi Foundation Canada | ► Ministry of Social Development and Social Innovation |
| ► Canadian Disaster Animal Response | ► PHAC Office of Emergency Response Services |
| ► Community Living BC | ► Police Victim Services of BC |
| ► Ending Violence Association of BC | ► Public Health Agency of Canada |
| ► Health Canada & Public Health Agency of Canada – BC /Yukon Region | ► Samaritan's Purse |
| ► Justice Institute of BC | ► St. John Ambulance |
| ► Mennonite Disaster Service | ► St. Vincent de Paul |
| ► Ministry of Children and Family Development | ► The Canadian Red Cross Society |
| ► Ministry of Health | ► The Salvation Army |
| | ► World Renew |

MULTICULTURAL AND FAITH-BASED ORGANIZATIONS:

Multicultural and Faith-based Organizations:

(Note: An invitation to provide input was shared with over five hundred multicultural and faith-based organizations/contacts through the Multiculturalism Office within the Ministry of International Trade.)

- ▶ Affiliation of Multicultural Societies and Services Agencies of BC
- ▶ FOCUS Humanitarian Assistance Canada
- ▶ Ismaili Muslim Community
- ▶ Ismaili Muslim Council for BC
- ▶ Multicultural Advisory Council
- ▶ Salvation Army
- ▶ Tzu Chi Foundation (Buddhist Compassion Relief)

GROUPS INVOLVED IN VULNERABLE POPULATIONS ISSUES:

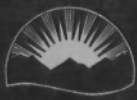
BC Coalition of People with Disabilities	Greater Vancouver Association of the Deaf (GVAD)
BC Poverty Reduction Coalition	Ministry of Health, Emergency Management Unit, Population & Public Health
Council of Senior Citizens Organizations of British Columbia	The Salvation Army

RESPONSE ORGANIZATIONS

BC Association of Chiefs of Police (BCACP)	Fire Chiefs' Association of British Columbia
BC Association of Municipal Chiefs of Police (BCAMCP)	Royal Canadian Mounted Police (RCMP)
ECOMM	

CRITICAL INFRASTRUCTURE SECTOR

<p>Canadian Banking Association:</p> <ul style="list-style-type: none"> ▶ BNP Paribas Bank ▶ CIBC ▶ Citibank ▶ CTFS ▶ Desjardins Group ▶ HSBC ▶ Laurentian Bank ▶ National Bank ▶ Royal Bank ▶ Scotiabank ▶ TD Bank 	<p>Media (Radio, Print, TV, Other):</p> <ul style="list-style-type: none"> ▶ Bell Media ▶ Canadian Broadcasting Corporation (CBC) ▶ CityTV's Breakfast Television (Rogers) ▶ Newspaper Association of Canada ▶ Rogers Media: Radio ▶ The Jim Pattison Broadcast Group: Victoria/Island Radio ▶ Times Colonist
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CRITICAL INFRASTRUCTURE SECTOR

Provincial Critical Infrastructure Steering Committee:

- | | |
|--|---|
| ▶ Finance – Ministry of Finance | ▶ Transportation – BC Ferries |
| ▶ Government – Ministry of Agriculture | ▶ Transportation – BC Transit |
| ▶ Government – Ministry of Finance | ▶ Transportation – Coast Mountain Bus |
| ▶ Government – Ministry of Forests Lands and Natural Resources | ▶ Transportation – Ministry of Transportation |
| ▶ Health – PHAC | ▶ Transportation – Seaspan |
| ▶ Safety – Canadian Forces | ▶ Transportation – YVR |
| ▶ Safety – RCMP | ▶ Utilities – BC Hydro |
| ▶ Safety – Transit Police | ▶ Utilities – Fortis BC |
| ▶ Telecommunications – Rogers | ▶ Utilities – Spectra Energy |

Vancouver Board of Trade

INSURANCE INDUSTRY

British Columbia Automobile Association (BCAA) Insurance	Insurance Bureau of Canada
Credit Union Insurance Services Association	Insurance Corporation of British Columbia (ICBC)
Insurance Brokers Association of BC	Wawanesa Mutual Insurance

ACADEMIC/RESEARCH COMMUNITY

Disaster and Emergency Management – RRU	Oceans Network Canada
Earth and Ocean Science – SFU	School of Community and Regional Planning – UBC
Engineering – UBC	

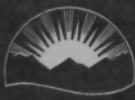
ENGINEERING

Association of Professional Engineers and Geoscientists of BC (APEGBC)	UBC – Earthquake Engineering Institute of BC (EERI)
SEABC (Structural Engineers Association of BC)	Association of Consulting Engineering Companies of BC (ACEC-BC)

VOLUNTEER ORGANIZATIONS AND EMERGENCY MANAGEMENT ASSOCIATIONS	
BC Amateur Radio	First Nations Emergency Services Society
BC Search and Rescue Association (BC SARA)	Emergency Social Services Advisory Forum (& Mobile Support Teams)
Business Continuity Institute (BCI)	EPICC (Emergency Preparedness for Industry and Commerce Council)
EMBC Radio Room Volunteers	Seismic Safety Council: <ul style="list-style-type: none"> ▶ Natural Resources Canada (NR Can) ▶ University of Victoria (UVic) ▶ Ministry of Education ▶ Canadian Forces ▶ Public Safety Canada ▶ Ministry of Transportation & Infrastructure ▶ Simon Fraser University (SFU) ▶ Canadian Red Cross ▶ Department of Fisheries and Oceans Canada (DFO) ▶ Ministry of Health
BC Earthquake Alliance	VanCity Business Continuity

STAKEHOLDER COMMUNITIES

FIRST NATIONS	
Adams Lake Indian Band	Nisga'a Nation
Bridge River Indian Band	Nisga'a Valley Health Authority
Gitga'at First Nation	Nuchatlaht Band
Gitlantz'aamiks Village Govt	Pauquachin Indian Band
Gwa'sala-Nakwaxda'xw Indian Band	Snuneymuxw First Nation
K'ómoks First Nation	Songhees First Nation
Kwikwasut'inuxw Haxwa'mis	Sts'ailes Band
Mamalilikulla-Qwe'qwa'sot'em	Tseshah First Nation
Namgis First Nation Band	Westbank First Nation
Nanoose First Nation Band	Xaxli'p Indian Band



LOCAL AUTHORITIES	
Bowen Island Municipality	District of North Cowichan
Central Coast Regional District	District of North Vancouver
City of Abbotsford	District of Oak Bay
City of Burnaby	District of Port Hardy
City of Chilliwack	District of Saanich
City of Colwood	District of Sechelt
City of Coquitlam	District of Sooke
City of Coquitlam Fire Rescue	District of Squamish
City of Courtenay	District of Summerland
City of Duncan	District of Taylor
City of Fort St. John	District of Tofino
City of Kamloops	District of Ucluelet
City of Kamloops Fire Rescue	District of West Kelowna
City of Kelowna	District of West Vancouver
City of Langford	Fraser Valley Regional District
City of Langley	Juan de Fuca Emergency Program
City of Merritt	Kimberly
City of Nanaimo	Metro Vancouver
City of New Westminster	Regional District of Alberni-Clayoquot
City of North Vancouver	Regional District of Bulkley-Nechako
City of Parksville	Regional District of Central Kootenay
City of Penticton	Regional District of East Kootenay
City of Pitt Meadows	Regional District of Fraser-Fort George
City of Port Alberni	Regional District of Kitimat-Stikine
City of Port Coquitlam	Regional District of Mount Waddington
City of Port Moody	Regional District of Nanaimo
City of Prince Rupert	Regional District of North Okanagan
City of Prince Rupert Fire Rescue	Regional District of Okanagan-Similkameen
City of Quesnel	Regional District of Powell River

B.C. EARTHQUAKE PREPAREDNESS: CONSULTATION REPORT

LOCAL AUTHORITIES	
City of Richmond	Resort Municipality of Whistler
City of Surrey	Saanich Fire Department
City of Terrace	Skeena-Queen Charlotte Regional District
City of Terrace Fire Department	Squamish-Lillooet Regional District
City of Trail	Strathcona Regional District
City of Vancouver	Sunshine Coast Regional District
City of Victoria	Thompson-Nicola Regional District
City of White Rock	Town of Comox
Columbia Shuswap Regional District	Town of Gibsons
Comox Valley Emergency Program (CVEP)	Town of Princeton
Comox Valley Regional District	Town of Qualicum Beach
Cowichan Valley Regional District	Town of Sidney
District of Central Saanich	Town of View Royal
District of Delta	Township of Esquimalt
District of Elkford	Village of Anmore
District of Hope	Village of Cumberland
District of Kent	Village of Gold River
District of Kitimat	Village of Harrison Hot Springs
District of Lake Country	Village of Keremeos
District of Lantzville	Village of Pemberton
District of Maple Ridge	Village of Port Alice
District of Metchosin	Village of Port Clements
District of Mission	Village of Queen Charlotte
District of New Hazelton	Village of Tahsis
OTHER	
Integrated Partnership for Regional Emergency Management (IPREM)	Union of BC Municipalities (UBCM)

Appendix F: Earthquake Consultation – Community Session Schedule

Earthquake Preparedness Consultation: COMMUNITY SESSIONS – Locations and Venues

May – July 2014

	Date	Time	Location	Venue	Groups	Size	RSVP by
May	27	Tues	1:00pm - 3:00pm	Nelson/ Revelstoke/ etc.	Conference Call	Local Govt & First Nations staff reps.	May 20, 2014
	28	Wed	10:00am - noon	Prince George/ Ft St. John/ Fraser Ft. George/etc.	Conference Call		May 20, 2014
			1:00pm - 3:00pm	Cariboo/Bella Coola/ etc.	Conference Call		May 20, 2014
	29	Thurs	10:00am - noon	Kelowna	Coast Capri Hotel 1171 Harvey Avenue, Kelowna		May 20, 2014
June	17	Tues	2:00pm - 4:00pm	Terrace	Best Western 4553 Greig Avenue, Terrace,	Local Govt & First Nations staff reps.	May 27, 2014
	18	Wed	10:00am - noon	Prince Rupert	Prince Rupert Hotel 118 - 6th St. Prince Rupert		May 27, 2014
	19	Thurs	10:00am - noon	Queen Charlotte	Eric Ross Room Charlotte Community Centre 134 Bay Street		May 27, 2014

- RSVP to Earthquake.Consultation@gov.bc.ca by session RSVP date listed in table above.

Earthquake Preparedness Consultation: COMMUNITY SESSIONS – Locations and Venues Cont.

May – July 2014

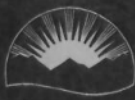
	Date	Time	Location	Venue	Group	Size	RSVP by
July	8	Tues	10:00am - 11:30am	Nanaimo	Nanaimo Conference Centre 101 Gordon Street, Nanaimo	Local Govt & First Nations staff reps.	June 17, 2014
			3:00pm - 4:30pm	Port Alberni	Best Western Barclay Hotel 4277 Stamp Ave. Port Alberni		June 17, 2014
	9	Wed	8:30am - 10:00am	Courtenay	Comox Valley Regional District 600 Comox Road, Courtenay		June 17, 2014
			3:00pm - 4:30pm	Port McNeill	Port McNeill Regional Arena 2205 Campbell Way, Port McNeill		June 17, 2014
	11	Fri	8:30am - 10:30am	Victoria (Morning Session)	Grand Pacific 463 Belleville Street, Victoria	Local Govt & First Nations staff reps.	June 17, 2014 Please Note: AM Session
			1:00pm - 4:00pm	Victoria (Afternoon Session)	Grand Pacific 463 Belleville Street, Victoria		June 17, 2014 Please Note: PM Session
	15	Tues	9:00am - noon	New Westminster	Justice Institute of BC 715 McBride Blvd, New Westminster		June 24, 2014
	16	Wed	9:00am - noon	Abbotsford	(Combined with the July 15 Session)		June 24, 2014
	21	Mon	10:00am - noon	Chilliwack	Fraser Valley Regional District 45050 Cheam Avenue, Chilliwack	Local Govt & First Nations staff reps.	June 30, 2014
	22	Tues	10:00am - noon	Burnaby	Metro Vancouver 4330 Kingsway, Burnaby		June 30, 2014
	29	Tue	1:00pm - 3:00pm	Sechelt	Sunshine Coast RD 1975 Field Road, Sechelt	Local Govt & First Nations staff reps.	July 11, 2014

- RSVP to Earthquake.Consultation@gov.bc.ca by session RSVP date listed in table above.

Appendix G: *Earthquake Consultation Summary* – *Recommendations and Key Actions*

RECOMMENDATIONS *and* KEY ACTIONS:

RECOMMENDATION #1: <i>Leadership, Authority and Responsibility</i>	
The provincial government must provide EMBC with additional resources and the authority required to effectively deliver emergency management leadership to provincial crown agencies and local authorities. Further, EMBC must be positioned within government in such a fashion that its authority is greatly enhanced.	
KEY ACTIONS IN SUPPORT OF RECOMMENDATION #1:	
1.1	<i>The provincial government must augment EMBC's authority to require action of other provincial crown agencies in the realm of emergency management.</i>
1.1.1	<i>The provincial government must support EMBC in the establishment of preparedness requirements for other ministries and crown agencies, and establish mechanisms to track and enforce these requirements.</i>
1.1.2	<i>The provincial government must also address EMBC's ability to "task" or require action of other ministries and crown agencies during an emergency response.</i>
1.1.3	<i>The provincial government must position EMBC within government in such a fashion that its authority is greatly enhanced. For example, EMBC could be moved to report directly to the Office of the Premier.</i>
1.2	<i>The provincial government must augment EMBC's authority, staffing and budget to set minimum standards for local authority emergency management programs.</i>
1.3	<i>The provincial government must provide additional resources to EMBC in order for it to meet its earthquake preparedness mandate.</i>
1.4	<i>The provincial government must provide for EMBC's emergency operations centres in seismically active areas to be housed in post-disaster facilities.</i>
1.5	<i>The federal government must provide additional regional resources to Public Safety Canada, Aboriginal Affairs and Northern Development Canada, and other applicable agencies, in order for them to meet their emergency management mandates to support emergency management in B.C.</i>



RECOMMENDATION #2: Funding and Accountability

The provincial and federal governments must implement a funding program to support local authority preparedness efforts, and leverage emergency management funding to:

- ▶ Increase emphasis on planning and mitigation; and,
- ▶ Increase local authority accountability.

KEY ACTIONS IN SUPPORT OF RECOMMENDATION #2:

- 2.1** *The provincial and federal governments must implement a funding program to support emergency management preparedness efforts at the local authority level.*
- 2.2** *The federal government must increase emergency management funding and personnel available to support First Nations emergency management.*
- 2.3** *The provincial government must link new and existing local government emergency management funding to accountabilities such as planning and mitigation efforts.*
- 2.4** *The provincial government must formally assess mechanisms for local authorities to share in the costs for emergency responses, while ensuring that no community bears an undue burden.*

RECOMMENDATION #3: Intergovernmental and Inter-Agency Coordination

Federal, provincial, and local authorities, as well as other entities such as those in the private sector, must ensure that they have the integrated plans and capacities in place to deal with a catastrophic event.

KEY ACTIONS IN SUPPORT OF RECOMMENDATION #3:

- 3.1** *EMBC, in concert with stakeholders, must complete provincewide catastrophic response and recovery plans. This work is already underway.*
- 3.2** *All provincial crown agencies must develop and exercise catastrophic event plans that link to provincial-level plans.*
- 3.3** *All provincial crown agencies must complete and exercise realistic business continuity plans.*
- 3.4** *The provincial government must implement mechanisms, such as Provincial Coordination Teams, to support all authorities during emergency events.*
- 3.5** *EMBC and other provincial government partners must be provided with additional funding and staff to complete work required to operationalize and exercise out of province assistance agreements and associated procedures.*
- 3.6** *EMBC and partners must complete the work required to clarify procedures with respect to provincially directed mutual aid between local authorities, and allocation of out-of-province aid to local authorities during a catastrophic event.*

RECOMMENDATION #3: Intergovernmental and Inter-Agency Coordination

- 3.7** *The provincial government must mandate that all local authorities participate in regional planning, training and exercises.*
- 3.8** *The provincial government must support regional planning efforts directly through funding to local authorities, and indirectly through creation of additional EMBC positions to guide and support this work.*
- 3.9** *The federal government must ensure that First Nations communities on reserves have adequate resources to effectively participate in regional planning efforts*

RECOMMENDATION #4: Public Education, Awareness and Engagement

EMBC together with significant agencies at all levels of government and private sector partners must launch a long-term and coordinated earthquake preparedness public education and awareness campaign. New funding and staff will be required.

KEY ACTIONS IN SUPPORT OF RECOMMENDATION #4:

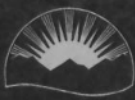
- 4.1** *All partners, with EMBC leadership, must establish a mechanism to jointly develop and deliver long-term and coordinated earthquake preparedness public education.*
- 4.2** *All partners must contribute to developing and implementing resources in support of curriculum in this area for kindergarten to grade 12.*
- 4.3** *All levels of government and involved partners outside of government must devote additional resources to support coordinated earthquake preparedness public education.*
- 4.4** *Senior elected officials at all levels must demonstrate visible and vocal support for a culture of preparedness. Inclusion of earthquake preparedness initiatives in a Speech from the Throne, for example, would be an excellent example of such support.*

RECOMMENDATION #5: Private Sector and Non-Government Organizations

The Province must prepare and resource a strategy for further engagement of the private sector in emergency management planning, including mandated requirements for private sector entities.

KEY ACTIONS IN SUPPORT OF RECOMMENDATION #5:

- 5.1** *The provincial government must augment EMBC's resources for Critical Infrastructure (CI) coordination and expand the Provincial CI Steering Committee's coverage to include all ten federally designated (recognized) CI sectors.*
- 5.2** *EMBC must conduct focused discussions with CI partners to determine mechanisms for enhanced coordination (e.g. addressing confidentiality barriers to information sharing).*
- 5.3** *The provincial government must provide guidance and templates for the preparation of emergency and business continuity plans for crown agencies and critical private sector services.*



RECOMMENDATION #5: Private Sector and Non-Government Organizations

- 5.4** *As a backstop to voluntary engagement, the provincial and federal governments must mandate appropriate private sector preparedness, including sharing of CI information and engagement in joint planning with emergency management organizations.*
- 5.5** *EMBC must clarify and communicate its powers to direct actions by CI asset owners (e.g. restoration priorities) during and following a catastrophic event, and clarify provincial expectations of CI asset owners.*
- 5.6** *Existing and future contracts executed by the Province with private sector vendors must reference services, materials and equipment that may be needed and used during response and recovery activities.*
- 5.7** *The provincial government and the federal government must engage with the insurance industry to determine how this industry can contribute further to disaster resilience and to identify how the governments can enable insurers to expand their participation without jeopardizing their continued existence.*

RECOMMENDATION #6: Training and Exercising

The provincial government must resource EMBC with additional staff and funding to develop and implement comprehensive training and exercise strategies with partners.

KEY ACTIONS IN SUPPORT OF RECOMMENDATION #6:

- 6.1** *The provincial government must work with partners to develop an emergency management training strategy that improves access, increases integration between delivery organizations, and includes consistent training guidelines. Federal participation and funding will be required to ensure adequate training opportunities for all regional federal staff in B.C., as well as First Nations communities.*
- 6.2** *The provincial government, with partners, must develop and implement a robust, provincial exercise strategy that includes full-scale exercises. Additional provincial resources (funding and people) will be required. Federal funding and people will be required to ensure adequate participation by national and regional federal assets, in addition to First Nations.*

RECOMMENDATION #7: Provincewide Risk Analysis

In the long-term, EMBC and its partners must develop a strategy for enhanced hazard risk and vulnerability analysis, and increasing the availability of emergency management risk data for use by local authorities, the private sector, First Nations and the public.

KEY ACTIONS IN SUPPORT OF RECOMMENDATION #7:

- 7.1** *All partners must assess opportunities to develop, consolidate and share sources of risk data. Such work could include development and sharing of additional tsunami inundation modelling, inventories of public essential services facilities, building stock inventories, mapping of hazardous materials locations, etc.*
- 7.2** *Governments must provide additional funding to support the enhanced use of geospatial data within emergency management information systems, and assessment of unique issues such as vulnerable populations, hazardous materials, or animals. Often, these unique risks and vulnerabilities can be overlooked or inadequately considered in emergency plans due to lack of data, complexity, confidentiality concerns, etc.*
- 7.3** *The Province must fund a small, dedicated EMBC team to lead HRVA efforts at the provincial level and assist local authorities with local HRVA needs.*

RECOMMENDATION #8: Emergency Management Capability Priorities

Federal, provincial, and local governments must invest in emergency management capability enhancements in such areas as alerting, logistics, urban search and rescue, rapid damage assessment, and 911.

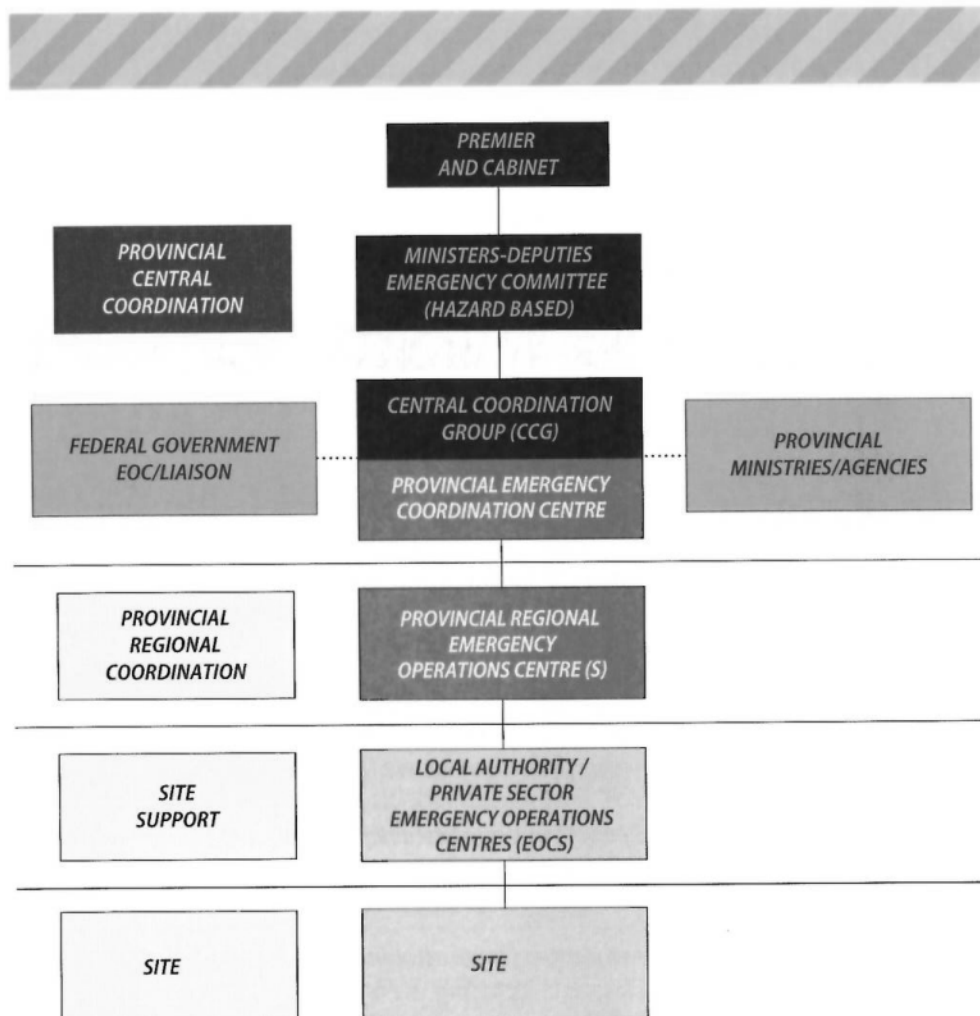
KEY ACTIONS IN SUPPORT OF RECOMMENDATION #8:

- 8.1** *EMBC and other partners must select and implement improved emergency alerting mechanisms for British Columbians including both new technologies and operational practices.*
- 8.2** *The provincial government and other partners must establish and resource a framework and capacity for post-disaster logistics. At the provincial government level, such a framework will need to include ministries and agencies well beyond EMBC alone.*
- 8.3** *The provincial government and other partners must establish and resource a framework and capacity for urban search and rescue, with particular emphasis on light and medium urban search and rescue capacity.*
- 8.4** *The provincial government and other partners must establish and resource a framework and capacity for rapid damage assessment, including use of appropriate technology.*
- 8.5** *The provincial government, local authorities, and key partners must assess opportunities to enhance the resiliency and capacity of the 911 system, and establish situational awareness linkages between the 911 system and emergency management structures.*

Appendix H: *Emergency Management Structures*

British Columbia Emergency Response Management System (BCERMS)

The BCERMS is the system the provincial government, crown agencies, and local authorities use to coordinate emergency management. BCERMS has four operational levels: Site; Site Support; Provincial Regional Coordination and Provincial Central Coordination.



SITE LEVEL
.....

First responding emergency personnel and resources from nearby agencies and jurisdictions represent the response level for most incidents. As such, the majority of incidents occurring within the province are resolved at this level.

SITE SUPPORT LEVEL
.....

When the site level response requires off-site support, an Emergency Operations Centre (EOC) may be activated.

The EOC:

- ▶ *provides* communication with the site level;
- ▶ *provides* policy guidance to site;
- ▶ *manages* multi-agency support to the site level; and
- ▶ *acquires* and deploys local and external resources required by site.

PROVINCIAL REGIONAL COORDINATION
.....

When the site support level (EOC) requires offsite support, the Provincial Regional Coordination level:

- ▶ *activates* one or more Provincial Regional Emergency Operations Centres (PREOCs);
- ▶ *acquires* and deploys resources at the request of the site support level;
- ▶ *maintains* situational awareness;
- ▶ *provides* emergency response services if required; and
- ▶ *coordinates* with ministry regional centres when they are established.

PROVINCIAL CENTRAL COORDINATION LEVEL
.....

The Provincial Central Coordination level activates in support of Provincial Regional Coordination. This level is comprised of the Provincial Emergency Coordination Centre (PECC), Central Coordination Group (CCG) and Ministers-Deputies Emergency Committee (M-DEC).

Provincial Emergency Coordination Centre (PECC)

The PECC is an operations centre which:

- ▶ ***manages*** the overall provincial government support for the regional level;
- ▶ ***obtains*** authority of the Minister of Justice for a declaration of a provincial emergency;
- ▶ ***manages*** provincial emergency public information activities;
- ▶ ***manages*** the acquisition and deployment of provincial, federal, inter-provincial and international resources; and
- ▶ ***provides*** coordination and other support services as required.

Central Coordination Group (CCG)

The CCG is a temporary cross-government committee which:

- ▶ ***provides*** strategic and policy guidance to the Director of the PECC;
- ▶ ***evaluates*** the emergency situation (or potential emergency) and assesses provincial involvement;
- ▶ ***briefs*** senior government officials and seeks their direction when appropriate;
- ▶ ***oversees*** the provincial emergency public information strategy;
- ▶ ***validates*** the need for a declaration of a provincial state of emergency and any extensions; and
- ▶ ***authorizes*** the deactivation of the provincial emergency response structure.

The make-up of the CCG is determined by the nature of the emergency. Core ministries and agencies consistently represented on the CCG include:

- ▶ EMBC (Ministry of Justice)
- ▶ Ministry of Environment
- ▶ Ministry of Forests, Lands and Natural Resource Operations
- ▶ Ministry of Health
- ▶ Ministry of Transportation and Infrastructure
- ▶ Government Communications and Public Engagement
- ▶ RCMP "E" Division (Provincial Police)

The chair and co-chair are responsible for communication between the M-DEC and the CCG.

Ministers-Deputies Emergency Committee (M-DEC)

The M-DEC convenes when a disaster or emergency event could result or has resulted in:

- ▶ a significant impact to life safety, health or economic well-being of the province;
- ▶ a requirement for coordinated cross-government direction;
- ▶ significant public or media attention;
- ▶ a challenge to the public confidence in government; and
- ▶ the need for national and international support.

The M-DEC:

- ▶ ***provides*** high-level policy decisions and direction on behalf of the Province;
- ▶ ***ensures*** the full support of B.C. ministries, crown corporations and agencies;
- ▶ ***ensures*** sufficient provincial resources are committed in support of government response;
- ▶ ***participates*** in preparing for developing or imminent emergency events;
- ▶ ***oversees*** event-specific provincial communications; and
- ▶ ***makes*** formal requests for inter-provincial, federal or international support.

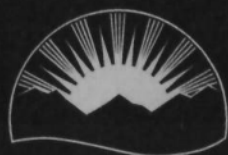
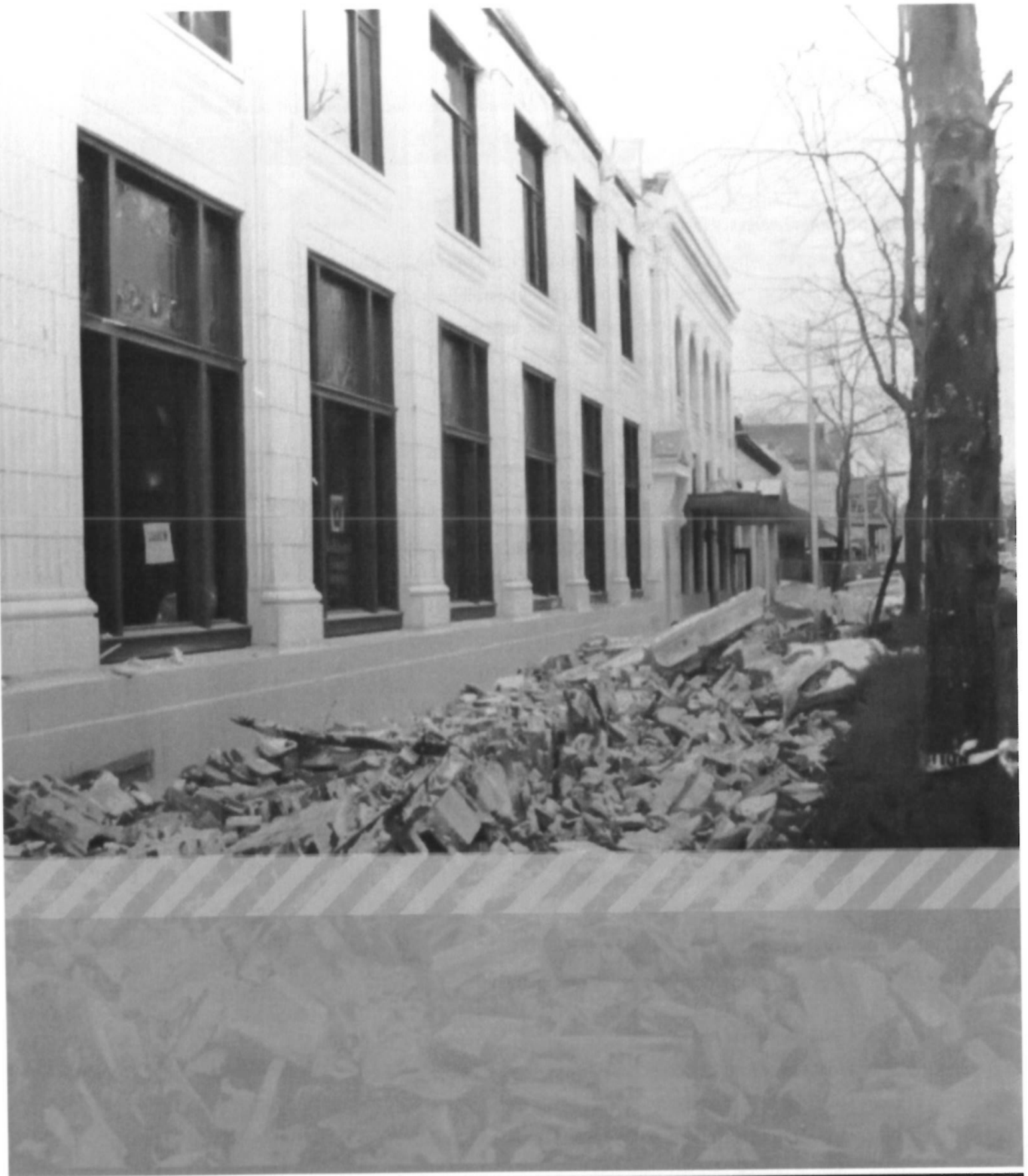
The structure and composition of the M-DEC reflects the nature of the emergency event. Core ministries and agencies consistently represented on the committee include:

- ▶ EMBC (Ministry of Justice)
- ▶ Ministry of Environment
- ▶ Ministry of Forests, Lands and Natural Resource Operations
- ▶ Ministry of Health
- ▶ Ministry of Transportation and Infrastructure
- ▶ Government Communications and Public Engagement

Role of the Deputy Minister of Justice

The Deputy Minister of Justice:

- ▶ ***chairs*** M-DEC when required;
- ▶ ***provides*** briefings to the Attorney General and Minister of Justice;
- ▶ ***communicates*** provincial policy direction.



BRITISH
COLUMBIA