

Update on Tsunami Review Process

November 30, 2012

Phase 1: Already-identified internal operational issues

- PENS Process:
 - PENS and operational notification processes have been reviewed and immediate changes identified as per the November 12 News Release – (e.g. supplemental e-mail to PENS database, and the addition of Social Media functionality). Assessment of processes and tools will continue as further feedback is received from local authorities.
 - “ECC Enhanced Tsunami E-mail Alerting Protocol Proposed Strategy” document provided to MO. First test was conducted November 23. Second test is planned for December 6.
 -
 - Updated Factsheet released November 15 “Criteria for provincial tsunami notification”
- Protocols:
 - Duty manager decision protocols and the Social Media ConOps have been updated.
- EMBC Website:
 - Changes have been made to add clarity for users (e.g. directing users to Emergency Info BC for alerts).
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- "Hot Wash":
 - EMBC has held internal debriefs:
 - Emergency Coordination Centre (ECC) staff
 - EMBC internal (including regional) and GCPE staff involved in the October 27 event.
- WCATWC list additions:
 - Instructions were distributed to all EMBC managers and executive to add themselves to the WCATWC list. These instructions will now have to be updated due to NWS service changes.
 - "Govdelivery" subscription for WCATWC e-mails is now available. Instructions have been provided to PENS users as part of the November 23 test.

Phase 2: Internal and external data collection and consultation

- Local Authority Consultation:
 - On October 31, letters went to Mayors, Regional District Board Chairs, and Emergency Program Coordinators across BC to:
 - Clarify procedures in the event of an earthquake and tsunami
 - Seek feedback
 - Notify those local authorities impacted by the October 27 event that their specific feedback is being sought as part of our review of the event
 - EMBC's formal consultation with local authorities as part of the Haida Gwaii tsunami review is now largely complete. A list of consultation dates and locations is attached as Appendix A.
- EMBC has held consultations with US partners:
 - November 1st with Washington State
 - November 9th with National Tsunami Hazard Mitigation Program (NTHMP) stakeholders from California, Oregon, Washington, Alaska and Puerto Rico
 - November 13th with the West Coast Alaska Tsunami Warning Center (WCATWC) and NTHMP stakeholders from California, Oregon, Washington, Alaska and Puerto Rico
 - November 14th with the State of Alaska
 - November 15th with Washington State
- A debrief with federal agencies was held November 13 (EMBC and Public Safety Canada co-chairing)
- Cross-ministry consultation with key partner ministries (Central Coordination Group) took place November 21.
- A review of 2011 catastrophic event recommendations, in light of initial 2012 review and consultation feedback, is also complete (See Tsunami Ready BC document):
 - Operational and technology enhancement options.
 - Planning, and public safety enhancement options.

- Public education enhancement options. Note that staffing request for public education officer has now been approved by the DM to the Premier and a successful candidate has been identified.
- Training and exercise enhancements.

Phase 3: Develop solutions, recommendations, and public communications recommendations (By November 30)

- Based on the Haida Gwaii tsunami review, EMBC has prepared two documents for the Minister's consideration:

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- Develop public communications materials as needed (GCPE).

Concurrent Activity: Addressing WCATWC Service Changes

EMBC has is pursuing a four pronged approach to the tsunami notification changes (WCATWC service delivery changes):

1. Ensure that, once details are available, WCATWC/NWS/Gov Direct changes are understood, incorporated into BC processes, and communicated to stakeholders and public. (A factsheet updating the public regarding subscription details was distributed November 15. As noted above, details were also provided to PENS users as part of the November 23 test.)
2. Test, review, and retest the supplemental e-mail process (e-mails to PENS database recipients) over the next 30 days.
 - First test November 23. Second test planned for December 6.
 - Determine appropriate process for the broader (700) media contacts list. (GCPE has long term recommendations.)
3. Assess:
 - Alternative notification technologies (as noted in Phase 2)
 - Other priority Tsunami public safety items (e.g. mapping, sirens, etc.)
4. Assess potential for public drills/exercises for Tsunami (Initial scoping done

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APPENDIX A: LOCAL AUTHORITY CONSULTATIONS

Local Authority Consultations

Local authority consultations undertaken by EMBC staff (see communities and dates below) were augmented with information collected through the written feedback tool distributed to local authorities on November 7.

Local Authority	Consultation Date
Central Coast Regional District (by phone)	Nov. 1
Prince Rupert	Nov. 5
Port Edward	Nov. 5
Tofino	Nov. 13
Ucluelet	Nov. 13
Port Alberni	Nov. 14
Haida Gwaii	
Masset/Tow Hill/Old Masset	Nov. 13
Tlell	Nov. 13
Skidegate First Nation	Nov. 14
Village of QC	Nov. 14
Sandspit	Nov. 15
Village of Port Clements	Nov. 16
Mid-Vancouver Island Emergency Program Coordinators	Nov. 19
Nisga'a Lisims- Government	Nov. 19
Nisga'a Lisims - Kincolith (Ginglox) Band	Nov. 19
Strathcona Regional District	Nov. 20

Campbell River	Nov. 20
Port Hardy	Nov. 20
Port McNeill	Nov. 20
Mt. Waddington Regional District	Nov. 21
Port Alice (by phone)	Nov. 21
Capital Regional District and Municipalities	Nov. 23

Hoskins, Jeannie JAG:EX

From: Denlinger, Becky JAG:EX
Sent: Thursday, November 29, 2012 1:37 PM
To: Wanamaker, Lori JAG:EX
Cc: Hoskins, Jeannie JAG:EX
Subject: FW: Enhanced PENS Email Protocol trail on Nov. 23

In case you are asked.....

From: Mohrmann, Ralph JAG:EX
Sent: Thursday, November 29, 2012 1:30 PM
To: Denlinger, Becky JAG:EX; Duffy, Chris D JAG:EX; Lewis, Cameron F JAG:EX
Subject: Enhanced PENS Email Protocol trail on Nov. 23

Hi Becky,

Following the October 27 Tsunami event the Provincial Duty Manager (PDM) and the Emergency Coordination Centre (ECC) initiated an enhanced email protocol which was tested on Friday November 23rd.

The intent of the enhancement is to message/forward in a timely manner West Coast Alaska Tsunami Warning Centre (WCATWC) bulletins that directly affect British Columbia to our established Provincial Emergency Notification System (PENS) email recipients. The PENS list consists of local government emergency officials in communities, emergency managers with partner agencies and ministries, and media broadcasters.

This new process was trialed on November 23 at 1330, when the ECC sent an email notification to all PENS email addresses. The test message highlighted that this was part of the announced enhancement to EMBC's notification system, it included a link to a posted Tsunami notification Fact Sheet, a link to EmergencyInfoBC with directions on how to sign up to receive automated notifications from WCATWC and how to update any PENS contact information.

The note was sent at 1330 to over 500 email recipients with 10-15 failed deliveries noted. All of the failed recipients have been contacted to confirm their email addresses.

A second trial of this enhanced procedure is scheduled for Thursday December 6th at 1330. This email will consist of a replica WCATWC notification to familiarise recipients with the type of message they may receive. It will again detail how any PENS contact information can be updated.

Ralph

Ralph Mohrmann BSc

**Sr. Regional Manager/ Asst. Director of Operations
 Emergency Management British Columbia**

Block A - Suite 200 2261 Keating X Roads
 Saanichton, BC CANADA V8M 2A5
www.pep.bc.ca

Ph: 250.952.4895 Fax: 250.952.4888
 24 hour Emergency Reporting: 1.800.653.3456

Cornett, Kathy M JAG:EX

From: Hoskins, Jeannie JAG:EX
Sent: Friday, November 30, 2012 4:23 PM
To: Ritchie, Dave JAG:EX; Southern, Evan JAG:EX; Lee, Mike JAG:EX; Dhanowa, Damon JAG:EX
Cc: O'Connor-Dixon, Lara JAG:EX; McCooley, Kim JAG:EX; Hughes, Candice JAG:EX; Biggs, Jackie JAG:EX; Cornett, Kathy M JAG:EX
Subject:
Attachments:

The attached reports and supporting attachments are for the information of the Minister and have been provided by EMBC. Lori will be reviewing these documents over the weekend but asked that they be forwarded to you today.

Note that the Appendix "i" attachments are for the ^{s.13} and the ^{s.13} is just a tag-along for the ^{s.13}

These will be uploaded to the Minister's sharepoint site as well.

Thanks.

Jeannie Hoskins
Executive Coordinator
Office of the Deputy Solicitor General
Ministry of Justice

Hoskins, Jeannie JAG:EX

From: Merchant, Brent JAG:EX
Sent: Thursday, November 15, 2012 5:21 PM
To: Ritchie, Dave JAG:EX; Southern, Evan JAG:EX
Cc: Hoskins, Jeannie JAG:EX; Denlinger, Becky JAG:EX; Merchant, Brent JAG:EX
Subject: EMBC - Enhanced Tsunami E-mail Alerting Protocol Proposed Strategy

Handwritten signature

Attached is a paper on the Enhanced Tsunami E-mail Alerting Protocol Proposed Strategy for your review.

11/24/12



R-FYI

Emergency
Coordination Centre

The "Fact Sheet" discussed today is well underway but we have yet to confirm with two of the States if their procedures for notification are the same as ours. We should hear back tomorrow and once we do we will finalize the document and forward.

*Brent Merchant
Assistant Deputy Minister
BC Corrections Branch*

Brent.Merchant@gov.bc.ca
*Office: 250-387-5363
Cell: 250-588-8959*

Emergency Coordination Centre
Enhanced Tsunami E-mail Alerting Protocol
Proposed Strategy

Background

The recent M7.7 seismic event at Haida Gwaii on October 27, and the subsequent tsunami advisory and warning, identified that the Provincial Emergency Notification System (PENS) did not meet some public expectations that have evolved regarding immediate notification. Specifically, PENS utilizes technology that may take between 30 to 40 minutes to deliver notifications via phone (~1000 voice messages), email (~450) and fax(~400) to priority clients and stakeholders (local governments, first responders, media...). It is also recognized, that it may take several minutes for notification to key staff, and the subsequent preparation they carry out in order to launch PENS. It is recognized that PENS can be an effective tool for alerting and notification of tele-tsunami events travelling from a distance away such as from Alaska, Japan or California. The recent seismic event was a near-shore, "short-fuse" event.

On November 8, 2012 the West Coast Alaska and Tsunami Warning Centre (WCATWC) and the U.S. National Weather Service (NWS) gave notice that they will no longer be issuing email and SMS tsunami notifications to the public and a number of other service subscribers. This service in its existing structure is scheduled to cease in the next 30 days. We have been informed by NWS that there may be alternate service provision but details of that have not yet been made available. Many of our key stakeholders and partners utilize this direct service from WCATWC as a first notice for their community or agency. Although NWS has assured clients of an alternate service delivery, EMBC is taking action to provide enhanced service to the public with this protocol and other recently announced Social Media service enhancements.

Enhancement

To further enhance emergency notification to British Columbians EMBC is in the process of implementing an interim email notification process in the event that there is a danger to communities along the BC coastline. This rapid notice to key stakeholders (including some media & Social Media) will accelerate and multiply the notification process reaching public at risk in a more expedited and thorough fashion. This is in addition to a suite of communication tools used for emergency notification, including PENS.

Further, EMBC is also exploring the feasibility of adding text messaging services coupled to the new "front-end" email process, and also embedded as a fourth component of PENS. It is envisioned that the addition of the email service described above, will provide another means of ensuring critical information for public safety reaches key partners and the public in a timely fashion. November testing will focus on e-mail functionality, as was committed to publicly on November 12. If technical and operational solutions are identified to enable timely and low-risk distribution of text messages as part of this "front end" process and PENS, subsequent scheduled tests will incorporate this further enhancement.

Proposed Strategy Objectives

1. Provide for an accelerated email notification process.
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3. Minimize the effects of the announced NWS service loss.

Proposed Strategy Test Objectives

1. Provide opportunity to explore integration of Social Media and media venues to enhance public alerting.
2. Identify or confirm that this process will not add additional complexity or risk to the existing notification process.
3. Identify and assess any staffing or training needs in testing the protocol.

Proposed Strategy Test Objectives Work Plan

- Establish a priority email distribution list based on existing PENS email distribution lists. Minor additions to this list will ensure inclusion of EMBC So.Me. staff and key media, to ensure effective efficient reach through these forums. **(complete)**
- Establish S.O.P.'s for ECC / Provincial Duty Manager engagement and launch procedures. **(complete)**
- Draft a test message and establish timing for first test launch by Monday November 19th. The message should include educational and expectations management components, and allow for a mechanism of feedback.
- Establish the feasibility of text messaging launching concurrently with the email service (November 20/21).
- Launch first test by Thursday November 22nd.
- Evaluate test message process and remediate as required by the week of November 26th.
- Launch secondary test no later than Tuesday December 4th.
- Establish feasibility of launching text messaging as a 4th component of PENS (December 7).
- Provide communication materials for release to public.

Reviewed by: Becky Denlinger
ADM EMBC

Approved by: Brent Merchant
Acting Deputy Solicitor General

Update on Tsunami Review Process

November 22, 2012

Phase 1: Already-identified internal operational issues

- PENS Process:
 - PENS and operational notification processes have been reviewed and immediate changes identified as per the November 12 News Release – (e.g. supplemental e-mail to PENS database, and the addition of Social Media functionality). Assessment of processes and tools will continue as further feedback is received from local authorities.
 - "ECC Enhanced Tsunami E-mail Alerting Protocol Proposed Strategy" document provided to MO. First test planned for Nov 23 at 1330 hrs.
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 - Updated Factsheet released November 15 "Criteria for provincial tsunami notification"
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 - Duty manager decision protocols and the Social Media ConOps have been updated.
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 - Changes have been made to add clarity for users (e.g. directing users to Emergency Info BC for alerts).
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- “Hot Wash”:
 - EMBC has held internal debriefs:
 - Emergency Coordination Centre (ECC) staff
 - EMBC internal (including regional) and GCPE staff involved in the October 27 event.
- WCATWC list additions:
 - Instructions were distributed to all EMBC managers and executive to add themselves to the WCATWC list. These instructions will now have to be updated due to NWS service changes.
 - “Govdelivery” subscription for WCATWC e-mails is now available. Instructions are being provided to PENS users as part of the November 23 test.

Phase 2: Internal and external data collection and consultation

- Local Authority Consultation:
 - On October 31, letters went to Mayors, Regional District Board Chairs, and Emergency Program Coordinators across BC to:
 - Clarify procedures in the event of an earthquake and tsunami
 - Seek feedback
 - Notify those local authorities impacted by the October 27 event that their specific feedback is being sought as part of our review of the event
 - EMBC consultation with local authorities is underway:
 - EMBC regional staff attended local authority debriefs in Prince Rupert and Port Edward on November 5.
 - EMBC regional staff visiting Haida Gwaii communities this week. (Village of Masset, Village of Old Masset FN, Tow Hill, Tlell Emergency Planning Committee, Village of QC, Skidegate FN, Sandspit, Village of Port Clements). Additional FN community meetings set for week of Nov. 19 (Kincolith/Nisga’a Lisims – 2 mtgs).
 - EMBC regional staff met with several Vancouver Island communities this week (e.g. Tofino, Ucluelet, Port Alberni). Meetings with Port Hardy, Strathcona RD, and Mount Waddington RD took place this week. A meeting with CRD scheduled for Nov. 23. Regional EMBC staff also consulted with Port Alice.
 - Additional meetings/calls may be scheduled.
 - A written feedback tool (survey) has also been provided for local authorities to use.
- EMBC has held consultations with US partners:
 - November 1st with Washington State
 - November 9th with National Tsunami Hazard Mitigation Program (NTHMP) stakeholders from California, Oregon, Washington, Alaska and Puerto Rico

- November 13th with the West Coast Alaska Tsunami Warning Center (WCATWC) and NTHMP stakeholders from California, Oregon, Washington, Alaska and Puerto Rico
- November 14th with the State of Alaska
- November 15th with Washington State
- A debrief with federal agencies was held November 13 (EMBC and Public Safety Canada co-chairing)
- Cross-ministry consultation with key partner ministries (Central Coordination Group) took place November 21.
- Review of 2011 catastrophic event recommendations, in light of initial 2012 review and consultation feedback, is underway:
 - Operational and technology enhancement options.
 - Planning, and public safety enhancement options.
 - Public education enhancement options. Note that staffing request for public education officer has been forwarded to DM to Prem.
 - Training and exercise enhancements.

Phase 3: Develop solutions, recommendations, and public communications recommendations (By November 30)

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- Review options (ADM/DM/Minister)
- Develop appropriate implementation plans
- Develop public communications materials as needed (GCPE)

Concurrent Activity: Addressing WCATWC Service Changes

EMBC has is pursuing a four pronged approach to the tsunami notification changes (WCATWC service delivery changes):

1. Ensure that, once details are available, WCATWC/NWS/Gov Direct changes are understood, incorporated into BC processes, and communicated to stakeholders and public. (A factsheet updating the public regarding subscription details was distributed

November 15. As noted above, details will also be provided to PENS users as part of the November 23 test.)

2. Test, review, and retest the supplemental e-mail process (e-mails to PENS database recipients) over the next 30 days.
 - Determine appropriate process for the broader (700) media contacts list.
 - Consult with SSBC on any technical improvements that are relevant to the supplemental e-mail process to PENS database recipients.
3. Assess:
 - Alternative notification technologies (as noted in Phase 2) (Underway)
 - Other priority Tsunami public safety items (e.g. mapping, sirens, etc.) (Underway)
4. Assess potential for public drills/exercises for Tsunami (Underway)

Hoskins, Jeannie JAG:EX

From: Denlinger, Becky JAG:EX
Sent: Wednesday, November 7, 2012 1:21 PM
To: Biggs, Jackie JAG:EX
Cc: Lewis, Cameron F JAG:EX
Subject: FW: Tsunami Review Update
Attachments: Tsunami Haida Gwaii Review Update November 2 2012.docx

Here is the update as of last Friday. This Friday's update is not yet written, and we will be providing a verbal update on this afternoon's call as to this week's activities.

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

From: Denlinger, Becky JAG:EX
Sent: Friday, November 2, 2012 5:27 PM
To: Merchant, Brent JAG:EX; Bates Gibbs, Bonnie GCPE:EX; Dhanowa, Damon JAG:EX; Groot, Jeff GCPE:EX; Karn, David GCPE:EX; Lee, Mike JAG:EX; McCaffrey, Julianne GCPE:EX; Ritchie, Dave JAG:EX; Schollen, Tasha GCPE:EX; Sitter, Donna GCPE:EX; Southern, Evan JAG:EX; Wanamaker, Lori JAG:EX
Cc: Wanamaker, Lori JAG:EX
Subject: Tsunami Review Update

Dave, Evan and Brent,
Attached is a status report of the work underway to review EMBC's response to the earthquake and tsunami of last Saturday. Lori indicated to me that the Minister would like a weekly report of the progress we are making. Let me know if you have questions, comments, or would like additional information.

November 2, 2012 Haida Gwaii Earthquake and Tsunami

After Action Review Weekly Update

1. Phase 1 (Week 1): Address already-identified internal operational issues

- EMBC has compiled a chronology of the event, and held a “hot wash” after action review internally. s.13
- EMBC has already identified areas of potential operational process enhancement following the October 27, 2012 response:
 - i. PENS activation process
 - ii. Duty manager decision protocols for Tsunami notification.
 - iii. Lack of clarity for users regarding EMBC website redirection to Emergency Info BC
 - iv. s.15
- The following actions are being undertaken.
 - i. Review and streamlining of PENS activation process + updated interim training (ECC staff)
 - ii. Amendment and updating of duty manager decision protocols + updated interim training (duty managers)
 - iii. The Emergency Info BC link on the EMBC website now has more highly visible text directing the public to Emergency Info BC for emergency advisories. Complete.
 - iv. s.15
- **Timing:**
 - i. PENS Activation process: By November 6. On track. Assessment underway.
 - ii. Duty Manager decision protocols: By November 6. On track. Assessment underway.
 - iii. Website link: Complete.
 - iv. s.13

- v. Event chronology and “hot wash” after action review:
 - Duty Manager interim “hot wash” – complete
 - EMBC internal debrief, including GCPE and Regional Staff – Complete
 - Emergency Coordination Centre Debrief – Week of Nov 5
- vi. Additionally, all EMBC managers and executive to be added to the WCATWC distribution list: By November 6. On track.
- vii.

Phase 2 (Weeks 2 and 3): Internal and external data collection and consultation

- Assess the opportunities for process improvements and enhancements based on the events of October 27/28, 2012. Areas of focus include:
 - i. PENS
 - ii. Use of Social Media and Social Media integration with the PECC Concept of Operations
 - iii. Emergency Info BC website
 - iv. Assessment of additional potential communication/information dissemination tools (e.g. radio and other technologies).
 - v. Provision of information to media, including self-identified media.
 - vi. Provision of information (beyond PENS) to local authorities, including First Nations in zones A, B, C, and D.
 - vii. Inter-ministry and inter-agency coordination.

- Conduct formal consultation with local authorities, including First Nations (Emergency Program Coordinators, and elected officials) regarding:
 - i. Local authority plans and protocols in place/roles and responsibilities
 - ii. Local authority feedback regarding EMBC's support of October 27/28, 2012
 - iii. Local authority needs and expectations with respect to Tsunami notification.
 - EMBC regional staff have been invited to, and will attend, debriefs in Prince Rupert and Port Edward on November 5.
- **Timing:**
 - i. Distribution of consultation materials to local authorities, including First Nations: By November 9
 - ii. Internal opportunities assessed: By November 16
 - iii. Local authority, consultation actions November 6-20 (e.g. regional manager to travel to Haida Gwaii, conference calls by zone, etc.)
 - iv. Collection of local authority feedback: By November 21

2. Phase 3 (Week 4): Develop solutions, recommendations, and public communications

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- Review options (ADM/DM/Minister)
- Develop appropriate implementation plans
- Develop public communications materials as needed (GCPE)
- **Timing:** Options to Minister by November 27

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Hoskins, Jeannie JAG:EX

From: Denlinger, Becky JAG:EX
Sent: Wednesday, October 31, 2012 5:43 PM
To: Ritchie, Dave JAG:EX
Cc: Merchant, Brent JAG:EX; Hoskins, Jeannie JAG:EX
Subject: Updated Tsunami review plan for Minister approval - highlighting will need to be removed.
Attachments: Tsunami Haida Gwaii October 2012 v5 Oct 31 (3).docx

Dave, attached is EMBC's plan to review its response to the October 27th tsunami event. Please let me know how I can assist with the Minister's review of this proposed plan.

Thanks,
Becky

October 27, 2012 Haida Gwaii Earthquake and Tsunami

After Action Review Proposal

1. Phase 1 (Week 1): Address already-identified internal operational issues

- EMBC has compiled a chronology of the event, and held a “hot wash” after action review internally.
- EMBC has already identified areas of potential operational process enhancement following the October 27, 2012 response:
 - i. PENS activation process
 - ii. Duty manager decision protocols for Tsunami notification.
 - iii. Lack of clarity for users regarding EMBC website redirection to Emergency Info BC
 - iv. s.15
- The following actions are being undertaken.
 - i. Review and streamlining of PENS activation process + updated interim training (ECC staff)
 - ii. Amendment and updating of duty manager decision protocols + updated interim training (duty managers)
 - iii. The Emergency Info BC link on the EMBC website now has more highly visible text directing the public to Emergency Info BC for emergency advisories.
 - iv. s.15
- **Timing:**
 - i. PENS Activation process: By November 6
 - ii. Duty Manager decision protocols: By November 6
 - iii. Website link: Complete.
 - iv. s.15
 - v. Event chronology and “hot wash” after action review: Complete.
 - vi. Additionally, all EMBC managers and executive to be added to the WCATWC distribution list: By November 6.
 - vii. s.13

2. Phase 2 (Weeks 2 and 3): Internal and external data collection and consultation

- Assess the opportunities for process improvements and enhancements based on the events of October 27/28, 2012. Areas of focus include:
 - i. PENS
 - ii. Use of Social Media and Social Media integration with the PECC Concept of Operations
 - iii. Emergency Info BC website
 - iv. Assessment of additional potential communication/information dissemination tools (e.g. radio and other technologies).
 - v. Provision of information to media, including self-identified media.
 - vi. Provision of information (beyond PENS) to local authorities, including First Nations in zones A, B, C, and D.
 - vii. Inter-ministry and inter-agency coordination.

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- Conduct formal consultation with local authorities, including First Nations (Emergency Program Coordinators, and elected officials) regarding:
 - i. Local authority plans and protocols in place/roles and responsibilities
 - ii. Local authority feedback regarding EMBC's support of October 27/28, 2012
 - iii. Local authority needs and expectations with respect to Tsunami notification.
- **Timing:**
 - i. Distribution of consultation materials to local authorities, including First Nations: By November 9
 - ii. Internal opportunities assessed: By November 16
 - iii. Local authority, consultation actions November 6-20 (e.g. regional manager to travel to Haida Gwaii, conference calls by zone, etc.)
 - iv. Collection of local authority feedback: By November 21

3. Phase 3 (Week 4): Develop solutions, recommendations, and public communications

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- Review options (ADM/DM/Minister)
- Develop appropriate implementation plans
- Develop public communications materials as needed (GCPE)
- **Timing:** Options to Minister by November 27

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From: PSSG Deputy Solicitor General SG:EX
Sent: Wednesday, October 31, 2012 11:37 AM
To: 'dfortin@crd.bc.ca'
Subject: 485912 - Earthquake/Tsunami event no October 27, 2012
Attachments: 485912 Mayors and Regional District Chairs.pdf

Please see attached letter from Lori Wanamaker.

From: PSSG Deputy Solicitor General SG:EX
Sent: Wednesday, October 31, 2012 10:10 AM
To: 'Bowen Island Municipality'; 'Capital Regional District'; 'Central Coast Regional District'; 'City of Abbotsford'; 'City of Campbell River'; 'City of Castlegar'; 'City of Colwood'; 'City of Cranbrook'; 'City of Enderby'; 'City of Fort St. John'; 'City of Greenwood'; 'City of Kimberley'; 'City of Langford'; 'City of Nanaimo'; 'City of Pitt Meadows'; 'City of Port Moody'; 'City of Prince George'; 'City of Quesnel'; 'City of Rossland'; 'City of Surrey'; 'City of Victoria'; 'City of Williams Lake'; 'Columbia Shuswap Regional District'; 'Comox Valley Regional District'; 'District of 100 Mile House'; 'District of Barriere'; 'District of Central Saanich'; 'District of Clearwater'; 'District of Coldstream'; 'District of Kent'; 'District of Lillooet'; 'District of Logan Lake'; 'District of Metchosis'; 'District of North Cowichan'; 'District of Oak Bay'; 'District of Peachland'; 'District of Sechelt'; 'District of Sparwood'; 'District of Taylor'; 'District of Vanderhoof'; 'District of West Kelowna'; 'District of West Vancouver'; 'Metro Vancouver'; 'Peace River Regional District'; 'Regional District of East Kootenay'; 'Regional District of North Okanagan'; 'Sechelt Indian Government District'; 'Skeena-Queen Charlotte Regional District'; 'Strathcona Regional District'; 'Sun Peaks Mountain Resort Municipality'; 'Sunshine Coast Regional District'; 'Town of Creston'; 'Town of Golden'; 'Town of Lake Cowichan'; 'Town of View Royal'; 'Village of Alert Bay'; 'Village of Ashcroft'; 'Village of Belcarra'; 'Village of Cache Creek'; 'Village of Canal Flats'; 'Village of Chase'; 'Village of Clinton'; 'Village of Cumberland'; 'Village of Hazelton'; 'Village of Lions Bay'; 'Village of Lumby'; 'Village of Midway'; 'Village of New Denver'; 'Village of Port Clements'; 'Village of Radium Hot Springs'; 'Village of Salmo'; 'Village of Slokan'; 'Village of Tahsis'; 'Village of Valemount'; 'Village of Zeballos'; XT:AlberniClayoquot, RegionalDistrict ENV:IN; XT:Anmore, Village ENV:IN; XT:Ashton, Dan Okanagan-Similkameen Regional District EAO:IN; XT:BulkleyNechako, RegionalDistrict ENV:IN; XT:Burnaby, City ENV:IN; XT:Cariboo, RegionalDistrict ENV:IN; XT:CentralKootenay, RegionalDistrict ENV:IN; XT:CentralOkanagan, RegionalDistrict ENV:IN; XT:Chilliwack, City ENV:IN; XT:Comox, General CITZ:IN; XT:Coquitlam, City ENV:IN; XT:Courtenay, City ENV:IN; XT:CowichanValley, RegionalDistrict ENV:IN; XT:Daniels, Kelly Regional District of Nanaimo ENV:IN; XT:DawsonCreek, City ENV:IN; XT:Delta, District ENV:IN; XT:District of Houston LCS:IN; XT:Duncan, City ENV:IN; XT:Elkford, District ENV:IN; XT:Esquimalt, Township ENV:IN; XT:Fernie, City ENV:IN; XT:Fort Nelson Administration GCPE:IN; XT:FraserFortGeorge, RegionalDistrict ENV:IN; XT:FraserLake, Village ENV:IN; XT:FraserValley, RegionalDistrict ENV:IN; XT:Fruitvale, Village ENV:IN; XT:Gibsons, Town ENV:IN; XT:GoldRiver, Village ENV:IN; XT:GrandForks, City ENV:IN; XT:Granisle, Village ENV:IN; XT:HarrisonHotSprings, Village ENV:IN; XT:Hohn, Neva GCPE:IN; XT:Hooson, Cheryl - Pemberton Village CITZ:IN; XT:Hope, District ENV:IN; XT:HudsonsHope, District ENV:IN; XT:Invermere, District ENV:IN; XT:Kamloops, City ENV:IN; XT:Kaslo, Village ENV:IN; XT:Kelowna, City ENV:IN; XT:Keremeos, Village ENV:IN; XT:Kitimat, District ENV:IN; XT:KitimatStikine, RegionalDistrict ENV:IN; XT:KootenayBoundary, RegionalDistrict ENV:IN; XT:Ladysmith, Town ENV:IN; XT:LakeCountry, District ENV:IN; XT:Langley, City ENV:IN; XT:Lantzville, District ENV:IN; XT:Long, Frances CITZ:IN; XT:Lytton, Village ENV:IN; XT:Mackenzie, District ENV:IN; XT:MapleRidge, District ENV:IN; XT:Masset, Village ENV:IN; XT:McBride, Village ENV:IN; XT:Mission, District ENV:IN; XT:Montrose, Village ENV:IN; XT:MountWaddington, RegionalDistrict ENV:IN; XT:Muni Armstrong, General CITZ:IN; XT:Muni Burns Lake, General CITZ:IN; XT:Muni Chetwynd, General CITZ:IN; XT:Muni Fort St. James, General CITZ:IN; XT:Muni Highlands, Liz Condon CITZ:IN; XT:Muni Langley Township, General CITZ:IN; XT:Muni Port McNeill, Administrative Assistant CITZ:IN; XT:Muni Princeton, General CITZ:IN; XT:Muni Sidney, General FIN:IN; XT:Muni Smithers, General CITZ:IN; XT:Nakusp, Village ENV:IN; XT:NewHazelton, District ENV:IN; XT:NewWestminster, City ENV:IN; XT:NorthSaanich, District ENV:IN; XT:NorthVancouver, City ENV:IN; XT:NorthVancouver, District ENV:IN; XT:Oliver, Town ENV:IN; XT:Osoyoos, Town ENV:IN; XT:Parksville, General CITZ:IN; XT:Penticton, City ENV:IN; XT:PortAlberni, City ENV:IN; XT:PortAlice, Village ENV:IN; XT:PortCoquitlam, City ENV:IN; XT:PortEdward, District ENV:IN; XT:PortHardy, District ENV:IN; XT:PouceCoupe, Village ENV:IN; XT:PowellRiver, City ENV:IN; XT:PowellRiver, RegionalDistrict ENV:IN; XT:PrinceRupert, City ENV:IN; XT:QueenCharlotte, Village ENV:IN; XT:QulaicumBeach, Town ENV:IN; XT:Ranta, P.A.J. LCS:IN; XT:Revelstoke, City ENV:IN; XT:Richmond, City ENV:IN; XT:Saanich, District ENV:IN; XT:SalmonArm, City ENV:IN; XT:Sayward, Village ENV:IN; XT:Sicamous, District ENV:IN; XT:Silverton, Village ENV:IN; XT:Sooke, General FIN:IN; XT:Spallumcheen, Township ENV:IN; XT:Squamish, District ENV:IN; XT:SquamishLillooet, RegionalDistrict

To: ENV:IN; XT:Stewart, District ENV:IN; XT:Summerland, District ENV:IN; XT:Telkwa, General
CITZ:IN; XT:Terrace, City ENV:IN; XT:Tofino, District ENV:IN; XT:Tolerton, Ruth - City of
Merritt CITZ:IN; XT:Trail, City ENV:IN; XT:TumblerRidge, District ENV:IN; XT:Ucluelet,
Didtrict ENV:IN; XT:Vancouver, City ENV:IN; XT:Vernon, City ENV:IN; XT:Warfield, Village
ENV:IN; XT:Whistler, Municipality ENV:IN; XT:WhiteRock, City ENV:IN

Subject: 485912 - Earthquake/Tsunami event no October 27, 2012

Attachments: 485912 Mayors and Regional District Chairs.pdf

Please see attached letter from Lori Wanamaker.



October 31, 2012

Mayors and Regional District Chairs:

We are grateful for the swift and effective emergency response seen in those communities where the October 27, 2012 earthquake presented potential tsunami risk.

Fostering resilient communities takes leadership and requires us as leaders to reflect on mechanisms for improvement.

Part of the provincial review involves seeking input from affected community leaders.

The attached letter has been sent to Emergency Program Coordinators across British Columbia. Input will be sought in an endeavour to hear from those directly impacted as a measure of enhancing our operations and response.

Events like this present all levels of government with a learning opportunity. I encourage you to review this letter with your Emergency Program Coordinator and to discuss the emergency plans in place for your jurisdiction.

Your office will also be contacted for assistance in updating the list of elected officials' contact information to aid in emergency communications.

Sincerely,

Lori Wanamaker, FCA
Deputy Solicitor General

Attachment



October 31, 2012

Emergency Program Coordinators:

The earthquake/tsunami event on October 27, 2012, demonstrated the high level of emergency preparedness that has been undertaken by the local governments in BC. Elected officials and emergency managers in all impacted communities deserve praise for the timely and effective response that was undertaken, including evacuations. This event also presents an opportunity for all emergency programs to review their protocols and emergency response plans. We encourage the local governments, who were directly impacted, to review this event and their response to identify opportunities for improvement. Emergency Management BC (EMBC) will be undertaking a thorough debrief of the provincial response based on consultation with emergency management stakeholders and will be contacting these local governments for their input.

Prior to the completion of the provincial debrief process, we would like to clarify the initial response actions of local government emergency management personnel including how information should be managed after an earthquake event that impacts BC.

Local governments must complete a hazard risk and vulnerability analysis for their communities according to the *Emergency Program Act* and regulations, keeping in mind that all parts of British Columbia have a risk of earthquake impacts. Coastal communities have the added risk of a tsunami.

The following are suggested activities that should be undertaken based on the following situations:

- **Significant earthquake is felt in a community located in an area with tsunami risk:**
 - Local governments should undertake the following emergency response activities immediately following a significant earthquake (do not wait for official notification):

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- Activate their local emergency response plans and if deemed necessary:
 - Activate local first responders.
 - Undertake public alerting and initiate evacuation of low lying areas.
 - Open an emergency operations centre in a safe location.
 - Report to EMBC.
 - Ensure ongoing public messaging to their citizens.
 - Gather information to develop situational awareness.
- EMBC will activate the Provincial Emergency Coordination Centre (PECC) and appropriate Provincial Regional Emergency Operations Centres (PREOCs) and will use a number of communications tools as appropriate to contact impacted local governments:
 - Direct telephone contact.
 - Teleconference calls.
 - Provincial Emergency Notification System (PENS) using e-mail, voice messaging, and facsimiles.
- EMBC will provide the general public with ongoing situational awareness through:
 - EmergencyInfoBC blogsite.
 - Social media such as Twitter.
 - Mainstream media (press conferences and releases).
- **Earthquake is not felt, however, a community is located in an area with tsunami risk (teletsunami):**
 - Local governments should undertake the following emergency response activities immediately following the receipt of a West Coast Alaska Tsunami Warning Center (WCATWC) and/or EMBC notification of a potential tsunami event:
 - Assess each notification as the message may change as more information becomes known.
 - If a notification indicates an increased risk of tsunami (warning or advisory only):
 - Activate their local emergency response plans.
 - Activate an emergency operations centre in a safe location.
 - Report to EMBC.
 - Determine appropriate response activities.
 - Ensure ongoing public messaging to their citizens.

- EMBC will activate the PECC and appropriate PREOCs and will use various communications tools as appropriate to contact threatened local governments:
 - Direct telephone contact.
 - Teleconference calls.
 - PENS using e-mail, voice messaging, and facsimiles.
- EMBC will provide the general public with ongoing situational awareness through:
 - EmergencyInfoBC blogsite.
 - Social media such as Twitter.
 - Mainstream media (press conferences and releases).
- **Earthquake is felt in a community that is not located in an area that has tsunami risk:**
 - Local governments should undertake the following emergency response activities immediately following a significant earthquake:
 - Activate their local emergency response plans.
 - Activate local first responders.
 - Open an emergency operations centre.
 - Report to EMBC.
 - Develop and distribute public messaging to their citizens.
 - Gather information to develop situational awareness.
 - EMBC will activate the PECC and appropriate PREOCs for any earthquake event where provincial support to local governments may be required. EMBC will provide the general public with ongoing situational awareness through:
 - EmergencyInfoBC blogsite.
 - Social media such as Twitter.
 - Mainstream media (press conferences and releases).

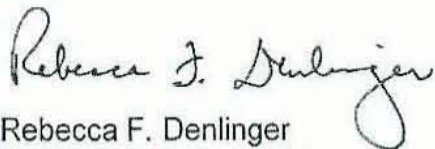
On Saturday, October 27, 2012, EMBC activated the provincial Tsunami Notification Plan at 2010 hours, immediately following the earthquake. The EMBC Emergency Coordination Centre initiated an internal resource request to activate the PECC and the PREOCs. EMBC and Temporary Emergency Assignment Management System (TEAMS) staff were in attendance at the PECC and PREOCs by 2033 hours. Based on the initial bulletin from WCATWC, social media staff sent out a message via Twitter at 2048 hours and EMBC regional offices began contacting communities with potential tsunami risk by telephone. Subject matter experts from Natural Resources Canada and

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Canadian Hydrographic Service were contacted by the PECC at 2030 hours and at 2100 hours to review the information received from WCATWC. Based on these discussions, the PENS was initiated at 2105 hours while the efforts to make contact with those communities that were under a tsunami warning continued. At 2245 hours a media conference call was held by the Minister of Justice. Teleconference calls occurred with EMBC, other US state emergency management organizations and WCATWC on an hourly basis until the cancellation notice was issued at 0247 hours October 28, 2012 by WCATWC. A cancellation notification was sent out by EMBC at 0303 hours. Five PENS bulletins were issued by EMBC during the course of this event. Staff responsible for social media were actively engaged in informing the public.

The provincial debrief will include a discussion on the information flow from the province to emergency management stakeholders and to the public (for example, the use of social media as a communications tool for public awareness of the event). As part of the continuous learning based on this event, EMBC also encourages all local governments that were involved or participated in the October 27, 2012 earthquake/tsunami to contact their regional EMBC office with information regarding their local response activities. This information, as well as the comments and suggestions that will be collected from local governments on provincial response activities, will assist in the creation of the provincial after action report and in the enhancement of subsequent provincial earthquake and tsunami response plans.

Sincerely,



Rebecca F. Denlinger
Assistant Deputy Minister
Fire and Emergency Management Commissioner

From: Wanamaker, Lori JAG:EX
Sent: Tuesday, October 30, 2012 5:58 PM
To: Denlinger, Becky JAG:EX
Cc: Cornett, Kathy M JAG:EX
Subject: Re: Fw:

Yes

Lori Wanamaker FCA
Deputy Minister and
Deputy Solicitor General
Ministry of Justice

On Oct 30, 2012, at 5:56 PM, "Denlinger, Becky JAG:EX" <Becky.Denlinger@gov.bc.ca> wrote:

Lori, I told Cameron n to wait till tomorrow morning to get these out. Unavoidable delays experienced. I hope that's ok.

From: Lewis, Cameron F JAG:EX
Sent: Tuesday, October 30, 2012 05:53 PM
To: Denlinger, Becky JAG:EX
Subject:

I did get hold of Evan.

Can we consider sending in the morning, or do we still need to target getting out tonight.

Jeff has suggested tomorrow, but I know we have an expectation from DM to prem.

Cameron Lewis
Executive Officer
Emergency Management British Columbia (EMBC)
Ministry of Justice
(250) 953-4036
(250) 516-6869 (cell)