



# March 4<sup>th</sup>/5<sup>th</sup> Port Metro Vancouver Fire

Report to Council  
24 March 2015

Overview

The Fire

The Response

The Impact

The Feedback

The Lessons

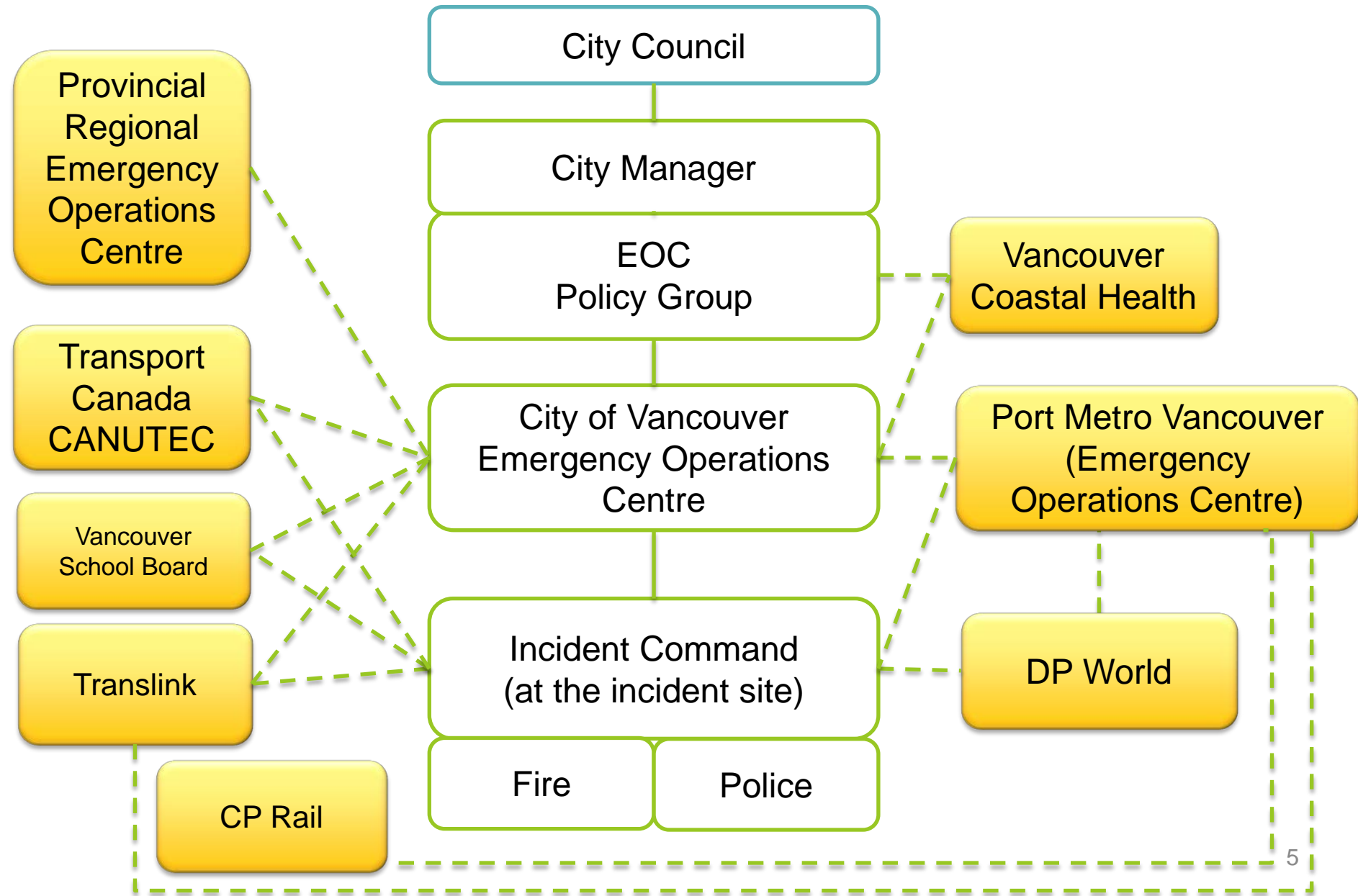
Conclusion

- Purpose of this presentation is to provide Council with an overview of the Port fire and hazmat event
- This event involved the activation of the Emergency Operations Center and the implementation of 3 new plans:
  - Emergency Response and Recovery Plan
  - Emergency Information Plan
  - Evacuation and Shelter In Place Plan

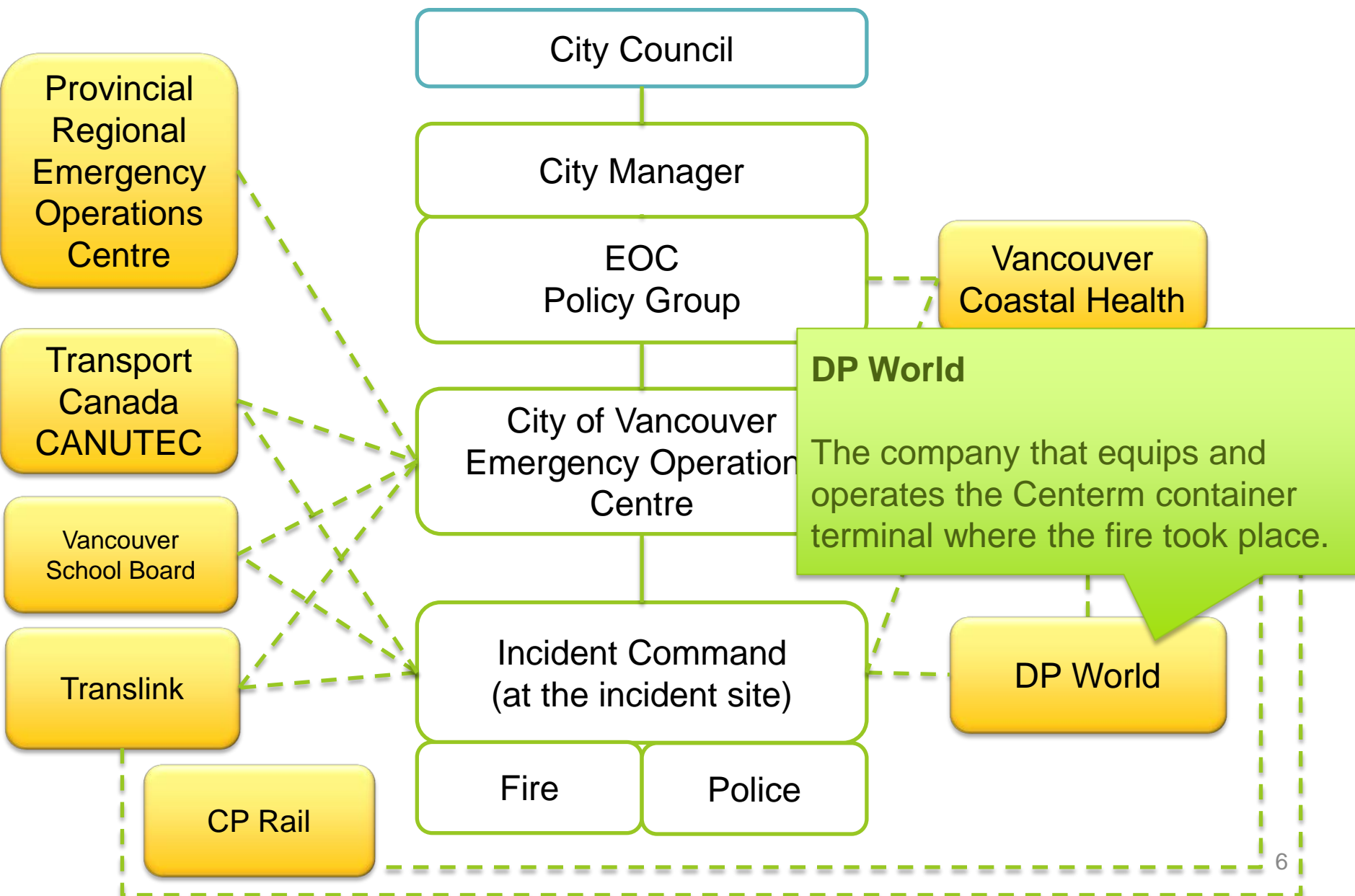


# THE FIRE

# The Fire– Response Agencies and Supports



# The Fire— Response Agencies and Supports



# The Fire-Response Agencies and

## Port Metro Vancouver (PMV)

Steward of federal port lands, with the authority to lease land for port operations (e.g. to DP World to operate the Centerm terminal).

PMV EOC included VFRS, VPD, BCAS and City Emergency Management staff

Provincial  
Regional  
Emergency  
Operations  
Centre

Transport  
Canada  
CANUTEC

Vancouver  
School Board

Translink

CP Rail

City Council

City Manager

EOC  
Policy Group

City of Vancouver  
Emergency Operations  
Centre

Incident Command  
(at the incident site)

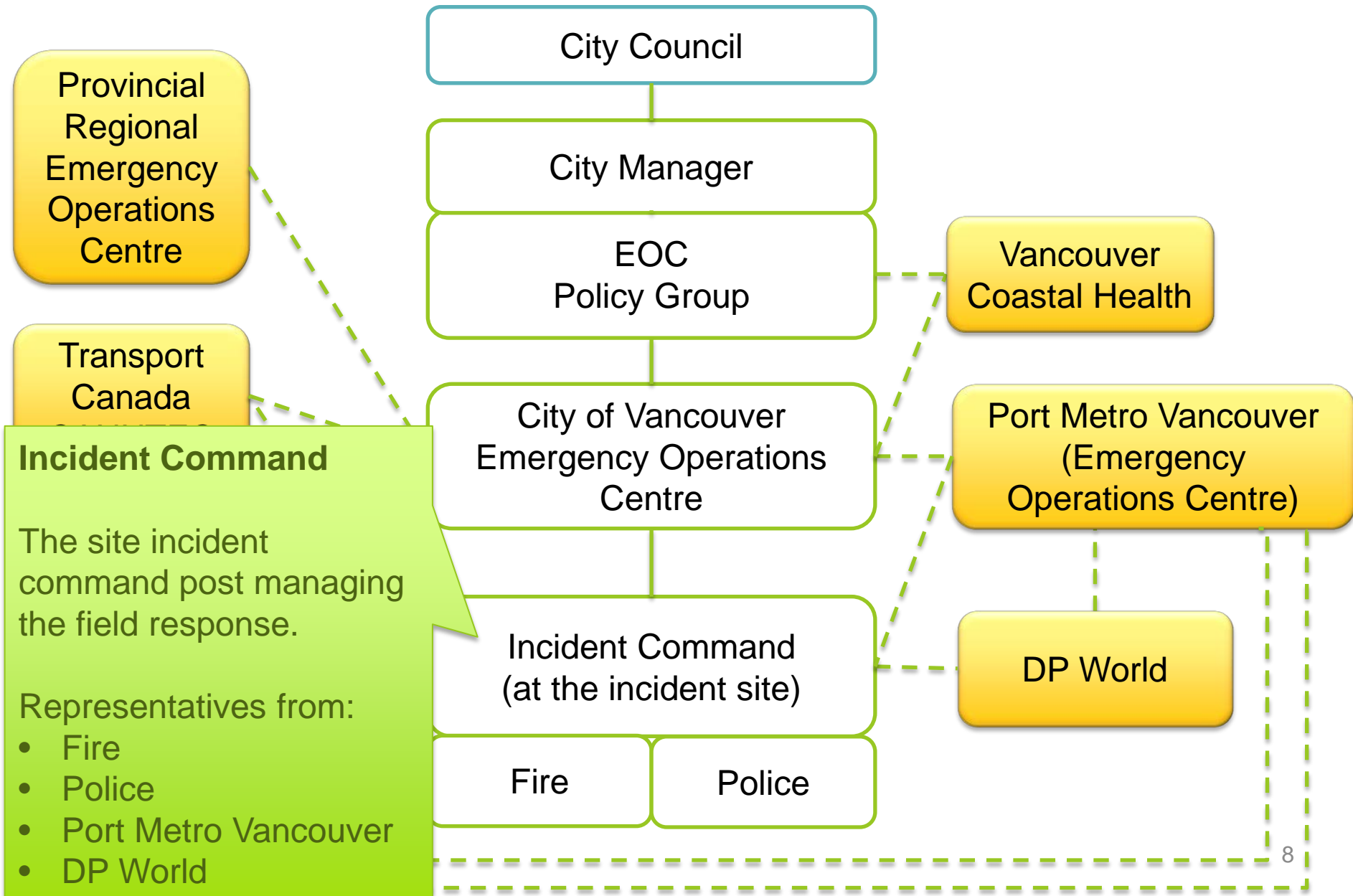
Fire

Police

Port Metro Vancouver  
(Emergency  
Operations Centre)

DP World

# The Fire– Response Agencies and Supports





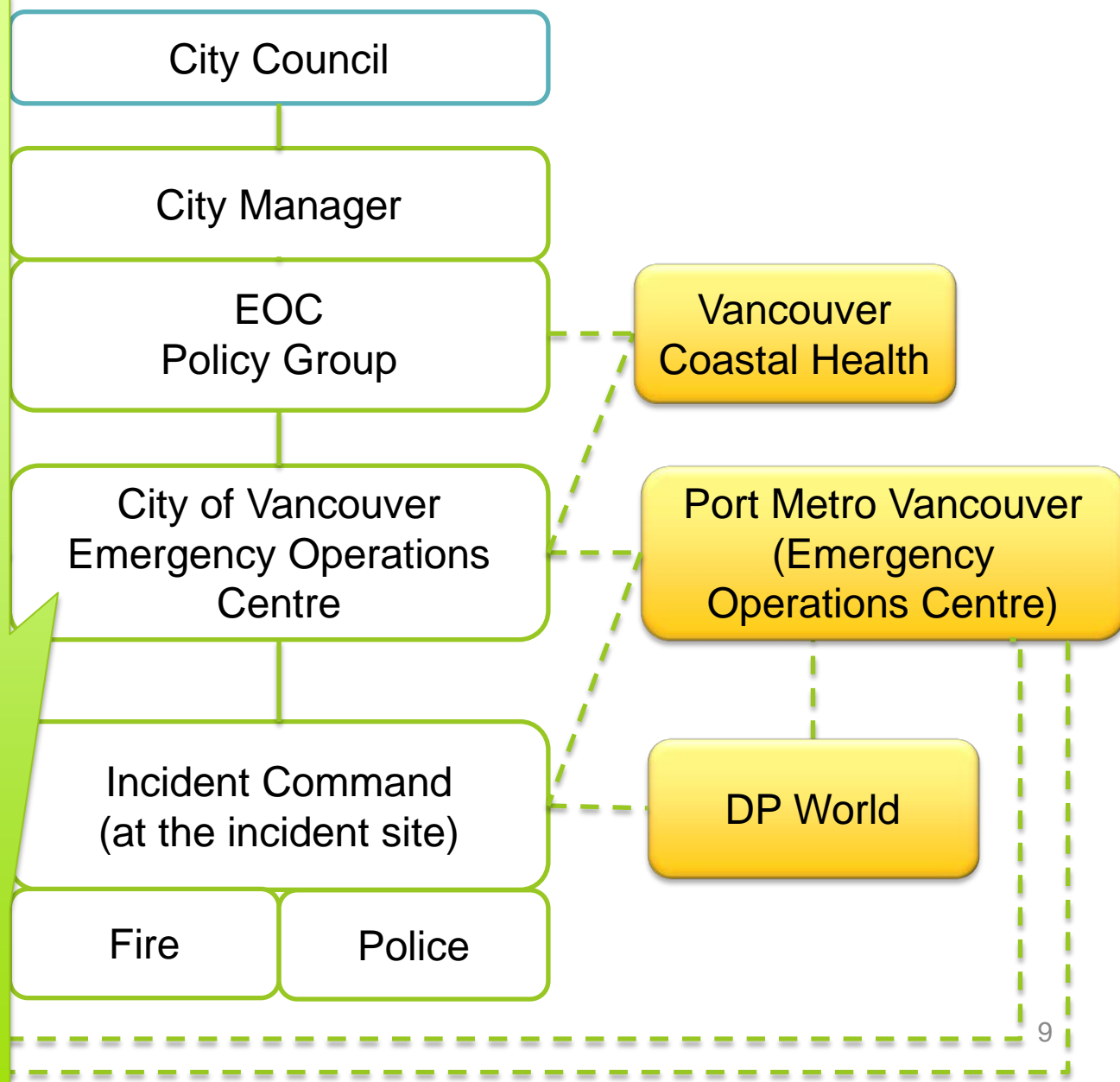
# The Fire– Response Agencies and Supports

## City of Vancouver Emergency Operations Centre

Coordinates multi-department and multi-agency response to emergencies and their consequences in Vancouver.

Includes representatives from:

- City departments
- first responders,
- external agencies such as
  - Vancouver School Board
  - Translink
  - Emergency Management BC



## City of Vancouver Emergency Operations Centre

Multiple departments and agencies represented, including

### Internal departments

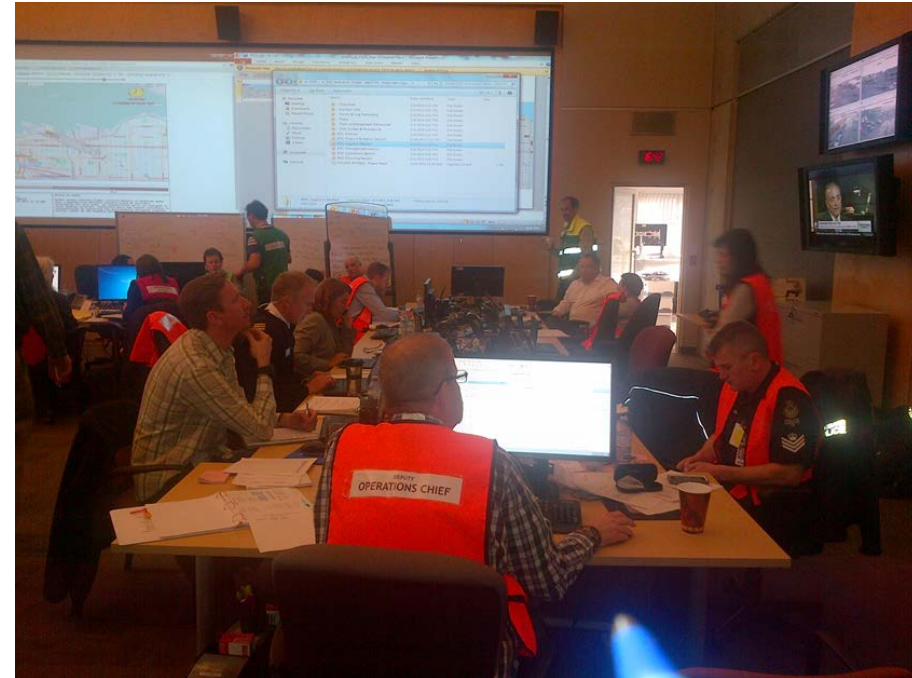
- Fire & Rescue
- Police
- Emergency Management
- Engineering
- Traffic Management
- Real Estate and Facilities Mgmt
- Community Services
- Park Board

### External Agencies

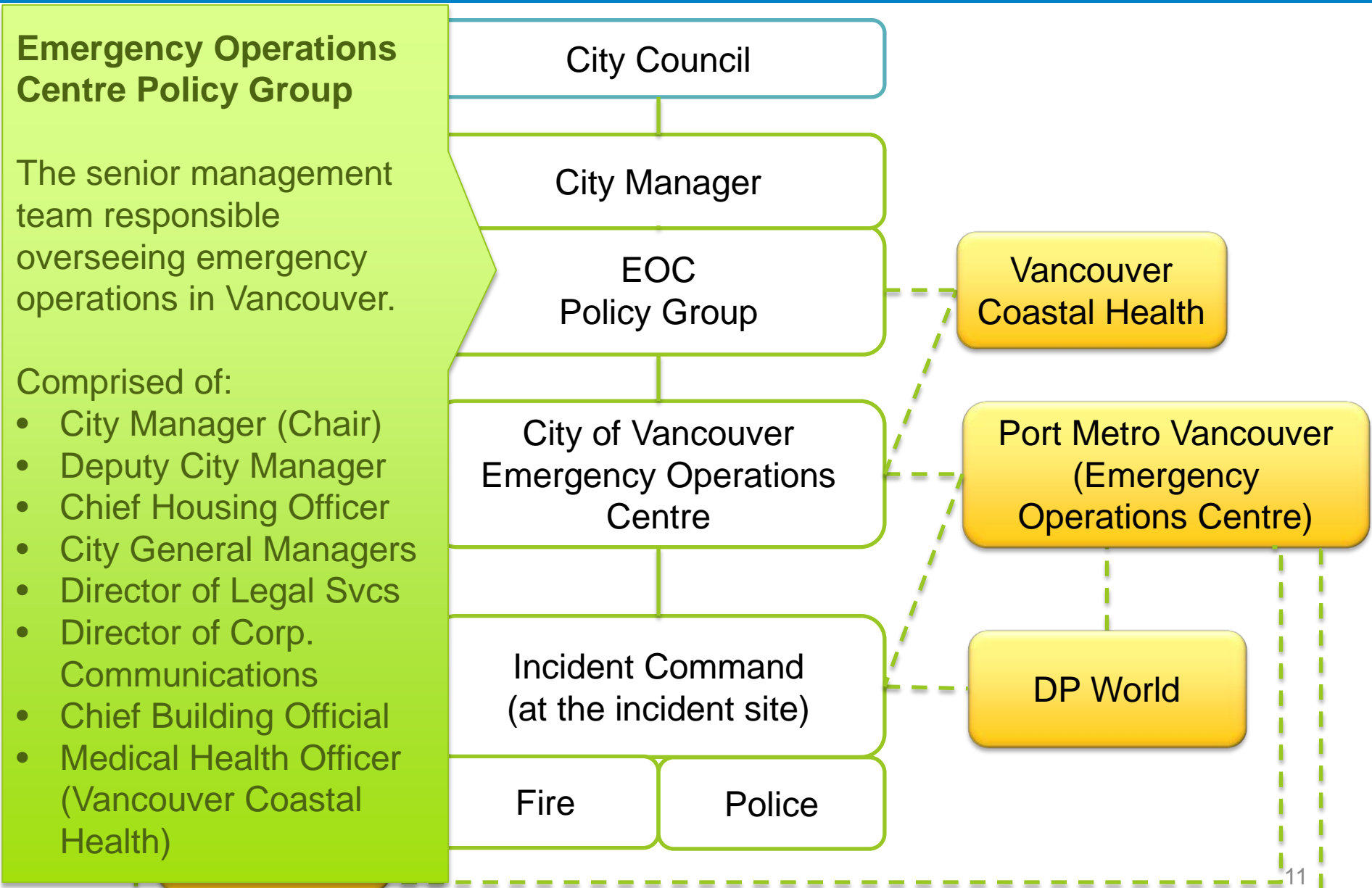
- Vancouver Coastal Health
- Translink
- Vancouver School Board
- Emergency Management British Columbia

### Links to

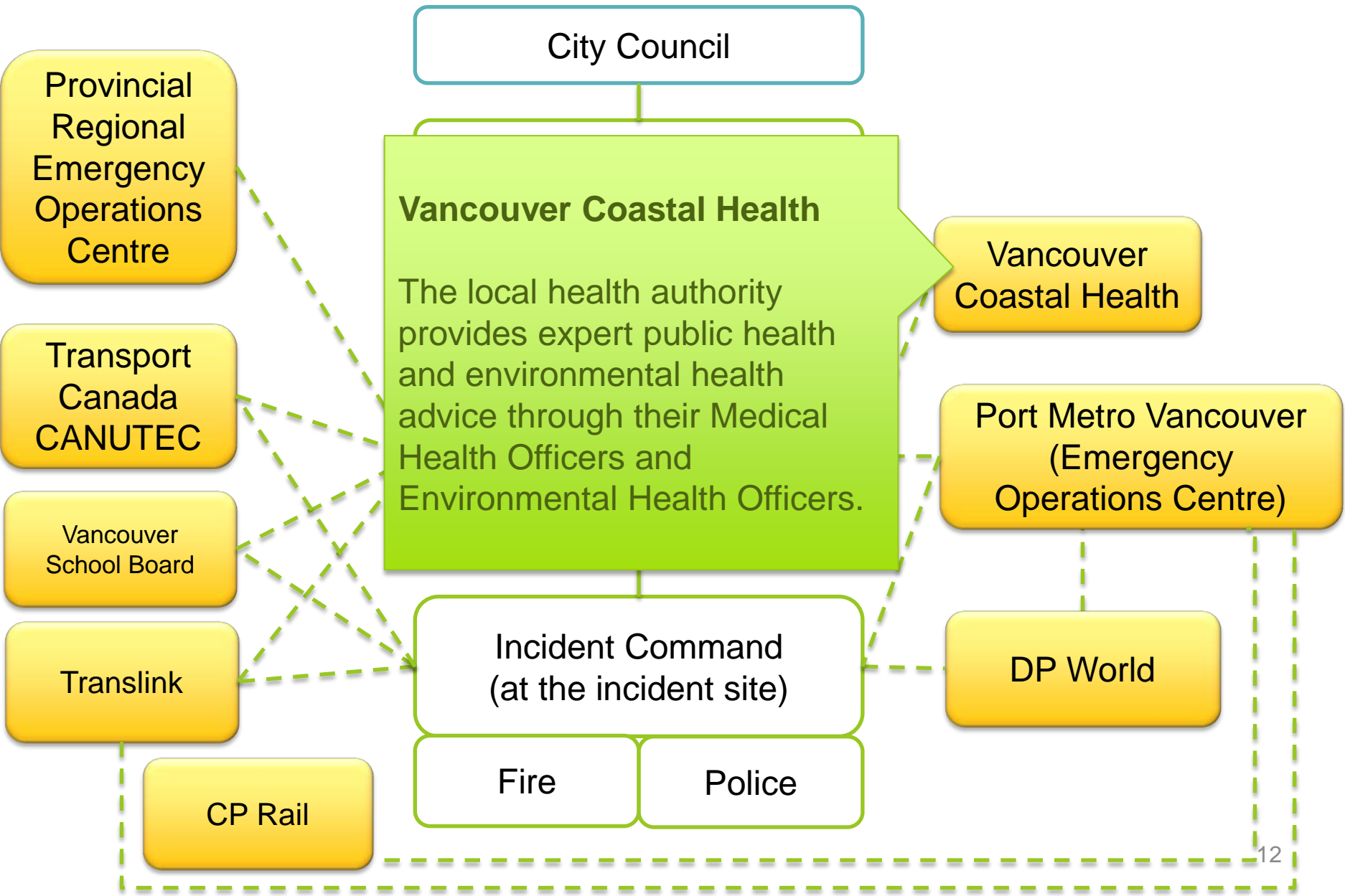
- Port Metro Vancouver
- Business community
- Neighbouring communities



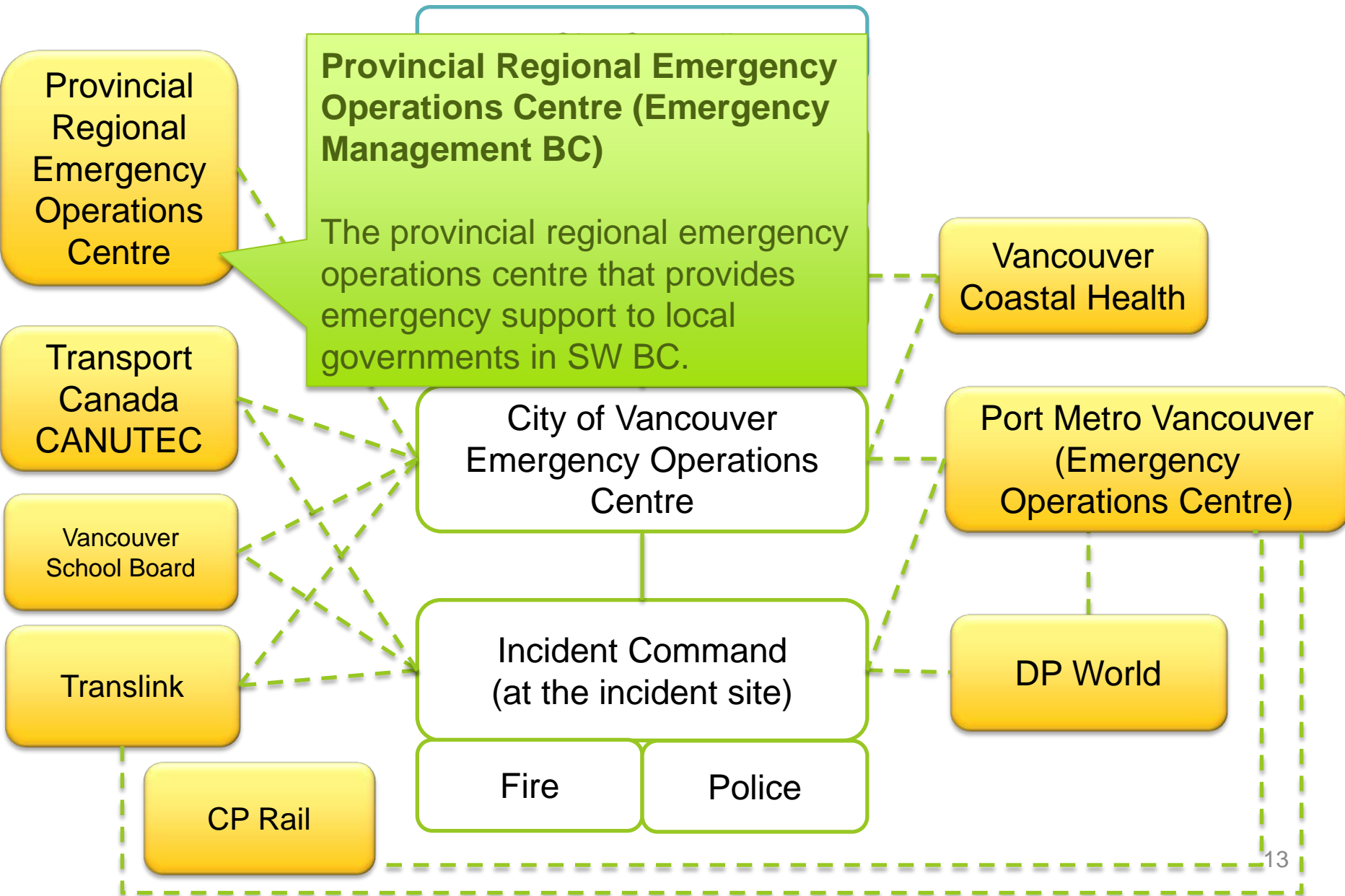
# The Fire– Response Agencies and Supports



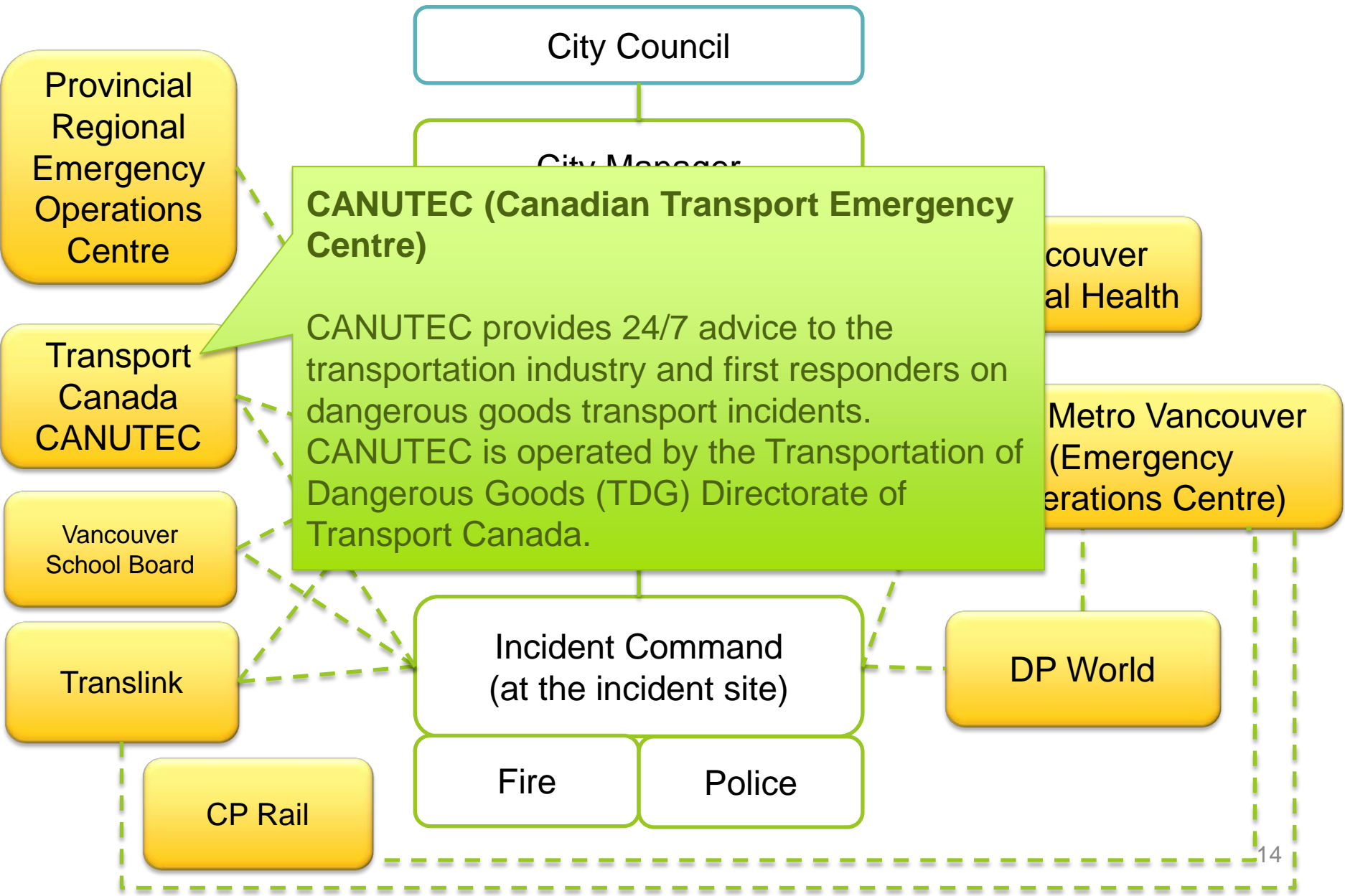
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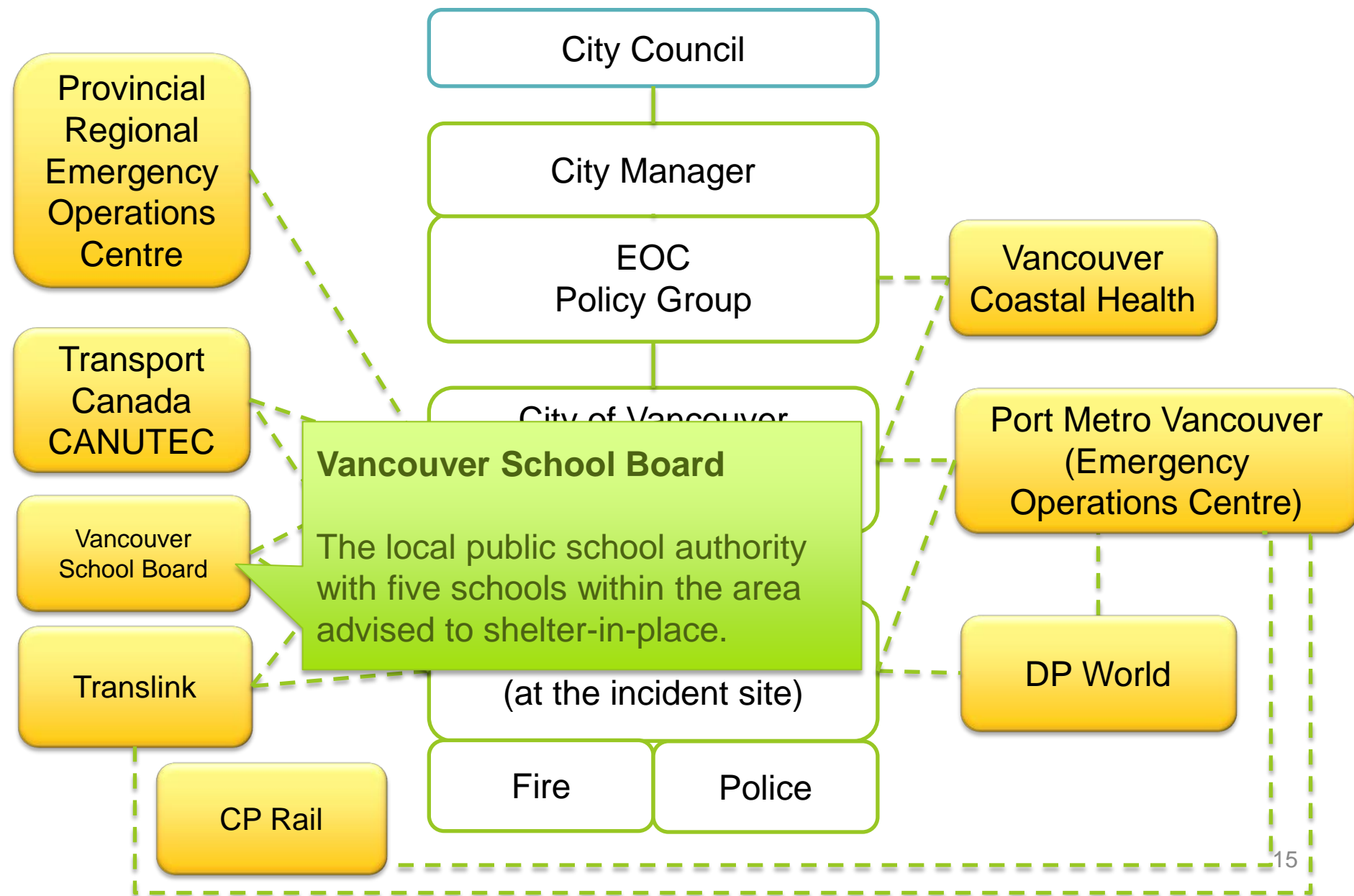
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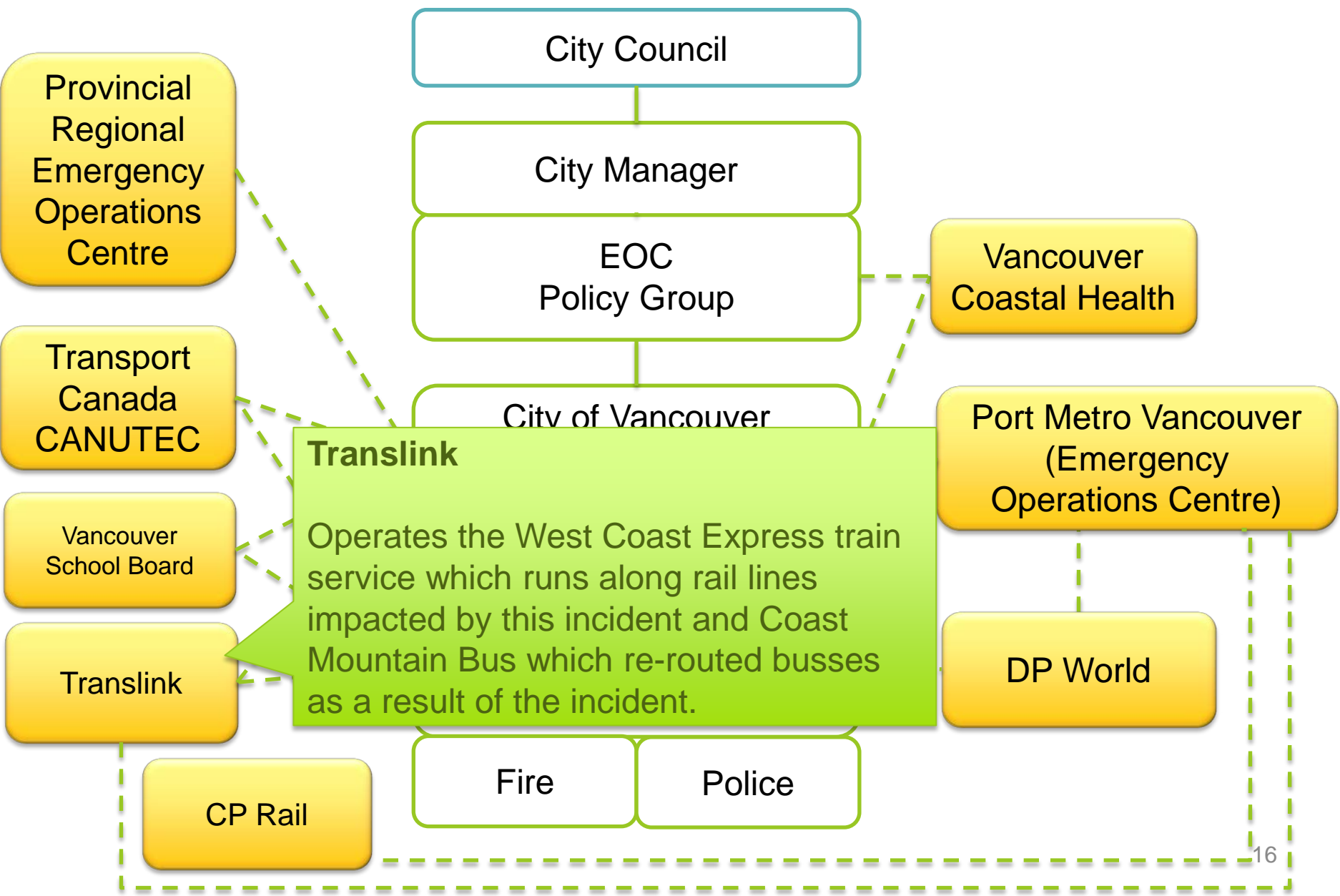
# The Fire– Response Agencies and Supports



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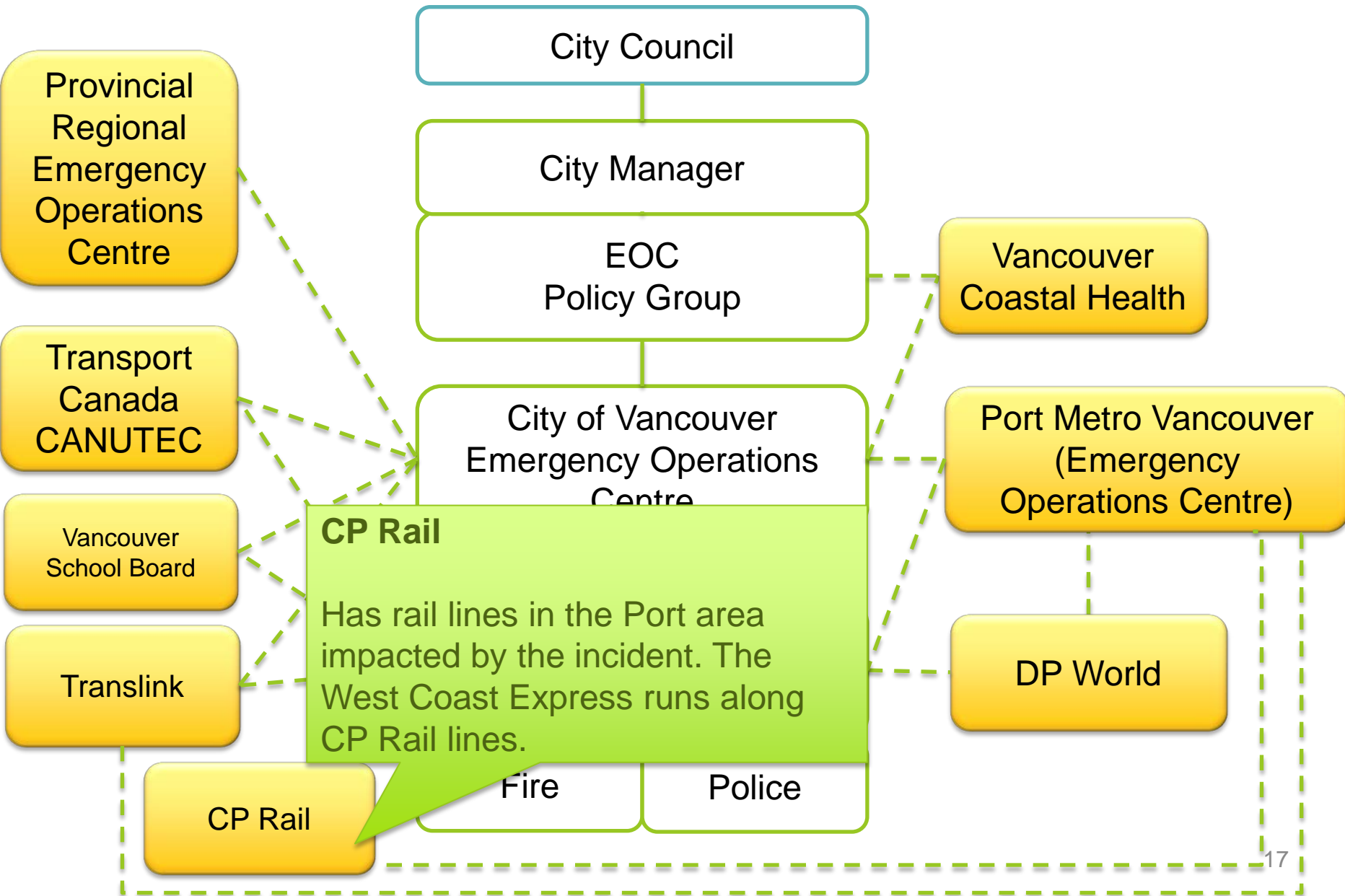


# The Fire– Response Agencies and Supports

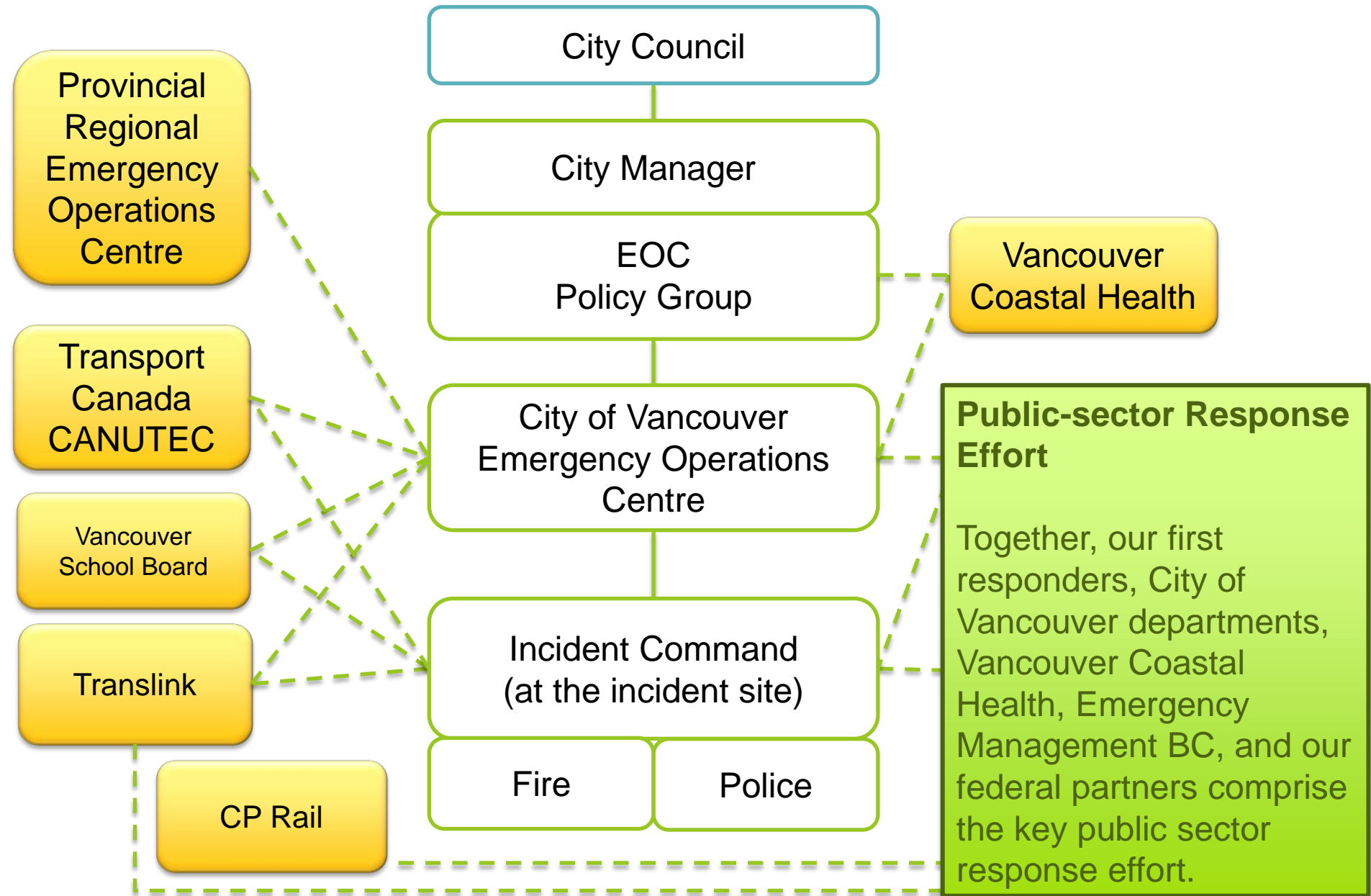




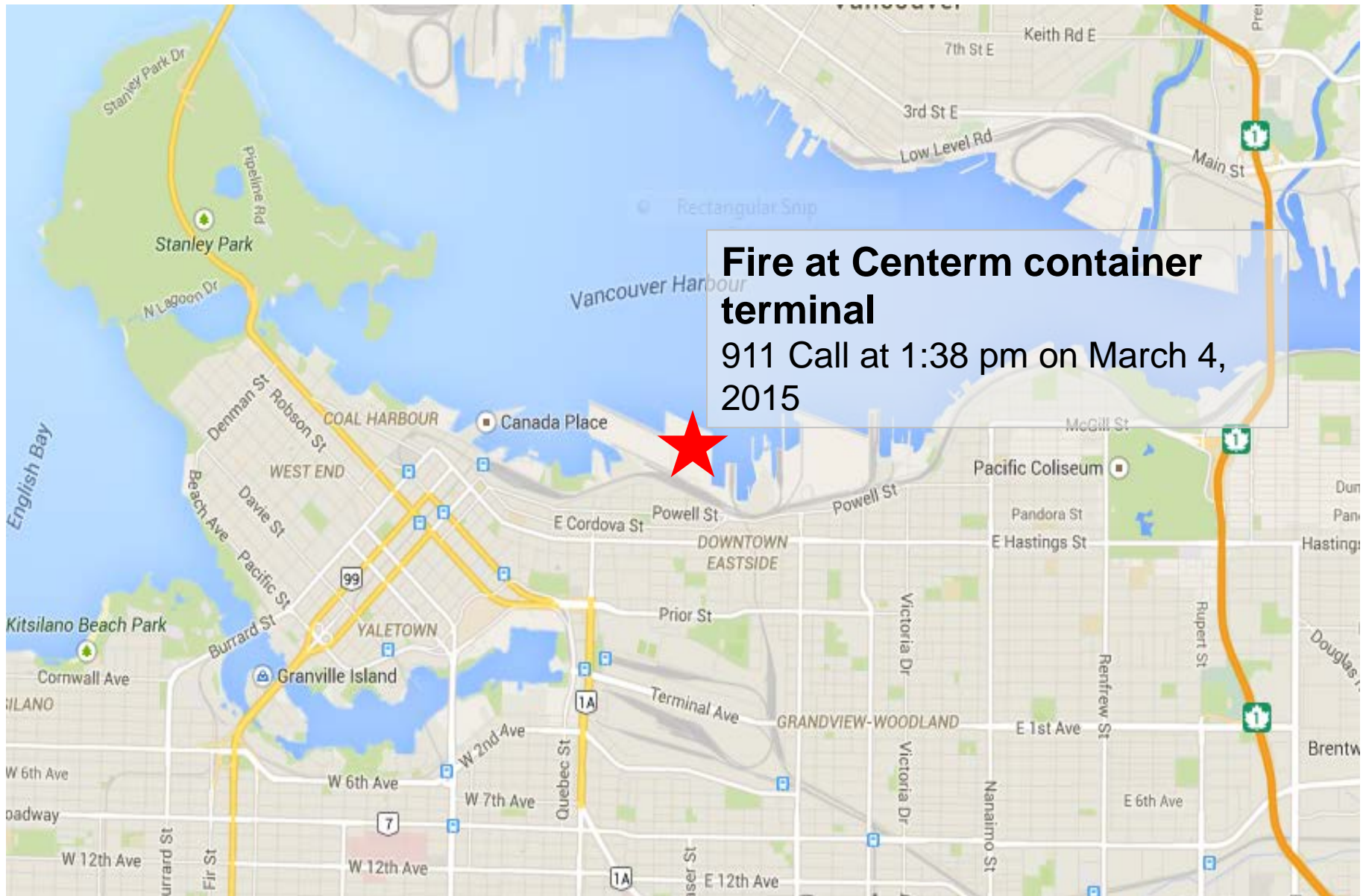
# The Fire– Response Agencies and Supports



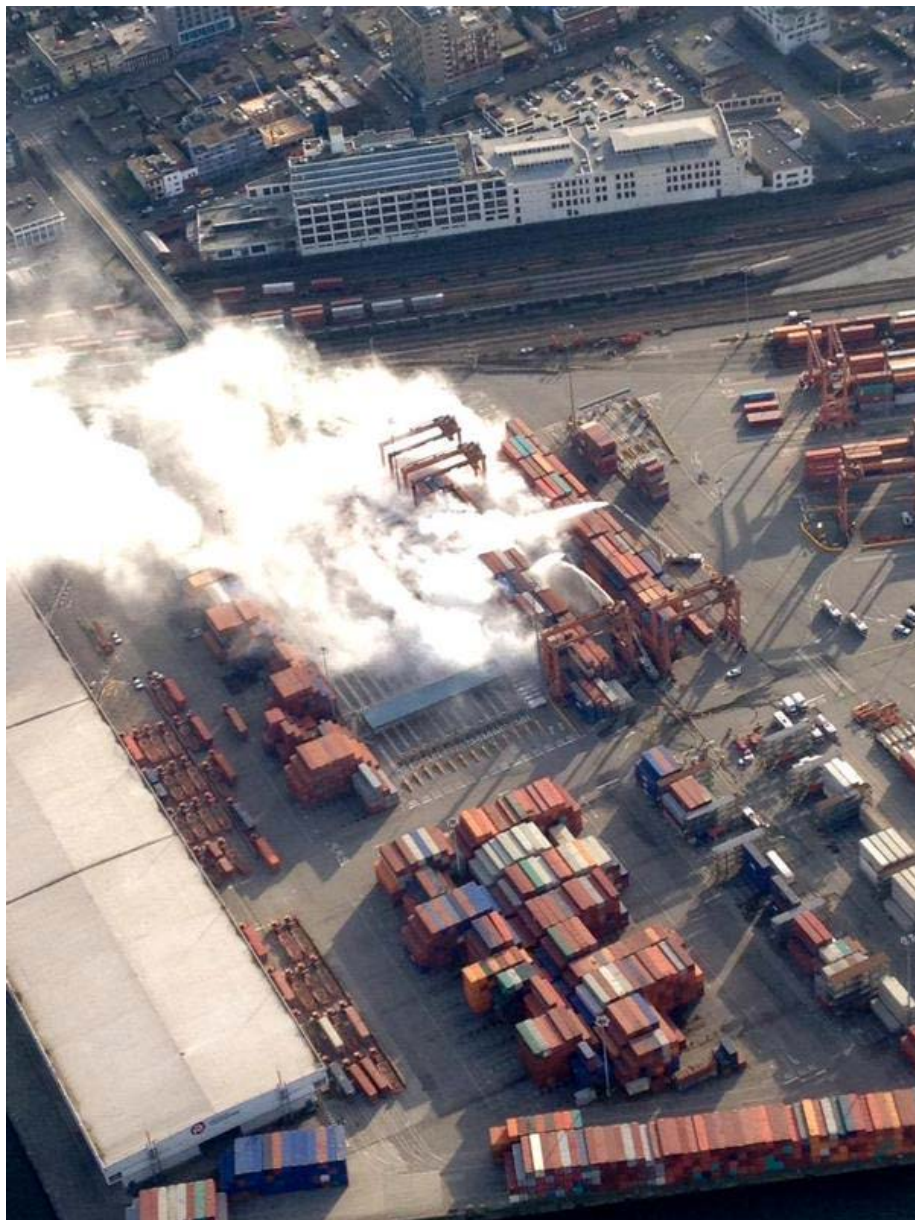
# The Fire– Response Agencies and Supports



# The Fire



# The Fire- 1:47 VFRS are on site



## 1:48pm:

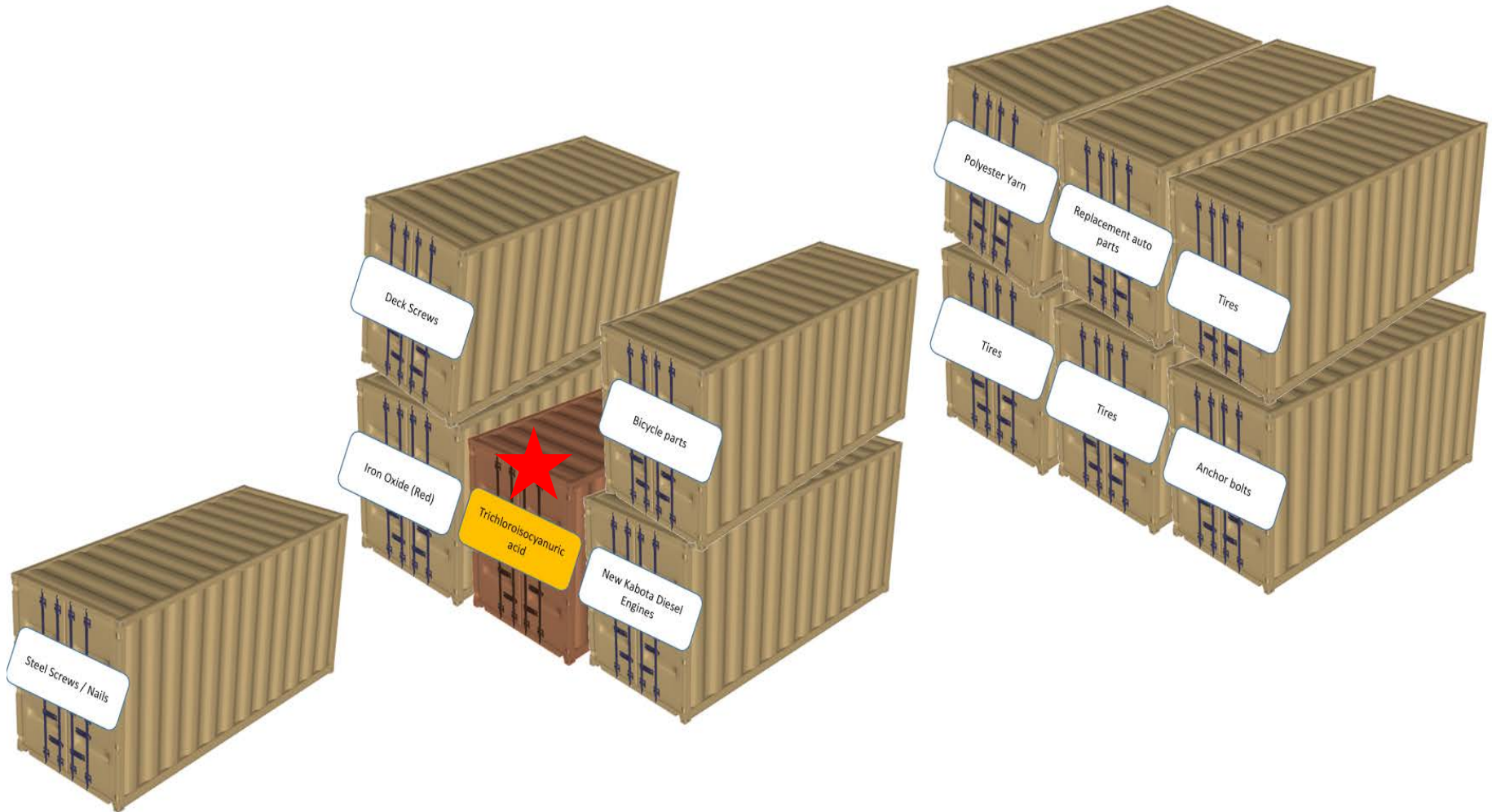
Within 10 minutes of 911 call, VFRS are informed that this is a chemical fire and that the chemical is Trichloroisocyanuric acid:

- **Chemical agent:** Trichloroisocyanuric acid
- **Amount:** 20,000 Kg in 20 ft container
- **Use:** bleaching agent in pools, household or industrial bleach, cleaning agents and sanitizers
- **Combustion products:** Toxic fumes of chlorine, chlorides and nitrogen oxides
- **Health effects:** respiratory tract, eye and skin irritant.
- **Cause of fire:** Still under investigation
  - VFRS, DP World, and Orient Overseas Container Line (OOCL) investigating

# The Fire



# The Fire - Nearby Container Contents



# THE RESPONSE





CITY OF VANCOUVER

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CITY OF VANCOUVER  
**EMERGENCY RESPONSE AND RECOVERY PLAN**

April 2014

DOCUMENT STATUS	DOCUMENT DATE & VER	VANDOCs RECORD ID	CREATED BY
FINAL	2014.04.14 v1.0	DOC/2014/141055	Office of Emergency Management

CITY OF VANCOUVER

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CITY OF VANCOUVER  
**ESF # 16: EVACUATION AND SHELTER-IN-PLACE**

**VANCOUVER PENINSULA PLAN AND GUIDELINE**

DOCUMENT STATUS	DOCUMENT DATE	VANDOCs RECORD ID	CREATED BY
INTERIM - VERSION 1.0	2015.01.20	DOC/2014/373934	Office of Emergency Management

CITY OF VANCOUVER

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CITY OF VANCOUVER  
**ESF # 15: EXTERNAL AFFAIRS & INFORMATION**

**EMERGENCY INFORMATION PLAN**

DOCUMENT STATUS	DOCUMENT DATE & VER	VANDOCs RECORD ID	CREATED BY
DRAFT			Corporate Communications

## First Alarm Fire

- 6 fire apparatus
- 19 firefighters

## Second Alarm Fire

- + 4 fire apparatus
- + 10 fire fighters

## Third Alarm Fire

- + 2 fire apparatus
- + 8 fire fighters

## Hazmat Response

- + 4 fire apparatus
- + 12 fire fighters

# The Response - March 4 Timeline

1:38 pm	911 call received from DP World. VFRS responds and are informed of the chemical.
1:47 – 1:50 pm	VFRS on-scene. Total of 7 heavy units, 28 crew, 1 Battalion Chief. Hazmat team requested.
2:13 pm	VFRS raises call to Second Alarm
2:18 - 2:38 pm	<p>VFRS notifies VPD and requests they visually monitor extent of smoke cloud within the affected neighborhood</p> <ul style="list-style-type: none"> <li>• VPD requested to support traffic management, and public notification</li> <li>• Clarke St. overpass &amp; railways closed</li> <li>• CANUTEC contacted</li> </ul>
2:20 PM	PMV evacuates property (800m) with guidance from CANUTEC to protect workers from risks of explosion based on the nature of the hazard and unknown contents of adjacent containers
2:36 pm	VFRS raises call to Third Alarm

# The Response - March 4 Timeline

<p>2:30 pm</p> <p>40 minutes post 911 call</p>	<p>VFRS notifies City Manager's Office, Office of Emergency Management, and initiates activation of Emergency Operations Centre. Emergency Management Policy Group call initiated.</p> <p>Shelter In Place order called by VFRS Chief</p>
<p>2:46 pm</p>	<p>Vancouver EOC communications staff tweets instructions for people in the impacted area to stay indoors, close windows. VPD, VFRS support messaging.</p> <p>CPR notified to shut down rail lines by VFRS.</p>
<p>2:56 pm</p>	<p>Two fire boats deployed to pump water to support firefighting.</p>
<p>3:00 pm</p>	<p>Police patrol impacted area informing residents to close windows and stay inside using loud speakers.</p>

## The tools: hose lines, unmanned aerials, and fireboats

- Transport Canada's Canadian Transport Emergency Centre (CANUTEC) advised to *flood it or let it burn*.

CANUTEC provides 24/7 expert advice to first responders and shippers on dangerous goods incidents.

- Fire was contained to container (inside). Focus on keeping surrounding shipping containers cool to ensure fire didn't spread.
- 2 fireboats provide additional support.
- Goal of tactics: wait for fire to burn out and for container to cool before opening and undertaking final disposition of hazard.

# The Response - Firefighting & Hazmat



# The Response - Firefighting & Hazmat



# The Response – Unmanned Aerials



Photo: CTV News



- There is limited hydrant access at Port.
- 2 fire boats provided critical pumping capacity (salt water) to fight the fire.
- Without these units, there would have been significantly less water available to fight the fire.



- Air quality was monitored at the fire continuously by Vancouver Fire and Rescue HAZMAT team
- Difficult to monitor air quality within the neighborhoods as the plume extended.
- While different air quality monitoring equipment exists with various agencies in the lower mainland, there is no one agency for equipment to monitor all types of air-borne hazardous chemicals.

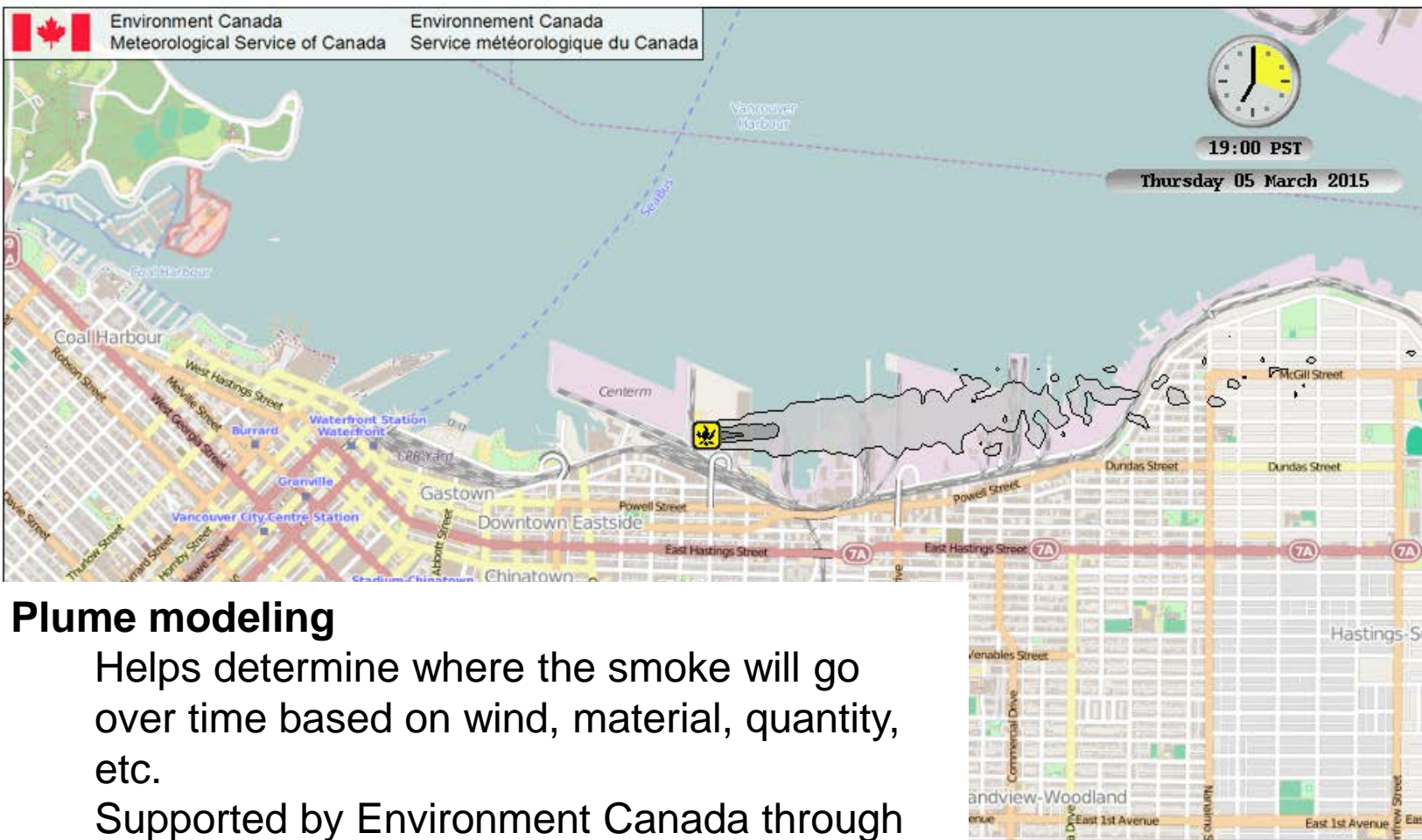


# The Response- Plume Modeling

Valid date-time : 2015-03-06 03:00:00 UTC

 Environment Canada  
Meteorological Service of Canada

 Environnement Canada  
Service météorologique du Canada



## Plume modeling

Helps determine where the smoke will go over time based on wind, material, quantity, etc.

Supported by Environment Canada through Port Metro Vancouver Emergency Operations Centre

# The Response - Air Quality Monitoring



## **Includes directions on how to implement evacuations and shelter-in-place orders**

### **Shelter-in-place can be a preferable option to evacuation when:**

- Event occurs with little or no warning
- Sheltering is safer than evacuating
- Relocating residents will cause significant undue stress

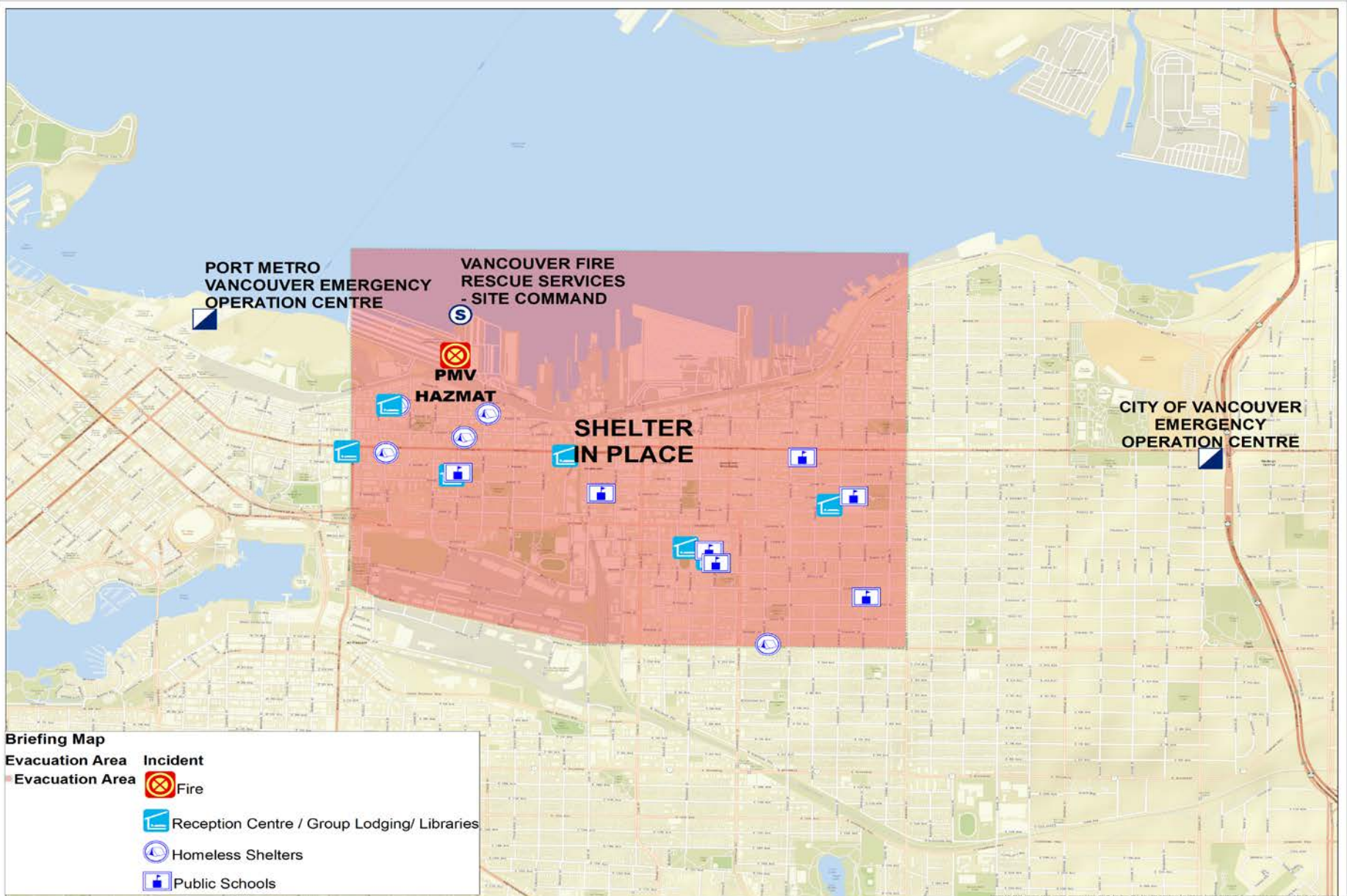
### **Shelter-in-place calls for the following key actions:**

- Stay indoors,
- Close windows, and
- Turn off air intakes (HVAC) until the threat has passed

### **The decision to shelter-in-place:**

- Made by VFRS Fire Chief with input from CANUTEC, Vancouver Coastal Health
- Supported by Emergency Operations Centre and Policy Group
- Communicated by Corp Comms, VPD, ENG Street Ops & media

# The Response – Identifying Area of Concern



# The Response – Notifying the Public to Shelter in Place



Police in process of informing public to stay indoors and close windows.

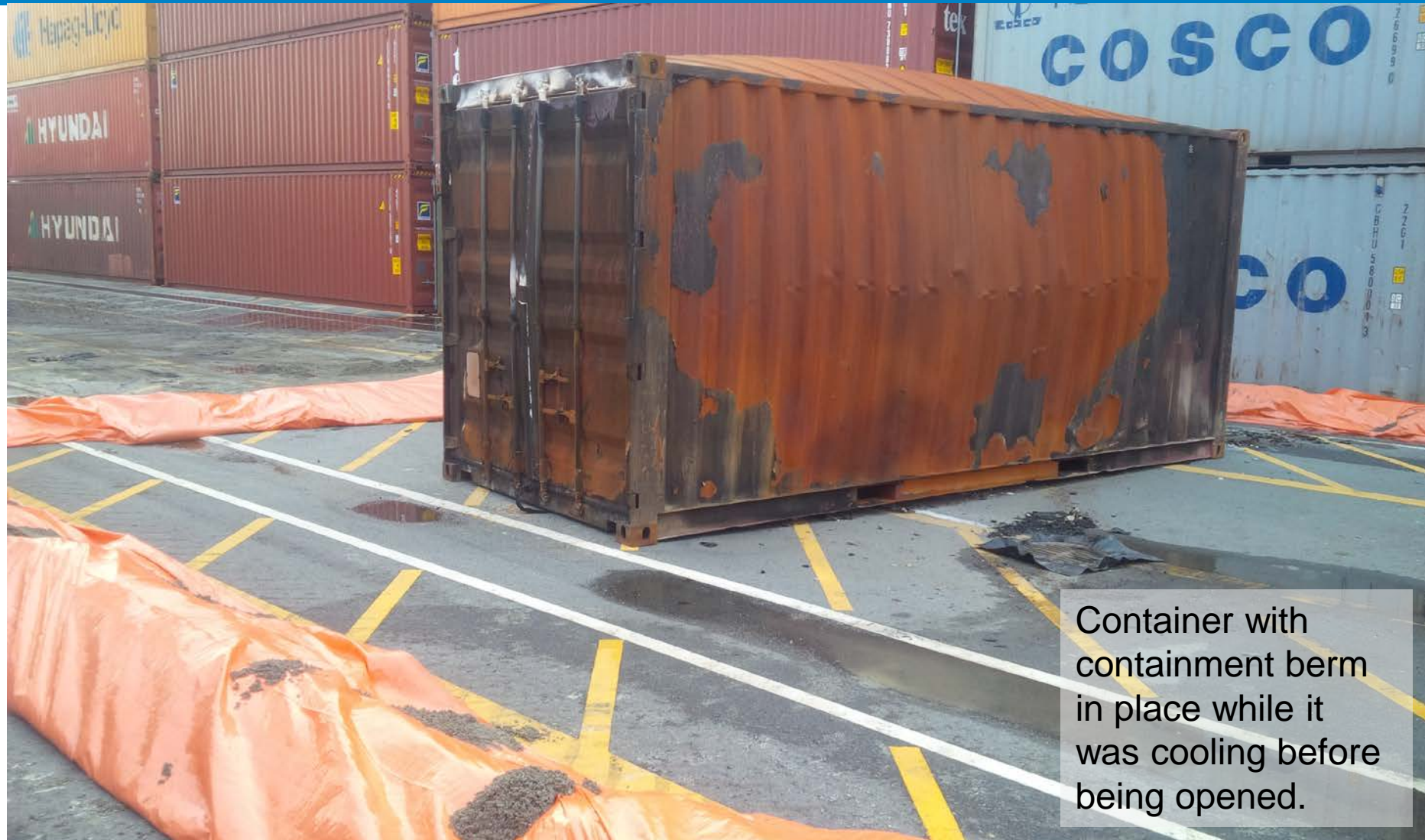
5:45 pm	<p>VFRS (with policy group) gives all-clear and lifts Shelter-in-Place in consultation with VCH and EOC Policy Group, which was based on improved conditions, the fire under control and the smoke had dissipated.</p> <p>Communicated from Emergency Operations Centre via Twitter and Facebook.</p>
ongoing	<p>Fire fighting on scene continues and the Emergency Operations Centre remains activated.</p>
7:30 pm	<p>Emergency Operations Centre stands down on the advice of VFRS.</p>



## March 5, 2015

2:35 am (approx.)	Container is moved; fire flared up within the container.
4:00 am	VFRS requests activation of the Emergency Operations Centre to support advanced planning.
5:00 am and throughout the day	<p>Emergency Operations Centre activated and remained activated all day monitoring the situation and to conduct advanced planning.</p> <p>Evacuation and shelter-in-place plan developed as a contingency in case the fire flared-up again when the container was opened. Container temperature cooled throughout the day.</p> <p>The City and key partners provide media and public with ongoing information via media interviews, social media, and through <a href="http://vancouver.ca">vancouver.ca</a>.</p>
7:52 pm	Container opened with protective berm in place. Fire did not flare up – contents are completely burnt.
8:38 pm	Fire/Hazmat response incident concluded and handed over to investigation.

# The Response – Container in Containment Berm



# The Response – Container Opened



## Public Information

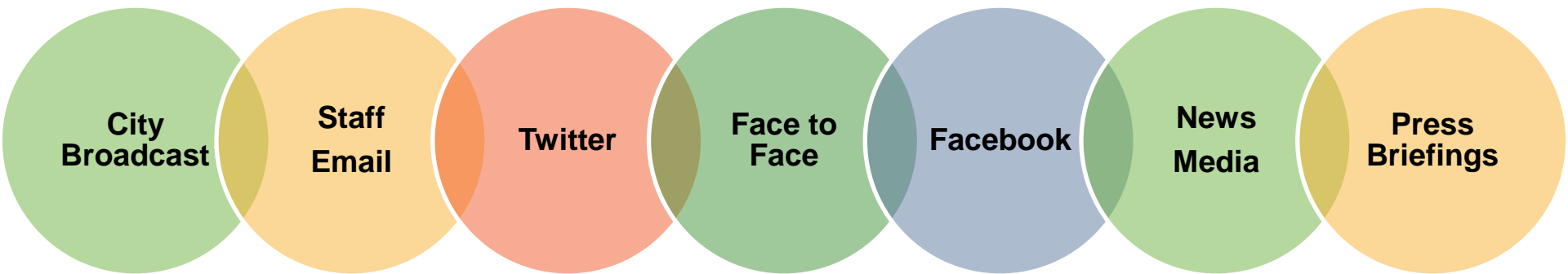
- Media
- Social Media
- Website - [vancouver.ca](http://vancouver.ca)
- 3-1-1 Call Centre

Getting the message out,  
engaging with the public,  
addressing concerns.



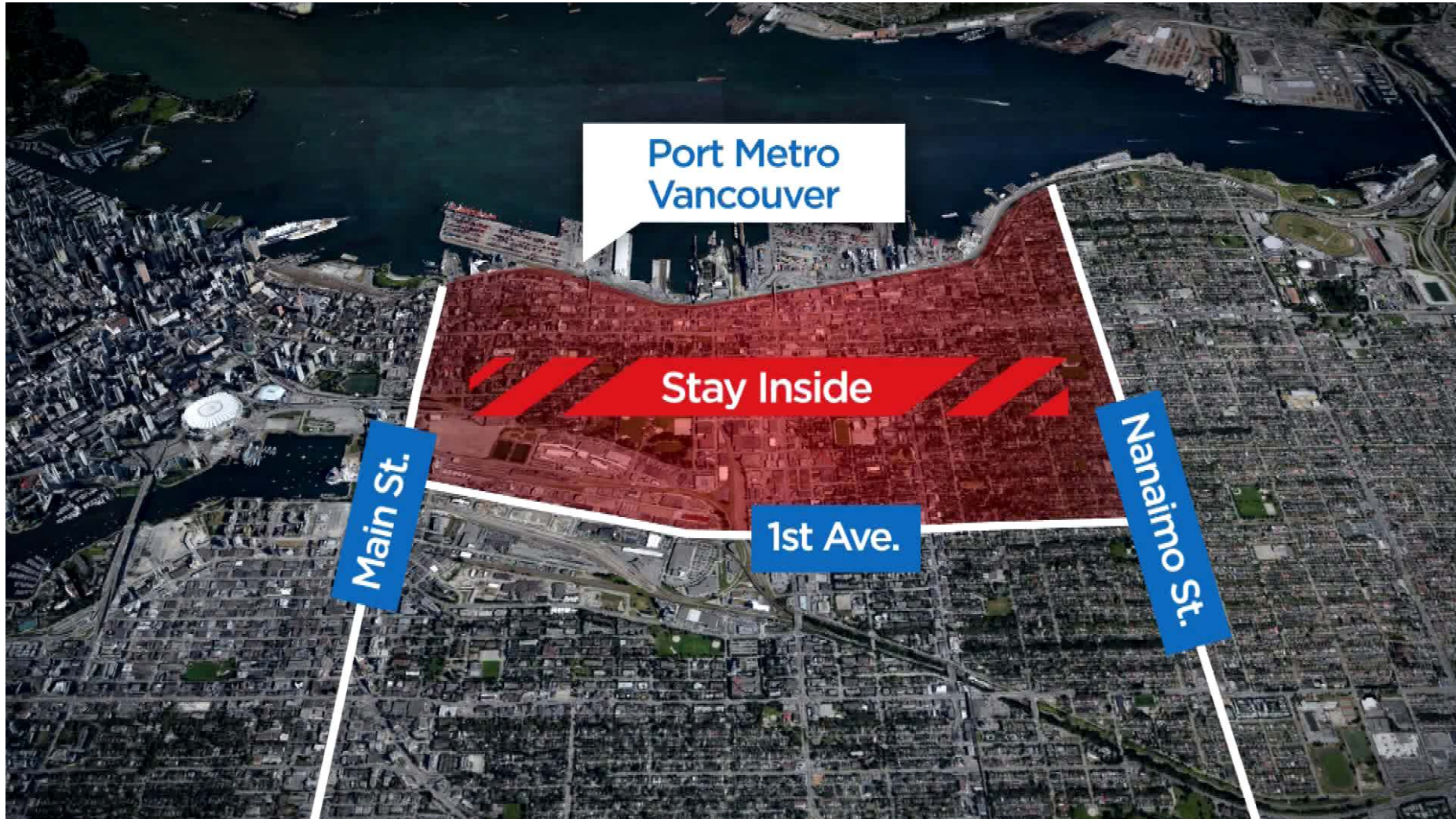
Information Section at the Vancouver Emergency Operations Centre

## Methods of Outreach



- The emergency internal communications function was activated as soon as the notification was sent from the Emergency Operations Centre:
  - COV corporate comms staff moved to EOC
- Social media; access to Fire Chief and other senior staff by media throughout the day and on the ground staff were key strategy to get the word out
- Information bulletins sent to all City staff via City of Vancouver Broadcast system
- Content was re-purposed from the information bulletins that were sent externally
  - Chemical Fire in Downtown Vancouver Mar. 4, 4:10 pm
  - Update on Port Metro Vancouver Fire Mar. 4, 5:55 pm
  - Update on Port Metro Vancouver Fire Mar. 4, 7:10 pm
  - Smoke in the Downtown Area Today Mar. 5, 9:10 am

# The Response – Media Used CoV Content to Communicate to the public (Global TV Map)



## Social Media



Media &  
Influencers



Everyday  
Vancouverites







## Twitter

- **88** tweets
- **1151** re-tweets
  - Usually 80 re-tweets/day
- **439,000+** impressions
  - Usually ~15,000 impression/day
- Re-tweeted updates from VFRS, VPD, VCH, Port

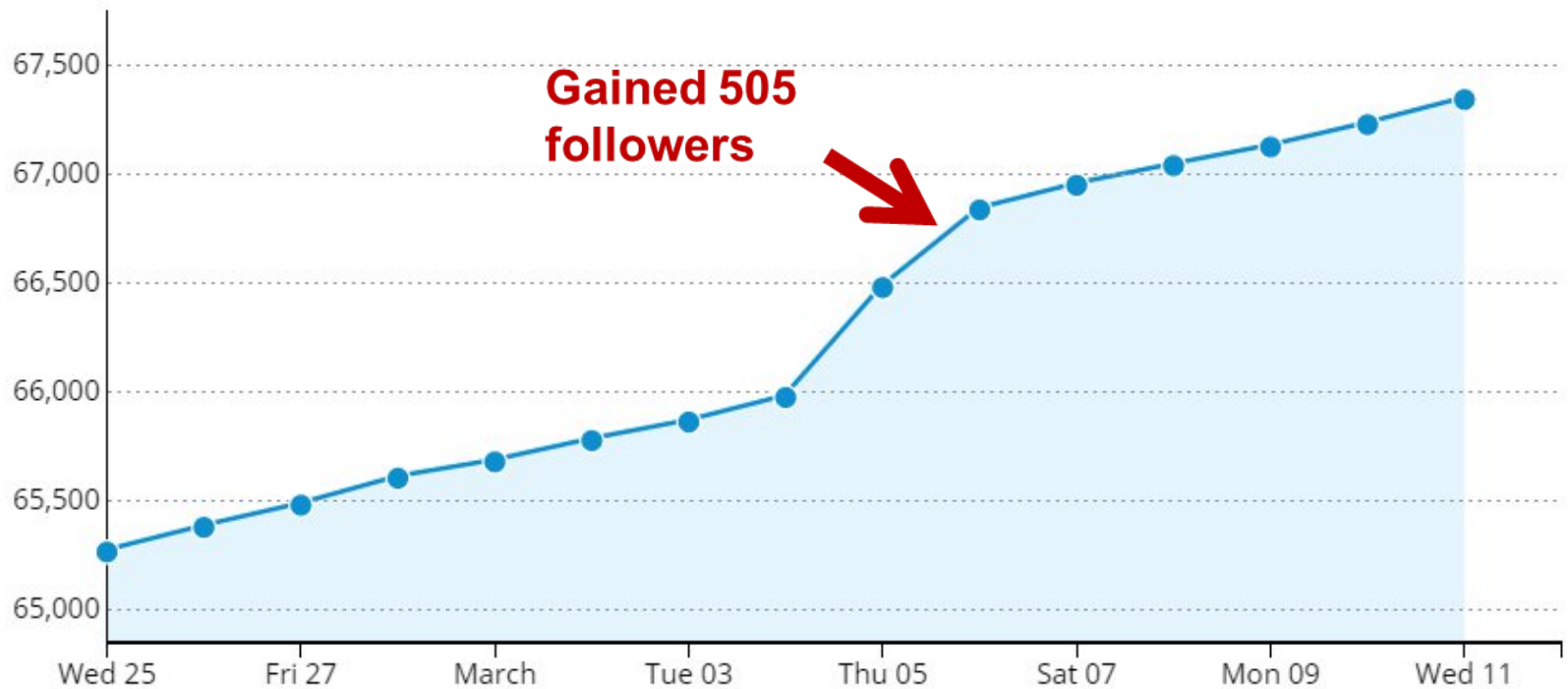


# The Response – Public Information

## Twitter : Follower Growth - Count



Total Followers:	Average Daily Growth:	New Followers:
67,455	147	2,202

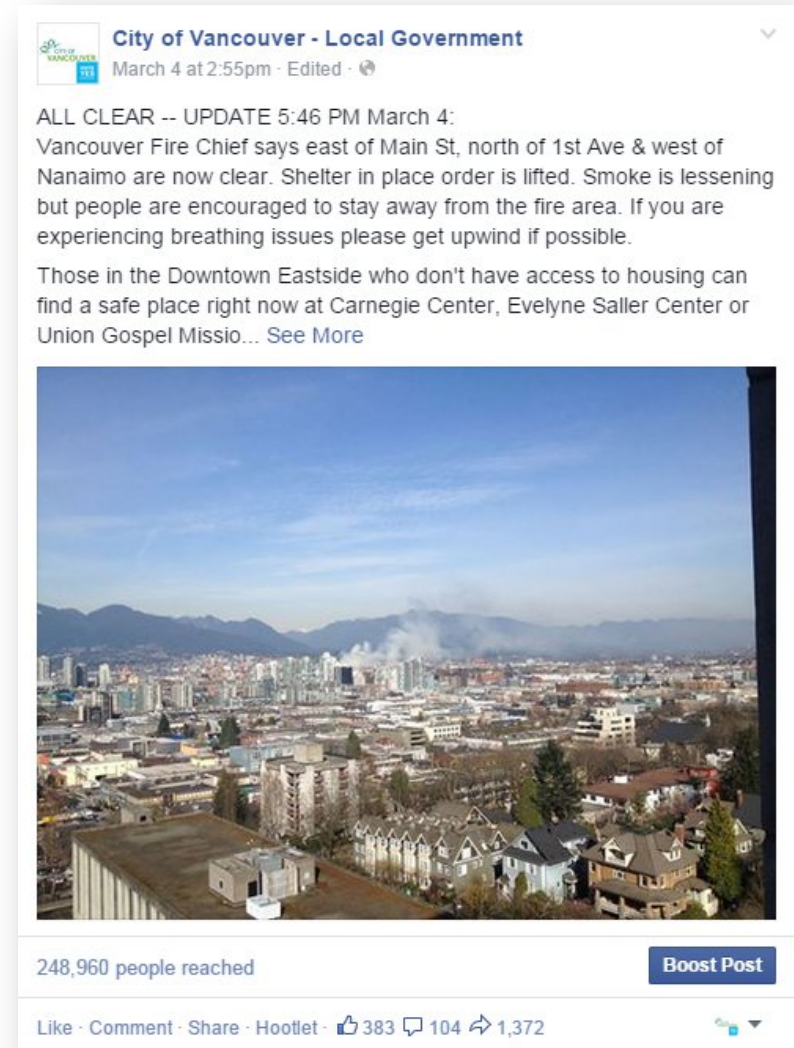


There may be data outside your current selected range



- City, VFRS, VPD, Port, VCH trended in Vancouver
- City account trended in Canada


- **1** main post, updated
- Reached **248,960**
- Shared **1,372x**
- Gained **299** followers





**City of Vancouver - Local Government**  
March 4 at 2:55pm · Edited ·

ALL CLEAR -- UPDATE 5:46 PM March 4:  
Vancouver Fire Chief says east of Main St, north of 1st Ave & west of Nanaimo are now clear. Shelter in place order is lifted. Smoke is lessening but people are encouraged to stay away from the fire area. If you are experiencing breathing issues please get upwind if possible.

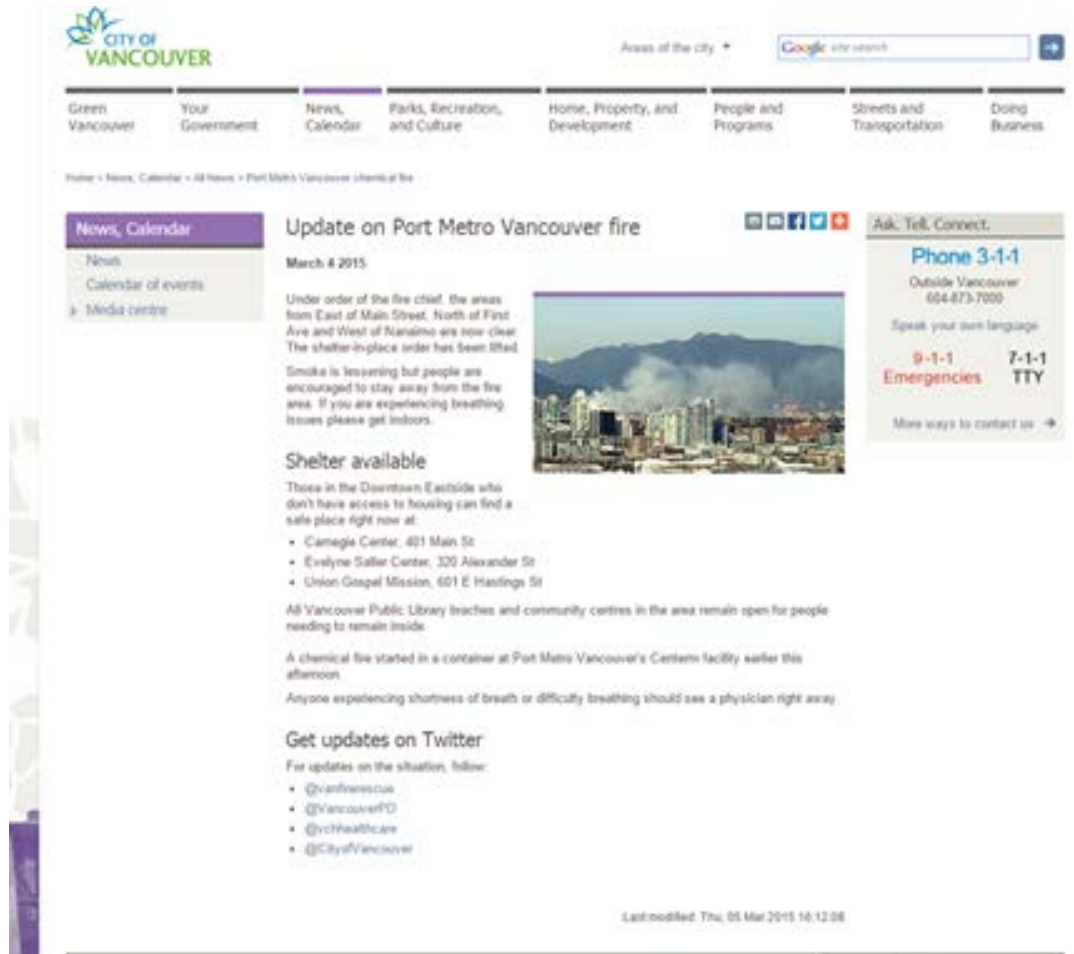
Those in the Downtown Eastside who don't have access to housing can find a safe place right now at Carnegie Center, Evelyne Saller Center or Union Gospel Missio... See More



248,960 people reached [Boost Post](#)

Like · Comment · Share · Hootlet ·  383  104  1,372

- Updates on home page and postings to News section
  - March 4 – 1,917 views
  - March 5 – 140 views
  - March 5 – 275 views
  - March 5 – 77 views



The screenshot shows the City of Vancouver website's news section. The main article is titled "Update on Port Metro Vancouver fire" and is dated March 4, 2015. The article text states: "Under order of the fire chief, the areas from East of Main Street, North of First Ave and West of Nanaimo are now clear. The shelter-in-place order has been lifted. Smoke is lessening but people are encouraged to stay away from the fire area. If you are experiencing breathing issues please get indoors." It also lists "Shelter available" locations: Carnegie Center, Evelyn Saller Center, and Union Gospel Mission. A sidebar on the right contains contact information for 3-1-1, including the phone number 604-673-7000 and options for language and TTY. The footer of the page indicates it was last modified on Thursday, 05 Mar 2015 at 16:12:08.



# THE IMPACT

## PORT OPERATIONS

- Overall Port Operations continued
- South Shore Terminal evacuated Weds afternoon
- Centerm Terminal down for 51hrs
- PMV link to EOC

## SCHOOLS

- 5 schools in affected area
- VPD Liaisons dispatched to each school
- VSB rep at EOC

## HEALTH

- 13 hospital visits
- 0 admissions
- VCH Public Health, Environmental Health & Health Emergency Management at EOC
- Drug and Poison Information Line: received 53 calls, of these 6 were referred to the local emergency department

## SPECIAL POPULATIONS

- Communication via VPD, Engineering
- Shelters open to assist
- Community Services rep at EOC

## TRANSIT

- West Coast Express interruptions
- Bus service interruptions
- TransLink & CMBC reps at EOC



# The Response: Incremental\* Cost of Response

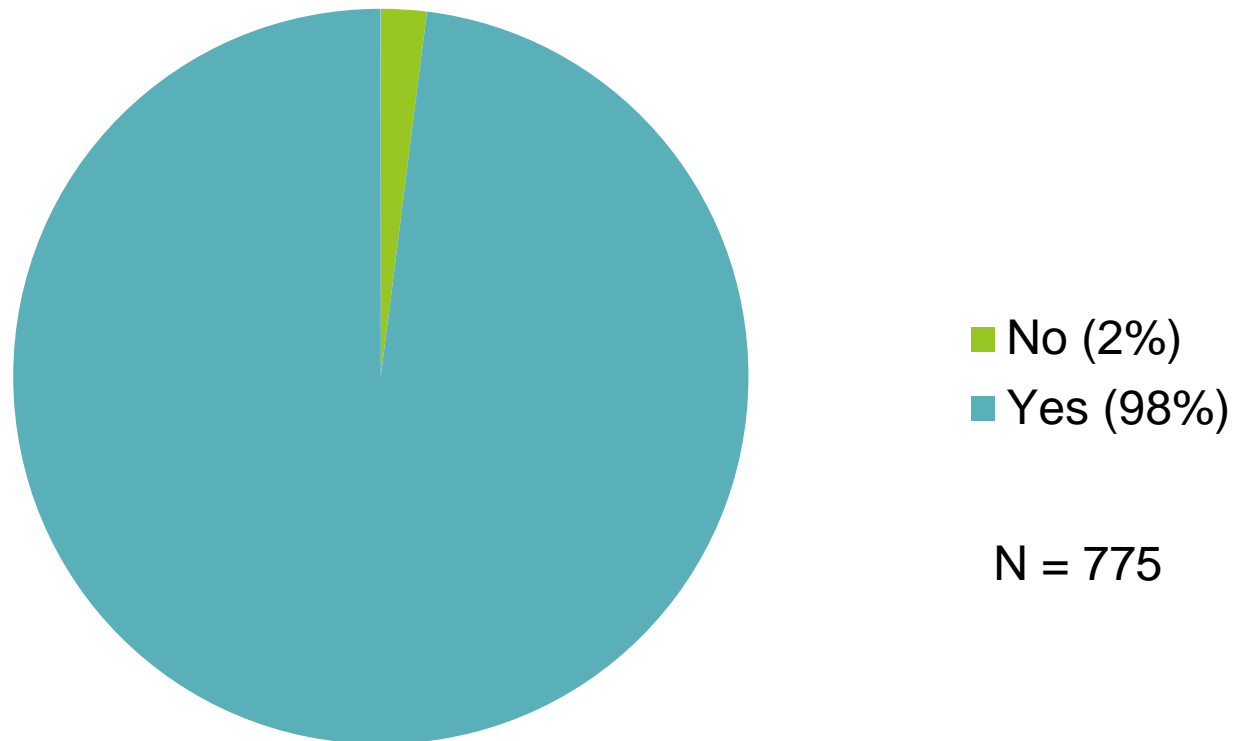
Department	Incremental Cost
Vancouver Fire and Rescue	\$ 33,000
Vancouver Police	\$ 1,000
Vancouver Engineering Services	\$ 5,000
Emergency Operations Centre	\$ 10,000
311	\$ 3,000
<b>Total</b>	<b>\$ 52,000</b>

\* Incremental costs include overtime, food, contract work, equipment (sand delivery).

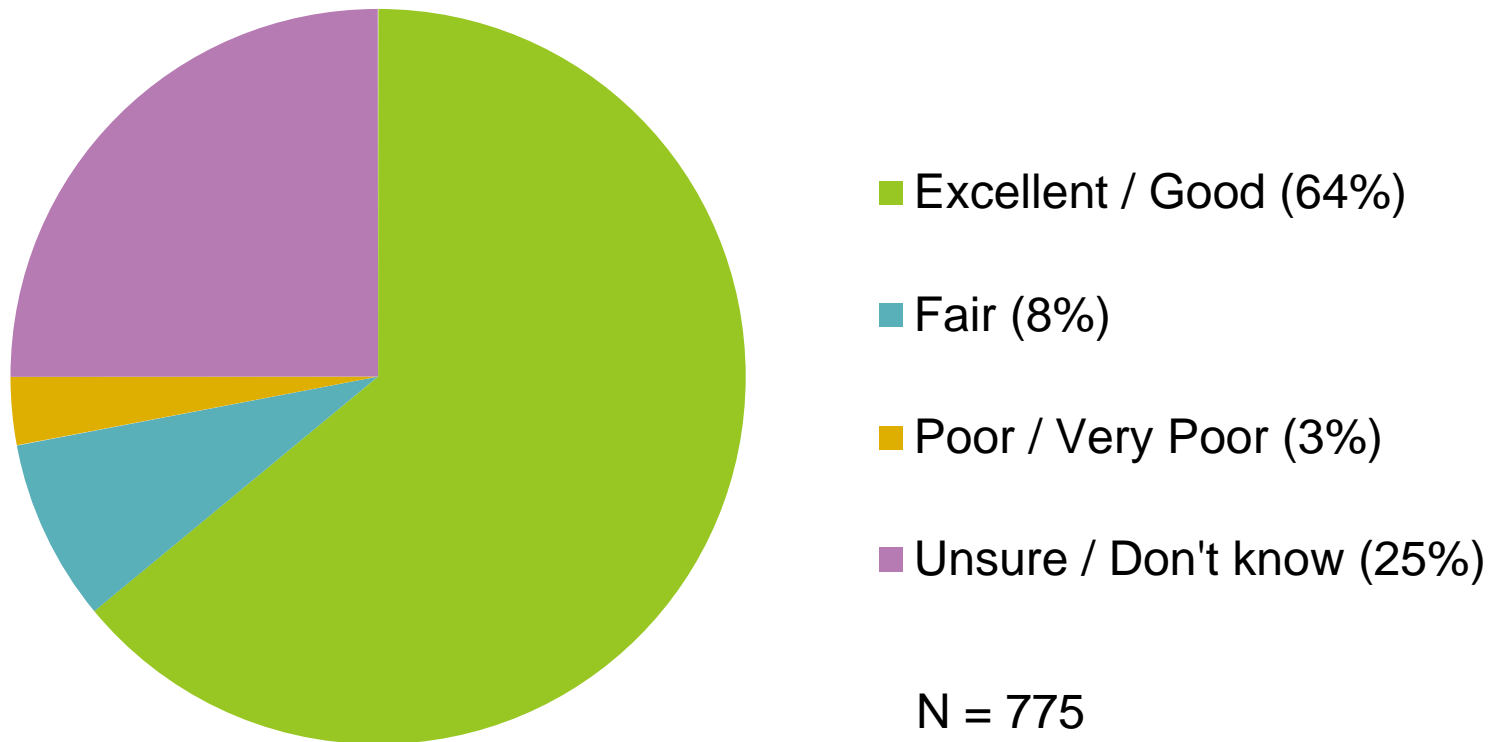
An aerial photograph of a modern residential complex. The buildings are multi-story with large glass windows and balconies. A marina with several sailboats is visible in the foreground. A blue semi-transparent overlay covers the middle of the image, containing the text 'THE FEEDBACK'.

# THE FEEDBACK

## Are you aware of the fire that occurred at Port Metro Vancouver on Weds, March 4th?



## Please rate the response of the City and first responders to the fire at Port Metro Vancouver



*I found out via Twitter but my parents and grandmother had no clue about the health hazard posed by the smoke.*

*How can the city reach more people during emergencies?*

*I was very impressed by the CoV's efforts at spreading the various messages over social media. It countered rumours quite effectively.*

*There wasn't sufficient information for special populations, or what to do if you were traveling through the neighborhood.*

*We as a community are very fortunate to have such a professional and well-trained team of first responders.*



# THE LESSONS

## Public Warning & Notification

- While effective, there are limits of social media
- Need to more directly reach out to ethnic media
- Instructional messages need to be simplified (Shelter in Place confused people)

## Risk Assessment

- Work with Port to assess risk of dangerous goods passing through
- Need access to rapidly deployable air monitoring equipment for a range of dangerous chemicals and closer coordination with VCH on air monitoring

## Response Coordination

- Further integration between public information teams at key organizations
- Ramp-up the response faster, including bringing in key partners immediately (ex: VSB and Translink)
- Ongoing coordination with neighboring municipalities

- Debrief process underway to deconstruct and improve our response, including:
  - Survey of public (complete)
  - Debrief with PMV and PMV partners (completed)
  - Debrief with CMT and VCH (ongoing)
  - EOC debrief (complete)
  - Debrief with partners, including VSB, Translink and others (upcoming)
  - Debrief with DTES community (upcoming)
  - Partner organization undertaking their own debriefs and reporting key findings to Emergency Management
- Immediate implementation of short term opportunities (underway).
- Compile after action report to summarize key actions and implement recommendations, including necessary updates to emergency plans.



# SUMMARY



- Implementation of three new plans was successful, but gaps identified for further work in the near term.
- Activating the Emergency Management Policy Group more quickly will support quicker action.
- Partners worked well together. The face-to-face coordination was critical (e.g. at EOCs), we will work to further define roles and responsibilities between Port and City.
- Wide-area air quality monitoring capabilities and understanding of dangerous goods moving through the port needs to be improved.
- Critical to get message out to public early and ensure public messaging coordination between all operating entities. Further work to refine Emergency Information Plan based on this experience, in particular with ethnic media.
- Debriefs underway with key partners and initiating implementation.