

Principles of Emergency Transportation Routes

**JELC/DRR Subgroup
For Regional Emergency Planning Committee
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Target Audience

- Those people and agencies responsible for organizing emergency transportation routes including Local, Regional, Provincial and District authorities, transportation agencies

Purpose

- To identify the interrelationship between Disaster Response Routes (DRRs), Evacuation Routes, and Transportation Routes for the Public during Emergencies
- To guide governments, authorities, and agencies on how to incorporate these principles into their response, evacuation, business continuity, and/or recovery plans according to British Columbia Emergency Response Management System (BCERMS)
- To integrate the above noted plans strategically and operationally with other agencies/municipalities ultimately leading to community linkages and coordinated regional multi-modal emergency transportation management

There are three components

- a. Disaster Response Routes
- b. Evacuation Routes
- c. Transportation Routes for the Public during Emergencies

In implementation, care should be taken to minimize the negative impact of any of the above components on each other.

Where possible, the multi-modal concept should be used to the maximum advantage in each component.

Principles of Disaster Response Routes

1. For the movement of emergency personnel and resources to the affected areas
2. For the movement of people for health emergencies by pre-identified emergency personnel from the affected areas
3. Can be activated by
 - a. a municipality or agency (e.g. University of BC, Vancouver Airport Authority (YVR)) if the DRR is road based and confined to one municipality or land base
 - b. the Provincial Regional Emergency Operations Centre (PREOC) in all other activations
4. Public are excluded from the DRR once activated
5. Resources required to clear and manage DRRs should come from the owner of the relevant section or portion of the DRR

6. Voluntary compliance by the public is key to successful implementation
7. All valid responders will be supplied with common, copyrighted identification allowing them access.
8. The designation of valid responders remains the responsibility of the individual organizations but will follow a common protocol
9. Traffic management strategies must be dynamic, coordinated, well communicated, and use all available information (status of congestion, status of roads, damaged structures, etc.)
10. Responders on DRRs and within muster zones will require resources (e.g. Fuel, water, medical attention, toilet facilities)

Principles of Evacuation Routes

1. Before deciding to evacuate, other courses of action must be considered such as staying at nearest safe location, shelter in place
2. Evacuation routes are event specific and are integral to a Hazard, Risk, and Vulnerability Analysis
3. Evacuations can be
 - a. Controlled – directions, routes, destinations and/or resources to make it happen are controlled by evacuation authority (may possibly use DRRs); evacuation are controlled if:
 - i. any restriction is placed on an evacuation
 - ii. collection points are in place for coordinating transportation out or reception centres
 - b. Uncontrolled - evacuees are advised to leave area of risk in any manner possible via any route possible
4. Evacuation routes should not be signed; however, in areas of chronic, predictable risk, the boundaries of that risk area can be signed (e.g. Tsunamis, go to higher ground)
5. Evacuation routes are scaleable, flexible, and dynamic; e.g. How one goes from a two-way to a one-way evacuation route
6. Terminology for evacuations should be consistent with accepted provincial standards, being Alerts, Orders, Rescinds
7. Easy access out, controlled access in
8. Prioritize evacuees – people at risk (special protocols), general public, livestock
9. Phase evacuations – special needs, notification in phases – preparedness (transport companies (Coast Mountain) before/at same time as evacuation alert)
10. Pre-determined communication plan
11. Point of access for communication
12. Coordination of implementation between municipalities
 - evacuation in one municipality may compromise evacuation or use of DRRs (including highways) in that or another municipality
13. Evacuees on evacuation routes may require resources (e.g. Fuel, water, medical attention, toilet facilities)

Principles of Transportation Routes for the Public during Emergencies

1. There is a time element associated with this principle covering the following activities:
 - a. initial response (including moving people back to their communities)
 - b. business continuity for industry and commerce
 - c. recovery of the entire region
2. To encourage the cessation of unnecessary travel
3. To encourage the use of high occupancy vehicles for mass transportation
4. There is a need to pre-plan and establish transportation options for the public during emergencies prior to activating DRRs or Evacuation Routes
5. Pre-identified alternate routes and collection points
6. Options should move people to their desired destinations in a controlled manner in order to redirect traffic away from DRRs and evacuation routes
7. Activate the most suitable routes and collection points for the public at transportation hubs

Development of a Communication and Education Strategy

The Communication and Education Strategy that needs to be developed must include internal (notification), public (alerting), and media communications. All three sectors should be given information on these principles as early as possible. There must be consistent, clear, concise messaging which may change depending on whether it is broadcast prior, during, or after the event.

This strategy is applicable to all three route types, acknowledging there will need to be more emphasis on evacuation routes.

More information on communication and education strategies can be gained from:

- Information Officers
- Emergency Plans
- Emergency Information Response Plan (JELC)
- Evacuations Plan
- Crisis Communications Plan
- BC Operational Guidelines for Evacuations, 2005
- Justice Institute of BC Emergency Evacuation Course Materials
- Emergency Legislation and Hazard Specific Regulations

Characteristics of Emergency Transportation Routes

Route Classification Guide			
CHARACTERISTICS	DRR	Evacuation	Emergency Public Transportation
Responder Use	Yes	No	Yes
Route Capacity	Low	High	High
Collection Points (Public)	Possible	Yes	Yes
Muster Points, Muster Zones (Responders)	Yes	Possible	No
Gathering Points (Public)	No	Possible	Possible
Controlled Traffic Flow	Yes	Possible	Possible
Multi-modal	Yes	Yes	Yes
Public Information Required	Yes	Yes	Yes
Public Education Required	Yes	Yes	Yes
Responder Information Required	Yes	Yes	Yes
Responder Education Required	Yes	Yes	Yes
Service Provider Information Required	Yes	Yes	Yes
Service Provider Education Required	Yes	Yes	Yes
Federal Regulations Apply	?	?	?
Provincial Regulations Apply	?	?	?
Municipal Regulations Apply	?	?	?
WCB Regulations Apply	?	?	?
Pre-signed Routes	Yes	No	No
Pre-allocated Passes/Identification	Yes	No	No
Coordinating Body	LGB PREOC	LGB PREOC	LGB PREOC
Predominant Traffic Flow	In/out of incident	Out of risk area	Multi directional
Plan Required	Yes	Yes	Yes

Coordinating Body

The nature of the event will determine the actual response protocol. Local authorities are responsible for events within their jurisdiction potentially supported by mutual aid with a neighbouring jurisdiction and can activate road DRRs. For all other events, PEP will initiate or facilitate coordination and activation of emergency transportation strategies (all modes) and facilitate the use of the Federally regulated modes (air, rail, marine).

Next Steps

- To formulate a template for evacuation plan using two other documents JI Principles of Emergency Evacuation, PEP Guidelines, results of DRR workshop on strategies, review literature from Katrina

Glossary of Terms

Collection Point

- A designated location at which people can gather to access transportation out of a disaster area

Disaster Response Route

- A predefined, identifiable route capable of withstanding natural disasters
- Used in a post disaster situation for the movement of personnel and resources

Evacuation Alert

- An evacuation alert is a notification of danger in the area. Evacuation alerts are issued to advise the population at risk of the potential for loss of life from a hazard, and that they should be prepared to evacuate

Evacuation Order

- An Evacuation Order will only be issued by authorities having jurisdiction in response to imminent potential of loss of life or injury because of any potential danger to the population at risk, the residents, in the affected area. These orders are issued in the interest of life safety. Members of the RCMP, Search and Rescue, Fire Departments, and the Local Authorities may be involved in expediting that action through door to door contact, the electronic media, etc.

Evacuation Rescind

- When the emergency which necessitated the evacuation is under control and the hazard/ emergency zone is declared safe (habitable), a Rescind of the Evacuation Order should be implemented. This procedure should advise the population at risk that the danger may reoccur and that an Alert or Order may be reinstated.

Evacuation Route

- A designated way of travel, by which one or more persons (and/or animals such as pets or livestock) leave a specific area they are occupying, to avoid a real or potential threat, in order to reach a safe area

LGB

- Local governing body

Muster Point

- A location at which responders, roll-on/roll-off traffic, or freight can assemble for the purpose of further transportation during a response to a disaster

Muster Zone

- A designated set of muster points within a radius of 1 kilometre at which responders, and/or response roll-on/roll-off traffic, or freight can assemble for the purpose of further transportation during a response to a disaster

PREOC

- Provincial Regional Emergency Operations Centre

Route

- The transportation course, way, or road for passage or travel that (emergency) traffic takes, or could take, from its source to its destination

Shelter in Place (SIP)

- Protective actions taken to mitigate the effects of a hazardous materials incident when evacuation may not be safe. SIP uses a structure and its indoor atmosphere to temporarily separate people from a hazardous outdoor atmosphere.
- When told to Shelter in Place, a person should:
 - Go indoors immediately and stay there
 - Close all doors, windows, fireplaces dampers, vents or other openings
 - Turn off furnace, air conditioners and exhaust systems
 - Shelter in one room
 - Listen to the radio or TV for more information.
- Further details on how to SIP can be found at <http://www.nicsinfo.org/index.htm>

Traffic

- The movement of vehicles, ships, persons, etc., in an area, along a street, through an air lane, over a water route, etc.

Transportation Routes for the Public during Emergencies

- Routes to move one or more persons (and/or animals such as pets or livestock) to their desired destinations in a controlled manner in order to redirect traffic away from activated DRRs and evacuation routes