BAY OF PLENTY EMERGENCY MANAGEMENT GROUP

Bay of Plenty Civil Defence Emergency Management Alerting and Communications Systems Strategy

2013

Bay of Plenty Civil Defence Emergency Management Alerting and Communications Systems Strategy

Civil Defence Publication 2013/02
ISSN: 1175 8902 (print)
ISSN: 1179 9560 (online)

July 2013

Bay of Plenty Civil Defence Emergency Management Group
C/O Bay of Plenty Regional Council
5 Quay Street
PO Box 364
Whakatāne 3158
New Zealand

Contents

1 Strategy Overview

The purpose of the Alerting and Communications Systems Strategy is to clearly define the principles around the adoption and implementation of emergency alerting and communication systems.

The Bay of Plenty Civil Defence Emergency Management (CDEM) Group vision is the ownership of an effective communications and alerting system. This system should enable responding agencies to alert and communicate with audience groups, establish command and control, maintain situational awareness, manage the emergency response and function under a common set of operating procedures.

Depending on the nature of the event and audience group, varying communication mechanisms and levels of engagement will be required. However, there is no single system, message or communication level that will meet every need. Therefore, the Strategy will clearly define the criteria for the adoption and implementation of a suite of systems.

2 Aim

Enhanced emergency response capabilities through the effective implementation of alerting and communications mechanisms and systems.

3 Strategic Objectives

The aim of enhancing emergency response capability to be achieved through three strategic objectives:

1 Identify, implement and maintain a suite of effective alerting and communications mechanisms and systems.

2 Establish and coordinate an alerting and communications systems training and exercise programme for target audience groups.

3 Effectively alert and communicate with relevant target audience groups during emergency events.

4 System Principles

When assessing the capability of new or current communication systems, it is essential that certain baseline criteria are used in order to determine their suitability. The following key principles shall be used to assess the suitability of communication systems.

4.1 Reach Target Audience

As part of a comprehensive suite, the system should be able to effectively alert or communicate with target audience groups.

4.2 Resilient

The individual systems shall be robust and resilient. However the overall suit of systems must incorporate backup systems and capabilities to ensure provision of communications.

4.3 Easy to Operate

Any system should be user friendly any easy to operate by all staff required to use it.

4.4 Cost Effective

Any system should be financially cost effective and cognisant of on-going resources required to maintain and operate.

4.5 Use Multiple Channels

The overall suite of systems must be able to effectively alert or communicate through a variety of means.

4.6 Operate Remotely

The ability to remotely access and operate is essential to ensure that warnings can be issued and communication maintained.

4.7 Interoperable

Where possible, systems should be able to share and exchange information between each other.

5 Situation

The Bay of Plenty's natural and built environment is rich and diverse, but with that comes a significant risk of hazards. In the event of an emergency, a key factor in enabling a successful response effort is the ability to alert and communicate. Communications mechanisms currently utilised in the Bay of Plenty include sirens, SMS, email and websites, radio and television, phone and word of mouth. The variety of mechanisms facilitates information dissemination across a number of audience groups but lacks the needed speed and reach that enables a timely and successful response during major emergencies.

The current solutions and protocols in place are disjointed, inconsistent and uncoordinated between BOP CDEM, partner agencies and key stakeholders at the local and regional levels resulting in a lack of interoperability and response effectiveness.

To strengthen emergency response capabilities in the Bay of Plenty, there needs to be a unified approach for addressing emergency communications.

6 Strategic Approach and Direction

6.1 Objective 1 - Identify, implement and maintain a suite of alerting and communications mechanisms and systems.

6.1.1 Understand the target audiences

It is essential that all systems implemented need to be end-user focused. Difficult-to-access and high complexity systems discourage use and add unnecessary obstacles in an emergency situation. It is therefore essential that we implement tools that enable operational ease of use for all relevant personnel to ensure optimal response capability.

6.1.2 Implement relevant, robust and accessible systems

Emergency communications systems must demonstrate the capability to issue alerts and critical information through a variety of channels while also confirming successful message delivery in real time. The primary communications systems must also ensure information security, an offline mode and suitable data backup facilities.

Due to the nature of Emergency Management, it is essential that resilient communication and alerting systems are established. The limitations of each technology must be identified and the provision of additional or backup systems, which can function in the case of operation or infrastructure failure, must be implemented.

Systems that are interoperable and require access from various physical locations should have the ability to stand alone, independent and non-reliant on access or availability of any individual agency's internal network. Relevant personnel should be able to access and operate primary emergency communications systems from any location and in a timely manner.

6.1.3 Integrate new and existing systems

Both emerging and existing technologies are required to meet communication needs. Evaluation of the current BOP CDEM communications tools alongside the investigation of emerging technologies needs to be done in order to integrate both new and existing assets into an overall effective suite of emergency communications tools.

Special attention needs to be given to how emergency communications will integrate into an overall emergency management structure, with both systems and operational protocols clearly defined.

6.1.4 Meet short and long term needs

BOP CDEM Group will drive long-term development of emergency communications through strategic planning, appropriate resourcing and a multi-agency approach.

Shared services capability of systems between BOP CDEM related agencies and their non-emergency management departments need to be considered in efforts to increase local and regional government efficiencies and effectiveness.

6.1.5 Budget and Resources

Adequate resources and planning need to be put into place to cover not only the initial system and equipment investment, but also the entire life cycle including operations, testing, exercising and maintenance. Aligning BOP CDEM Group goals and priorities, the appropriate funding and resources will be made available to investigate, implement, and maintain emergency alerting and communications systems.

6.1.6 Maintain systems

Maintenance is crucial to assuring alerting and communications readiness in the event of emergency. Regular support, maintenance, monitoring and testing of each system is required.

6.2 Objective 2 – Establish and coordinate an alerting and communications system training and exercise programme for target audience groups.

A regular training and exercise schedule needs to be established and tailored for the audience groups according to their specific functions in an emergency event. However, thought should be given to including these schedules into the CDEM group training strategy. Exercise scenarios should vary over time to cover communications protocols relating to the key Bay of Plenty hazards. Any systems issues identified during training and exercises must be addressed and resolved where possible by the appropriate administrator.

6.3 Objective 3 - Effectively alert and communicate with relevant target audience groups during emergency events

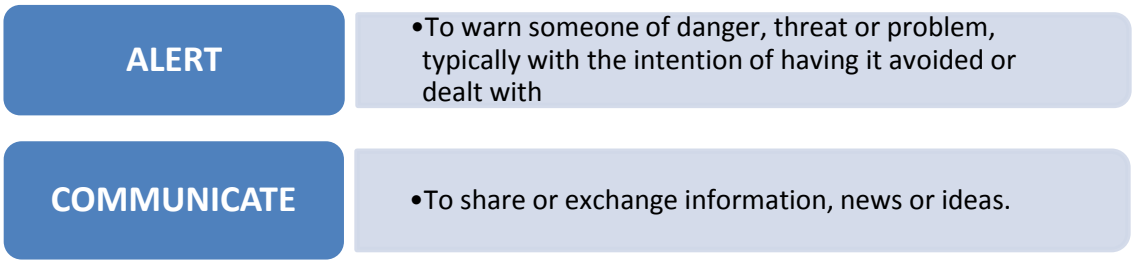
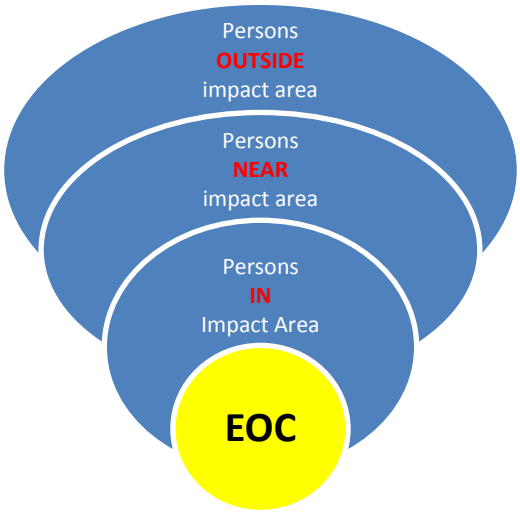


Figure 1 – Definitions

6.4 Identify target audience groups

Each emergency event has a specific communications requirements based on the target audience groups. Some events call for mass notification to everyone by employing all systems to all audiences. Other events require a more targeted approach to a more defined audience.

Audience groups are defined by geographic location or by sector type. Implement a suite of systems that can effectively alert and communicate with each target audience where possible.



Figures 3 and 4 – Audience Groups

Audience Groups by Geographic Location **Audience Groups by Sector**

7 Evaluation

On-going evaluation of systems in conjunction with target audience needs will occur through research and testing of modern technologies, regular systems training and monitoring and consultation through community engagement.

8 Application of Strategy

Implementation will begin through the review of existing systems in line with the principles outlined within the strategy. This review will allow for the Identification of deficiencies and vulnerabilities in current working systems and identify areas for development. Any new systems will be assessed to ensure that they correspond to the system principles before adoption and implementation.