

4 STRATEGIC SECTION

This section of the CDEM Group Plan, deals with the strategic issue of building community resilience to manage and respond to emergencies. The strategic framework for how the CDEM Group and the other organisations included in this structure will operate is also outlined. Activities and measures that are required to improve the resilience of all the people living in Hawke’s Bay are identified.

4.1 Vision for civil defence emergency management in Hawke’s Bay

The vision of the Hawke’s Bay Civil Defence Emergency Management Group is:

“A resilient Hawke’s Bay community.”

Resilience describes a capability for “bouncing back”, adapting or being able to sustain (normal) activity following exposure to adverse events. Therefore a resilient Hawke’s Bay community is one in which normal social and economic activity will return within the shortest possible time following an emergency. To meet this vision, Hawke’s Bay will need:

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|-----------------------------|---|---|
| Relate to Goal one | { | <ul style="list-style-type: none"> • A strong community spirit within which communities work together to ensure their safety; • Sound integrated planning, which has resulted in risks being reduced to acceptable levels; |
| Relate to Goal two | { | <ul style="list-style-type: none"> • Everyone to accept responsibility for reducing risk and being prepared; • Businesses with well rehearsed business continuity plans that safeguard both people and business income; • Community organisations with capability to deal with unexpected events; |
| Relate to Goal three | { | <ul style="list-style-type: none"> • People who know what to do and help each other in the event of an emergency; • The capacity for rapid well coordinated and effective response to, and recovery from, an emergency; and • To recognise the critical role civil defence emergency management plays in assuring our safety and prosperity. |

Everyone therefore has a role to play in building a resilient Hawke’s Bay community.

Achieving the CDEM Group’s vision also contributes to a number of the community outcomes identified in 2004. These are:

- A strong, prosperous, and growing economy;
- Communities that value and promote their unique culture and heritage;
- Strong regional leadership and a sense of belonging;
- Supportive, caring and inclusive communities;
- Safe and secure communities;
- An environment that is appreciated, protected, and sustained for future generations.

4.2 Principles of civil defence emergency management

A framework for civil defence emergency management

The Civil Defence Emergency Management Act establishes a framework for civil defence emergency management aimed at implementing change to build resilient New Zealand communities. To achieve this the CDEM Group, emergency services, and other organisations need to integrate their planning, programmes, and activities related to civil defence emergency management. The CDEM Group has a responsibility to encourage and enable communities to achieve acceptable levels of risk and plan for reduction, readiness, response, and recovery matters (the 4Rs) in relation to the hazards that the Hawke's Bay community faces. This Plan sets out how this is to be achieved.

In order for this to occur it is essential that emergency management be based on the following three basic principles:

4.2.1 Regional Capability

There are two key elements to building capability, these are:

1. *Reduction of Vulnerability*

The environment and communities need to be made more resilient to the impacts, losses and disruption from hazard events.

Reduction of vulnerability needs to be a part of normal business and community planning, i.e. it is not something done by "the emergency management people", but is an integral part of core decision-making on where and how to construct and operate businesses, communities, buildings and facilities.

2. *Ability to Respond and Recover*

Despite 'reduction in vulnerability', extreme events will occur. Communities need to be able to withstand these events (this means being prepared for, responding to, and recovering from them). Contingency plans (about how to survive and maintain essential operations) and longer-term redevelopment plans are required, and should be in place before a disruptive event occurs.

4.2.2 Sustainability

It is important that any comprehensive emergency management activities and decisions (especially mitigation and recovery) are based on the principle of sustainability. Planning of communities should be based on

a long-term strategy that takes account of the consequences of the hazards and vulnerabilities present. Mitigation activities that are undertaken without this long-term perspective may, while decreasing risk in the short term, actually increase it in the long term.

4.2.3 Community Management and Partnerships

There are five elements to this:

- a) Management of risk at an appropriate level. Communities, businesses, and individuals need to accept that they have responsibility for managing their risks. This includes, for example:
 - i. Communities (rather than "government") being responsible for consequences of their planning and other decisions i.e. for their own action or inaction.
 - ii. Individuals and businesses being responsible for costs of those consequences (e.g. insuring property or deciding to carry the risk themselves).
- b) A co-operative approach involving a partnership between all relevant stakeholders co-ordinated by local government agencies (via CDEM Groups) at local level and the Ministry of Civil Defence & Emergency Management at national level.
- c) Informed decision-making. Communities will effectively be making decisions about which consequences they choose to eliminate or reduce, and which they will accept. There needs to be full public disclosure of relevant information and decisions and opportunity for public input into decision-making at the community (local government) level and the national level.
- d) Comprehensive national, regional and local planning should incorporate both emergency management and community outcomes and national goals, taking into account hazards and associated vulnerabilities as well as wider social and economic issues when making, planning or development decisions.
- e) The complexity of emergency problems raises the need for an 'inter-disciplinary' approach to decision-making. Emergency managers, planners, developers or others cannot make decisions that have implications for community design, development and ultimately continuity, in isolation.

4.3 Operating Principles

There are three key concepts or principles that provide the basis for how the Group will function. They are:

- a) Comprehensive Emergency Management;
- b) Risk Management; and
- c) Integrated Emergency Management.

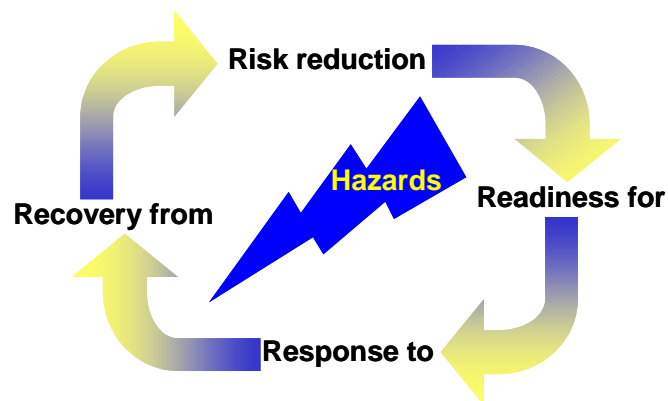
4.3.1 Comprehensive Emergency Management

Comprehensive emergency management is a way of fitting together the elements of emergency management into an inclusive framework encompassing all hazards and levels of government and the private sector.

There are four components to emergency management: risk reduction, readiness, response and recovery. It applies a comprehensive all-hazards and all-risks approach to each activity, which is seen as a continuous and ongoing cycle:

Figure 4: The 4Rs of CDEM

The 4Rs in civil defence emergency management



- **Risk reduction:** activities that reduce the degree of long-term risk to human life and property arising from natural and man-made hazards. Identifying and analysing long-term risks to human life and property from natural and man-made hazards; taking steps to eliminate these risks where practicable, and where not, reducing the likelihood or consequences of their impact.
- **Readiness for:** activities that develop operational capabilities for responding to an emergency, including programmes that enable the public to develop appropriate self-help preparedness and response measures.
- **Response to:** activities undertaken immediately before, during, or directly after an emergency that can save lives, minimise property damage, or improve recovery.
- **Recovery from:** activities that address the immediate problems of stabilising the affected community, assessing the needs of the community, and coordinating resources. Recovery programmes extend into longer-term actions for community rehabilitation and restoration. This restoration needs to have a reduction focus i.e. it is important that a community is not re-built, remaining vulnerable to the same hazards.

4.3.2 Risk Management

Risk management is a process for ensuring that decisions about risk enable individuals, organisations, and communities to minimise loss and maximise opportunities. This means:

- a) Identifying and considering all aspects of risk (social, political, economic, and physical) from all hazards.

- b) Determining acceptable risk levels.
- c) Balancing costs and benefits of options to address risks.
- d) Developing, agreeing on, and implementing ways to minimise potential damage and disruption.

This is achieved through a logical and systematic process of identifying, analysing, assessing, addressing, monitoring and communicating the risks arising out of natural and man-made hazards.

4.3.3 Integrated Emergency Management

Integrated emergency management is horizontal integration (co-operation and co-ordination) between relevant agencies and vertical integration within those agencies to ensure the effective and efficient use of resources.

Relevant agencies are Central Government, local government, emergency services, engineering lifelines utilities and relevant voluntary and private sector groups.

4.4 Functional requirements of the CDEM Group

The Civil Defence Emergency Management Act in section 17 requires the CDEM Group and each of its members to carry out the following functions:

- Identify, assess, and manage hazards and risks;
- Consult and communicate about risk;
- Identify and implement cost-effective risk reduction;
- Maintain and provide suitable trained and competent personnel and an appropriate organisational structure for effective civil defence emergency management;
- Maintain and provide material, services, information and any other resources for effective civil defence emergency management;
- Respond to and manage the adverse effects of emergencies;
- Carry out recovery activities;
- When requested, assist other Groups;
- Promote and raise public awareness of the Civil Defence Emergency Management Act;
- Monitor and report on compliance with the Act;
- Develop, approve, implement and monitor a Civil Defence Emergency Management Group Plan;
- Participate in the development of the National Civil Defence Emergency Management Strategy and National Civil Defence Emergency Management Plan; and
- Promote civil defence emergency management in its area.

Arising from these statutory functions, the consequences of the identified hazards, and the activities identified to build resilience, there are a number of strategic issues to address. These are:

- Determine how best to manage the risk of hazards;
- Develop a consultation strategy that informs local communities on the risk of hazards, civil defence emergency management generally, and raises public awareness of the requirements of the Act.
- Develop appropriate organisational structures and agreed minimum standards of service delivery for civil defence emergency management for all civil defence organisations;
- Develop effective training programmes so that all people involved in responding to an emergency know what to do;
- Develop contingency plans for the consequences of the priority hazards;
- Business contingency plans need to be developed by all businesses and organisations;
- Develop recovery plans;
- Develop systems for monitoring compliance with this Plan, the Act, and other relevant legislation; and
- Develop systems to determine that the implementation of the Plan is being effective.

While the CDEM Group is primarily responsible for ensuring these matters are implemented, many organisations and businesses also have a responsibility in achieving the successful outcome of developing a resilient Hawke's Bay.

4.5 Working with the community

The Hawke's Bay CDEM Group will, by taking account of the principles of emergency management, and implementing its functions: endeavour to develop a safe and sustainable environment where the public and infrastructure of Hawke's Bay are best able to coexist with the natural and technological hazards.

Responding to and recovering from the effects of hazards is a community issue. Communities need to be aware of the hazards that have the potential to affect their area and the potential consequences of them. Only then will individuals and communities have the ability to plan appropriately to respond and recover from a hazard event.

This will require the CDEM Group to continue a program of community education and engagement to ensure that the people of Hawke's Bay are aware, consulted, and accept the level of residual risk they are exposed to.

The development of programs to allow appropriate consultation with the communities relies on the CDEM Group having a sound understanding of the hazards and their impacts.

4.6 Organisations included in the CDEM Group structure

The following are identified as having an obligation to participate in and contribute to the development of a resilient Hawke's Bay community:

CDEM Group Members (Central Hawke's Bay, Hastings, and Wairoa District Councils, Napier City Council, and Hawke's Bay Regional Council)

Objective

To provide the organisational arrangements and services to ensure that the residents and visitors of Hawke's Bay enjoy a safe and sustainable environment. To deliver the services required of it, as identified in this Plan.

Hawke's Bay District Health Board

Objective

The provision and co-ordination of health services for the people of Hawke's Bay. Delivering the right care in the right place at the right time and by the right people.

Engineering Lifelines Utility Organisations (See Glossary for list)

Objective

Plan and work co-operatively across sectors in order to be able to function at the fullest possible extent during and after an emergency (ref. Section 57 Civil Defence Emergency Management Act 2002).

Ministry of Social Development

Objective

The management of welfare services, and where practical the provision of services identified in this Plan.

NZ Fire Service

Objective

To control, contain & extinguish fires. To control, contain & neutralise hazardous substances. Provide personnel & equipment to enable rescue of persons trapped. Where practical the provision of services identified in this Plan.

NZ Police

Objective

The maintenance of law and order and where practical the provision of services identified in this Plan.

Rural Fire Authorities (Bay Forests; Department of Conservation; Central Hawke's Bay, Hastings, & Wairoa District Councils; Napier City Council; and the Eastlands Rural Fire Authority.)*Objective*

The management of the rural fire risk and where practical the provision of services identified in this Plan.

St John*Objective*

To contribute to health services in Hawke's Bay by the provision of first response emergency care and a medical transport capability.

4.7 Reduction activities

Reduction activities are defined as those measures, which can reduce the frequency or the consequence of a hazard, thereby reducing the risk that a community faces from that particular hazard. Reduction strategies therefore include: public education; implementing building codes; having disaster insurance; appropriate land-use management; building use regulations; risk mapping; safety codes; and hazard identification, analysis and assessment.

Therefore the CDEM Group, by undertaking its statutory obligations and conducting civil defence emergency management activities in accordance with the principles and risk management strategies as outlined in this section, shall be undertaking the reduction activities necessary to work towards its vision.

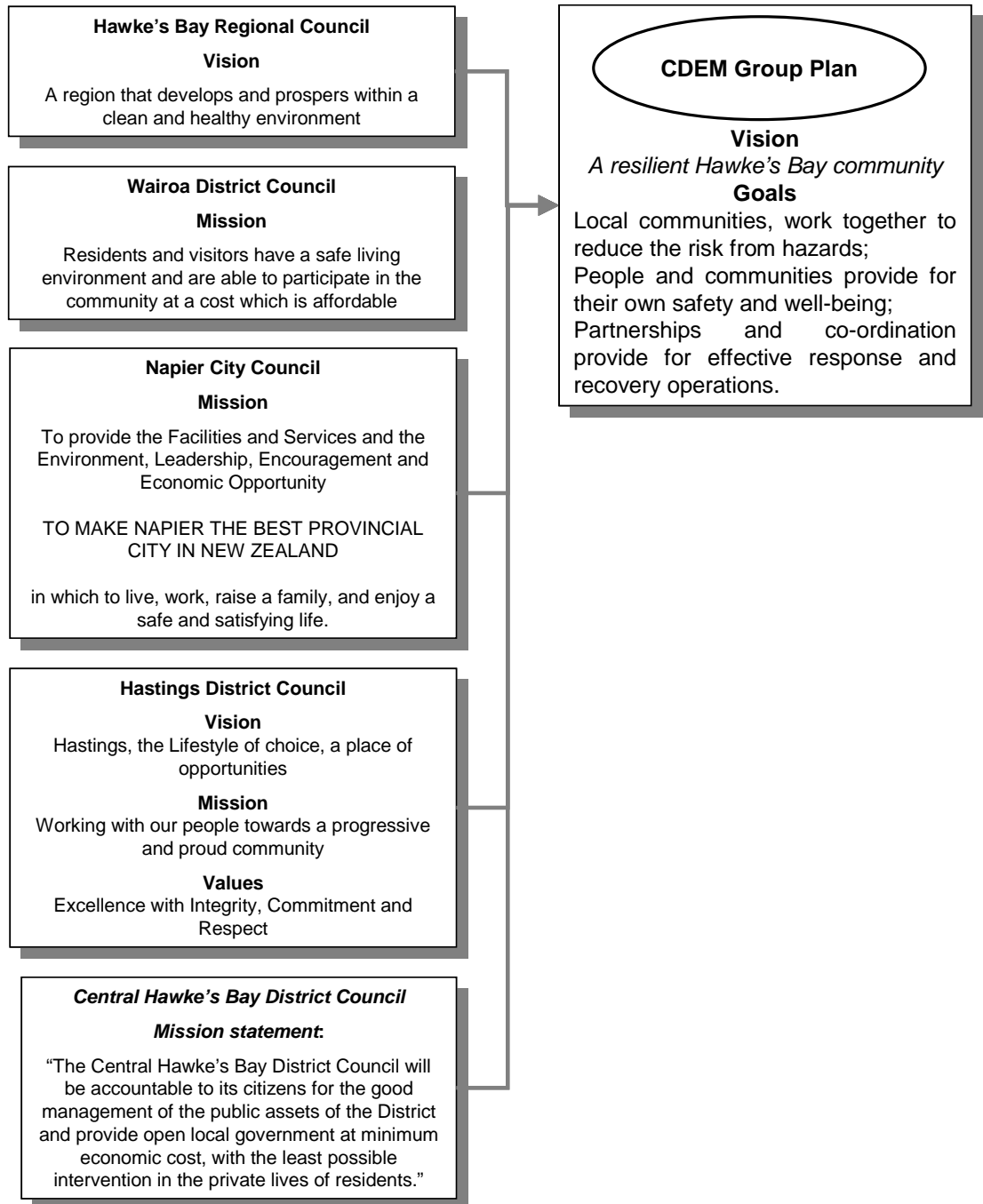
Details of mitigation measures that each council will undertake during the life of this Plan are included in each Council's Long Term Council Community Plan and its Annual Plans.

4.8 Planning relationships

This CDEM Group Plan has set out a clear vision and goals for the improvement of all Hawke's Bay communities. The following diagrams show how the various organisations that have a direct role in civil defence emergency management within Hawke's Bay are aligned with the vision and goals adopted by the CDEM Group.

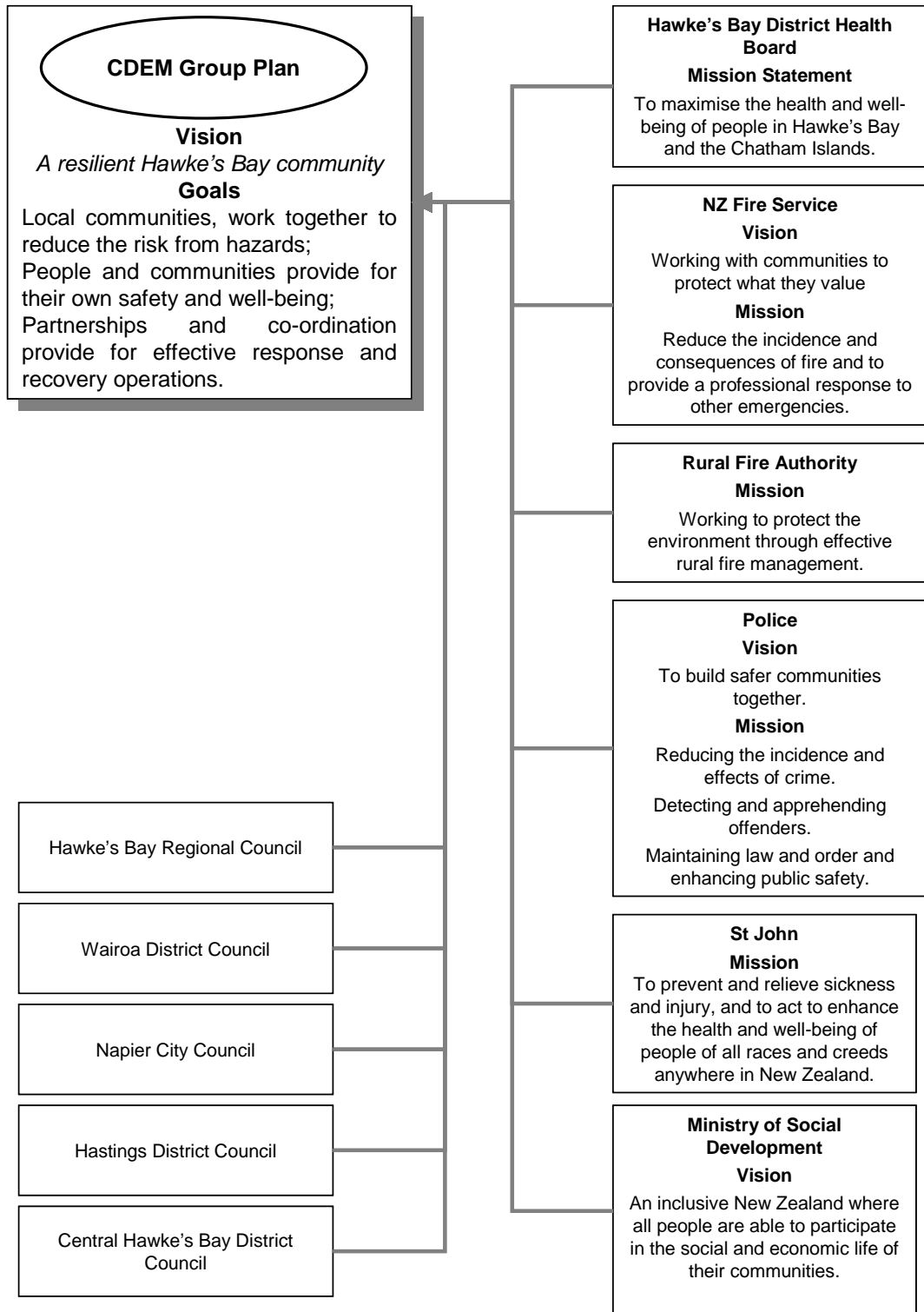
The Ministry of Civil Defence and Emergency Management, while not a member are an observer for all Co-ordinating Executive Group meetings, and provide advice and technical assistance to the Co-ordinating Executive Group.

Figure 5: Relationship of CDEM Group members to CDEM Group Plan outcomes



Note: The vision and mission statements for each city, district and regional council were obtained from their 2002/03 Annual Reports.

Figure 6: Relationship of CEG members to CDEM Group Plan outcomes



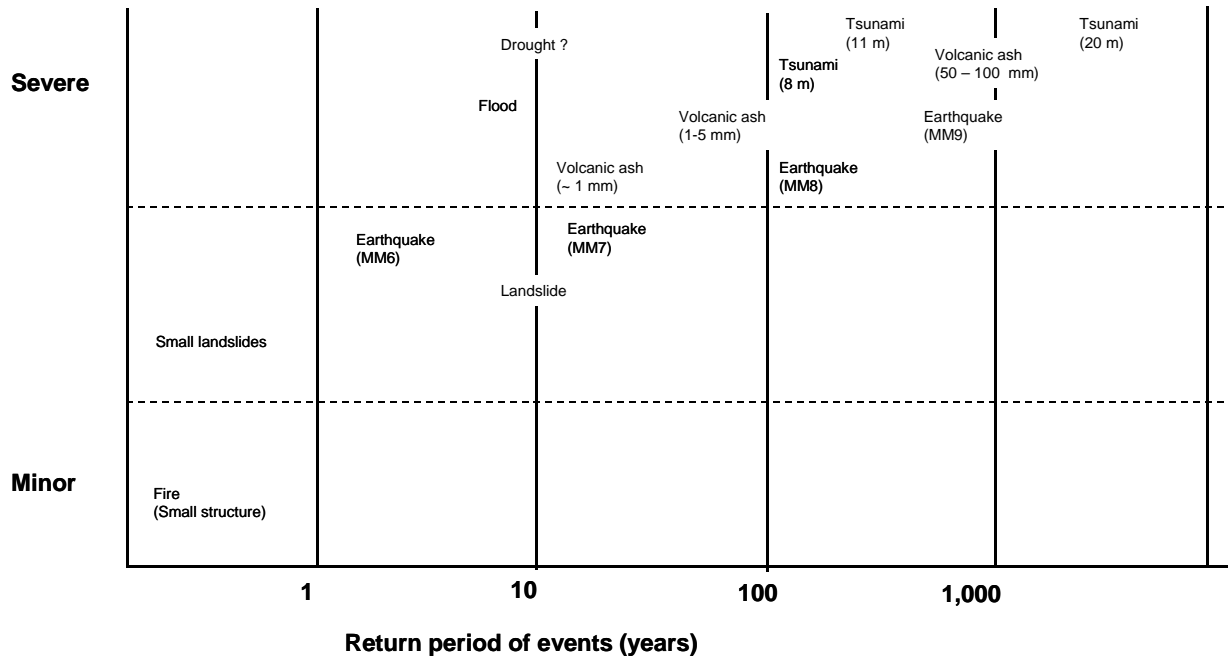
Note: The Vision and mission statements for the Co-ordinating Executive Group members were taken from each organisation's website or official publications and were correct as of February 2004.

4.9 Hazards and consequences

The city, district, and regional councils in Hawke’s Bay have a good understanding of the natural hazards that have the potential to impact the communities of Hawke’s Bay. The assessment of hazards was able to draw upon the results of natural hazard research that city, district, and regional councils have commissioned and the results from the HB Engineering Lifelines study that was completed in 2001.

In 2001 Hawke’s Bay Regional Council asked the Institute of Geological & Nuclear Sciences Limited (GNS) to review the impacts of all natural hazards in Hawke’s Bay. From the results of that work GNS were able to produce the following diagram.

Figure 7: The relative impacts of hazards of similar return periods in Hawke's Bay



As noted in section 2.1 Hazardscape (page 4) more detailed information on the hazards that can impact Hawke’s Bay can be found in the Annex 1: Hazard Summary, or in the *Hazard & Risk Analysis Report*.

The Directors Guidelines (DGL 2/02) for CDEM Groups sets out the methodology for CDEM Groups to use when assessing hazards. These procedures were used to evaluate the risks of the hazards that have the potential to impact Hawke’s Bay. The hazards listed in priority are shown in Table 2.

The consequences of a hazard, which contribute to its level of risk, will depend on three factors, these are:

- The particular characteristic of the hazard;
- The vulnerability of the community; and
- The resilience of the community.

Table 2: Hazards for Hawke's Bay

Description of hazards	Priority
Earthquake (includes liquefaction) Human pandemic / infectious diseases Flooding / heavy rainfall Fire involving hazardous substances Electricity failure Pests or diseases affecting agriculture, forestry, or horticultural Local Tsunami Rural Wildfire Hazardous chemical incident (release of fumes)	1
Coastal erosion Drought:- impacts on horticultural production Environmental pollution over unconfined aquifer Fire – urban (multiple) Hazardous chemical incident:- Spillage (including transport accident) Volcanic ash fall Drought: - impacts on agricultural production Dam failure Snow storm Environmental pollution into waterway Engineering Lifelines utility failure: - Fresh water Telecommunications failure	2
Serious soil erosion/landslide Coastal storm swell Hail strike Strong winds or Tornado Impact from space debris, meteorites, comets Water reservoir failure Sea level rise Distant Tsunami Computer systems failure Gas utility failure Major air transport accident Waste water and sewage utility failure Major sea transport accident (including oil spill) Major road transport accident Soil Subsidence Bridge failure Major transport accident Rail	3

The hazards with a priority one ranking are those with the highest probability of causing a significant impact on Hawke’s Bay, they are therefore the main focus of this CDEM Group Plan.

In considering the priority one hazards, the major immediate consequences of their impacts on Hawke’s Bay are:

- The potential loss of life or serious injury to people,
- The destruction or damage to property – buildings, infrastructure, crops etc; and
- The need to evacuate people to safety at short notice and the general distress of the public caused by the event;

Therefore to respond to and manage these consequences:

- Emergency services need systems in place to deal with the dead and treat the injured;
- Businesses, organisations, and individuals need the financial wherewithal to cope with unexpected loss and re-build; and
- Emergency services and civil defence emergency management organisations need systems in place to respond quickly to the need to evacuate people to safety and to care for people’s welfare needs associated with the event.

The other significant observation is that five of the top nine hazards are managed by legislation other than the Civil Defence Emergency Management Act. The controlling legislation is shown in the following table.

Table 3: Controlling legislation for hazards

Hazard	Controlling legislation
Human pandemic	Health Act 1956
Fire involving hazardous substances	Fire Service Act 1975
Pest and diseases affecting agriculture, forestry, or horticultural	Biosecurity Act 1993
Rural wildfire	Forest & Rural Fires Act 1977
Hazardous chemical incident	Hazardous Substances and New Organisms Act 1996

4.10 Hazards of National Importance

There are several hazards in Table 2, that have the potential to affect a greater geographically area than Hawke’s Bay, or their impacts and consequences could impact more than one CDEM Group area at the same time. For these reasons the Hawke’s Bay CDEM Group believes the following hazards are of national importance:

- Earthquake (includes liquefaction);
- Human pandemic/ infectious disease;

- Electricity failure;
- Pest or disease affecting agriculture, forestry or horticulture;
- Hostile acts, war, insurrection, nuclear / biological / chemical threat;
- Volcanic ash fall;
- Drought;
- Criminal acts, civil disturbance, terrorism, cyber-terrorism, vandalism;
- Impacts from space debris, meteorites, comets; and

4.11 Measuring resilience in Hawke's Bay

A number of measures need to be developed and monitored during the life of this Plan to monitor the effectiveness of it and its implementation.

There needs to be a clear understanding of the inputs required to develop resilience, but there also needs to be measures of the effectiveness of these inputs.

Some key measures would be:

- Having clear roles and reporting lines in all the organisations involved with civil defence emergency management in Hawke's Bay;
- Having effective business continuance planning for key Hawke's Bay employers;
- A demonstrated improved understanding, by the public of potential risks and a measure to demonstrate that the greater understanding has lead to appropriate action to improve resilience.

The members of the Co-ordinating Executive Group will monitor their compliance with the requirement of this Plan and the associated legislative requirements and report on a regular basis to the CDEM Group on the results. Further details on Plan monitoring are provided in section 10.8 Group Plan Monitoring & Review (page 78).

5 GOALS, OBJECTIVES, ACTIONS & TARGETS

5.1 The goals of the HB CDEM Group

The CDEM Group has developed three goals, to assist in the achievement of its vision. The goals are:

- 1. Local communities, work together to reduce the risk from hazards.**
- 2. People and communities provide for their own safety and well-being.**
- 3. Provision of effective response and recovery operations.**

Reducing risk is fundamental to realising the vision of a resilient Hawke's Bay community. Reducing risk lessens the consequences of hazards with the potential to affect Hawke's Bay. While it is not possible to remove all the risk from all the hazards, it is important to reduce risk to acceptable levels.

Individuals and communities are ultimately responsible for their own safety and the security of their livelihoods. They must be able to care for themselves, as much as possible, when the normal functions of daily life are disrupted. The CDEM Group will support and encourage ownership of this responsibility.

Notwithstanding efforts to reduce risk, emergencies happen and Hawke's Bay must be prepared to manage and respond to them. To make best use of the existing resources the key organisations and agencies involved in response and recovery activates need to continue to develop their relationships and implement standard operating procedures. The CDEM Group will promote and encourage these activities.

Goal 1: Local communities, work together to reduce the risk of hazards.

In considering how we can achieve this goal there are three areas for consideration:

1. We need to improve the understanding of the hazards.
2. Risk = Consequences 5 Frequency. We therefore need to consider how best can we reduce risk.
3. Consider how best communities can work together.

Objectives	Actions	Targets
What we will do to achieve the goal	How it will be done	Who will do it and by when
<ol style="list-style-type: none"> 1. Improve our understanding of the potential hazards and their risks. 2. Determine acceptable levels of risks for the priority one hazards. 3. Undertake effective mitigation measures to lessen the consequences of the priority hazards. 	<ol style="list-style-type: none"> 1. Develop reliable exceedance probability curves for the natural hazards. 2. Develop greater understanding of the consequences of technological hazards. 3. Consult and inform the community of the risks and consequences of the priority one hazards. 4. Undertake appropriate mitigation measures to lessen the consequences of natural hazards on the community. 5. Maintain plans for the management of human pandemic events and maintain understanding of potential for such events. 6. Maintain plans for the management of fires involving hazardous substances and the release of hazardous substances and maintain understanding of potential for such events. 7. Maintain plans for the management of rural fires and maintain understanding of potential for such events. 8. Maintain the National Biosecurity Emergency Plan. 	<p>Regional Council. Requires ongoing commitment to funding natural hazard research.</p> <p>HB Engineering Lifeline Group (ongoing)</p> <p>Co-ordinating Executive Group (ongoing)</p> <p>City, district, and regional councils (ongoing)</p> <p>HB District Health Board (ongoing)</p> <p>Fire Services (ongoing)</p> <p>Rural Fire Authorities (ongoing)</p> <p>Ministry of Agriculture and Forestry (ongoing)</p>

Goal 2: People and communities provide for their own safety and well-being.

To achieve this goal people need to know what hazards they face and what activities they can undertake to ensure they are able to manage and survive those hazards.

Objectives What we will do to achieve the goal	Actions How it will be done	Targets Who will do it and by when
<ol style="list-style-type: none"> 1. Inform people of the hazards they are likely to face in their lifetime and the consequences of those hazards. 2. Educate people and communities on the practical steps they can do to improve their own safety. 3. Promote Business Continuance Planning within Hawke's Bay businesses and organisations. 4. Maintain trained volunteer groups throughout the region, thus ensuring a widespread CDEM response capability. 	<ol style="list-style-type: none"> 1. Maintain and implement a communication strategy to inform people about hazards. 2. Maintain an education programme that provide practical advice and support on measures people and the community can undertake to improve their safety. 3. Maintain and circulate appropriate guidelines and provide planning support. 4. Encourage and promote individuals, support groups, and others to become CDEM Volunteers. 	<p>Co-ordinating Executive Group will develop and implement a communication strategy by 30 June 2006.</p> <p>Co-ordinating Executive Group will develop and implement the education programme by 30 June 2007.</p> <p>Co-ordinating Executive Group to develop and circulate guidelines by December 2005.</p> <p>Each Rural Fire Authority, city and district council, and emergency service is responsible for maintaining and training sufficient volunteer groups to enable it to maintain social stability during and following an emergency.</p> <p>(ongoing)</p>

Goal 3: Provision of effective response and recovery operations

To provide effective response and recovery there needs to be sufficient capability amongst the CDEM Group members, emergency services, and other partners. There also needs to be: clear roles, understanding, and accountability between the CDEM Group members, emergency services, and other partners. This can be achieved through building good relationships and developing effective Group response & recovery plans.

Objectives	Actions	Targets
What we will do to achieve the goal	How it will be done	Who will do it and by when
<ol style="list-style-type: none"> 1. Ensure that CDEM Group Members have capability to respond to emergencies in their area, and promote the need for capability within emergency services and other partners. 2. Develop effective partnerships between CDEM Group Members, emergency services and other partners. 3. Develop the necessary contingency plans and standard operating procedures to enable emergency services and civil defence organisations to effectively respond to and recover from the priority hazards whether or not a state of local emergency would be declared. 4. Operate a regional Mayoral Relief fund that can provide financial assistance to people in need anywhere in HB following a disaster. 	<ol style="list-style-type: none"> 1. Conduct a review of staff functions for an emergency management office and the emergency operations centres and available resources (including accommodation and EOC size and location) to carry out existing and new emergency management functions. 2. Develop and implement a training plan that will ensure that appointed people and other key staff involved in civil defence emergency management are appropriately trained to undertake their required roles. 3. Hold regular meetings with key organisations and conduct regular training exercises to keep personnel familiar with the roles expected of them during an emergency. 4. Review existing plans and undertake a review of the need for contingency plans and standard operating procedures based on the consequences of the priority hazards. 5. Identified Standard Operating Procedures and Contingency Plans are developed approved and implemented. 6. Establish a Group Disaster Relief Fund, with clear guidelines for its operation. 	<p>Co-ordinating Executive Group by July 2006.</p> <p>Co-ordinating Executive Group by 30 December 2006.</p> <p>Co-ordinating Executive Group (ongoing).</p> <p>Co-ordinating Executive Group to determine the process and ensure it is completed by December 2006.</p> <p>Co-ordinating Executive Group by December 2008.</p> <p>Co-ordinating Executive Group with approval from the CDEM Group by December 2006.</p>