



# *Forward*

It is with pleasure to introduce the Chatham Islands Civil Defence Emergency Management Group Plan. This Plan contains a hazard, risk, and management section identifying hazards and the impacts on the Chatham Islands. Allowing us the opportunity to eliminate or reduce those risks which are outlined in the reduction section. This enables both Council and community to better prepare as the readiness section shows the planning, training and education methods and resources required to achieve these objectives.

The responses section highlights the operational arrangements and involves local and hazard-specific planning. It also outlines emergency operational centre staff their roles and responsibilities. Recovery section takes us through the procedures on what is involved in either recovering to normal or maybe something even better. The management and governance section directs the reader to the legal and statutory requirement that governs the Council, CDEM and CEG Group mandate.

For a better understanding, I highly recommend that all community take the time to familiarize yourself with the local arrangements and be prepared for the next event.

His Worship the Mayor Alfred Preece

## *Vision Statment*

The Chatham Islands Council provides an efficient and effective system of emergency management that minimises the potential effect of all hazards in the community and the environment.

# *Chatham Islands Boundry*

Figure 1



## *Geographical Description of the Group Area*

The area covered by the CDEM Group includes all of Chatham Islands, Pitt Island and all coastal marine areas under the jurisdiction of the Chatham Islands Council. The Chatham Islands are not sub Antarctic and lie 862 kilometres east of Christchurch but 772 kilometres south-east of Napier and at about the same latitude (44° south) as Christchurch.

The islands lie between 176 and 177° west longitude, whereas the main islands of New Zealand are situated either side of 175° east longitude. This would ordinarily put the two land areas on opposite sides of the International Date Line, but the line has been shifted to allow the islands to observe the same day as New Zealand, but 45 minutes ahead of New Zealand standard time.

Chatham is the larger of two inhabited Islands and was referred to as Rekohu by the original inhabitants (Moriori) and later Wharekauri by Maori. The greatest width is approximately 57km measured east to west across the northern part of the island with a length from north to south of 49km. The two inhabited Islands are Chatham's (Rekohu/Wharekauri) 90,038 ha with the predominant geographical feature of the Islands being Te Whanga, this covers 20,000 hectares, one fifth of the Islands size. Pitt Island (Rangiauria), 6,325 hectares, is 9kms southeast of the Chatham's.

The landscape in the northern half is predominately rounded and undulating. The southern area of Pitt is a dissected plateau with several prominent hills of volcanic origin. Chatham and Pitt Island form one of New Zealand's most remote islands.

Zealand's smaller local authorities, both in area and in population. Both Chathams and Pitt's importance are because of farming and fishing industries, as well as the interest through the richness of their plant and bird life.

The Chatham's has a high percentage of New Zealand's endangered and rare plant and bird life. The potential exists in the Chatham Islands for the occurrence of disasters, which can lead to a declaration of a State of Civil Defence Emergency. The Chatham Islands Council through its CDEM Group have arrangements to respond to and recover from these emergencies, including programmes for public awareness, education and training exercises.

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### *Section 1: Introduction*

This section introduces the Plan, its purpose and structure. It also outlines the CDEM Group and describes the relationship of the Plan to the National Strategy and National CDEM Plan.

### *Section 2: Risk Profile*

This section identifies the hazards and risks facing this area, key issues and outlines a work programme to address them.

### *Section 3: Reduction*

This section provides guidance for the CDEM Group, with its arrangements, frameworks, structures, roles, responsibilities, and processes to implement, in order to achieve long-term comprehensive risk reduction.

### *Section 4: Readiness*

This section identifies and enhances current levels of organisational and community readiness and provides assurance that the CDEM Group has the capacity and capability to respond to and recover from a civil defence emergency.

### *Section 5: Response*

This section provides Stakeholders, partner organisations and community with an outline of response principles, priorities, systems, and organisational framework intended to activate, deploy, and co-ordinate during incidents and emergencies within the CDEM area.

### *Section 6: Recovery*

This section provides guidance on planning arrangements including roles and responsibilities, structure, and processes implemented to assist the community to recover from a civil defence emergency.

### *Section 7: Monitoring and Evaluation*

This section provides a basis for Monitoring and Evaluation of the CDEM Group Plan, Group activities, and to meet requirements in the CDEM Act.

### *Section 8: Management & Governance*

This section states the management arrangements for the CDEM Group.

### *Glossary and Definitions*

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# SECTION 1: INTRODUCTION

This document is the Chatham Islands Civil Defence Emergency Management (CDEM) Group Plan, prepared by the Chatham Islands Councils Emergency Manager on behalf of the CDEM Group. The CDEM Group is the Mayor and eight Councillors, the Co-ordinating Executive Group (CEG) consist of the partner agencies and organisations including emergency services.

## *Plan Purpose and Legislative Requirement*

This Plan is a statutory requirement under the Civil Defence Emergency Management (CDEM) Act, 2002 s48. The CDEM Act requires the Council to take the lead in identifying and reducing hazards. The Act does not, however, replace any legislation or responsibilities given under any other legislation, rather it provides the mechanisms for integration and coordination through the principle of comprehensive emergency management.

The purpose of this Plan is to enable the effective and efficient management of significant hazards and risks for which a coordinated approach across the Chatham Islands will be required. This Plan seeks to strengthen relationships between agencies involved in civil defence emergency management, to encourage cooperative planning and action between the various emergency management agencies and the community and to demonstrate commitment to deliver effective civil defence emergency management through an agreed 5 year work programme.

This Plan also provides information on the hazards and risks in the Chatham Islands area and documents the principles of operation within which agencies involved in civil defence emergency management agree to cooperate in areas of reduction (white), readiness (yellow), response (red) and recovery (green) as consistent with other emergency plans, policies or standard operating procedures.

## *National CDEM Strategy and National CDEM Plan*

The National CDEM Strategy sets out the Crown's CDEM goals, policy objectives, and measurable targets. The National CDEM Plan sets out the CDEM arrangements necessary at the national level to manage nationally significant hazards and risks and the co-ordination of CDEM during a period of national emergency, and to provide a basis for local planning for emergency response organisations. The CDEM Group Plan is required to be consistent with the National CDEM Strategy and must take into account the guidelines, codes, or technical standards issued by the Director.

## *Who is this Plan for*

The plan intends to inform, involve and put mechanisms in place so the community can better understand its hazards and risks to build capability and capacity. By working collectively, the community and emergency response agencies will be able to create for a more resilient community.

Section 59 of the CDEM Act requires that every individual or organisation required to perform functions in this CDEM Group Plan must take all necessary steps to do so.

This Plan is operative for 5 years following its approval by the CDEM Group, adopted by the Council and Minister of Civil Defence. The plan is required to start its review in its fourth year of operation.

## *Plan Process and Consultation*

On Islands Agencies, stakeholders, and emergency services have had the opportunity to contribute to the development of this plan. The Emergency Manager held a workshop with the Hazard Liaison Group. The CDEM Group consultation with the operational, training and recovery arrangements followed.

## *Goals and Objectives of the CDEM Group*

- *Ensure that the community is aware of and understands its risks, hazards and impacts.*
- Chatham Islands Emergency Management Group Plan 2018-2022*

- *Ensure all reasonable steps are taken for the protection of life, and well-being of the community*
- *Ensure all reasonable steps are taken to restore Social, Economic, Natural, and built environments during an event as early as practical.*
- *Work towards a self-reliant community that have reduced vulnerabilities to emergency events and have the ability to respond and recover from. (Goal 2)*
- *Work with a community that plan according to a long-term strategy consistent with known hazards and vulnerabilities (Goal 1)*
- *Work towards co-operation and co-ordination within and across all partner agencies and organisations (Goal 3)*
- *Ensure that risk management is used as a key tool in social, economic, and environmental issues and are incorporated into planning processes where human activities interact with natural and technological hazard. (Goal 2)*
- *Ensure that the community has appropriate financial protection and economic sustainability to enable recovery from emergency events (Goal 4)*

*Note\* Subscript notations (Goal #) indicate how the goals of the Chatham Islands CDEM Group Plan relate to the 4R's (Reduction, Readiness, Response and Recovery) and the goals of the National CDEM Strategy.*

## *SECTION 2: RISK PROFILE*

### *Summary*

The risk profile section of this plan will provide an evidence base for prioritisation of risk treatments for better use of resources and efforts in planning adequately managed risks. The Groups risk profile is fundamental to guiding the level of activity and effort applied across the 4R's. Risk is measured in terms of consequences and likelihood. Risk = Likelihood x Consequences. The hazard effects on the Chatham Islands social, built, economic and natural environments, will determine the consequences of hazards. Understanding the diversity of hazards, and how they interact with these environments is vital in establishing a risk profile.

In this section, the hazards that require CDEM management are identified, their risk assessed, and each hazard evaluated and assigned a level of priority. This prioritisation provides guidance for directing resources and effort for the treatment of risk across the 4Rs. The purpose of this section is to identify the hazards and risk environments with sound evidence that will allow for greater understanding of the resources and effort needed for the management of the risk.

Hazards are something that may cause or contribute to the cause of an emergency. Therefore by its very nature a hazard exists if the event adversely affects the community. Keep in mind hazards can be natural or technological in origin with natural hazards occurring when environmental process interacts with a land use activity or vice versa.

Human encroachment into environments often creates a hazard where none may have existed due to social and economic activities being present in the path of environmental processes. Hazards can also be the consequence of human activities, which have adverse effects on individuals or communities. These are technological hazards and result from human error, but can also be triggered by natural hazards.

- *A compressive summary of natural, social, built economic environment*
- *Description of all hazards impacts, likelihood and consequence*
- *Assessment of Risks in the Chatham Islands including Pitt Island*
- *Prioritisation of the Risks*

### *Development Process*

The development, assessment, analysis and evaluation of Hazard and Risk were undertaken by the Group's Emergency Manager in accordance with the Directors Guideline for CDEM Groups (DGL 09/09). A workshop was held with the Hazard Liaise Group, CDEM Group, Council and MCDEM before adoption.

### *Risk Management*

The nature of the hazard risk profile will influence any decision regarding the best management approach. Consequently an assessment of the components that contribute to risk is required, with appropriate management mechanisms that can be identified to manage that component that contributes most to the risk. The management of these hazards are achieved through actions to reduce risk and ensure readiness, response, and recovery.

Both approaches will be required to obtain an appropriate balance to determine hazard-by-hazard or case by case basis. Hazards are, predominantly managed through a degree of complexity and co-ordination.

### *Social Structures*

The social structures on the Chatham Islands include the hospital, schools, marae, town hall, and sports clubs. Consideration must be given for public safety, accessibility during an emergency and impact by threats, which may limit value as a social structure.

## Vulnerable Groups

Vulnerable groups includes the aged people with physical and mental disabilities, the young including early childhood locations, and primary schools when they are operating.

## Ethnic Diversity

As identified in the 2006 Census 65.6% of people living in the Chatham Islands belong to the European ethnic group and 64.2% belong to the Maori ethnic group. Education in emergency management of minority groups is, 'as when required' with new immigrants.

## Population and Dwellings

Population as identified in the 2006 Census is for the Chatham Islands Territory, which includes Pitt Island. There is not a breakdown of the individual settlements on main Chatham or Pitt Island but a holistic overview. There is a need to identify the exact numbers in individual settlements for risk management purposes; this was undertaken during the writing of the first CDEM Group Plan but does need up dating; therefore, for the purpose of this document the 2006 Census was used. Dwellings identified as per the 2006 census relate to Private dwellings and non-private dwellings.

- Male 345
- Female 267
- Private Dwellings 249
- Non-private Dwellings 6
- Unoccupied dwellings 51

## Tangata Whenua

Mori and Maori have been identified in legislation for particular attention and involvement in the public sector governance and management. The CDEM Group has a role and responsibility to ensure that Mori and Maori issues are dealt with appropriately. CDEM is able when required, to call for assistance and guidance of the Maori Liaison Officer to help manage any engagements CDEM may be required to have with Mori and Maori.

## Geology

The Chatham Islands have been the locus of thin biogenic and antigenic sediment accumulation punctuated by episodes of localised basaltic volcanism, producing small cones and mounds of volcanoclastic sediments but only minor volumes of massive volcanic rock. Discussion of economic and applied geological consideration of resources in the Chatham Islands includes brief accounts of peat surveys on the Chatham's. The structural trend of the Rise extends west beneath the Canterbury Plains to the foothills of the Southern Alps in the vicinity of Sheffield.

The older rocks that form the Rise are exposed only in the foothills of the Southern Alps, on Banks Peninsula and in the Chatham Islands. The 200m isobaths defines a rhomboid area sometimes referred to as the Chatham Islands shelf or Chatham Islands Rise. The Chatham Islands lie approximately in the middle of this upstanding prism.

There have been five exploration wells drilled on the Rise, all at the western end. Four of the wells have provided good stratigraphical control for seismic interpretation of the western part of the Rise. The nearest drill hole was cited on the south flank of the Rise near the head of the Bounty Trough.



Little seismic activity has been recorded for the Chatham Rise but this could be partly a function of the lack of instrument recording stations. It is likely that many small earthquakes (<5 magnitude) along the Rise are unrecognised by these stations because their location is too far away to produce a strong enough signal on the recording instruments.

## Geography

Chatham Islands are located 850km east of New Zealand (approximately 44° latitude and 176° longitude). They lie to the east of 180° longitude, but the international dateline is diverted so that it passes east of the islands and therefore 45 minutes ahead of the standard New Zealand time. Chatham is the larger of two inhabited Islands and was referred to as Rekohu by the original inhabitants (Mori).

The greatest width is approximately 57km measured east to west across the northern part of the island with a length from north to south of 49km. Pitt Island, referred to as

Rangiauria, lies 22km south-southeast of the Chatham Islands. It is smaller than Chatham with a width of almost 10km and length approximately 15km.



There are smaller Islands in the group, Southeast Island (Rangatira), Mangere, Little Mangere (Tapuaenuku) and the Castle (Rangiweheu) all within 6km of Pitt. The Pyramid, (Tarakoikoia) about 9km south of Pitt. Star keys (Motuhope) are approximately 14km east of northernmost Pitt and the Forty Fours (Motuhara) 40km east of the Chatham's and The Sisters (Rangitahi) 20km north of the Chatham's.

The Chatham Islands is largely determined by gross lithological variations of underlying rock. It is low-lying with a elevation at Maungatere Hill of 294mtrs and dominated by flat or rolling landscape with about 22% of its area covered by shallow lakes and lagoon with 6% occupied by unstable dune and beach sands. Peat accumulations form varied thickness veneer over large parts of the island and have been subject to commercial exploration.

Volcanic cones and plugs form conspicuous small hills on an otherwise subdued landscape. Pitt Island and its surrounding islets are similar to Chatham but with even more obvious volcanic features forming a distinctive and more rugged topography. An area (50%) of the Chatham Islands land surface is covered by peat and detailed studies (Macpherson and Hughson 1943), of the peat established that it contains an average of 9.4% of a wax similar to molten wax.

## Climate

There is convincing evidence that the global climate is changing; however, there are many uncertainties in predicting the size and effect of future climate changes. This is the case when it comes to what might happen in a specific place, such as the Chatham Islands. Faced with the need to plan for global warming, the most pragmatic approach is to look for plausible range of what might happen.

The Chatham Islands is already experiencing global warming. The annual mean temperature has increased by about 1.0°C over the past 100 years and annual rainfall has increased by about 10% with 1998 as the warmest year on record. The mid-range scenario for temperature change at the Chatham Islands suggests a warming rate of about 0.2°C per decade through the 21st century.

This is double the average rate of warming during the 20th century. The full range of warming; 2100 for the Chatham Islands are from about +0.5 to +3.9°C. The Chatham Islands is likely to experience stronger westerly winds and increased annual rainfall by the end of the 21st century.

There is likely to be an increase in extreme rainfalls as temperature increases. What is an extreme rainfall in the current climate is likely to occur about twice as often by the end of the 21st century under a mid-range temperature change scenario, and 3-4 times as often under a high temperature change scenario. There is no clear evidence to indicate whether there will be either an increase or decrease in the size of storm surges in the next 50 years.

It is expected that storm tide elevations will rise at the same rate as mean sea level rise. For planning purposes, it is recommended to use a sea-level rise of 0.2m by 2050 and 0.5m by 2100. It is fair to say that the Chatham Islands climate is affected by year-to-year variations in the state of the El Niño and Southern Oscillation.



El Niño periods tend to be cooler and drier than normal, and La Niña periods warmer and wetter. This variability will be superimposed on top of the global warming trends. It is not yet possible to say how El Niño events might change in their frequency or severity under global warming.

## ***BUILT ENVIRONMENT***

### ***Commercial and Industrial***

The Chatham Islands industrial management areas generally apply to the airport, jetties, wharves and associated activities including industries such as fish processing plants, at Waitangi, Owenga, Port Hutt and Kaingaroa. These areas are vital to the well-being of the residents and as a consequence, activities with airport, industrial or ports orientated activities are generally not permitted and in some cases delineation of these areas allow for further development. Given the strategic locations and their importance to the islands, they should be managed in a manner that maximises their location without adversely impacting on amenities.



Any activities that conflict with the efficient operation of the airport, port, and associated activities, should not be located in the industrial management areas and activities beyond the boundaries of the industrial management area. There is, however, a natural hazard (tsunami) that has a major impact in these areas, affecting the physical, psychological, natural, and economic well-being of the Islands. The Chatham Islands has no processing plants for agricultural or forestry purposes at present but does have a considerable number of woolsheds and forestry blocks with the major threat to these being rural fire.

## *Natural Gas*

Natural gas is supplied to the Island by ship. The gas is carried in large gas bottles and is supplied to the public through two outlets, both in Waitangi.



## *Residential*

There are a significant number of residential dwellings on the Chatham Islands along riverbanks as well as low-lying and coastal areas which are under threat from tsunami.

## *The CDEM Act 2002 defines lifelines utilities as*

- *Radio NZ and Television NZ*
- *Entity operating the Airport*
- *Entity operating the Port*
- *The production, supply and distribution of manufactured or natural gas*
- *The generation and distribution of electricity through a network*
- *Supply and distribution of water*
- *Provision of waste water and storm-water*
- *Roading network*
- *Production, processing and distribution of petroleum products*

## *Radio, Television*

Although these are a key means of disseminating information not all people on the Chatham Islands can receive radio or TV from New Zealand.

## Airport

Regular passenger and freight services operate between the Chatham Islands and New Zealand. Significant disruption to the airport runway is possible and as the airport is a vital inlet for emergency relief, there is another option (Hapupu). This however could be limited to the aircraft that could land there, weather and the road accessibility.



## Water

The Chatham Islands Council owns the water system in the main settlement of Waitangi, but has contracted all the activities with regard to the operation and maintenance of the water treatment plant and reticulation network. In 2008 with a population of 680 and 310 households, the water source was rain, bores or springs.

There is minimal scope for significant negative effects and one potential effect could be excessive demand on the bore causing the aquifer to lose its integrity. The Risk Management for the operation and maintenance is addressed by the response time for the contractor to attend to power failures and blockages.

## Waste Water

The Chatham Islands council owns the wastewater system but has contracted all activities with regard to the operation and maintenance of the waste water reticulation network and the treatment plant. The current infrastructure has the capacity to accommodate increases in the population and there are no risks that cannot be managed as they arise. Risk Management for the operation and maintenance is addressed by the response time for the Contractor to attend to power failures and blockages.

## Electricity

The electricity is generated and supplied by the Chatham Islands electricity company. Electricity is supplied to Waitangi, Te One, Owenga and part way up the Northern and South Coast Roads. The Chatham Islands do experience power outages and most dwellings are able to provide the basics during these periods (lighting, heating, and cooking).

Kaingaroa is now on generated power to the main settlement, which they look after and maintain themselves.



## Roading Network

The Chatham Islands Council is responsible for all public roads on the Chatham Islands. There are no State Highways but as owners of the roading network council has legal requirement to provide roads to a certain standard. In addition, Council is responsible for all roading related assets, footpaths, kerbs, street lighting and signs. This activity is carried out so that the movement of people and goods within the territory can be convenient.

Safe transport is part of the essential infrastructure of the territory vital to well-being and development. The development of a roading network, despite providing great benefits as a whole, can also cause negative effects. These include local air pollution, road run-off (rainwater that becomes polluted on the road surfaces) to adjacent land and waterways, traffic noise and vibration, visual impact, traffic accidents, loss and damage of land and natural environment, separation of neighbours and emission of greenhouse gases.

These impacts can also have a negative effect on public health and well-being. The most significant of these on the Chatham's is road safety and contamination of natural waters. Road run-off has the potential to affect the water quality of adjacent streams. Activities in the beds and margins of lakes, rivers, and wetlands such as the

erection of structures, excavation, and deposition of material, the removal of vegetation and drainage can result in a number of adverse effects on ecological and amenity values.

Adverse effects could include the reduction of fish passage, bank stability of water courses, amenity and recreation values, Iwi/Imi values, the stability of existing structures and public access.

### *Petroleum Products*

Fuel is delivered by ships to two major suppliers on the Chatham Islands and distributed through their outlets. Fuel is transported from Napier and Timaru in tanks, pumped into bulk tanks or tankers at the wharf, and transported by trucks to the outlets for sale or to the electricity company's storage tanks for the generators. There is also petrol which comes via the ship in dolphins. There are obviously hazards involved with carting and transferring fuel and every care needs to be taken to reduce these hazards.



# *ECONOMIC ENVIRONMENT*



The Chatham Islands, located in the South Pacific Ocean and isolated from New Zealand have a unique cultural, social and administrative history. The Chatham Islands have strategic importance and add considerable sea area to New Zealand's exclusive economic zone. The Chatham Islands face recurring issues around the economic viability and funding of transport and basic infrastructure, as well as delivery of social service.

Some issues around distance from New Zealand cannot change however, over time a number of innovative solutions have been attempted to deal with apparently difficult problems. There is ongoing economic development that involves initiatives in farm productivity, development of new fish species, consolidated fish quota, formation of tourism organisation, new housing, on Island skill development, enterprise support, improved internet access and facilities for elder care.

## *Growth*

Population fluctuates and has decreased by 15.1% since the 2006 census.

## *Employment*

The unemployment rate in Chatham Islands is 1.4% compared with 5.1% for all New Zealand with the most common occupational group being 'Labourers' and 'Professionals' which is the most common occupational group in New Zealand.

## *Income*

- For people aged 15yrs and over, the income is \$24,200 this compares with \$24,400 for all of New Zealand.
- 40.6% have an annual income of \$20,000 or less, compared with 43.2% of people in New Zealand.
- 16.7% have an annual income of more than \$50,000 compared with 18% of people in New Zealand.
- For Maori the income is \$24,600 compared with a median of \$20,900 for all Maori in New Zealand.

- 38.8% of Maori have an annual income of \$20,000 or less compared with 48.3% for Maori in New Zealand.
- 16.5% of Maori have an annual income of more than \$50,000 compared with 10.2% of all Maori in New Zealand.

## Tourism

In 2002 a review found that tourism had grown with tremendous potential. The industry has a number of potential strengths and opportunities but is hindered by distance, shortage of seasonal labour and accommodation. Major assets to the Chatham's are history, culture, wildlife, fishing, and isolation. Since 2002 the tourism has continued to grow based on the number of tourist businesses, the number of visitors and the development of associated infrastructure. By 2008 capacity remained limited by the availability of flights and numbers of beds, even though there was an increase from 85 beds in 2002, to 115 beds in 2008.



## Risk Assessment

Risk is analysed based on the likelihood and consequences of the hazard and then evaluated and prioritised for treatment. Some hazards may pose a significant risk occurring frequently or affecting a large area while other hazards pose the same risk, but because of the consequences that result, the affected community may be vulnerable and in order for the appropriate management option, these factors need to be evaluated. The modified version of ANZS3000:2009 was applied to the hazards.

This involved in depth evaluation of each hazard based on the following;

- *Seriousness* - The relative impact of human, economic, social, infrastructural and geographic factors.
- *Manageability* - How difficult a hazard risks are to manage and level of effort currently applied.
- *Growth* - The rate at which the risk is likely to increase through heightened probability of the event occurring, an increase in the exposure of the community to the hazard, or a combination of both.

The risk evaluation process utilised information from various sources, including information previously included in existing local Civil Defence plans, event scenarios, historical and recent events, general and specific knowledge, experience, and research undertaken by crown and tertiary institutions. The hazard assessment forms the basis for the strategic component of the Group Plan.

## Risk Analysis Hazards

Overall the top 16 hazards for the Chatham Islands identified in the table below are yellow – High and Green - Medium.

HAZARDS	RISK ANALYSIS			RISK EVALUATION										SUB-TOTAL GROWTH	TOTAL	
	LIKELIHOOD	CONSEQUENCE	RATING	SERIOUSNESS					MANAGEABILITY							
				SOCIAL	BUILT	ECONOMIC	NATURAL	SUB-TOTAL	REDUCTION	READINESS	RESPONSE	RECOVERY	SUB-TOTAL			
DOC #1351593																
NATURAL																
Tsunami-local	Likely	Major	VH	5	4	3	3	8.5	2	3	3	2	2.5	5	16.0	
Tsunami-distance	Likely	Moderate	H	4	4	3	3	7.5	2	3	3	2	2.5	5	15.0	
Storm surge	Possible	Minor	M	3	2	2	2	5	4	4	3	3	3.5	4	12.5	
Wind storm	Possible	Minor	M	2	2	2	1	3.8	4	4	3	3	3.5	5	12.3	
Fire-rural	Likely	Moderate	M	4	3	2	1	6.3	3	3	3	3	3	4	13.3	
Earthquake	Unlikely	Minor	L	2	2	2	2	4	4	4	3	3	3.5	4	11.5	

<b>Volcanic</b>	<b>Rare</b>	<b>Minor</b>	<b>VL</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3.5</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3.5</b>	<b>4</b>	<b>11.0</b>
Erosion-lagoon	Certain	Minor	M	1	2	1	3	2.9	4	4	3	3	3.5	2	8.4
Erosion-coastal	Certain	Moderate	M	1	2	1	3	2.9	4	4	3	3	3.5	2	8.4
Drifting sand dunes	Certain	Minor	M	1	1	2	3	2.7	2	4	3	3	3	3	8.7
Land slide	Rare	Very minor	M	1	1	2	3	2.7	3	3	3	3	3	3	8.7
Sea level rise	Possible	Insignificant	L	1	1	1	1	2	4	4	3	3	3.5	1	6.5
River flood	Likely	Minor	M	1	2	1	2	2.7	2	3	3	3	2.75	2	7.5
Drought	Possible	Minor	M	1	1	2	2	2.5	4	4	4	4	4	2	8.5
Slope stability	Rare	Insignificant	VL	1	1	1	1	2	4	4	3	3	3.5	3	8.5

Power failure	Unlikely	Major	M	3	1	2	2	4.5	3	3	3	4	3.25	3	10.8
Water failure	Unlikely	Minor	H	2	1	3	1	3.6	3	3	3	3	3	3	9.6
Wastewater failure	Likely	Minor	M	1	1	2	2	2.5	3	3	3	3	3	3	8.5
Communication	Likely	Minor	M	3	1	3	1	4.6	3	3	3	3	3	4	11.6
Air transport	Possible	Catastrophic	VH	4	3	4	1	6.9	3	3	3	3	3	4	13.9
Road transport	Possible	Catastrophic	VH	4	3	4	1	6.9	3	3	3	3	3	4	13.9
Civil unrest	Rare	Insignificant	VL	4	2	2	1	5.8	3	3	3	3	3	4	12.8
Fire urban	Possible	Moderate	M	3	2	2	3	5.2	4	3	3	3	3.25	4	12.5
Criminal damage	Rare	Insignificant	VL	3	2	3	1	5.1	3	3	3	3	3	2	10.1
Hazards substance	Possible	Minor	M	3	2	2	2	5	4	4	3	3	3.5	2	10.5
Biological															
Public health	Possible	Moderate	M	3	1	3	1	4.6	4	3	3	3	3.25	3	10.9
Pandemic	Possible	Moderate	M	3	1	3	1	4.6	4	3	3	3	3.25	4	11.9

Plant & animal pests	Possible	Moderate	M	1	1	3	3	3	3	3	3	3	3	3	9.0
Marine oil spill	Possible	Moderate	M	3	2	3	4	5.7	3	3	3	3	3	1	9.7

The risk from hazards has been evaluated in order to determine priorities for management. This evaluation considered the consequences of the hazards and the difficulty and effort currently being applied to managing each hazard. It also highlighted the priority where additional resources should be assigned to better manage the hazards.

### Current and Future Management Mechanisms

- *Tsunami distance/local*
- *Research (hazard & risk assessment)*
- *Event monitoring*
- *Public education & awareness*
- *Warning systems*
- *Sea level monitoring*
- *Evacuation planning*
- *Welfare planning*
- *Recovery planning*
- *Historical tsunami research*
- *Inundation modelling*
- *Contingency planning for response*
- *Signage*
- *Land use*
- *Update and review all relative plans*
- *EOC Planning*
- *Response Planning*
- *Welfare Planning*
- *Recovery Planning*
- *Activation for nz deployment planning, public education and awareness*
- *Update and review all relative plans*

# ASSESSMENT SUMMARY

## *Slope Stability*

The Chatham Islands have no slope stability problems; there are however, numerous instances of rock fall and cliff collapse along most cliff coastlines throughout the islands. These features are due to normal coastal erosion processes and in general; do not indicate any weakness or stability problems in rock materials. Steep slopes, tectonic movement and rain fall are the main causes of slope failure, but can be caused by inappropriate use, thereby exposing people, property and infrastructure to increased risk.

As part of advancing New Zealand's resilience to natural disaster damage there needs to be an understanding on how slope stability is considered in current land use and planning practice.

**Likelihood** - There are some spectacular landslides present in Waihere Bay North-western Pitt Island, and along the Southern coast of the Chatham Islands.

**Consequences** - These areas are remote and should not be considered for potential development.

## *Land Slides*

Along the southern coast of Chatham Islands are large coastal cliff slumps involving failure of southern volcanos. They are likely to have failed along weathered clastic horizons between lava flows within the volcanic pile, but their dimensions suggest that some larger scale structural weakness may be involved. A landslide is the downward movement of rock, soil, or vegetation, but the type of movement, the amount of material moved, and the speeds at which they move vary. A landslide may be a few falling rocks or it may be the rapid failure of many cubic kilometres of debris.

Shallow soil slides, sometimes referred to as regolith slides; involve the movement of the upper soil layer including vegetation or rock debris. These can occur over large areas of grass-covered slopes during intense rain, but can also happen on steep, bush-clad slopes. Larger, deep seated slides involve translational sliding or rotational slumping within weak rock and soil and can happen slowly or accelerate into a fast moving landslide.

Deep seated slides can also form along the boundary of two different rock types. Deep seated creeping earthflows occasionally happen in saturated clay rich sediments and are generally slow moving, travelling a few metres each year. On steep slopes, such as cliffs or terraces, rock and soil may simply fall and accumulate at the bottom of the slope as debris. Rock falls often comprise large boulders and can be particularly damaging.

**Likelihood** – Many landslides occur rapidly with little or no warning, giving little opportunity for people or assets to move or be moved. Signs that often indicate the onset of land sliding are cracks in the ground or building, subsidence or bulging of the land, and tilting trees or seepage. There have been significant landslides in the southern parts of the island, such as Te Awatapu which has resulted in a large basin forming.

**Consequences** - There is potential for landslides expected, however if it were to occur in the main settlement of Waitangi, i.e. above the Hotel, then there could be more considerable consequences as there would be if it were to happen in Kaingaroa.

## *Accelerated Lagoon Erosion*

Rapid erosion is occurring, due to a combination of factors including water depth, prevailing wind and readily erodible nature of rock in parts of central Chatham Islands, in particular along the Western shore of Te Whanga. Water depth varies depending on whether or not the Lagoon outlet is closed off from the open sea by a natural sand bar.

Accelerated coastal erosion is generally caused by activities that disturb or expose the soil to the erosive forces of gravity and rain water. Climate or weather conditions combined with human activity can accentuate soil erosion, i.e. severe and intense storm events may increase the rate of accelerated erosion. Wet winters may saturate the ground increasing its susceptibility to accelerated erosion.

**Likelihood** - The eastern shore of the lagoon is actually aggrading and the thin land area which separates Te Whanga from Hanson Bay is actively growing.

**Consequences** - If high standing sand develops and is followed by significant rain, the water level in the lagoon can rise up to three or four metres above sea level. Waves driven by winds from the North-Northeast erode the Western shore of the lagoon. The sediment derived from this erosion is transported across the floor of the lagoon under the influence of prevailing wind conditions from the southwest.

## *Accelerated Coastal Erosion*

Coastal erosion is the retreat of the shoreline caused by water currents, waves, and wind. It is part of a natural process of shoreline movement that can be influenced by human activities. Most coastal erosion occurs in large increments during storms when heavy swells, sometimes accompanied by storm surges, buffet the coast. Eroded beaches are sometimes gradually rebuilt during intervening calm periods.

Underlying factors can, however, contribute to the location and severity of coastal erosion. These include the local geology, the supply of sediment to and along the coast, and the presence of artificial structures such as breakwaters and sea walls. Human activities can disrupt sediment supply and increase erosion.

Building port breakwaters alters sediment transport along the coast. Stormwater discharge across beaches can also contribute to localised erosion. Large scale coastal erosion is generally a gradual process occurring over many storm events, and areas susceptible to coastal erosion can generally be identified in advance.

Ideally, coastal erosion can be planned for and the effects mitigated; however, there are periods when coastal erosion is more rapid and severe than normal, and significant damage can occur.

**Likelihood** – Deaths are not anticipated, but land and assets on it, i.e. houses, roads can be damaged or destroyed. Rising sea levels contributes to coastal erosion as each successive storm is able to encroach further inland. Climate change is also likely to cause other changes in coastal erosion drivers such as wave patterns, storminess, and other factors affecting coastal sediment supply like sediment input from rivers.

**Consequences** – Managing coastal hazards is a complex issue with different approaches to coastal hazards management, involving a combination of measures. Setbacks from the coast are generally the best way to reduce risk from coastal inundation and erosion in undeveloped area. This is more about managing human activities than beaches.

## *Tsunami*

Tsunamis are a natural phenomenon consisting of a series of waves. Tsunami characteristics are long wavelengths and extremely high velocity (up to 700km or more). Behaviour is like rapidly rising and falling tides with greater force than surf waves, not normally as breaking waves and the 3rd-4th wave are often the highest, not the 1st. Tsunami's are generated when a large volume of water in the sea, or lakes have been rapidly displaced. As tsunami's move into shallow water they slow down, the distance between wave crests lessens and the waves increase in height to perhaps tens of metres.

The size of a tsunami is judged by its maximum height above sea level and the amount of damage depends partly on run-up, and partly on slope of the land. Big tsunamis may inundate low-lying land such as river flats for many kilometres inland from the coast; waves may come ashore as steep breaking walls of water, or as fast-rising water levels. Eighty per cent of all tsunamis occur in the Pacific Ocean and local source tsunamis usually affect limited stretches of coastline while those from distant sources may affect the entire coast.

Local source tsunamis are generated less than one hours travel time from the nearest New Zealand coast and around one third of New Zealand's earthquakes are capable of producing large 7-10m or greater tsunamis along tens to hundreds of kilometres of coastline. The most significant potential local tsunami source from earthquakes is the Hikurangi subduction zone along the east coast of the North Island. It is capable of producing a magnitude 7.5-8.5 earthquake, large enough to generate a tsunami which would affect many kilometres of coastline along the east coast of the North Island, upper South Island and the Chatham Islands.

There are also many faults along the continental shelf off New Zealand's east coast which are capable of generating tsunamis. Regional source tsunamis are those that are generated one to three hours travel time from New Zealand. The most significant regional tsunami sources for New Zealand are earthquakes in tectonically active areas to the north of New Zealand coming from south, east, or west are unlikely.

The Southern Kermadec trench is the most significant regional tsunami source with wave run-ups of up to 13m possible. Distant source tsunamis are those that are generated more than three hours travel time from New Zealand. These tsunamis that are large enough to cause damage in New Zealand originate from subduction zones around the rim of the Pacific Ocean, particularly those along the coast of South America.

The largest recorded in New Zealand history is 1868, 1877 and 1960 which originated from this area. Earthquakes of magnitude 8.5 or greater off the South American coast have an average return period of 50 years. Since European settlement in the Chatham Islands, there have been three tsunamis that have exceeded 10 metres, in 1855, 1868 and 1947, but only one tsunami that has officially recorded a death in New Zealand and that was in 1868 in the Chatham Islands. This tsunami was generated by a magnitude 9.1 earthquake off the Peru/Chile coast, an area oriented in a manner which directs tsunami waves towards the Chatham Islands. Maori tradition also records several tsunamis in pre-European times that have caused large numbers of deaths.

Meteors can also cause a tsunami, with the discovery of a large meteor crater on the New Zealand continental shelf south west of Stewart Island. The crater is 20km wide and 150 metres deep and lies 300 metres below sea. This meteor impact would have generated a Mega-tsunami more than 50 metres high. Scientists have also found tsunami deposits dated at around 1500 AD and found at heights of over 130 metres on the Australian's east coast.

**Likelihood** - Tsunamis can be generated by earthquakes or landslides that result in displacement of water mass and tsunamis constitute an ever present potential threat to the Chatham Islands and can be generated from local or distance source at any time.

**Consequences** - Wave height at the shore depends on the initial displacement of the sea floor at the source. Impact on land from water flow at one metre is life threatening on the coast, and can easily wash people off their feet, cause injury and drowning, especially to young or elderly with minor damage to buildings and infrastructure. At two metres it is a major risk to life with injuries and drowning, damage to buildings and infrastructure, but not disastrous.

At four metres it is highly destructive with many injuries and fatalities and moderate to major damage to both built and natural environments. Reinforced concrete buildings will suffer damage and water can penetrate one kilometre inland. At 10 metres (which has happened in the past) it would be a catastrophe with few people surviving. The natural environment would be highly modified with only the strongest buildings surviving. Water can run one to two kilometres or more inland in most low lying areas.

## Earthquakes

An earthquake is the sudden release of slowly built up strain along a fault in the earth's crust. The strain accumulates as the Pacific and Australian tectonic plates move past each other. Most seismic activity, including its major historic earthquakes, occurs within a broad zone of deformation about 100km wide that runs along the plate boundary from offshore East Cape to Fiordland.

However; there is no evidence of active faulting within the Chatham Islands and very little seismic activity has been recorded from the eastern end of the Chatham Rise; but there is sufficient seismicity to indicate ongoing tectonic activity within the Chatham Rise. In fact two earthquakes were recorded in the Chatham's 1964 to 1989, both events were 4.6 magnitude, one 25km SW of Waitangi and the other 180km SE of Waitangi. On the basis of statistics collected, small to moderate earthquakes can be expected to be felt in the Chatham Islands every few years.

**Likelihood** - Ground shaking due to earthquakes constitutes a potential hazard in the Chatham Islands but the hazard is minor.

**Consequences** - Any structures built on land underlain by water-saturated unconsolidated sediments would be at risk from liquefaction effects generated by potential –ground-shaking earthquakes.

## Volcanism

There are no known active volcanoes on the Chatham Islands or Chatham Rise. The nearest active volcanoes are Ruapehu and Ngauruhoe in the central North Island. It is evident from the stratigraphic record significant volumes of air-borne volcanic ash were deposited on the Chatham Islands on numerous occasions during the late Pleistocene. These deposits are interpreted to be derived from massive eruptions in central North Island.

**Likelihood** - It is not unreasonable to expect further such events in the geological future. The Central North Island volcanoes are a minor potential hazard to the Chatham Islands as is the chances of volcanic eruption on the Chatham Islands or Chatham Rise.

**Consequences** - The consequences of this happening however would still have the potential to impact on the economy on the Chatham's in terms of it affecting the fish processing plants, tourism and farming industries.

## *Drifting Sand Dunes*

In some areas sand dune movement is a problem and constitutes a potential hazard. The wind is so persistent and strong that previously stabilised sand dunes are eroded and sand drift occurs. Dune fields are formed above the beach as dry sand blows inland.

Wide, gentle sloping beaches are framed by dunes, which are formed by windblown beach sand, with more dunes developing in front of the original. The vegetation *Spinifex* and pingao produce dunes with low, regular profile and influence the shape of the dune. Clumps of marram produce higher irregular dunes.

**Likelihood** - Sand drifts happen now and can become a problem where the sand covers the road and stops traffic.

**Consequences** - Consequences are minor and any road blockage can be cleared within hours, but can become a problem for farmers in terms of feed for stock.



## *Fire Emergency New Zealand*

A wildfire is any unexpected fire in an open space, such as gorse grassland, or forest. A wildfire hazard is created when wildfire threatens lives, properties, commercial plantations, or areas of natural or cultural significance. Fire is not a natural part of our ecosystem as it is in North America and Australia and so native species have not developed adaptive traits to cope with fires. People start most wildfires, either deliberately or unintentionally when land clearing gets out of control. Only 2% of wildfires in New Zealand including the Chatham's are ignited naturally.

Conditions conducive to wildfire ignition and spread depend on the amount of fuel available, temperature, humidity, and wind speed. Topography also has a large influence on fire spread - the steeper the slope the faster the fire will advance. There is a large variation in these factors and therefore in the wildfire hazards across New Zealand.

Wildfires are a major concern especially during the dry season as 50% of the Chatham Islands land surface is peat. Peat fires are slow burning and when combined with dry surfaces and persistent winds, peat fires can burn underground and come up to the surface and continue burning. These fires are a constant threat to rural settlements.

However, fire is also used as a land management tool and Chatham's are not a lush, green vegetation covered island. Its' fuel types are considered the most flammable fuel type anywhere in the world with old-man gorse, peat, wax, compress native forest and fern. Along with extreme fire behaviour makes these fuel types physically difficult to fight.

**Likelihood** - It is expected that the FENZ will have at least 1-2 fires per year. Wildfire hazards are likely to increase with climate change particularly in eastern areas as they become drier. Wildfire can have devastating impact on forests particularly exotic, which are more flammable than native forests. Wildfires also cause damage to rural development and lifestyle blocks including farm buildings, fences, and stock.

**Consequences** - In a rural settlement, it is quite a high consequence as there are no fire response facilities or equipment available within 30-50 minutes response time, by which time several homes or a factory could be burnt down. Rural communities are at increased risk from wildfire because of their isolation and difficulty with evacuation. Wildfires also have impacts on biodiversity, conservation, and tourism.

Urban fires are also of major concern as significant damage to a range of buildings is quite possible, affecting people's homes and business alike. As with rural fire people, resources can be a problem with volunteers off the Island.

**Likelihood** - There can be significant damage to a range of buildings, especially if there is hazardous substance kept on site. There is a likelihood that this type of fire will occur but is more likely to be in the rural settlement.

**Consequences** - If the loss is one of the processing plants this could have a high impact affecting owners, employees, fishers, exporters, freighters and the power company (if they are on main supply).



## Drought

The risk of drought in the Chatham Islands is more of a nuisance than a major concern; however, there is a probability that dry seasons will be drier. With global warming, events are expected to become more intense and last longer. Drought is most likely to occur where soils have low moisture-storage potential and have little or no irrigation available.

The severity of a drought is often described using potential evapotranspiration deficit (PED), a measure of the gap between the water demand of plants and what water is actually available. PED is measure in millimetres and can be thought of as the amount of water that would need to be added, by rainfall or irrigation to keep pasture growing at an optimum rate. El Nino Cycles influence the occurrence of droughts and the interdecadal Pacific Oscillation. El Nino is more common during periods of north-westerly winds followed by South-westerly winds.

**Likelihood** – Climate hazards result from extremes in the distribution of the climate events including drought.

**Consequences** – Shortage of water for both stock, and human consumption. Wildfire risk increases during dry periods and drought. This is particularly so when a sudden dry period follows a period of good rainfall, as the vegetation that has grown well dries out and becomes easily combustible. Wildfire hazards can increase during prolonged droughts as the amount of vegetation available to fuel fires increases.

## Sea Level Rise

Any potential rise in sea level would have a profound effect on the Chatham Islands and in particular on low-lying areas of Chatham Islands. A rise of one to two metres in sea level would significantly alter conditions in Te Whanga, leading to enhanced erosion of all lagoon shores and substantial modification of the current morphological configuration of the Northern and Eastern Chatham Islands.

**Likelihood** - Any rise in sea level due to global warming would be slow allowing ample time to respond and adjust.

**Consequences** - Harbours, low-lying settlements and properties would also be affected.

## Flooding

Abnormally high tides, storm waves or tsunami may cause inundation of low-lying land, affecting buildings and housing. Flooding of this type is not common and as long as hazard risks are considered when development does occur then the impact may remain low. A flood also occurs when the amount of water in a river exceeds the capacity of the river channel and inundates adjacent land.

Floods are an integral part of rivers natural cycle transferring sediment through the river system to floodplains and offshore. The size of a flood in a river depends on the intensity, duration and total amount of rainfall, and the characteristics of the catchment and floodplain. As New Zealand is surrounded by ocean and lies in the zone of strong westerly winds which flow around the southern hemisphere where warm, moist air of tropical or subtropical origin meets cold dry air from high latitudes.

Topography and the angle at which the airstream hits New Zealand's ranges, along with the temperature and humidity of the air, dictate the distribution of rainfall over the country and consequently, heavy rainfall can occur at any time of the year in any part of the country.

**Likelihood** – Global warming indicates that changes to the sea-levels are most likely to rise 30-50cm by 2100. This rise will accelerate coastal erosion, inundation, flooding from storms. Weather events are likely to become more frequent and intense. Heavy rainfall will become more common.

**Consequences** - Warnings of large events should be sufficient to avoid any loss of life; however, the main human impact will be displacement, accommodation issues, and distress through loss of possessions. Loss of infrastructure will be significant, especially roads, bridges and loss of pasture for farming and horticulture. There would be noticeable disruption to some aspects of normal social functions like education, employment, and business interruption. The financial implications are major, through under or no insurance.

## *Tsunami*

Chatham Islands are vulnerable to tsunamis from New Zealand, other Pacific Islands and from across the Pacific Ocean, most notable South America. Chatham Islands Council has modelled potential tsunami inundation and used this information, along with historic and pre-historic tsunami records, to develop tsunami evacuation zones for the Chatham Islands. tens to hundreds of kilometres of coastline. The most significant potential local tsunami source from earthquakes is the Hikurangi subduction zone along the east coast of the North Island. It is capable of producing a magnitude 7.5-8.5 earthquake, large enough to generate a tsunami which would affect many kilometres of coastline along the east coast of the North Island, upper South Island and the Chatham Islands. There are also many faults along the continental shelf off New Zealand's east coast which are capable of generating tsunamis.

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## Power failure

The risk analysis was centred around with a fire or tsunami event interrupted the main power supply at its point of origin, however it did not consider power loss at a settlement i.e. power lines taken down during a tsunami, wind storm, rural fire. Therefore the risk analysis will remain as has been identified for the likelihood and consequence.

**Likelihood** - Loss of power is likely to be from wind storm such as cyclone damage or fire

**Consequences** - A major fire at the generation plant could potentially take out the power supply for an extended period. Until emergency generators or temporary supply power resorted this could also be dependent on resources from New Zealand.



## Water Failure

The Chatham Islands Council is required to carry out a water supply service assessment under the Local Government Act 2002. The legislation states that the council has an obligation to assess water and sanitary services and it gives specific details as to the scope of the assessments and processes by which they must be done. There is currently no demand management strategy for the Waitangi reticulation system, these needs to be addressed.

There is however a flow meter, which was fitted to each domestic property during the upgrade in 2004/05 which means that water demand, can be monitored on a regular basis and strategies implemented to reduce demand to an acceptable level if required. There is the potential for infrastructure damage caused by flooding, tsunami, erosion/stability or earthquake. Risks arise from any number of sources, but can generally be grouped into two main areas:

- *Management, those risks that are largely concerned with the way the water network is managed, including funding, resourcing, programming of work and interaction with the public; and*
- *Environmental, those risks that are concerned with the impact of the environment on the physical assets, including natural and manmade disasters.*

**Likelihood** - Storage and distribution system fails because there is not enough water in post treatment storage to meet the demand is unlikely but is expected to occur every 5-10 years.

**Consequences** - If this was to happen, the consequences would be major but the overall risk would be medium. May, need to consider making available bottled drinking water.

## Wastewater

Wastewater treatment is to achieve a water quality that is able to support the public economic recreational and cultural needs and which safeguard the life supporting capacity ecosystems. The plant operation must manage the impact on natural and physical resources in a manner which enables the community to be sustainable and operational, but must control adverse effects to minimise effects of the environment.

If the wastewater treatment plant stopped working the septic tank would fill up and flow out the overflow to the old sand filter beside the works depot. If the risks have been mitigated and are reasonably low risk, management for the operation and maintenance is addressed by the response time for the contractor to attend to power failures and blockages.

The contractor has two trained operators for the wastewater activity and the electrical service has maintenance staff to assist in the event of an emergency. In addition the mainland based staff can be on the Island within a day

or two. The connection of a diesel generator could also provide electricity for raw wastewater pumps, and treatment plant to ensure continuity of supply of service.

**Likelihood** - The likelihood that the treatment plant was to fail is possible at some stage.

**Consequences** - If it were likely to fail the consequences would be short lived before it was up and running again therefore the consequences would be low. Need to make available portable-loos for public use.

## Telecommunication

Communication off the Island is still of concern as the limited phone lines continue to become over loaded. However, this issue is still being addressed, and in the event of an emergency, the Emergency Operation Centre has access to a satellite phone, and a BGAN, which can give them access to internet, phone, and fax, there is also access to the Police HF radio.



**Likelihood** – The likelihood of losing communication is quiet high and does happen.

**Consequences** – Losing communication with New Zealand is a concern but the Island has considerably improved its internal communication and the community is more resilient.

## Roading

Several section of the Islands road networks along coastal or lagoon fringes may be susceptible to flooding from tsunami, surge, sand drifts, or landslips. This may render the roads impassable for hours, days or longer. The loss of bridges can take out other services, causing access problems and affecting other utility owner's restoration process. It is possible that an event will damage the infrastructure at the same time, with wider consequences for communities that become isolated, one route in and out. There is also the possibility of a bus crash somewhere on these roads, with 20 or more passengers.



**Likelihood** – It is possible for one of the hazards named above to happen at any time.

**Consequences** – The impact for the different hazards outlined would need to be dealt with separately. The incidents would be dealt with on the same lines as an air crash and would have the same emotional impact.

## Air Transport

Due to the Islands geographical isolation in terms of sea, the airport is an important asset and vital link to New Zealand. During normal times and times of an emergency, any failure of the airport infrastructure could affect the airports ability to function. There is a backup runway at Hapupu; however, the use of this would largely depend on road access at the time.

**Likelihood** – There have been reported incidents of air crashes on or around Chatham's and Pitt so the reality of it happening again is quite possible.

**Consequences** – The impact would depend on the type of crash you were dealing with, the smaller the plane the smaller the level of impact, less passengers, less casualty, less deaths etc. The larger the plane the more casualties or deaths we are dealing with. It has already been determined that the Island emergency services capacity would be exceeded and would need assistance from New Zealand.

## Civil Unrest

Crime is a breach of rules or laws for which some legal systems can ultimately prescribe a conviction. Modern societies generally regard crimes as offences against the public or its communities, distinguished from torts (offences against private party) that can give rise to a civil cause of action.

**Likelihood** – The likelihood of criminal unrest on the Chatham Islands is low, there is no organised crime, the islands culture and isolation act as a natural deterrent to general crime. The crimes likely to be committed during a serious natural event are theft presented by opportunity and assault as the result of a volatile dynamic situation, emotions are likely to be high and it is possible personal injury may occur.

**Consequences** – The consequences of breaching the law remain the same, if a person or persons are identified into consideration. If needed, the Police may authorise someone else to exercise powers under the CDEM Act 2002 or other Acts as required to assist in maintaining law and order, with a view to protecting life and property.

## Hazardous Substances

Hazardous substances by virtue of their very nature present a risk to people and the environment. The degree of risk is dependent on the substance, its state, concentration, quantity, and also the conditions surrounding it. The degree of risk can increase with a change in its state or the conditions surrounding it. It may in itself present a risk by way of a leak, explosion or may be in association with another hazard event, e.g. fire, traffic accident.

Most hazardous substances are stored, used, and transported in relatively small quantities but still have the potential to cause damage to life. Petrochemicals include petrol, diesel, aviation fuel, and natural gas-based products and solvents. Pesticides are stored and used in, antifouling treatments for boats, agriculture, and horticulture. Domestic products such as cleaners and detergents that incorporate hazardous substances are also widely used including industrial chemicals.

**Likelihood** – There is no readily available data that gives the precise extent of these impacts, but there is sufficient information to show that death and illness from acute and chronic exposure to hazardous substances affect many thousands of people each year in New Zealand. Most adverse health effects arise from exposure to hazardous substances in the workplace. Common incidents result from LPG use, and children swallowing household products.

Incidents can be caused by a natural hazard affecting a production and storage site, transport vehicle or end user site, a transportation accident, lack of care during use, criminal activity, or inadequate storage or disposal. However, large scale hazardous substance incidents that would require mass evacuation and co-ordinated CDEM involvement on the Chatham Islands are uncommon.

**Consequences** – A hazardous substance incident is an unplanned or uncontrolled release of hazardous substances such as fuels, flammable substances, toxic chemicals, pesticides, microorganisms, including contaminated waste products. The consequences of hazardous substance incidents can include death, illness, evacuation, environmental contamination and economic losses for businesses involved. The effects of a hazardous substance release can be worsened if two hazardous substances stored near each other trigger a chemical reaction.

## Public Health

During an emergency, essential services may be disrupted e.g. power, household water supplies, sewerage and wastewater, refuse collection and food supply. Houses may become uninhabitable and people may need to relocate to temporary accommodation, which may become overcrowded. This may lead to unsafe, unhealthy, or insanitary conditions, increasing public health nuisances and the risk of disease already present in our communities. Some excellent websites to refer to are [www.gethru.govt.nz](http://www.gethru.govt.nz), Ministry of Health protecting your health in an emergency and WHO water, sanitation and health.

**Likelihood** – A public health emergency may occur in the future but there is no certainty about when or how or even where it will originate. Given the isolation of the Chatham's the effects will be significant.

**Consequences** – Many Chatham Islanders are self-sufficient in terms of power generation, water storage, septic tanks, food and supply storage. Depending on the disaster, the impact may be lessened because of this. Regardless there are a significant number of people dependent on town supply that may well be affected.

Sustainable support services required in an emergency will be a challenge given the communities isolation in comparison to the rest of New Zealand.

## *Pandemic*

Infectious disease pandemics are characterised by the global spread of a new type of virus that can cause unusually high rates of illness and mortality for an extended period. Most people are not immune to a new virus and are therefore susceptible to infection. A pandemic can only start under certain conditions, such as a new strain of influenza virus emerges. It infects humans causing serious illness and it spreads easily and is sustainable from human to human. Some pandemics have comparatively mild effects, whilst others may have incredibly harsh impacts.

Virus subtypes caused three pandemics last century, all of which spread around the world within a year of being clinically recognised. 1918/19 Spanish flu A (H1N1) was the most severe pandemic causing between 50 and 100 million deaths worldwide with a large impact in New Zealand. Viruses containing a combination of genes from a human influenza virus and an avian influenza virus with the 1918 pandemic virus appearing caused the 1957 and 1968 pandemics to be completely avian in origin.

**Likelihood** – Another pandemic will occur in the future but there is no certainty about when or how, or even where it will originate. Because of our isolation, it may be possible to delay the impact, but the effects would still be significant.

**Consequences** –The relative impact on each aspect of society would be moderate. Services and supplies including food, electricity supplies, educational facilities, and postal services could be affected. It is normal business activities, regardless of their nature, that will suffer during a pandemic.



## *Bio-Security*

Bio-security is a set of preventive measures designed to reduce the risk of transmission of infectious diseases, quarantined pests, invasive alien species and living modified organisms. Bio-security helps to prevent the use of dangerous pathogens and toxins for malicious use, and the spread of biological agents. Although security is usually thought of in terms of "Guards, Gates, and Guns", bio-security encompasses much more than that and requires the co-operation of scientists, technicians, policy makers, security engineers, and law enforcement officials.

Animal bio-security is the product of all actions undertaken by an entity to prevent introduction of disease agents into a specific area, it is a comprehensive approach, encompassing different means of prevention and containment. A critical element in animal bio-security, bio-containment, is the control of disease agents already present in a particular area, and works to prevent novel transmissions. Animal bio-security may protect organisms from infectious agents or non-infectious agents such as toxins or pollutants, and can be executed in areas as large as a nation or as small as a local farm.

**Likelihood** –Transmission of pathogens can occur in various ways including physical contact, contaminated food, bodily fluids, objects, airborne inhalation, or through vector organisms. Infectious diseases that are especially infective are contagious and can transmit by contact with an ill person or their secretions. Infectious diseases with more specialised routes of infection, such as vector transmission or sexual transmission, are regarded as contagious but do not require medical quarantine of victims.

**Consequences** – Chatham Islands is unique because it has relatively few pests. The establishment of infectious diseases is possible but unlikely and would if contagious require medical quarantine of human or animal.

## *Marine Oil Spill*

Marine oil spill is an actual or probable oil spill into the internal or marine waters of New Zealand. It must be either directly into the sea or ultimately reach marine water and have arisen from activities covered by the maritime transport act. When oil is spilled at sea it undergoes a number of physical changes some of which lead to its disappearance from the sea surface, whilst others cause it to persist.

Although spilled oil is eventually assimilated by marine environment, the time involved depends upon such factors as the amount of oil spilled, its initial physical and chemical characteristics the prevailing climatic and sea conditions, and weathering and how to identify the window of opportunity for dispersant application.

**Likelihood** – it is possible due to the high number of fishing vessels used and the fact that they fuel up in the water alongside the wharf.

**Consequences**– this would be moderate as the type of fuel used is mainly diesel.

There is still work to be done in this area and maybe included during the life of the plan.

*\*Reference gns cretaceous-cenozoic geology and bio-stratigraphy of the chatham islands*

*\*reference niwa report mefo5307 chatham islands climate change*

*\*reference awesome forces "geoff hicks and hamish campbell*

# SECTION 3: REDUCTION

## Introduction

The reduction section of this Plan relates to the Goals set out in the National CDEM Strategy. The National Strategy defines reduction as “activities and measures taken to analyse long term risks to human life and property from natural or man-made hazards and to eliminate or reduce those risks, as practicable”. Risks from hazards, that the Chatham Islands are exposed to can pose a significant threat to our social, economic and physical environments.

Risk reduction is an effective strategy for addressing those types of risks this section introduces different approaches, methods, and tools for reduction of some of the major risk threats to the region.

## Principles

- *Any event that has the potential to cause harm or injury to human life and safety will therefore take precedence over all other risk priorities*
- *Risks that have the potential to cause severe economic losses, substantial damage to building or infrastructure including lifeline utilities, will also have a high priority*
- *Integrated planning and risk management at all Council levels*
- *Multi agency and all of government approach*
- *Focus of impact effects and outcomes*

Hazards management policy is governed by statutory and non-statutory instruments. The link between these are relevant for risk reduction activities, the Resource Management Act, 1991, the Local Government Act, 2002, i.e. CDEM Group Plan including the non-statutory plans i.e. asset and structural plans, Chatham Islands Economic Development and infrastructure strategies, Hazard and emergency management guidelines. All emergency standard operating procedures and all emergency plans.

Identifying risk as exposure to the consequences of uncertainty or potential deviations from what is planned or expected and being pro-active rather than re-active in the way we manage our hazards is an effective way to allocate and use resources. This will improve incident management and reduction of risk and improve the community and partner confidence and trust.

## Risk Management

Risk management still needs to be used as a key tool to ensure that social, economic, built, and environmental issues are incorporated into the planning processes where human activities interact with natural and technological hazards. As part of describing and ranking the risks, key issues have been identified and the actions, targets and objectives have been set in this plan.

## Key Elements of Risk Management

- *Communicate and consult with internal and external partners as appropriate at each stage of the process.*
- *Identify and analyse the risks as per the Risk Profile Section of this Plan*
- *Evaluate the risks to consider the balance between potential benefits and adverse outcomes. This enables decisions to be made about the extent and nature of treatments required and about priorities.*
- *Treat risks by developing and implementing strategies for increasing potential benefits and reducing potential risks.*
- *Monitor and review for the importance of continuous improvement - it is necessary to monitor the effectiveness of all the risk management processes and the effectiveness of treatment measures to ensure changing circumstances do not alter priorities.*

## Reduction Goals

- Build on community awareness risks and hazards.
- Reduce the potential of hazard in the community.
- Plan for a managed approach to restore Social, Economic, Natural, and built environments.
- implement where possible cost effective risk reduction

## Reduction Objective

Reduction issues	Relationship to national cdem strategy	Reduction objective	Method	Action
#1 Need for annual revision of hazards consequences and impact.	Goal 2 “ reducing the risks from hazards to new zealand”	Continue to develop and review our plans that are consistent with known hazards and vulnerabilities.	Review plans that relate to known hazards.	Continue to maintain and review strategic plans that relate to hazards, ensuring they are compliant with all statutory requirements, , and links into the appropriate documentation.
#2 Ensuring “risk management” is used as a tool	Goal 2	Ensure that “risk management” as a key tool is not only used, but, incorporated into the planning processes where human activities interact with natural and technological hazards.	Establish internal processes to ensure any matters impacted on by natural or technological hazards have regard to the overall emergency management strategy.	Ensuring local authorities ltp incorporates emergency management, and hazard risk management
#3 Resourcing the work plan to complete the actions identified	Goal 2	A strong focus on reducing risks with comprehensive planning and methods to ensure that the highest priority risks identified are targeted first.	Evaluate, monitor and review all emergency management plans as outlined in the annual work plan.	Ensure that all cdem plan actions identified are included in the annual work plan over a five year period.
#4 Annual staff training in areas that they may be require to assist in	Goal 2	Ensure emergency staff and volunteers are trained and resourced adequately.	Continue to develop and train in areas of emergency management across the 4r's	Ensure that adequate training is developed and implimented for cdem, ceg, eoc, staff and volunteers
#5 Not all lifeline utilities have continuance plans in place	Goal 2	Ensure that lifeline utilities are prepared and able to operate during an emergency at some level.	Ensure that all lifeline utilities have continuance plans in place.	Keep copies of all continuance plans with sop's in the emergency office.

# Supporting Acts, Plans & Mechanisms

## Legislation

- *CDEM Act 2002*
- *CDEM Act Amendment 2016*
- *National CDEM Plan 2015*
- *Local Government Act 2002*
- *Fire Emergency New Zealand Act 2017*
- *Biosecurity Act 1993*
- *Resource Management Act 1991*
- *Building Act 2004*
- *Soil Conservation and Rivers Control Act 1941*
- *Hazardous Substances & New Organisms Act 1996*
- *Maritime Transport Act 1994*
- *Health Act 1956*
- *NZ Public Health & Disability Act 2000*
- *Health and Safety at Work Act 2015*
- *Canterbury EQ Recovery Act 2011*
- *Defence Act 1990*
- *Epidemic Preparedness Act 2006*
- *Public Works Act 1981*
- *Building (Earthquake-Prone Buildings) Amendment Act 2016*
- *Petroleum Act 1937*

## Statutory and Non Statutory Planning Documents

- *Animal Welfare 1999*
- *Regional Policy Statements & Plans*
- *Long Term Plans*
- *Asset Management Plans*
- *Business Continuity Plans*
- *Infrastructure Management Plans*
- *Oil Emergency Response Strategy*
- *The Guide to the National Plan 2015*
- *Resource Management Plan 2001*

## Best Practice Guidelines and Technical Standards

- *MCDEM Directors Guidelines, Supporting Plans, Best Practice Guides, Information Series, & Technical Standards*
- *CDEM Strategies*
- *ISO Standards*

# SECTION 4: READINESS

## Introduction

The Readiness Section relates directly to Goals 1 and 3 of the National CDEM Strategy. Readiness involves planning and developing of operational arrangements, capacity, and capability before an emergency happens. Readiness is dependent on the nature and scope of identified hazards and risks including likely emergency scenarios.

There are two distinct aspects to Readiness:

**Organisational Readiness** which focuses on the Readiness of emergency response organisations, emergency services, local authorities, and health services providers. This can be achieved through planning, developing capability, exercising and testing arrangements, alongside monitoring and evaluation processes.

**Community Readiness** which focuses on communities, families, and individuals abilities to meet their own needs during and after emergencies. Ensure communities are informed of hazards and risks so they are appropriately prepared.

## Principles

- *A description of the current levels organisational and community readiness*
- *Issues that arise from current levels of readiness*
- *Objectives relating to the maintenance and enhancement of readiness including planning, training and education*
- *Outline methods and resources required to achieve these readiness objectives*
- *Arrangements in place to support readiness planning*
- *Description of ongoing readiness activities*
- *Develop, maintain, and enhance plans for predetermined functional responses and consequences*
- *Establish and maintain effective support for emergency events*

## Organisational and Community Issues

Organisational readiness ranges between 80% prepared 24/7 with community at 20% having a home kit and 60% knowing where to go in an emergency

## Issues, Objectives, Method and Action

Organisational issue	Relationship to national cdem strategy goals	Readiness objective	Method	Action
#1 <i>Improving accessibility of cdem research</i>	Goal 1 <i>“increasing community awareness, understanding, preparedness and participation in civil defence emergency management”</i>	<i>Increase funding opportunities to pursue research projects.</i>	<i>Relationship building and networking within and across the emergency and science communities.</i>	<i>Speak with ecan, mcdem, gns, niwa, regarding sourcing funding avenues for inundation modelling.</i>
#2 <i>Availability to work with all schools in hazard awareness</i>	Goal 1	<i>Continue to work with schools/early childhood learning centres promoting hazard awareness.</i>	<i>Provide educational information to all schools and include where possible in community programmes or exercises.</i>	<i>Education tools from nperg  Develop hazard information that will help with hazards awareness in the schools relating to the chathams and pitt island.</i>
#3 <i>Develop a pim plan</i>	Goal 1	<i>Consistence planning</i>	<i>Provide adequate information to pim personnel for procedure and processes, templates etc</i>	<i>Develop pim plan  Form pim team  Develop training programme  Implement training</i>
#4 <i>Increasing community awareness, understanding, preparedness and participation in civil defence emergency management</i>	Goal 1	<i>Promote community understanding of hazards, risks, impacts and consequences identified in this plan.</i>	<i>Use of local media, schools and brochures and involvement in community events</i>	<i>Access to local newspaper “chatham islander” publish updated cdem brochure including risks and hazards. Mail drop, use of council minutes/reports</i>
#5 <i>Community involvement in cdem, planning and preparedness</i>	Goal 1	<i>Encourage community to be more involved with the decision-making.</i>	<i>Consultation on cdem group plan</i>	<i>Encourage public to comment on cdem group plan.  Encourage public to attend cdem group meeting.</i>
#7	Goal 1	<i>Increase joint partners effective</i>	<i>Workshop and team</i>	<i>Encourage partners to work together during</i>

<i>Relationship building</i>		<i>collaboration and commitment</i>	<i>building</i>	<i>training and exercises.</i> <i>Encourage social events for teams to unwind. I.e. Response team christmas bbq, ect.</i>  <i>Publicised schedule of cdem governance meetings</i>  <i>Meetings with stakeholders</i>
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## *Actions*

The effectiveness of the Islands' response will reflect the quality of "Readiness Activities" undertaken by personnel who make up the organisation, integration with emergency services and overall preparedness of the public to meet particular disasters. The CDEM Group has a responsibility to ensure there is effective training for all emergency management personnel including the following

- *Emergency Management Staff*
- *EOC Personnel*
- *Response Team*
- *Council Staff*
- *Councillors*
- *Area Coordinators*
- *Welfare Personnel*
- *Controller*
- *Recovery Personnel*

## Training

The CDEM Group train in a 5-year cycle within the time span of this Group plan. This enables a logical progression from basic skill to a major exercise and then back to pick up any new members. This enables CDEM to build on and maintain the basic skills and experiences during this period. Once in the life span of this plan there must be a Tier 3-4 all out to the community training exercise including the involvement of the National Crisis Management Centre.

The following is the next 5-year commitment to training; however, the training exercises may not necessary run in order as shown, as long as they are; all completed over this period. CDEM Group also have a commitment to the 10 year National Exercise Program for training and annual training exercises for the Chatham Islands Response Team.

### Figure

**Year 1 Training**

EOC Training with and without the presence of the Emergency Management Staff, Controller

**Year 2 Training**

EOC and Welfare Personnel Training, this can be in the form of workshops or EOC, Welfare activation exercise

**Year 3 Training**

Public awareness program, working with the Schools and the communities

**Year 4 Training**

Working with all stakeholders, partners, and emergency services to build on awareness

**Year 5 Training**

All out to the community exercise (tier 3-4) is encouraged in the Chatham Islands. The idea of every home having a survival kit is encouraged and the CDEM Group promotes the use and maintenance of normal resources. Most homes have at least 3 days food supply and this is promoted as a general standard, the wider community have rainwater tanks for collection of water.

At risk groups that may need assistance are considered to be the elderly or disabled; however most if not all have family that can assist them if needed.

# SECTION 5: RESPONSE

## Introduction

It is the intention of this section of the plan to clarify the mandates, processes, and resources for operational, arrangements. Planning for response endeavours to manage residual risk and is carried out in the readiness phase commencing with the CDEM Group Plan. This planning involves local and hazard-specific planning and has the ability to direct and co-ordinate the response influenced by the measures already taken in the risk reduction and readiness phases.

The response section of this plan relates directly to Goal 3 of the National Civil Defence Emergency Management Strategy “Enhancing New Zealand’s capability to manage Civil Defence Emergencies.” This section also describes the actions taken immediately before, during, or directly after a civil defence emergency to save lives and protect property and to support communities to recover, with a focus on operational arrangements and documents that empower it.

## Principles

- *In accordance with the National CDEM Plan, all agencies should respond to an emergency by activating their own plans and coordinating with the lead agency to work within their own jurisdiction.*
- *Emergency services are expected to, during an event assess the effect on the community, and coordinate the local efforts of their agencies, to communicate assessments and actions with the lead agency.*
- *Response objectives are the preservation of life and the prevention of escalation of the emergency, by maintaining law and order ensuring the well-being of the community.*
- *Provision or restoration of essential services*
- *Preservation of Governance*
- *Protection of Property*
- *Protection of Natural, Social, Built, and Economic environments*

## Goals of the National CDEM Strategy

The Response section of a CDEM Group Plan should relate to Goal Three of the National CDEM Strategy.

Response issues should form the basis for the development of objectives that will improve response functionality that the CDEM Group and its local authority members and partner organisations will work towards in the CDEM Group Plan.

Figure



## Issues, Objectives Method and Actions

Figure 2

Response issues	Relationship to national cdem strategy	Response objective	method	action
#1 The people resources are limited with numbers declining every year	Goal 3 "enhancing new zealand's capability to manage civil defence emergencies"	Enhance the capability to support the response personnel during an emergency event.	Encourage partners and key stakeholders to enlist the support of their people resources to become involved in cdem.	Cdem group to inform the em of anyone interested in assisting in cdem and identifying where his or her expertise may be best suited.
#2 Community based response exercise once every five years	Goal 3	Test community capability during the life of this plan.	All out to the community exercise.	Develop and implement community exercise involving evacuation, testing all response plans.
#3 Unable to test partner or agency response plans	Goal 3	The ability to manage adverse situations during a response phase.	Ensure that all joint partners and agencies response plans are current and compliant.	Partner agencies and stakeholder consult with emergency management in the development of their plans
#4 Continue professional development within cdem including opportunities to learn from other cdem groups experiences across the 4'rs	Goal 3	Ensure training opportunities are made available to all cdem personnel	Develop or implement professional development programmes	Ensure annual training programs are scheduled for emergency personnel.  National 10 yr training program scheduled.  Ensure that exercises are developed that are relevant to us. May need to enlist the services of ecan with the development of exercises
#5 Promote capability through better communication cover during a response	Goal 3	Improve island capability to manage emergencies with better communication technology during a response phase.	Improve internet access and seek the availability for cell phone coverage	Continue to join with the enterprise trust to seek solutions to enhances communication capability pursue through all and any channels cell phone cover for the chatham

Response issues	Relationship to national cdem strategy	Response objective	method	action
#6  The community capacity to respond in a major emergency event maybe hindered due to people resources being off island	Goal 3	Ensure there are support systems in place in case there is a lack of cdem personnel on island during a response phase.	Seek support from off islands	Build relationship for a support team to come from nz if required

## *Functions of the Emergency Operation Centre (EOC)*

The EOC was established to provide control, direction, coordination of resources and support. The EOC also facilitates and manages information to support the local authority and emergency services that respond to a local emergency event that may be stretched. The EOC uses the CIMS (coordinated incident management system) which is utilised nationally by emergency services and other agencies as a basis for operational response.

An important aspect of CIMS is coordination of agencies to ensure consistent and effective response and recovery efforts. CIMS is about teamwork, sharing terminology and using modular organisational structure. CIMS is a multi-agency, incident control system (horizontally across agencies and vertically within).

The EOC is situated at the Chatham Islands Council building in the chambers, if we need to vacate the premises an alternate building will be decided on the day as the EOC is capable of working remotely from anywhere.

## *Co-ordinated Incident Management System (CIMS) Principles*

- *Common use of terminology*
- *A modular organisation*
- *Integrated communications*
- *Consolidated action plans*
- *Manageable control*
- *Designated emergency facilities*
- *Resource management*

## *Common Terminology*

Common terminology is essential in any emergency management system, especially when diverse or other than first-response, agencies are involved in the response. When agencies have slightly different meanings for terms, confusion and inefficiency can result. In CIMS, major organisational functions, facilities, and resources are pre-designated and given titles. CIMS terminology is standard and consistent among all the agencies involved.

## *Modular organisation*

A modular organisation develops from the top-down organisational structure at any incident. "Top-down" means that, at the very least, the first-arriving officer who becomes the Incident Controller establishes the Control/Command function. As the incident warrants, the Incident Controller activates other functional areas. In

approximately 95 percent of all incidents, the organisational structure for operations consists of command and single resources (e.g. one fire truck, an ambulance, or a tow truck).

If needed, however, the CIMS structure can consist of several layers.

## *Integrated Communications*

Integrated communications requires a common communications plan, standard operating procedures, clear text, common frequencies, and common terminology. Several communications networks may be established, depending on the size and complexity of the incident.

## *Consolidated Incident*

Consolidated Incident Action Plans describe response goals, operational objectives, and support activities. The decision to have a written Incident Action Plan is made by the Incident Controller.

## *Action Plans*

Incident Action Plans should cover all the objectives and support activities needed during the entire operational period. A written plan is preferable to an oral plan because it clearly demonstrates responsibility, and provides documentation when requesting assistance. Incident Action Plans that include the measurable goals and objectives to achieve are always prepared around a timeframe called an operational period.

## *Manageable span of control*

A manageable span of control is the number of individuals or functions one person can manage effectively. In CIMS, the span of control for any person falls within a range of three to seven resources, with five being the optimum.

## *Designated Incident Facilities*

It is important there are designated incident facilities with clearly defined functions to assist in the effective management of an incident. Every incident requires one Incident Control Point. Additional facilities are designated as the complexity of an incident increases.

## *Comprehensive Resource Management*

Comprehensive resource management is a means of organising the total resource across all organisations deployed at an incident.

- *Maximises resource use*
- *Consolidates control of single resources*
- *Reduces the communications load*
- *Provides accountability*
- *Reduces freelancing*
- *Ensures personal safety*
- *Assigns all resources to a status condition.*

## *EOC Structure*

The EOC structure is a response organisation but it may not require every function operating during some emergencies. Some situations may only require the Controller and other staff as required. The EOC will require information display materials, telecommunication and any supporting equipment required to ensure efficient operation, including capabilities to support systems that may be required to allow for continuous and independent operation.

## *EOC Personnel*

This section's intention is a quick reference and read in conjunction with the EOC standard operating procedure, personnel roles, and responsibilities. EOC management team consists of Hazard Risk Manager/PIM, Administration Manager, and Comm.'s Manager. The Recovery Management Team consists of any member of the CEG or Council (those without active role in response) and, if needed, multi-agency personnel.

## *Communications*

Communication's Manager controls all information coming in and out of the EOC and forwards this information to operations for disbursement or to individuals. Comm.'s require more than one communication's person to assist and will need to build a team to support. Comm.'s Manager is responsible for ensuring radio, telephone, TV and computer resources and services are available to EOC staff. Comm.'s establish links with Incident Controllers, (Area Co-ordinators) and other emergency agencies, response team, and welfare centres.

Ensure that telecommunications (including sufficient frequencies to facilitate operations) and adequate communications operators are available for 24-hour coverage. Have input in communication plans, telephone, email lists for active functions within the EOC, supervise all communications personnel, and report to Controller.

## *Administration*

Collects, organises and files all completed event or disaster related forms, including all EOC position logs, situation reports, Action Plans, and any other related information, just prior to the end of each operational period. Provide document reproduction services to EOC staff; distribute the Sitreps, Action Plans, and other documents as requested. Maintain a permanent archive of all Sitreps and Action Plans associated with the event or disaster.

Assist the Controller with any administration support as needed. Supervise any Admin staff including training personnel in EMIS software.

## *Group Controller*

Controllers need to be conversant with the operational planning process and be clear on the levels of responsibility of Control and how lead responsibilities are assumed. Controllers should never feel they have to make decisions in isolation and should be well established with agencies and stakeholders. The EOC may need to operate for long periods at a time from full activation until stand down.

The Controller will determine the appropriate staffing levels for each required shift based on the current and projected situation. There may not be the personnel to maintain a full team in the EOC; therefore, a sustainable level of staffing will need to be established. When considering shifts you should include two to three shifts of personnel for an initial period, this could be at reduced strength depending on the situation.

While it is the decision of the Controller to reduce EOC personnel, it is then the responsibility of Logistics to produce the roster for shift change. Issues that require a decision or approval from the Controller include:

- *Establishing EOC priorities and objectives*
- *Authorising EOC Action Plans*
- *Extraordinary resources requests*
- *Authorising media releases*
- *Authorising media presence or interviews in the EOC*
- *Authorising public information bulletins*
- *Authorising Situation Reports*
- *Authorising Local Evacuation Orders*
- *Preparation of Declaration of State of Local Emergency*
- *Authorising request for mutual aid*
- *Authorising request for National Support*

All EOC staff must carefully assess, evaluate, and prioritise each issue requiring a decision or approval. Once the decision is made, it must be assigned to applicable functions, positioned for implementation and communicated to all appropriate EOC staff and other response levels as appropriate.

## *Appointment of Group Controllers*

- 1) A Civil Defence Emergency Management Group must appoint, either by name or by reference to the holder of an office, a suitably qualified and experienced person to be the Group Controller for its area.
  - 2) A Group must appoint, either by name or by reference to the holder of an office, at least one suitable qualified and experienced person to be the person or persons who are to perform the functions and duties and exercise the powers of the Group Controller on the occurrence of a vacancy in the office of Group Controller or the absence from duty of the Group controller for any reason, for the duration of the vacancy or absence.
  - 3) A Group may, at any time, remove from office or replace a Group Controller appointed under subsection (1) or subsection (2).
  - 4) A Group may –
    - a. Delegate the authority to replace the Group controller during a state of emergency with a person appointed under subsection (2) to one or more of the representatives who are authorized under section 25(1) to declare a state of emergency for that group area and
    - b. Impose limitations on the circumstances in which the authority delegated under paragraph (a) may be used.
- *In accordance with the CDEM Group Act s26 the Emergency Manager is appointed as the Group Controller*
  - *The Mayor is appointed as the Alternate Controller who will act in the absence of the Group Controller (EM) s26 (2)*
  - *The Deputy Mayor/Council General Manager be appointed in accordance with s26 (2) as Alternate Controllers in the absence of the Emergency Manager and/or Mayor.*

## *Function of Group Controller s28*

- 1) The Group Controller must, during a state of local emergency for the area for which the Group Controller is appointed, direct and coordinate, for the purposes of the Act, the use of personnel, material, information, services, and other resources made available by departments, Civil Defence Emergency Management Groups, and other persons.
- 2) The Group Controller must also perform any functions or duties delegated to the Group controller by the Civil Defence Emergency Management Group or conferred on Controllers by the act or any other enactment, and may exercise any power conferred on the Group Controller by delegation under the Act.

## *PIM*

The role of the PIM during an emergency involves collecting, analysing, and disseminating information to the public. It promotes effective leadership and decision-making, and enables people affected by the emergency to understand what is happening and take the appropriate actions to protect themselves. The goal of the PIM is to create strong public confidence in the emergency management response and support public safety with public information.

The PIM will positively influence public behaviour with public information and manage public expectations. The PIM role is responsible for dealing with the media, issuing public information to the community and managing community relations.

In order to fulfil these functions, plan, practise, and prepare for an emergency, ensure development of the necessary skills is undertaken. All incoming media will come into the EOC via the communications officer and forward to the PIM. Any media such as TV and radio is to be directed to the Controller. Outgoing media-releases must be authorised by the Controller.

## *Risk Management*

When the emergency manager is the Controller the need for Hazard risk management is not required to be filled by any person; however if the EM is off islands and the alternate controller is standing in for the primary then the EM can be contacted to fill the hazard risk management role of advising the likely impact may have on decision making and the Risk Management responsibilities. Including ensuring that good risk management practices apply throughout the response organisation, and that every function contributes to the management of risk.

Protects the interests of all EOC participants, agencies, and organisations, monitors situations for risk exposures, and ascertains probabilities and potential consequences of future events. Ensures that any, and all, unsafe operations within or outside the scope of the EOC Action Plan, be halted or modified and notify the Controller of the situation.

## *Operations*

Operations Manager is responsible for support of an emergency through the implementation of the Action Plan. Operations co-ordinates response for all operational functions assigned to the EOC, ensuring that objectives and assignments identified in the Action Plan are carried out effectively. Operations also coordinate operation with activated agencies and maintain a communications link between incident controller's sites.

Operations ensure that the Planning Intelligence, are provided with status reports and major incident reports. Operations will also conduct periodic operations briefings for the Controller and Management team as required or requested. The Operations Manager reports to the Controller. The Controller must sign off all Plans before they are actioned.

## *Logistics*

Logistics Manager is responsible for providing facilities, services, personnel, equipment, materials, tracking financial activities, obtaining and providing response resources. Logistics functions include providing telecommunication services and information technology, locating or acquiring equipment, supplies, personnel facilities, and transportation as well as arranging for food, lodging, and other support services as required. Logistics is also responsible for establishing the appropriate level of staffing within the logistics section, continuously monitoring the effectiveness of the organisation and modifying as required.

Coordinate closely with Operations to establish priorities for resource allocation within the operational area. Keep the Controller informed of all significant issues relating to the Logistics section. Logistics also ensures critical resources are allocated according to the EOC Action Plan policy, priorities, and direction.

Logistics also coordinates with Welfare on the provision of food and lodging for the EOC and site personnel, keeps accounts of financial costs during the response phase of the emergency. The Logistics Manager reports to the Controller.

## *Planning Intelligence*

Planning Intelligence Manager is responsible for accumulating, collating, and analysing information for development and maintenance of situation reports (sitreps) and action plans, advanced planning, technical specialists and stand down. Planning Intel collects, analyses, displays situation information, and prepares situation reports. They also prepare and distribute EOC action plans and facilitate action planning processes, track resources, and conduct advance planning activities and reports.

Planning Intel also documents and maintains files on all EOC activities and provides technical support services to EOC section. Action Plans are essential and require collaboratively identifying and providing for the priorities, objectives, tasks, resources and co-ordination necessary to support the agencies and personnel responding directly to an emergency. Action Plans support and coordinate the response intelligence activities. The Planning Intelligence Manager, reports to the Controller.

## *Recovery*

During the Response phase the Recovery Manager should be available to take in an overview of the response activities. The Recovery Manager should assess the requirements for assistance for community and individual's recovery from an emergency, identify immediate steps for short term or long term efforts that can be taken to initiate and speed recovery within the area. Recovery Manager should anticipate actions required over the long term to restore local services and return the area to pre-emergency conditions. The Recovery Manager reports to the Controller.

## *Area Co-ordinators*

Area Co-ordinators are responsible for the coordination of their communities during an emergency and are the first point of contact for the public. Information will go directly to coordinators in the form of an action plan; coordinators implement the action and gather the community to a safe area. Once at the safe area they assist the Welfare personnel or assume the role of Welfare Manager and settle the public into the centre.

They are responsible for maintaining contact with the EOC and supplying sitreps maintaining registration logs at the safe areas and collating all information needed to account for the whereabouts of any misplaced persons from their area.

# ***EOC Activation Process***

## *Alert*

Emergency management office will be notified of an emergency event and will notify the follow;

- *Controller*
- *Ministry of Civil Defence Emergency Management*
- *Communication officer*
- *EOC personnel as required (Police, Hospital, Fire, DOC, E.Trust, MPI)*
- *Area Coordinators*

With an impending emergency during an alert phase, only those that need to be advised will be contacted. Monitoring of the event will take place and the event will dictate the level of this activity.

## *Standby*

A threat is imminent and key personnel are put on standby. Monitoring of the situation will be undertaken by Key EOC personnel and contact with the Ministry of Civil Defence Emergency Management is established. All EOC, area co-ordinators and response team members are put on standby.

## *Full Activation*

An event has or is going to occur, the emergency management office establishes contact with Ministry of Civil Defence Emergency Management to confirm if the threat is coming off shore or to make them aware of a threat from the Chatham Islands. All EOC and emergency personnel are activated.

# Level of Response Coordination

**Figure 3**

Level 1 Tier 1	Single agency incident with on-site coordination	No declaration
	Local incident or response activities dealt with by an emergency service, local authority or other responsible organisation without the activation of an eoc. The next level, incident coordination, will be activated if more than one organization is, likely to be, involved.	
Level 2 Tier 2	Multi agency incident with on site, local coordination, these are managed by the incident controller of the relevant lead agency.	No declaration
	Localised incident dealt with by the emergency services and or local government, where inter agency coordination, using nz cims is required.	
Level 3 Tier 3	A multi-agency emergency led by an agency other than a cdem group or a state of local emergency below cdem group level, (district, or ward). At this level, cdem group support and coordination will be required and may be monitored by the national controller.	Declaration of a state of local emergency for a ward, part of a district or one or more local authorities within the cdem group area.
	An emergency response involving several response organisations and or several incidents, where coordination and direction of the response and resources is required. Eoc's may be activated by lead or coordinated organisations in support of incident coordination, whether a state of local emergency has been declared or not.	Unitary authorities would use level 3 forward declarations only.
Level 4 Tier 4	A multi-agency emergency with more significant consequences than in level 3 coordination may be required between agencies or areas of both cdem group support and coordination is required the actual or potential need for a declaration national monitoring will occur and national support is available.	Declaration of a state of local emergency for the whole of the cdem group area.
	An emergency that is regional significant, or where the response and resources provided to a single or multiple eoc's would benefit from being coordinated. This level of coordination is provided from a geoc/ecc. A state of local emergency may be declared in this instance but is not a prerequisite for cdem group coordination to be activated.	
Level 5 Tier 5	A state of national emergency exists or the civil defence emergency is of national significance, at this level, coordination by the national controller will be required.	Declaration of a state of national emergency.
	An emergency that is nationally significant, or requires national coordination and support for regionally coordinated responses. The respective national coordination facility, such as the ncmc or national health coordination centre, will be activated to support the geoc/ecc, which will in turn be supporting participating local/agency eocs a state of emergency does not have to have been declared for this level of coordination to be activated.	

# Declaration

## Authorisation To Declare A State Of Local Emergency

- *Authorisation to declare is contained in two separate sections in the CDEM Act 2002 (s25 and s68) and must be read together.*
- *Forms for declaring, extending, and terminating a state of emergency*
- *A person who declares a state of emergency, or extends or terminates a state of emergency, must do so by a declaration in the appropriate form prescribed in regulations made under Section 115, or a form of similar effect — Section 73(1).*

## When Declaring a State of Local Emergency

- *A state of emergency comes into force immediately on the making of the declaration declaring it, or at a later time and date stated in the declaration s70 (1)*
- *A person who declares a state of local emergency, or extends or terminates a state of local emergency, must do so by a declaration in the appropriate form prescribed s72 (1)*
- *A person who makes a declaration in accordance with subsection (1) must immediately give notice to the public of the declaration by any means of communication that are reasonably practicable in the circumstances of the case, and must ensure that the declaration is published in the Gazette as soon as practicable s73 (3)*
- *The commencement of the seventh day is one minute past midnight on the start of the seventh day, it is not 144 hours from the time the declaration was made. It is advisable to declare an extension well before this time.*
- *No person may declare a state of local emergency for any part of New Zealand while a state of National emergency is in force s68 (5)*

## Declaration of a State of Local Emergency

- *A person appointed for the purpose under s25 may declare that a state of local emergency exists in the area for which the person is appointed if at any time it appears to the person that an emergency has occurred or may occur within the area.*
- *A person who is authorised to declare a state of local emergency may declare that the state of local emergency exists in respect of the whole area of the Civil Defence Emergency Management Group concerned or 1 or more districts or wards within the area.*
- *A state of local emergency may be declared in respect of an area that is not affected by an emergency if, in the opinion of any person authorised to declare a state of emergency in respect of that area, the resources of that area are needed to assist any other area where a state of local emergency is in force.*
- *The fact that a person purporting to be authorised by s25 declares a state of the local emergency is, in the absence of proof to the contrary, conclusive evidence that the person is a person authorised under that section to do so.*
- *Nothing in this section authorises a person to declare a state of local emergency for any part of New Zealand while a state of national emergency is in force in respect of that part.*

## Authority to Declare

- *The Mayor of the Chatham Islands is authorised to declare a state of Local Emergency for the Chatham Islands including Pitt Island.*

Section 25 (5) The Mayor of a territorial authority, or an elected member of the territorial authority designated to act on behalf of the Mayor if the Mayor is absent, may declare a state of local emergency that covers the district of that territorial authority.

### *In the Absence of the Mayor*

- *In the absence or unavailability of the Mayor the Deputy Mayor or any elected councillors thereafter; are authorised to declare a state of local emergency.*
- *The Minister may also declare a state of local emergency under section 69, if a state of emergency has not been declared.*

Section 25 (3) provides that if a Group appoints more than one person to declare, the Group must state in the instrument of appointment whether the appointee has equal status to make a declaration or whether the appointee is authorised only to act in the absence of other named persons, and any other conditions or limitations.

### *Decision to Declare*

- *If needed, the Group may meet to decide whether a declaration is necessary. This will depend upon the time and type of emergency and the speed with which the decision needs to be made.*
- *The decision to declare must be based upon whether there is a significant threat to life and or property, that the normal response agencies cannot cope without the extra “powers” or higher level of coordination, and that a declaration will make a difference.*

### *Extending Declaration of State of Emergency*

- *The duration of a state of national emergency may be extended by declaration made by the Minister.*
- *The duration of a state of local emergency may be extended by declaration by a person authorised to declare a state of local emergency for the area concerned.*
- *Every extension of a state of emergency expires with the commencement of the seventh day after the date on which it was declared, or at any earlier time and date that may be stated in the declaration of the extension of the duration of the state of emergency.*
- *Nothing in this section prevents the termination of a state of emergency under section 72, or the making of another declaration under this section, before the expiration of the state of emergency (as extended), further extending the state of emergency.*

### *Terminating a Declaration of State of Emergency*

- *A person who is authorised to declare a state of emergency may, by declaration, terminate that state of emergency, whether or not the declaration of the state of emergency or any extension of it was made by that person.*
- *Every declaration made under subsection (1) takes effect from the time and date of the declaration, or any later time and date that may be stated in the declaration.*

### *State of National Emergency Declaration*

- *A person who is authorised to declare a state of emergency may, by declaration, terminate that state of emergency, whether or not the declaration of the state of emergency or any extension of it was made by that person.*
- *Every declaration made under subsection (1) takes effect from the time and date of the declaration, or any later time and date that may be stated in the declaration.*

# Emergency<sup>3</sup> powers under a State of Emergency

- Section 78 — Power of entry to obtain information in urgent cases
- Section 84 — Minister's power of direction<sup>3</sup>
- Section 85 — Emergency powers of CDEM Groups (to undertake a wide range of CDEM activities)
- Carry out works, clearing roads and other public places, removing or disposing of, or securing or otherwise making safe, dangerous structure
- Provide for rescue.
- Set up first aid posts.
- Provide for the relief of distress, including emergency food, clothing and shelter.
- Conservation and supply of food, fuel and essential supplies.
- Prohibit or regulate land, air and water traffic.
- Undertake emergency measures for disposal of the dead persons or animals.
- Disseminate information and advice to public.
- Enter into employment arrangements.
- Provide equipment, accommodation, and facilities.
- Section 86 — Evacuation of premises and places
- Section 87 — Entry on premises
- Section 88 — Closing roads and public places
- Section 89 — Removal of aircraft, vessels, vehicles, etc
- Section 90 — Requisitioning powers
- Section 91 — Power to give directions
- Section 92 — Power to carry out inspections, etc
- Section 94 — Contracts in urgent cases.
- Section 111 — Restricted application of the Resource Management Act 1991 to emergency works

*\*Note emergency powers are available to the minister of civil defence, director of cdem a controller or persons authorised by a cdem group*

## Gazette the declaration of a state of emergency

- The declaration must be notified to the public immediately and published in the Gazette as soon as practicable. Ideally publication in the Gazette will occur within 20 working days of the date of termination or expiration of the declaration — Section 73(3).

A copy of the signed declaration form(s) must be sent to:

New Zealand Gazette Office  
Department of Internal Affairs  
PO Box 805  
Wellington 6140  
Or Fax: (04) 470 2932  
Or Email: [gazette@parliament.govt.nz](mailto:gazette@parliament.govt.nz) in Portable Document File (PDF) format.

## Local Warning

The Chatham Islands has in place Warning Systems that may lead to a State of Local Emergency. Warnings may come via the Ministry of Civil Defence Emergency Management, Met Service, or Emergency Services. A full description of the warning system is contained in the Warning Standard Operation Procedures.

## National Warning

National Warning Systems are detailed in the National Civil Defence Plan the Director will issue warnings from the Ministry of Civil Defence Emergency Management to the Local Emergency Management Office on the Chatham Islands. The Director is responsible for issuing alerts and information about events of National significance.

## Warning Systems

The purpose of the Public Warning System is for warnings to be issued to the public concerning physical safety from a hazard or emergency threat, prior to and during an emergency. The general public can be alerted via radio, television to an impending emergency. Other communication methods may also be used.

This will be supported by the community organisations, emergency services, and word of mouth. In some areas there are Evacuation Sirens to alert communities of an impending emergency event. The type of communication used will depend on the needs and preferences of the particular community needing to be contacted.

The nature of the Chatham Islands along with the isolated population presents great difficulty in promulgating any form of warning. Every effort will be made to advise people on the Island but in some situations residents must accept responsibility and the fact that warnings may not be able to be passed on. Any warning system will be tested in the community annually to ensure that the level of community understanding on how to access emergency information is established.

Warnings for National Hazards may come via the Ministry of Civil Defence Emergency Management or other agency. Some natural hazards such as distant origin tsunami will have a period of time for warning the public; however some natural hazards such as local tsunami may have no warning time. Where possible, communities at risk will be warned by the fastest means possible, but the public need to take responsibility for their own safety.

If they live in close proximity to the sea they are encouraged to evacuate inland to a safety area.

## Testing Warning Systems

The public warning system will need to be tested out to the community no less than once a year more if deemed necessary.

### Siren Test

One continuous sound means "Evacuate" to evacuation zones

*Evacuate to safe areas, (advise area co-ordinator's at the safe area that you are there)*

## Communication

Communication on the Chatham Islands consists of the following, however; there is no one system that can perform without some form of back up.

- Radio VHF
- Handhelds
- Began
- Satellite Phone
- Landlines
- Fax
- Email
- CIC Web page
- CIC Emergency Management Facebook Page
- Fax
- Word-of-mouth

The Communications Officer plays a vital role in an emergency and has key responsibilities including;

- *Is familiar with the EOC activation process and notification of key personnel*
- *Familiar with all evacuation safe areas and personnel that will be coordinating in the safe areas.*
- *Familiar with EOC, Area Coordinators, Response Team personnel.*
- *If the Communications Officer is intending to be off Island please advise the Emergency Management Office.*
- *Attend training exercises as necessary.*
- *Maintenance on all systems is the responsibility of the emergency management office.*
- *Testing of all equipment will be the responsibility of the Communications Officer.*
- *All systems checks will be recorded by the Communications Officer and kept in the emergency management office.*

## ***Response Planning Arrangements***

The Chatham Islands Council has primary responsibility for managing a Civil Defence Emergency Tier 1-2 and Marine Oil Spills and other specified hazards. It also has major coordination roles in non-declared events and other hazards.

### ***Police***

The NZ Police have primary responsibility for maintaining law and order and enforcement of road/driving behaviour. They are also the lead agency or provide overall coordination for land search and rescue, marine search and rescue, road and air accidents.

### ***Fire Emergency New Zealand (FENZ)***

Fire Emergency New Zealand has the primary responsibility for urban and rural fire response. FENZ also responsible to making accident sites safe from fire or the risk to life from hazardous chemicals, before any other response can be undertaken.

### ***Health Service***

The Health Service has the responsibility for the provision of primary secondary and mental health care through the Chatham Islands Hospital or Health Centre.

### ***St John***

St John contributes to the health services of the Chatham Islands by providing medical transport capabilities and trained first aid volunteers.

# SECTION 6: RECOVERY

## Introduction

The recovery section relates to “Goal Four” of the National CDEM Strategy, “Enhancing New Zealand’s capability to recover from civil defence emergencies.” Efficient recovery planning contributes to establishing recovery functions and arrangements prior to a civil defence emergency. Recovery planning increases the speed which communities can resume normal activities and defines the co-ordinated efforts and processes to affect the immediate, medium, and long-term holistic regeneration of a community following an emergency. Recovery is a developmental and remedial process encompassing the following activities;

- *Regeneration of the emotional, social, and physical well-being of individuals and communities.*
- *Taking opportunities to adapt to meet the physical environmental, economic, and psychosocial future needs.*
- *Reducing future exposure to hazards and their associated risks through recovery planning.*
- *The amendments to the Civil Defence Emergency Management Act 2002, creates Group Recovery Managers as a statutory role and requires a Civil Defence Emergency Management (CDEM) Group to formally appoint a suitably qualified and experienced person’ to be a Group Recovery Manager (s29)*
- *Allows Groups to also appoint one or more Local Recovery Managers (s30) and provides for Recovery Managers and constables to use powers during transition periods (Part 5B).*
- *Makes Recovery Managers responsible for directing and coordinating the use of personnel, material, information services and other resources during a local transition period (s30(1)).*
- *Under the Act the Group Recovery Manager – NOT the CDEM Group – has access to the powers contained in Part 5B. The CDEM Group retains overarching responsibility for the conduct of the Group Recovery Manager through their appointment.*
- *Powers can only be used if they meet three legal requirements.*
- *Necessary or desirable to ensure a timely and effective recovery, and*
- *Proportionate in the circumstances (s94G(3))*

## Purpose

The purpose of this section is to provide guidance on planning arrangements including roles and responsibilities, structure, and processes that may be implemented to assist the community to recover from a civil defence emergency.

## Key Principles

- *Recovery requires effective and ongoing communication and engagement with communities, which recognises their diverse needs.*
- *Pre-event strategic planning for recovery is a critical component of a successful recovery operation.*
- *Response and recovery activities must be integrated and aligned.*
- *Recovery planning for emergencies needs to start as soon as possible after the response is underway and continues until the recovery objectives have been met.*
- *Effective recovery recognises, supports and builds on individual, community, and organisational knowledge, understanding, capacity and capability.*
- *Recovery involves collaboration with local Imi, Iwi to build resilience and ensure the protection for waahi tapu (sacred area), nga taonga tuku iho (treasures of the ancestors) and kaitiakitanga (guardianship) of the environment in the recovery phase.*

- *Recovery is a collective effort and requires joint collaborative planning between the community, local and central government, the commercial and not-for-profit sectors.*
- *Opportunities to reduce the risks and consequences of future events should be taken following an emergency.*

These principles apply to all of the recovery environments — social, economic, built and natural.

## Recovery Priorities

- **Safety and well-being of individuals** - people’s psychological, emotional and physical health and well-being in the months and years after the event.
- **Social environment recovery** — Restoration and enhancement of the community’s material and social needs, including housing and education, together with social and cultural capital, community space, community well-being and resilience.
- **Economic environment recovery** — Macro- and micro-economic policies to support economic viability as well as providing guidance and support to business owners and their staff.
- **Natural environment recovery** — Restoration and enhancement of the natural environment, including strategies to remove or reduce the risk of future damage.
- **Built environment recovery** — Repair of critical infrastructure, buildings (including historic buildings), road access and lifeline utilities.
- **Recovery of people working in the recovery** — Responding agencies should put in place mechanisms to ensure that the mental health of their response/recovery staff is looked after.
- **Linking recovery to risk reduction** Recovery must be based on long-term strategies adopting mitigation measures that prevent or reduce the likelihood and consequences of future emergencies.

## Issues, Objectives, Method and Actions

Table

Recovery issues	Relationship to national cdem strategy	Recovery objective	Method	Action
#1  <i>Support from partnership agencies during the recovery will need to come from “off island” if emergency event warrants</i>	Goal 4  <i>“enhancing new zealand’s capability to recover from civil defence emergencies”</i>	<i>Managed approach to restore social, economic, natural and built environments.</i>	<i>Effective recovery planning</i>	<i>Maintain recovery plan  Consultation with joint partners, and emergency agencies on recovery planning.  Ensure the recovery team takes the opportunity to enhance in the social, economic, natural, and built environments, where</i>

				possible.
#2  <i>Ensuring recovery personnel fully understand the process for addressing the community's needs during the recovery phase</i>	Goal 4	<i>Ensure that all community recovery needs are addressed</i>	<i>Analysis community needs.</i>	<i>Identify who should be involved in this process within the Recovery Plan.</i>  <i>Identify who is best suited to carry out the tasks within the Recovery Plan.</i>  <i>Identify timeframe for these tasks to be completed during the life span of this plan.</i>
#3  <i>Lack of knowledge around recovery after a major emergency event both local and nationally.</i>	Goal 4	<i>A needs analysis of what would be required for assisting the recovery team after a major emergency event.</i>	<i>Form the recovery team</i>	<i>Work with the recovery team to identify their strengths and weaknesses.</i>

## Recovery Manager Appointment

- *The CDEM Group will appoint a Recovery Manager this will be documented in the Recovery Plan.*
- *The amendments to the Civil Defence Emergency Management Act 2002 provides:*
- *Group Recovery Manager as a statutory roles*
- *Requires a Civil Defence Emergency Management Group to formally appoint a suitably qualified and experience person to be a Group Recovery Manager (s29)*
- *The CDEM Act 2002 provides the CDEM Group Recovery Manager with access to specified emergency powers during a defined period of time in order to support recovery. These powers are only available by giving notice of a transition period a transition notice.*
- *A local transition notice if required would normally follow a state of local emergency, however it can also be put in place with the approval of the Minister of Civil Defence if no declaration has been made.*
- *Provides for Recovery Managers and constables to use powers during transition periods (part 5B), However, there are differences with the powers of the CDEM Group or Controllers available during a state of emergency. For example, there is no requisitioning power available during a transition period.*
- *Recovery Managers are responsible for directing, co-ordinating the use of personnel, material, information, services and other resources during a local transition period (s30A(1)).*

## Recovery Manager's powers during a transition period

- *Section 94H – General transition period powers*
- *Section 94I – Power to require information*
- *Section 94K – Evacuation of premises and places*
- *Section 94L- Entry on premises and places*
- *Section 94M - Closing roads and public places*

- Section 94N(1) – Giving direction to any person
- Section 94N(2) to (8) – Power to direct assessment
- Section 96NA – Notice for directing periods. Reporting requirements include:
  - Section 94P sets out specific reporting requirements if power is used during transition
  - detail on the powers used, by who and the reasons for use
  - making the report public – as the CDEM Group must put it on its website
- a written report from the Recovery Manager to the Director of CDEM and a copy to the Canterbury CDEM Group within seven days of the transition period ending

It is recommended that Recovery Managers keep an updated record of powers that have been exercised, the reasons for exercising the powers and how the statutory tests in 94G(3) were considered.

## Group Recovery Manager

- Establish and manage a recovery management team and when necessary a multi-agency recovery management team with particular focus on key recovery issues.
- Provide advice and support to the Controller as required.
- Review and maintain the Recovery Action Plan.
- Impact assessment and recovery requirements including setting priorities.
- Financial management and management of aid. Reporting and debriefing.
- Regularly communicate with Central Government departments and agencies, and other service providers.
- Where appropriate and necessary make determination regarding allocation of outside resources, for the purpose of Recovery.
- Maintain effective working relationships with agencies that will be involved in the Recovery phase.
- Work with the Controller and his/her management team.
- Planning and implementing a managed withdrawal.
- A Group Recovery Manager must, during a local transition period for the area for which the Group Recovery Manager is appointed, direct and co-ordinate the use of the personnel, material, information, services, and other resources made available by departments, Civil Defence Emergency Management Groups, and other persons for the purpose of carrying out recovery activities.
- The Group Recovery Manager must also perform any functions or duties delegated to the Group Recovery Manager by the Civil Defence Emergency Management Group or conferred on Group Recovery Managers by this Act or any other enactment, and may exercise any power conferred on the Group Recovery Manager by delegation under this Act.
- A Group Recovery Manager may authorise any suitably qualified and experienced person to perform any function or duty or exercise any power of that Group Recovery Manager, except the power to authorise another person to perform those functions and duties or to exercise those powers.
- A Group Recovery Manager who authorises a person under subsection (3) to perform a function or duty or to exercise a power remains responsible and accountable under this Act for the performance of the function or duty or the exercise of the power.
- No Group Recovery Manager, and no person performing the functions or duties or exercising the powers of a Group Recovery Manager or Local Recovery Manager, may exercise any power conferred on Group Recovery Managers by this Act during any national transition period in any manner contrary to any priorities for the use of resources and services that have been determined by the Director or National Recovery Manager.
- The Recovery Manager is responsible for the well-being of his recovery team and ensures that their needs are addressed during the recovery transitional period i.e. getting enough rest etc. The Recovery Manager is directly

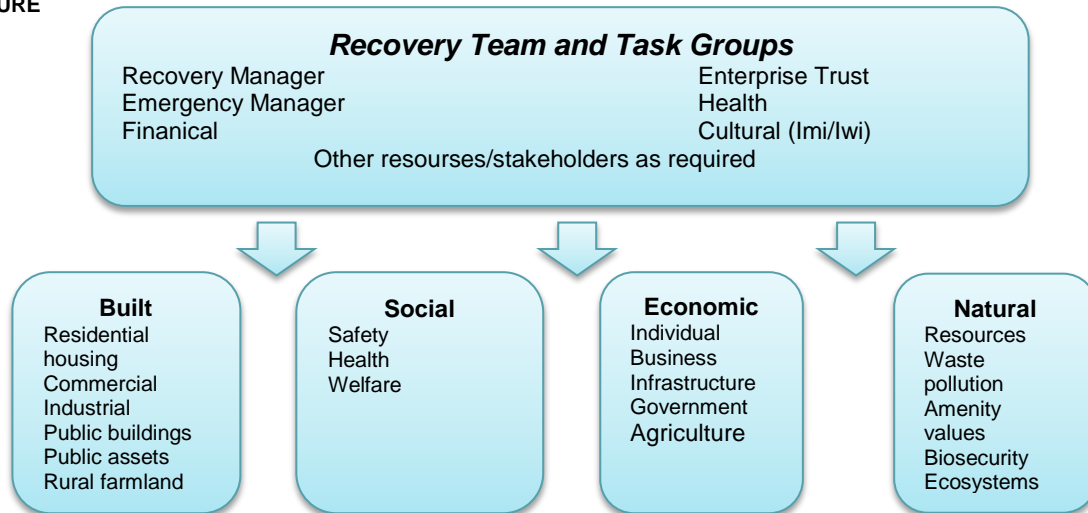
*responsible to the Controller during a declared emergency and the CEG after an emergency. During the response phase, many of the agencies are heavily committed and the Recovery Manager needs to be involved in key response conferences and briefings in order to better align response and recovery priorities, connect with key agencies and understand key impacts and tasks, including identifying recovery requirements and priorities as early as possible.*

- *The Recovery Manager will refer to the Chatham Island Recovery Plan for further details on role and responsibility.*

# Recovery Structure

Effective administration structure provides communication within and across recovery organisation, agencies, and groups for coordinating essential tasks and rebuilding the community's confidence. This structure outline below will depend on the emergency event as to the level recovery will need to activate.

FIGURE



In the built environment, identifying and understanding the risks associated with important assets, infrastructure and resources, the consequences, impacts and priority of recovery. Recognising the needs of diverse and different communities, including the consequences across the build, economic or natural environments can have a direct consequence on social environment. Understanding what is critical to maintaining local incomes, businesses, and industry. Understanding the immediate, medium and long term consequences would be on the community if these were lost or disrupted. Understanding what natural resources or assets are critical and valuable to the community, parks, and coastal marine areas.

Task groups can be formed to deal with certain aspect of the recovery process. Recovery is generally the continuation or restoration of measures like welfare, health, and safety. The social restoration will involve the psychological needs of the community, which are often over looked after an event.

Recovery may be complex and time consuming but the destruction of the economic infrastructure will mean incomes within the affected area will be reduced, further compounding the effects of the disaster. Implementation of the physical recovery links back to reduction planning by the use of long term strategies that prevent or reduce the effects of future emergencies.

## Transition from Response to Recovery

The recovery process starts from the time of impact and while response activities are still in progress, as decisions taken during response will directly influence and shape recovery. It is important that the Recovery Manager assumes the role at the earliest opportunity as regeneration is the empowering of individuals, families, and communities to rebuild the social fabric of the economy and relief assistance begins with the basic necessities of life. Once the threat to life has passed, rescue activities have been completed, and the community is safe it's time to consider the implications of a termination (if a state of civil defence emergency has been declared), will have on recovery activities.

All statutory powers will cease, and some organisations, agencies whose contribution may be linked directly to the declaration may decide their role is over. The recovery phase of the emergency management gains emphasis when the response phase ends and the Controller formally hands over to the Recovery Manager. If a declaration

is in force this would normally coincide with the termination of the declaration. Ref to powers of Recovery Manager during Transition period.

## *Key points of transition*

Form of transition period notices

- 1) If the Minister gives notice—
  - a. of a national transition period under section 94A of the Act, the notice must be in form 11 of Schedule 2:
  - b. extending a national transition period under section 94D of the Act, the notice must be in form 12 of Schedule 2:
  - c. Terminating a national transition period under section 94E of the Act, the notice must be in form 13 of Schedule 2.
- 2) If the Minister gives notice—
  - a. of a local transition period under section 94B of the Act, the notice must be in form 14 of Schedule 2:
  - b. extending a local transition period under section 94D of the Act, the notice must be in form 15 of Schedule 2:
  - c. terminating a local transition period under section 94E of the Act, the notice must be in form 16 of Schedule 2.
- (3)  
If a person other than the Minister gives notice—
  - (a) of a local transition period under section 94B of the Act, the notice must be in form 17 of Schedule 2:
  - (b) extending a local transition period under section 94D of the Act, the notice must be in form 18 of Schedule 2:
  - (c) terminating a local transition period under section 94E of the Act, the notice must be in form 19 of Schedule 2.
- (4)  
Despite subclauses (1) to (3), the person giving notice may—
  - (a) use a form of similar effect to a form specified in any of those subclauses; and
  - (b) include additional information in any form.

## *Emergency Management Office*

The emergency management office will provide support to the recovery team where possible between events and maintain ongoing working relationships with many of the organisations or individuals who will play key roles in any significant recovery activities. The emergency management role is hazard risk management and PIM's during response and support during recovery. Refer to the Response section for further details.

## *Recovery Plan*

The Chatham Islands have a recovery plan, which includes but not limited to, reporting systems, impact assessment, financial management, government subsidised employment schemes, public information, communication, and managed withdrawal. It is the responsibility of the emergency management office to review and maintain the recovery plan on behalf of the CDEM Group.

## *Community Involvement*

Community involvement is an important aspect of recovery and means those directly affected by an event can help rebuild their own facilities and services. Involvement by the community provides a framework for re-establishing the economic, social, emotional, and physical well-being of the affected population. Local organisations know the community make-up and requirements better than any outside organisation and affected people have an inherent need to rebuild. Using the resources wisely, can lead to a stronger, more resilient and united community, this requires detailed planning.

## *Report System*

Reporting system needs to cover the emergency from beginning to its final stages of recovery. Accurate records will need to be kept for analysis in the hope to learn where improvements can be made. Recovery Action Plans will vary according to the type of emergency and the ability of the local authority and the CDEM Group to manage the event.

## *Impact Assessment*

The recovery process depends on the impact assessment, which will determine the allocation of resources and concentration of recovery effort. This information and assessment is gathered immediately during the response phase and continues during the recovery phase by the Hazard Risk Management (ERC).

## *Financial Management*

There are no financial delegations in place for the Group Recovery Manager. All financial expenditure must be approved and signed off by the Controller or Emergency Manager. All financial records must be kept for accountability and any claims for reimbursement of costs from Central Government are to be submitted through the Emergency Manager. Local authorities are initially responsible for meeting all emergency expenditure arising out of the use of resources and services provided under the direction of the Controller.

Government financial support, for emergencies are determined by cabinet and applies whether or not there is a state of local emergency. The government considers local risks to be a local responsibility and local authorities are responsible for dealing with the impact of an emergency. Generally, government assistance in recovery will only be considered in circumstances involving emergencies of an unusual type or magnitude, and will be made available only when recovery is beyond the capacity of the local community.

Eligible costs during an emergency include direct cost of accommodating, transporting, feeding, and clothing people who cannot continue to live in their usual place of residence. Ineligible costs for examples are local authority overheads, indirect costs like staff time, EOC activation costs, office space, vehicles use, and the cost of supporting people in longer term temporary accommodation these are met by Ministry of Social Development.

## *Public Information Management*

Effective information management is paramount and is to be co-ordinated via the PIM, see Response Section role and responsibilities.

## *Ministry of Civil Defence and Emergency Management*

During major events liaising with central government is an essential element of Recovery. This is done via the Controller during the response phase and via MCDEM during Recovery.

## *Central Government Agencies*

Most central government involvement and assistance during the Recovery phase is through a variety of agencies which is structured through Heartlands. If further assistance is required, beyond that this is provided by the Recovery Manager working with MCDEM.

## *Managed Withdrawal*

Recovery must have an end and organisational arrangements must be completed, responsibility for outstanding tasks and actions must be assigned and approved. Withdrawal of recovery structures from the impacted community must be considered and planned for. Key points for exit strategy;

- *Long term, assistance*
- *Transition to business as usual*
- *Long-term planning and reporting*
- *PIM management*
- *Community debrief and reviewing*

# Section 7: Monitoring and Evaluation

## Introduction

It is important that the CDEM Group continually monitor and measure progress in order to know when they have successfully reached the current goals and objectives of the CDEM Group, and the expectations of the community.

## Purpose

The purpose of this section is to provide a basis for monitoring and evaluation of the CDEM Group Plan and CDEM Group activities, and to meet requirements in the CDEM Act.

## Monitoring and Evaluation Criteria

- *Process for monitoring and evaluation of the CDEM Group and CDEM Group activities.*
- *Process for reviewing the CDEM Group Plan.*
- *A description of the process ensuring that legislation compliance requirements are being monitored.*

## CDEM Group and Group Activities Monitoring and Evaluation Process

Under section 8 of the CDEM Act, the Director of Civil Defence Emergency Management has a function to “Monitor the performance of CDEM Groups and persons who have responsibilities under this legislation.” This will be undertaken primarily via the CDEM capability assessment tool. The assessment tool is available for self-assessment of organisations and CDEM Groups at any time, but also supports a common reporting cycle in which all organisations with responsibilities under the CDEM Act will be expected to complete assessments to understand and document New Zealand’s collective CDEM capability.

- *Monitoring compliance of the CDEM Group with any relevant legislative requirements*
- *Measure capability and capacity, to ensure the CDEM Group Plan or work programme or the local authority planning is being carried out according to needs and requirements.*
- *Monitoring and evaluating progress towards the high level goals and objectives of the CDEM Group*
- *Internal monitoring and evaluation within the CDEM Group using agreed internal processes*
- *External monitoring and evaluation using the services of an agency outside the CDEM Group i.e. MCDEM*

Monitoring and evaluation, needs to go well beyond simply checking whether measurable targets and actions have been undertaken.

Qualitative information helps by:

- *Informing decision makers about whether the CDEM Group Plan is achieving the purpose of the CDEM Act.*
- *Informing decision makers about whether the CDEM Group Plan is addressing the issues raised within it, whether they reflect goals the community has identified.*
- *Providing justification for current and future activities to address risks.*
- *Providing information that enables the CDEM Group Plan to be fine-tuned or improved, especially in light of changes over time.*
- *Enabling information to be made available to local and national indicator monitoring programmes in related areas.*

- *Ensuring that the plan has both breadth and depth and demonstrating that the plan will be adequate to respond in an operational manner.*

## *Reviewing CDEM Group Plan*

During the five-year life of the CDEM Group Plan from the date of approval, the Plan will be subject to regular reviews to ensure the Group are achieving its outcomes. Where appropriate, specific amendments may be made to the Plan during the five-year period. These amendments will not be subject to a public notification process unless they are likely to significantly affect the rights or obligations of an individual (CDEM Act s56 and s57).

The EM will facilitate the five-year review and if necessary, instigate any amendments to the Plan that may be required in the intervening period. These may be required because of the following reasons but are not limited to:

- *Matters arising out of the introduction of the National CDEM Plan.*
- *Introduction of new guidelines, codes or technical standards issued by the MCDEM.*
- *Changes in legislation affecting the role of any emergency management agency.*
- *Recommendations following an emergency event*
- *Changes in CDEM Group Joint Committee appointed personnel*
- *Work Programme projects.*
- *Any proposed changes/ amendments to the Plan shall be addressed to the CEG/CDEM Group outlining the reasons for the amendment and include reference/information to supporting the change. Including the proposed amendment in detail.*
- *The CEG/CDEM Group retains the power to approve all amendments to the Plan that relate to Group strategic direction, and Governance.*

Evaluating whether the CDEM Group Plan is adequate, the CDEM Group or MCDEM are expected to consider whether it:

- *Is accurate and supporting documents referred to in the plan exist, and are relevant, complete, and up to date including references to organisations, specifying locations, functions and resources are complete and up to date. That CDEM Group is structured in the manner described in the CDEM Group Plan.*
- *Is practical and the CDEM Group, Local authority members and partner organisations are capable of carrying out the functions described in the plan, and that the CDEM Group and its member organisations have access to resources needed to be able to carry out the functions described in the plan.*
- *Covers all necessary functions by considering the hazards described in the plan, the management mechanisms described for consequences to be managed. Assessing the adequacy of existing linkages between the plans of participating organisations, and using an integrated monitoring and review process that crosses the CDEM Act and the RMA frameworks.*
- *Provides for the co-ordination of CDEM organisations, and roles and responsibilities are clearly defined and description of how agencies will work together in an emergency is unequivocal. Ensuring the functions in the CDEM Group Plan are described adequately, goals and objectives of the CDEM Group Plan and work programme are aligned with the goals and objectives of the National CDEM Strategy, and the arrangements in the CDEM Group Plan align with those in the National CDEM Plan and Guide.*

## *Legislation Monitoring Process*

The CDEM Group has a statutory requirement (CDEM Act s17 (1) (g) to promote and raise awareness of compliance with the CDEM Act and legislative provisions relating to the purpose of the Act. This includes those referred to on Page 74 of this Plan s17 CDEM Act. The CDEM Group are also required to monitor and report on compliance within the CDEM Group area with the requirements of the CDEM Act and legislative provisions relevant to the purposes of that Act (CDEM s17 (1) (h).

The main purpose of this compliance monitoring process is to assess the statutes having a bearing on emergency management outcomes, identify any weaknesses in the CDEM Group emergency arrangements and work to improve them. As statutes can change and CDEM responsibilities subsequently alter, it is important that awareness and regular monitoring of these changes by the CDEM Group occur.

# Section 10 : Management & Governance

The CDEM Act requires all Local Authorities to provide for civil defence emergency management within their districts and places a requirement on all agencies to support the coordinated effort of the CDEM Group and its function; fully, during an emergency event. The dual role of all authorities and agencies to manage their own affairs and to cooperate at the local level during an emergency is achieved by having distinctive appointments in place, supported by adequate delegations, to deliver on the requirements of civil defence emergency management.

The CDEM Group may be viewed as working in partnership with emergency services and other organisations to deliver CDEM at local level, and provide coordinated planning for reduction, readiness, response, and recovery. This section states management arrangements for the CDEM Group, the Governance arrangements have been covered in the Response Section.

## CEG Group

The Coordinating Executive Group (CEG) was established in accordance with s20 of the CDEM Act 2002. The CEG will meet jointly with the CDEM Group but decisions are to be ratified by the elected members only (Councillor's) as part of the overall process. Under s20 of the CDEM Group Act, the CEG is responsible for advising the CDEM Group, implementing its decisions, and overseeing the development, implementation, and currency of the CDEM Group Plan.

The CDEM Group is a committee of Council, under the Local Government Act 2002; however, the Chatham Islands Councils (eight councillors), are also the CDEM Group and has responsibilities specified by the Civil Defence Emergency Management Act 2002.

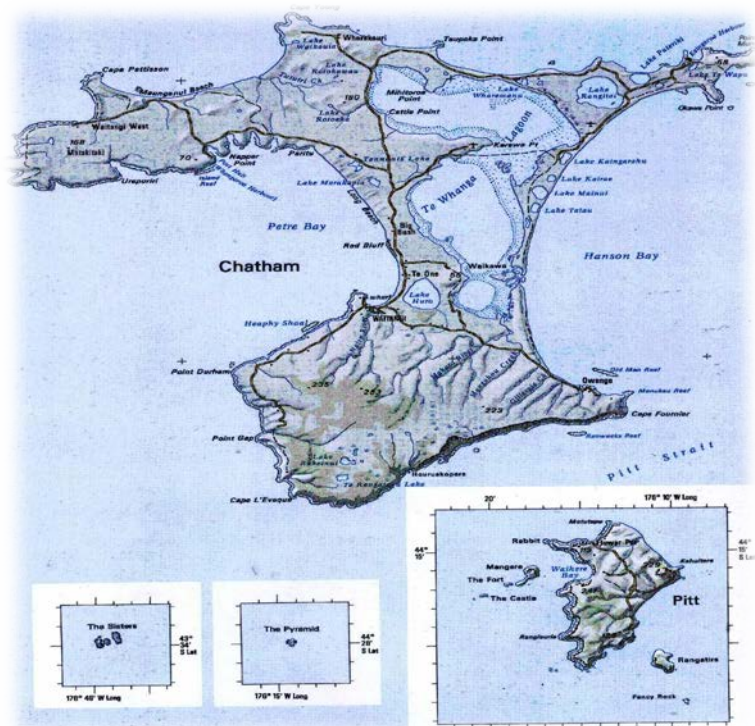
## CDEM Group Structure

The CDEM Group comprises of the Mayor whom is also the CDEM/CEG Chair, eight Councillors, CIC General Manager, EM (ex officio), and MCDEM (ex officio).

## CEG Group

The representative members include:

- NZ Police (assigned for the purpose by the Commissioner of Police)
- Senior member of Fire Service (assigned for the purpose by the National Commander)
- Manager of the Chatham Islands Hospital
- Chief Executive Officer of the Chatham Islands Enterprise Trust
- Area Manager (Department of Conservation)



- *Ministry of Primary Industries*
- *St John*
- *Department Of Conservation Manager*

## **CDEM Group Chairperson**

- *As outlined in the CDEM Group Terms of Reference the Mayor is the Civil Defence Emergency Management Group Chairperson.*
- *Every local authority must be a member of a civil Defence Emergency Management Group.*
- *No Group may have more than one regional council as a member unless a merger has been approved under section 21.*
- *Despite subsection (2), unitary authorities that border one another may be members of the same Group.*
- *Each local authority that is a member of a Group with other local authorities must be represented on the Group by one, and only one person, being the chairperson of that local authority or an elected person from that local authority who has delegated authority to act for the chairperson.*

## **Powers of the CDEM Group s18**

1. The functions of a Civil Defence Emergency Management Group, and of each member are;
  - a) In relation to relevant hazards and risks, -
    - I. Identify, assess, manage, and reduce relevant risks and hazards.
    - II. Consult and communicate about risks
    - III. Identify and implement cost effective risk reduction
  - b) Take all steps necessary on an ongoing basis to maintain and provide, or to arrange the provision of, or to otherwise make available, suitable trained and competent personnel, including volunteers, and an appropriate organisational structure for those personnel, for effective civil defence emergency management in its area.
  - c) Take all steps necessary on an ongoing basis to maintain and provide, or to arrange the provision of, or otherwise to make available, material, services, information, and any other resources for effective civil defence emergency management in its area.
  - d) Respond to and manage the adverse effects of emergencies in its area.
  - e) Carry out recovery activities.
  - f) When requested, assist other Groups in the implementation of civil defence emergency management in their areas (having regard to the competing civil defence emergency management demands within the Group's own area and any other requests for assistance from other Groups).
  - g) Within its area, promote and raise public awareness of, and compliance with, this Act and legislative provisions relevant to the purpose of the Act.
  - h) Monitor and report on compliance within its area with the Act and legislative provisions relevant to the purpose of the Act.
  - i) Develop, approve, implement, and monitor a civil defence emergency management group plan and regularly review the plan.
  - j) Participate in the development of the national civil defence emergency management strategy and national civil defence emergency management plan.
  - k) Promote civil defence emergency management in its area that is consistent with the purpose of the Act.
- 2) A Group also has any other functions that are conferred or imposed by or under the Act or any other enactment.
- 3) For the purposes of subsection (1) (g) and (h), legislative provisions relevant to the purpose of the Act include, but are not limited to, the provisions in the following Acts that may be relevant to civil defence emergency management including.
  - a) *Bio security Act 1993:*
  - b) *Building Act 2004:*
  - c) *Fire Service Act 1975:*

- d) *Forest and Rural Fires Act 1977:*
  - e) *Hazardous Substances and New Organisms Act 1996:*
  - f) *Health Act 1956:*
  - g) *Health and Safety in Employment Act 1992:*
  - h) *Local Government Act 2002:*
  - i) *Maritime Transport Act 1994:*
  - j) *Resource Management Act 1991:*
  - k) *Any enactment passed in substitution for any of the Acts in (a-j).*
- 1) A Civil Defence Emergency Management Group has all the powers that are reasonably necessary or expedient to enable it to perform its functions, including the power to delegate any of its functions to members, the Group Controller, or other persons.
  - 2) Without limiting the generality of subsection (1), a Group may—
    - a. recruit and train volunteers for civil defence emergency management tasks:
    - b. conduct civil defence emergency management training exercises, practices, and rehearsals:
    - c. issue and control the use of signs, badges, insignia, and identification passes authorised under this Act, regulations made under this Act, or any civil defence emergency management plan:
    - d. provide, maintain, control, and operate warning systems:
    - e. provide communications, equipment, accommodation, and facilities for the exercise of its functions and powers during an emergency:
    - f. Exercise any other powers that are necessary to give effect to any civil defence emergency management plan.

## *Delegations s17, 18*

The functions, duties, and powers of the CDEM Group are specific and are provided in s18 (1) which allows the CDEM Group to “delegate any of its functions to members, the Group Controller, or other person.” Thus, there are no limitations to functions the CDEM Group may delegate to the Controller. Section 17 of the CDEM Act lists functions of the CDEM GROUP the most relevant to the Controller. “s17 (1) (d) Respond to and manage the adverse effects of emergencies in its area.

This function does not require a declaration of a state of local emergency and enables the CDEM Group or member authority and partner response organisations to co-ordinate or manage emergencies “out of declaration.” A Controller needs sufficient delegations and directions from their CDEM Group to be able to carry out their functions and duties in accordance with the CDEM Group Plan.

## *CDEM Group standing orders s19*

- 1) Unless three quarters of the representatives of the members of a civil defence emergency management group present at a meeting of the group agree otherwise, at its’ meetings the Group must follow the New Zealand Standard for standing orders (NZS: 9202:1992) or any New Zealand Standard substituted for that standard. If the representatives of the members of the Group agree in accordance with subsection (1) to adopt other standing orders, those standing orders must not contravene the provisions of the Local Government Act 1974, the Local Government Official Information, and Meetings Act 1987, or any other enactment.

## *CDEM Group Meetings*

The CDEM Group will meet as agreed by the Chairperson in consultation with the Group. Meetings will be publicly notified and open to the public except where there are grounds to exclude the public in terms with the Local Government Official Information and Meetings Act 1987.

## *Reporting*

The CDEM Group is a committee of the Chatham Islands Council with the emergency manager reporting work progress quarterly to council.

## *Funding*

All administrative costs will be borne by the Chatham Islands Council and any costs incurred by members of the CEG will be met by the organisation which they represent.

## *Life of the CDEM Group*

The CDEM Group is a requirement of Section 12 of the Civil Defence Management Act 2002

## *Emergency Management*

The Emergency Manager has responsibilities in the following areas and is employed by the Chatham Islands Council. These include providing professional services to the CDEM Group, including administrative and technical support, a work programme that reflects the goals, objectives, and targets of the CDEM Group and represents the CDEM Group on national bodies and projects.

- *Maritime Oil Spill*
- *Civil Defence Emergency Management*
- *Hazard Risk Management*

## *Financial*

Funding to ensure the delivery of the CDEM Groups objectives is Chatham Island Councils responsibility, there are also various grants and subsidies which is administered and monitored by the emergency manager, CDEM Chair, and CEO.

## *Work Programme*

An annual work programme is set in February of each year and approved by the CDEM Chair and CEO. This is to ensure that projects, objectives, and targets in the CDEM Group Plan are recognised and strategically planned for, implemented and completed.

## *Support*

The specific nature of support that this CDEM Group/Emergency Manager can offer another Group or NCMC/MCDEM depends on the circumstances and nature of the emergency event. However, requests for specific support from one CDEM Group may include:

- *Controller*
- *Personnel/Emergency Manager (EM)*
- *Persons trained in EOC, operations, information management , welfare centre, and logistics*
- *Radio operators*
- *Rescue/Response personnel*
- *Media liaison (PIMs)*
- *Evacuee management (including registration and arranging food, clothing and temporary accommodation)*

## Support from Environment Canterbury

- *Training/Exersizes*
- *Documentation reviewing*
- *Hazard assistance*
- *Technical*
- *EOC backup personnel*
- *Services via the Ecan, Chatham Is Council contract*

## Supporting Documents

Supporting documents or relevant plans listed and not kept in the main body of this document, as they are reviewed annually or bi-annually. Copies are available from the Chatham Islands Emergency Management Office or on the Chatham Islands Council web site. [www.cic.govt.nz](http://www.cic.govt.nz)

- *Emergency Operation centre Plan*
- *Emergency Communication Plan*
- *Tsunami Warning Plan*
- *Evacuation Plan*
- *Welfare Centre Emergency Plan*
- *Recovery Plan*
- *Pandemic Plan*
- *Health & Safety Management Plan*
- *Marine Oil Spill Plan*
- *Emergency Contact Details*
- *Resource List*

# Glossary and Definitions

4r's	<p><b>Reduction</b> – identifying and analysing long-term risks to human life and property from natural or non-natural hazards; taking steps to eliminate these risks if practicable, and, not reducing the magnitude of their impact and the likelihood of their occurring.</p> <p><b>Readiness</b> – developing operational systems and capabilities before a civil defence emergency happens, including self-help and response programmes for the public and specific programmes for emergency services, lifeline utilities, and other agencies.</p> <p><b>Response</b> – actions taken immediately before, during, or directly after a civil defence emergency to save lives and property, and to help communities recover.</p> <p><b>Recovery</b> – the co-ordinated efforts and processes used to bring about the immediate, medium-term and long-term holistic regeneration of a community following a civil defence emergency.</p>
Act	Civil defence emergency management act, 2002 (cdem act 2002)
Action plan	<p>National action plan states the national response to an emergency that requires significant national support, co-ordination and direction, the national action plan is developed and continuously reviewed and updated during an emergency.</p> <p>local action plan does the same as a national action plan but at a local or group level.</p>
Agencies	<p>Government agencies, including public service departments, non-public service departments, crown entities, and offices of parliament</p> <p>Non-governmental organisations</p> <p>Lifeline utilities</p>
All-clear	Is a message issued informing evacuees that it is safe to return home? Before giving an all clear, the evacuated area must be assessed to ensure that it is safe for evacuees to return.
Capability	An organisation is able to undertake functions, such as provide a service or fulfil a task. This implies that it has the required staff, equipment, funding systems and resources to do this. Organisations are likely to have a number of capabilities.
Capacity	Adequacy of resources in quantity, suitability of personnel, equipment, facilities and finances.
Civil defence emergency management group	Means a group established under section 12 of the civil defence emergency management act 2002 and for the purpose of this constitution refers to the local authority defined area and resources of the chatham islands and further.

Cdem group plan	A plan prepared and approved under section 45, the act.
Cdem sector	Agencies with responsibilities under the cdem act, i.e. Local authorities, cdem groups, government departments, emergency services, and lifeline utilities.
Civil defence emergency	Any emergency as defined by the cdem act that is managed by the ministry of civil defence and emergency management as the lead agency at the national level. Any event that requires coordinated management under provisions of cdem act.
Civil defence emergency management	<p>Is the same meaning as section 4 of the cdem act</p> <p>The application of knowledge, measure and practices that;</p> <p>Are necessary or desirable for the safety of the public or property; and</p> <p>Are designed to guard against, prevent, reduce, or overcome any hazards or harm or loss that may be associated with any emergency and</p> <p>Includes, without limitation, the planning, organisation, co-ordination, and implementation of those measures, knowledge, and practices.</p>
Co-ordinating executive group (ceg)	Means a committee established under section 20 the act.
Community	The community refers to the entire chatham islands and pitt island, its population, infrastructure, volunteers, non-government organisations and resources.
Communities	Refers to individual townships or geographical areas as defined in this plan and their population, infrastructure and resources.
Co-ordinated incident management system (cims)	A structure to systematically manage emergency events. A nationally mandated set of consistent principles, processes, organisation structures and roles etc.
Cluster	Is a group of agencies that interact to achieve common civil defence emergency management outcomes?
Director	The director of civil defence emergency management appointed under section 8 of the act
Domestic and external security co-ordination	A system of domestic and external security co-ordination used by the government to manage all national crises
District health board	Provides hospital and community based health services. A dhb is the founder and provider of publicly funded services for the population of a specific geographical area in new zealand

Domestic animal	Animal kept by humans for companionship and enjoyment rather than for commercial reasons. In this context, domestic animals also referred to as companion animals or pets.
Duty officer, mcdem	Immediate 24/7 response position, as part of the mcdem duty team.
Emergency	<p>Is the result of any happening, whether natural or otherwise, including, without limitation, any explosion, earthquake, eruption, tsunami, land movement, flood, storm, tornado, cyclone, serious fire, leakage or spillage of any dangerous gas or substance, technological failure, infestation, plague, epidemic, failure of or disruption to an emergency service or a lifeline utility, or actual or imminent attack or warlike act; and</p> <p>Causes or may cause loss of life or injury or illness or distress or in any way endangers the safety of the public or property in new zealand or any part of new zealand and</p> <p>Cannot be dealt with by emergency services, or otherwise requires a significant and co-ordinated response under the act.</p>
Emergency management office	The office within council that has the responsibility for emergency management.
Emergency operation centre	An established facility where the response to an event may be supported and managed.
Emergency services	Mean's the police, fire service, national rural fire, hospital, and health services.
Emergency manager (em)	The council emergency manager is responsible for all the activities that occur in and services provided by the emergency management office.
Epidemic	A disease affecting or tending to affect a typically large number of individuals within a population, community, or region at the same time.
Evacuation assembly area	A safe area where evacuees report, and the point from which they will be transported to a reception centre. Assembly areas should be public buildings that are well known, and that have toilets.
Evacuation	<p>A temporary relocation of all or part of a particular population or geographical region from a location that has been or is about to be affected by an emergency, to a place considered safe.</p> <p>Assisted evacuations are for those that do not have their own, or access to a vehicle and need assistance.</p> <p>Evacuation in place/vertical evacuation refers to the concept of evacuation to the higher elevation within a current location. This method of evacuation may be most appropriate option for some locations in the event of a hazard such as a near-source tsunami. A rapid onset hazard such as this may require occupants of lower levels to proceed upstairs to floors above the anticipated inundation level.</p> <p>Mandatory evacuation is directed when it is believed that the risk to residents is too great to allow them to remain where they are. Mandatory-evacuation places a great burden on the resources of the emergency services and places a duty of responsibility on authorities to ensure that people whom are evacuated are cared for.</p>

	<p>Self-evacuation refers to evacuees that leave their current location via their own means of transport such as a personal car, bike, or other vehicle.</p> <p>Voluntary evacuation refers to evacuees that leave their current location because of actual or perceived risk without being directed to do so. Occupants of areas outside of the evacuation zone that leave despite the fact they are not threatened by the hazard are also referred to as “shadow evacuees”.</p>
Fire emergency new zealand	The fire service units maintained by the new zealand fire service, national rural fire authority, rural fire authorities, airport rescue fire services, new zealand defence force, industrial fire brigades registered under section 36 of the fire service act 1975, and other fire service resources owned by private organisations.
Guide	The guide to the national civil defence emergency management plan that is referred to in the national cdem plan and approved by government.
Group	Means a group of elected representatives established under section 12 of the act.
Group controller	<p>Means a person appointed as the local controller under section 26 of the act.</p> <p>National controller has the same meaning as in section 4 of the cdem act the person who is the national controller in accordance with section 10.</p>
Group recovery manager	Means a person appointed by the group to act as recovery manager. The function can be performed after an adverse event i.e. Non-declared event or a after a declared event.
Hazard	Something that may cause, or contribute substantially to the impact of an emergency.
Lead agency	An agency that has a mandate through legislation or expertise to manage a particular emergency.
Levels of emergency	To clarify responsibilities the group recognizes 5 tiers of emergencies:
Liaison officer	An agency representative that co-ordinates with other agencies during an emergency
Lifeline utility	An entity name as described in part a of schedule 1, or that carries on a business described in part b of schedule 1.
National crisis management centre	Is a secure government facility maintained during a state of readiness in which the national response to emergencies can be managed?
National significance	<p>Any case where the minister or the director considers that;</p> <p>There is widespread public concern or interest or</p>

	<p>There is likely to be significant use of resources or</p> <p>It is likely that the area of more than one civil defence emergency management group will be affected or</p> <p>It affects or is likely to affect or is relevant to new zealand's international obligations or it involves or is likely to involve technology, processes or methods that are new to new zealand or</p> <p>It results or is likely to result in or contribute to significant or irreversible changes to the environment.</p>
National cdem plan	The national civil defence emergency management plan
Recovery activities	<p>Means activities carried out under the act or any civil defence emergency management plan after an emergency occurs, including, without limitation:</p> <p>The assessment of the needs of a community affected by the emergency; and</p> <p>The co-ordination of resources made available to the community; and</p> <p>Actions relating to community rehabilitation and restoration; and new measures to reduce hazards and risks.</p>
Risk	Is the relationship between likelihood / probability and consequences?
State of emergency	Means a state of national emergency declared under s66 CDEM Act 2002 or a state of local emergency declared under S68-69 CDEM Act 2002
Welfare centre	A site that provides temporary emergency accommodation and registration services for those evacuees who cannot accommodate themselves.
CDEM	Civil defence emergency management
CEG	Co-ordinating executive group
CIMS	Co-ordinated management system
EMO	Emergency management office
ERC	Emergency manager
EOC	Emergency operations centre
HLG	Hazard liaison group

LTP	Long-term plan
MAF	Ministry of agriculture and forestry
MCDEM	Ministry of civil defence and emergency management
NCCM	National crisis management centre

