QUEENSTOWN LAKES DISTRICT COUNCIL

EMERGENCY MANAGEMENT PLAN 2013-2016

EMERGENCY ?

Using this plan during an emergency ?
Please go to:
Section 5 – Response,
Relevant Queenstown Lakes Initial Action Plan, or
Your organisation's own Emergency/Operations Plan

Forms for declaring a state of emergency are included as appendices.

Template forms for coordination during response are also appended.

This Emergency Management Plan replaces the Queenstown Lakes "Operational Plan 2004"

QUEENSTOWN LAKES DISTRICT COUNCIL

EMERGENCY MANAGEMENT PLAN

STATUS and MAINTENANCE

The Queenstown Lakes District Emergency Management Plan has been prepared in accordance with the requirements of Sections 17.1.i and 64.1 of the Civil Defence Emergency Management Act 2002, and the Otago CDEM Group Plan s4.3.3.

The Emergency Management Plan and subsidiary documents are under continual development and are formally reviewed and submitted to Council on a 3-yearly cycle.

Substantive changes to the Plan require Council approval.

Council has delegated authority to the Emergency Management Coordinator to make minor amendments to the Plan, its appendices and associated documents.

…….	……
	Adam Feeley
QLDC Mayor	QLDC CEO

The Queenstown Lakes District Council Emergency Management Plan is approved by Resolution of Council dated 19 December 2013 in accordance with Section 64.1 of the Civil Defence Emergency Management Act 2002.

This plan should be read in conjunction with the Civil Defence Emergency Management Act 2002, Guide to the National CDEM Plan and Guide, Otago CDEM Group Plan, QLDC District Plan, Council Bylaws, policies and operating procedures.

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Appendices:

Distribution List:

Role	Copy Number
QLDC EOC (Gorge Rd + Shotover St, Queenstown. Wanaka)	3 + Link to e-copy
QLDC Mayor and Councillors	Link to e-copy
QLDC CEO + Senior Management Team	Link to e-copy
QLDC Emergency Management Officer	1 + Link to e-copy
QLDC Libraries	5 + Link to e-copy
Regional Emergency Management Office	1 + Link to e-copy
Police Otago, Queenstown, Wanaka	3 + Link to e-copy
NZ Fire Otago, Queenstown, Frankton, Arrowtown, Gibbston, Wanaka, Hawea, Luggate, Makaora	9 + Link to e-copy
Otago Regional Council Flood Controller	1 + Link to e-copy
Otago LAs CODC, CDC, WDC, DCC, ORC	Link to e-copy
Ministry of CDEM	Link to e-copy
Ministry of Social Development - Otago	Link to e-copy
Queenstown Lakes Hospital	1 + Link to e-copy
St John Ambulance – Territory Manager	1 + Link to e-copy
Coastguard Wanaka and Queenstown	Link to e-copy
Red Cross Response Team Queenstown	1 + Link to e-copy
Alpine Lakes Emergency Response Team	Link to e-copy
Department of Conservation Wakatipu and Wanaka	Link to e-copy
Otago Regional Rural Fire Authority	Link to e-copy
High Schools Wakatipu High School, Wanaka Alpine College	1 + Link to e-copy
Primary schools Queenstown, St Joseph's, Glenorchy, Kingsview, Frankton, Arrowtown, Wanaka, Holy Family, Hawea Flat, Makaora	Link to e-copy
Community Associations	Link to e-copy
Media	Link to e-copy

EXECUTIVE SUMMARY

Emergency Management in New Zealand takes an all-hazards, integrated, multi-agency, community-focused approach, encompassing the risk-based "4-Rs" (Reduction, Readiness, Response and Recovery).

Regional context:

- Otago CDEM Group = all local authorities and partner response organisations. ORC 1 member/vote
- ORC: "administering authority" - provides Regional EM Coordinator - represents region nationally
- Regional "Group Controller" (ORC managers) - "direct + coordinate" responses when required
- Regional Policy Statement (RPS) required to address hazards + District Plans to give effect to RPS

QLDC Emergency Management Plan:

- Delivers Otago Group Plan's vision 'Working Together to Build Resilient Communities in Otago'.
- Describes the community and environment across the risk-based 4-Rs to support local communities.
- Highlights geographical isolation, relatively dispersed population and reliance on seasonal tourism.
- Discusses expected future population growth and national importance of the District which increases the need to invest in risk reduction, community resilience, response and recovery capability.
- Locally significant hazards include:

Earthquake	Severe weather	Infrastructure failure
Flood	Wild-fire	
Landslide	Pandemic	

Reduction initiatives to address the vulnerabilities and enhance resilience to risks include:

- Enhancing community awareness of hazards.
- Improving resilience of critical infrastructure.
- RMA + Building Act regulatory plans + policies to avoid hazards + reduce vulnerabilities and risks.
- Community and commercial resilience-building initiatives
- Coordinating + collaborating with partner organisations for region-wide effectiveness + consistency.

Readiness has two distinct but interdependent aspects; community readiness and organisational readiness.

- Public education on risks and community-based resilience and readiness activities.
- Community-led emergency planning.
- Business continuity planning and emergency-related professional development.
- Practical emergency management exercises to test response capabilities.
- Emergency-focused operational planning.
- Monitoring + maintenance of warning, response coordination + communication systems.

Response arrangements and capabilities:

- Based on the multi-agency coordination within Coordinated Incident Management System (CIMS).
- Small-scale response EMO coordinates: QLDC GMs, Communications, + partner agencies.
- More significant events EOC activated to coordinate life + property safety. Local CDEM Controllers to direct + coordinate multi-agency responses + support communities.

Recovery depends on adequate planning and capabilities in place before emergencies occur.

- Commences along with Response.
- Managed recovery goes beyond restoring physical assets + providing emergency welfare services.
- Community Recovery needs within four environments: social, built, economic + natural.

The Plan is intended to support and coordinate communities, critical infrastructure providers, and response organisations to be more resilient to, prepare for, manage and recover from emergencies.

GLOSSARY OF TERMS

Commonly used terms and abbreviations used throughout the Plan include:

4Rs: Four areas of emergency management: Risk-based – Reduction/Resilience, Readiness, Response and Recovery.

The Act: The Civil Defence Emergency Management Act 2002

CDEM: Civil Defence Emergency Management. In this Plan "Emergency Management" is generally used in place of the increasingly outmoded "Civil Defence" and to reduce the use of acronyms, such as "CDEM".

CDEM Group: Unless otherwise stated in the Plan, "CDEM Group" refers to a joint standing committee of all local authorities in Otago, with membership comprising the Mayors from the Central Otago District, Clutha District, Dunedin City, Queenstown Lakes District and Waitaki District Councils and the Chairperson of the Otago Regional Council - established under section 12 of the Civil Defence Emergency Management Act 2002.

"CDEM Group" in this Plan does NOT mean the Regional Emergency Management Office/Officer or Regional Emergency Coordination Centre or CDEM Group Controller. These are referred to by actual titles.

CEG: Co-ordinating Executive Group Established under Section 20 of the Act. Functions include providing advice to the CDEM Group and any sub-groups of the CDEM Group; co-ordinating and overseeing as appropriate the implementation of decisions of the Group by the Group CDEM Office or by individual members; and overseeing the implementation, development, maintenance, monitoring and evaluation of this Plan.

CIMS: Co-ordinated Incident Management System. An organisational, roles, process and terminology framework to assist in effective, efficient and consistent responses to an incident, emergency or disaster.

Declaration: A Declaration of a State of Emergency allows the Controller and others access to statutory powers and necessary authority to protect life and property in extraordinary emergency events. The rationale for declaring a state of emergency is:

- an emergency event has occurred or may occur
- the safety of the public or property is endangered
- loss of life, injury, illness, or distress may be caused, and
- cannot be dealt with by emergency services, or otherwise requires a significant and co-ordinated response under the CDEM Act

Emergency: As defined under the Act:

"… 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 2. 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 3. Cannot be dealt with by emergency services, or otherwise requires a significant and co-ordinated response under the Act."

Emergency Management: The contemporary term for the comprehensive set of functions, of Risk Appreciation, Reduction, Readiness, Response and Recovery.

Emergency Services: The New Zealand Police, New Zealand Fire Service, Rural Fire authorities and hospital and health services.

Emergency Plan: Refers to a document describing a formally established set of operational procedures that are the commonly accepted method for performing certain emergency management tasks.

ECC/EOC: Regional Emergency Coordination Centre / Local/Agency Emergency Operations Centre. A pre-established or temporary facility where the response to an event may be directed, coordinated and supported.

ICC: Incident Coordination Centre. A facility from which community responses are coordinated, under the control of a Local EOC, e.g. the Wanaka ICC.

ICP: Incident Control Point. A facility where site-specific responses to an incident are managed and controlled.

Lead Agency: The organisation with the legislative authority; or because of its expertise and resources, agreed authority; primarily responsible for control of an incident

Lifeline Utility: An entity named in or described in section 1 of the Act. Within Otago, these include: airports, port companies, rail, roads, electricity, water, waste water, sewerage, telecommunications, roads, fuel, gas, Radio New Zealand and Television New Zealand

Local Authority: Means a Regional Council or District/City Council.

Recovery: Community-wide restoration and regeneration subsequent to a significant emergency. Not to be confused with "victim recovery", which is a Police-led function focused solely on the location, identification, investigation, and management of deceased following incidents or emergencies.

TA: Means "Territorial Authority" - being a district or city ouncil.

Unified Control: A joint approach to leading, coordinating and directing a response where "lead agency" is unclear or a more collaborative approach would be beneficial.

Organisational acronyms used sparingly in this Plan include:

CDC:	Clutha District Council
CODC:	Central Otago District Council
DPMC:	Department of Prime Minister and Cabinet
ECan:	Environment Canterbury
DCC:	Dunedin City Council
LTP:	Local authority Long Term Plan (10-Year Plan)
MCDEM:	Ministry of Civil Defence and Emergency Management
MSD:	Ministry of Social Development
NZDF:	New Zealand Defence Force
NZTA:	New Zealand Transport Agency
ORC:	Otago Regional Council
QLDC:	Queenstown Lakes District Council
QAC:	Queenstown Airport Corporation Limited
WDC:	Waitaki District Council

1 INTRODUCTION

This section provides the context and background of the plan, including an overview of the integrated risk management approach and a description of the local context. The section also describes the structure and governance of the Otago CDEM Group that Queenstown Lakes District is a part of. At the end of the section there is an outline of the Queenstown Lakes District CDEM Work Programme and methods for monitoring and evaluating the achievement of Emergency Management objectives.

1.1 INTRODUCTION

The Queenstown Lakes District Local Emergency Management Plan is part of a hierarchy of Plans which includes the National CDEM Plan and Guide, and Otago CDEM Group Plan, Emergency Welfare Plan and Emergency Recovery Plan. The purpose of this suite of plans is to enable the effective and efficient understanding of hazards and management of risks within the Queenstown Lakes District, and to ensure a coordinated approach managing risks, building capability and resilience, and delivering effective response and recovery in support of local communities.

The Queenstown Lakes District Local Emergency Management Plan sets out the local emergency management issues, objectives, activities and operational arrangements for the District, and aims to:

- Increase awareness of the hazards and risks in the Queenstown Lakes District
- Strengthen relationships between agencies involved in Emergency Management at a local level
- Encourage cooperative resilience building, risk reduction, capability development and action between local emergency services, agencies, organisations , and communities
- Contribute to the Otago CDEM Group Plan by delivering a more coordinated, effective and consistent Emergency Management programme
- Outline the Emergency Management arrangements for the Queenstown Lakes District using an integrated risk management approach addressing Reduction, Readiness, Response and Recovery

This Plan has been developed for the Emergency Management sector, including local authorities, emergencies services and partner organisations that will use and be directly affected by the Plan, individuals and community groups that could be involved in Emergency Management activities.

The Plan is intend to be accessible to the general public who have a central role in building resilience and providing the majority of local resources in reducing risks, developing resilience, developing readiness, providing response, and leading their own recovery.

1.2 BACKGROUND

The CDEM Act 2002 (section 12) requires all local authorities to be a member of a CDEM Group and to plan and provide for Emergency Management within their District (section 64). The Queenstown Lakes District is part of the Otago CDEM Group, and, as a member, has a key responsibility to develop and implement a comprehensive local Emergency Management Plan, consistent with the Group Plan.

The Local Emergency Management Plan is NOT the document that personnel will use to guide their actions during an emergency. That role will be filled by various local and event-specific plans and standard operating procedures. However, this Plan DOES set out the framework that emergency responses will work under, and will guide local work programmes to ensure that the information, resources, capabilities and documentation are there when needed in an emergency. Importantly, the Plan also documents the relationships that will be called upon when an event has the potential to go beyond the scope or capacity of an individual agency.

This is the second edition of this Queenstown Lakes District Emergency Management Plan under the CDEM Act 2002, and replaces the previous version (Queenstown Lakes District Operational Plan 2004). It has been developed in consultation with the CDEM Group member organisations, local emergency services, other key agencies, local community groups.

Local response-focused plans were also produced under the Civil Defence Act 1983 and preceding legislation. Emergency management knowledge, practice, needs and expectations have changed substantially over the past two decades, resulting in the more comprehensive approach applied in the Plan.

1.3 INTEGRATED RISK MANAGEMENT

The approach to Risk Management applied in this Plan is the AS/NZS 9100 Risk Management Standard (formerly AS/NZS 4360) that the National CDEM Plan requires.

Consistent with the Risk Management Standard, Emergency Management in New Zealand uses an integrated risk treatment model. This integrated model is well established in the National CDEM Framework, including the CDEM Act and National CDEM Plan, as four inter-related areas of activity[1], known in New Zealand as the Risk-based 4Rs.

- **Risk Appreciation:** Identifying and analysing long-term risks to human life and property from hazards
- **Reduction (and Resilience-building):** Taking steps to eliminate risks where practicable, enhance resilience to hazards, and otherwise reduce the magnitude of the impact and likelihood of risks overtime
- **Readiness:** Developing operational systems and capabilities before an emergency happens; including community resilience, self-help and response programmes for the general public, and specific programmes for local authorities, emergency services, lifeline utilities, social agencies and other organisations
- **Response:** Actions taken immediately before, during or after an emergency to save lives and protect property, and to help communities recover
- **Recovery:** The coordinated efforts and processes to bring about the immediate, medium-term and long-term holistic regeneration of a community following an emergency

[1] In other jurisdictions these are: Mitigation; Preparedness; Response, and; Recovery.

1.4 THE LOCAL SETTING

The Queenstown Lakes District is situated in the Western part of the Otago Region. Covering an area of approximately 8,476 square kilometres, with a number of townships and small communities spread throughout the District (see Figure 1: Queenstown Lakes District map).

The key geographical features are Lake Wakatipu and Lake Wanaka, and the surrounding alpine and sub-alpine environment. Major catchment rivers in the District include the Rees, Dart, Greenstone, Von and Lochy and associated tributaries of Lake Wakatipu, and the Matukituki and Wilkin-Makarora river tributaries of Lake Wanaka. The Kawarau River, that drains Lake Wakatipu, is fed by the Shotover River a short distance from the exit to Lake Wakatipu, then flows to the East where it joins the Clutha River, the draining river for lakes Wanaka and Hawea. The catchment area for all of these rivers and lakes is within the West Coast water-shed.

The main settlements of the District are Queenstown, Wanaka, Arrowtown, Frankton, Kelvin Heights, Lake Hawea, Makarora, Luggate, Cardrona, Albert Town, Glenorchy, Gibbston, and Kingston.

As at the March 2013 census the population of the District was estimated by Statistics New Zealand to be 28,224. Unfortunately, the census figures are not helpful for local Emergency Management planning within the District, due to the census and intervening estimates being based on the resident population in March every 5 years and the much higher population of residents, visitors and supporting workers in both the summer and winter tourist. Taking these factors into account, the average population of the District is estimated by independent analysis to be **46,612** in 2011, close to double the census-based figure.

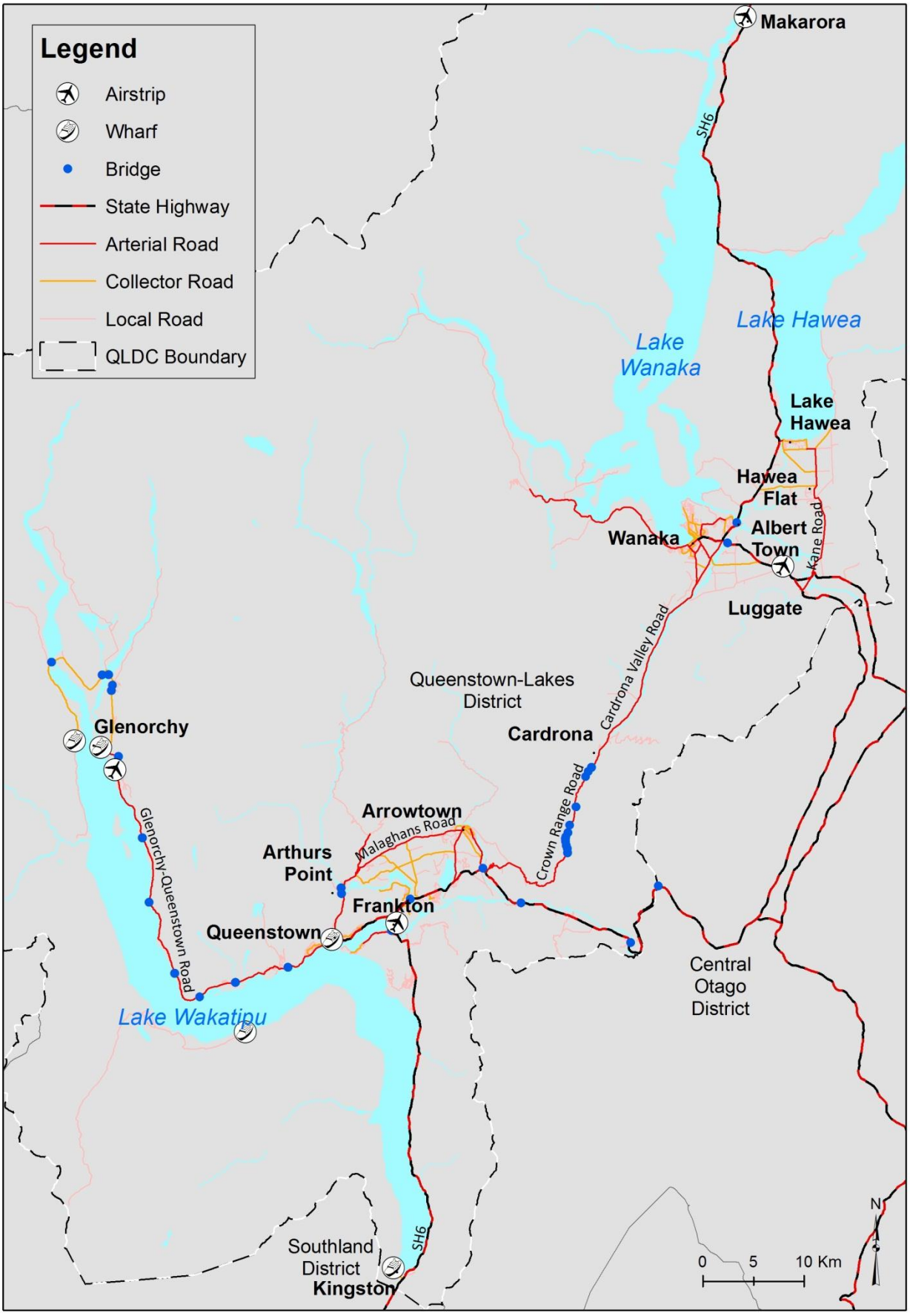
It is estimated that peak summer populations reach approximately 90,000 across the District, and are projected to increase to over 110,000 by 2031.

Table 1. QLDC Growth Projections 2011 - 2031

Average Population	2011	2031
District Population Total	46,612	67,439
Wakatipu Ward	32,236	46,817
Usually Resident	19,150	29,543
Visitors	13,086	17,274
Wanaka Ward	14,376	20,622
Usually Resident	9,290	14,550
Visitors	5,086	6,072
Dwellings & Units Total	24,835	35,461
Wakatipu Ward	16,734	24,144
Residential Dwellings	9,467	15,042
Visitor Units	7,267	9,102
Wanaka Ward	8,101	11,317
Residential Dwellings	5,787	8,549
Visitor Units	2,314	2,768

More detailed breakdowns of the population of the District and its various communities are provided in section 2 of this Plan.

Figure 1: District Map



1.5 THE OTAGO CDEM GROUP

The Otago CDEM Group is a consortium of local authorities and emergency response organisations and other key stakeholders to deliver comprehensive CDEM at regional and local levels. The Otago CDEM Group area consists of the Central Otago District, Clutha District, Dunedin City, Queenstown Lakes District, and Waitaki District.

JOINT COMMITTEE

The Group is governed by a joint committee set up under section 12 of the CDEM Act, which is made up of the five local mayors and the Chairperson of the Otago Regional Council (or persons acting on their behalf). The functions of the Group are detailed in section 17 of the Act, and include developing, approving, implementing and monitoring a CDEM Plan. The joint committee has adopted a Group CDEM Plan, which includes Goals and Objectives, information on each of the 4-Rs and governance and management arrangements, and a five-year work programme.

COORDINATING EXECUTIVES GROUP (CEG)

The Joint Committee is supported by the Coordinating Executives Group (CEG), made up of the Chief Executives of the six Councils (or persons acting on their behalf), plus senior representatives from the NZ Police, NZ Fire Service, St John Ambulance, the Southern District Health Board, and the Ministry of Social Development. The Group Controller and a representative from MCDEM sit in as observers on the CEG. The CEG is responsible for implementing the decisions made by the Joint Committee, providing advice to the Group and overseeing the group's annual work programme and member contributions. To help with CDEM planning and to ensure consistency across the group, the CEG has established four planning committees that are comprised of nominated representatives throughout the Otago region. These committees are referred to throughout the plan.

GROUP EMERGENCY MANAGEMENT OFFICE

The Regional Emergency Management Office (EMO) is based at the Otago Regional Council and supports the ORC in its Otago CDEM Group administering authority role. The administering authority roles includes: secretariat for CDEM Group meetings; accounting for CDEM Group finances and budgets; publishing of CDEM Group plans and reports; as well as entering into contracts on behalf of the collective Group. The Regional EMO consists of one full-time Emergency Management Coordinator to help facilitate and coordinate the day-to-day planning, project work and activities of the CDEM Group and its members, supported by ORC staff.

LOCAL EMERGENCY MANAGEMENT OFFICES

Each member local authority of the CDEM Group has its own local Emergency Management Office. Local Emergency Management staff are responsible for coordinating and facilitating Emergency Management activities within their District, leading collaboration with local partner agencies, and contributing to the joint activities of the CDEM Group. Activities are carried out under the integrated risk management approach of the risk-based 4 R's.

1.6 QUEENSTOWN LAKES EMERGENCY MANAGEMENT

1.6.1 QLDC EMERGENCY MANAGEMENT OFFICE

The Queenstown Lakes Emergency Management Office is managed by Queenstown Lakes District Council within the Chief Executive's Office. Council has appointed a part-time Emergency Management Coordinator who works across the entire organisation and reports to the Director Chief Executives Office. Most QLDC staff also contribute to overall Emergency Management activities in one way or another - in roles including management support, planning, communications, infrastructure or administration.

The role of the Emergency Management Office is focused on building community resilience through enhancing the understanding of local risks in the communities of the District, supporting the development capacity and community readiness to cope with emergencies, as well as coordinating effective Responses and ensuring the best possible Recovery. The Emergency Management Office achieves this by supporting a broad range of risk reduction and readiness initiatives including:

- Coordinating emergency management planning and activities within the District and with the wider Otago Group within risk analysis, reduction, readiness, response and recovery
- Preparing emergency management plans, policies and procedures
- Maintaining the EOC and related equipment and materials
- Preparing, delivering and supporting public education programmes
- Training and exercising emergency management staff and volunteers
- Working with partner agencies and volunteers involved in emergency management
- Monitoring and responding to hazard advisories, warnings and emergencies that arise
- Contributing to regional and national activities and functions

In the event of an emergency the Queenstown Lakes District Council provides trained staff, facilities and resources in support of the response, for both the Emergency Operations Centre (QLDC head office, Queenstown) and Wanaka Coordination Centre (QLDC Wanaka Service Centre). Key response coordination appointments are made on the basis of the skills, knowledge and experience of the individual involved and the benefits of knowledge and resources they bring to the appointment from their business as usual role, and include volunteers from outside Council. The Emergency Management Office maintains a list of people appointed to key emergency response coordination positions (for at least two shifts), and is responsible for coordinating their emergency response-related professional development.

1.6.2 EMERGENCY MANAGEMENT FINANCIAL ARRANGEMENTS

The Emergency Management Office is funded by the Queenstown Lakes District Council. The administrative and day-to-day costs incurred are budgeted for in the Council's Long Term Plan and Annual Plan. This includes costs associated with the Queenstown Lakes District's contribution to CDEM Group activities such as representation on the Joint Committee, CEG, and their committees.

Partner agencies, contributing to emergency management in the District under their own responsibilities or responsibilities provided in the CDEM Act, are to meet the costs of doing from their own resources – other than when specific provision has been made in jointly or externally funded projects.

The costs incurred during and following an emergency will need to be met initially by the Council and partner organisations, with at least partial reimbursement by central government being available in accordance with central government policy (National CDEM Plan s 26). It is the responsibility of the Council to claim for any reimbursement or financial assistance and a clear record of expenditure, authorisation and purpose needs to be maintained by all contributing organisations during the emergency. All claims to the government, under the provisions of s26, are coordinated by the Regional Emergency Management Office.

Response costs incurred in the protection and care of people affected by an emergency are reimbursed 100% by central government. Reimbursement of up to 60% costs of the repair of Council owned infrastructure may be provided by central government following an emergency.

To meet the requirements of the National CDEM Plan (s26) in relation to central government financial support following an emergency, QLDC maintains an emergency reserve of $2,188,000. All QLDC owned above ground infrastructure is fully insured for all hazards, including earthquake damage, to a total value of $33,396,397, with a mix of replacement and indemnity cover depending on the status of the asset.

The net capital value of the District is used to calculate central government financial support following emergencies. At the time of the Local Emergency Plan being written (September 2013) the net capital value of the District was estimated to be $16,845,720,850. Infrastructure recovery costs above 0.0075% of the District's net capital value ($1,263,429) would be funded to 60% by central government.

Organisations, agencies and other emergency management stakeholders are responsible for meeting all of their own costs incurred as a result of the emergency whether directly requested by the local authority or by the CDEM Group, unless written authorisation has been granted by the Local Controller.

1.6.3 EMERGENCY MANAGEMENT WORK PROGRAMMES

The Queenstown Lakes District develops an annual Emergency Management Work Programme that aligns with the goals and objectives set by the CDEM Group and its Work Programme. The QLDC Emergency Management Work Programme is developed prior to July each year, and describes the activities the District is planning to implement over the coming 12 months – both local activities within the District, and contributions to wider Group activities.

The QLDC Emergency Management Work Programme outlines how the objectives of the National CDEM Strategy, the Otago CDEM Group Plan and Otago CDEM Group Work Programme, will be delivered to in the Queenstown Lakes District. The QLDC Emergency Management Work Programme is a supporting document to the Local Emergency Management Plan, and is reviewed every three years in line with the QLDC 10-Year Plan.

1.7 EMERGENCY MANAGEMENT PLANNING CONTEXT

The Queenstown Lakes District Emergency Management Plan is part of a national suite of plans, including the National CDM Plan, Group Plans (including the Otago CDEM Group Plan), and local authority plan's such as this one. CDEM Groups and member authorities are required to demonstrate how their plans are linked to the goals of the National CDEM Strategy.

This Plan gives effect to the high level plans, as set out below:

Table 2: Context of CDEM Plan provisions

NCDEM Strategy Goal	NCDEM Plan Objectives	Otago CDEM Group Objectives	QLDC EM Plan Provisions
1 Increasing community awareness, understanding, preparedness and participation in civil defence emergency management	1a Increasing the level of community awareness and understanding of the risks from hazards 1b Improving individual, community and business preparedness 1c Improving community participation in CDEM 1d Encouraging and enabling wider community participation in hazard risk management decisions	1a Increase the level of business and community awareness through public education and consultation. 1b Improve community participation and preparedness through community-based planning.	Sec 2.2 Risk Analysis Sec 3.1 Risk Reduction Sec 4.2.1 Community Awareness Sec 4.4.2 Community Readiness
2 Reducing the risks from hazards to New Zealand	2a Improving the co-ordination, promotion and accessibility of CDEM research 2b Developing a comprehensive understanding of New Zealand's hazardscape 2c Encouraging all CDEM stakeholders to reduce the risks from hazards to acceptable levels 2d Improving the co-ordination of government policy relevant to CDEM	2a Improve understanding of Otago's hazardscape and associated risks. 2b Undertake long-term, strategic reduction of the risks from hazards through collaborative work within the group and with other stakeholders.	Sec 3 Risk Reduction Sec 3.4 Risk Reduction Activities

NCDEM Strategy Goal	NCDEM Plan Objectives	Otago CDEM Group Objectives	QLDC EM Plan Provisions
3 Enhancing New Zealand's capability to manage … emergencies	3a Promoting continuing and co-ordinated professional development in CDEM 3b Enhancing the ability of CDEM Groups to prepare for and manage civil defence emergencies 3c Enhancing the ability of emergency services to prepare for and manage civil defence emergencies 3d Enhancing the ability of lifeline utilities to prepare for and manage civil defence emergencies 3e Enhancing the ability of government agencies to prepare for and manage civil defence emergencies 3f Improving the ability of government to manage an event of national significance	3a Enhance professional development for all emergency management personnel through training, exercises and learning from other CDEM Groups 3b Strengthen the coordination and cooperation amongst all relevant sectors in planning for and responding to an emergency 3c Develop and maintain appropriate documentation to describe key activities, functional responses and protocols in support of the CDEM Group Plan 3d Provide effective warning systems to enable agencies and the community to respond rapidly to a potential event 3e Establish and maintain effective and resilient inter-agency communications systems.	Sec 4.5.1 Staff Capacity and Capability Sec 4.5.2 Operational Planning and Coordination Sec 4.5.3 Plans and Procedures Sec 4.5.3 Plans and Procedures Sec 4.6 Warning Systems Sec 4.7 Emergency Telecommuni-cations Sec 5 Response
4 Enhancing New Zealand's capability to recover from … emergencies	4a Implementing effective recovery planning and activities in communities and across the social, economic, natural and built environments 4b Enhancing the ability of agencies to manage the recovery process	4a Strengthen recovery capability and capacity across all agencies and the wider community.	Sec 6 Recovery

2 QUEENSTOWN LAKES DISTRICT RISK PROFILE

The risk profile section provides the hazard scape and risk management context of Queenstown Lakes District. It describes and analyses the District's environment, the risks associated with hazard and vulnerabilities, and discusses emergency management implications relevant to the District.

Knowledge of the District's vulnerability to hazards is fundamental to guiding effort applied to risk reduction, readiness, response and recovery programmes. The description of the risk environment in this section provides a basis for prioritisation of resources and effort in emergency management planning. It also provides a snapshot in time of the risk profile, as a baseline for on-going monitoring and evaluation of risk reduction programmes.

2.1 QUEENSTOWN LAKES DISTRICT ENVIRONMENTS

The risk management context for the Queenstown Lakes District is comprised of the people, the land, infrastructure and buildings, and the economy, commonly referred to as the social, natural, built and economic environments. Analysing these elements helps to understand the unique combination of factors that influence Emergency Management planning.

2.1.1 SOCIAL ENVIRONMENT

POPULATION

The Queenstown Lakes District has an average daily population of approximately 46,612 residents and visitors, with as many as 90,000 on peak days during the summer and likely to reach 100,000 within the life of this Plan. Approximately 70 percent of the (resident and visitor) population of 32,236 is in the Wakatipu Ward on an average day. A breakdown of estimated resident and visitor numbers is provided in Table 2.

The main settlements of the District are Queenstown, Wanaka, Lake Hawea, Makarora, Luggate, Cardrona, Albert Town , Arrowtown, Frankton, Kelvin Heights, Glenorchy, Gibbston, and Kingston. The main centres for each of the Wanaka and Wakatipu basins are Wanaka and Queenstown.

Estimated of resident and visitor populations are included in Appendix 1.

ETHNICITY

Queenstown Lakes District has an increasingly diverse cultural character due to the influx of seasonal or relatively short-term workers from the British Isles, Australia, Latin America, France and elsewhere. This diversity is not picked up in the census data (Table 3), due largely to the time of year the census is taken and the peculiarly broad class of "European". The District is distinctly more European and less Maori and Pacifika than the national average.

Table 3. Ethnicity: Queenstown Lakes and National (Percentages)

	Queenstown Lakes	New Zealand
European	78.89	67.60
New Zealander	14.28	11.12
Māori	5.92	14.65
Pacific peoples	0.74	6.89
Asian	4.76	9.18
Middle Eastern/Latin American/African	1.64	0.90
Other ethnicity–other	0.03	0.04

Not readily apparent in the ethnicity of residents is the mix of first languages of visitors and short-term workers in the District and the reality that a proportion of visitors do not speak English at all. The significant number of non-English speaking guests to Queenstown, predominantly the growing number of visitors from East Asia, poses potential challenges in an emergency setting that will need to be addressed (i.e. translated information).

Most of the visitor groups tend to also be represented in the local service industry and tour groups are generally accompanied by English speaking guides. The importance of international visitor is reflected in translator databases maintained by Destination Queenstown and hotels, in particular. QLDC is currently establishing and maintaining links to and between local ethnic communities, as a community development initiative. These business-as-usual resources would be relied upon during emergency situations in which translators are required.

DEMOGRAPHICS

The inherently mobile nature of the tourism workforce, and the appeal of the District to retirement age residents contribute to the demographics of the District being distinct form the rest of the country. The rapid growth the District has experienced in recent years also contributes to the current demographic distribution.

The lack of tertiary health services and extended family being elsewhere are drivers to many residents to move to larger centres as they enter the 65-plus age group.

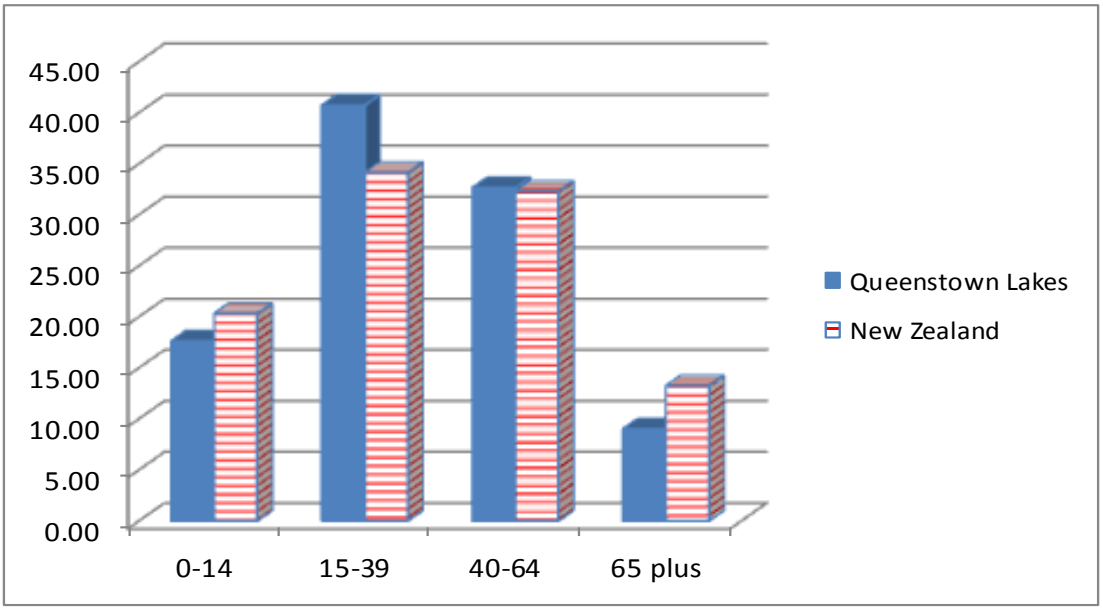
The mobile worker and visitor populations, in comparison to the normally resident population is a driver to there being fewer services, particularly health services, than other parts of the country with more stable populations throughout the year. Any significant emergency would be likely to result in the (self- and managed) evacuation of the entire visitor community in the District at the time, most of the temporary workers, and as well as a substantial proportion of more permanent residents and their families.

Within the District's population 51.5% are male and 48.5% female – the inverse of the national situation.

The median age within the District is 35.8 years, slightly younger than the national median age of 35.9 years. However the proportion of the resident population in the 15 to 39 year group is almost 20% higher than the national average, due to the high number of relatively young and single, or at least child-less, staff in the tourism industry (see Figure 3.)

The proportions of people aged less than 15 years or older than 65 years are therefore both smaller than the national average.

Figure 3. Age Group Comparison: Queenstown Lakes and National (Percentage)



EMPLOYMENT

The main employment sectors in the District are tourism and service industries, followed by construction. Education is becoming an increasingly important aspect of the local communities, predominantly to support the tourism sector. (See Table 5 in s2.1.3 Economic Development)

Queenstown Lakes District is distinct from most of the rest of the country in the high number of people actively employed. Although the Statistics NZ figures represented in Table 4 are from 2006 and the March census date do not capture the periods of highest employment in the District, the high-level of employed does indicate a higher level of dependency on on-going employment than other Districts. Any sudden improvement in or threat to employment opportunities can have a dramatic impact on resident populations and their ability to provide for their well-being, as has been experienced historically as a result of seasonal variability and the boom and relative bust cycles that the District experiences every decade or so.

Table 4. Employment Activity (Percentage)

Employment	Queenstown Lakes	New Zealand
Employed full time	62.70	48.44
Employed part time	13.68	14.39
Unemployed	1.30	3.37
Not in the labour force	17.90	30.43
Status unidentifiable	4.44	3.36

2.1.2 BUILT ENVIRONMENT

URBAN FORM

The majority of residential and visitor accommodation in the District is relatively new, in comparison to most of New Zealand, due to the rapid population and visitor infrastructure growth in the District over the past 50 years. Virtually all of the building stock is low-rise, and where buildings are more than 5 floors they is usually built into the adjacent hillside.

Increased growth and replacement of older buildings in the central part of Wanaka and Queenstown since the early 1970s, coincident with the development of international jet travel and mass tourism, and enhanced earthquake provisions in the New Zealand building code at about the same time, has resulted in a residential and business building stock of appreciably higher resilience to earthquakes than other Districts.

The resilience of a relatively modern and low-rise building stock is countered somewhat by the natural environment within which this development has occurred, particularly as a result of previous land-use management decisions not taking hazards into account to the degree they would be today. Large areas of residential development, particularly in the Wakatipu ward, are located on or below steeply sloping terrain which is prone rock fall or mass-failure during earthquakes or prolonged rain, snow or extreme cold weather events. Flat, low-lying areas of Queenstown, Wanaka, Glenorchy and more rural parts of the District are prone to liquefaction during earthquakes. Both of these hazards and their associated risks are currently covered in the QLDC District Plan, but will be subject to review and enhancement in the review of the District Plan.

Several developed areas of the District are prone to lake or river flooding. Those that are include the low-lying, lake-side areas of Queenstown Bay, Wanaka, Albert Town, Glenorchy, Kingston and Cardrona. Flood risk reduction measures in place include minimum floor levels for new buildings in flood risk zones and the "Learning to Live With Flooding: A Flood Risk Management Strategy for the communities of Lakes Wakatipu and Wanaka" (QLDC and ORC October 2006).

ELECTRICITY

Electricity is supplied into the District by Trans Power on two 220-kva supply lines from the National Grid into the Cromwell substation. One line comes from the hydro-electric lakes in the South East, further down the Clutha valley, and the other from the Mackenzie basin to the North. Electricity is then distributed into the Wakatipu basin via-a single 110kva connection from the Cromwell substation, through unstable Kawarau Gorge, to the Frankton substation. The Wanaka area is supplied by a 66kva line from the Cromwell substation, via a line on each side of Lake Dunstan, re-joining at Queensbury to a single line the Wanaka substation.

In the Wakatipu Basin, 33kva lines distribute electricity from Frankton to the Queenstown substation, adjacent to the Frankton Road/State Highway 6 and through Arthurs Point.

Electricity is hydro-generated within the District in three locations: Roaring Meg, Kawarau Gorge (4,353 kw), Wye Creek, Lake Wakatipu (1,000 kw) and Glenorchy, on the Oxburn in the Rees Valley (400kw).

Kingston is supplied by electricity directly from the Southland network.

Distribution within the Wakatipu and Wanaka basins is provided by 11kva lines and local 11kva to 440/240v transformers and the local low-voltage network.

Aurora Energy Ltd owns the local networks in the District, which are maintained by Delta Utility Services.

Many of the larger hotels in the District have their own back-up power supply, as do critical pump stations on Queenstown Lakes District Council's water and waste water networks.

The District's electricity supply is vulnerable to extreme weather, land instability, earthquake, and equipment failure. The vulnerability is increased by the single supply into the Wakatipu basin, but is somewhat mitigated by the widespread use of back-up generation in larger facilities and critical

infrastructure dependent on electricity. However, back-up generation can provide only limited respite during major outages, due to the vulnerability of roads into the District to, in particular, earthquakes and snowfall.

TELECOMMUNICATIONS

Telecommunications in the Queenstown District consist of both fixed line and wireless /cellular communications. Wireless /cellular communications however are dependent on the fixed line network and the connections made through a national fibre optic cabling network. Fibre optic cables and digital microwave links connect both Wanaka and Queenstown to the switching station in Cromwell. The Wakatipu Basin is also fed-by a TelstraClear fibre-optic lines from Dunedin and Southland, as well as a second Telecom line from Southland.

Wanaka and Queenstown are each served by a Telecom central exchange, which rely on continuous electricity supply, with back-up battery and generation on-site. Distributed network connectivity is provided by road-side cabinets, also dependent on power supply and battery back-up, with provision for the connection of back-up generation, serving up to 400 subscribers.

Work is currently underway on installing the new national ultra-fast broadband network in parts of Queenstown, with the Queenstown, including Sunshine Bay, Queenstown Hill, Frankton and Kelvin Heights, due for completion within the life of this plan. These enhancements will improve connectivity to the outside world but also have the potential of increasing dependence on that connectivity for the viability of local businesses.

The telecommunications networks are most vulnerable to earthquake, interruptions to the electricity supply from any other source, and from software failures. The Queenstown exchange is at risk of damage from flooding from Horne Creek.

LAND TRANSPORT

Queenstown Lakes District main land transport connections to neighbouring Districts and the rest of the country are by State Highway 6: from Southland, via-Kingston and Frankton, to Queenstown; Queenstown to Wanaka, via-Cromwell; and Wanaka to the West Coast, via-Hawea and Makaora. The Wanaka and Hawea areas are also connected to Central Otago and the Mackenzie District and Canterbury via State Highway 8A and 8. State Highway 6 also connects to State Highway 8B and 8 at Cromwell, providing the main land transport route to/from Dunedin and the rest of Otago from Queenstown.

Bridges on the state highway network within the District include those at: Kawarau Falls; Lower Shotover; White Chapel; Queensbury near Luggate; Albertown; and three bridges in Kawarau Gorge, adjacent to the AJ Hackett operation and Chard Farm, Victoria Flats and Roaring Meg.

Arterial local roads (see map on page 8) that connect smaller towns with the Districts main centres are:

Wakatipu Basin (Queenstown area)	**Wanaka Basin**
Crown Range/Cardrona Road	Cardrona/Crown Range Road
Gorge Road/Arthurs Point/Malaghan's Road	Mt Aspiring Road
Fernhill Road	Hawea Flat local back roads
Peninsula Road	
Glenorchy Road (to Routeburn)	

Local roads are concentrated in the District's urban areas, and between Queenstown and Arrowtown and in the Wanaka-Hawea area. Skippers Road, although a vulnerable, narrow local road serving a small resident community further up the Shotover River at Skippers and Branches Station, is also a nationally important tourism route. The Routeburn Road from the Dart River to the Routeburn Road end is also a nationally important route as it serves as the Eastern terminus of the Routeburn Track.

Significant bridges on the local roads include those at Arthurs Point, Rees River and Dart River and a half bridge at the 12 mile bluffs. There are 12 smaller bridges, 3 to 18 meters long, on the Crown Range Road between the summit and Cardrona.

Significant cuttings that are exposed to the risk of large slips or rock falls that close locally and regionally important roads include: between Frankton and Kingston, especially around Devils Elbow; Kawarau Gorge, especially at the Nevis Bluff; the Glenorchy Road at 12 Mile Bluff; and between Hawea and Makarora along Lake Wanaka. The Cardrona/Crown Range road and its bridges are also susceptible to earth movement.

The District's ski fields (Treble Cone, Cardrona, Snow Park, Snow Farm, Remarkables and Coronet Peak) are served by access roads that are maintained and controlled by their respective operators during the ski season.

All of the local roads are controlled by Queenstown Lakes District Council, with the maintenance currently contracted to Downer. The state highway network within the District is administered by NZTA from their Dunedin office, and is currently maintained by Fulton Hogan.

Significant capital works currently envisaged during the life of this Emergency Management Plan include a potential replacement Kawarau Bridge, at Frankton, and increased local roading in the Frankton Flats and Wanaka areas.

Queenstown Lakes District is relatively well served by public land passenger transport in comparison to many similarly sized and remote resident populations elsewhere, due to the District's position in the national tourism market and infrastructure. Numerous daily commercial bus services connect the District with other parts of the country and a scheduled commuter bus service runs throughout the wider Queenstown area and between Queenstown and Wanaka.

AIR TRANSPORT

Queenstown Airport is the base for Queenstown Airport is the fourth busiest, by flight number, in the country, with passenger numbers currently increasing at about 20% annually. Queenstown Airport is owned and operated by Queenstown Airport Corporation Limited (QAC), 75% owned by Queenstown Lakes District Council.

The Wanaka Airport, owned by QLDC and operated by QAC, currently has significant untapped potential for commercial activity and would be likely to be used to provide air access into the District in the event of road access being compromised.

Smaller grass airstrips are located at Makaora, Glenorchy, the Flight Park near Arrowtown, and NZone's parachute base near Jacks Point, Queenstown. There are numerous other grass air strips on private land, predominantly farms, throughout the District.

WATER, WASTEWATER AND STORMWATER

Details on the District's water, waste water and stormwater systems and the management regimes are available from QLDC Infrastructure Services. The following is a summary of the networks from an Emergency Management perspective.

WATER

The Queenstown Lakes District Council operates 8 water supply schemes in Queenstown, Wanaka, Arrowtown, Lake Hawea, Glenorchy, Lake Hayes, Luggate and Arthurs Point – serving approximately 15,000 properties. The systems comprise 414 km of water pipes and 11 water treatment plants. Potable water is sourced from lakes and shallow bores, all of which are susceptible to contamination.

The relatively steep topography of the Queenstown Lakes communities and the source of most water supplies being the lake adjacent to the respective community mean that Queenstown Lakes water supplies are dependent on electrically powered pumps. Most critical pumps have diesel powered electrical generation backup.

Total replacement cost of current waste infrastructure is estimated to be $107.5 million.

41% of dwellings throughout the District are not connected to QLDC owned reticulated supplies, relying instead on ground water, collected rain water, or small, predominantly private, community supplies.

WASTE WATER

Waste water systems are provided by QLDC in Queenstown-Frankton-Kelvin Heights-Arthurs Point-Lakes Hayes-Arrowtown, Wanaka, Hawea, Luggate serve 72% of the dwellings in the District. These systems include 362 km of pipes, 42 pump stations, and 4 treatment plants. Treated waste water is discharged to the ground from the four QLDC owned treatment plants in Wanaka, Hawea and Luggate, whilst the Queenstown area treatment plant on the Shotover Delta currently discharges to the Shotover River.

Smaller private schemes serve all or parts of Cardrona, Jacks Point, Glendhu Bay and smaller rural-residential settlements along the Glenorchy Road. Individual rural dwellings have their own septic or packet waste water treatment systems. Only a few dwellings currently use composting toilet systems, predominantly in the Wanaka basin.

As with the District's reticulated water supplies, Queenstown Lakes' sewage networks are also dependent on pumps. Sewage networks are particularly vulnerable to earthquake, as they tend to be largely gravity fed to numerous points of potential failure. Damage to sewage systems will put adjacent water bodies and, therefore, potable water supplies at risk of contamination.

Total replacement cost of current waste water infrastructure is estimated to be $152.5 million.

STORM WATER

Storm water is managed via a range of methods, from simple roadside ditches in rural areas to major piped schemes in urban areas. Unlike some other urban storm water systems, virtually all storm water catchments in the Queenstown Lakes District drain directly, untreated, to local streams or lakes.

QLDC owns and operates 187km of storm water network in 8 communities.

Total replacement value is $87 million.

WATER SYSTEM VULNERABILITIES and BUSINESS CONTINUITY

Most in-ground infrastructure is relatively vulnerable to earth movement, including earthquake, particularly where the infrastructure is inherently brittle or non-ductile. One benefit of the recent rapid growth within the District is that water and waste water networks throughout the District are constructed of more resilient PVC than was the case in, for example, Christchurch, prior to the Canterbury earthquake sequence. Despite this, much of the water and waste water networks in the older settlements of the District, especially Queenstown and Arrowtown, have a higher proportion of older, less-ductile, asbestos-cement, pipes.

Water-related infrastructure in low-lying areas is vulnerable to incursion and potential damage during high-water or flood events. Waste water can contaminate adjacent land and water bodies. Water supplies can be contaminated from contaminants on the surface, in the ground and in adjacent water bodies.

QLDC maintains a 3-Waters asset management strategy, in the form of its 3-part Activity Management Plans, including the requirement to be able to continue to provide services following an emergency. The strategy includes content on risk reduction it has less content in relation to service continuity, contingency planning or disaster recovery in the event of earthquake or more localised land-slide induced infrastructure failure.

The 3-Waters Activity Management Plans highlight the risks of the current reality that although above-ground components of QLDC's water systems are insured the more vulnerable in-ground components are currently not insured.

TOURISM INFRASTRUCTURE

Queenstown's role as one of the major tourist destination in the South Pacific brings with it a range of vulnerabilities not seen to the same extent elsewhere.

Access to recreation and entertainment facilities on the hills and mountains of the District presents a unique set of vulnerabilities. The relatively high number of aerial passenger cableways and associated facilities on the District's five ski fields and the Skyline complex, presents challenges for the business themselves and, in larger events, any coordinated response as large number of customers and staff are at risk of isolation and injury in the event a range of hazards – including extreme weather, snow or rock avalanche, wild fire or earthquake.

The tourism resources in the District, including land, air and water transport and the high number of active staff, on the other hand, represent a set of potential response resources that are not present elsewhere. The fleets of helicopters, fixed-wing aircraft, buses and water craft predominantly serving visitors to the District could readily be redirected to assist in evacuation, re-supply and reconnaissance within and to/from the District during emergencies.

2.1.3 ECONOMIC ENVIRONMENT

The Queenstown Lakes District's economy is firmly based on tourism. An Otago Economic Profile by Business and Economic Research Ltd in 2010 estimated Queenstown Lakes District's GDP to be $1,286 million dollars. Table 5 provides an industrial breakdown of the District's economy.

Table 5. Composition of Queenstown Lakes Economy 2010

Sectors	FTEs	FTE %	GDP ($m)	GDP %	Business Units	Units %
Business Services	2,514	16.9%	517	40.2%	2,562	41.4%
Retail + Distribution	6,775	45.7%	399	31.0%	1,327	21.5%
Construction	1,765	11.9%	99	7.7%	992	16.0%
Recreation Services	1,596	10.6%	89	6.9%	523	8.5%
Primary	483	3.3%	39	3.0%	329	5.3%
Social Services	1,160	7.8%	86	6.7%	204	3.3%
Manufacturing	541	3.0%	57	4.4%	469	2.7%
Totals	14,833	100%	1,286	100%	6,186	100%

The local economy has become increasingly diverse and resilient, as tertiary education, agriculture, film and television production, viticulture and large-scale sporting events have been established locally over the past few decades. The entire local economy is vulnerable to major hazards, earthquake in particular, which would take years and perhaps decades to recover from – in community, infrastructure, environmental and economic terms.

The dependence on international and domestic tourism results in the local economy being relatively vulnerable to external influences - whether they be economic downturn; conflict or insecurity in visitor source regions; constraint on international capital inflows; emergencies either domestically or elsewhere; or other events with similar effects. Examples of events that have detrimentally affected the Queenstown Lakes economy include: Post-9/11 insecurity; H1N1 influenza; the current world financial crisis; large volcanic eruptions, and; the Canterbury earthquake sequence and recovery process.

Property development and values in the District tend to go through seven to ten-year market cycles, resulting in peaks and troughs of building activity and resident populations – creating cyclical surpluses or shortages and pressure on local housing and services.

Although politically part of the Otago region, and therefore linked to the regional metropolitan centre of Dunedin, Queenstown Lakes is increasingly linked to the capital based in Auckland, Australia and Asia. Due to geographic proximity and historical social factors, Wanaka has a marked link to Canterbury and Christchurch, and the Queenstown area has strong links to Southland and Invercargill. The diverse links include those in relation to emergency management, with Queenstown's Emergency Management Office, emergency and health services, in particular, having strong links to both Otago and Southland. This diversity of interests and dependencies adds a degree of resilience to the local economy and community that may not be as apparent where similar communities are linked primarily to one neighbouring city.

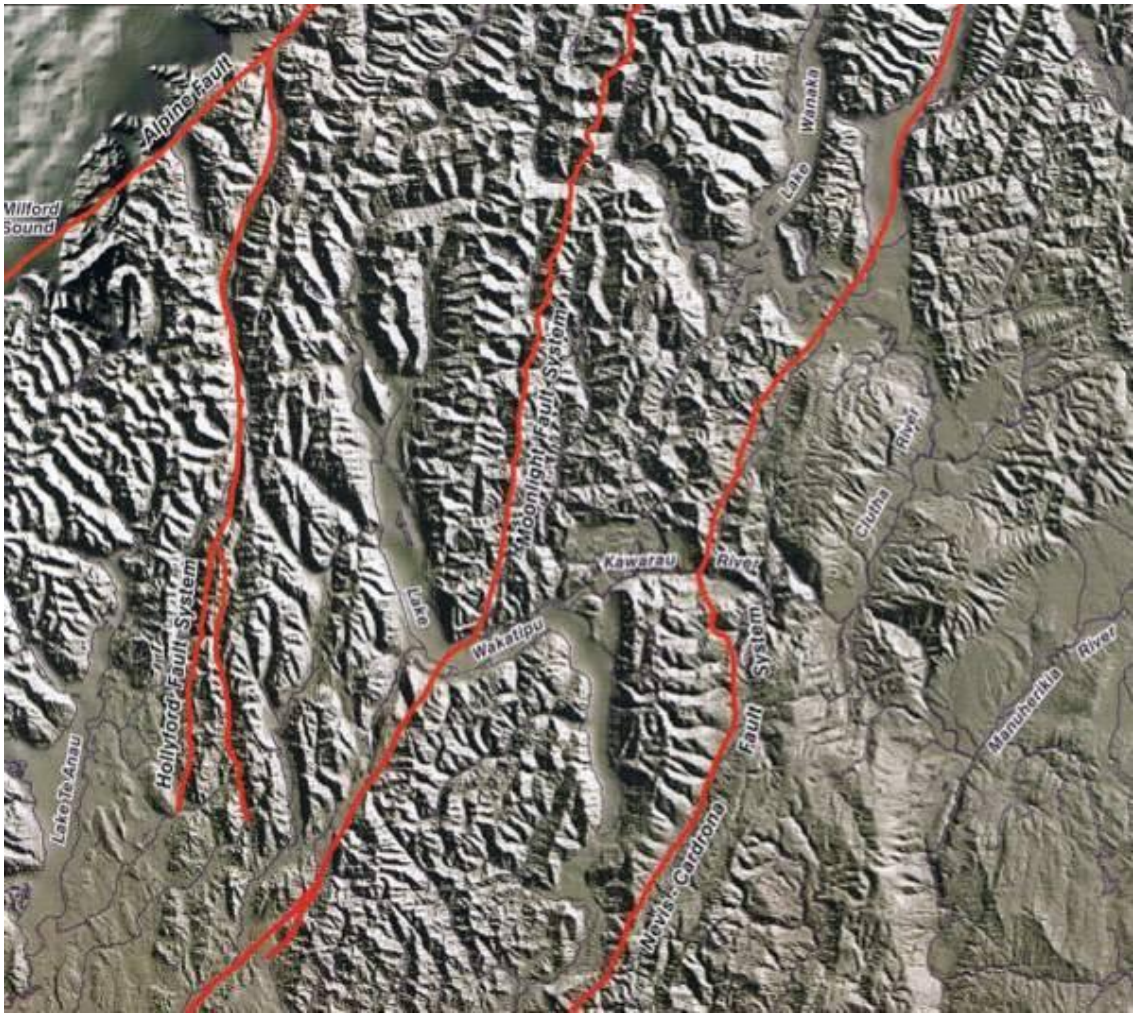
The importance of the District's tourism reputation must be a consideration when making declarations of states of emergency but should be weighted accordingly. The reputational impacts of declaring a state of emergency need to be taken into account but do not outweigh key considerations (public safety, protection of property etc).

2.1.4 NATURAL ENVIRONMENT

The Queenstown Lakes District is predominantly alpine and sub-alpine ranges and hill systems, interspersed with complex rain and snow-melt-fed river systems, alluvial fans, rolling terraces and several alpine lakes. The major lakes being Wakatipu, Wanaka and Hawea. The most developed areas are the flatter and rolling terrain around Queenstown and Wanaka.

The faulted terrain, valley, deltas, ridges and ranges of the District are depicted in Figure 2, with major known active fault lines indicated.

Figure 5: Active Fault Lines



Source: Turnbull. 2000

The three main areas of local faulting are the Hollyford which runs parallel to the Western boundary of the District, and the Moonlight Fault System running from South of Mt Nicolas, across Lake Wakatipu and due-North through the ranges to Mt Aspiring National Park, and the Nevis-Cardrona Fault System that runs from South of the Kingston, behind the Remarkables Range, through the Cardrona Valley, Wanaka, Hawea, and continuing North along the Eastern shore of Lake Hawea. Return periods for these and other fault systems in or adjacent to the District are thought to be in high 1000s to 10 of 1000s of years. Sections of fault in these systems tend to be approximately 50 km in length – longer than the fault sections that ruptured in Canterbury earthquake sequence that began in September 2010.

The Alpine Fault, immediately to the North West of the District, has an estimated return period of approximately 300 years, with the most recent significant event being in 1717. The length of fault that could rupture in a major Alpine Fault event would likely be at 400 km, resulting in emergency generated 100s of times more powerful than the recent Canterbury quakes, of over magnitude 8.

The proliferation of wilding pine species in the Queenstown and Wanaka areas, from original European settlers planting over a century ago, now pose an increasing fire risk to communities and infrastructure adjacent to or within these areas of highly flammable forest.

The climate of the District is influenced by its relatively high altitude and Southern location. Although most the District is within the rain shadow to the East of the Southern Alps the head waters of the major rivers in the District are on or near the alpine divide, meaning that the District can experience lake and river flooding while the sun is shining.

Summer temperatures can reach the low-30s C and winter temperatures in the inhabited areas of the District regularly reaching sub-zero temperatures. Snow falls on the lower-lying areas of the District most winters, with falls resulting in disruption requiring a coordinated response approximately every 10 years and a severe snow falls occurring approximately every 50 years.

Climatic averages:

- Mean annual rainfall 913mm
- Averaged maximum temperature 15.8 degrees C
- Averaged monthly maximum/minimum February 22.7/10.6 degrees C
- Averaged minimum temperature 5.6 degrees C
- Averaged monthly minimum July 8.2/0.1 degrees C
- Mean sunshine hours 1921
- Average rainfall days per month 8
- Snow to lake level average 3 days annually

2.2 QUEENSTOWN LAKES DISTRICT RISK ANALYSIS

The Queenstown Lakes District and its communities are vulnerable to a wide range of significant hazards including floods, earthquakes, severe weather, rural fire, pandemics, infrastructure failures and transport-related accidents.

Hazards are interactive and can have multiple effects on the environment and communities. They can also trigger additional hazards - for example an earthquake can weaken flood banks and land stabilisation works, and flooding can lead to land subsidence and susceptibility to liquefaction from earthquake. Additional hazards such as these are dealt with as part of the response to the primary hazard.

Risks are defined as a function of the likelihood of the hazard occurring and the consequences of the hazard if it does occur. Although evaluating risks provide priorities for Emergency Management planning, risk reduction, readiness, and response and recovery capability-building, it does not determine which disaster will actually occur first. Hazards in this plan are therefore assessed individually based on their own likelihood of occurring and their own consequences.

In support of the development of the Plan a multi-factorial risk analysis process was applied to a relatively wide range of hazards that could potentially result risk to life and property, and which may require a significant coordinated response.

The detailed Risk Analysis Table is included in the Plan as Appendix 2. An outline of the analysis assumptions is included as Appendix 3. The risk analysis process produced a list of hazards, prioritised by the level of risk attributed to each hazard. The rating is a function of a wide range of consequences and the estimated likelihood of a maximum credible event of each hazard considered. The results are summarised in Table 6.

The analysis enables us to identify the higher priority hazards for to the Queenstown Lakes District are:

- **Earthquakes** A damaging earthquake could occur at any time, without warning, and can be followed by aftershocks that continue for months or years. Although earthquakes themselves seldom kill people, although they may cause fall injuries, it is building and infrastructure failure and rock-fall/landslide that result in the high level of injuries and deaths experienced in major quakes.

  Queenstown Lakes District has a relatively high risk of earthquake occurrence, from relatively small fault-lines within the District or as a result of moderate to large earthquakes on the Alpine Fault. Whether moderate or major quake causes significant deaths or injuries or not, the damage to infrastructure, commercial and residential buildings, and potential land-slide dam and resultant flooding, that such an event would cause results in this hazard being the highest risk within the District.

  The relatively rapid development of much of the built infrastructure of the District over the past four decades, much of it replacing older, less resilient infrastructure, as progressively quake-risk aware building codes have been introduced, has resulted in a building stock that is likely to be more resilient to earthquakes than many other communities. Alongside this though is the reality that the location of significant faults within and adjacent to the District, the relatively weak nature of the local rock types, and the steepness of much of the local terrain – on and below which much of Queenstown itself, and through or over which much of the District's critical infrastructure, is constructed, contributes to a significant earthquake risk.

  The QLDC Emergency Management Office supports the Alpine Lakes Emergency Response Team (ALERT), to provide a light urban search and rescue capability throughout the District.

Table 6. Risk Ratings

Hazard	Risk Rating
Major Earthquake	28.80
Lake/River Flood	17.00
Moderate Earthquake	12.40
Human Pandemic	11.60
Major Electricity Failure	10.00
Interface Rural Fire	9.80
Severe Wind Storm	9.80
Extreme Snow	9.00
Drought	8.13
Fuel Supply Failure	8.00
Major Road Accident	8.00
Landslide	7.87
Animal Epidemic	7.87
Water Supply Failure	7.87
Major Structural Fire	7.40
Waste Water Failure	7.33
Major Air Accident	6.60
Major Structural Fire	6.40
Hazardous Substance	6.00
Major ICT Failure	6.00
Lake Tsunami/Seich	5.00
Terrorist Incident	3.93
Aerial Passenger Cableway	3.87
Lake/River Boat Accident	2.73

- **Floods** Floods may be caused by increased rain fall, snow-melt, movement of a river across or out of its bed, increased flow of one waterway into another, dam failure, land-slide dam, etc.

  Flooding is relatively frequent in the Queenstown Lakes District, and is the most common cause of a significant emergency response the District and region. In most cases flooding that causes damage is the result of rainfall and snow-melt in the alpine catchments of Lakes Wakatipu and Wanaka. Major floods tend to occur approximately every 100 years, with damaging floods occurring approximately once every decade. The most significant recent event flooded low-lying areas Queenstown, Wanaka, Glenorchy and Kingston in 1999.

  The height and frequency of floods in the District have increased over the past 150 years and are projected to continue to do so as a result of climate change. Inhabited areas of the District have not experienced maximum credible flood events within recorded history.

  Flood risk reduction has been enhanced over the past few decades as minimum floor heights have been introduced into the District Plan for areas prone to flooding, and as a result of the "Learning to Live With Flooding Strategy" introduced for Queenstown Lakes communities by QLDC and ORC after the 1999 floods. Changes have also been made to the confluence of the Shotover and Kawarau rivers, in an attempt to reduce the amount of water flowing back into Lake Wakatipu during periods of high water.

- **Severe Weather** which can affect the District includes heavy rainfall, strong winds, heavy frosts, snowstorms, heat waves and drought. These events can generally be predicted and weather

forecasts allow time to prepare for the consequences, but if the weather related events are particularly severe or continue for protected period there can be significant direct or indirect impacts.

The regularity of severe snow falls in the District, in particular, contributes to a degree of disaster readiness and resilience that may not be in less challenging environments. Droughts directly affect the District less often, but often enough that measures have been put in place to enhance water storage and impose water use restrictions during dry periods.

Infrastructure Failures are caused by external factors such as natural hazards or terrorism or internal causes such as lack of maintenance or planning.

The Queenstown Lakes District, like the rest of New Zealand is highly reliant on its infrastructure: electricity, telecommunications, water services and transport networks. The more reliant people are on infrastructure, the more vulnerable they are to infrastructure failure. While a single infrastructure failure can be a significant event, the disruption from multiple infrastructure services is potentially very severe. For example, telecommunications supply and water services depend on electricity. Any protracted disruption to electricity supplies in the District would have severe implications for the local communities and economy.

QLDC makes considerable investment in building resilience into the infrastructure they manage, including building redundancy into network where possible to enable damaged parts of water, waste water and road networks to be isolated while services are continued to the wider network. QLDC, along with numerous local businesses, have installed back-up electricity generation on their key infrastructure to enable continuity of operation in the event of electricity failure, whatever the cause of that failure. Most backup generation, however, depends on continuity of fuel supplies – an infrastructure vulnerability criticality in its own right within the District.

A region-wide critical infrastructure coordination group (Otago Lifeline Utilities Group) is in the process of being established to identify critical infrastructure vulnerabilities and inter-dependencies, and to establish and promote resilience-building opportunities. Promoting resilience within local communities and businesses, to manage the residual risk of infrastructure failure, is a high priority project within the District and across the region.

- **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 of time. A pandemic can overwhelm the resources of a society due to the exceptional number of people affected.

  Queenstown Lakes District, although geographically isolated from areas of initial infection and high population density, is directly connected to the rest of the country and the world by way of air and ground transport routes. The effect of a pandemic on the District could be significant. A pandemic is likely to affect the ability of society and the economy to function normally, and can indirectly lead to a subsequent deterioration of infrastructure services through high absentee rates in staff.

  Substantial service and business continuity planning for pandemic-type hazards occurred during the most recent pandemic scare between 2005 and 2009. Providing for the welfare of affected communities would be the primary focus of coordinated responses to severe epidemic events in the District.

- **Rural Fire** as a hazard is defined as any unexpected fire in a non-urban area, such as gorse-covered hill side, grassland, indigenous scrub, or indigenous or introduced forest types. A rural fire risk is created when fire threatens lives, properties, infrastructure, commercial plantations or areas of natural or cultural significance.

  Interface Fires occur in areas where urban development is located within areas of relatively dense vegetation that can act as a volatile fuel source. Queenstown Lakes District is susceptible to interface fires due to the proximity of fuel sources, particularly wilding pine, and residential development. This is a growing hazard as either habitation or forest spread into the other, occasionally both. The area most at risk is that to the North West of Queenstown, between Arthurs

Point and Rat Point on Lake Wakatipu, and in the vicinity of Mt Iron, North of Wanaka. Lead agencies for Rural Fire in the District are the Department of Conservation and QLDC. Responses to major fires could potentially require additional support, coordination or powers of the CDEM Act.

Efforts are currently underway to improve community resilience to rural fire on the interface between woodlands and urban areas, enhance response capability, reduce the spread of wilding pines, and improve provisions within the District Plan (RMA) to further reduce the risk of rural fire into the future.

2.3 IMPLICATIONS FOR QUEENSTOWN LAKES DISTRICT

Based on the Queenstown Lakes District's hazards, risk and vulnerabilities, as outlined above, there are a number of implications for Emergency Management in the District:

- The District has a relatively dispersed population, other than in the more densely developed parts of Queenstown, Wanaka and Arrowtown. While this is positive, in that there is less chance that a large number of people will be impacted by any single event, it also poses a challenge by making it more difficult to coordinate and concentrate emergency management efforts.
- The importance of tourism to the District means that it is particularly vulnerable to events that disrupt transport to, from or within the district.
- The large number of seasonal tourism workers in the District for short periods of time, makes it more difficult to ensure that they are well-informed about local risks and potential risk reduction, resilience, readiness, response and recovery opportunities, capabilities and arrangements.
- The high number of tourists in the District at most times can create particular emergency management issues. Tourists cannot be informed about emergency preparedness in the same way as the resident population, and they may have very different needs during and after an event placing added pressure on resources.
- Groups that have been identified as particularly vulnerable during emergencies include those aged over 65 and under 15 years. Although both groups are relatively under-represented in the District's resident population they may be relatively over-represented in visitor populations.
- Virtually the entire populated areas of the District have landline, cell phone and broadband internet access, but when these fail the steep local terrain limits alternative communication options. Emergency response organisations rely on radio telephone systems for business as usual and emergency communication, although these too are dependent on relatively vulnerable hill-top repeaters. Satellite voice and data communication is available as a fall-back measure within the District.
- Transportation within the District is dependent on relatively vulnerable local roads and highways, the relatively extensive air and water transport infrastructure provides a unique degree of resilience.
- Water and wastewater services for much of the population are dependent on the operation of reticulated systems without as much in-built redundancy as large networks can offer. As with the dispersed population, this has both advantages and disadvantages, with it being less likely that one event will affect all schemes at once, but that it is more difficult to manage resilience and response across all of the schemes.
- The frequency of snow-related events, and to a less extent flooding, means that the District's emergency response organisations and resident communities are relatively well-prepared to deal with small to moderate emergencies. However, this also means that there is a relatively lower level of preparedness for less-frequent, larger impact, sudden onset events such as earthquakes or air accidents.
- The lack of building collapse rescue and light urban search and rescue capability in the District has been emphasised in light of the events of the Canterbury earthquakes. Enhanced local capability is being developed within the NZ Fire Services, Red Cross, and the QLDC-sponsored Alpine Lakes Emergency Response Team (ALERT), however considerable additional external resource will be required in any events involving significant building and/or slope failure.

3 RISK REDUCTION

This section provides an overview of the initiatives used to reduce the risks in the Queenstown Lakes District. It describes the principles of reduction and explains the activities used to achieve CDEM objectives including Risk Reductions priorities, activities, policies, and planning.

3.1 INTRODUCTION

Reduction involves identifying and analysing long-term risks to human life and property from natural or human-caused hazards; taking steps to eliminate these risks where practicable and, if not, reducing the magnitude of their impact and the likelihood of them occurring.

Risk reduction is achieved through integrated risk management and methods such as hazard mapping and monitoring, land-use planning, improved building design and construction, physical mitigation works, public awareness and education, sustainable land management, regulation and monitoring, upgrading infrastructure resilience and emergency management planning.

Risk reduction involves many stakeholders including: central government, local authorities, emergency services and lifeline utilities, as well as individuals and communities. It is also guided by a range of legislation, policies and plans, at local, regional and national levels. Therefore successful, comprehensive risk reduction requires a collaborative, multi-agency and all of government approach.

Past risk reduction efforts in Queenstown Lakes District have included flood mitigation, such as river training works at the confluence of the Shotover and Kawarau rivers to reduce the likelihood of backflow into Lake Wakatipu, flood protection works around Glenorchy, the introduction of increased minimum floor levels in flood-prone parts of the District, and the incorporation of national building codes into local policy which address the risks associated with earthquakes, floods and severe weather. In addition, individual agencies such as lifeline utilities continually design and upgrade their networks and procedures to have resilience to hazards.

Reduction has been identified by the Queenstown Lakes District Council as a key area for further work in the term of this Plan.

3.2 RISK REDUCTION PRINCIPLES

Reduction principles help to clarify, guide and prioritise reduction activities that all contribute towards increasing community resilience. There are three reduction principles for the Queenstown Lakes District, based on the Otago Group principles, which are to:

- Identify and co-ordinate reduction activities among key stakeholders and the community
- Prioritise reduction activities taking into account the impact on human life and safety, the economy and the built and natural environment as well as the manageability of the risk and the likelihood of it occurring
- Develop practical, achievable objectives and methodologies to reduce risk in the District

3.3 PRIORITY HAZARDS FOR REDUCTION

The hazards that rates most highly in the risk analysis carried in support of this Plan (see Section 2.2 and Appendix 2) are listed in Table 7.

Table 7. Highest Rated Hazards

Hazard	Risk Rating	Hazard	Risk Rating
Major Earthquake	28.8	Drought	9.6
Lake/River Flood	17.0	Extreme Snow	9.0
Moderate Earthquake	12.4	Fuel Supply Failure	8.0
Human Pandemic	11.6	Major Road Accident	8.0
Major Electricity Failure	10.0	Landslide	7.9
Interface Rural Fire	9.8	Animal Epidemic	7.9
Severe Wind Storm	9.8	Water Supply Failure	7.9

Reduction activities will focus on these and related hazards so as to bring about the most Resilience gains within the District.

3.4 QLDC DISTRICT PLAN HAZARDS MANAGEMENT

Natural Hazards are dealt with in Section 4.8 of the current operative District Plan. The District Plan is currently under review. Hazards identified in s4.8 are:

- Flooding and inundation
- Erosion and Deposition, including landslip and rock fall
- Land Instability
- Earthquakes
- Severe Climatic Extremes - Drought, Snowfall, Wind
- Alluvion *(river sedimentation)*, avulsion *(change of river course)* or subsidence

The District Plan hazards are consistent with the Emergency Management Plan hazards, within the "natural hazards" parameters of the Resource Management Act 1991, enabling the District Plan and Emergency Management Plan to be complimentary documents.

The District Plan includes a set of Issues, Objectives and Policies intended to: (s4.4.4.iv) *Reduce incidence and severity of localised flooding and land slip.*

3.4 RISK REDUCTION ACTIVITIES – ALL AGENCIES

Risk reduction can involve costly infrastructure programmes that can be difficult to justify economically, especially when compared to other activities with more immediate and tangible outcomes. Reduction can also involve planning guidance or controls under the Resource Management Act, which place restrictions and impose costs on private landowners.

Reduction activities in the Queenstown Lakes District fall into two key areas – improving understanding of hazards and risks, and undertaking work to reduce vulnerability to those risks.

IMPROVING UNDERSTANDING

A fundamental part of reducing risk is to first understand what the risks are. A current understanding of the District's hazardscape has been outlined in Section 2.

Recent work includes:

- Improved mapping of liquefaction risk within the District, to inform current development and the review of the District Plan.
- Local critical infrastructure provider involvement in the Otago Lifeline Utilities risk analysis projects – the first being risk to the electricity network in 2012.
- Provision of internet access to Land Information Memorandum (LIM) data held by QLDC/Lakes Environmental – including hazards information. To be followed by online access to property specific District Plan provisions.

Future work within the term of this Plan includes:

- Use and promotion of the Otago Natural Hazards Database. To provide ready access to hazard information, better analysis of risks within the District, and the provision of better information to agencies and the general public.
- Consideration of new information and understanding arising from investigations into the Canterbury Earthquakes. Including a review of Council's Earthquake-Prone Buildings Policy, to be done in collaboration with the other Councils in Otago.
- Update and publish baseline analysis of current building stock to inform implementation and future enhancement of the QLDC Earthquake-Prone Building Policy.
- Review of the hazards management components of the QLDC District Plan – 2012-14.

RISK REDUCTION ACTIVITIES

The Ministry of CDEM-led 2011 Otago CDEM Group Capability Assessment identified that Risk Reduction was an area of relatively low effort and achievement in Otago. Most of the major risks occur across more than one territorial authority area, so it will be more efficient and effective for some Reduction activities to be coordinated with other Councils.

Risk Reduction, as with all aspects of Emergency Management, involves community groups, agencies, and infrastructure providers across the District and wider-region. Overall leadership for risk Reduction across the region is intended to be achieved collaboratively within the multi-agency Otago CDEM Group. Responsibility for specific actions will then sit with the various organisations (individually and in collaboration), with the Risk Reduction Committee coordinating and monitoring this work and reporting back to the CDEM Group's Coordinating Executive Group.

Specific activities involving the Queenstown Lakes District include:

- Review of the more general provisions of the District Plan relating to natural hazards.
- Utilisation of the Otago Natural Hazards Database.
- Review of the Queenstown Lakes "Learning To Live With Flooding" – Flood Management Strategy.
- On-going risk, reduction, readiness, response and recovery communication with flood-prone communities.
- On-going risk, reduction, readiness, response and recovery communication with rural-prone communities, particular within the "interface fire" Queenstown Red Zone.
- QLDC infrastructure resilience programme – focused on water and sewage networks.
- Contribution to the CDEM Group Reduction Committee, coordinating work on shared infrastructure such as electricity distribution networks and telecommunications.

Partner agency risk reduction activities include:

Civil Aviation Authority/Queenstown Airport Limited:

Recently enhanced navigation and Fire Rescue capability at Queenstown Airport

Air Traffic Control

Site security and on-site/area hazard management

Fire:

Major building fire management planning

Monitoring of building fire plans, equipment and capability

Harbour Master:

Seasonal and event specific publicity

Enforcement of bylaws

New Zealand Transport Agency/QLDC:

Continual improvement of road conditions, lay-out, signage, etc., throughout the District

Introduction of keep-left arrows for foreign drivers

Otago Regional Council:

Natural hazard risk management provisions in Regional Policy Statement

Environment and flood risk monitoring

Police:

Enhanced Police presence during major events

Traffic enforcement

Involvement in the QLDC Urban Design Panel, providing advice on Crime Prevention Through Environmental Design (CPTED)

Rural Fire:

Seasonal fire risk reduction promotion

Prohibited, year round fire areas

Fire risk signs at key locations: camping and picnic areas, walking + cycle tracks

Restricted Fire Seasons during periods of high risk

Active public information management at time of high fire risk

Public Health South:

Surveillance for communicable disease threats local and international

Community health promotion

4 READINESS

The readiness section provides an overview of the initiatives used to prepare the Queenstown Lakes District for an emergency. It describes the principles of readiness and explains the activities used to achieve Emergency Management objectives including public education, community planning, business continuity planning, coordinated incident management, professional development, training and exercises, operational planning and readiness planning.

4.1 INTRODUCTION

Readiness involves developing operational systems and capabilities before a civil defence emergency happens, including self-help and response programmes for the general public, and specific programmes for emergency services, lifeline utilities and other agencies. Readiness can be divided into two distinct but related aspects:

- **Community readiness** focuses on the ability of communities, private businesses, families and individuals to be able to meet their own needs during and after an emergency.
- **Organisational readiness** focuses on the readiness of emergency services, local authorities, large non-government organisations and other CDEM stakeholders to be able to meet not only their own needs during an emergency but also the needs of their community.

The purpose of the readiness section is to provide an overview of current levels of readiness and to provide assurance that the Queenstown Lakes District has the capacity and capability to respond to and recover from a civil defence emergency. The section also identifies readiness issues and priorities which the District needs to focus on.

4.2 READINESS PRINCIPLES

Readiness principles help to clarify, guide and prioritise readiness activities that contribute towards increasing community resilience. The readiness principles for the Queenstown Lakes District are:

- Communities, private businesses, families and individuals have the responsibility to meet their own needs during and after an emergency.
- Risk management should form part of normal business operations and planning should include both business continuity and emergency management arrangements.
- Successful emergency management is reliant on good planning activities and preparedness arrangements with involvement from all stakeholders including the public.
- The Queenstown Lakes District Council will at all times maintain an appropriate level of readiness by monitoring actual and potential events and being able to provide support when required.

4.3 READINESS PRIORITIES

As part of the preparation of the Otago CDEM Group Plan, a risk prioritisation model was used to identify priorities for readiness improvements in relation to specific hazards. The most difficult hazards to 'be ready for' are those that have little or no warning time and that have very long return periods such as earthquakes and local source tsunamis. The high priority hazards that had the most effort applied to warning systems and community readiness were floods, storms, human pandemic and regional/distal tsunami. Overall, the Group area was assessed as being least ready for earthquake, dam failure and local tsunami, and most ready for flooding, pandemic, and regional/distal tsunami.

Queenstown Lakes is relatively well-prepared for flooding compared to most other parts of the region. These are events which the District has experience in preparing for and responding to, and generally involve an appreciable amount of advance warning as rivers and lakes rise.

The District may be said to be least prepared for earthquake, as there have been no significant local events in recent decades and there is little or no advance warning.

High flows from a breach of the Lake Hawea Dam would have attenuated by the time they reach significant population centres down-stream and so could be handled within normal flood response protocols. Review and maintenance of warning procedures for residents and visitors between Lake Hawea and Luggate, in the event an imminent or actual failure of Hawea Dam, require attention though.

Enhancing the ability to coordinate responses to emergencies within the District, and ensuring adequately resilient and equipped coordination facilities are available, are priorities for the QLDC Emergency Management Office and partner agencies.

4.4 COMMUNITY READINESS

4.4.1 AWARENESS AND PREPAREDNESS

All individuals and communities need to be aware of hazards and risks, and how to prepare for and cope in an emergency. The National Public Education Programme (2006-2016) provides the overall direction for developing and delivering public education while local and regional strategies offer specific advice about local hazards, risks and preparedness steps.

The Otago CDEM Group has identified public education as the foundation for improving levels of community resilience, and has developed a Public Education Strategy. Activities within the Queenstown Lakes District will fit within, and contribute to, that Strategy.

Specific activities include:

- Contributing to Group and National education programmes (e.g. Disaster Awareness Week and ShakeOut), and delivering them within the District.
- Providing information through Council newsletters, website and other publications.
- Targeted advertising campaigns, generally either in conjunction with a Group or National campaign, or in response to specific local events and issues.
- Visits to schools, businesses and community groups.
- Provision of information displays and material for relevant events and functions.
- Facilitation of Community Emergency Plan development.
- Support to Community Emergency Response Teams.

4.4.2 COMMUNITY PARTICIPATION

Communities in the Queenstown Lakes District can be isolated during an emergency event, delaying outside resources being available to assist. This makes it imperative that communities can survive with little or no outside assistance, particularly during the early stages of a response. Council is working to address these issues by working with local communities.

Specific activities include:

- Meeting with key community groups at least once per year.
- Maintaining Community Emergency Response Team – predominantly with community associations.
- Supporting Community Emergency Centre capabilities throughout the District.
- Contributing to and supporting quarterly meetings of Queenstown Lakes Emergency Services Coordinating Committee.
- Promotion of personal preparedness.

4.5 ORGANISATIONAL READINESS

4.5.1 STAFF CAPACITY AND CAPABILITY

Professional development is a core component of all readiness activities. Appropriate performance during an emergency can often be attributed to strong working relationships being established and exercised prior to emergency events.

All Emergency Operations Centre Incident Management Team positions (outlined in s5.8.1) will have a primary and two alternate personnel appointed and suitably trained. Including support personnel, this requires 60 QLDC staff to be trained in the respective aspects of emergency response coordination at all times.

Specific activities include:

- Specific training for key EOC functions. For some positions some professional development is available nationally (Controllers, Public Information Managers and Recovery Managers). All people identified for those roles will undertake the training as part of their preparing for their roles. For other roles, training will be conducted either in-house or in conjunction with the Otago Group partners, so as to have at least two shifts of trained personnel for all key positions. EOC introductory, Intelligence Planning, Operations, and Logistics was provided to QLDC and partner agency personnel in April-May 2013.
- Monthly meetings of Council staff with Emergency Management responsibilities, and twice-yearly meetings of all key positions, to ensure all personnel are kept up to date.
- Further training and exercises will be undertaken in collaboration with the Otago Group partners, to help ensure that professional development is locally relevant and cost-effective, while also improving cooperation and interoperability by having staff from various agencies working together.
- Contribute to development and implementation of a CDEM Group professional development strategy and training programme.

4.5.2 OPERATIONAL PLANNING AND COORDINATION

Emergency management operational coordination covers a wide range of activities and a number of emergencies that are extremely varied in duration, frequency, intensity, nature and consequences. Integrated and coordinated planning facilitates consideration of all the consequences of the threat or impact of an emergency on our communities.

In addition to the planning undertaken by the Otago CDEM Group member authorities and Queenstown Lakes District Council, there are a number of other groups and structures that contribute to operational planning at regional and local levels:

- CDEM Group CEG Reduction Committee
- CDEM Group CEG Readiness Response Committee
    - Emergency Services Coordinating Committees (in each territorial authority)
- CDEM Group CEG Public Information Managers Committee
    - Queenstown Lakes Crisis Communication Group
- CDEM Group CEG Emergency Welfare Advisory Group
    - Queenstown Lakes Emergency Social Services Management Committee
- CDEM Group CEG Recovery Committee
- Otago Hazardous Substances Technical Liaison Committee
- Rural Fire Authorities (Territorial authorities, DoC, and forest owners)

4.5.3 PLANS AND PROCEDURES

All organisations and agencies that are involved in civil defence emergency management should prepare plans that outline their arrangements for contributing to the response of and recovery from an emergency. Planning provides a methodical way to think through and develop arrangements for addressing every stage of an emergency. It describes a desired outcome, outlines effective ways for achieving it, and communicates expectations of all response and recovery partners. Planning takes place at all levels and involves multiple stakeholders. To ensure that arrangements are representative, realistic and recognised by all partners it is essential that plans are co-ordinated horizontally and integrated vertically so that a common operational focus can be achieved.

Group Plans

Within the Otago Group there are a number of current or proposed plans that involve the Queenstown Lakes District:

- Otago CDEM Group Plan
- Group Emergency Welfare Plan
- Group Lifelines Plan
- Group Recovery Plan
- Group Alpine Fault Earthquake Plan
- Group Dam Failure Plan
- Group Public Education Strategy

Queenstown Lakes District Plans

In addition to joining together to form a CDEM Group and produce a CDEM Group Plan, territorial local authorities must plan and provide for civil defence emergency management within their own Districts (s.64(1) CDEM Act 2002). Within Queenstown Lakes District, the following are relevant:

Handbooks and Guidelines

Handbooks and Guidelines are written and designed for quick reference, to provide statements by which to determine the best course of action. Handbooks and Guidelines can also outline roles and responsibilities, identify tasks, and establish accountability. The Queenstown Lakes District does not have specific documents of its own, but uses various guidelines from the MCDEM website library (eg Best Practice Guidelines, Director's Guidelines, Technical Standards, and handbooks and research on various specific topics).

Standard Operating Procedures

Standard Operating Procedures (SOPs) are documents that describe the procedure to be followed in carrying out a specific operation. Examples of this include EOC SOPs.

Function or Event-Specific Response Plans

Function and Event-Specific Response Plans are documents that consider the consequences of the major hazards that might impact the District and functional responses required. Event and function specific planning provides the opportunity to anticipate actions and systematically identify potential problems and workable solutions. Event and function-specific planning also provides a means for coordination, integration and synchronisation therefore it is essential that all Emergency Management stakeholders are involved in the process.

Queenstown Lakes Emergency Management Office currently has the following Response Plans in place:

- Infrastructure Emergency Management Plan
- Infectious Disease
- Flood Response (Draft)
- Emergency Welfare Plan (Draft)
- Initial Action Plans:
  - Earthquake
  - Flood
  - Landslide / Landslide Dam

Partner agency plans include:

Ambulance:

- St John Ambulance Mass Casualty Incident Plan

Health:

- SDHB Pandemic Response Plan (NZ Influenza Pandemic Plan (NZIPAP)
- Queenstown Lakes Hospital Mass Casualty Incident Plan (National Health Emergency Plan)

Queenstown Airport:

- Aerodrome Emergency Plan

Police:

- Airport Emergency Plan
- Land Search nd Rescue Plan
- Rivers and Lakes Emergency Plan
- Police Business Continuity Plan (including fuel)

Rural Fire:

- QLDC Rural Fire Plan
- DoC Otago Conservancy Rural Fire Plan
- Doc + QLDC: Queenstown Red Zone Rural Fire Plan

QLDC Recovery Plan (To be developed)

Recovery planning is an essential element of Emergency Management and outlines the structure, roles and responsibilities of various local organisations and the process by which the recovery component of the emergency will be undertaken. The Queenstown Lakes District Recovery Plan will be developed to be consistent with the Group Recovery Plan adopted in November 2012.

4.6 WARNING SYSTEMS

Warning systems are used to advise agencies, authorities and/or the public of possible events, to allow them to prepare for a potential or actual emergency. The effectiveness of warning systems is dependent on the timely delivery and receipt of the threat information, recipients' understanding of what they should do, and the readiness and response plans in place to guide the response.

The Queenstown Lakes District Council can receive warnings from a number of sources, depending on the nature of the threat involved:

National Warning System

The national warning system is maintained and operated by the Ministry of Civil Defence and Emergency Management to issue civil defence warnings received from responsible agencies to CDEM Groups and local authorities, government agencies and lifeline utilities registered with the national warning system.

MCDEM issues warnings or advisories via the national warning system when an event poses a threat or potential threat to people and/or property and may result in an emergency or when it considers there is sufficient public interest to state that an event does not pose a threat. The type of warning or advisory issued will depend on the type and nature of the event and its potential impact.

Warnings and advisories are sent to the Queenstown Lakes District Emergency Management Office by SMS text message (notice that a warning or advisory has been issued) and email (which contains the details of the warning or advisory). The Emergency Management Office must be capable of receiving, acknowledging and responding to national warning messages within 30 minutes. Acknowledgement of the warning or advisory is to be sent to the Otago Group CDEM office. The SMS text message is delivered to two staff members and Council's after-hours contact service. The after-hours service will work through a list of names until contact is made, to ensure that the message has been received. The details are then accessed via the email, which goes to a wider distribution list.

Otago Group Warning System

The Group CDEM Office coordinates the issue, dissemination, and confirmation at the regional level in accordance with Standard Operating Procedures. The procedures outline the agencies responsible for issuing warnings, levels of warnings and explanations of warning criteria. Individual Local Authorities and Emergency Services are then responsible for further disseminating the warnings as appropriate, in accordance with their own Standard Operating Procedures. Systems are to be tested regularly, both within the Group and as part of national tests.

Other Agencies Involved

There are a number of agencies involved in the surveillance, monitoring, assessment of hazards and issuing alerts and warnings to incidents or events that may be a pre-cursor to an emergency (see Table 8 below).

Table 8: Monitoring and Alerting Agencies

Hazard	Monitoring / Alerting Agency
Earthquake – notification of magnitude, location and other information following an earthquake	GNS (QLDC for local impact assessment)
Weather: Forecasting and alerts / warnings / watches / outlooks / advisories for heavy rain, gales, snow, thunderstorms, swells, surge	NZ MetService
Longer term forecasting of weather and climate trends	NZ MetService & NIWA
Flood warnings for major rivers, including interpretation of meteorological information and notification when river level 'trigger' points are reached	Otago Regional Council (QLDC for local management) (DoC for Young-Wilkin River)
Rural Fire and Weather Conditions	Rural Fire Authorities (DoC, QLDC), NZ Fire
Urban Fire	NZ Fire
Land slide	Community, Emergency Services
Health warnings, including pandemic	Ministry of Health & Health Services
Animal disease outbreaks and pest invasions.	Ministry for Primary Industries
Infrastructure failure	Agency responsible for infrastructure
Criminal acts, major accidents, civil unrest, terrorism	NZ Police
Air Accidents	Civil Aviation, Queenstown Airport Ltd, NZ Police, NZ Fire
Lake-River Transport Accidents	QLDC Harbour Master
Hazardous Substances	NZ Fire, Otago Regional Council
Tsunami (distant and regional source)	(Pacific Tsunami Warning Centre) MCDEM

Public Warnings

Public warnings may be issued by the MCDEM, by the Otago CDEM Group, the Queenstown Lakes District Emergency Management Office or by the NZ Police or NZ Fire Service. On receiving the warning people should follow the instructions given or listen to their local radio or TV stations for further information.

The general public can be alerted to an impending emergency using a variety of systems, including radio and television, public address system announcements, signposting, websites, email, text messages, 0800 telephone numbers and the continuous sounding of sirens. The method depends on the nature and type of event, the communication systems available and the particular community affected.

Queenstown Lakes District's dispersed population and patchy cell phone coverage mean that a variety of methods must be used. In a number of cases local arrangements are developed by community groups (eg 'phone trees', neighbourhood contact lists, or volunteer fire fighters). Sirens are not used in the District due to their limited coverage and reliability issues.

4.7 EMERGENCY TELECOMMUNICATIONS

The ability to effectively communicate in the lead up to, during and after an emergency is a critical component of operational capability. Emergency Management stakeholders expect all responding agencies to be able to effectively communicate with each other at all times. The Queenstown Lakes District uses a variety of communication systems to ensure effective and resilient inter-agency communication. These include landline phone, cellular phone, satellite phone, satellite voice + data (BGAN Broadband Global Area Network), facsimile, email, VHF radio and the web-based Emergency Management Information System (EMIS).

EMIS is a national web-based integrated information system for emergency response coordination. The system allows end-to-end functionality including such features as standardised reporting, data logging, an alerting function and a library repository. EMIS is currently being implemented through the country, and is intended to become the standard system for providing and aggregating information from local to regional and national levels.

Management of telecommunications is documented in Standard Operating Procedures of each of the contributing agencies, and coordinated by the Queenstown Lakes Emergency Services Coordination Committee.

5 RESPONSE

This section provides an overview of the initiatives that are used to manage an emergency in the Queenstown Lakes District. It describes the principles of response and discusses response arrangements. This includes information on the emergency management structure, levels of response, activation and notification, Emergency Operation Centre, functions and capabilities, stages of response, declarations, mass evacuation, volunteer management and roles and responsibilities.

5.1 INTRODUCTION

Response describes the actions taken immediately before, during or directly after a civil defence emergency to save lives, protect property and support communities to recover. These response arrangements have been established to ensure that all available resources are effectively applied to plan for and manage the consequences of emergencies that affect the Queenstown Lakes District. While the first priority during an emergency is the safety of life, response planning aims to minimise all the effects of an emergency and ensure that people are given early support to recover.

The purpose of the response section is to provide key stakeholders, partner organisations and the community with an outline of the response principles, priorities, systems and organisational framework intended to be activated, deployed and coordinated during emergencies in the Queenstown Lakes District.

5.2 RESPONSE PRINCIPLES

Key principles for Response are:

- Direction and coordination of incidents, emergencies and disasters will be dealt with using the Coordinated Incident Management System (CIMS).
- The response will escalate only to the level required to manage the Incident. Incident Control Points and EOCs will be flexible and able to be established by Controllers to a size and structure appropriate to the incident.
- The CDEM Group, through its Group ECC located at the Otago Regional Council, will activate to the level required to monitor, support, coordinate and/or direct as appropriate to the event.
- All agencies will be responsible for their own response under their own plans, but as coordinated by the lead agency.

5.3 FIVE LEVELS OF EMERGENCY RESPONSE

Response relationships, roles, activities and EOC operation change as an Incident escalates into an Emergency. The Otago CDEM Group applies the five levels of Incident/Emergency, consistent with those described in the National CDEM Plan.

Responses to an event can occur progressively – e.g. the Queenstown Lakes District EOC may initially take a monitoring role for localised flooding in a part of the District, activate fully if the flooding worsens, and eventually seek support from the Group ECC if outside help is required. This approach is appropriate, as the scale of each agency's response should be in proportion to the event.

The points at which decisions are made to change the level of activation and control must be definite and clear, and communicated immediately to all agencies involved. Similarly, the situation, level of response and intended actions of responding agencies will be communicated by the respective agency to all relevant partner agencies and, when activated, the Local EOC.

Table 4: Levels of Emergency Response Coordination

Event Type	Event Status / Procedures	ECC / EOC Roles	Controllers' Roles
1 Site Incident: Can be dealt with by Emergency Services and/or Local Authority resources alone. Specialists may be required for specific circumstances.	Standard operations procedures + multi-agency CIMS structures, processes and principles used to manage Incident. Lead agency depends on Incident type. Declaration only if emergency powers required.	EOCs may be alerted or be partially operative in support of the Lead Agency.	Local controller notified if EOC involved.
2 Local/Site multi agency Incident: Can be dealt with by Emergency Services and/or Local Authority resources though remote support (ICP) likely to be required. Specialists may be required for specific circumstances.	Multi-agency CIMS structures and principles used to manage Incident. Local authority may assume coordinating role for functions agreed on the day. Declaration only if emergency powers required.	EOC in Key Support Agency role. Local Authority EOC partially or fully activated and co-ordinating agreed functions. Possibility of GECC partially activated in monitoring role	Local Controller coordinating the agreed functions. Group ECC / Controller notified.
3 Local coordination or support necessary. Imminent or State of Local Emergency involving a single TA: The event may not or cannot be able to be managed without the adoption of emergency powers.	Coordination of local response, information and resources. Local multi-agency CIMS applied. Declaration of state of local emergency in a single TA may be considered or has been deemed necessary. Declaration can be for an entire District or one or more wards.	EOC fully activated and coordinating responses to the emergency. ECC and adjacent EOCs alerted or partially activated to monitor situation and respond if situation deteriorates.	Local Controller exercising statutory powers. Group Controller supporting the Local Controller, and giving consideration to further escalation. Adjacent CDEM Groups and National Controller notified.
4 Regional coordination or support required. Imminent or State of Local Emergency that is regionally significant: The event impacts on one TA but requires response and resources from outside that TA, or the event impacts on two or more TAs within Otago, or Co-ordinated assistance is required to support an adjoining CDEM Group.	Coordination of regional response, information and resources. Regional multi-authority CIMS applied. Declaration of state of local emergency in Otago may be considered or has been deemed necessary, that involves the entire CDEM Group area or one or more Districts, OR an adjacent CDEM Group requires assistance.	ECC and all EOCs fully activated. NCMC and adjacent GECCs may be alerted or partially activated to monitor the situation and be ready to respond if the situation deteriorates.	Group Controller exercising statutory powers. National Controller giving consideration to further escalation. Local Controllers responding to priorities set by the Group Controller.
5 National coordination or support required. Imminent or State of National Emergency.	Coordination of national response, information and resources National CIMS applied. Declaration of state of national emergency is being considered, or has been deemed necessary.	NCMC, ECCs and all EOCs fully activated	National Controller exercising statutory powers. Group Controller responding to priorities set by the National Controller. Local Controller responding to priorities set by the Group Controller

5.4 EMERGENCY COORDINATION FACILITIES

There are essentially four levels of emergency response coordination facilities provided for within the National CDEM Plan, consistent with NZ Coordinated Incident Management System (CIMS):

1. **Incident/Site Control Points**

Adjacent to specific incidents or significant sites within a larger incident or emergency, responsible for managing on-site activities. Every emergency incident or site where multi-agency response is being delivered will have an Incident Control Point established, with all participating organisations working to the respective Incident Control Point. **Larger events may have multiple Incident Control Points**.

2. **Local Emergency Operations Centres**

Facilities established in support of on-ground responses, to achieve shared situational awareness across and coordination across all agencies involved in the response locally. Local Emergency Operations Centres are usually provided by the respective territorial authority. Local Emergency Operations Centres provide a range of functions including information gathering, analysis and sharing, operational coordination, logistics, emergency welfare, information management, media advise and recovery preparation.

3. **Regional Emergency Coordination Centres**

Regional Emergency Coordination Centres, as the name suggests, are responsible for achieving multi-agency coordination and support at a regional level to responses at local level.

The Otago Regional Emergency Coordinating Centre (ECC) is based at the Otago Regional Council offices in Dunedin, and is staffed by ORC and regional managers and personnel of partner emergency response organisations.

Emergency services may activate Agency Emergency Operations Centres during major responses, to achieve coordination within their own organisation. Agency Emergency Operations Centres work closely with Regional Emergency Coordination Centres or Local Emergency Operations Centres to support local responses.

4. **National Coordination Centres**

National Coordination Centres, usually based in Wellington, are operated by central government agencies and departments, to provide country-wide situational awareness within the respective agency and, where the agency is in a "lead agency" role, across all agencies involved in the response.

The only "hot" facilities are the National Search and Rescue Coordination Centre, which operated around the clock, and the National Crisis Management Centre (NCMC), maintained by the Ministry of CDEM in the basement of the Beehive and able to begin supporting and coordinating national responses within minutes of notification. The NCMC co-ordinates response to events of national significance, and may direct responses when necessary.

Other National Coordination Centres include the National Health Coordination Centre and the NZ Defence Force Joint Head Quarters.

The National Welfare Coordination Group (NWCG) provides coordination of government agencies and non-government organisations with roles in Emergency Welfare, is chaired and supported by the Ministry of Social Development (MSD), and acts as part of the National Crisis Management Centre.

5.5 ROLE OF LOCAL CONTROLLERS:

CDEM Controllers are expected to provide leadership in both Readiness and Response, during declared emergencies and whenever any significant coordinated response occurs or is likely within the local authority area or in neighbouring areas. QLDC Local Controller appointments are included as **Appendix 7** to this plan.

Controllers are required to be suitably trained and experienced at the time of their appointment and on a continual basis while appointed. Expectations in this regard are increasing as lessons are learnt from recent significant responses and additional professional development opportunities become available. Although Controllers may be supported in their role by the respective Emergency Management personnel within the organisation, there is a responsibility for Controllers to be proactive in terms of their own development and that of the organisation and personnel intended by under their "control".

Local CDEM Controllers in the Otago CDEM Group area have all of the powers of CDEM Group Controllers delegated to them, with the proviso of CDEM Act s27.2 requires that Local Controllers must follow any directions given by the Group Controller during an emergency.

S28 requires that **Controllers must**, **during a state of emergency** for the whole or part of the CDEM Group area, **direct and coordinate the use of personnel, materials, information, services, and other resources made available** by departments, CDEM Groups, and other persons.

Powers of Controllers include:

s76 Power to require information

s77 Appeal against requirement to give information

s78 Power of entry to obtain information in urgent cases

s85.1 While a state of emergency is in force in its area, a Civil Defence Emergency Management Group [in this case meaning the Local Controller for the respective member local authority] may—

(a) carry out or require to be carried out all or any of the following:

(i) works;

(ii) clearing roads and other public places;

(iii) removing or disposing of, or securing or otherwise making safe, dangerous structures and materials wherever they may be;

(b) provide for the rescue of endangered persons and their removal to areas of safety;

(c) set up first aid posts, and provide for first aid to be given to casualties and for their movement to hospital, other place of treatment, or areas of safety;

(d) provide for the relief of distress, including emergency food, clothing, and shelter;

(e) provide for the conservation and supply of food, fuel, and other essential supplies;

(f) prohibit or regulate land, air, and water traffic within the area or District to the extent necessary to conduct civil defence emergency management;

(g) undertake emergency measures for the disposal of dead persons or animals if it is satisfied that the measures are urgently necessary in the interests of public health;

(h) disseminate information and advice to the public;

(i) enter into arrangements, including employment arrangements, with any person for the purpose of carrying out civil defence emergency management as may be agreed;

(j) provide equipment, accommodation, and facilities for the exercise of any of the powers conferred by this subsection.

s86 Evacuation of premises and places

s87 Entry on premises

s88 Closing roads and public places

s89 Removal of aircraft, vessels, vehicles, etc

s90 Requisitioning powers

s91 Power to give directions

s92 Power to carry out inspections, etc

s94 Contracts in urgent cases

5.6 QUEENSTOWN LAKES EMERGENCY RESPONSE RESOURCES

The communities of the District provide the basis for much of the organised emergency response capability, by way of volunteer-based emergency and social service agencies. The most significant full-time emergency services resources are the District's various health services and Police units based in the District.

QLDC's personnel and contractors provide the basis for organised response, particularly response coordination, infrastructure response and recovery, support to emergency social series, field response provided by QLDC Operations personnel and the Alpine Lakes Emergency Response Team (ALERT)

A summary of the emergency services and related resources and capabilities available within the District is attached to this Plan as Appendix 8.

5.7 EMERGENCY SOCIAL SERVICES - WELFARE

Queenstown Lakes District does not have any locally-based personnel from the range of government agencies coordinated by the Ministry of Social Development, with the closest office being located in Alexandra. Services to Queenstown and Wanaka communities are coordinated and, in some cases, delivered by local community-based organisations and individuals, with Ministry of Social Development, Work and Income, and other agencies providing a Heartland service in the District on a regular basis.

Emergency Welfare at the local and community level includes:

- Information to effected communities – including Community Information Centres
- Evacuation Centres – which may include Community Information Centres
- Short-term accommodation* – commercial, billeting or group – hall, tents. Etc.
- Emergency food and water supplies*
- Emergency clothing*
- Emergency transport*

Potentially 100% reimbursed by government if part of organised response - no need for declared emergency.

Emergency Welfare responses in the District, that do not require significant coordinated response assistance from MSD, will be coordinated as follows:

Queenstown/Wakatipu:

- QLDC-appointed Local Emergency Welfare Manager
- Local Emergency Welfare Management Committee
- Community-based organisations in the Queenstown/Wakatipu area
- Community Emergency Response Teams in smaller communities

Wanaka Basin:

- Community Networks personnel (Wanaka Emergency Welfare Coordinator)
- Local Emergency Welfare Management Committee
- Community-based organisations in the Wanaka area
- Community Emergency Response Teams in smaller communities

Details on Emergency Welfare arrangements within the Queenstown Lakes District can be found in the QLDC Emergency Social Service - Welfare Plan

5.8 QLDC EMERGENCY OPERATIONS CENTRE

The primary Queenstown Lakes District EOC is located at the Queenstown Lakes District Council Head Office, Gorge Road, Queenstown, with an alternate site available at the St John Ambulance base in Frankton (Queenstown Events Centre is to be investigated as a potential option). A smaller-scale primary EOC is also able to be provided at the QLDC office in Wanaka, with an alternate site available at the Wanaka Police Station.

The QLDC EOC is predominantly staffed by QLDC[2] personnel trained in EOC functions, along with representatives from emergency services, specialist advisers and other relevant organisations. During a major emergency, other emergency management stakeholders such as the police may activate their own EOC but will still work in with the District EOC. The EOC operates in accordance with the Coordinated Incident Management System (CIMS), as set out below, with different elements of the structure activated as required, and at a scale appropriate to the event.

Public Information Management (PIM) is a critical aspect of all responses. QLDC Communications leads a group of communications managers throughout the District to build PIM knowledge and capabilities and to identify opportunities to coordinate and enhance information to communities and visitors.

Detail on the roles and functions within the EOC are held in the Standard Operating Procedures for QLDC and partner agencies.

5.8.1 ACTIVATION AND NOTIFICATION

EMERGENCY OPERATIONS CENTRES

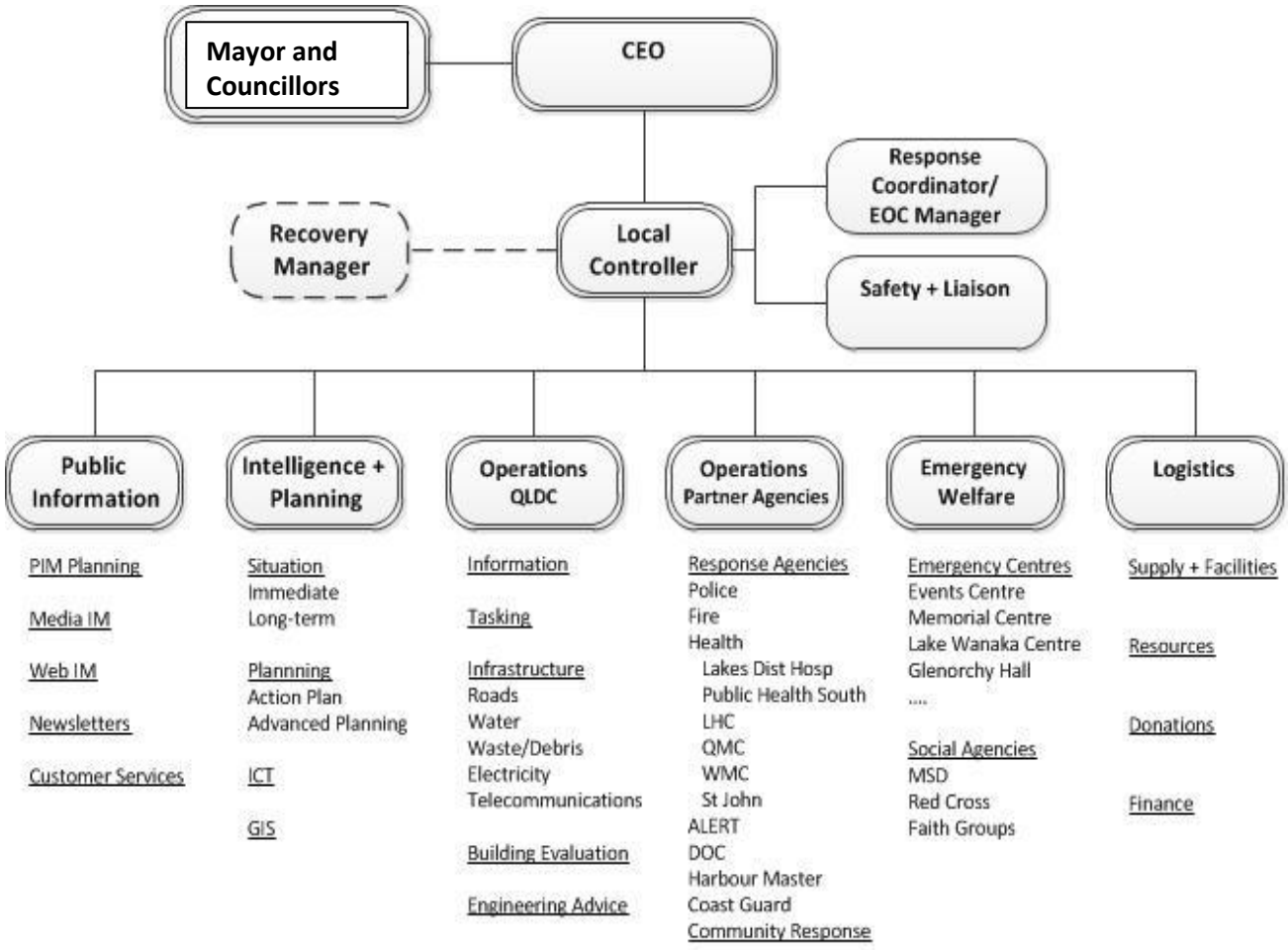
During small scale events, the emergency can be managed by an Incident Controller and multi-agency Incident Control Point preferably close to the incident. The Incident Controller and participating agencies should contact local authority organisation when any appreciable response is underway or likely, and especially if additional coordination or support may be required.

During larger scale events a Local EOC will operate to coordinate local agencies. Agency representatives may be required in the Local EOC to co-ordinate resource allocation and provide critical information. The Local EOC and Welfare Centres are activated at the direction of the Local Controller, guided by information from the Emergency Management Coordinator, emergency services and other responders. The Group Controller will be informed of any activation. Local EOCs will provide regular reports to the Group ECC.

Where an emergency potentially involves more than one territorial authority or additional significant coordinated response is required the Group ECC will be activated. Initially this may be only to provide liaison, coordination and support for local EOCs. However, if responses or resources need to be directed within or between territorial authority areas, or more than one territorial authority has activated its EOC or declared a State of Local Emergency, then the response automatically becomes a Level 4 Event under the coordination and direction of the Group Controller.

[2] *There are approximately 200 QLDC personnel to draw upon to staff the EOC.*

Figure 6. QLDC EOC Organisation Chart



COMMUNITY EMERGENCY CENTRES

Community Emergency Centres act as the focal point for community responses within the respective communities and will operate under the control of the respective QLDC EOC. The main Community Emergency Centres are:

Queenstown Events Centre

Queenstown Memorial Centre

Lake Wanaka Centre

There are Community Emergency Centres in:

Glenorchy	**Kingston**	**Makarora**
Fernhill	**Gibbston**	**Cardrona**
Frankton	**Luggate**	**Albert Town**
Kelvin Heights	**Lake Hawea**	
Lake Hayes	**Hawea Flats**	

Additional "Evacuation Centres", "Community Information Centres" and other resources may be established according to the needs of the response. All community-based Emergency Centres, established by communities themselves, by emergency services, or emergency welfare agencies, will report to and act under the coordination of the respective EOC.

5.8.2 STAGES OF RESPONSE

The response process can be described as having four main stages. These are summarised below:

STAGE ONE: NOTIFICATION AND ACTIVATION

One of the first tasks when advised of a likely emergency is to quickly determine whether the emergency's nature, size or severity warrants activating the Emergency Operation Centre. Initial reconnaissance, impact assessment, response are directed and coordinated from this centre – led by the Controller/Incident Coordinator and the Incident Management Team – including all key agencies. Staffing levels and resources should be sufficient to permit the centre to function smoothly and effectively, irrespective of the duration of the emergency.

STAGE TWO: INITIAL ASSESSMENT AND ACTION PLAN

The Initial Assessment stage requires a short-term (initial) action plan to establish the extent of the impact. The Initial Action Plan will revolve around getting information about the people and property at risk, the status of infrastructure and the status of access to areas. Once a reasonable picture of the extent of the impact has been determined, a common operating picture has been established, it is then time to prioritise the response and create an Action Plan. The purpose of an Action Plan is to provide direction and information to the EOC management team, agency managers and other groups/individuals involved in the response to an emergency.

STAGE THREE: IMPLEMENTATION CYCLE

The next stage of the response process is to implement the action plan. Implementation involves continuous adjustment and taking stock, as individuals and organisations in the impact area evaluate and report on the consequences of the emergency. The sharing of information in an emergency is critical. A common operating picture must be maintained so all stakeholders react to the same information. Thus the implementation cycle comprises of four perpetual and overlapping phases:

- **Phase 1:** Analyse the situation: size up the situation and determine the best way to deal with it. This is commonly referred to as the initial assessment and action plan.
- **Phase 2:** Develop an operational plan: complete an operational plan detailing the resources and work effort necessary to deal with the situation.
- **Phase 3:** Implement the operational plan: communicate the operational plan to those who will implement it by verbal orders/internal briefings and/or written orders/instructions, then monitor and review through the cycle.
- **Phase 4:** Evaluate the response: to determine and implement steps to improve future operational plans.

STAGE FOUR: TRANSITION TO RECOVERY AND EVALUATION

These stages overlap. Recovery involvement and input is required during the implementation phase, to ensure that services, infrastructure and personnel will be well-placed to facilitate the recovery phase. Depending on the nature of the event, recovery can continue for much longer than the immediate response.

5.8.3 LEAD AND SUPPORT AGENCIES

There is a wide range of potential lead and support agencies depending on the nature of the event. In the event that a declaration is made, the Lead Agency may change, either by existing

mandate or by direction from the Controller. If such a change is made, it must be duly recorded and immediately notified to all those involved.

5.8.4 VOLUNTEER MANAGEMENT

There are likely to be two types of volunteers; those from a specific organisation such as the Red Cross, Salvation Army and SAR (organised volunteers) and those members of the general public who offer their services after the disaster has occurred (spontaneous volunteers). Organised volunteers may be given tasks directly by the EOC (eg request from the Welfare Group to set up a community kitchen). Spontaneous volunteers will generally only be used where they can work under the control of another agency which is itself given tasks through the EOC.

5.8.5 COMMUNITY EVACUATION

Mass evacuation may be necessary during an emergency, if the preferred option of supporting people in situ is not advisable. In order to minimise the impact on people and the community, an evacuation must be well-planned, with the community kept informed and supported throughout the process.

Evacuation should take place only when the risk of staying in place is greater than the risk of shifting Evacuations can produce long-term negative effects such as causing psychological trauma; disrupting community cohesion, employment and economic continuity. Therefore evacuation is only to be undertaken as a last resort and done so in a well-managed and organised manner.

In the event of an evacuation, information to the public should contain the assurance of a well-managed emergency response and the message that people should remain calm and follow the instructions of emergency services personnel. The public will require regular information updates that should be kept simple and disseminated in as many forms and to as many outlets as possible such as radio, television, newspapers, flyers, mobile public announcement systems and the internet.

The process for evacuation is as follows:

- **Phase 1: Decision**: The decision phase constitutes the period when intelligence from the field is measured and a choice is made whether to order an evacuation or advise people to 'shelter in place'.
- **Phase 2: Warning**: This phase occurs when notifications are issued to the public advising them of the situation and what action they should take.
- **Phase 3: Evacuation:** This phase describes the actual physical evacuation of occupants from an area. When feasible and safe evacuees details will recorded.
- **Phase 4: Shelter:** The shelter phase incorporates the registration process, accommodating evacuees, and the assessment and provision of welfare and recovery requirements.
- **Phase 5 Return**: The return phase involves an assessment of the evacuated area, issuing an all clear, coordinating the physical return of evacuees and the continuation of recovery provisions.

5.8.6 SUPPORT FROM OUTSIDE THE DISTRICT

Emergency and health services are well-practiced in bringing additional resources both into Queenstown Lakes, due to the relative remoteness of the District and the level or resources normally available here. Fire Service, for example, move resources forward toward the area of

need, to allow resources nearest to the emergency to be deployed whilst ensuring adequate response capability is maintained elsewhere.

During any significant emergency, however, a more coordinated approach is required. Current resource availability, current and potential needs, anticipated incoming resources, and logistics arrangements are to be coordinated by the respective lead agency.

The QLDC Emergency Operations Centre may act in the lead agency role or carry out resource and logistics coordination on behalf of any other organisation acting in the lead agency role.

An emergency in the Queenstown Lakes District may require resources from elsewhere in Otago, which would be managed by the Otago CDEM Group, or from other CDEM Groups. The specific nature of the support that a Group can provide during the response and recovery phase of an emergency will depend on the circumstances at the time, including the extent to which the emergency has affected other Districts and Groups. The support outlined below is therefore conditional and will be provided on a best endeavours basis:

- Personal - Persons trained in EOC and Community Wellbeing operations, communications specialists, response team members, public information staff, technical and other specialists from within Councils and supporting agencies.
- Equipment and materials - Stocks on hand of particular items or supplies.
- Logistics management - management of rail, sea and air facilities, supply points and the processes required to manage the allocation of resources.
- Emergency Welfare/Wellbeing Management - Management of evacuees arriving from an affected area, including registration and arranging food, clothing, temporary accommodation as required.

5.8.7 MONITORING & DEBRIEF

During an emergency, the Controller or Response Coordinator will ensure that functions and powers are exercised in a responsible and considered manner and that the level of response is appropriate to the situation.

There will be an organisational and agency debrief at the conclusion of all emergency responses. This allows for those involved to evaluate the response and provide opportunities for improvement which can be incorporated into future planning. There may be both a hot debrief immediately after the event, and a detailed debrief a few days or weeks after. A copy of the findings will then be communicated to all relevant agencies involved in the event.

Any opportunities for significant improvement will be reported to the respective management or governance entity – from a CDEM perspective this would be the QLDC Leadership Team and CDEM Group Coordinating Executive Group, for operational matters, and Council and CDEM Group Joint Committee, for policy or finding issues.

5.9 STATES OF EMERGENCY

5.9.1 LOCAL EMERGENCY

Declaration of a State of Local Emergency under section 68 Civil Defence Emergency Management Act 2002 provides the appointed Controller, delegated response personnel, and Police officers, with emergency powers intended to most effectively manage the potential or actual impact on life, safety and property.

For the Queenstown Lakes District, the Mayor, Deputy Mayor or the Chair of the Infrastructure Services Committee may declare a state of local emergency covering the District or one of its wards. In the absence of the nominated elected officials any Councillor can act as their delegate and make the declaration.

The Chair of the Wanaka Community Board or, in their absence, any Community Board member, may declare a State of Local Emergency for the Wanaka Ward. This is intended to enable a declaration to be made if communication with Queenstown or other centres is unavailable. When communication is available the decision to declare will be made at District level.

The Chairperson of the Otago Group Joint Committee, or any appointed member of the Joint Committee, can also declare for the Queenstown Lakes District or one of its wards. The Minister of Civil Defence may also declare states of local emergency.

Prior to making a declaration, other relevant agencies (including any other affected local authorities or emergency services) should be consulted if possible. Where the circumstances allow, a declaration should be made early rather than late, in daylight rather than in darkness, and should be proactive and be well-publicised.

Before a declaration terminating a state of local emergency is made, adequate arrangements for recovery management should be in place.

Factors to consider before making a declaration include:

- Are the provisions of other legislation (e.g. Health Act, Police Act, Forest and Rural Fires Act) insufficient to meet the needs of the event?
- Does the event meet the definition of an 'emergency' under Section 4 of the CDEM Act 2002? (See Glossary of terms for definition)
- Would the emergency powers of the CDEM Act 2002 assist in the management of the event?
- Might insufficient coordination occur locally without a declaration?
- Would a declaration make it more likely that central government agencies will respond appropriately?
- Would a declaration give the public a higher level of assurance?

Forms for Declaration, Extension and Termination of a State of Local Emergency are included as appendices to this Plan.

5.9.2 CDEM GROUP LOCAL EMERGENCY

In larger-scale emergencies a State of Local Emergency for all or part of the Otago and/or adjacent regions may be declared by appointed members of the respective CDEM Group Joint Committees.

During emergencies of national significance a declaration of a State of National Emergency may be made by the Minister of Civil Defence.

6 RECOVERY

This section sets out the planning arrangements, frameworks, structures, responsibilities and processes for helping the community to recover from an emergency. The transition from response to recovery, the Recovery Managers role, financial arrangements during recovery and the recovery exit strategy are also covered.

6.1 INTRODUCTION

Recovery is defined as the coordinated efforts and processes to effect the immediate, medium and long-term holistic regeneration of a community following a disaster. It is the process of re-establishing the quality of life of the community following an emergency while taking opportunities to meet future community needs and reduce future exposure to hazards and risks.

Recovery generally operates without discrete legislative powers and relies in large part on the active collaboration of partners and stakeholders for its effectiveness. For significant events, recovery can last much longer than the event itself - weeks or months, with some measures possibly continuing for years.

The risk analysis conducted in support of the Plan identified a range of hazards that are likely to pose the longest and most challenges situations for our communities to recover from. A focus on hazards with higher Recovery scores will pay the most dividends when undertaking Recovery planning, recovery management capability-building and exercises, and recovery options analysis.

The high-risk hazards likely to pose the most challenging and long-term Recovery situation are listed in Table .

Table 5. Recovery Risk Analysis

Hazard	Recovery Score
Major Earthquake	40
Moderate Earthquake	30
Water Supply Failure	30
Waste Water Failure	30
Lake Tsunami/Seich	30
Lake/River Flood	20
Human Pandemic	20
Interface Rural Fire	20
Drought	20
Animal Epidemic	20

6.2 TRANSITION FROM RESPONSE TO RECOVERY

Recovery starts while the response activities are still in progress as key decisions taken during the response phase are likely to directly influence and shape recovery. The Recovery Manager therefore, prior to the termination of a state of emergency, will work closely with the controller to ensure that the transition from response to recovery is smooth.

During this time the controller will continue to exercise the statutory power to direct and coordinate all resources provided, with the recovery manager focusing on the preparation required for the recovery task.

As the response phase scales down, the controller and recovery manager, as part of the transition from response to recovery, will carry out the following required tasks:

- Prepare a response transition report outlining the actions taken during the response phase, the nature and state of assigned resources, a summary of the nature and extent of the damage and the condition of various aspects (environments) of the community, a forecast of the expected recovery outcomes and proposals for activities to be continued in the recovery phase.
- Chair a transition briefing attended by all key response and recovery personnel to discuss items highlighted within the response transition report.
- Transfer responsibilities and outstanding issues from the response phase which continue into recovery. For example communications and public information
- Acknowledge the transfer and accountability from the controller to the Recovery Manager including funding, expenditure authority and reporting requirements.
- Develop a recovery action plan to document the actions to be taken to facilitate recovery. This will be prepared in consultation with members of the recovery task groups.
- Brief the media to provide assurance to the community that everything that can be done is being done, while outlining the scope and current priorities for recovery and reinforcing any key messages.

The response phase doesn't officially end until the recovery manager accepts the response transition report and acknowledges the transfer of accountability through agreed terms of reference.

6.3 STRUCTURE AND STAFFING

The Queenstown Lakes District Recovery Office may be established in response to a major disaster. The office will be located within the Queenstown Lakes District Council and to ensure that the responsibilities of this office are carried out the Council will appoint a recovery manager.

The role of the Recovery Manager in an emergency is to coordinate the recovery activity within the District. The recovery manager will work in close liaison with the controller, CDEM Group Recovery Manager and relevant government agencies. The recovery manager ensures:

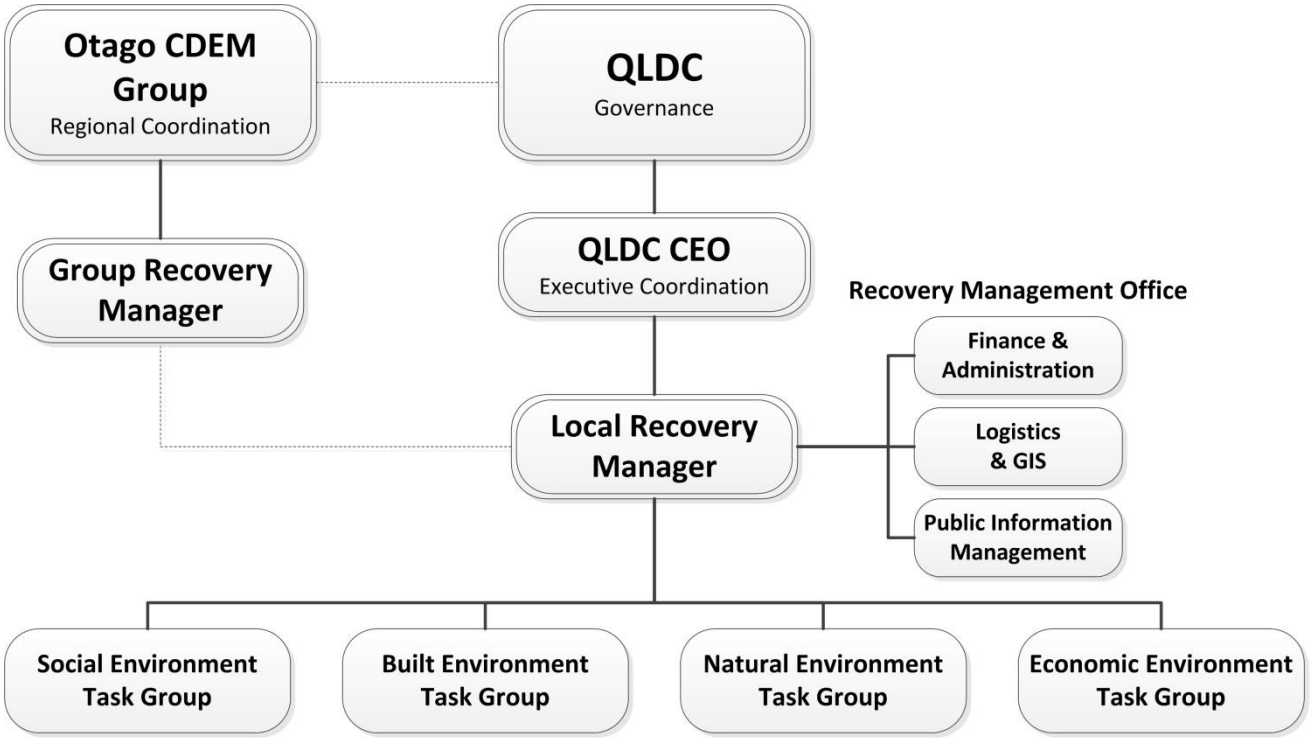
- Planning, prioritisation and management functions are undertaken.
- Effective reporting mechanisms are in place.
- Stakeholders with a role in the recovery process are informed of all local issues.
- Recovery resources are identified and obtained as required.
- Information is provided on the impact of the event on the affected area.
- Emerging issues are identified and solutions sought.

The Queenstown Lakes District has a designated Recovery Manager and an alternate. Although they do not formally take control until the response phase is complete, they may begin activity during the response phase in order to be fully prepared when the handover occurs.

RECOVERY MANAGEMENT STRUCTURE

The Recovery Management structure for the Queenstown Lakes District is based upon the national recovery framework to ensure that recovery activities in the immediate, medium and long-term are coordinated and that tasks are undertaken in parallel to those at local, regional and national levels. Arrangements need to be flexible enough to allow the recovery structure to adjust to the specific nature and duration of the event.

Figure 4. Standard Recovery Management Organisation Structure



6.4 RECOVERY PROCESSES

The process of recovery is to re-establish the quality of life of the community following an emergency. The following methods and actions guide the setting of recovery objectives and provide a systematic way of organising tasks and activities both before and after activation.

1. **Impact Assessment –** Early and accurate information about the impact on individuals, the community, the physical infrastructure and the environment are critical to managing an effective recovery programme as it identifies the extent and types of losses which effectively establishes the priorities for the whole recovery process. A strategy should be developed to avoid excessive or unwanted services (e.g. establishing multi-disciplinary assessment teams encompassing building assessment and welfare when conducting home visits/surveys).
2. **Information Management** – Information obtained from impact assessments needs to be analysed so that effective decision-making for needs and recovery can be made. Information should be managed using an effective and efficient information management system.
3. **Reporting** – The purpose of reporting is to maintain accountability and transparency, to keep the wider community informed, to gain support and assistance and to record an account of recovery efforts and financial commitments.
4. **Public Information** – In recovery, public information is one of the mechanisms by which the affected community and the wider public are encouraged to participate in the process of restoration and regeneration. Public information is the key to rebuilding community confidence.
5. **Recovery Action Plan** - A recovery action plan is developed following an emergency to document the actions to be taken to facilitate recovery. This will be prepared in consultation with members of the recovery task groups. Recovery Action Plans will vary according to the type of emergency, its scope and the ability of authorities to manage events in the area.
6. **Establish Community Recovery Centres** – Following an emergency it may be necessary to establish a recovery centre. A recovery centre supplies a comprehensive range of recovery services from a broad range of agencies at one location which provides a point of focus and belonging in a more familiar environment for people affected by the disaster.
7. **Financial Arrangements -** Government policy on the reimbursement of local government expenditure for recovery activities is set out in section 26 of the National CDEM Plan. Cash donations are the preferred source of aid and Mayoral Relief Funds should be set up to collect and distribute this aid.
8. **Exit Strategy:** An exit strategy is a systematic plan to achieve the withdrawal of formal recovery assistance. The plan includes the arrangements for completing outstanding tasks and outlines the handover responsibilities for the recovery office so that agencies who normally have the lead responsibility can undertake the required services.
9. **Debriefing** – Learning from an emergency is an essential aspect of both the planning process and successful recovery. Debriefs will be done internally (within an organisation) and externally (across organisations) addressing organisational issues, strengths and weaknesses, and ideas for future learning.

Recovery can be a protracted and lengthy process that draws upon local and regional resources. A prolonged recovery phase may require additional resources which can be sourced from elsewhere in the Otago CDEM Group, or from other CDEM Groups; this is coordinated through the Otago Group Recovery Manager.

7 MONITORING AND EVALUATION

This section provides a basis for monitoring and evaluation of the Queenstown lakes Emergency Management Plan. This section sets out how performance and progress will be measured, evaluated and reported.

7.1 QLDC AND OTAGO MONITORING AND EVALUATION

Monitoring and evaluation allow comparisons between actual and desired states and on-going analysis and improvement of processes and outcomes. Monitoring involves tracking progress against a plan or performance against standards, generally using quantitative data. Evaluation is about measuring effectiveness; it compares what is happening against what was intended by the plan (the goals, objectives and targets) and interprets the reasons for any differences.

The Queenstown Lakes District CDEM Plan will be monitored and evaluated by:

- The Plan itself is subject to external scrutiny in the process of preparing it, before it is adopted by the Queenstown Lakes District Council.
- A work programme for QLDC and partner agency emergency management-related risk-based 4-Rs will be prepared in November each year, to be delivered over the subsequent three years.
- Regular meetings of CDEM personnel to track progress against the Plan and Annual Work Programmes. These will include:
    - monthly meetings for QLDC personnel with Emergency Management roles
    - two-monthly meetings of the Queenstown Lakes Emergency Services Coordinating Committee
    - quarterly meetings for all personnel with key EOC roles
- Quarterly reports to Council, CDEM Group Coordinating Executive Group and the Group Joint Committee on progress against the Annual Work Programmes. This provides Executive oversight for CEG members and ensures public accountability through the elected representatives.
- An annual report will be provided to Council, CDEM Group Coordinating Executive Group and the Group Joint Committee on progress in relation to the objectives and targets set out in this plan and the Group Plan. Work programmes may need to be adapted where outcomes are not being achieved or improvements or alternatives have been identified.
- After Action reports, including recommended improvements, based on debriefing processes and, where necessary, independent evaluation, will be produced following all activations and exercises. These will be reported to Council, CDEM Group Coordinating Executive Group and the Group Joint Committee for information or decision, depending on the content of any such report.
- The Otago CDEM Group and its member organisations will be subject to regular monitoring and evaluation processes initiated by the Ministry of Civil Defence and Emergency Management – usually every three to five years.

Appendix 1. DISTRICT AVERAGE DAILY POPULATION BY COMMUNITY

Entire District	2011	2016
Resident	28440	31958
Visitors	18172	19225

Wakatipu Ward	2011	2016
Resident	19,492	21,722
Visitors	13,288	14,164

Wanaka Ward	2011	2016
Resident	8385	9637
Visitors	5040	5253

Queenstown Bay	2011	2016
Resident	2455	2680
Visitors	3777	4021
Queenstown Hill		
Resident	3424	3835
Visitors	4169	4432
Sunshine Bay		
Resident	2685	2960
Visitors	1010	1063
Wakatipu Rural		
Resident	4224	4747
Visitors	1351	1461
Arrowtown		
Resident	2503	2747
Visitors	766	816
Frankton		
Resident	1769	1958
Visitors	792	831
Kelvin Heights		
Resident	1153	1301
Visitors	549	598
Lake Hayes		
Resident	365	405
Visitors	151	161
Glenorchy		
Resident	572	655
Visitors	521	577
Gibbston		
Resident	160	182
Visitors	61	69
Kingston		
Resident	182	252
Visitors	141	135

Wanaka	2011	2016
Resident	6732	7757
Visitors	3572	3676
Cardrona		
Resident	96	152
Visitors	222	273
Lake Hawea		
Resident	722	782
Visitors	302	283
Luggate		
Resident	315	367
Visitors	100	109
Makarora		
Resident	65	65
Visitors	45	45
Matukituki		
Resident	455	514
Visitors	799	867

Appendix 2. Risk Analysis Table

	Death/Injury	Social Direct	Social Indirect	Social Severity	**Social Severity x 5**	Structural	Electricity	Telecommunications	Water	Waste Water	Road	Economic	**Economic Multiplier x 5**	Natural Environment	Length of Response	**Response Multiplier x 5**	Length of Recovery	**Recovery Multiplier x 10**	Total Impact	Likelihood	Risk	**Risk/15**
Major Earthquake	4	4	4	4	**20**	4	4	4	4	4	4	4	**20**	4	4	**20**	4	**40**	144	3	432	**28.80**
Lake/River Flood	1	4	4	2	**10**	2	3	3	5	5	3	3	**15**	3	3	**15**	2	**20**	85	3	255	**17.00**
Moderate Earthquake	3	3	3	3	**15**	3	3	3	3	3	3	3	**15**	3	3	**15**	3	**30**	93	2	186	**12.40**
Human Pandemic	4	4	4	4	**20**	0	0	0	2	0	0	2	**10**	0	2	**10**	2	**20**	58	3	174	**11.60**
Major Electricity Failure	0	4	4	2	**10**	0	3	3	3	3	0	2	**10**	3	1	**5**	1	**10**	50	3	150	**10.00**
Interface Rural Fire	0	2	2	3	**15**	3	2	2	0	0	2	1	**5**	3	1	**5**	2	**20**	49	3	147	**9.80**
Severe Wind Storm	1	4	4	1	**5**	2	4	3	0	0	4	1	**5**	1	2	**10**	1	**10**	49	3	147	**9.80**
Extreme Snow	0	4	4	1	**5**	1	3	3	0	0	4	1	**5**	0	2	**10**	1	**10**	45	3	135	**9.00**
Drought	0	1	1	3	**15**	0	1	0	4	3	0	3	**15**	3	2	**10**	2	**20**	61	2	122	**8.13**
Fuel Supply Failure	0	3	3	2	**10**	0	0	1	0	0	0	2	**10**	1	2	**10**	1	**10**	40	3	120	**8.00**
Major Road Accident	1	1	2	1	**5**	0	0	0	0	0	3	1	**5**	2	1	**5**	1	**10**	30	4	120	**8.00**
Landslide	1	3	3	3	**15**	2	3	1	2	2	2	3	**15**	2	2	**10**	1	**10**	59	2	118	**7.87**
Animal Epidemic	0	2	3	2	**10**	0	0	0	2	0	3	3	**15**	2	2	**10**	2	**20**	59	2	118	**7.87**
Water Supply Failure	0	4	4	3	**15**	0	0	1	3	3	0	1	**5**	1	1	**5**	3	**30**	59	2	118	**7.87**
Major Structural Fire	1	1	2	1	**5**	1	1	0	0	0	2	2	**10**	3	1	**5**	1	**10**	37	3	111	**7.40**
Waste Water Failure	0	4	4	2	**10**	0	0	0	0	3	0	1	**5**	2	1	**5**	3	**30**	55	2	110	**7.33**
Major Air Accident	2	1	2	1	**5**	0	0	0	0	0	0	2	**10**	2	1	**5**	1	**10**	33	3	99	**6.60**
Major Structural Fire	1	1	1	1	**5**	1	0	0	0	0	0	1	**5**	2	0	**0**	2	**20**	32	3	96	**6.40**
Hazardous Substance	1	1	1	1	**5**	1	0	0	0	0	2	1	**5**	3	1	**5**	1	**10**	30	3	90	**6.00**
Major ICT Failure	0	4	4	1	**5**	0	3	4	3	3	0	1	**5**	3	1	**5**	1	**10**	45	2	90	**6.00**
Lake Tsunami/Seich	2	2	2	3	**15**	2	2	1	1	1	2	4	**20**	2	1	**5**	3	**30**	75	1	75	**5.00**
Terrorist Incident	2	2	3	3	**15**	2	2	1	0	0	2	3	**15**	2	1	**5**	2	**20**	59	1	59	**3.93**
Aerial Passenger Cableway	2	2	3	2	**10**	0	0	0	0	0	0	2	**10**	0	0	**0**	1	**10**	29	2	58	**3.87**
Lake/River Boat Accident	1	2	2	2	**10**	1	0	0	0	0	0	3	**15**	3	1	**5**	1	**10**	41	1	41	**2.73**

Appendix 3. Risk Analysis Criteria

	Not Applicable	Low	Moderate	High	Very High
	0	1	2	3	4
Death/Injury	0	1 to 50	50-100	100-500	500+
Social Direct	0-50	50-100	100-250	250-1000	1000+
Social Indirect	0-100	100-250	250-1000	1000-5000	5000+
Social Disruption Severity	Negligible	Low	Moderate-Neighbourhood	Very High	Extreme
Structural	0 to 1	1 to 20	20 to 100	100 to 500	500+
Electricity	None	1 facility	1 block	1 community	2+ communities
Telecommunications	None	1 facility	1 block	1 community	2+ communities
Water	None	1 facility	1 block	1 community	2+ communities
Waste Water	None	1 facility	1 block	1 community	2+ communities
Road	None	1 facility	1 block	1 community	2+ communities
Economic	Negligible	$0-$5m	$5-$10m	$10-$25m	$50m+
Natural Environment	None	Small-Short	Moderate-Neighbourhood	High-Community	Very High-Catchment
Length of time of Response	1 day	1-3 days	4-7 days	8-14 days	15+ days
Length of time of Recovery	1 week	1-4 weeks	1-6 months	6-12 months	12+ months
Likelihood	500+ yrs	100-500 yrs	50-100 yrs	25-50 yrs	0-25 yrs
	1	**2**	**3**	**4**	**5**

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Form 8, Schedule 2, CDEM Regulations 2003

Declaration of state of local emergency

Section 68, Civil Defence Emergency Management Act 2002

I, _____,
[*full name*]

declare that a state of local emergency exists in _____
(specify names of Civil Defence Emergency Management Group area, Districts, or wards]

owing to _____.
[*describe emergency*]

The state of local emergency comes into force immediately on the making of this declaration, and expires 7 days after the time and date on which it comes into force (unless extended or terminated at an earlier time).

Declared by: _____
[*signature*]

Designation: **[Select the applicable designation]**

- ☐ Person appointed and authorised by the Civil Defence Emergency Management Group to declare a state of local emergency for its area.
- ☐ Representative of a member of the Civil Defence Emergency Management Group [*select this designation where no appointed person is or is likely to be able to exercise the power to declare a state of local emergency*].
- ☐ Mayor of the District for which the state of local emergency is declared.
- ☐ Elected member of the District for which the state of local emergency is declared (designated to act on behalf of the mayor when the mayor is absent).

Time and date of declaration: _____

Notes

1. Calculating "7 days after the time and date on which the state of emergency comes into force": If a state of local emergency came into force at 9.35am on 1 January, it would expire at 9.35am on 8 January. If a state of local emergency came into force at 9.35am on a Friday, it would expire at 9.35am on the following Friday.
2. This declaration must be—
   (a) notified to the public immediately by any means of communication that are reasonably practicable in the circumstances; and
   (b) published in the *Gazette* as soon as practicable. It is recommended that publication in the *Gazette* occur within 20 working days after the state of emergency is terminated.

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Form 9, Schedule 2, CDEM Regulations 2003

Declaration extending state of local emergency

Section 71, Civil Defence Emergency Management Act 2002

I, _____,
[*full name*]

extend the state of local emergency declared at _____
[*specify time and date, and include times and dates when any extensions took effect*]

for _____
[*specify names of Civil Defence Emergency Management Group area, Districts, or wards*]

Owing to _____.
[*describe emergency*]

The state of local emergency is extended for 7 days. It will take effect immediately from the time the initial declaration of the state of emergency (or the last extension) was to expire.

Declared by: _____
[*signature*]

Designation: **[Select the applicable designation]**

- ☐ Person appointed and authorised by the Civil Defence Emergency Management Group to declare a state of local emergency for its area.
- ☐ Representative of a member of the Civil Defence Emergency Management Group [*select this designation where no appointed person is or is likely to be able to exercise the power to declare a state of local emergency*].
- ☐ Mayor of the District for which the state of local emergency is declared.
- ☐ Elected member of the District for which the state of local emergency is declared (designated to act on behalf of the mayor when the mayor is absent).

Time and date of declaration: _____

Notes

1. Calculating the extension of "7 days" for a declaration extending the state of emergency: If the extension came into force at 9.35am on 1 January, it would expire at 9.35am on 8 January. If the extension came into force at 9.35am on a Friday, it would expire at 9.35am on the following Friday.
2. If this is a second or subsequent extension of a state of emergency, specify the time and date when each previous extension took effect, as well as the time and date when the state of emergency was first declared.
3. This declaration must be—
   (a) notified to the public immediately by any means of communication that are reasonably practicable in the circumstances; and
   (b) published in the *Gazette* as soon as practicable. It is recommended that publication in the *Gazette* occur within 20 working days after the state of emergency is terminated.

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Form 10, Schedule 2, CDEM Regulations 2003

Declaration terminating state of local emergency

Section 72, Civil Defence Emergency Management Act 2002

I,_____,
[*full name*]

terminate the state of local emergency declared at _____
[*specify time and date, and include times and dates when any extensions took effect*]

for _____
[*specify names of Civil Defence Emergency Management Group area, Districts, or wards*]

owing to _____.
[*describe emergency*]

The termination of the state of local emergency takes effect immediately on the making of this declaration.

Declared by: _____
[*signature*]

Designation: **[Select the applicable designation]**

- ☐ Person appointed and authorised by the Civil Defence Emergency Management Group to declare a state of local emergency for its area.
- ☐ Representative of a member of the Civil Defence Emergency Management Group [*select this designation where no appointed person is or is likely to be able to exercise the power to declare a state of local emergency*].
- ☐ Mayor of the District for which the state of local emergency is declared.
- ☐ Elected member of the District for which the state of local emergency is declared (designated to act on behalf of the mayor when the mayor is absent).

Time and date of declaration: _____

Notes

1. If any extension of the state of emergency was made, specify the time and date when each extension took effect, as well as the time and date when the state of emergency was first declared.
2. This declaration must be—
   (a) notified to the public immediately by any means of communication that are reasonably practicable in the circumstances; and
   (b) published in the *Gazette* as soon as practicable. It is recommended that publication in the *Gazette* occur within 20 working days after the state of emergency is terminated.

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QUEENSTOWN LAKES DISTRICT COUNCIL LOCAL CDEM CONTROLLERS

Suitably trained and experienced QLDC personnel appointed (ex-officio) by the Queenstown Lakes District Council as Local CDEM Controllers, with all of the powers of Controllers provided for in sections 76 to 78, 85 to 92, and 94 of the CDEM Act, are:

1. Chief Executive Officer
2. General Manager Infrastructure and Assets
3. Director of People and Capability
4. Director Chief Executive Office
5. General Manager Legal and Regulatory

The Chief Executive Officer may appoint additional suitably trained and experienced individuals, either by name or office, as Local Controllers to provide more depth to response coordination capability.

Local Controllers may delegate their powers to suitably trained and experienced individuals, by name, during and in the lead up to during responses if insufficient appointed Local Controllers are available in the District at that time.

Local Controller appointments are to be reviewed on the triennial review of the Emergency Management Plan.

Appendix 8. Queenstown Lakes Emergency Response Resource Summary

QLDC

2 x EOC/Incident Management Teams

- Environment Health Officers
- Building Inspectors
- Facilities
- Event and Facilities Management
- Alpine Lakes Emergency Response Team (ALERT) (See Light Urban Search + Rescue, below)

Horticulture Teams – Wanaka and Queenstown

Contractors

- Asplundh - Parks
- Veolia – Water Infrastructure
- Downer – Roads
- Smart Environmental – Solid waste collection and management
- Otago Southland Waste Services – Waste collection
- Scope Resources – Victoria Flats Landfill

NZ POLICE

Queenstown:

11 marked and unmarked vehicles

Staff: 35 Sworn 35 (including Airport Police detail + Arrowtown constable)

2 Highway Patrol – reporting to Cromwell

Additional personnel in Queenstown and Arrowtown over New Year period

Wanaka:

6 marked and unmarked vehicles (2 – 4x4)

Staff: 25 sworn, 2 non-sworn. Additional personnel over New Year period

LAND SEARCH and RESCUE (Land SAR)

Alpine Cliff Rescue, Sub Alpine, Bush, Avalanche, Swift Water and Incident Management

Wakatipu:

40 active volunteers

Wanaka:

80 active volunteers

COASTGUARD

Wakatipu:

1 IRB jet craft – 12 passengers

Numerous commercial and private craft and crew on call

Wanaka:

8 craft with crew on call

FIRE and RESCUE AGENCIES

NZ FIRE

Queenstown:

2 pump appliances including 1 x FWD and 2 portable pumps

1 pump-rescue tender (MVA cutting equipment)

36 personnel operational personnel

Frankton:

1 pump-rescue tender (MVA cutting equipment plus 1 portable pump)

19 operational personnel

Arrowtown:

1 pump appliance

22 operational personnel

Wanaka:

1 pump appliance + portable pump, 1 pump-rescue tender appliance, 1 van

28 operational personnel

Lake Hawea:

1 pump appliance, 1 van

16 operational personnel, 3 support personnel

Luggate:

1 pump appliance, 1 tanker (QLDC - 12,000 litres ex fuel tanker)

16 operational personnel (when at full complement)

Area Resources (Area office Glenda Drive)

1 4WD SUV (Area Manager), 1 utility vehicle

1 Command unit (Alexandra based)

1 Commander, 1 Fire Risk Management Officer

1 Volunteer Support Officer/Admin person (logistics oriented)

1 Volunteer Support Officer (Alexandra based - logistics oriented)

RURAL FIRE

Rural Fire Forces, appliances and additional resources are located at:

Queenstown	**Arrowtown**	**Luggate**
Glenorchy	**Makaora**	
Kingston	**Wanaka**	

See the QLDC and Doc Rural Fire plans for more detail. In the smaller communities the same communities members will respond to both rural and urban fires.

LIGHT URBAN SEARCH and RESCUE (Light USAR)

Alpine Lakes Emergency Response Team (ALERT)

1 Queenstown-based team

Staff: 8 to 10 volunteers

RED CROSS

1 x 4x4, 1 Welfare Response Trailer (Queenstown)

Community Welfare and Light Rescue/Safety

Staff: Up to 20 Volunteers

HEALTH SERVICES

ST JOHN AMBULANCE

Queenstown:

5 ambulances, 1 Rapid Response Unit

1 Major Incident Trailer (to treat up to 60 people)

Mass-Casualty Incident (MCI): Includes inflatable tent 4x12m

Helicopter resources by Lakes District Air Ambulance Trust (2 sets heli-med units)

Staff: 8 Fulltime Paramedics, 15 Volunteers

Wanaka:

2 Ambulances, 1 First Aid Unit, MCI equipment

Staff: 2 Fulltime Paramedics, 15 Volunteers

Glenorchy:

1 First Response Unit

Staff: 3 Volunteers

Kingston:

1 Ambulance, MCI equipment

Staff: 4 Volunteers

PUBLIC HEALTH SOUTH

1 x Public Health Doctor, 2 x Public Health Officers, 2 x Public Health Nurses

QUEENSTOWN LAKES HOSPITAL

10 in-patient beds, 24/7 Emergency Department

Staff: 8 Senior Medical Officers, 26 Nurse FTEs. 8 person Community Mental Health

36 Elderly Care Beds

MEDICAL CENTRES

Queenstown Medical Centre:

14 GPs, 10 to 11 Nurse FTEs. Otago Radiology

Wakatipu Medical Centre:

3 GPs, 2.4 to 4 Nurse FTEs

Mountain Lakes Medical Centre:

1 GP, 1 Nurse

Wanaka Medical Centre:

7 GPs, 7 Nurses

Aspiring Medical Centre:

6 GPs, 6 Nurses

HELICOPTER RESOURCES

Queenstown:

Heliworks Queenstown

4 x Squirrel (2 x BA, 1 x B2, 1 x B3)

Glacier Southern Lakes

4 x Squirrel

1 x Hughes 500

Over The Top

1 x Eurocopter EC130B4

1 x Eurocopter EC120

1 x Squirrel

1 x Raven R44

Helicopter Line

Eurocopter AS350

Eurocopter AS355

Raven R44

Wanaka:

Alpine Helicopters Wanaka

1 x Squirrel

Aspiring Helicopters Wanaka

2 x Squirrel

2 x Robinson

Wanaka Helicopters

1 x Eurocopter EC130

2 x Raven R44

3 x Raven R22

Makaora:

Backcountry Helicopters

1 x Hughes 500

Lumsden:

Nokomai Helicopters

2 x Hughes 500

1 x Squirrel

Appendix 8. Queenstown Lakes Emergency Resources Summary

ACCOMMODATION RESOURCES

Queenstown (Destination Queenstown)

Number of providers: 114 Total Capacity: 7,777

Wanaka (Wanaka Tourism)

Number of providers: 48 Total Capacity: 3,016

Each community has an considerable number private residences that are formally in informally used for visitor and worker accommodation that are not included in these figures.

FILM INDUSTRY RESOURCES

Mobile catering vehicles and personnel

Electricity generation – vehicle mounted and portable

Portable lighting

Telecommunications – UHF, VHF and sat-phone

Shelter – marquee tents

Production trucks – hard-side enclosed

STATUS REPORT

Agency/Organisation/EOC Section:

Event:

Date: / / **Time:** HRS

Operational Period: From To

Current Situation: (Outline of: incidents, actions taken, resource status, etc)

Outstanding Issues/Challenges/Problems:

Anticipated Priorities/Activities: (For future operational periods)

Other Comments/Issues: (i.e., media information, public information bulletins, safety tips …)

Authorised By:

Distribution: (Underline as required)

Controller	Operations	Risk Management	Intelligence
Planning	External Liaison	Logistics	Emergency Welfare
Public Info Mgt	EOC Manager	Other(s)	