CARPENTARIA SHIRE
Outback by the Sea ®

Carpentaria Shire
Local Disaster Management Plan

2022-24

PRINCIPAL PLAN
December 2019

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Map of Carpentaria Shire

Local Government Areas of Queensland

Foreword

The Carpentaria Shire is not immune to natural disasters, whilst these types of events are not common, we cannot afford to become complacent. The key to effective disaster response, relief and recovery is the resilience of the community and the willingness of people to work together for the benefit of the community.

The Carpentaria Shire through the work of the Local Disaster Management Group will maintain their commitment to effective disaster management for the shire. To be effective our disaster management planning must be a moving feast, we learn from events in the shire and we examine the actions of other local government areas to ensure that we improve and adapt to changes such as the expectations of the community and climate change.

This plan – the Carpentaria Shire Local Disaster Management Plan (the 'Plan') – is for the community and to be truly effective we must draw on the collective knowledge of the community to develop plans that are suitable and effective.

The purpose of plan is to address the disaster management needs of the

Carpentaria Shire. This will be achieved by:

- Ensuring that community risks related to events are effectively managed;
- Ensuring that risks requiring District level support are identified and communicated to the District Level;
- Ensuring that Local Government and Local Groups comply with their disaster management obligations under the Disaster Management Act 2003; and
- Other purposes related to disaster management the Local Government determines.

The plan ensures that community risks relating to disaster events, or events that affect the wellbeing of the community are identified and effectively managed.

The plan is to detail the arrangements and responsibilities between response agencies, supporting government and non-government organisations.

The objective of the plan is to ensure that risks requiring District level support are identified and communicated to District level.

…………………………………………

Cr. Jack Bawden
Chair
Carpentaria
Shire
Local Disaster Management Group

Authority to plan

The Carpentaria Shire Local Disaster Management Plan (the plan) is issued under the authority of the Carpentaria Shire Council (the Council) in accordance with the requirements of section 57 of the Queensland Disaster Management Act 2003 (the Act). This plan will be maintained by the Local Disaster Management Group (LDMG) on behalf of Carpentaria Shire Council.

11 December 2019

…………………………………….   …………………………………………….
Cr. Jack Bawden   Date
Chair
Local Disaster Management Group

Document control

This plan is a controlled document and cannot be copied, altered or amended without the express permission of the Carpentaria Shire Local Disaster Management Group.

Proposed amendments to this plan are to be forwarded in writing to:

> Local Disaster
> Coordinator C/- Chief
> Executive Officer
> Carpentaria Shire Council
> PO Box 31
> NORMANTON QLD 4890

The LDC may approve inconsequential amendments to this document as well as ensure that any significant changes are submitted to the Local Disaster Management Group for approval and Council for endorsement.

A copy of each amendment will be forwarded to Local Disaster Management Group members. On receipt, the amendment is to be inserted into the Plan and the below amendment schedule updated.

Amendment schedule

Amendment No.	Date	Amendment	Amended By	Date approved by LDMG	Date endorsed by Council
1	27/7/17	• Update membership • Meeting section • Roles and Responsibilities • Definitions • Membership • Update ABS data	ED		
2	July 2019	Re-write of LDMP	MM		
3	October 2019	Finalisation of draft	MPC		
4	December 2019	Adopted Version	MPC		11/12/2019
5	May 23	Review and update	ED MPC		

Glossary of terms and abbreviations

A table of terms abbreviations used throughout this plan are shown at Appendix 1.

Distribution

Copies of this Plan will be distributed to members of the Carpentaria Shire Local Disaster Management Group and other entities as determined.

A distribution list is shown at Appendix 2.

Purpose

The purpose of this plan is to document the arrangements, relationships and agreements of the Council's approach to disaster management in accordance with the Act and Emergency Management Assurance Framework.

Statement of compliance

In accordance with section 58 of the Act, this plan is consistent with the Standard for Disaster Management in Queensland and the Queensland Prevention, Preparedness, Response and Recovery Disaster Management Guideline.

A compliance register for disaster management legislation is shown at Appendix 3.

Objectives

The broad objectives of this plan are:
- To prepare, implement and regularly assess disaster management arrangements for the Shire, including:
  - Mitigating the potential adverse effects of an event
  - Preparation for managing the effects of an event
  - Effectively responding to and recovering from a disaster event
- To ensure communities receive appropriate information about preparing for, responding to and recovering from a disaster
- To identify and implement measures that take into consideration vulnerable members of the community
- To comply with all disaster management legislation, policies, standards and guidelines

Governance

The following guiding principles and disaster management planning provisions of the Act as well as Queensland's strategic policy framework and disaster management guideline are fundamental to the development and operation of this plan and have been included for reference purposes.

Guiding principles

Section 4A of the act details the principles that guide the development and implementation of disaster management policy, plans and programs at State, district and local levels.

(a) Disaster management should be planned across the following four phases—

    i.   The taking of preventative measures to reduce the likelihood of an event occurring or, if an event occurs, to reduce the severity of the event

    ii.   The taking of preparatory measures to ensure that, if an event occurs, communities, resources and services are able to cope with the effects of the event

    iii.   The taking of appropriate measures to respond to an event, including action taken and measures planned in anticipation of, during, and immediately after an

event to ensure that its effects are minimised and that persons affected by the event are given immediate relief and support

    iv.   The taking of appropriate measures to recover from an event, including action taken to support disaster-affected communities in the reconstruction of infrastructure, the restoration of emotional, social, economic and physical wellbeing, and the restoration of the environment

(b) All events, whether natural or caused by human acts or omissions, should be managed in accordance with the following—
    i.   A strategic policy framework developed by the State group
    ii.   The State disaster management plan, and
    iii.   Any disaster management guidelines

(c) local governments should primarily be responsible for managing events in their local government area
(d) district groups and the State group should provide local governments with appropriate resources and support to help the local governments carry out disaster operations.

Disaster management planning for local government

Section 57(1) of the Act prescribes that Council must prepare a local disaster management plan for disaster management in its area. Section 57(2) details the provisions that must be included in that plan, including –

(a) the State group's Strategic Policy Framework (SPF) for disaster management for the State, and the local government's policies for disaster management
(b) the roles and responsibilities of entities involved in disaster operations and disaster management in the area
(c) the coordination of disaster operations and activities relating to disaster management performed by the entities mentioned in paragraph (b)
(d) events that are likely to happen in the area
(e) strategies and priorities for disaster management for the area
(f) the matters stated in the disaster management guidelines as matters to be included in the plan, and
(g) other matters about disaster management in the area the local government considers appropriate

Strategic policy statement

Disaster management and disaster operations in the Carpentaria Shire are consistent with the
Strategic Policy Statement (SPS). This is achieved by:

- Ensuring a comprehensive, all hazards, all agencies approach by achieving the right balance of prevention, preparedness, response and recovery
- Supporting the mainstreaming of disaster preparedness and mitigation into relevant areas of activity of government, non-government, small business and corporation
- Aligning disaster risk reduction, disaster mitigation, disaster resilience and climate change adaptation policy and actions with international and national reforms
- Promoting a transparent, systematic and consistent approach to disaster risk

assessment and management, based on the National Emergency Risk Assessment Guidelines and the Australian/New Zealand Standard AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines

- Recognising the commitment of stakeholders and the need for collaboration across all levels of government, community, industry, commerce, government owned corporations, private and volunteer organisations, and local communities in all aspects of disaster management
- Emphasising building and maintaining sincere relationships, trust, teamwork, consultative decision- making and shared responsibilities among stakeholders
- Promoting community resilience and economic sustainability through disaster risk reduction.

Disaster management guideline

Section 63 of the Act, the Commissioner, Queensland Fire and Emergency Services (QFES) has the authority and accountability for the preparation and management of disaster management guidelines.

The aim of the Queensland Prevention, Preparedness, Response and Recovery Disaster Management Guideline (the Guideline) is to provide flexible, good practice suggestions and advice to those responsible for implementing disaster management practices. The Guideline complements legislative responsibilities and provides guidance supporting the implementation of legislation, the Queensland Disaster Management Strategic Policy Statement (SPS), the Queensland State Disaster Management Plan (SDMP), the Standard for Disaster Management in Queensland (the Standard) and other key documents.

The authorising environment for disaster management documents is detailed in the following diagram.

DISASTER MANAGEMENT GUIDELINE AUTHORISING ENVIRONMENT

Legislation
- Disaster Management Act 2003
- Disaster Management Regulation 2014

Policy
- Disaster Management Strategic Policy Statement

Standard for DM in QLD
- State Disaster Management Plan
- District Disaster Management Plan
- Local Disaster Management Plan

DM Guideline
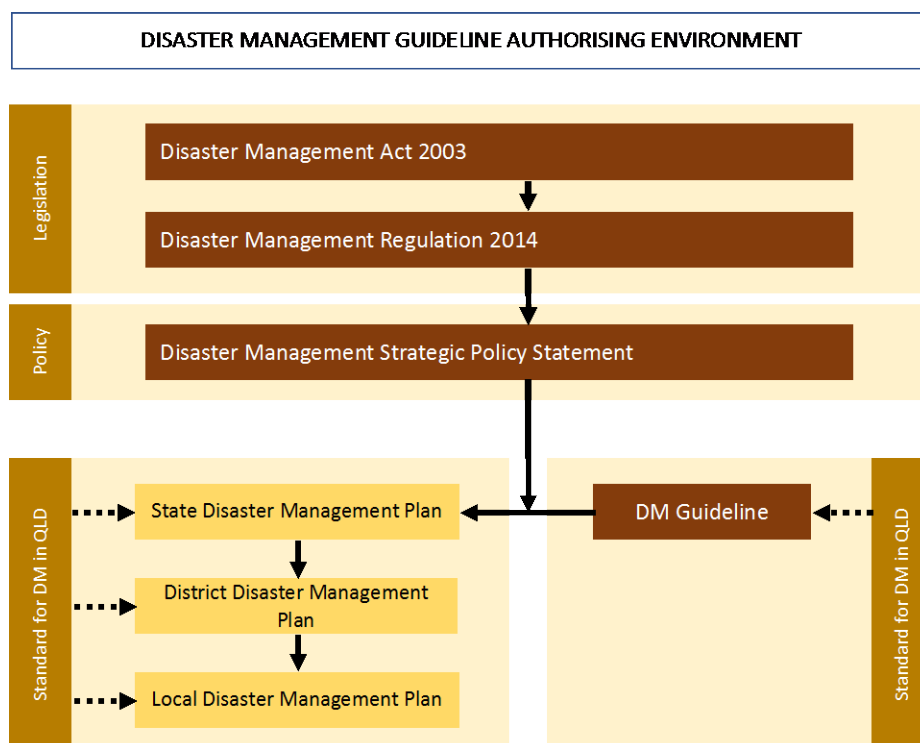
Review & renewal of plan

Section 59(1) prescribes that Council may review or renew the plan when it considers it appropriate, whilst sub-section (2) states that Council must review the effectiveness of the plan at least once a year.

Based on a four-monthly period ('Quadrimestre'), the following timings are recommended:

- January to April – Typically an operational period
- May to August – Plans/procedures reviewed through operations, exercises or policy changes
- September to December – Plans approved/endorsed by appropriate entities

It is also recognised that the Inspector-General Emergency Management (IGEM) has the legislative responsibility to regularly review and assess the effectiveness of disaster management by local government, including the plan and its implementation[1]. This process will be carried out as determined by IGEM.

Availability of plan for inspection

Section 60 of the Act, provides that a local government must ensure a copy of its local disaster management plan is available for inspection, free of charge, by members of the public —

- At Council offices; and
- On the Council website: www.carpentaria.qld.gov.au
- At other places the chief executive officer of the local government considers appropriate.

The local government must, on payment of the appropriate fee, give a person a copy of the Plan. In this section— appropriate fee means the fee, decided by the chief executive officer of the local government that is no more than the reasonable cost of providing the copy.

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[1] Section 16(C) (b) Disaster Management Act 2003

Role of risk management in planning

Disaster risk management is the critical and fundamental component of disaster planning. Disaster response and recovery processes are directly proportionate to the level of understanding of the hazards, identified risks and treatment strategies in place to combat those hazards. In other words, a comprehensive understanding of community risk will see the development of a contemporary and resilient planning structure that will lessen or eliminate the impact of disaster events upon that community.

Threats faced by communities include natural, human-caused and biological hazards. Consideration should also be given to a range of disasters that occur in areas far-removed from a community that may have a 'knock-on' effect such as long-term damage to transport corridors or systems that communities rely upon for re-supply of food, fuel and other essential goods.

Through the principles of disaster risk management – in which the hazard-scape is established – risks are identified, analysed and evaluated, treatments are prioritised, and management options are developed enabling Council to address vulnerabilities that help build community resilience. The LDMG recognises the significance of this process and the development of mitigation strategies based on sound disaster risk management practises. The Carpentaria Shire LDMG is committed to implementing the concepts and principles detailed in the established Risk Management Standard ISO: 31000. The following schematic illustrates the Disaster Risk Management process.
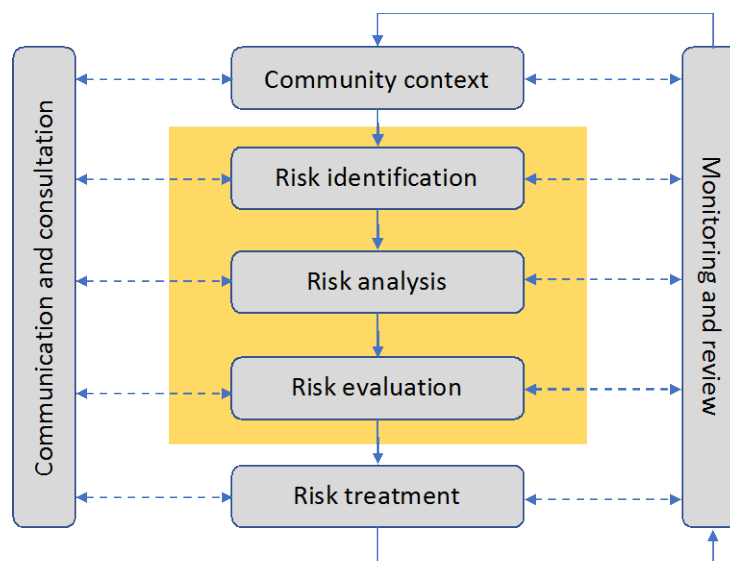
ERM process as described in ISO 31000

Carpentaria Shire Risk Management Study 2008

This section draws heavily on information provided in the Carpentaria Natural Disaster Risk Management Study which was completed in 2008 and the QERMF risk assessment.

The outcomes of these studies are still considered current.

Geography

Carpentaria Shire is the fourth largest shire in Queensland and stretches around the south-eastern quarter of the Gulf of Carpentaria. The Shire covers an area of approximately 64,000 square km, and surface water runoff from six major river systems discharge through the Shire into the Gulf, namely the Mitchell, Staaten, Gilbert, Norman, Flinders and Leichhardt River systems.

Large areas of the Shire are very flat and low-lying, and flood inundation occurs over wide areas and for long periods. Seasonality of rainfall and extreme rainfall events associated with Tropical Cyclones and rain bearing depressions culminate to produce significant disruption to access and services, as well as direct flood damages and indirect damages through loss of production.

There are a number of major river systems in the Shire which flow north into the Gulf of Carpentaria and have a significant impact upon the hazard-scape of the Shire. These include:

- Mitchell River
- Staaten River
- Gilbert River
- Norman River
- Flinders River
- Cloncurry River
- Leichardt River

On average, the Carpentaria Shire discharges 18.3% of Queensland's and 7.3% of Australia's surface water run-off into the Gulf of Carpentaria. These river systems have been recorded as discharging up to six times their average flows during by wet seasons creating vast inland seas.

Population

The population of Carpentaria Shire is approximately 2'090 (2021 Census), however during the cooler months of the year the population increases due to the number of tourists that travel to the area. The   population is distributed as follows:
- Normanton - 1326 steady
- Karumba - Approximately 487 during the wet season, Up to 2000 during the cooler months
- Rural Properties - Up to 800 during the year, limited numbers during the wet season

Community vulnerabilities
- Cyclonic/coastal inundation damage to community infrastructure (e.g. roads, essential services etc)
- Isolation of communities and remote properties due to flooding
- Heavy vehicle damage to flood-affected roads following flooding or severe weather
- Major road accidents with multiple causalities or dangerous goods spillage or both
- Remote areas, sparsely populated and vast distances
- Visitors to the area with little experience of remote locations
- Fire control after above average seasonal rain

The Norman River

Community resiliencies

- Strong relationships with neighbouring councils in the area, who are willing to assist each other
- Residents are very resilient to the environment and seasonal weather conditions
- Residents are very resourceful and used to dealing with their surrounding risks
- Resupply arrangements during some prolonged periods of isolation
- SES and RFS volunteers available
- Well-resourced and equipped isolated properties

Climate and Weather

The Shire has a dry tropical climate with an identifiable wet and dry season. The wet season extends through the summer months from November to April, with most rain falling in late December to March. The remaining part of the year from May to October is generally dry with less than 15mm of rain per month. The average annual rainfall for Normanton is 915 mm. Carpentaria is covered by the Mornington Island radar.

Infrastructure

Council considers its built environment, critical infrastructure and essential services is adequate for routine needs. Most are subject to some level of interruption, disruption or decreased capacity during disaster events. The following list describes the current status of the Shire's critical infrastructure and essential services.

Electricity Supply

Carpentaria Shire is connected to the national Grid. Power is reliable. Critical facilities are able to operate from auxiliary power.

Water Supply

Water supply across the shire varies from treated Dam supply to treated artesian supply.

Sewerage

Across the Shire there is a mixture of sewage and septic systems.

Roads

Because of its size and shape, Carpentaria Shire has an extensive road network. State controlled roads which link Normanton with Karumba, Croydon and Cloncurry are bitumen sealed, while the road to the Mareeba Shire boundary (and to Chillagoe); is formed only. Because these roads run predominantly north/south, they cross the major river systems which flow through the Shire and are regularly closed during the wet season.

Shire controlled roads link these roads to other through roads and all properties in the Shire. There is a total length of 1606 kms of unsealed roads in the Shire, with a total of 58 kms of sealed and unsealed streets in the township of Normanton and Karumba.

Most rural roads are inundated and/or not trafficable during the wet season. The following table details the major road network within the Shire.

From	To	Road	Surface	Distance (Kms)
Cloncurry	Normanton	Burke Development Rd	Sealed	424
Normanton	Karumba	Normanton to Karumba	Sealed	71
Normanton	Burketown	Savannah Way	Sealed/Unseale	221
Normanton	Croydon	Gulf Development Rd	Sealed	152

Airports/airstrips

- Normanton – 1676 m sealed runway. Hercules capacity (with concession) Night Lighting.

- Karumba – 1271 m sealed runway. Hercules capacity (with pavement concession). Prone to cross winds.

Stations within the Shire also have their own airstrips. Helicopters and light aircraft are used for various purposes from these strips.

Industry

Industry is predominantly agriculture, fishing and tourism.

Essential Services

Normanton:
- Queensland Ambulance
- Queensland Police
- Queensland Health (inpatient facility)
- State Emergency Service
- Rural Fire Service

<u>Karumba:</u>
- Queensland Ambulance
- Queensland Police
- Queensland Health (no inpatient facility)
- SES
- Rural Fire Service

Hazardous material sites

Hazardous materials are substances or materials, which have been determined by an appropriate authority to be capable of posing an unreasonable risk to health, safety and property.[2]

A list of hazardous material sites is shown at Appendix 4

Hazards

The following hazards[3] have been identified as having a potential to impact the Shire and its communities, infrastructure, economy and natural environment. These have been categorised into 'naturally occurring' and 'human-caused/biological' although it is recognised that there may be an overlap in areas of bushfire and pandemic.

<u>Naturally occurring</u>

Hazard	Brief description
Tropical cyclones - Categories 3-5 (Severe) - Categories 1-2 (Including storms)	The Shire is subject to seasonal severe weather events such as cyclones and severe storms. These hazards can cause considerable damage to community, infrastructure, environment and the economy.
Coastal inundation (storm tide) - Greater than 1 metre	This hazard accompanies tropical cyclones and can have a catastrophic effect on coastal communities.
Riverine flooding - Major - Minor to medium	The Shire has a history of flood events with potential to cause anything from mild disruption to serious damage to property, environment and economy.
Bushfire	This hazard may occur during the dry season and could affect built infrastructure and grazing areas in the Shire. Possible impact to community.
Heatwave	Queensland Health defines heatwave as "three (3) days or more of high maximum and minimum temperatures that are unusual for that location". Heatwave may result in increased deaths and illness in vulnerable groups (e.g. persons > 65 years, pregnant women, babies, young children and those with chronic illness. In severe cases, it may impact some infrastructure.
Earthquake	An earthquake is the result of a sudden release of stored energy in the Earth's crust that creates seismic waves. ... causing severe damage to infrastructure and

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[2] Australian Emergency Management Glossary

[3] Carpentaria Shire Disaster Risk Management Study, 2008

Human-caused/biological

Hazard	Brief description
Animal or plant disease	Diseases of animals and plants affect production, safety for consumption.
Pandemic	A pandemic occurs when a strain of a virus appears that causes readily transmissible human illness for which most of the population lacks immunity. Influenza pandemics, typically the most common, occur with little warning and hit wide areas in multiple waves, lasting two to three months at a time. Most at risk are the elderly, children under 5 years, the indigenous community and people
Mass casualty incident	Including road, rail, marine and air, this hazard has potential to disrupt a range of community services.

Risk assessment methodology

Risk assessment is a process of evaluating the source and possible consequence of the risk, and the likelihood that those consequences will occur. This is achieved through the Risk Rating Matrix below, where the consequence of the risk is mapped against the likelihood that the risk will occur, which provides a risk rating level – low, medium, high or extreme. An explanation of the criteria for risk likelihood descriptors and risk consequence descriptors appears in the following tables. The risk assessment of the potential for disaster informs Council's disaster management arrangements.

Council's risk management processes are based on Australian Standard AS/NZS ISO 31000:200.

Risk matrix

		Consequence				
		Insignificant	Low	Medium	Major	Severe
Likelihood	Almost certain	Medium	High	High	Extreme	Extreme
	Likely	Medium	Medium	High	Extreme	Extreme
	Possible	Low	Medium	Medium	High	Extreme
	Unlikely	Low	Low	Medium	Medium	High
	Rare	Low	Low	Low	Medium	Medium

- Extreme risk
- High risk
- Medium risk
- Low risk

Likelihood descriptors

Likelihood	Quantification	Probability (%)	Description
Almost certain	< 12 months	95-100	The event is expected to occur
Likely	1 to 3 years	65-95	The event will probably occur
Possible	3 to 6 years	35-65	The event might occur at some time
Unlikely	6 to 10 years	5-35	The event could occur at some time but is improbable
Rare	>10 years	<5	The event may occur only in exceptional circumstances

Consequence descriptors

Risk	Human & Social	Infrastructure	Environment	Economy
Insignificant	Short-term reduction of services, no damages to objects of cultural significance, no emotional and psychological impacts. No known injuries or illnesses.	Inconsequential short-term failure of infrastructure and service delivery, no disruption to the public services and utilities.	No or minimal impact on the environment i.e. Very limited direct damage to ecosystems or elements of place	Minor financial loss that can be managed within standard financial provisions (e.g. insurance), inconsequential disruptions at business level
Low	Isolated & temporary cases of reduced community services, repairable damage to objects of cultural significance, impacts within emotional and psychological capacity. Minor injury/illness managed within existing resources.	Isolated cases of short- to mid-term failure of infrastructure and service delivery, local inconvenience to the community and business extending up to 72 hours. No long-term impact on integrity or operation of the infrastructure.	Limited and/or localised impact on the environment that can be readily rectified but effort is still required to minimise. One off recovery effort is required.	Financial loss requiring activation of reserves to cover loss, disruptions at business level leading to isolated cases of loss of employment
Medium	Reduced services within community, permanent damage to objects of cultural significance, impacts beyond emotional and psychological capacity in some parts of the community. Single fatality. Multiple serious injury/illnesses requiring professional medical care. Small number of people displaced for <24 hrs.	Mid-term failure of (significant) infrastructure and service delivery affecting some parts of the community, widespread inconveniences. Repair/replacement expected to take greater than 72 hours.	Isolated but significant cases of impairment or loss of ecosystem functions, intensive efforts for recovery required. Event can be managed under normal procedures.	Direct moderate financial loss in the region requiring adjustments to business strategy to cover loss, disruptions to selected industry sectors leading to isolated cases of business failure and multiple loss of employment.

Major	Reduced community quality of life, significant loss or damage to objects of cultural significance, impacts beyond emotional & psychological capacity in large parts of the community. Most community services unavailable. Multiple fatalities. Regional health care system stressed. External resources required to resolve the event. Large number of people displaced for >24 hours.	Mid to long term failure of significant infrastructure and service delivery affecting large parts of the community, external support required.	Severe impairment or loss of ecosystem functions affecting many species or landscapes, progressive environmental damage.	Significant financial loss requiring major changes in business strategy to (partly) cover loss, significant disruptions across industry sectors leading to multiple business failures and loss of employment.

| Severe | Community unable to support itself, widespread loss of objects of cultural significance, impacts beyond emotional and psychological capacity in all parts of the community, long-term denial of basic community services. Widespread loss of lives (at least 1 per 10 000), regional health care system unable to cope, large displacement of people beyond regional capacity to manage. | Long term failure of significant infrastructure and service delivery affecting all parts of the community, ongoing external support at large scale required | Widespread severe impairment or loss of ecosystem functions across species and landscapes, irrecoverable environmental damage. Total incongruence with preferred elements of place. | Unrecoverable financial losses. Multiple major industries in the region seriously threatened or disrupted for foreseeable future. Asset destruction across industry sectors leading to widespread business failures and loss of employment. |

Risk assessments

Using the Likelihood and Consequence descriptors to define each of the hazards, the following risk ratings have been determined[4].

Naturally occurring

Hazard	Likelihood	Consequence	Risk rating
Severe tropical cyclone (Cat. 3-5)	Possible	Severe	Extreme
Tropical cyclone (Cat. 1-2)/storm	Likely	Major	Extreme
Coastal inundation (Storm tide) >	Likely	Major	Extreme
Coastal inundation (Storm tide) <	Likely	Medium	High
Heatwave	Likely	Medium	High
Flooding – Major	Possible	Major	High
Flooding – Minor	Possible	Medium	Medium
Animal and plant disease	Unlikely	Medium	Medium
Earthquake	Unlikely	Low	Low

Human-caused

Hazard	Likelihood	Consequence	Risk rating
Mass casualty incident	Possible	Medium	Medium
Hazardous material accident	Unlikely	Medium	Medium
Fire-Rural	Possible	Medium	Medium
Fire-Urban	Possible	Medium	Medium
Marine oil spill	Unlikely	Medium	Medium
Pandemic	Rare	Medium	Low

Risk treatment strategies

- The LDMG is committed to identifying risk treatments including mitigation works, preparations for response and management of residual risks within their area of responsibility. Council will seek to make appropriately responsible allocations to approved mitigation works.

- The LDMG will identify responsible agencies and lobby for mitigation activities, response preparations and management of residual risks that are outside the area of responsibility of Council but where non-action is likely to result in an adverse impact on the Shire's communities.

- It is recognised that limited options to physically mitigate against natural hazards exist in the Shire. Most of the risk treatments will therefore be identified to prepare the community, local disaster management system, Council, other agencies and linkages to support agencies for response, recovery and management of residual risks.

A detailed list of risk assessment & treatments are shown at Appendix 5

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[4] Subject to change

Monitoring future risk

As Disaster Risk Management is a dynamic environment, the hazard-scape that affects the Shire should be continually monitored and reviewed regularly for any changes that may occur (e.g. climate change, increasing intensity of severe weather events, identification of new hazards).

Managing residual risk

- The LDMG is not directly responsible for the management of residual risk that is the responsibility of an agency/organisation. Each agency is required to address residual risks in its area of responsibility through the development of its own internal management and planning processes.
- The LDMG Chairperson may seek assurance or confirmation that this planning and capacity development has been undertaken.
- For residual risks with no clearly established responsible agency, or where the residual risk is not being appropriately managed, or where the residual risk remains an unacceptable risk to the community – the LDMG should develop mitigation strategies.
- If Council resources are for some reason exhausted, requests for additional assistance will be directed to the DDMG.

Critical infrastructure

Critical Infrastructure is a term used by governments to describe assets, systems and processes that are essential for the functioning of a society and economy – the infrastructure[5]. Most commonly associated with the term are facilities for:

- Shelter
- Agriculture, food production and distribution
- Water supply (e.g. water storage, drinking water, waste water/sewage)
- Public health (e.g. hospitals)
- Transportation systems (e.g. Railway networks, Airports, roads, bridges, shipping facilities)
- Security services (e.g. Police, military).
- Power generation, transmission and distribution
- Telecommunication systems
- Economic sector (e.g. Goods and services, financial services)

Storm tide hazard

For more detailed information on Normanton and Karumba communities, refer to Part 5 – Disaster Operations – "Storm tide evacuations".

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[5] U.S. Homeland Security citation

Local governments are primarily responsible for managing disaster events in their local government area. They are ideally placed to provide specific disaster management at the community level given their knowledge and understanding of local social, environmental and economic issues[6].

Functions of local government

The functions of a local government under section 80 of the Act are:

   a) To ensure it has a disaster response capability
   b) To approve its local disaster management plan prepared under Part 3
   c) To ensure information about an event or a disaster in its area is promptly given to the district disaster coordinator for the disaster district in which its area is situated
   d) To perform other functions given to the local government under this Act

"Disaster response capability", for a local government, means the ability to provide equipment and a suitable number of persons, using the resources available to the local government, to effectively   deal with, or help another entity to deal with, an emergency situation or a disaster in the local government's area.

Local disaster management group ('local group')

Establishment (s.29)

A local government must establish a Local Disaster Management Group (LDMG) for the local government's area to administer and coordinate Council's disaster management arrangements.

Carpentaria Shire LDMG membership (s.33)

The following list of members represent the Carpentaria LDMG –

Core group

Position/Title	LDMG Role
Mayor, Carpentaria Shire Council (CSC)	Chairperson
Deputy Mayor, CSC	Deputy chairperson
Chief Executive Officer, CSC	Local Disaster Coordinator (LDC)
Director Corporate Services - CSC	Deputy LDC
Officer in charge, Normanton Police	Qld Police representative
Emergency Management Coordinator, QFES	Emergency management coordinator

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[6] Qld. Disaster Management Guideline, S. 2.3 Local level – Local Government

Organisation	Position/title
State Emergency Service	Local Controller
Queensland Ambulance Service	Officer in charge
Queensland Police Service	Officer in charge, Karumba
Rural Fires	First Officer
Ergon Energy	Representative
Telstra	Representative
Hawkins Transport (Re-supply)	Representative
Carpentaria Shire Council	Director of Engineering
Carpentaria Shire Council	Manager, W&W, CSC
Carpentaria Shire Council	Economic & Community Development
Carpentaria Shire Council (Recovery)	Community Development Officer
Education Queensland	Carpentaria State School – Deputy Principal
Queensland Health	Director of Nursing

*Other persons (including state government department representatives) deemed relevant by the local group may be invited to attend and provide advice, acknowledging availability of staff.

LDMG Contact List including core and advisory members is shown at Appendix 6.

Functions of local group (s.30)

A local group has the following functions for its area –

a) To ensure that disaster management and disaster operations in the area are consistent with the State group's strategic policy framework for disaster management for the State

b) To develop effective disaster management, and regularly review and assess the disaster management

c) To help the local government for its area to prepare a local disaster management plan

d) To identify, and provide advice to the relevant district group about support services required by the local group to facilitate disaster management and disaster operations in the area

e) To ensure the community is aware of ways of mitigating the adverse effects of an event, and preparing for, responding to and recovering from a disaster

f) To manage disaster operations in the area under policies and procedures decided by the State group

g) To provide reports and make recommendations to the relevant district group about matters relating to disaster operations

h) To identify, and coordinate the use of, resources that may be used for disaster operations in the area

i) To establish and review communications systems in the group, and with the relevant district group and other local groups in the disaster district of the relevant district group, for use when a disaster happens

j) To ensure information about a disaster in the area is promptly given to the relevant district group

k) To perform other functions given to the group under this Act

l)   To perform a function incidental to a function mentioned in paragraphs (a) to (k)

It is also recommended that an LDMG establishes a 'terms of reference' to guide activities.

- To improve community (including business) disaster planning/mitigation and preparation.
- To develop and maintain a local disaster management group membership who are appropriately qualified and trained, and able to contribute to meeting the functions of the LDMG.
- To ensure consistent and effective management and coordination of disaster operations in accordance with established protocols.
- To integrate effective disaster risk reduction initiatives into Council's strategic and corporate plans, community organisations, industry and commerce
- To review and implement local sub-committees to carry out identified functions.
- To develop and maintain effective local community engagement strategies.
- To develop, monitor, evaluate and revise local plans to ensure effective disaster management for the Shire in order to:
  - Streamline arrangements
  - Develop clear accountability, including defined roles and responsibilities at all levels of the disaster management arrangements
  - Improve the communication flow process
  - Develop whole-of-government, media and community engagement arrangements
  - Continually monitor local arrangements to ensure consistency with legislation, policy and standards.

Chairperson and deputy chairperson (s.34)

Council has appointed the Mayor and Deputy Mayor of Council as the Chair and Deputy Chair of the Carpentaria Shire LDMG respectively.

Functions of chairperson (s.34A)

The Chairperson of the LDMG has the following functions:
- To preside at LDMG meetings
- To manage and coordinate the business of the group
- To ensure, as far as practicable, that the group performs its functions
- To nominate a local government representative to the DDMG
- To report regularly to the relevant district group, and the chief executive of the department, about the performance by the local group of its functions

Local disaster coordinator (s.35)

The Chair of the LDMG, after consultation with the Chief Executive will appoint an employee of Council as the Local Disaster Coordinator (LDC) of the local group. For Carpentaria Shire LDMG, the Chairperson has appointed the Chief Executive Officer as the LDC.

Functions of local disaster coordinator (s.36)

The Local Disaster Coordinator has the following functions:
- To coordinate disaster operations for the local group
- To report regularly to the local group about disaster operations
- To ensure, as far as practicable, that any strategic decisions of the local group about disaster operations are implemented

Power of delegation by LDC (s.143[8])

The Act notes that the LDC may delegate the coordinator's functions to an appropriately qualified person.

Membership

Notice about membership of local group (s.37)

Council is to give written notice of the members of the local group (at least once a year) to –

(a) The Chief Executive and
(b) The chairperson of the district group for the disaster district in which the local group is situated

Membership records

Each disaster management group is required to maintain a register of its current members and advisors for reference, during both general business and operational periods. As a minimum, details should consist of:

- Department/organisation or agency's name;
- Designated position title;
- Incumbent's full name;
- Postal address;
- Phone numbers (both landline, mobile and satellite); and
- Email address.

In accordance with the Information Privacy Act 2009, when collecting personal information from a disaster management group member, all reasonable steps must be taken to ensure that the person is aware of:

- Why you are collecting the information;
- What you will use it for;
- Your legal authority to collect the information;
- To whom you usually give that kind of information; and
- To whom the receiving entity usually gives the information.

Membership records must be collected, stored and disposed of in accordance with the Information Privacy Principles contained in Schedule 3 of the Information Privacy Act 2009.

Members must note that information must only be used for the purpose for which it was collected and only disclosed to persons outside the disaster management group with the member's permission. The member should also be informed that the disaster management group will be required to continue to keep up-to-date personal information for the purposes of disaster management. Each time membership details change, the Secretariat should update the member register, showing the current disaster management group membership details only.

Whenever the disaster management group member register is altered, an updated copy should be distributed (either hardcopy or via email) to all disaster management group members.

Notice of membership templates are shown at Appendix 7

<u>Obligations of members</u>

Members of the LDMG in undertaking their normal responsibilities should ensure they:

- Attend LDMG activities with a full knowledge of their organisations' resources and services and the expectations of their organisation
- Are available and appropriately briefed to actively participate in LDMG activities to ensure that plans, projects and operations use the full potential of their organisation, while recognising any limitations
- Are appropriately positioned within their agency to be able to commit agency resources to LDMG normal business activities
- Have a deputy who is appropriately trained to take on their responsibilities should they be unavailable or to provide additional support during extended operations
- Contribute to Disaster Management Planning for the Shire

Roles & responsibilities

Local Disaster Management Group

Organisation	Agreed responsibilities
Local Disaster Management Group (LDMG)	• Development of a Local Disaster Management Plan and strategies (based on the Disaster Management Strategic Framework) through consultation with LDMG member agencies and other essential service providers (s.48A) • Support and promote public education and awareness programs delivered through member agency resources • Design, maintenance and operation of a local disaster coordination facility • Support operation of Council, including identifying and training of sufficient personnel to operate the LDCC • Coordination of support to local response agencies • Reconnaissance and impact assessment • Support provision of public information prior to, during and following disaster • Provide advice regarding issues to be considered for authorised evacuation • Support resourcing, staffing and operation of evacuation centres • Provide local community support services

Carpentaria Shire Council	- Continuity of essential Council services and disaster management capacity including: - Maintenance of council functions - Activation and operation of an LDMG - Establishment of local disaster coordination capacity - Maintenance of normal council services - Road Condition Reporting - Road Closures - Water supply - Sewerage - Refuse disposal - Public health - Animal control - Environmental protection - Maintenance of a disaster response capability incl: - Establish Local Disaster Coordination Centre facility - Maintain operational support resources

Queensland Fire and Emergency Services (QFES)	• Provide coordination, policy, planning and operational advice and assistance to local disaster managers • Coordinate State and Commonwealth assistance for local disaster management and disaster operations • Provide management, administration, equipment and training support to the State
Queensland Police Service (QPS)	• Preservation of law and order • Prevention of crime • Security of possible crime scenes • Investigation of the criminal aspect of any event • Conduct of coronial investigation procedures • Traffic control, including assistance with road closures and maintenance of road blocks • Crowd management/public safety • Coordination of search and rescue operations • Security of evacuated areas • Registration of evacuated persons
Queensland Fire and Emergency (QFES) – Rural Fire Service	• Primary agency for bushfire • Provide control, management and pre-incident planning of fires
Queensland Ambulance Service (QAS)	• Triage, assess, treat and transport injured persons • Provide assistance with medical emergency evacuations • Provision of advice regarding medical special needs sectors of the community
State Emergency Service (SES)	• Assist community to prepare for, respond to and recover from an event or disaster • Support Public Education and Awareness strategies • Provide assistance with rescue of trapped or stranded persons • Flood boat operations • Conduct search operations for missing persons • Emergency repair of damaged or vulnerable buildings • Assistance with debris clearance • First Aid • Assist Police with Traffic Control activities • Short term welfare support to response agencies • Provide assistance with impact assessments • Assist with establishment/maintenance of communication systems • Provide emergency lighting

Queensland Health (Q-Health)	• Coordination of medical resources • Public health advice/warnings to agencies and the community • Psychological and counselling services for disaster affected persons • Ongoing medical/health services required during the recovery period to preserve the general health of the community
Industries/Commercial	• Advice regarding industry/commercial-specific effects of any potential disaster event • Advice on the response assistance that industry can provide, via specialist resources, manpower etc. • Provide Situation Reports and/or Damage/Impact Reports to LDMG to ensure appropriate support is provided

Essential service providers (s.48A)

If the chairperson of a disaster management group considers a provider of essential services can help the group perform its functions, the group must consult with the provider in performing the functions.

Essential service providers include –
- Gas
- Electricity
- Telecommunications
- Water
- Sewage infrastructure

The group may consult with the provider by –
- Inviting the provider to attend meetings held by the group, or
- Seeking the provider's advice in providing reports and making recommendations about matters relating to disaster management and disaster operations, or
- Seeking the provider's advice in preparing disaster management plans.

District Disaster Management Group representatives

The Carpentaria Shire Mayor and Chief Executive Officer (as Chairperson and Local Disaster Coordinator of the LDMG respectively) are appointed as members of the Mount Isa District Disaster Management Group.

Complying with directions (s.47)

A local group must comply with a direction from the District Disaster Coordinator (DDC), either orally or in writing, regarding the performance of the functions of the local group.

State government lead functional agencies

An extensive list of lead functional agency roles and responsibilities including hazard-specific roles is shown at Appendix 8.

Business

Letterhead/logo

As Local Disaster Management Group (LDMG) business is conducted on behalf of the relevant local government or combined local governments, the relevant local government/s letterhead and logos should be used for all LDMG correspondence.

Reporting

State level

Section 44 of the Act requires the State group (QDMC) to prepare and publish an annual report about disaster management in the State.

Disaster District level

To inform the QDMC Annual Report, DDMG's are required to prepare an annual report, reporting on activities of the previous financial year.

Local level (s.44)

LDMG's play an integral part in the disaster management of the State and it is important that they have input into the QDMC annual reporting process. To enable this LDMGs, are required to complete a status report at the end of each financial year and provide the completed report to the relevant DDC.

The LDMG is also required to report to Council any issues that will require the support of Council to assist in enhancing its disaster management arrangements (e.g. mitigation works).

The following reporting schedule should be followed:

Reports to District

Report	Type	Timing	Format
Situation reports (SITREPs)	Operational	As negotiated	Standard SITREP format
Notice of appointment of Chair	Administrative		
Notice of membership for approval	Administrative	At least annually	
Status of disaster management in the Shire	Administrative	Annual (End of financial year)	As per issued by SDMG

Report	Submitted to	Timing	Format
Disaster management issues that require approval or adoption by Council	Council	Relevant council meetings	Council minute
Disaster management issues that require amendment or addition to the Council Business Continuity Arrangements, Operational or Corporate Plans	Council	Annual	Council minute
Disaster mitigation activities where funding allocations are required either from Council budget or external applications	Council	Annual	Council minute

LDMG annual reporting template is shown at Appendix 9

Member status reports

Written member status reports on behalf of their organisations are used to update the LDMG on the status of that organisation's disaster management initiatives. This includes mitigation, planning and community awareness/education activities, capacity and capability development, projects, disaster management plans, operations and contact information. This information assists the LDMG to evaluate the status of the disaster management and disaster operations for the local government area. Verbal member status reports would be provided at LDMG meetings by exception.

Induction of members

LDMG members and specific group positions are required to undertake an induction as soon as possible following appointment, in line with the Queensland Disaster Management Training Framework (QDMTF). This is the responsibility of the LDC in consultation with the relevant agency representative.

Meetings

Timing and conduct of meetings (s.38)

Under the Disaster Management Regulation 2014 (the Regulation), the local group must meet at least once every six months at the times and places decided by the Chair. These meetings must meet quorum requirements as outlined in section 13 of the Regulation.

However, the Chair of the local group must call a meeting of the group if asked, in writing, to do so by:

	LDMG	DDMG	State
Minister for Fire and Emergency Services			☐
Chair of the QDMC		☐	
Chair for the disaster district in which the LDMG is situated	☐		
At least one half of the members of the disaster management	☐	☐	☐

Notwithstanding the above, the local group may meet more regularly than once every six months and in accordance with section 38 of the Act, may conduct its business, including its meetings, in a way it considers appropriate.

Meeting types

Ordinary meetings
- A meeting that is scheduled and convened on a regular basis at an agreed time. Ordinary meetings are used to address the general business of the group and are held twice per year.
- The LDC of the Carpentaria Shire LDMG will schedule these meetings, the meeting agenda and notify the members and forward minutes to its members.

Extraordinary meetings
- A special meeting convened by the Chair/LDC in response to an operational event.
- An event would generate its own meeting file for audit purposes.
- Meeting minutes, attendance sheets and resolution statements must be included in the event file.

Meeting details for the coming year should be endorsed as a resolution at the last meeting of the year.

Quorums

A quorum is required in order for meeting resolutions to be officiated. LDMG members are required to achieve quorum which is equal to one-half of its members holding office plus one, or when one-half of its members is not a whole number, the next highest whole number.

An attendance sheet is to be completed at the commencement of each LDMG meeting to record member attendance and ensure the meeting has a quorum. This attendance sheet also forms part of the meeting minutes.

If it is anticipated that a scheduled meeting will not achieve quorum, the Chair may:
- Proceed with the meeting - allowing members to participate remotely (i.e. Teleconference, Video conferencing)

- Reschedule the meeting - preferred option if there are proposed agenda items requiring discussion or endorsement

- Cancel the meeting – whilst not the preferred option, subject to legislative requirements regarding minimum annual meetings the Chair may cancel a meeting if the proposed agenda items can be held over until the next scheduled meeting.

Attendance

Remote attendance

LDMGs are encouraged to allow members of the group who are unable to physically attend to take part in its meetings, by using any technology that reasonably allows members to hear and take part in discussions as they happen. A member who takes part in a LDMG meeting via teleconference or videoconference is taken to be present at the meeting and should be marked on the attendance sheet.

Member non-attendance

If a member continually does not attend LDMG meetings it is suggested that the LDMG Executive Team meet with the member to discuss the ongoing non-attendance at LDMG meetings. A formal record of LDMG member attendance should be maintained and this can be used to monitor member attendance across meetings.

Deputy members' duty

A deputy may attend a group meeting in the member's absence and exercise the member's functions and powers under the Act at the meeting. A deputy attending a group meeting is to be counted in deciding if there is a quorum for the meeting.

Meeting agendas

It is imperative that agenda items raised at an ordinary meeting reflect the goals and aims of the LDMG. To ensure this occurs, all proposed agenda items should be documented on a meeting brief and submitted to the LDC for vetting prior to the distribution of the agenda and meeting papers.

The suggested timeframe for a meeting cycle is that the LDC should make a call for agenda items at least one month prior to the scheduled meeting. Members should then be given a two-week period to provide agenda items, allowing time for collation of items.

Meeting administration

Minute taking

It is a requirement that an LDMG keep minutes of its meetings. The LDMG meeting minutes should provide a summary of key discussion points and resolutions. It is important to remember that the minutes may be subject to public scrutiny under the Right to Information Act 2009.

It should be noted in the meeting minutes whether or not a quorum was established at the meeting. The meeting attendance sheet should then be attached to the back, as it forms part of the meeting minutes as an accurate account of who attended the meeting and whether the meeting had a quorum, thus making any resolutions or decisions valid.

Meeting resolutions

In addition to meeting minutes, the LDMG should produce a resolution statement. The purpose of this document is to provide a running log of actions undertaken and an audit trail through to the acquittal of those resolutions.

Prior to each ordinary meeting of the LDMG, members will be requested to:
- Review the current resolution statement (distributed with meeting papers)
- Provide (where applicable) a status update advising of any actions undertaken with regards to the resolution
- To capture any actions as a result of discussion outcomes a resolution statement should be documented.

The resolution will remain active on the resolution statement until such time that it has been, when it will be removed from the resolution statement and recorded on the LDMG resolution register.

Resolution register

For governance purposes, a register detailing each resolution passed by the LDMG including necessary details of actions undertaken to acquit the resolution is to be kept.

Correspondence register

In order to assist with tracking of LDMG correspondence, both inwards and outwards, a LDMG Correspondence Register is to be kept. This allows for all members to be aware of any correspondence that concerns the LDMG and will assist with the information flow and decision making of the LDMG.

Records management

Disaster management groups must comply with the requirements of the Public Records Act 2002 and records may be subject to public scrutiny under the Right to Information Act 2009. The Queensland State Archives General Retention and Disposal Schedule for Administrative Records outlines the requirements for retaining documents in accordance with the Public Records Act 2002 and relevant sections are outlined below.

Ref. No.	Description of records	Status	Disposal action
15.2.3	Master set of records of major external or inter- agency committees / management groups. Includes: agendas, meeting briefs, noting briefs, meeting minutes, resolution statements, resolution register and both inward and outward correspondence.	Permanent	Retain permanently

13.4.3	Material published to the general public required for Legal Deposit. Includes: Annual Reports, newsletters, pamphlets, maps, plans, charts.	Permanent	Retain permanently
15.2.6	Membership documentation – Correspondence relating to the appointment of external and internal committee members.	Temporary	Retain for 3 years after last action
15.7.1	LDMP – Final version of plan	Permanent	Retain permanently
15.7.3	Records relating to the development of operational plans	Temporary	Retain for 3 years after last action
15.2.3	Operational event records	Permanent	Retain permanently

Subordinate committees and plans

Sub-committees

The following list details current LDMG sub-committees and chairpersons:

Sub-committee	Chairperson
Local Recovery Group • Economic • Environmental • Human & Social • Building • Road and Transport	Councillor (tba). Councillor (tba). Councillor (tba). Councillor (tba). Councillor (tba).
Evacuation Planning Group	Deputy Mayor

Sub-plans & standard operating procedures

The following list details sub-plans and Standard Operating Procedures (SOP's), which form Appendices to this plan.

Sub-plans (SP)

Ref.	Title	Current status
SP 1	Evacuation	Current as at 2023
SP 2	Re-Supply	Current as at 2023
SP-3	Recovery	Current as at 2023
SP-4	Public Information and Warnings	To be drafted

Standard operating procedures (SOP's)

Ref.	Title	Current status
SOP 1	SOP and Concept of operations	Obsolete, new SOP to be developed.

Special plans (SPEC-P)

Ref.	Title	Owner	Current status

Future planning considerations

1. To be considered
2. To be considered

Response strategy

Meaning of disaster operations

Section 15 of the Act defines 'disaster operations' as –

"Activities undertaken <u>before, during and after</u> an event happen to help reduce loss of life, illness or injury to humans, property loss or damage, or damage to the environment, including, for example, activities to mitigate the adverse effects of the event"[7].

As disaster operations encompasses response, relief and recovery activities before, during and after an event, the following table provides a brief overview of key actions undertaken during these phases:

Phase	Indicative actions
Before	1. Activate local disaster management arrangements 2. Identify and assess likely risks to the community and undertake operational planning relevant to the event 3. Implement procedures that will ensure the rapid mobilisation and deployment of its resources to respond to and recover from a disaster event (e.g. search & rescue, evacuation, relief and recovery) 4. Activate organisational structures to coordinate impending event (e.g. Local Disaster Coordination Centre [LDCC]) 5. Ensure effective dissemination of alerts, warnings and information is provided to public
During	1. Ongoing LDMG functions 2. Ongoing LDCC coordination 3. Ongoing response activities 4. Ensure provision of relief functions for persons affected by the event 5. Maintain liaison and communications across all organisations 6. Ensure effective dissemination of alerts, warnings and information is provided to public
After	1. Maintain liaison and communications across all organisations 2. Through the 'relief' phase, satisfy immediate, essential personal and community needs 3. Coordinate the recovery of the community 4. Coordinate the recovery of physical infrastructure 5. Manage the process of restoring essential services to a normal level 6. Participate in long-term recovery, reconstruction and rehabilitation 7. Ensure effective community engagement occurs during the recovery stage

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[7] Queensland Disaster Management Guideline

LDMG functions during disaster operations

In relation to 'disaster operations' in the Shire, Section 30 of the Act states that a local group has the following functions—

- To ensure that disaster management and disaster operations in the area are consistent with the State group's strategic policy framework for disaster management for the State
- To identify, and provide advice to the relevant district group about, support services required   by the local group to facilitate disaster management and disaster operations in the area
- To ensure the community is aware of ways of mitigating the adverse effects of an event, and preparing for, responding to and recovering from a disaster
- To manage disaster operations in the area under policies and procedures decided by the State group;
- To provide reports and make recommendations to the relevant district group about matters relating to disaster operations
- To identify, and coordinate the use of, resources that may be used for disaster operations in the area
- To establish and review communications systems in the group, and with the relevant district group and other local groups in the disaster district of the relevant district group, for use when a disaster happens
- To ensure information about a disaster in the area is promptly given to the relevant district group
- To perform other functions given to the group under this Act
- To perform a function incidental to a function mentioned above

Timely activation of the LDMG is critical for an effective response to an event. The decision to activate is dependent upon a number of factors including the perceived level of threat.

Authority to activate

Authority to activate the Carpentaria Shire LDMG and this plan is vested in the chairperson of the LDMG or a delegated person. The Chairperson, or delegate, can implement this plan on receipt of:

- A warning of an impending threat, which in the opinion of the Chairperson or their delegate would require a coordinated community response
- A request from a Lead Agency or DDMG for assistance under the Local Disaster Management Plan
- A direction of the Queensland Disaster Management Committee (State-level)

For more detailed information on LDMG activation and de-activation refer to LDMG SOP.

Stages of activation

In accordance with Queensland's Disaster Management Arrangements (QDMA), there are four recognised stages of activation. Whilst these steps are usually sequential and chronological in nature, activation immediately to Lean Forward or Stand Up may occur with little or no warning, dependent upon the speed of onset of the event.

The following table details triggers and indicative actions required under each of the stages.

Stage	Description	Trigger	Indicative actions
ALERT	A heightened level of vigilance due to the possibility of an event in the area of responsibility. No action is required however the situation should be monitored by someone capable of assessing the potential of the threat	• Awareness of a hazard that has the potential to affect the Shire	• Monitor hazard & identify possible risks • Initial contact with warning agency • Information sharing with all stakeholders commences • Initial public advice
LEAN FORWARD	An operational state prior to 'stand up' characterised by a heightened level of situational awareness of a disaster event (either current or impending) and a state of operational readiness. Disaster coordination centres are on standby; prepared but not activated.	• Likelihood that the threat may affect the local government area. • The threat is quantified. • Need to disseminate information to public • LDMG to now manage the event.	• Chairperson, LDC and QFES analyse situation • Chairperson and LDC remain on watching brief • Confirmation of level and potential of threat • Council staff prepare for operations • Determine trigger point for 'STAND UP' • Prepare LDCC for operations • Establish regular communications with relevant entities • Brief LDMG • DDC advised of current status • Information and warnings disseminated to public

Stage	Description	Trigger	Indicative action
STAND UP	The operational state following 'lean forward' whereby resources are mobilised, personnel are activated, and operational activities commenced. Disaster coordination centres are activated.	• Threat is imminent or has occurred • Community impacted • Need for coordination of event • Requests for Assistance (RFA) received by LDMG agencies or LDCC	• LDMG meets • LDCC Activated • Commence operational planning • Council operations commence • LDMG takes full control of event management • All SOPs activated • SITREPs to DDMG commenced • DDMG advised of potential for requests for assistance
STAND DOWN	Transition from responding to an event back to normal core business and/or recovery operations. There is no longer a requirement to respond to the event and the threat is no longer present.	• No requirement for a coordinated response • Recovery is taking place	• Final checks for outstanding RFAs • Operational and financial records consolidated and filed for auditing purposes • Response to recovery transition plan implemented • LDCC debriefing conducted • LDMG debriefing conducted • Financial records consolidated • Handover to Local Recovery Coordinator • Return to local government core business • Final SITREP forwarded to DDMG and LDCC closed down

Local Disaster Coordination Centre[8]

The Carpentaria Shire Local Disaster Coordination Centre (LDCC) has the responsibility for coordination of disaster operations, providing a response capability on behalf of the Carpentaria Shire LDMG. The main aim of the LDCC is to coordinate resources, information and assistance in support of local agencies and stakeholders who are engaged in disaster operations.

The LDCC also provides forward planning, based on local intelligence, which requires consideration of the unfolding event and its likely impacts on the Shire's communities, infrastructure, economy and environment.

Primary responsibilities of the LDCC include:
- Intelligence gathering (Intel), analysis of intel and forward planning
- Implementation of operational decisions of the LDMG
- Resource management including resources provided through DDMG
- Provision of timely and relevant information to community and other disaster management entities

The primary LDCC is located at:
> The Boardroom
> Carpentaria Shire Council
> 29-33 Haig Street, Normanton

Council's secondary LDCC is located at:
> Meeting Room
> Normanton Shire Hall
> Landsborough Street,
> Normanton

LDCC staff will be sourced in the first instance from within Council. At a minimum, staffing of

the LDCC should consist of:
- LDC
- Deputy LDC
- Operations Officer
- Planning Officer
- Intelligence Officer
- Administration and Logistics

The Support Team should include:
- Telephonists and loggers
- LDMG organisational liaison officers (as required)

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[8] For more detailed information on activation and operation of the LDCC, refer to Carpentaria Shire's Local   Disaster Coordination Centre Standard Operating Procedures.

Fatigue management

In the event that the activation continues for an extended period of time, fatigue management principles will apply. Member and advisory agencies will be required to manage fatigue of their staff in line with internal agency policies and procedures.
Warning notifications and dissemination

Local governments are responsible for the dissemination of local warnings through various communication systems and channels. The issuing of warnings and public information as well as community education/awareness programs should form part of the local disaster management arrangements before, during and after an event. These arrangements and strategies should be scrutinized following events or exercises to ensure continuous improvements[9].

The State Disaster Coordination Centre (SDCC) is responsible for the issuing of warnings and alerts to key stakeholders. Each entity is responsible for further disseminating these warnings and alerts through their own networks.

Multiple means of communicating warnings should be used. The agency identified as being primarily responsible for a specific hazard needs to include provision for communicating with the public in its planning; although this agency may not be responsible for issuing any alerts and warnings. This is primarily done through local governments.

Providing warnings to the public is part of the wider activity of public information and must be closely aligned. A key issue is deciding how much information should be provided, and when it should be disseminated to the community[10].

Local warning dissemination

The Chair of the LDMG, or delegate, is the official source of public and media information and is the chief media spokesperson.

Coordination of public information

During an event, the release of public information on aspects such as road closures, traffic routes, advice on evacuation procedures and centres will be coordinated through the LDCC. Such information and warnings will be provided to the community via a number of communications sources including:

- Landline and Mobile telephone including SMS messaging
- UHF Repeater network
- Electronic media (Council's website)
- Social media (Twitter and Facebook)
- Broadcast media (Radio) such as ABC612
- Television
- Media websites/Facebook
- Email
- Door knocking
- Public Announcement systems (PA's)

Other alerts or warnings such as those delivered through the use of SEWS (Standard Emergency Warning System) or the national Emergency Alert (EA) telephone and SMS messaging system will be used to support and reinforce the warning messages provided through broadcast media.

Ongoing information will also be disseminated through council offices and libraries, evacuation centres as well as other community meeting places.

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9 Reproduced in part from the Queensland Planning Guidelines, Part 5 - Response
10 State Disaster Plan

Warning authorities

The following is a list of organisations that are responsible for the dissemination of warnings.

Origin	Warnings/Information Type
Bureau of Meteorology	Severe Weather
Queensland Police Service Queensland Fire and Rescue	Hazardous Materials Incident
Queensland Health	Public Health
Local Government	Waste, Water, Environmental Health
Utility or Facility Owner (e.g. Ergon)	Major Infrastructure Failure
Queensland Fire and Rescue Service	Bush Fire
Biosecurity Queensland	Animal/Plant Disease

Emergency alert

Emergency Alert (EA) is one of the tools that can be used to warn communities of an impending emergency and is a critical element of emergency response. The Queensland Emergency Alert Guidelines govern the use of EA in Queensland.

QFES is the lead functional agency for the management and administration of EA in Queensland. Each local government has pre-prepared Emergency Alerts for hazards in their area. Seasonal alerts will have particular focus on flooding and heat conditions during specific months throughout the year.

Evacuation

Evacuation is a critical component during the response phase. A considered, coordinated and timely approach to the evacuation of individuals or communities is essential to achieve an effective and successful outcome.

Public messages need to be frequent & consistent, clear and concise to avoid confusion and most of all, provide actions for the threatened community to take.

The following table details the five stages of the evacuation process.

Stage	Brief Description
DECISION TO EVACUATE	The decision to evacuate will be made under emergency conditions and given careful consideration. If the decision is made too early and the hazard abates, those evacuated will have been exposed to unnecessary risk, inconvenience and cost. If the decision is made too late, the affected community will be forced to either evacuate under high-risk conditions or to remain in place and accept the full effects of the hazard impact. In any evacuation planning and conduct, particular attention needs to be given to 'special needs' groups.

WARNING	An evacuation warning must be structured to provide timely & effective information. The success of the evacuation will largely depend on the quality of the warning process. The warnings must: • Be clear & unambiguous • Be issued by a credible issuing authority • Provide a clear action statement
WITHDRAWAL	Withdrawal is the third stage of the evacuation process and involves the removal of people from a dangerous or potentially dangerous area to a safer location.
SHELTER	The LDMG will identify and activate the most appropriate evacuation facility for shelter relative to the type of event and risks and convey this to the local community within warning messages. People who are capable of moving away without assistance are encouraged to relocate outside the exposed area.
RETURN	The return of evacuees will be dependent on a number of factors. including assessment of the impacted area against the following criteria to determine if return is possible and identify any special conditions, which may need to be imposed. • Absence of hazard • Level of residual risk • Availability, condition and safety of accommodation, utilities and public health • Availability of adequate food supplies for returnees • Sufficient resources to return evacuees • Other relevant public information (E.g. services, financial and welfare arrangements etc)

For further information on evacuation, refer to Carpentaria Shire Evacuation Sub-plan.

Storm tide evacuations

Normanton

The town is located mainly on the western bank of the Norman River about 60 km upstream of the mouth at Karumba and is located near a series of shallow flood overflow channels. The airport is co-located immediately to the south-west of the town centre on connected level ground.

In present climate there is some minor encroachment into allotments indicated from the 200-year event, increasing to affect about one third of the town properties by the 1,000-year event. The situation changes little at the extreme 10,000-year event. The airport is unaffected at all return periods.

For the 2050 projected climate the minor encroachment commences at about the 100-year event and the 500-year event resembles the 1,000-year event under present climate. The 10,000-year event impacts about half of the properties. By 2100 the 50-year event resembles the 500-year event in present climate but even by the 10,000-year event the inundation extent is largely unchanged from present climate.

> Normanton is therefore unlikely to require evacuation due to storm tide, except in exceptionally rare circumstances

Karumba

Without accurate data on the susceptibility of Karumba to storm surge it is not possible to estimate the damage accurately. The result of a storm surge would most likely be major flash flooding of Karumba with significant wave run up. The town centre is situated close to the mouth of the Norman River and is built on a series of low alluvial ridges along the eastern river bank with many small channels. The airport and associated settlement of Karumba Point is at the mouth of the river, separated from the town centre by intervening salt pans that encroach in from the river bank. In present climate conditions some allotments at the point and in the town begin to be impacted by the 100-year event, with Catalina and then Yappar Street being increasingly affected. By the 500- year event almost all properties at the point are impacted and about half in the rest of the town, including the Walker Street area. At the 1,000-year event it is only the very centre of town and a few properties on the frontal ridge at the point that are unaffected directly. By the 10,000-year event there is almost no part of the town that is less than about 1 metre inundated.

For the 2050 projected climate scenario the 200-year event is similar in impact to the present 500- year and total inundation is achieved by the 1000-year event. For 2100, the 50-year event resembles the present 200-year event and total inundation is reached by the 500-year event.

> In present climate conditions, Karumba would likely require evacuation under threat of a 500-year event, representing a 4% chance in any 20-year period, or about a 10% chance in any 50-year period.

Storm tide gauges are located at Morning Island and Karumba. The gauge at Mornington Island is considered the most relevant for Carpentaria Shire.

Further information on storm tide is shown at Appendix 10

Evacuation centres

The responsibility for establishing evacuation centres rests with the Carpentaria Shire LDMG. The establishment and location of centres will be dependent on the complexities of the disaster event and the location of the affected community. Facilities that could be used as evacuation centres have been identified within the shire and are listed in the Evacuation Plan.

The affected community will be notified of the establishment and operation of a centre via a number of communications sources including electronic media, such as Council's website, social media, broadcast media (Radio and TV).

For further information on evacuation centres, refer to Carpentaria Shire Evacuation Centre Management sub-plan.

Information management

Systems for recording information are a fundamental component of the disaster management system and provide local government and other entities with an accurate record of the history of any event.

Records management throughout the disaster response and recovery stages will be achieved through the currently agreed arrangements. Documentation will provide the ability to capture all decisions, actions and information related to an event including the maintenance of logs, public information and all expenditure in order to provide clear and reasonable accountability and justifications for future audit purposes.

Once the LDCC has been stood down, all records related to the event are to be recorded into Carpentaria Shire's records management system. The following documents are an essential component of the LDCC's information management system:

Tasking and mapping

A tasking log be used during activations to record actions taken and the responsible agency or officer. A tasking log should contain details of:

- The specific operational task to be undertaken
- The date and time of commencement of the task
- The agency and responsible officer to which the task has been delegated
- Relevant contact details
- The date and time of completion of the task
- Actions taken and contextual comments.

The use of a tasking log will ensure that all operational contingencies have been executed. Tasking logs should be treated as official records and should be stored and archived appropriately to provide information to any post-event review.

The tasks are also plotted on relevant maps for visual reference. Various operational reports and briefings are generated based on these logs and maps. For further information refer to Carpentaria Shire's Local Disaster Coordination Centre SOP.

Situation Reports (SITREPs)

The LDC will ensure that operational reporting commences immediately once this plan has been activated.

SITREPs capture accurate information from the day's operations by detailing current and forecast situation during a disaster event. The LDC, through the operation of the LDCC, is responsible for the preparation of the SITREP. The SITREP is to be forwarded to the DDC through the DDCC at pre-determined times.

Requests for Assistance (RFA)

When Carpentaria Shire LDMG has exhausted its capacity and requires additional logistics support and/or resources to meet operational needs that are beyond local capacity and capability, the LDMG will formally seek assistance through a formal Request for Assistance forwarded to the DDCC via LDCC.

Resupply for isolated communities

- Disaster events such as flooding have a potential to create areas of isolation for lengthy periods of time within the Shire, requiring the need to resupply provisions to that area.
- The LDMG is responsible for the resupply of communities and rural properties during such periods of temporary isolation ensuring resupplies of food and other essentials.
- Most events that isolate communities occur on a seasonal basis and communities that are likely to be affected by such events are expected to prepare well in advance for both the event and the expected period of isolation. If an event does isolate a community within the Shire, all
  resupply requirements will be addressed in accordance with the Queensland Resupply Guidelines.

Operational information and intelligence

Collecting, collating and managing information is the key factor in the development of

effective action plans and is a crucial part of any response and recovery operation. In this instance, information intelligence is the collective and collaborative effort of the compilation and analysis of information that is reported to the LDCC.

Two key outcomes are:

- Decision-making, tasking, communications and messaging are informed by accurate and current intelligence
- Common situational awareness is created at all levels through a process for sharing operational information and intelligence products, across all entities[11]

Post-disaster review

The review of operational activities undertaken during a disaster is a key component of developing greater capacity and the improvement of council's disaster management arrangements.

After-action reviews (also known as Operational Debriefs) are conducted to:

- Assess disaster operations undertaken for a given disaster including actions, decisions or processes
- Document those processes that worked well and identify a course of action to ensure that they are captured and updated in relevant plans for use in the next operation
- Assess capability and consider where additional planning, training and/or exercises may enhance capability

The review of operations is conducted through two forms of debrief –

'Hot' debriefs

A discussion undertaken immediately after operations have ceased, giving participants the opportunity to share learning points while the experience is still very fresh in their minds. Multiple hot-debriefs during protracted operations may be appropriate to identify significant issues and provide prompt solutions for immediate implementation.

Post-event debriefs

This form of debrief is conducted days or weeks after an operation, when participants have had an opportunity to take a considered view of the effectiveness of the operation. Follow the completion of all debriefs, a report is completed in partnership with QFES-EM to provide an overview of the lesson identified following an event and importantly recommendations for improving disaster management.

Following the review, the local group may need to consider issues for resolution or may need to refer an issue to the District Group for advice or resolution.

Impact assessment

Impact assessment is the organised and coordinated process of collecting and analysing information after a disaster, to estimate casualties, damage to private property and community assets as well as the immediate needs of the impacted community.

The purpose of conducting an impact assessment is to provide planning groups with a comprehensive situational awareness of what has occurred and what is required to address the problems in the response and recovery stages.

Under this Plan, Council, supported by other agencies, is the lead agency for conducting impact assessments within its community. The LDCC is responsible for coordinating the collection of this information. There are two types of assessment:

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[11] Standard for Emergency management in Queensland, Component 11

Rapid damage assessment

Rapid Damage Assessment is undertaken immediately following an event to gather an overview of the impact. Information is gathered through the following sources:

- Information received from the public
- Call for assistance recorded by emergency services and the Carpentaria Shire Local Disaster Coordination Centre
- Tasking of Council and emergency service assets
- Information provided by Carpentaria Shire LDMG members
- Reconnaissance by Council and emergency services

Comprehensive damage assessment

A comprehensive damage assessment of the impacted area/s will start as soon as practical after the event, to accurately establish the impact of the event on the community and its infrastructure.

Response and recovery agencies and organisations with a role under this plan will undertake a comprehensive damage assessment relating to their area of control and will submit reports to the Carpentaria Shire Local Disaster Coordination Centre.

Disaster declarations (s.64)

Section 64(1) of the Act states that the District Disaster Coordinator (DDC) for a disaster district may, with the approval of the Minister, declare a disaster situation for the district, or a part of it.

Before declaring a disaster situation, the DDC is to take reasonable steps to consult with each local government in, or partly in, the proposed declared area. As outlined in Section 75 to 78 of the Act, the declaration confers extra powers on particular groups to perform actions, give directions and control movements within the declared area.

It is important to note that the declaration of a disaster situation relates to the situational requirement for additional powers and is not linked to the activation of particular disaster management groups under the QDMA or the activation of disaster financial assistance arrangements. All three actions are independent processes and are not interlinked or conditional. The declaration of a disaster situation does not impact the requirements of a local government under the Act to manage disaster operations in their area.

Financial management

Disaster related costs are not normally included in Council's or other entities budgetary processes. However, when disaster events occur, they will require the allocation of substantial funds in order to purchase resources or services. Due to the nature of many disaster situations, finance operations will often be carried out within compressed time frames and other pressures, necessitating the use of non-routine procedures; this in no way lessens the requirement for sound financial management and accountability.

It is important to remember that a 'Declaration of a Disaster Situation' is not a pre-requisite for the reimbursement of expended funding.

Media management

A Public Information and Warnings sub-plan should be considered to provide for the effective collection, monitoring, management and dissemination of accurate, useful and timely information and warnings to the public during and after disaster events.

A Media Officer is to be appointed to undertake this role prior to activation of arrangements.

Logistics support

Whilst the LDMG has the combined resources of all of its member agencies available to it to apply to the response to an event, there will be times when the resources available will be either insufficient or inappropriate.

Where the LDMG requires logistics support and/or resources to meet operational requirements that are beyond local capacity and capability, the LDMG will formally seek assistance through the District Disaster Management Group (DDMG).

The DDMG will provide the resource as requested, either from District resources or from State. It should be noted, however, that the management of the response to the event would always remain the responsibility of the LDMG.

Relief & recovery strategy

Defining relief and recovery

'Relief' is defined as efforts to meet the immediate needs of persons affected by a disaster, to minimise further loss through the provision of immediate shelter and basic human needs[12]. Relief is also referred to as part of phase 1 of recovery (Refer diagram below).

'Recovery' is defined as the coordinated process of supporting disaster-affected communities' psychosocial (emotional and social), and physical wellbeing, reconstruction of physical infrastructure; and economic and environmental restoration (including regeneration of the natural environment, associated infrastructure and heritage sites and structures, and the management of pollution and contamination)[13].

The following diagram illustrates the relief and recovery process across its three phases as well as describing the five functional areas of recovery.
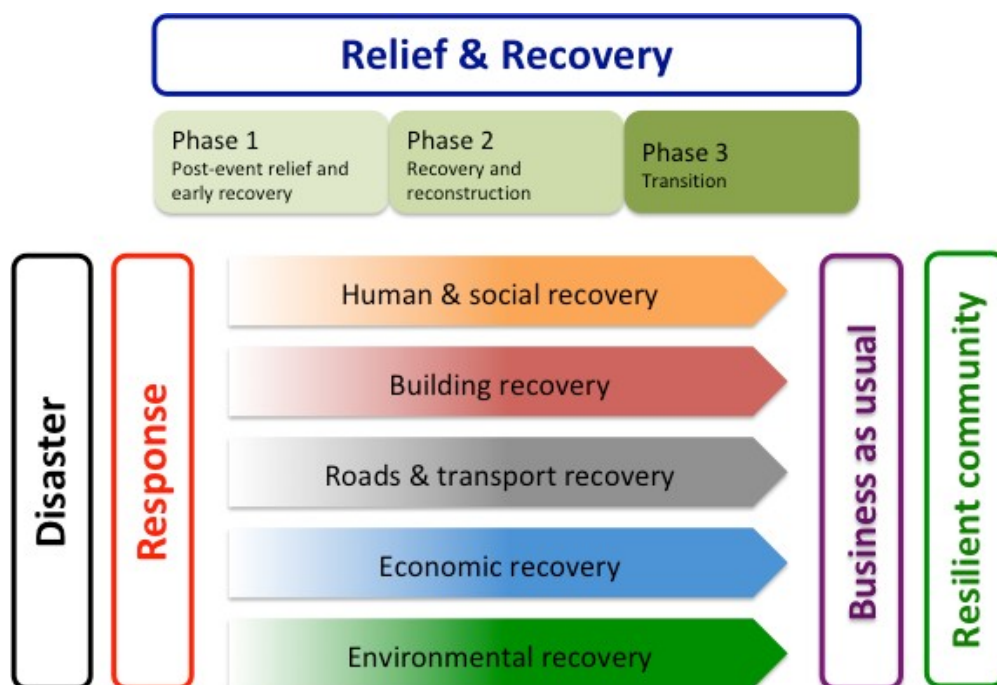
The primary aim of recovery is to assist disaster-affected communities to regain appropriate and acceptable levels of functioning both initially and in the long term.

It is important that any support provided to the community empowers that community to be a partner in their own recovery. Recovery planning and activities should provide the opportunity to develop better capability and mitigation measures for future events and to become a more resilient community.

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[12] Queensland Recovery Plan
[13] Queensland Recovery Plan

The recovery phase should commence in parallel with the response phase, and due to the complex nature of rebuilding communities, the recovery phase may continue well after the response to a disaster event has concluded. In some cases, this may be several years.

Alignment of arrangements

Carpentaria Shire's disaster relief and recovery arrangements provide a comprehensive approach to coordination and management for disaster-affected communities and as such are consistent with and align to the following:

- Commonwealth and State government recovery principles
- Queensland's Disaster Management Arrangements including State, District and local plans and procedures
- Disaster Management 2016 Policy Statement
- Emergency Management Standard

Recovery sub-plan

As recovery is one of the key functions of Carpentaria Shire's disaster management arrangements (across the prevention, preparedness, response and recovery continuum), a Disaster Recovery Plan has been developed describing –

- Purpose, objectives, scope parameters and constraints of the Plan
- Governance frameworks in which recovery arrangements function
- Functions and phases of recovery as well as levels of activation of recovery arrangements
- Roles and responsibilities of all entities involved in the recovery process
- Recovery concept of operations

Role of local government in recovery

In accordance with section 30 of the Act, Council, through their LDMG, is required to develop effective disaster management for their local government area, including viable recovery arrangements.

The role of the LDMG is to ensure that recovery arrangements, in consultation with the community, are planned for and implemented to support the relevant local government area. They should identify personnel to lead recovery operations across each functional recovery area. These recovery arrangements are delivered through a Local Recovery Group (LRG).

State and regional recovery entities should liaise with Carpentaria Shire LDMG/LRG to ensure sufficient resources are available through their networks to assist the local government and support the affected community through the recovery process.

Local recovery group

A Local Recovery Group is the primary group responsible for coordinating and delivering recovery services to its disaster-affected community within its local government area.

In theory, there should be five (5) sub-groups based around the five pillars of recovery, though in practice this may be difficult to achieve in local government areas where resources are limited.

With this in mind, the following membership could be considered indicative of an LRG with its membership consisting of, but not limited to the following:

Position	Organisation
Chairperson/Local Recovery Coordinator	Elected local government official (e.g. Deputy Mayor, Councillor)
Executive Officer/secretariat	Local government officer
Core members	• Relevant local government staff with experience/training in the five functional recovery areas • Local water entity • Non-government organisations (e.g. Australian Red Cross) • Relevant community-based organisations

Advisors	• State government departments relative to the recovery requirements:
	o Department of Communities, Disability Services and Seniors for Human & Social recovery
	o Department of Housing and Public Works for building recovery
	o Department of Transport and Main Roads for roads and transport recovery
	o Department of State Development for economic recovery
	o Department of Environment and Heritage Protection for environmental recovery
	• Queensland Qld. Health (Public health & medical services)
	• Reconstruction Authority (QRA)
	• Department of Agriculture and Fisheries
	• Department of Energy and Water Supply
	• Department of Science, Information Technology and Innovation
	• Queensland Fire and Emergency Services
	• Ergon Energy
	• Other agencies as required

In local government areas where there is little or no 'local capacity', agencies external to that area who would play a significant role in the process, would be co-opted through the appropriate channels to assist in community recovery operations when required.

Full details of Carpentaria Shires' recovery strategy are detailed in the Recovery Sub-plan.

Role of disaster district in recovery

The District Disaster Management Group (DDMG) should ensure recovery arrangements are prepared for, planned for and implemented to support the LDMGs in their district.

It is recommended that representatives from each of functional recovery lead agency are members of the DDMG to ensure recovery operations and planning are included in overall disaster management activities at the district level.

Introduction

Building organisational and operational capacity is a combination of the capability and the resources available to the Carpentaria Shire LDMG that can reduce the level of risk, or the impact of a disaster on the community. Capacity can be built through a combination of training and exercise programs tailored to local requirements as well as building the local community's awareness of risk and resilience through an effective community engagement strategy.

The practice of continuous improvement involves disaster management processes and arrangements being regularly evaluated and improved to ensure they remain relevant, effective and flexible. The implementation and delivery of training and exercises are critical elements in the continuous improvement of disaster management capacity building. Capacity building occurs across the phases of <u>Prevention and Preparedness</u>.

Prevention & preparedness

Prevention

Prevention includes those measures to eliminate, <u>mitigate </u>or reduce the incidence or severity of emergencies.

'Mitigation' is the means taken in advance of, or after, a disaster aimed at decreasing or eliminating the impact on communities, the economy, buildings, roads and transport and the environment. The implementation of appropriate and targeted mitigation initiatives can offer more sustainable cost savings to communities and government in the event of a disaster. They should be subject to rational cost/benefit and social investment decisions, with special considerations for remote, indigenous and other vulnerable communities.

Mitigation activities can include:
- Design improvements to provide more resilient new infrastructure, update or to harden existing infrastructure or services
- Land use planning that recognises the potential hazard-scape
- Prepared communities and response agencies and arrangements in place and exercised
- Resilience activities including partnerships between sectors and the community and
- A clear understanding of hazards, their behaviour and interaction with vulnerable elements[14]

Preparedness

Preparedness includes the taking of preparatory measures to ensure that, if an event occurs, individuals, communities, business and industry, government and non-government organisations are able to cope with the effects of the event. Preparedness builds on existing community of risk and participation in disaster management activities to enhance resilience.

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[14] State Disaster Management Plan

Preparedness activities include:
- Community education and engagement
- Planning and arrangements
- Training and exercises

Any preparedness activity which is hazard-specific is the responsibility of and undertaken by the Functional Lead Agencies in collaboration and coordination with key stakeholders, including local governments. Every agency is responsible for undertaking business continuity planning that considers disruption due to a disaster.

Community engagement

Section 30 of the Act details the functions of the LDMG and includes:

(b) ...Ensure the community is aware of ways of mitigating the adverse effects of an event, and preparing for, responding to and recovering from a disaster.

The National Strategy for Disaster Resilience details a shared responsibility between government and the community in being prepared for disaster events. In line with the national strategy, Council, in partnership with the LDMG deliver community awareness programs that are aimed at empowering individuals and the community to understand their local risks and take pre-emptive action to prepare themselves, their families, homes and businesses in the event of disaster.

This is achieved through:
- Publication of disaster management plans, disaster and emergency management information (including current road conditions) on Councils webpage www.carpentaria.qld.gov.au
- Publications on flooding and emergency procedures by QFES
- Preparation of media releases explaining flooding preparedness and emergency procedures
- Publications prepared by statutory services detailing the measures that should be taken to prevent, minimise and deal with the effects of emergency situations, and
- Ongoing media campaign to encourage the public to "be aware".
- Signage of known risks (where appropriate) to ensure greater community awareness and safety
- Availability of information through Council libraries
- School presentations
- Encouragement to ensure personal insurance policies are current and relevant

There are also opportunities to provide information through the following platforms:
- Council newsletter
- The use of media and digital platforms such as broadcast radio, text messaging (SMS & MMS), community email lists and social media announcements
- Specific disaster management news, information, tools or resources through council service centres, Council rates notice's and other community resources
- Community awareness events such as displays (both static and practical)
- Community organisation meetings
- Community surveys and feedback form

Community awareness activities will be reported on at each meeting of the LDMG and will be included in the LDMG annual report.

Building resilient communities

In a disaster management context, resilience is defined as:
"A system or community's ability to rapidly accommodate and recover from the impacts of hazards, restore essential structures and desired functionality, and adapt to new circumstances"[15].

Elements of resilience

- Risk-informed and appropriately prepared individuals
- The capacity to adapt
- Healthy levels of community connectedness, trust and cooperation

Guiding principles

- Shared responsibility
- Evidence-based decision-making
- An integrated risk-based approach
- Continual learning

Building resilient communities

A resilient community understands the risks of future disasters. It is well prepared financially,   physically, socially and mentally to minimise impacts, recover quickly and emerge stronger than its pre-disaster state.

Resilience is influenced by a community's awareness of its risks but is also dependant on the strength and diversity of the economy, the robustness of the built environment and the condition of the local natural environment. Preparation, planning and well-practised emergency response arrangements, including a strong volunteer base through individuals and volunteer organisations, is central to building resilience[16].

Training

In accordance with Section 16A(c) of the Act, the Chief Executive (Commissioner) of Queensland Fire and Emergency Service (QFES), has a responsibility to ensure that persons performing functions under the Act in relation to disaster operations are appropriately trained.

As a consequence, QFES has developed a Disaster Management Training Framework identifying courses that are to be undertaken by those persons.

Disaster management training is important to ensure that all agencies can seamlessly integrate disaster management arrangements and contribute to an effective and co-ordinated response. Each member agency is responsible for ensuring that staff working in an operational environment have received appropriate training for their roles, in particular those courses identified in the Training Framework.

The LDC is responsible for identifying and supporting attendance at relevant training for LDMG members and the LDCC team.

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[15] Queensland Disaster Management Resilience Strategy
[16] Queensland Disaster Management Resilience Strate

Exercising

Section 30 of the Act requires an LDMG to:

b) ...Develop effective disaster management, and regularly review and assess the disaster management

Section 59 of the Act states:

1) A local government may review, or renew, its local disaster management plan when the local government considers it appropriate

2) However, the local government must review the effectiveness of the Plan at least once a year.

Other than operational activation of the Plan, to achieve this outcome, exercises are a key mechanism to review and assess the effectiveness of the Plan, to maintain or improve readiness for events and to enhance skills.

Prior to participating in disaster management exercises it is preferred that participants have received training as outlined in this Plan. This is so that participants have a basic understanding of the policies and procedures that apply to working in a disaster management environment and that the experience and learning's from the exercise can be maximised.

Exercise objectives

Exercises are a key component of effective disaster management strategies and are conducted with the objective of:

Local Disaster Management/Local Recovery Groups –
- Activation procedures
- Practicing inter-agency coordination procedures during an event

Local Disaster Coordination Centre –
- Evaluating activation and operations of a Local Disaster Coordination Centre
- Information management including dissemination of information in respect to hazards and warnings, requests for assistance and providing situation reports
- Enhancing the interoperability of agency representatives

Planning –
- Evaluating plans
- Identifying planning and resource issues
- Promoting awareness
- Developing competence
- Evaluating risk treatment strategies

Training –
- Validating training already conducted
- Identifying performance gaps and areas for the potential improvement in the skills of agency representatives involved in disaster management
- Evaluating equipment, techniques and processes in general

Exercise types

On an annual basis, one or more of the following exercises should be considered –

- A major discussion-style exercise (Tabletop) should be conducted annually and include all members of the LDMG
- A functional exercise to evaluate the activation and operation of both the primary and secondary LDCC's
- A functional exercise to evaluate communications and Information Management processes including equipment use, information sharing and reporting functions. This could occur in parallel with an LDCC exercise
- A functional exercise to evaluate the activation and operation of an evacuation centre
- An agency-led field exercise (e.g. Transport accident involving Police and emergency services). This could also incorporate the activation and operation of a small-scale LDCC activation

Exercise evaluation

An exercise is to be followed by a debrief process. A 'hot' debrief is to be conducted immediately following the conclusion of the exercise and a 'cold' debrief conducted not longer than a month following the exercise. The cold debrief allows participants time to provide a more considered view of the exercise outcomes.

The learning's from the exercise are to be consolidated into a plan for action and eventually into planning process.

Personal insurance

Through community awareness programs, the Council and the LDMG should encourage all property owners to read their insurance policy disclosure statements or contact their insurer to clarify that they have the appropriate level of insurance cover in the event of disaster.

Please note: NOT ALL insurance companies will provide flood insurance, or insurance cover provided may be subject to conditions.

PART 7 – FUNDING ARRANGEMENTS

There is a range of financial support packages available to local government and the community as a result of a disaster.

- State Disaster Relief Arrangements (SDRA)
- Disaster Recovery Funding Arrangements (DRFA)*

*NOTE: DRFA superseded the Natural Disaster Relief and Recovery Arrangements (NDRRA) on 1 November 2018.

It is not the intention of this plan to detail the relief measures available. Full details and associated policies can be located at https://www.qra.qld.gov.au/

The Department of Human Services administers the DRP. For further information refer to: www.disasterassist.gov.au website for payment information.

Disaster recovery allowance

The Disaster Recovery Allowance (DRA) is a short-term income support payment to assist individuals who can demonstrate their income has been affected as a direct result of a disaster. When available, DRA assists employees, small businesspersons and farmers who experience a loss of income as a direct result of a disaster event. It is payable for a maximum of 13 weeks from the date at which a customer has, or will have, a loss of income as a direct result of a disaster. DRA is taxable.

The Department of Human Services administers the DRA. For further information refer to: www.disasterassist.gov.au website for payment information.

Appendix 1 – Glossary of terms & abbreviations

Abbreviation	Full meaning
Act	Disaster Management Act 2003
AIIMS	Australasian Inter-service Incident Management System
CSC	Carpentaria Shire Council
CEO	Chief Executive Officer
COAG	Council of Australian Governments
Community	A group of people with a commonality of association and generally defined by location, shared experiences, culture or function.
DDC	District Disaster Coordinator
DDMG	District Disaster Management Group
Disaster	A serious disruption in a community, caused by the impact of an event that requires a significant coordinated response by the state government and other entities to help the community to recover from the disruption. "Serious disruption" means: • Loss of human life, or illness or injury to human • Widespread or severe property loss or damage Widespread or severe damage to the environment
Disaster Management	Means arrangements about managing the potential adverse effects of an event including for example, arrangements for mitigating, preventing, preparing for, responding to and recovering from a disaster
Disaster Operations	Activities undertaken before, during or after an event happens to help reduce loss of human life, illness or injury to humans, property loss or damage, or damage to the environment, including, for example, activities to mitigate the adverse effects of an event.
Disaster response capability	The ability to provide equipment and a suitable number of people, using the resources available to the local government, to effectively deal with, or help another entity to deal with an emergency situation or a disaster in the local government's area.
District Disaster Coordinator	A Police Officer appointed by the Commissioner of the Queensland Police Service as a District Disaster Coordinator under Section 25 of the Disaster Management Act 2003.
DRFA	Disaster Recovery Funding Arrangements (Superseded NDRRA)
EA	Emergency alert
Evacuation	The Planned relocation of people from dangerous or potentially dangerous areas to safer areas and eventual return.
Evacuation centre	Group shelter provided for affected people in a community hall or similar. It is part of emergency relief and is different from temporary accommodation.
Emergency management	A range of measures to manage risks to communities and the environment. In relation to this plan the terms disaster management and emergency management are inter-changeable.
EMAF	Emergency Management Assurance Framework

Abbreviation	Full term
Event	An event may be natural or caused by human acts or omissions, including the following: • A cyclone, earthquake, flood, storm, storm tide, tornado, tsunami, volcanic eruption or other natural happening • An explosion or fire, a chemical, fuel or oil spill or a gas leak • An infestation, plague or epidemic • A failure of, or disruption to, an essential service or infrastructure • An attack against the state • Another event similar to (those listed above)
Hazard	A source of potential harm, or a situation with a potential to cause loss.
IGEM	Inspector-general Emergency Management
LDC	Local Disaster Coordinator
Local Disaster Coordinator	The CEO, or another Council Officer appointed under the Disaster Management Act 2003 responsible for coordinating disaster operations for the Local Disaster Management Group.
LDMG	Local Disaster Management Group
Local Disaster Management Group	The group responsible for implementing the requirements of Local Government with respect to development and implementation of disaster management arrangements for the Local Government area.
LDMP	Local Disaster Management Plan
LRC	Local Recovery Coordinator
Local Recovery Coordinator	The CEO, or another Council Officer appointed by the Local Disaster Management Group responsible for coordinating the recovery operations for the Local Recovery Group.
LRG	Local recovery Group
Preparedness	Measures to ensure that, should an emergency occur, communities, resources and services are capable of coping with the effects.
Prevention	Measures to eliminate mitigate or reduce the incidence or severity of emergencies.
QDMA	Queensland Disaster Management Arrangements
QDMC	Queensland Disaster Management Committee
QFES	Queensland Fire and Emergency Service
QRA	Queensland Reconstruction Authority
QPS	Queensland Police Service
Reconstruction	Actions taken to re-establish a community after a period of rehabilitation subsequent to a disaster. Actions would include construction of permanent housing, restoration of all services and complete resumption of the pre- disaster state.

Appendix 2 – Distribution list

Organisation	Copy
Local Disaster Coordinator, Carpentaria Shire LDMG	Master copy
Chairperson, Carpentaria Shire LDMG	1
Carpentaria Shire LDMG core membership	5
District Disaster Coordinator, Mount Isa	1
Emergency Management Coordinator, QFES	1

Appendix 2 – Distribution list

Appendix 3 – Compliance register

The following table represents the legislative requirements for local governments and local disaster management groups under the Disaster Management Act 2003 (the 'Act') in the development of and conduct of its local disaster management arrangements. These attributes are described in detail throughout this plan.

DM Act	Description	Page	Section/Para.
4A	Guiding principles	11	Governance
15	Meaning of disaster operations	42	Meaning of disaster operations
16N	DM standards	11	Statement of compliance
29	Establishment of LDMG	27	Establishment
30	Functions of LDMG	28	Functions of local group
33	Membership requirements	27	Membership of LDMG
34	Appointment of chair and deputy	29	Chairperson and deputy chair
34A	Functions of chairperson	29	Functions of chairperson
35	Appointment of Local disaster	29	Local disaster coordinator
36	Functions of Local disaster	29	Functions of LDC
37	Notice about membership of LDMG	30	Notice about membership of LDMG
38	Conduct of business and meetings	37	Timing and conduct of meetings
44	Reporting by LDMG	35	Reporting
47	Disaster District Coordinator may give directions	34	Complying with directions
48A	Essential service providers	33	Essential service providers
57	Authorisation	9	Authority to plan
58	Requirements of plan	11	Statement of compliance
59	Review and renewal of plan	14	Review and renewal of plan
60	Plan available for inspection	14	Availability of plan for inspection
63	Preparation of guidelines	13	Disaster management guideline
64(1)	Declarations	53	DDC may declare a disaster situation
80	Functions of local government	27	Functions of local group
143(8)	Power of delegation by LDC	30	Power of delegation of LDC

Appendix 4 – Hazardous material sites

Hazardous Sites in Carpentaria Shire Council Area	Locations - Normanton							
Flammable gas cylinders or storage tanks (e.g. Roadhouse, business, hospitals)	Top Servo				Hawkins Transport	Normanton Traders		
Non-flammable, non-toxic gas or liquids (e.g. Hospitals)		Gidgee Healing	Hospital					
Toxic gases or substances (e.g. swimming pools, water treatment plants)								
Flammable liquid such as petrol, aviation fuel, diesel fuel (e.g. Council fuel dumps, Roadhouses, Airstrips)	Top Servo	J & D Murrihy	Café	Council Depot	Aerodrome	Normanton Traders		
Flammable solids etc. (e.g. agriculture)								
Flammable solids; self-reactive and related substances; and desensitized explosives							Casey's Corner	
Substances liable to spontaneous combustion				Council Landfill				
Oxidizing substances, organic peroxides Oxidizing substances (e.g. industry)								DC contracting
Corrosive substances (e.g. Worksites, Council)				Council Depot				
Explosives (e.g. mining sites)								
Pesticides/Herbicides (e.g. Rural agents, farms)								DC Contracting
Asbestos (e.g. older dwellings, buildings)				As per Council Register				
Chemically reactive or acutely (highly) toxic substances								

Hazardous Sites in Carpentaria Shire Council Area — Locations - Karumba

Hazardous Sites																
Flammable gas cylinders or storage tanks (e.g. Roadhouse, business, hospitals)	Carpentaria Fuels	Sunset Van Park	New Century	Point Fuels	Tavern	Seabreeze	Raptis	Ash's	Gulf Engineering	Norman River Boat Works	LWBDC	Karumba Lodge	Pool		Fishing Vessels	Mick's Café
Non-flammable, non-toxic gas or liquids (e.g. Hospitals)		Clinic	New Century				Raptis		Carpentaria Freight Depot							
Toxic gases or substances (e.g. swimming pools, water treatment plants)			New Century	Point Fuels					Carpentaria Freight Depot		Water treatment plant		Pool			
Flammable liquid such as petrol, aviation fuel, diesel fuel (e.g. Council fuel dumps, Roadhouses, Airstrips)	Carpentaria Fuels	Wells Plant Hire	New Century	Point Fuels		Airport	Raptis		Carpentaria Freight	Jones Marine	Council Depot			Wrens		
Flammable solids etc. (e.g. agriculture)																
Flammable solids; self-reactive and related substances; and desensitized explosives			New Century	Point Fuels	Karumba live stock export cattle yard			Spar Supermarket	Carpentaria Freight	Delta Downs cattle yard		Karumba Pharmacy		MSQ	Norman River Boat Works	
Substances liable to spontaneous combustion			New Century	Point Fuels	Karumba Marine services			Spar Supermarket	Carpentaria Freight			Karumba Pharmacy				
Oxidizing substances, organic peroxides Oxidizing substances (e.g. industry)													Pool			
Corrosive substances (e.g. Worksites, Council)	Carpentaria Fuels		New Century	Point Fuels	Karumba Marine Services		Raptis		Carpentaria Freight				Pool			
Explosives (e.g. mining sites)						Wunma								MSQ	All water craft	
Pesticides/Herbicides (e.g. Rural agents, farms)	Council Depot				Karumba Marine services	Sea Breeze		Spar Supermarket								
Asbestos (e.g. older dwellings, buildings)	old buildings															
Chemically reactive or acutely (highly) toxic substances	Carpentaria Fuels		New Century	Point Fuels	Karumba Marine Services	Sea Breeze		Spar Supermarket	Gulf Engineering				Pool	Norman River Boat Works	Fishing Vessels	

Appendix 5 – Risk assessment and treatment registers

The following list of hazards were identified and assessed in the 2008 DRM Risk Management Study for the Shire. A report was published, and a range of risk assessment/treatment registers were compiled. These are available for reference from Council office.

1. TROPICAL CYCLONE – Categories 1 - 2 (Including storm)
2. SEVERE TROPICAL CYCLONE – Categories 3-5
3. COASTAL INUNDATION < 1METRE
4. COASTAL INUNDATION > 1METRE
5. ANIMAL AND PLANT DISEASE
6. BUSHFIRE
7. FLOODING – MINOR TO MODERATE
8. FLOODING – MAJOR+
9. HEATWAVE
10. EARTHQUAKE
11. MASS CASUALTY INCIDENT
12. PANDEMIC

The full contact list is held and updated by Carpentaria Shire Council.

Insert local government header

NOTICE OF PERMANENENT APPOINTMENT OF LDMG CHAIRPERSON TEMPLATE (T.1.031)

Commissioner Queensland Fire and Emergency Services GPO Box 1425 BRISBANE QLD 4001	and	\<Insert Rank and Name\> Chairperson \<Insert Disaster District\> District Disaster Management Group \<Insert Address\>

and email SDCC@qfes.qld.gov.au

I wish to notify of a permanent change to the \<Insert Local Government Area\> Local Disaster Management Group (LDMG) \<Insert Executive Position\> incumbent.

As of the \<Insert Start Date\> the incumbent will be \<Insert Title and Full Name\>.

\<Insert Title and Surname\> has the necessary expertise or experience to perform the functions and   exercise the powers of the position of \<Insert Executive Position\> in accordance with the Disaster Management Act 2003.

\<Insert Title and Surname\> has been informed that personal contact information has been collected   in accordance with the Information Privacy Act 2009 for the purposes of disaster management. The   contact details for \<Insert Title and Surname\> are:

Work Telephone:	
A/H Telephone (optional):	
Mobile:	
Email:	
Work Address:	

Should you require any further information, please contact \<Insert Contact\> on telephone number
\<Insert Contact Details\>

Yours sincerely

\<Insert Title and Name\>
\<Insert Executive Position\> (LDMG Chairperson, LDMG Deputy Chairperson or incumbent LDC)
\<Insert Local Government Area\> Local Disaster Management Group

<Insert Title and Name>
Chairperson
<Insert Local Government Area> Local Disaster Management Group
<Insert Address>

Dear Chairperson

I wish to notify the Local Disaster Management Group (LDMG) of a change to the <Insert Agency or Organisation> appointed LDMG member incumbent.

As of the <Insert Start Date> the incumbent will be <Insert Title and Full Name>.

<Insert Title and Surname> has the necessary expertise and / or experience to perform the functions of a LDMG member in accordance with the Disaster Management Act 2003, on behalf of the <Insert Agency or Organisation>.

<Insert Title and Surname> has been informed that personal contact information has been collected in accordance with the Information Privacy Act 2009 for the purposes of disaster management. The contact details for <Insert Title and Surname> are:

Organisation Position Title:	
Work Telephone:	
Mobile:	
A/H Telephone: (Optional)	
Email:	
Work Address:	

Should you require any further information, please contact <Insert Contact> on telephone number
<Insert Contact Details>.

Yours sincerely

Outgoing LDMG member or
Authorised Organisation Representative

AGENCY NOMINATION OF LDMG MEMBER TEMPLATE (T.1.033)

<Insert Name>
Chairperson
<Insert Local Government Area> LDMG
<Address 1>
<Address 2>
<SUBURB   QLD   POSTCODE>

I wish to nominate <Insert Nominee's Name> who holds the position of <Insert Nominee's Position> to   represent <Insert Agency Name> on the <Insert Local Government Area> Local Disaster   Management Group.

The nominee has the necessary expertise and / or experience to perform the functions of a LDMG   member in accordance with the Disaster Management Act 2003, on behalf of <Insert Agency Name>.

The contact details for the nominee are:

Telephone:	
Mobile:	
Email:	
Postal Address:	

<Insert Nominee's Name> has been informed that personal contact information has been collected in accordance with the Information Privacy Act 2009 for the purposes of disaster management.

Should you require any further information, please contact <Insert Contact Person> on telephone number <Insert Contact Number>.

Yours sincerely

<Sign>
Agency Local Commander/Manager

<Insert Appointee Name and Address>

In accordance with section 33 of the Disaster Management Act 2003 I hereby appoint you as a member of the <Insert Local Government Area> Local Disaster Management Group (LDMG).

I am satisfied that you have the necessary experience or expertise to perform the functions of a   member of a Local Disaster Management Group in accordance with section 30 of the Disaster   Management Act 2003.

As a member your personal contact information is required to be collected in accordance with the Information Privacy Act 2009 for the purposes of disaster management. Please ensure that you   complete the attached 'Member Contact Details Collection Form' and return the signed form to <Insert Name and Address> as soon as possible.

Should you require any further information, please contact <Insert Contact> on telephone number
<Insert Contact Details>

Yours sincerely

<Insert Title and Name>
<Insert Executive Position> (Mayor, CEO or other representative of the local government)
<Insert Local Government>

NOTICE OF APPOINTMENT OF LOCAL DISASTER COORDINATOR LDMG TEMPLATE (T.1.037)

Commissioner   and   <Insert Rank and
Queensland Fire and Emergency   Name> Chairperson
Services GPO Box 1425   <Insert Disaster District> District
BRISBANE   QLD   4001   Disaster Management Group
                                                                             <Insert Address>

and email SDCC@qfes.qld.gov.au

In accordance with section 35 of the Disaster Management Act 2003, I wish to notify that following consultation with the Chief Executive <Insert Title and Name of Appointee>is appointed Local   Disaster Coordinator for the <Insert Local Government Area> Local Disaster Management Group.

<Insert Title and Surname> has the necessary expertise or experience to perform the functions and   exercise the powers of the Local Disaster Coordinator in accordance with section 36 of the Disaster Management Act 2003.

<Insert Title and Surname> has been informed that personal contact information has been collected in accordance with the Information Privacy Act 2009 for the purposes of disaster management. The contact details for <Insert Name> are:

Work Telephone:	
A/H Telephone (optional):	
Mobile:	
Email:	
Work Address:	

Should you require any further information, please contact <Insert Contact> on telephone number
<Insert Contact Details>.

Yours sincerely

<Insert Title and Name>
Chairperson
<Insert Local Government Area> Local Disaster Management Group

NOTICE OF LOCAL GOVERNMENT APPOINTMENT DDMG TEMPLATE (T.1.266)

<Insert Date>

Commissioner Queensland Fire and Emergency Services GPO Box 1425 BRISBANE QLD 4001	and	<Insert Rank and Name> Chairperson <Insert District> District Disaster Management Group <Insert Address>

and email SDCC@qfes.qld.gov.au

As you may be aware, section 24 of the Disaster Management Act 2003 requires a local government or combined local governments to inform the Commissioner, Queensland Fire and Emergency Services and the Chairperson of the District Disaster Management Group (DDMG) of the local government appointment to the DDMG.

The <Insert Local Government> local government/or combined local governments have appointed <Insert Full Name and Designated Position Title> in accordance with the Disaster Management Act 2003, section 24 to the <Insert DDMG> DDMG.

<Insert Name> has been informed that personal contact information has been collected in accordance with the Information Privacy Act 2009 for the purposes of disaster management. The contact details for <Insert Name> are:

Telephone work:	
Telephone home:	
Mobile:	
Email:	
Work address:	

Should you require any further information, please contact <Insert Contact Name> on telephone number <Insert Contact Number>.

Yours sincerely

Chief Executive Officer
<Insert Local Government Details>
Carpentaria Shire LDMP 2022-24   85

Appendix 8 – Lead agency roles & responsibilities

The following table outlines the roles and responsibilities of the various agencies who play a role in the Queensland's disaster management system. Whilst not all of these agencies will be available at a local level, they can be accessed by requesting support through the District Disaster Management Group level.

Due to the ongoing machinery of government changes the source document for the roles and responsibilities of the various agencies is the State Disaster Management Plan located at: https://www.disaster.qld.gov.au/plans

Hazard-specific agency roles

Organisation	Hazard
Department of Agriculture and Fisheries	• Animal and plant disease
Queensland Health	• Chemical, biological and radiological • Heatwave • Pandemic
Queensland Fire and Rescue Service	• Bush fire • Chemical incident
Department of Transport and Main Roads	• Ship-sourced pollution
Queensland Police Service	• Terrorism

LDMG ANNUAL DISASTER MANAGEMENT STATUS REPORT TEMPLATE (T.1.070)

<Insert Local Government Area> Local Disaster Management Group
Annual Disaster Management Status Report
to the
<Insert Disaster District> District Disaster Coordinator
and the
<Insert Disaster District> District Disaster Management Group
<Insert Date & Year of Report>

Contents

Insert Table of Contents

1.   Membership of Local Disaster Management Group (LDMG)

Include updates to the membership of the LDMG and any general comments. Include a list of member contact   details as an annexure.

2.   Meetings of LDMG

LDMG meeting frequency
Include adopted meeting frequency, dates of meetings during previous financial year and any scheduled dates   for next financial year.

3.   Risk Management/Mitigation

Include information regarding the current status of any major projects or studies undertaken or completed.

Mitigation planning
- Insert information regarding disaster mitigation planning, including date of adoption by council (if required) and summary of risks addressed, etc.
- Summarise identified mitigation measures/treatment options and timelines.
- Summarise any identified impediments to the implementation of mitigation measures – funding, resourcing issues, responsibility, etc.

4.   Integration with Business Planning

Summarise how disaster management is being integrated with the overall business of the organisation,   including the incorporation of disaster management issues with other strategic and operational planning   arrangements.

5.   Local Disaster Management Plan

Plan review and assessment
Insert summary of review process and date/s of internal review and/or District assessment.
Amendments
Insert summary of review and/or assessment findings and actions taken or agreed commitments.

6.   Operational Issues

Readiness status
Insert general comment regarding status of operational readiness, staff availability and resourcing levels of the   Disaster Coordination Centre and the impacts on operations (if any).
Operations conducted
Briefly summarise any operational involvement
Remedial action
Outline any proposed actions/improvements resulting from operational activity

7.   Training and Development

Training conducted
Insert brief details of any training undertaken or conducted
Identified training needs
Insert brief details of any training that has been identified as being required, including suggested dates.

8.   Exercises

Exercises conducted
Insert brief details of any exercises conducted
Remedial action
Outline any major proposed actions/improvements resulting from lessons learned
Proposed exercises
Insert details of any exercises that are proposed or currently under development, including suggested dates, etc.

9.   Community Awareness and Education

Public awareness activities conducted
Insert details of any public awareness/education activities conducted.
Proposed public awareness activities
Insert details of any public awareness/education activities that are proposed or currently under development,   including suggested dates, etc.

10.   Signoff and Approval

Status report completed

by: Signoff by Chair:

Date:

Description of hazard

All tropical cyclones on or near the coast are capable of producing a storm surge, which can increase coastal water levels for periods of several hours and simultaneously affect over 100 km of coastline (Jelesnianski, 1965; Sobey and others, 1977; Harper, 1999b). When the storm surge is combined with the daily tidal variation, the absolute combined water level reached is called the storm tide. An individual storm surge is measured relative to the mean sea level (MSL) at the time, while storm tide is given as an absolute level such as its height above the Australian Height Datum (AHD). Only the storm tide level can thus be referenced to a specific ground contour value.

Evacuation of low-lying areas prior to storm landfall will be required in some circumstances to help prevent loss of life through drowning. The storm tide will also be capable of causing significant destruction of near-shore buildings and facilities if large ocean swells penetrate the foreshore regions.

Firstly, the storm surge is generated by the combined action of the severe surface winds circulating around the storm centre generating ocean currents, and the decreased atmospheric pressure causing a local rise in sea level (the so-called inverted barometer effect). The strong currents impinging against the coast are normally responsible for the greater proportion of the surge. As shown in Figure 4.5, the surge adds to the expected tide level at the time the storm makes landfall. Also accompanying the surge are the extreme wind-generated ocean waves - a combination of 'swell' and local 'sea' driven before the strong winds. These waves increase in height (shoal) as they approach the shore and as part of the process of wave breaking, a portion of their energy can be transferred to a localised increase in the still-water level. This effect is termed wave setup and, although generally much smaller than the surge, can add 0.5 m or more to the surge level at exposed locations. Additionally, waves will run up sloping beaches to finally expend their forward energy and, when combined with elevated sea levels, this allows them to attack foredunes or near- shore structures to cause considerable erosion and/or destruction of property.

The potential magnitude of the surge is affected by many factors; principally the intensity of the tropical cyclone, its size and its forward speed. As the cyclone approaches the coast, the local shape of the coastline and the slope of the undersea bathymetry are particularly significant contributors to the resulting surge height. When the resulting storm tide exceeds the normal range of the daily tide the local beach topography will dictate whether significant coastal inundation will occur.

Impacts and effects

Without accurate data on the susceptibility of Karumba to storm surge it is not possible to estimate the damage accurately. The result of a storm surge would most likely be major flash flooding of Karumba with significant wave run up. The other populated areas of the shire are not affected as they are located away from the coast. Due to the lack of current data there is no option but to conduct a complete evacuation of Karumba.