Local Disaster Management Plan 2023

Reviewed July 2024







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Acknowledgement of Country

Bundaberg Regional Council acknowledges the Traditional Country of the Taribelang Bunda, Gooreng Gooreng, Gurang, and Bailai Peoples and recognises that this Country has always been and continues to be of cultural, spiritual, social and economic significance to Aboriginal and Torres Strait Islander People. We recognise the thousands of generations of continuous culture that have shaped this Country and the people on it. We pay respects to Elders, past and present.

Acknowledgements

Bundaberg Regional Council wishes to thank all personnel, volunteers and stakeholders for continuing to provide ongoing local disaster management assistance to the community, including the development of this document.

In addition to Council, various organisations and stakeholders were afforded the opportunity to provide feedback, suggest alterations or identify omissions in relation to the development and/or the maintenance of this document. Their involvement and expertise are acknowledged and greatly appreciated.

Disclaimer

Bundaberg Regional Council has produced this document based on accurate information at the time of issue. Some information supplied from Council's records may have been furnished to the Council by other organisations. Persons making decisions with financial or legal implications must not rely upon the details shown in this plan for the purpose of determining whether any particular facts or circumstances exist. Bundaberg Regional Council (and its officers and agents) expressly disclaims responsibility for any loss or damage suffered as a result of placing reliance upon this information.

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Table of Contents

Acknowledgement of Country	
Acknowledgements	
Disclaimer	
Application of the Act	9
Document Control	9
Amendments and version control	
Amendment Register	
Review and Renewal of Plan	
Distribution	
Plan availability for inspection	
Authority to Plan	
Approval of Plan	
PART 1 – ADMINISTRATION & GOVERNANCE	
Purpose	
Key objectives	
Scope and planning priorities	
Planning hierarchy	
Sub-Plans	
Annexures	
Other related documents	
Local and District Disaster Management Groups	
Inspector-General Emergency Management (IGEM)	
PART 2 - GOVERNANCE	13
Authorising environment	
Queensland's Disaster Management Arrangements	
Legislation	
Principles of Planning	
Risk-based planning	
Queensland's disaster management structure	
PART 3 – LOCAL CAPACITY & CAPABILITY	
Introduction	
Functions of Local Government	
Responsibilities of Local Government	
Local Disaster Management Group (LDMG)	
Functions of LDMG	
LDMG priorities	
Reporting requirements	
Appointments	
Functions of Chairperson	
Functions of LDMG Deputy Chairperson	
Functions of LDC	

Functions of Deputy LDC	
Functions of Secretariat	
Conduct of business and meetings	
Meeting frequency and locations	
Quorum	
LDMG Sub-Groups	
District Disaster Management Group (DDMG)	
Queensland Disaster Management Committee	
Australian Government Level	
Roles and responsibilities	
Hazard Specific agencies	27
PART 4 – COMMUNITY CHARACTERISTICS	
Geography	
Climate & weather	
Population	
People Characteristics	
Community vulnerabilities	
Potentially vulnerable populations	
Economic and Industry	
Tourism and events	
Critical infrastructure	
Introduction Transport network	
Council Assets	
Administration Buildings	
Council Operations depots	
Waste Facilities	
Water supply	
Wastewater	
Communication	
Essential services	
Emergency services	
Medical and health facilities	
Education	
Gas supply	
Electricity supply	
Telecommunications and internet	
Television and radio	
Hazardous sites	
PART 5 - HAZARDS & RISK ASSESSMENT	
Hazard risk assessment	
Biological and human-caused hazards	
Residual Risk	
Events that may require assistance from outside the region	

PART 6 – PREVENTION	49
Mitigation strategies	49
Land Use Management/Planning	50
Building codes, regulations and standards	
Bundaberg Flood Protection Study	50
Hazard reduction programs	50
Climate change adaptation	51
Insurance cover	51
PART 5 - PREPAREDNESS	52
Introduction	52
Resilience	52
Responsibility	52
Training programs	53
Exercising of plan	53
Pre-season briefings	54
Community Information	54
Understanding your local risk	
Disaster Dashboard	54
Interactive Flood Mapping	54
Bushfire - Postcode Checker	55
PART 7 – RESPONSE	56
Introduction	56
Response priorities	56
Response principles	56
Responsible Lead Agencies	56
Levels of activation	56
Local Disaster Management Group Activation Triggers and Actions	57
Local Disaster Coordination Centre (LDCC)	
Structure	58
Location	58
Requests for Assistance	58
Declarations	59
Public information and warnings	59
Warning authorities	
Community warnings and dissemination	60
Emergency Alert	60
Standard Emergency Warning Signal	61
Evacuation strategies	61
Evacuation centres	
Animal Management	
Neighbourhood Safer Places	63
Information management systems	64
Information Privacy	64

Incident Management System	
Situation reports	
Operational information and reporting	
Financial management	65
Logistics capability	65
Resupply	65
Fatigue management	65
Impact assessments	66
Lessons Management	66
Hot debrief	66
Post event debrief	
Post operational report	
Volunteer management	67
Donations/GIVIT	67
Council to Council arrangements	67
PART 8 - RECOVERY	68
Introduction	68
Rationale	68
Principles of recovery	68
Stages of recovery	68
Functional Recovery Groups	69
Local Recovery Coordinator	69
Bundaberg Recovery Plan	69
Financial Arrangements	69
PART 10 – APPENDICES	70
Appendix A - Abbreviations/Definitions used in Disaster Management	70
Appendix B – Website Links (Documents)	71
Appendix C - Website links (Organisations)	73

Application of the Act

The Bundaberg Local Disaster Management Plan (LDMP) has been developed in accordance with the requirements of the <u>Disaster Management Act 2003</u> (the Act) and <u>Disaster Management Regulation</u> <u>2014</u> (the Regulation).

Document Control

Amendments and version control

The Bundaberg LDMP is a controlled document. The controller of the document is the Local Disaster Coordinator (LDC).

Any proposed amendments to this plan are to be forwarded in writing to:

Post: Disaster Management Unit PO Box 3130, Bundaberg QLD 4670

Email: disaster@bundaberg.qld.gov.au

The LDC may approve minor amendments to this document. Any significant alterations that change the intent of the plan must be submitted to the Local Disaster Management Group (LDMG) for endorsement and be approved by Council.

Amendment Register

Version	Date	Prepared by	Comments
1	12 September 2008	John Clerke	
2	October 2011	Mal Churchill	
3	June 2012	Matt Dyer	
4	June 2013	Matt Dyer	Plan reviewed by DDMG (1 July 2013)
5	July 2014	Matt Dyer	Plan reviewed by DDMG (23 July 2014)
6	28 July 2016	Matt Dyer	Updated following Local Government elections March 2016
7	20 January 2018	Matt Dyer	Update contacts (positions); Enhanced and simplified language; Improved congruence of existing plan with relevant Guidelines
8	24 April 2023	David Batt	Review and re-write entire document to reflect current best practice.
9	8 October 20024	David Batt	Plan reviewed and updated to reflect changes to LDMG positions as a result of Local Government elections held in March 2024 and changes resulting from the transition of SES and Emergency Services from QFES to QPS.

Review and Renewal of Plan

In accordance with the requirements of Section 59 of the Act, Council may review this plan when it considers it appropriate. However, the effectiveness of the plan must be reviewed at least annually. All plans may be reviewed outside of this cycle should it become apparent that urgent amendments are required for the effectiveness of the LDMG activities. The plan and associated Sub-Plans will be reviewed following any activation of the plans or following any exercises to test the effectiveness of the plans.

This plan will be subject to the external annual assessment process developed by the Office of the Inspector-General Emergency Management (IGEM) in accordance with the Section 16C(b) of the Act.

Distribution

Distribution of the plan is in compliance with Section 60 of the Act which requires the LDMP to be available for inspection, free of charge, to members of the public. The controlled master copy of this plan is held by Bundaberg Regional Council. Copies of the plan, including confidential annexures and supporting documents will be distributed to members of the Bundaberg LDMG and key stakeholders as identified by the LDC.

Plan availability for inspection

In accordance with the provisions of Section 60 of the Act, this Plan is made available for inspection, free of charge, by members of the public.

The plan is available:

- online at https://www.bundaberg.qld.gov.au/downloads/download/141/bundaberg-local-disaster-management-plan
- for viewing at Council's customer service centre at:
 - o 190 Bourbong Street, Bundaberg Qld 4670
 - o 45 Churchill Street, Childers Qld 4670
 - o 4 Dear Street, Gin Gin Qld 4671

Authority to Plan

The Bundaberg LDMP has been developed by the Bundaberg Local Disaster Management Group (LDMG) and key stakeholders, on behalf of Bundaberg Regional Council pursuant to Sections 57 and 58 of the *Disaster Management Act 2003.*

Approval of Plan

Bundaberg Regional Council approves this plan in accordance with Section 80(1)(b) of the Act. Approval was given to this plan under Item 12.1 of Ordinary Meeting held by the Bundaberg Regional Council on 24 April 2023.

The LDMP was endorsed by the Bundaberg Local Disaster Management Group at a meeting held 14 March 2023. LDMP was reviewed in July 2024 and endorsed by the Bundaberg Local Disaster Management Group at a meeting held 8 October 2024.

PART 1 – ADMINISTRATION & GOVERNANCE

The *Disaster Management Act 2003* requires that a Local Government must prepare a plan for Disaster Management in the Local Government's area.

This LDMP is consistent with the Queensland Disaster Management Arrangements (QDMA), the Emergency Management Assurance Framework, the Queensland Government Strategic Policy Framework and adherence to the PPRR (Prevention, Preparedness, Response, Recovery) principles. This plan also distinctly endorses and sponsors strong viable working relationships with the District and State Disaster Management Groups and all sectors within the LDMG where collaboration, cooperation and communication are paramount.

Purpose

As legislated in Section 57 of the Act, the purpose of the LDMP is to:

- a) embed the State group's strategic policy framework for disaster management for the State, and detail Council's policies for disaster management.
- b) define the roles and responsibilities of entities involved in disaster management.
- c) detail arrangements for the coordination of disaster operations and activities relating to disaster management performed by the entities involved in disaster management.
- d) identify the events that are likely to happen in the area.
- e) identify the strategies and priorities for disaster management for the area.

This plan has not been developed for the management of commonly occurring incidents which are within the capacity of the individual hazard specific primary agencies or major incidents which are within the capacity of the nominated lead agency with a threat specific role.

Key objectives

In accordance with Section 3 of the Act, the main objectives of this LDMP are to help communities:

- 1. Mitigate the potential adverse effects of an event through the implementation of preventative strategies;
- 2. Prepare for managing the effects of an event; and
- 3. Effectively respond to and recover from a disaster event in a timely manner.

Scope and planning priorities

This plan applies to the Bundaberg Local Government Area (LGA).

The primary direct threats to the region have been identified as a mixture of naturally occurring severe weather events (eg flood, heatwave, severe storms, East Coast low weather systems and associated hazards including coastal inundation) and bushfires.

There are also risks of man-made disasters, such as hazardous material accidents, animal diseases or major transport accidents that may be out of the scope of the usual lead agencies to manage.

In addition, the emergence of new hazards such as pandemics requires a specific type of planning.

The failure of critical infrastructure such as electricity supply, communications or water and sewerage assets have been factored into our disaster management planning but responses and advice to the LDMG and the community will be led by the asset owners, with the LDMG operating in a supporting capacity where directed or requested. This type of planning is called an "All Hazards" planning approach.

Planning hierarchy

The LDMP is an overarching document that details the structure, management arrangements and governance provisions which underpin the process of disaster management in the Bundaberg Region. It provides an overview of the arrangements in place for dealing with disasters and sets out the role of the LDMG and the community from the initial notification through the various stages of response and recovery until the disaster event is finalised. The LDMP is designed to be flexible so it can be adapted to any disaster event affecting the region to ensure an integrated, coordinated and timely response.

The LDMP is complemented by a number of Sub-Plans providing detailed information for the activation and operation of key capabilities. Sub-Plans are designed to integrate seamlessly with the LDMP but can be used on a stand-alone basis as required. Below is a list of Sub-Plans and annexures which support the LDMP.

Sub-Plans

- Public Information & Warnings
- Evacuation
- Childers & Gin Gin Sub-Groups
- Recovery

<u>Annexures</u>

- Contact List
- Local Disaster Coordination Centre Standard Operating Procedure

Other related documents

- Bundaberg Regional Council Local Disaster Management Plan Natural Hazard Risk Assessment Report
- District Disaster Management Plan
- Bundaberg Regional Council Corporate Plan 2021-2026
- Bundaberg Regional Council Risk Management Policy
- Bundaberg Regional Council Planning Scheme 2015

Local and District Disaster Management Groups

The Bundaberg LDMG operates within the Bundaberg Regional Council boundaries. The Bundaberg Regional Council area is bounded by the Gladstone Regional Council area in the north, the Coral Sea in the east, the Fraser Coast Regional Council area in the south-east, and the North Burnett Regional Council in the south-west and west.

Bundaberg Regional Council and North Burnett Regional Council are the Local Government entities within the Bundaberg Disaster District.

Inspector-General Emergency Management (IGEM)

The Inspector-General Emergency Management (IGEM) was first established in 2013 following a review of police and community safety. The IGEM role was formalised as a statutory position in 2014. The Emergency Management Assurance Framework (EMAF) was developed to direct, guide and focus works of all agencies, across all tiers of Government to the desired outcomes of the disaster and emergency management arrangements for Queensland. The framework establishes the Standard for Disaster Management in Queensland and is founded on shared responsibilities, good practice guidance and clear accountabilities.

This plan aligns with the principles, standards and assurance activities found in the EMAF

PART 2 - GOVERNANCE

Authorising environment

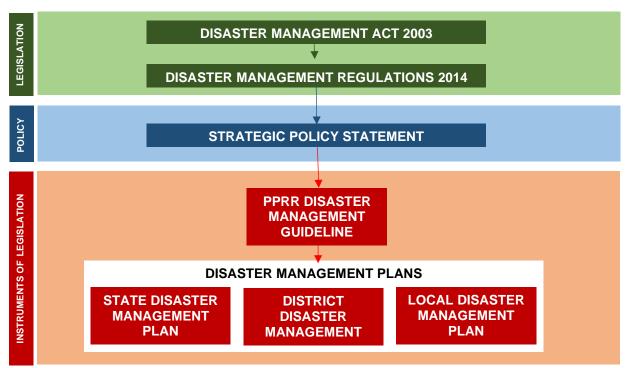


Figure 1 – Authorising Environment

Queensland's Disaster Management Arrangements

Legislation

The *Disaster Management Act 2003* and *Disaster Management Regulation 2014* form the legislative basis for undertaking disaster management within all levels of government in Queensland and Queensland's disaster management arrangements.

Principles of Planning

Section 4A of the Act specifies that disaster management should be planned across the following four (4) phases, namely –

PREVENTION	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.
PREPAREDNESS	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.
RESPONSE	The taking of appropriate measures to respond to an event, including action taken and measures planning 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.
RECOVERY	The taking of appropriate measures to recover from an event, including action taken to support disaster-affected communities in the reconstruction

The four phases of PPRR are not linear, nor are they independent of others. They overlap and support each other as shown in the following figure:

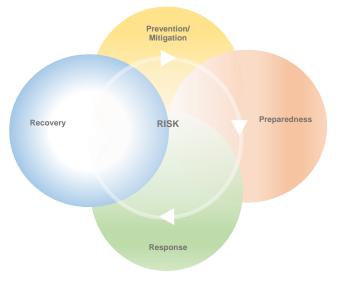


Figure 2 – Four Phases of PPRR

Risk-based planning

In Queensland, risk-based planning occurs through the completion of the Queensland Emergency Risk Management Framework (QERMF) risk assessment process. The QERMF will eventually replace the existing Natural Hazard Risk Assessment Report that was completed for Bundaberg Regional Council in 2012. The existing study contains an overview of the methodology used to identify and evaluate the source and possible consequences of risk, and the likelihood that those consequences will occur. Risk management has also been undertaken to comply with the Risk Management Standard AS/NZS ISO 31000:2018.

In addition, the LDMP is also informed by the following key documents:

<u>Queensland Disaster Management Strategic Policy Statement</u> - the Queensland Government's strategic approach to keeping people safe and making communities more resilient to disaster risks and impacts.

<u>Emergency Management Assurance Framework</u> - developed to deliver on the responsibilities and functions of the Office of the Inspector-General Emergency Management (IGEM) set out in the Act. It promotes an end-to-end approach to the continuous improvement of disaster management and enables a statement of confidence in Queensland's disaster management arrangements.

<u>Standard for Disaster Management</u> in Queensland focusses on outcomes. These outcomes provide the parameters within which disaster management in Queensland should be conducted. It also provides a mechanism to assess performance. The Standard is made up of Shared Responsibilities, Outcomes, Indicators, and the Accountabilities.

<u>Queensland Prevention, Preparedness, Response and Recovery Disaster Management Guideline</u> (PPRR) serves as the 'Guideline about Disaster Management Plans' as set out in Section 63 of the Act and informs the State Group, District Groups and Local Governments about matters relating to:

- The preparation of Disaster Management Plans;
- The matters to be included in Disaster Management Plans; and
- Other matters about the operation of a District group or Local Group the Chief Executive considers appropriate having regard to Disaster Management for the State.

Queensland's disaster management structure

Queensland's disaster management arrangements are based on a four-tiered approach of providing progressive support and assistance as shown in the following figure. These arrangements comprise several key management and coordination structures for achieving effective disaster management in Queensland.

The fundamental principle of the system is that Local Government has the primary responsibility to establish a LDMG for the Bundaberg Region. Further, it is the responsibility of the Bundaberg Regional Council, through the LDMG, to deal with disasters within the local area.

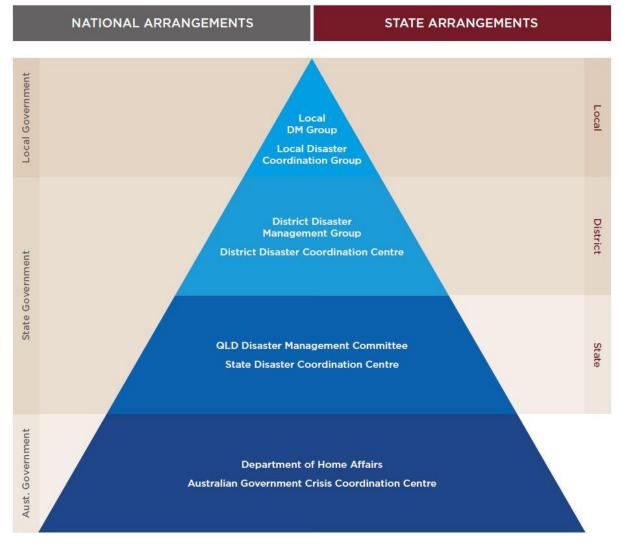


Figure 3 – Queensland's Disaster Management Structure

PART 3 – LOCAL CAPACITY & CAPABILITY

Introduction

As per the requirements of Section 4A(d) of the Act, Local Governments are primarily responsible for managing events in their Local Government area. The State Disaster Management Plan (SDMP) articulates the roles and responsibilities of Local Government including the need to ensure all requisite local disaster management planning and preparedness measures are undertaken. Local disaster management capability is achieved through the LDMG and Council's Disaster Management planning and ensures that Council has a coordinated and planned response to disasters.

Functions of Local Government

The functions of the 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 (DDC) for the Disaster District in which its LGA is situated.
- d) to perform other functions given to Local Government under the Act.

Disaster response capability for a Local Government means the ability to take appropriate measures to respond to an event. These activities include the taking of actions and implementation of measures 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.

Responsibilities of Local Government

In addition to the functions of Local Government, Section 29 of the Act specifies that Local Government must establish a LDMG for the LGA. This LDMG must fulfil a range of functions as detailed in the Act to ensure alignment with State Disaster Management policy. It has responsibility to maintain effective oversight of all areas of disaster management arrangements and plans; to perform functions that support the provision of advice, information, coordination; and provide reports and recommendations to partner agencies, District groups, community and any other stakeholder that supports effective actions across all phases of disaster.

Responsibilities of Local Government are detailed in Sections 29-30, 33-35, 37, 57, and 59-60 of the Act. Further guidance on the required membership of the LDMG that Local Government is responsible for coordinating are provided in Sections 9 and 10 of the *Disaster Management Regulation 2014.*

Local Disaster Management Group (LDMG)

Functions of LDMG

Section 30 of the Act prescribes the following functions of the LDMG:

- 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 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; and
- I) to perform a function incidental to a function mentioned in paragraphs (a) to (k).

LDMG priorities

- a) Improve community (including business) disaster planning/mitigation and preparation.
- b) Develop and maintain a LDMG membership who are appropriately qualified and trained, and able to contribute to meeting the functions of the LDMG.
- c) Ensure consistent and effective management and coordination of disaster operations in accordance with established protocols.
- d) Integrate effective disaster risk reduction initiatives into Council's strategic and corporate plans, community organisations, industry and commerce.
- e) Review and implement local subcommittees to carry out identified functions.
- f) Develop and maintain effective local community communications strategies.
- g) Develop, monitor, evaluate and revise local plans to ensure effective disaster management for the region 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.

Reporting requirements

LDMG members are expected to report their agency's disaster management activities at the group's meetings. This report will be circulated with the minutes of the group's meeting.

Membership

LDMG members are appointed in accordance with Section 33 of the Act and Section 9 of the Regulation. Representatives are appointed by position and are deemed to have the necessary expertise or experience and delegation authority to support all aspects of disaster management and agreed arrangements. Members of the LDMG are to identify a deputy who can attend meetings or take on the duties of the member in their absence or unavailability. A person who is a deputy member should also have the necessary expertise and experience to fulfil the role of the relevant member of the LDMG if required.

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 have the necessary expertise or experience 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 region.

Membership of the Local Group will be reviewed annually.

In addition to its members, the LDMG may seek the assistance of individuals or organisations as circumstances require. These persons sit as advisors to the group. They will receive copies of the

agendas and minutes and can attend and participate in meetings and discussions as required. They do not have voting rights on decisions.

Group Membership

Current Bundaberg LDMG membership includes the following appointed positions and agency members:

- Bundaberg Regional Council
- Energy Queensland
- Queensland Ambulance Service (QAS)
- Queensland Fire Department (QFD)
- Queensland Health
- Queensland Police Service (QPS)
- Queensland Reconstruction Authority (QRA)
- State Emergency Service (SES)
- Sunwater
- Telstra

Additional members may be appointed to the group to assist the LDMG to undertake its functions as outlined in the Terms of Reference.

Advisory members group

At present, Bundaberg LDMG has the following agencies nominated as Advisors:

- APA Group
- Australian Red Cross
- Bundaberg Tourism
- Department of Agriculture and Fisheries
- Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts
- Department of Housing, Local Government, Planning and Public Works
- Department of Environment, Science and Innovation
- Department of Transport and Main Roads

- Gladstone Ports Corporation
- Maritime Safety Queensland
- NBN Local
- QIT Plus (Guardian IMS)
- Queensland Rail
- Regional Housing Ltd
- Surf Lifesaving Queensland
- Volunteer Marine Rescue Bundaberg
- WICEN (Wireless Institute Civil Emergency Network)

The LDMG Chairperson is authorised to invite individuals or organisations as Advisors and/or Observers, to assist the LDMG as required.

Appointments

Membership of the LDMG includes the following appointed positions.

Chairperson	In accordance with Section 34 of the Act and Sections 10 and 16 of the Regulation, a Councillor is appointed by Council as the Chairperson of the LDMG.
Deputy Chairperson	In accordance with Section 34 of the Act and Sections 10 and 16 of the Regulation, a Councillor is appointed by Council as the Deputy Chairperson of the LDMG.
Local Disaster Coordinator (LDC)	In accordance with Section 35 of the Act, the Chairperson of the Bundaberg LDMG appoints a LDC (a Council employee) for the Group.
Secretariat	Staff in Bundaberg Regional Council's Disaster Management Unit provide Secretariat support to Bundaberg LDMG.

Functions of Chairperson

In accordance with Section 34A of the Act, the LDMG Chairperson has the following functions:

- a) to manage and coordinate the business of the group;
- b) to ensure, as far as practicable, that the group performs its functions;
- c) to report regularly to the relevant District group, and the Police Commissioner, about the performance by the local group of its functions; and

In addition, the LDMG Chairperson, chairs LDMG meetings and provides the primary link between the LDMG and Council.

Functions of LDMG Deputy Chairperson

The LDMG Deputy Chairperson assists the Chairperson discharge their responsibilities.

Functions of LDC

In accordance with Section 36 of the Act, the LDC has the following functions:

- a) to coordinate disaster operations for the local group;
- b) to report regularly to the local group about disaster operations;
- c) to ensure, as far as practicable, that any strategic decisions of the local group about disaster operations are implemented;

In addition, the LDC:

- Provides advice and support to the Chairperson and local group; and
- Activates the Plan and Local Disaster Coordination Centre (LDCC) when required.

Power of delegation of the LDC

Section 143(8) of the Act notes that the LDC may delegate the coordinator's functions under Section 36 to an appropriately qualified person. For Bundaberg Regional Council, functions have been delegated to the Disaster Management Officer (DMO).

Functions of Deputy LDC

In the absence of the appointed LDC, the Deputy LDC would undertake the responsibilities of the LDC as above.

Functions of Secretariat

The LDC will provide a nominated Council Officer to act as the secretariat for the LDMG. The secretariat will provide day-to-day support to the group and administer the business and governance to the LDMG including:

- Managing legislative requirements relating to administration and meetings.
- Managing the LDMG meeting cycle and associated responsibilities including monitoring action items and resolutions.
- Maintaining member contact details in accordance with information privacy principles.
- Managing information, record keeping, decision making and administrative requirements.
- Monitoring member inductions and training records.

The secretariat function is provided to the LDMG through Council's Disaster Management Unit (DMU).

Conduct of business and meetings

The LDMG must conduct the groups business and meetings, in a way it considers appropriate as prescribed in Section 38(1) of the Act and Sections 12-14, 16-18 of the Regulation.

Meeting frequency and locations

The LDMG will meet at least two times per year or as required due to disaster events. Days and times for meetings will be established by the LDMG Secretariat following the preceding LDMG meeting based on availability of LDMG Executive and key members/proxies. Minutes will be taken by the LDMG secretariat; agenda and previous minutes provided to LDMG members prior to LDMG Meetings.

<u>Quorum</u>

In accordance with Section 13 of the Regulation, a quorum for a meeting of a disaster management group is equal to one-half of its members plus 1 or if one-half of its members is not a whole number, the next highest whole number. For the purpose of subcommittee meetings, a quorum will be maintained as above.

LDMG Sub-Groups

In early 2010, the LDMG established Local Disaster Management Sub-Groups within the towns of Childers and Gin Gin to ensure that disaster management and disaster operations in these areas were consistent, effective and in the best interests of the community, to be enacted if communities are isolated during an event.

A separate Sub-Plan has been prepared for the operation of these Sub-Groups.

District Disaster Management Group (DDMG)

Established under Section 22 of The Act, District Groups comprise representatives from regionally based and Queensland government agencies who can, if requested by the LDMG, provide a whole-of-government planning and coordination capability for disaster management. The District Groups perform a 'middle management' function within the Disaster Management Arrangements by coordinating the provision of functional agency resources when requested by Local Groups on behalf of Local Governments.

The District Groups carry out several functions relating to Disaster Management (Section 23 of the Act). The primary functions are to:

- Ensure the disaster management and disaster operations in the Disaster District are consistent with the Queensland Disaster Management Committee's (QDMC's) strategic policy statement for disaster management for the State;
- Develop effective disaster management for the District, including a District Disaster Management Plan (DDMP) and to regularly review and assess disaster management;
- Provide reports and make recommendations to the QDMC about matters relating to disaster management and disaster operations in the District;
- Regularly review and assess
 - the disaster management of Local Groups in the District;
 - LDMP's prepared by Local Governments whose areas are in the District;
- Ensure that any relevant decisions and policies made by the QDMC are incorporated in its disaster management, and the disaster management of local groups in the district;
- 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.
- Coordinate the provision of State resources and services provide to support local groups in the District and make plans for the allocation, coordination of the use of these resources;
- Establish and review communications systems in the group, and with and between Local Groups in the District, for use when a disaster happens;
- Ensure information about an event or a disaster in the District is promptly given to the QDMC and each Local Group in the District.

When activated, the District Disaster Coordination Centre (DDCC) will assist with the provision of Statelevel support to the LDMG. The DDCC coordinates the collection and prompt dissemination of information to and from LDCC and State Disaster Coordination Centre (SDCC) about disaster events occurring within the Bundaberg District. The DDCC will implement decisions of the DDC and DDMG and coordinate State and Australian government resources in support of the LDMG and disasteraffected communities within the region.

When activated, the DDCC will co-locate with the LDCC.

Queensland Disaster Management Committee

The Queensland Disaster Management Committee (QDMC) is established under Section 17 of the Act and is the peak disaster management policy and decision-making body in Queensland, directly responsible for outcomes to the Premier. Under Section 18 of the Act, the main functions of the State Group are to:

- Provide strategic leadership for disaster management and disaster operations for the State;
- Develop a strategic policy statement for disaster management for the State;
- Ensure effective disaster management is developed and implemented for the State;
- Ensure arrangements between the State and the Australian Government on matters relating to

effective disaster management are established and maintained;

- Identify resources within and outside the State that may be used for disaster operations;
- Provide reports and make recommendations that the QDMC considers appropriate about matters relating to disaster management and disaster operations; and
- Prepare a State Disaster Management Plan (SDMP).
- Coordinate State and Commonwealth assistance for disaster management and disaster operations.

Queensland State Government Level

Changes to the State level within Queensland's Disaster Management Arrangements were made as a result of the Inspector-General of Emergency Management's 2023 Review of Queensland's Disaster Management Arrangements (QDMA).

Changes were made to the role of the Queensland Disaster Management Committee (QDMC) to activate when the State starts to posture toward an event, and it is determined that the strategic leadership of the QDMC needs to be engaged.

Whenever the QDMC is not convened, the State Disaster Management Group (SDMG) meets regularly to deliver business-as-usual functions previously undertaken by the QDMC.

Sitting under the QDMC and SDMG are the State Disaster Coordination Group (SDCG) chaired by QPS and including the State Disaster Coordinator (SDC), and the newly formed State Recovery and Resilience Group (SRRG) chaired by QRA and including the State Recovery Policy & Planning Coordinator (SRPPC). This change separates the functions of response (SDCG) and recovery and resilience (SRRG).

Structure of the State Level within the Queensland Disaster Management Arrangements can be found as Figure 4 below.

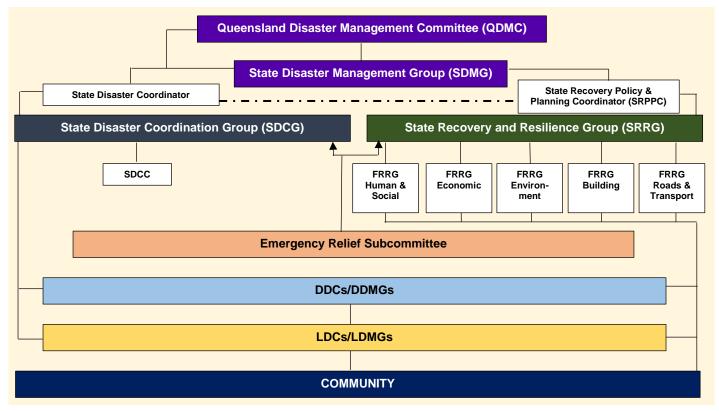


Figure 4 – State Level within Queensland Disaster Management Arrangements

Australian Government Level

At an Australian Government level, the Department of Home Affairs is the responsible agency for coordinating assistance to States and Territories, if requested. Further information on disaster management arrangements at the Australian Government level is available in the <u>SDMP</u>.

Roles and responsibilities

Agency	Specific roles and responsibilities
	 Provide secretariat support and coordinate the LDMG.
	 Ensure disaster response capability and assist the community to prepare for, respond to and recover from an event or disaster.
BUNDABERG	 Provision of a Local Disaster Coordination Centre (LDCC).
Bundaberg Regional Council	Approve the LDMP.
LDMG Member and Secretariat	 Ensure information about an event or disaster in the region is promptly provided to the DDC.
bundaberg.qld.gov.au	 Ensure business continuity of Council services during and after an event including but not limited to: Maintain local roads and bridges including debris clearance. Maintain refuse disposal and waste management. Maintain rainfall and flooding telemetry and warning systems. Provide Council resources necessary to meet legislative and statutory obligations.
	 Manage damage assessment on behalf of the LDMG.
	 Provide and manage resources to support evacuation centres.
	 Support SES in partnership with QPS. Assist the community to prepare for, respond to and recover from an event or disaster.
	 Issue of public information or warnings about disaster situations in accordance with LDMP.
	Development and maintenance of prevention and mitigation strategies.Action reasonable requests during disaster operations, as required.
apa	 Provide advice and assistance to the Bundaberg LDMG, in relation to gas supply. Monitor gas transmission and distribution networks. Provide natural gas safety advice for consumers.
APA Group	 Maintenance and/or restoration of natural gas supply.
LDMG Advisor	 Action reasonable requests during disaster operations, as required.
apa.com.au	
Australian	 Support the management and operations of evacuation centres upon request from Council.
Red Cross	 Provide psychosocial supports and psychological first aid in evacuation centres, recovery hubs, and through outreach.
Australian Red Cross	• Operate the <u>Register.Find.Reunite</u> Service under the auspices of the QPS.
redcross.org.au	 Provide advice to the Bundaberg LDMG and action reasonable requests during disaster operations, as required.
	 Oversee crisis management preparation, response and recovery activities for the region's tourism industry.
N	 Act as a conduit between the LDMG and the tourism industry.
Bundaberg	 Implement crisis management planning prior to an event and practice relevant plans.
Southern Great Barrier Reef	 Lead a tourism crisis response process after a warning is issued by the relevant emergency services.
Bundaberg Tourism LDMG Advisor bundabergregion.org	 Guide and co-ordinate all crisis management activities for the region's tourism industry in conjunction with Tourism and Events Queensland (TEQ), LDMG and other stakeholders.
bundabergregion.org	 Lead tourism recovery and implement a regional communications and marketing strategy to ensure visitors will return when it is safe to do so.
	 Primary agency for the containment and eradication of emergency animal and plant diseases, residue and contaminants in agricultural commodities and emergency animal welfare incidents.
Queensland Government	 Coordinate efforts to prevent, respond to and recover from pests and non-human disease, and to address livestock welfare.
Department of Agriculture and Fisheries	 Provide advice on livestock welfare, agriculture, fisheries and forestry disaster impacts.
LDMG Advisor daf.gld.gov.au	 Coordinate destruction of stock or crops or other mandatory bio- security measures, if required in an emergency.
	 On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.

Agency	Specific roles and responsibilities
Queensland Government Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts LDMG Advisor dsdsatsip.qld.gov.au	 Functional lead agency for human and social recovery at District and State level. Provide human-social recovery services across all stages of disaster response and recovery operations. Establish and manage community recovery outreach programs and centres (Recovery Hubs). Distribute financial assistance to eligible individuals and families affected by natural disasters in accordance with State and Federal funding guidelines. Provide advice and communicate to the LDC and DDC about community recovery requirements and operations. Advice on, and provide, temporary emergency accommodation solutions for people displaced by disaster events and for government agency response and/or recovery workers. Coordinate evacuations, closures and restoration of damaged infrastructure of recreation centres and department-owned areas. Provide advice to the LDMG, as required. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.
Queensland Government Department of Environment, Science and Innovation LDMG Advisor desi.qld.gov.au	 Provide expert assessment and advice on: Impacts and potential harm of incidents on environmental values. Priorities for protection of environmental values. Contaminant containment and treatment measures. Environmental harm mitigation measures. Clean-up measures for environments and wildlife. Monitor and advise on the management of impacted wildlife. Establish mechanisms for industry, landowners, and local governments to receive necessary environmental approvals for recovery. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations
Queensland Government Department of Housing, Local Government, Planning and Public Works LDMG Advisor housing.qld.gov.au	 Advice on, and provide, temporary emergency accommodation solutions for people displaced by disaster events and for government agency response and/or recovery workers. Provide advice to the LDMG, as required. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.
Queensland Government Department of Transport and Main Roads LDMG Advisor tmr.qld.gov.au	 Functional Lead Agency for transport systems. Provide information and advice on the impact of disaster events on road, rail, and maritime infrastructure. Provide advice on recovery operations to restore a functional transport network. Assist with the safe movement of people due to mass evacuations of disaster-affected community. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.
Energy Queensland Energy Queensland Member of LDMG energyq.com.au	 Maintenance and/or restoration of electrical power supply. Advice in relation to electrical power, including safety advice for consumers. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.

Agency	Specific roles and responsibilities
Gladstone Ports Corporation (Port of Bundaberg) LDMG Advisor gpcl.com.au	 Maintenance of Port facilities. Provision of manpower and equipment. Augment emergency communications. Coordination of "in Port" oil spill. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.
Queensland Government Maritime Safety Queensland LDMG Advisor msq.qld.gov.au	 Lead agency for dealing with ship-sourced pollution that impacts, or is likely to impact, Queensland coastal waters and the waters of the Great Barrier Reef World Heritage Area. Provide situational monitoring of events and incidents to ensure maritime safety for shipping and recreational craft through regulation. Monitor and advise on the management of vessel-sourced waste and responses to marine pollution. Establish mechanisms to assure essential maritime services such as aids to navigation and vessel traffic services during disaster events. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.
National Broadband Network Co LDMG Advisor nbnco.com.au	 Implement internal business continuity plans to allow ongoing support to the LDMG in disaster operations. Provide situational monitoring of NBN network services on the local access network. Monitor and advise on NBN service provision and service recovery during disaster events. Establish mechanisms to assure essential NBN services during disaster events. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.
Queensland Ambulance Service (QAS) LDMG Member ambulance.qld.gov.au	 At the request of the LDC or delegate provide a liaison officer to Council's LDCC with delegation and knowledge to commit resources in a disaster management context. Provide, coordinate operate and maintain ambulance services, volunteer first-aid groups including QAS first responders. Provide and support temporary health infrastructure where required. Collaborate with Queensland Health in mass casualty management systems. Provide advice to the LDMG and action reasonable requests during disaster operations, as required.
Queensland Fire Department (including Rural Fire Service Queensland) LDMG Member fire.qld.gov.au	 QFD responds to: Structural, landscape and vehicle fire Road crash rescue Swift water and water rescue Storm and natural disaster Building fire safety Hazardous condition incidents Land, marine, aire and urban search and rescue. Crime scene, missing person and forensic searches Animal disease outbreaks, and Communications The Rural Fire Service Queensland is the volunteer arm of the QFD operating in rural, semi-rural and urban fringe areas where there is no urban fire service coverage.

Agency	Specific roles and responsibilities
Queensland Government Queensland Health LDMG Member health.qld.gov.au	 Functional Lead Agency for health response. Primary agency for heatwave and pandemic influenzas, biological and radiological incidents. Protect and promote health in accordance with the Hospital and Health Boards Act 2011, Hospital and Health Boards Regulation 2023, Health and Public Health Act 2005, other relevant legislation and regulations. Provide coordinated multidisciplinary support for disaster response and recovery including specialist health services and specialist health knowledge representation. Provide clinical and State-wide and forensic services support for disaster and response recovery. Provide health emergency incident information for media communications.
Queensland Police Service (QPS) LDMG Member police.qld.gov.au	 Execute primary agency responsibilities in accordance with extant legislation to ensure the maintenance of law and order and community safety in a disaster event. The primary agency responsible for the response phase in accordance with Queensland's Disaster Management Arrangements Provide management at the District level within the Queensland Disaster Management Framework. Provide disaster victim identification capability. Undertake coronial investigations. Coordinate search and rescue operations. Operational responsibility for first response to terrorism. Provide traffic management, including assistance with road closures and maintenance of roadblocks. Provide advice and support to the Local Group in relation to disaster management and disaster operations. Ensure all those involved in disaster operations are appropriately trained in accordance with the Queensland Disaster Management Training Framework.
Queensland Rail Queensland Rail LDMG Advisor queenslandrail.com.au	 Provide advice on the condition and operational status of rail corridors. Provide advice to the LDMG and action reasonable requests during disaster operations, as required.
Queensland Government Queensland Reconstruction Authority (QRA) LDMG Member gra.qld.gov.au	 Lead agency responsible for disaster recovery and resilience policy in Queensland. Administer Disaster Recovery Funding Arrangement (DRFA) relief measures. When requested, support QFD with rapid damage assessments of housing in disaster impacted areas. Undertake damage assessments of public infrastructure in collaboration with Local Governments Liaise with Local Governments and State agencies to gather information to ensure DRFA disaster activations meet Commonwealth Government criteria. Provide advice to the LDMG and action reasonable requests during disaster operations, as required.
Regional Housing Ltd LDMG Advisor regionalhousing.org.au	 In coordination with local Housing Service Centres, assist with advice on, and provision of, temporary emergency accommodation solutions for people displaced by disaster events. Assist to deliver Emergency Relief program.

Agency	Specific roles and responsibilities
State Emergency Service (SES) LDMG Member Ses.qld.gov.au	 Perform rescue or similar operations in an emergency. Perform search operations in an emergency or similar situation. Perform storm damage operations. Perform land search operations. Perform flood boat operations. Perform traffic management operations. Perform agency support operations including air search observation, welfare, evacuation centre support and radio communications. Perform other operations in an emergency to: Help injured persons. Protect persons or property from danger or potential danger associated with the emergency, and Perform activities to help communities prepare for, respond to and recover from an event or disaster. Provide advice to the LDMG and action reasonable requests during disaster operations, as required.
Sunwater LDMG Member sunwater.com.au	 Activate and manage Emergency Action Plans (EAPs) for SunWater dams and storages. Provision of information regarding dam conditions and status to the LDMG during activation of EAPs. Responsibility for implementation of dam safety programs. Monitoring and advice on blue-green algae infestations. Advice on contamination of raw surface water supplies (Walla Weir, Ben Anderson Barrage and Fred Haigh Dam).
SURF LIFE SAVING QUEENSLAND Surf Life Saving (Queensland) LDMG Advisor lifesaving.com.au	 To advise on specific issues relating to surf and inshore marine rescues. Coordinate the closure and evacuation or beaches on receipt of authorised warnings. Assist in inshore marine search and rescue operations if required. Provision of specialist equipment and personnel as and if required. Provision of personnel for supporting duties if required.
Telstra LDMG Member telstra.com.au	 Implement internal business continuity plans to allow ongoing support to the LDMG in disaster operations. Provision of emergency communication facilities. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.
Volunteer Marine Rescue Bundaberg LDMG Advisor marinerescuegld.org.au	 Carry out primary and functional roles as required: Search and Rescue operations in coordination with QPS. Medical evacuation services in coordination with QAS. Provide situational monitoring of events and incidents in coordination with LDCC and relevant emergency services. Monitor and advise on on-water operations relevant to the disaster event. On request, provide a liaison officer to the LDCC to advise and action reasonable requests during disaster operations.
WICEN (Wireless Institute Civil Emergency Network) LDMG Advisor wicen.org.au	 Provide emergency and safety communications for other agencies when conventional communications networks fail or are inadequate. Provide operators for emergency operations centres.

Hazard Specific agencies

It is important to acknowledge that some hazards may have characteristics that may require a hazard specific approach, requiring lead agencies to develop hazard specific plans.

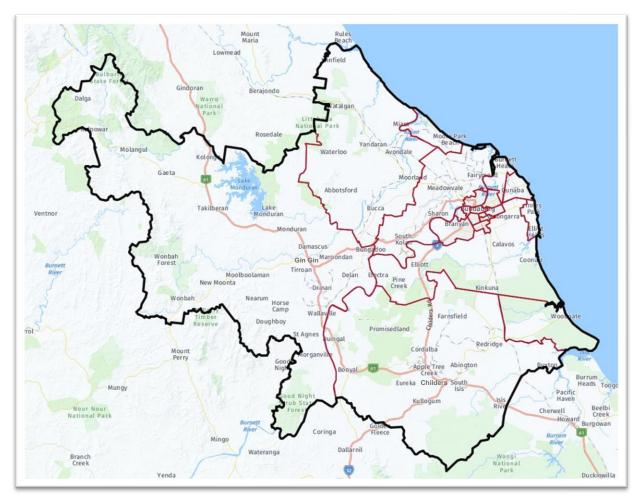
Information pertaining to the Disaster response functions and associated lead agencies roles and responsibilities is located in the <u>Queensland State Disaster Management Plan</u>

PART 4 – COMMUNITY CHARACTERISTICS

A risk-based approach to disaster planning includes establishment of community context, which takes into account information such as population demographics, infrastructure, industry, climate, geography and challenges of the area. An understanding of the community profile and the risks that underline potential hazards enhances the development of robust planning, reducing the impact of disasters and community vulnerability.

Bundaberg Regional Council was formed in 2008 by the amalgamation of Bundaberg City and Burnett, Isis and Kolan Shires. The LGA of Bundaberg Regional Council covers an area of 6,444 km2. The primary population bases are the city of Bundaberg and the towns of Childers and Gin Gin with coastal communities extending from Baffle Creek in the north to Burrum River in the south.

Bundaberg Regional Council is divided into 10 divisions and shares Local Government boundaries with Gladstone Regional Council in the North, the Coral Sea in the east, Fraser Coast Regional Council in the South-East and the North Burnett Regional Council area in the south-west and west.



Geography

The Bundaberg Regional Council LGA is predominantly rural boasting diverse natural resources and facilities, reflected in its offshore, coastal, riverine, city, rural and protected environments. The area lays claim to the internationally renowned Southern Great Barrier Reef, Mon Repos Turtle Rookery, Bundaberg Rum, Bundaberg Brewed Drinks and the famous aviator Bert Hinkler.

The area has almost 100 kms of coastline. Grazing areas and the State Forests make up a large part of the northern area of the Region.

Numerous National Parks and State Forests are located within the Bundaberg region including Mon Repos, Goodnight Scrub, Kinkuna and Woodgate. Prominent natural resources support the region including productive agricultural land, freshwater resources, forests, minerals and marine waters.

Bundaberg is typified by very flat terrain. The Burnett River flows from west to east in the city reach and

bisects the city. The river provides part of the water supply for the city and is tidal below the barrage in the city reach. The Bundaberg Central Business District is situated along the southern bank of the Burnett River, about 20 kms from its mouth at Burnett Heads.

Gin Gin is situated 50 kms north-west of Bundaberg. To the north and east of Gin Gin are river flats and undulating slightly timber lands to farmland. To the north and west the country rises to rugged mountainous regions with heavily timbered areas. Some of this country is impenetrable. The area adjoins the major river systems of the Burnett and Kolan on its boundaries and Lake Monduran on Fred Haigh Dam is approximately 20 kms north of Gin Gin.

The township of Childers is situated approximately 300 km northwards from Brisbane, 50 kms from Bundaberg CBD and has a bustling community mainly revolving around the sugar cane, small crops, grazing, avocado and macadamia industries. Three major river systems exist within the Childers region namely the Burnett, Gregory and Isis Rivers. Lake Gregory is also within this area.

Climate & weather

Climate:	Sub tropical
Average summer temperature range:	21 to 35 degrees C
Average winter temperature range:	8 to 21 degrees C
Average yearly rainfall:	1200 mm

The climate of the area is best described as maritime sub-tropical, characterised by an absence of temperature extremes. Summer peak temperatures rarely exceed 35 degrees Celsius with the winter minimum rarely falling below 8 degrees. The moderate rainfall, (1200 mm mean average on the coast) occurs mainly during the summer with reliable, but not always consistent falls during the west season from October to April. This rainfall decreases as the distance from the coast increases. Historically severe weather events are relatively infrequent, the most common being cyclone influences and effects.

Population

Estimated Resident Population for the Bundaberg LGA as at 30 June 2023 is **104,116** (source – profile.id), grown by 2.05% from the previous year.

The majority of the population lives in the city of Bundaberg, situated along the banks of the downstream stretch of the Burnett River. Small towns and villages are located along the coastline at Bargara, Burnett Heads, Coral Cove, Elliott Heads, Innes Park, Moore Park Beach and Woodgate. The two larger western townships of Gin Gin and Childers are located on the Bruce Highway.

Average annual growth rate and projections for Bundaberg LGA compared with Queensland are shown below:

LGA/State	e As at 30 June				Average annual growth rate		
	2021	2026	2031	2036	2041	2046	2021-2046
Bundaberg	100,118	103,553	106,742	109,790	112,203	114,091	0.5%
Queensland	5,217,653	5,663,247	6,079,887	6,492,441	6,899,969	7,299,934	1.4%

Table 1: Bundaberg (LGA) population projection to 2046

Source: Queensland Government Statistician's Office – Regional Profiles

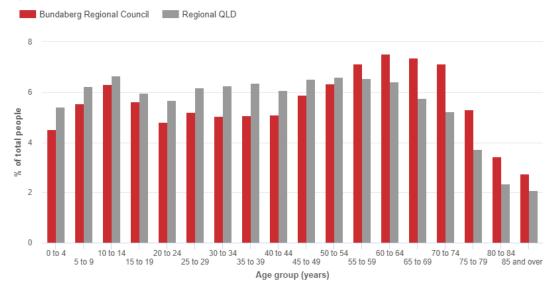
People Characteristics

The age structure of Bundaberg region is significantly older than the Queensland average with a median age of 47.6 as opposed to a Queensland average of 38.6. 2021 data for Bundaberg Regional Council compared to Regional Queensland shows there was a lower proportion of people in the younger age groups (under 15) and a higher proportion of people in the older age groups (65+).

As shown in Table 2 below, overall, 16.4% of the population was aged between 0 and 15, and 26.0% were aged 65 years and over, compared with 18.3% and 19.1% respectively for Regional Queensland.

Age structure - five year age groups, 2021

Total persons



Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions).

Table 2: Age Distribution – Bundaberg LGA and Regional Queensland

The Bundaberg Region also showed a slight increase in the number of those that spoke a language at home other than English and in the Aboriginal and Torres Strait Islander population, however both are lower when compared to Regional Queensland.

Language at home other than English	Aboriginal and Torres Strait Islander population		
5% (0.9%)	5.0% (1%)		
Regional QLD 9% A	Regional QLD 6.1%		
Queensland 13% A Australia 22% A	Queensland4.6% ▲Australia3.2% ◆		

Source: Australian Bureau of Statistics. Compiled by profile.id

Community vulnerabilities

All residents in the Bundaberg region face a level of risk when a disaster impacts the community, however protective factors such as strong family and social connections enable many people to be better prepared and able to adapt to the effects of a disaster. This plan recognises that some people and communities do not have this support and that they are more likely to succumb to higher levels of risk, injury, loss or severe and longer-terms impacts than others.

Queensland Government Statistician's Office – Bundaberg Regional Profile shows the Bundaberg region is significantly high on the Index of Relative Socio-Economic Disadvantaged being 49.8% in Quintile 1 (most disadvantaged) in comparison to the State average of 20% in Quintile 1.

The region has a number of vulnerable populations, including (but not limited to) those in aged care facilities, seniors residing in their homes, people with a disability, people with chronic medical conditions, and those who have difficulty communicating in English. People with a disability and seniors are twice as likely to be injured and experience social isolation as a result of natural disasters (Queensland Strategy for Disaster Resilience).

Potentially vulnerable populations

- 9.6% of the persons in Bundaberg Region were in need of assistance with a profound or severe disability (Census 2021).
- 26% are aged 65 years and over (2021 census).
- Unemployment rate for Bundaberg Region LGA (December quarter 2023) was 5.7% compared to Regional Queensland's unemployment rate of 4.0%.
- 649 people were homeless within Bundaberg Region LGA (2021 Census)

Economic and Industry

The region is home to a range of industries such as agriculture, manufacturing, tourism and retail trade. It also accommodates a large range of health, property and community services.

Bundaberg is home to internationally recognised industries such as Bundaberg Rum and Bundaberg Brewed Drinks. Bundaberg is also a hub for seafood production and has substantial multi-cultural tourism and backpacker industries. Rural areas revolve around the primary industries of sugar cane, avocados, macadamias, small crops and cattle.

Bundaberg Regional Council - Employed persons (Usual residence)	2021			
Industry sector	Number	%	Regional QLD %	
Agriculture, Forestry and Fishing	3,867	10.0	4.3	
Mining	841	2.2	3.5	
Manufacturing	2,454	6.3	5.4	
Electricity, Gas, Water and Waste Services	400	1.0	1.2	
Construction	3,074	7.9	9.6	
Wholesale trade	681	1.8	2.1	
Retail Trade	3,970	10.2	9.6	
Accommodation and Food Services	2,535	6.5	8.0	
Transport, Postal and Warehousing	1,267	3.3	4.1	
Information Media and Telecommunications	171	0.4	0.8	
Financial and Insurance Services	567	1.5	1.8	
Rental, Hiring and Real Estate Services	482	1.2	1.7	
Professional, Scientific and Technical Services	1,202	3.1	4.8	
Administrative and Support Services	1,122	2.9	3.3	
Public Administration and Safety	1,801	4.6	5.6	
Education and Training	3,301	8.5	8.7	
Health Care and Social Assistance	7,501	19.3	15.4	
Arts and Recreation Services	333	0.9	1.6	
Other Services	1,471	3.8	4.1	
Inadequately described or not stated	1,778	4.6	4.4	
Total employed persons aged 15+	38,818	100.0	100.0	

Information on numbers employed by industry sector can be found in the table below:

Table 3 – Numbers Employed by Industry Sector (Bundaberg LGA)

Source: Australian Bureau of Statistics, <u>Census of Population and Housing</u> 2016 and 2021. Compiled and presented by <u>.id</u> (informed decisions).

Tourism and events

Tourism is a significant industry for the region with Bundaberg Region Tourism noting 2.32 million visitor nights in 2022/2023. Bundaberg is home to the world-renowned Mon Repo turtle rookery, is a quality agri-tourism destination and provides access to Lady Elliot and Musgrave Islands (situated within the Gladstone Local Disaster District). Coastal areas such as Bargara and Woodgate are also popular destinations for holidaymakers.

Childers has become a 'stopover' point for thousands of travellers, being situated halfway between Brisbane and Rockhampton. Childers also hosts the Childers Festival in July each year, one of the most popular and vibrant regional Queensland events, closing the Bruce Highway for the day and attracting large numbers of visitors.

Bundaberg Port has significant marina facilities including substantial berthing and repair facilities, attracting the sailing fraternity from not only Australia but international visitors as well.

Numerous events, festivals and conferences are held throughout the year with Councils events team working with Bundaberg Tourism to deliver these.

Critical infrastructure

Introduction

Our community's social and economic wellbeing relies upon the continuity of essential services provided by critical infrastructure. Critical infrastructure supports the most basic needs: safe drinking water, food, reliable transport, accessible public health services, energy for homes and industry, access to banking, finance and government services, and communications networks to connect us socially and in business.

Ensuring the reliability of essential services and infrastructure requires a variety of strategies including compliance with building planning regulations and an all-hazards approach to risk identification and management. Strong networks between infrastructure owner/operators, Local and State government agencies and communities are encouraged through the Bundaberg LDMG.

Transport network

Railway

The North Coast line is the main commercial rail network which passes through the Bundaberg region. There is also a large cane train network connecting the Bundaberg and Isis Central Sugar Mill lines to the main sugarcane growing areas within the Bundaberg region.

Airports, airfields and helicopter landing pads

Bundaberg Regional Council owns and operates Bundaberg Regional Airport, the main airport that services the area, located 6 km south-west of the Bundaberg CBD.

The region is serviced by Qantaslink, Link Airways, Royal Flying Doctor Service, Life Flight, a number of charter operators and flying training organisations.

The airport has two functional runways, one that is surfaced with asphalt and measures 2,000m in length and the alternative runway surfaced with grass/clay and measuring 1,128m in length.

Bundaberg Airport has the capability to accommodate passenger aircraft of a class up to a Boeing 737 or Airbus 320 and a military aircraft class to a Boeing C-17 Globemaster III.

There are a number of grass air strips (private) across the region including the light aircraft strip 5 km southwards from Childers off the Bruce Highway and private grass strip located on Monduran Station, 13 km northwards from Gin Gin.

Bundaberg Base Hospital is equipped with a helipad allowing rescue helicopters to transport patients.

Road network

The road network within the Bundaberg Region LGA includes Council, State controlled and private roads.

The major roads into and out of Bundaberg include:

- Bundaberg–Gin Gin Road that caters for traffic from the north of the State;
- Isis Highway and the Goodwood Road that brings traffic from the south.
- Bundaberg-Agnes Waters Road catering for traffic to coastal areas of Baffle Creek and Agnes Waters and used to travel north to rejoin the Bruce Highway at Miriam Vale.

The Bruce Highway passes through the townships of Childers and Gin Gin. The Isis Highway connects Bundaberg with the Bruce Highway at Apple Tree Creek near Childers. Goodwood Road is an alternative route between Childers and Bundaberg and provides access to Woodgate.

There are two road bridges and a rail bridge crossing the Burnett River within the city of Bundaberg. It should be noted that access to bridges is cut by river flood of 7 metres on northern approaches.

Marine Services

The Port of Bundaberg is situated on the Burnett River, 19.3 kilometres downstream from the City of Bundaberg, 4.8 kilometres from the mouth of the Burnett River. Its principal export is sugar, as well as silica and wood pellets. The Port also imports gypsum and molasses.

Bulk raw sugar is stored in two sheds with a capacity of 300,000 tonnes and is loaded via a travelling gantry loader at 1,600 tonnes per hour. Bulk molasses is stored in three tanks with a capacity of 36,000 tonnes and loaded at 285 tonnes per hour through a 375 mm pipeline.

The Port is managed by the Gladstone Ports Corporation, who maintain the dredging, security, berths and operations at the port. Maritime Safety Queensland is responsible for monitoring and managing the safe movement of ships in Queensland waters.

Referrable Dams

The *Water Supply* (Safety and Reliability) Act 2008 identify cases within the boundaries of the Bundaberg LGA that provide the requirement for relevant dam Emergency Action Plans. These relevant dams include those operated by Sunwater:

- Paradise Dam located approximately 80 kms south-west of Bundaberg, covering an area of 2,951 hectares. Following risk reduction work to lower the spillway, current storage capacity is 170,000 mega-litres. Planning is being undertaken to build an entirely new wall at Paradise Dam following expert recommendations that as the existing wall cannot be repaired or reinforced, capacity is to remain reduced until new wall can be constructed.
- Fred Haigh Dam located on the Kolan River about 20 km north of Gin Gin and about 75 km inland from the river's mouth. It has a storage capacity of 562,000 mega-litres and a reservoir area at full supply level of 5,300 hectares. The storage has a maximum water depth of 43m and a catchment area of 130,000 hectares.
- Woongarra Balancing Storage located on the southern bank of the Burnett River, 8 km south of Bundaberg. Woongarra Balancing Storage was constructed in 1977 to provide irrigation to farmers on the Woongarra channel system. It has a storage capacity of 2,000 mega-litres and surface area of 53.5 hectares.
- Isis Balancing Storage Lake Gregory is also known as the Isis Balancing Storage (or the "Duckpond") and is located at an unnamed tributary of the Elliott River. The storage is located approximately 20 km south-west of Bundaberg and has a storage capacity of 6,160 mega-litres (at maximum operating level) and a catchment area of 12.9 km².

SunWater is responsible for updating dam Emergency Action Plans and providing updated copies to relevant agencies, including Bundaberg Regional Council. Copies of the approved SunWater Emergency Action Plans are available from SunWater and online.

In addition, there are privately owned and managed referrable dams within the Bundaberg region:

- Huxley Dam gully dam located at 189 Huxley Road, Childers with a storage capacity of 387 megalitres.
- Loeskow Dam 4 & 6 two ring tank dams located at 101 Enterprise Street, Bundaberg. Loeskow Dam No. 4 has a storage capacity of 4,800 megalitres and Loeskow Dam No. 6 700 megalitres.

Emergency Action Plans for privately owned dams are available from the Department of Regional Development, Manufacturing and Water

Fraser Coast Regional Council is the owner and operator of Lenthall Dam and is responsible for updating the dam's Emergency Action Plan. Lake Lenthall (Lenthall Dam) flows downstream into the Burrum River, which leads into the ocean at Burrum Heads and may affect some residents in the Bundaberg region residing in Buxton.

Council Assets

The Bundaberg region is serviced by public buildings including office spaces and facilities, Moncrieff Entertainment Centre, Art Galleries, swimming complexes, community centres, parks, sporting facilities and libraries.

Administration Buildings

Council operates from its main administration centre located at 190 Bourbong Street, Bundaberg with administration centres also found in Childers (45 Churchill Street) and Gin Gin (4 Dear Street). Council's Planning and Development services operate from Auswide Building, Level 6, 16 Barolin Street, Bundaberg.

Council Operations depots

Council operates from depots located at Childers, Gin Gin, Bundaberg East, Bundaberg North and Kalkie with a non-operational depot at Heales Road.

Waste Facilities

Council operates five transfer stations and five waste management facilities with recycling (MRF) operating at the Bundaberg facility. These facilities help manage the resource recovery, recycling and waste disposal needs of the region.

Waste management facilities are located at Bundaberg, Qunaba, Avondale, Tirroan and Childers and transfer stations at Meadowvale, South Kolan, Booyal, Buxton and Woodgate.

Water supply

Bundaberg Region accesses water supply from a number of sources including rivers, dams and bores. Water is sourced from the Burnett River at Ben Anderson Barrage with network supply supported by water stored in Paradise Dam on the Burnett River and Fred Haigh Dam on the Kolan River.

Bundaberg's reticulation network supplies treated water from both surface water and groundwater sources to a range of users in and around Bundaberg as well as surrounding areas including the coastal communities from Burnett Heads through Bargara to Elliott Heads.

Bundaberg Regional Council managed nine Water Service Areas (WSA) which are zoned in either the Coastal or Hinterland Operational areas, a summary of each is provided in Table 4 below:

Scheme (Population)	Water Source	Treatment Process	Towns supplied			
Coastal Operation	Coastal Operational Area					
Bundaberg Water Service Area (WSA) (56,742)	Burnett River	Branyan Water Treatment Plant (WTP)	Bundaberg City, including Gooburrum			
	Bores: • Heaps St • Peatey St • Lovers Walk • Powers St • Works Depot	Groundwater Treatment Plant (GWTP)				
Kalkie WSA (20,956)	Burnett River via Sunwater's Woongarra Main Channel	WTP	The Port, Burnett Heads, Bargara, The Hummock, Innes Park, Coral Cove, Elliott Heads, Riverview			
	Bundaberg WSA treated water supplement to Hummock reservoirs for consumption within the Kalkie WSA.					
Moore Park WSA (3,235)	SunWater Gooburrum Main Channel	Vecellios Rd WTP	Moore Park			
	Zandes Bores 1 & 2	Murdochs Rd GWTP				
River Park WSA (317)	SunWater irrigation holding dam	WTP	River Park			

Scheme (Population)	Water Source	Treatment Process	Towns supplied			
Coastal Operation	Coastal Operational Area					
Rocky Point WSA (221)	Bore	GWTP	Rocky Point			
Hinterland Operat	Hinterland Operational Area					
Gregory River WSA (6,248)	Gregory River	WTP	Childers, Woodgate, Redridge, Forest Ridge, Kinkuna, Goodwood			
Gin Gin WSA (1,479)	Gin Gin Creek & SunWater Channel	WTP	Gin Gin			
Wallaville WSA (257)	Burnett River	WTP	Wallaville			
Lake Monduran WSA (16 Water Connections – 40 people)	Fred Haigh Dam	WTP	Lake Monduran Tourist Park			

Table 4 – Summary of Water Service Areas (Bundaberg LGA) Source – Drinking Water Quality Management Plan Annual Report 2022-2023

Sunwater's Bundaberg Water Supply Scheme supplies water to farmlands and communities in Burnett, Kolan and Isis as well as Bundaberg city. The scheme sources water from Fred Haigh and Paradise Dam and is used for:

- Irrigation water for crops.
- Urban water supply for Bundaberg and surrounding communities.
- Industrial water for various enterprise including the sugar mill.

The scheme consists of more than 600 km of channel and pipeline that distributes to more than 1,000 properties. The scheme consists of seven distinct channel systems that supplement or replace demand for groundwater in the district.

Potable water fill stations

A number of bulk water filling stations are available within the region to enable easy access for approved bulk water carriers.

- University Drive, Branyan
- Hinkler Avenue, Bundaberg North
- Crescent Street, Childers
- George Lane (off Ernest Street), Childers
- Bruce Highway, Gin Gin
- Cattermul Avenue, Qunaba

Map of the location of the filling points can be found on Council's website

Wastewater

Most residential parts of the Bundaberg Region are connected to a reticulated sewerage network however areas outside of declared sewerage areas utilise onsite wastewater treatment systems.

Wastewater is collected through various drains, transported through the wastewater network, and captured at wastewater treatment plants. Bundaberg Regional Council currently operates eight (8) wastewater treatment plants (WWTP) under an Environmental Licence governed by the Department of Environment, Science and Innovation:

- Bargara Wastewater Treatment Plant
- Childers Wastewater Treatment Plant
- Gin Gin Wastewater Treatment Plant
- Lake Monduran Wastewater Treatment Plant
- Millbank Wastewater Treatment Plant
- Rubyanna Wastewater Treatment Plant
- Thabeban Wastewater Treatment Plant
- Woodgate Wastewater Treatment Plant

Sewage is transported to the local treatment plant through a sewerage network comprising gravity sewers and pressure mains with associated sewage pumping stations.

Free public RV dump points can be found at

- Hinkler Lions Tourist Park, University Drive, Bundaberg West.
- Bruce Highway, Gin Gin.
- City Park, Childers.

Communication

In instances when communication networks fail, the LDMG has access to satellite phones using the Iridium network, Starlink roaming service, as well as a number of handheld radios. Bundaberg Regional Council's Information Services section would also provide information and guidance on what communication options are available.

The LDMG can also access the Disaster Warden Radio Network which uses local community members (Wardens) to act as conduits for information during times of disaster. Local community members, including State Emergency Service (SES) and Rural Fire Service Queensland (RFSQ) volunteer personnel, at Gin Gin, Childers, Winfield, Good Night Scrub, Monduran, Yandaran, Avondale, Pine Creek, Buxton, Bucca, Booyal, Cordalba, and Rosedale are members of the network.

In addition, Wireless Institute Civil Emergency Network (WICEN) provides emergency and safety communications for other agencies when conventional communications networks fail or are inadequate.

Essential services

Emergency services

The region is serviced by the following emergency services:

- QFD, Fire and Rescue stations.
- QFD, Rural Fire Service Queensland brigades.
- Queensland Ambulance Service, Ambulance establishments.
- Queensland Police Service, Police establishments.
- State Emergency Service, SES depots.
- Bundaberg Volunteer Marine Rescue.
- Surf Lifesaving Queensland.

Bundaberg Regional Council facilitate and financially support the SES units within the region with operational groups based in the following areas:

- Bundaberg
- Bargara
- Childers
- Elliott Heads
- Gin Gin
- Innes Park
- Moore Park Beach
- Woodgate

Non-operational storage depot is also located at South Kolan.

Medical and health facilities

The region is serviced by Wide Bay Hospital and Health Service operating public hospitals in Bundaberg, Childers and Gin Gin. Bundaberg Base Hospital provides a range of acute, sub-acute, community, mental health and dental services. Two private hospitals are also located in Bundaberg – Mater Private Hospital and Friendlies Private Hospital, with the Friendlies and Indigenous Wellbeing Centre (IWC) medical centre also offering emergency facilities. Smaller medical centres and general practitioners provide an extensive service network across the region.

Education

Bundaberg Region offers a choice of State Government, Catholic education, independent schools and tertiary institutions with the region serviced by;

- CQUniversity (Bundaberg campus)
- TAFE Queensland (Bundaberg campus)

- 34 State primary schools
- 5 State high schools
- 1 special school
- 5 Catholic primary/high schools
- 6 independent primary/high schools

Gas supply

Gas pipelines supplying businesses and industry throughout the Bundaberg region are owned by Australian Gas Networks (AGN), part of the Australian Gas Infrastructure Group (AGIG) and operated by APA Group.

Electricity supply

The electricity supply within the region is supplied via Ergon Energy.

Bundaberg also has one of the most residential rooftop solar installations in Australia with over 15,600 solar PV customers (as at September 2022).

Telecommunications and internet

Telstra, Optus and other service providers maintain landline and mobile voice communication networks within the region.

Mobile phone reception varies subject to terrain and repeater facilities in rural areas.

High-speed internet connection is available in the larger centres, with wireless service available in the areas covered by the 3G and 4G mobile telephone network, but dial-up or satellite-based access is still required in the more remote areas.

During disaster events, NBN provides connectivity to the Bundaberg region through Hybrid Power Cubes. These cubes maintain power and internet connectivity during events, reducing outage times and providing redundancy power to NBN fixed wireless towers by combining solar, battery and diesel generator technologies.

Council also has a number of Starlink satellite services throughout the region, including one roaming service that can be deployed for connectivity during events.

Television and radio

The Bundaberg region is covered by broadcast radio, via ABC and commercial radio. The area is well served by free-to-air broadcast television and subscription satellite television services.

Hazardous sites

Hazardous sites located within the Bundaberg region include the Bundaberg Rum distillery in Bundaberg East, posing a risk of fire and explosion due to the bulk storage of substances such as ethanol. In the Gin Gin area, the transportation of cyanide to the Mt Rawdon gold mine situated near Mt Perry is monitored and subject to requisite requirements and government regulations.

The three crucial sites for the storage and/or transit of hazardous materials are the Bundaberg Airport, Bundaberg Port and the Bundaberg Railway Station. In addition, a range of dangerous goods travel via bulk tankers and intermediate or smaller containers along the Brisbane to Gladstone transport corridor (route includes the Bruce Highway). Dangerous goods are also transported via the North Coast railway corridor with both the Bruce Highway and North Coast rail line passing either through or near a number of settled areas including Bundaberg City.

PART 5 - HAZARDS & RISK ASSESSMENT

Hazard risk assessment

Hazard identification, the analysis of exposure and vulnerability and the subsequent identification of risk through this process is the cornerstone of understanding disaster risk and forms the basis for effective risk-based planning. Bundaberg LDMG adopts an 'All Hazards' approach in its consideration of the hazards that are relevant to the Bundaberg LGA. The hazards that pose the greatest threats at Bundaberg LGA are detailed below with further information on likelihood and residual risk found in supporting tables.

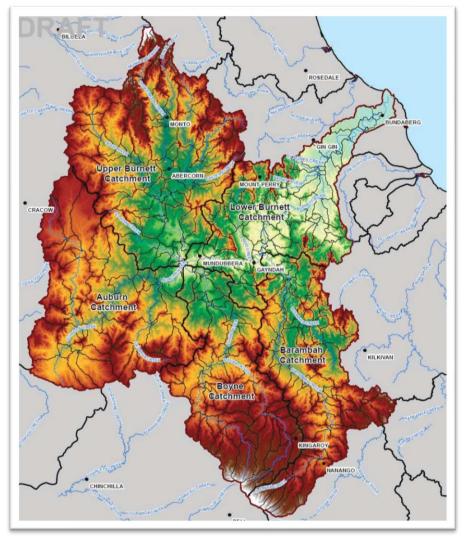
Riverine Flooding

Flooding is defined as a general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waters from the unusual and rapid accumulation or runoff of surface waters from any source (Geoscience Australia).

Riverine flooding is generally a result of wide-spread rain, causing water over large areas to collect in streams and rivers which overflow. These floods generally rise at a slower rate and although quite devastating, rise at a rate that usually allows for managed escape. The primary effects of flooding are physical damage to property, infrastructure, people or livestock and disruption to regular way of life.

BURNETT RIVER

The Burnett River catchment rises in the Dawes Range, north of Monto, flowing in a north-easterly direction to Paradise Dam before moving through to Bundaberg and past Burnett Heads where it meets the Pacific Ocean, discharging into coastal waters at the southernmost extent of the Great Barrier Reef Marine Park. Total area of the catchment is about 33,000 km².



Major flooding in the Burnett River is relatively infrequent. However, under favourable meteorological conditions such as a tropical low-pressure system, heavy rainfalls can occur throughout the catchment resulting in significant river level rises and floods. These floods can cause considerable damage to rural properties along the rivers and to the commercial and residential areas in some of the smaller towns in the area and at Bundaberg. They can also represent a significant risk to people.

Flood impacts throughout Bundaberg tend to be widespread, as it is the lowest point of the catchment. Key pieces of infrastructure in and around Bundaberg City are flood exposed along the Burnett River, including jetties, wharfs and other facilities. Previous events have required the evacuation of significant portions of the region's population.

Major floods have been recorded at Bundaberg since 1875 with flood events occurring in January 1942, February 1971, December 2010, January 2011. The most significant event occurred in January 2013 when the river rose to 9.53 metres, approximately 7.34 metres about the Highest Astronomical Tide (HAT). During this event, flood depths of up to 3m and high flow velocities (up to 5m/s) were experienced in parts of North Bundaberg. Significant levels of flooding also occurred in South and East Bundaberg due to backwater inundation across the floodplain in areas adjacent to Saltwater and Bundaberg Creeks. Almost 3,000 properties and 600 businesses were damaged and 7,000 people evacuated.

KOLAN RIVER

The Kolan River catchment covers an area of approximately 3,000 km². The river rises in the rugged Dawes Range, 100 kms northwest of Bundaberg, meandering for a distance of 70 kms, generally in a south-easterly direction, before entering Lake Monduran and passing through the Fred Haigh Dam. Below the Dam and the Bucca Range, the Kolan River enters a wide coastal plain. Gin Gin Creek, its major tributary, rises in the Burnett Range 35 kms west of Gin Gin and flows in an easterly direction joining the Kolan River 10 kms above Bucca Weir.

Floods normally develop in the headwaters of the Kolan River and Gin Gin Creek and its major tributaries; however, Fred Haigh Dam has a significant effect on reducing major flooding in the lower reaches. Since the Fred Haigh Dam was completed in 1974, only minor to moderate flooding had been recorded before December 2010. In December 2010 the dam spilled by 3.85 m causing major flooding. On Sunday 27 January 2013, the dam reached 6.86 m above the spillway (its flood-of-record). In October 2017, the dam reached 4.04 m above the spillway.

Severe Thunderstorm

A severe thunderstorm is defined as one which produces: hail with a diameter of 2 cm or more; or wind gusts of 90 km/h or greater; or flash floods; or tornadoes, or any combination of these (Australian Bureau of Meteorology).

Thunderstorms are typically short-lived, small in extent but can traverse large distances and can inflict significant damage, particularly as a result of strong winds and/or lightning. They can often result in structural damage, flooding and disruption to critical services, and even human injury and death. Primary and secondary hazard characteristics relating to severe thunderstorm events are:

- flash and riverine flooding.
- damaging wind gusts and hail.
- storm surge causing erosion and localised flooding.
- lightning strikes leading to ignition of bushfires.

The Bundaberg region sits on the cusp between the northern and southern influences with the region experiencing between 6 and 12 thunderstorms per year with the number escalating more inland and away from the coastal belt. Severe Thunderstorms occur regularly in the Bundaberg Region between January to March but are also likely during the months of April, November and December.

A severe thunderstorm event could lead to damage to property, disruption of power and communication networks and the closure of transport hubs including highways, major roads, ports and local airports across the Bundaberg region. This would severely impact access/resupply in the area for the short to the long term. Several isolated areas and suburbs may require evacuation and/or resupply due to the level of exposure to the hazard.

Historic events:

Severe storms, including hail have had devasting impacts on agricultural production and other businesses in parts of the region and their rapid onset means there is little warning.

In October 2017, Bundaberg experienced a single day rainfall record associated with a storm (in excess of 300mm in approximately 10 hours – equivalent to a "1 in 500 years" rain event), along with a severe wind event ("tornado") causing structural damage to about a dozen homes in Bundaberg's southern suburbs. In the afternoon following the 2017 Melbourne Cup, another severe storm resulted in loss of power for more than 27,000 homes and massive amounts of debris strewn across the Bundaberg City area, requiring significant recovery activity.

Tropical Cyclone

Tropical cyclones are intense tropical low-pressure weather systems that form over tropical seas during the warmer months when sea surface temperatures are greater than 26°C. The cyclones typically move down the east coast in a south-easterly direction.

It is generally acknowledged that the storm/cyclone season extends from 1 November to 30 April the following year. The majority of cyclones that have impacted or threatened the Bundaberg region appear on historical data to have occurred from January to March. However, cyclones are not predictable and have occurred outside of these acknowledged time frames.

The damage that results from a cyclone is related to the strength of sustained wind and wind gusts. The category of a cyclone is related to the wind speed, with cyclone categories two and above having wind speed of >117 km/hr. These winds can cause extensive property damage and turn airborne debris into potentially lethal missiles. In addition to the risk of flooding, there is also the strong prospect of a storm surge along the coastal areas.

Further information on Tropical Cyclones, including category descriptions can be found on the Bureau of Meteorology's <u>Tropical Cyclone Knowledge Centre</u>

Historic events:

The region's cyclone exposure is largely associated with systems crossing the coast from the Pacific Ocean, and those which track down the coastline from the north. Some significant impacts experienced within the region, including torrential rainfall and flooding have been caused by the following systems:

January 1967Tropical Cyclone DinahJanuary 1974Tropical Cyclone WandaFebruary 1976Tropical Cyclone BethFebruary 1981Tropical Cyclone CliffMarch 1992Tropical Cyclone FranMarch 2009Tropical Cyclone HamishMarch 2010Tropical Cyclone Ului

It should be noted the events of December 2010 and January 2011 were caused by inland heavy rain as a result of Cyclone Tasha and in January 2013, when the Burnett River at Bundaberg experienced its flood-of-record (9.53m AHD), caused by Ex-Tropical Cyclone Oswald.

While Bundaberg Region was spared the worst of the wind and rain, some flash flooding and road damage was experienced when ex-tropical cyclone Debbie tracked southeast throughout Queensland in 2017.

Storm tide and storm surge

With almost 100 kms of coastline, the Bundaberg region is vulnerable to storm tide and storm surge inundation.

Storm tide is the water level that results from the combination of the storm surge and the normal (astronomical) tide. A 3 m storm surge on top of a high tide that is 2 m above the mean sea level will produce a storm tide that is 5 m above mean sea level.

Storm tides can swamp low-lying areas, sometimes for kilometres inland. Strong winds at the coast can also create large waves, worsening the impact.

A **storm surge** is a raised dome of sea water typically 60 km to 80 km across and 2 m to 5 m above the normal sea level. It can be thought of as the change in the water level due to the presence of a storm. Storm surges are at their most dangerous when they arrive at high tide.

As a cyclone reaches the coast, the huge winds whip up the sea and push the dome of water over lowlying coastal areas. The waves and sea water can move inland quite quickly, damaging buildings and cutting off escape routes. If a cyclone crosses the coast at high tide, the flooding from storm surge will be at its worst.

Storm tide evacuation maps have been created for coastal communities in the Bundaberg Local Government Area and can be found on <u>Council's Disaster Dashboard</u>.

Bushfire

Bushfire is a general term used to describe a fire in vegetation. Bush and grass fires are seasonal, typically occurring from July to early summer but can extend through to February. Fire weather is determined by aspects of temperature, low relative humidity, high wind and drought factor. Their severity is related to landscape (aspect, slope, wind strength and vegetation type) and climatic factors (wind speed, rainfall, humidity and air temperature). The elements of a bushfire that can cause harm include flames, embers, radiant heat, strong winds and smoke. Bushfires can start from a range of ignition types including lightning, powerlines and cigarettes or as a result of vandalism.

The Bundaberg Region has significant areas of native vegetation that, under certain weather conditions, poses a risk of uncontrolled bushfires. The region is also home to some rural and remote communities in isolated areas which are highly vulnerable to general bushfire occurrence. Some of these small, populated locations are off the grid and located in densely vegetated areas presenting a significant challenge for bushfire risk management. Built up areas established in locations surrounded by dense or continuous vegetation are also vulnerable to exposure.

The Bundaberg region has undertaken significant fire risk and fuel management assessments over recent years to inform mitigation approaches into the future. Rural Fire Services Queensland (part of the Queensland Fire Department) is the lead agency for bushfire, and annually produces the Bundaberg Bushfire Risk Mitigation Plan which outlines the key risk areas.

Past Events:

- 2009 Gaeta (Gin Gin area) took five days to bring the blaze under control and destroyed more than 250 km² of grazing land.
- November 2018 Deepwater (in Gladstone LGA) caused the evacuation of the township of Winfield. While Winfield was not affected, neighbouring communities were impacted.
- November 2019 Burrum Coast National Park (Kinkuna) required residents in Woodgate to evacuate. The one access road into Woodgate was also closed, leaving residents stranded. Fire consumed almost 5,000 hectares of the Burrum Coast National Park and severely impacted the National Park which abuts Woodgate Beach and Walkers Point.
- December 2019 The Eastern Queensland Bushfires impacted the communities of Gregory River and Doughboy.
- October/November 2023 Goodwood/Kinkuna Fire required evacuation of properties including Goodwood school and resulted in five properties on Goodwood and Gorza Roads being fire-affected with one property destroyed.

Earthquake

Earthquakes are defined as the shaking and vibration at the surface of the Earth caused by underground movement along a fault plane or by volcanic activity. The size of earthquakes is determined by measuring the amplitude of the seismic waves recorded on a seismograph. A formula is applied to these which converts them to a magnitude scale, a measure of the energy released by the earthquake (Geoscience Australia).

The amplitude of earthquakes depends on many factors including magnitude, distance from the epicentre, topography, depth of focus and local ground conditions.

Secondary hazards/impacts associated with earthquakes include tsunamis and landslides.

For the purposes of this risk assessment, an earthquake is categorised at least 5.0 Richter with an epicentre close to Bundaberg Region where damage to infrastructure occurs.

Queensland's exposure to this hazard is relatively low in comparison to other locations in the world however, in recent history earthquakes have been located within rural areas of the Bundaberg Region but have not caused damage to property or put lives at risk.

East Coast Low

East Coast Lows are intense low-pressure systems which occur, on average, several times each year off the eastern coast of Australia. East Coast Lows will often intensify rapidly over a period of 12-24 hours making them one of the more dangerous weather systems to affect the eastern coast. East coast lows are generally associated with heavy rainfall, strong winds, high seas and coastal inundation and can generate one or more of:

- Gale or storm force winds along the coast and adjacent waters.
- Heavy widespread rainfall leading to flash and/or major river flooding.
- Very rough seas and prolonged heavy swells over coastal and ocean waters which can cause damage to the coastline.

Heatwave

The <u>Bureau of Meteorology</u> defines a heatwave as three or more days in a row when both daytime and night-time temperatures are unusually high for that location. Heatwaves in Queensland typically occur between October and March but are most common in January. Heatwaves are measured in relation to normal seasonal temperatures for the area.

Most people have adequate capacity to cope with many of the heatwaves experienced in the region, however, less frequent, higher intensity severe heatwaves can be challenging for vulnerable populations and can translate to agricultural, infrastructure, economic and ecosystem impacts.

Heatwaves can lead to:

- increased hospital admissions relating to heat stress, dehydration, or as a result of heat exacerbating existing conditions.
- localised and widespread outages of the power network due to high levels of peak demand, leading to failure across some areas of service.
- increased risk of bushfire.
- increased number of work-related accidents and reduced work productivity.

On average, 25 heatwave days per year are experienced by the Bundaberg region.

Landslides

Landslides involve the movement of large amounts of earth, rock, sand or mud, or any combination of these. Landslides can be sudden and fast moving, moving millions of tonnes of debris, generally caused when heavy rain saturates soil on a hillside past the point where vegetation can support the soil's weight against the force of gravity.

Sudden and rapid events are the most dangerous because of a lack of warning and the speed at which material can travel down the slope as well as the force of its resulting impact. Extremely slow landslides might move only millimetres or centimetres a year and can be active over many years. Although this type of landslide is not a threat to people, they can cause considerable damage to property.

The impact of a landslide can be extensive, including loss of life, destruction of infrastructure, damage to land and loss of natural resources.

Landslides can be caused by earthquakes, however, in Queensland, landslides are generally caused by heavy rain.

Tsunami

A tsunami is a series of large and fast traveling waves generated offshore by an earthquake, volcanic eruption, explosion or other ocean disturbance.

Tsunamis can occur with very little warning. In Australia, the <u>Joint Australian Tsunami Warning</u> <u>Centre</u> detects and verifies any tsunami threat to the coastline of Australia and provides warnings.

Tsunami is a low risk, high consequence hazard for the Bundaberg region. Generally, the local bathymetry and proximity of the Great Barrier Reef could be expected to reduce tsunami amplitude, however unpredictable local effects should not be discounted.

Council provides Tsunami Inundation Maps for the Bundaberg Region on Council's Disaster Dashboard.

Biological and human-caused hazards

The awareness of other hazards throughout the Bundaberg region, caused through interaction of different activities, mechanisms and risks can include a wide variety of potential scenarios including:

- Pandemic
- Pest Infestation or Pandemic Animal Disease
- Land and Water based spills
- Hazardous Materials Accidents
- Significant accidents in transport and industrial environments
- Urban fire and rescue incidents
- Contamination of water supplies impacting environment or consumption
- Dam failure
- Terrorist attack
- Infrastructure failures

In these scenario's Bundaberg Regional Council is not identified as the lead agency. Council will be reliant on the relevant lead agency requesting the assistance of Council or its resources and, if required, the LDMG to support the response and related recovery activities.

Bundaberg Natural Hazard Risk Assessment

RISK		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
	Likelihood	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE	POSSIBLE
FLOOD	Consequence	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR
	Residual Risk	HIGH 72	HIGH 72	HIGH 72	HIGH 72	HIGH 72	HIGH 72	HIGH 72	HIGH 72	HIGH 72	HIGH 72	HIGH 72	HIGH 72
	Likelihood	ALMOST CERTAIN	ALMOST CERTAIN	ALMOST CERTAIN	LIKELY	POSSIBLE	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	POSSIBLE	LIKELY	LIKELY
THUNDERSTORM	Consequence	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR
	Residual Risk	MEDIUM 48	MEDIUM 48	MEDIUM 48	MEDIUM 45	LOW 27	LOW 24	LOW 24	LOW 24	LOW 24	LOW 27	MEDIUM 45	MEDIUM 45
TROPICAL	Likelihood	LIKELY	LIKELY	LIKELY	POSSIBLE	UNLIKELY	IMPROBABLE	IMPROBABLE	IMPROBABLE	IMPROBABLE	UNLIKELY	POSSIBLE	POSSIBLE
CYCLONE	Consequence	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
(Cat 1, 2, 3)	Residual Risk	HIGH 66	HIGH 66	HIGH 66	MEDIUM 54	MEDIUM 51	LOW 30	LOW 30	LOW 30	LOW 30	MEDIUM 51	MEDIUM 54	MEDIUM 54
TROPICAL	Likelihood	POSSIBLE	POSSIBLE	POSSIBLE	RARE	IMPROBABLE	IMPROBABLE	IMPROBABLE	IMPROBABLE	IMPROBABLE	IMPROBABLE	POSSIBLE	POSSIBLE
CYCLONE	Consequence	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR
(Cat 4, 5)	Residual Risk	HIGH 72	HIGH 72	HIGH 72	MEDIUM 51	LOW 36	HIGH 72	HIGH 72					
	Likelihood	UNLIKELY	UNLIKELY	UNLIKELY	RARE	IMPROBABLE	IMPROBABLE	IMPROBABLE	IMPROBABLE	IMPROBABLE	IMPROBABLE	RARE	RARE
STORM TIDE	Consequence	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR
	Residual Risk	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 57	LOW 36	MEDIUM 57	MEDIUM 57					
	Likelihood	LIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	POSSIBLE	POSSIBLE	LIKELY	LIKELY
BUSHFIRE	Consequence	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
	Residual Risk	HIGH 66	MEDIUM 51	MEDIUM 51	MEDIUM 51	MEDIUM 51	MEDIUM 51	MEDIUM 51	MEDIUM 51	MEDIUM 54	MEDIUM 54	HIGH 66	HIGH 66
	Likelihood	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY
EARTHQUAKE	Consequence	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC	CATASTROPHIC
	Residual Risk	HIGH 78	HIGH 78	HIGH 78	HIGH 78	HIGH 78	HIGH 78	HIGH 78	HIGH 78	HIGH 78	HIGH 78	HIGH 78	HIGH 78
	Likelihood	LIKELY	LIKELY	LIKELY	LIKELY	LIKELY	LIKELY	POSSIBLE	POSSIBLE	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY
EAST COAST LOW	Consequence	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
	Residual Risk	HIGH 66	HIGH 66	HIGH 66	HIGH 66	HIGH 66	HIGH 66	MEDIUM 54	MEDIUM 54	MEDIUM 51	MEDIUM 51	MEDIUM 51	MEDIUM 51
	Likelihood	LIKELY	POSSIBLE	POSSIBLE	POSSIBLE	RARE	RARE	RARE	RARE	UNLIKELY	POSSIBLE	LIKELY	LIKELY
HEAT WAVE	Consequence	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
	Residual Risk	HIGH 66	MEDIUM 54	MEDIUM 54	MEDIUM 54	LOW 33	LOW 33	LOW 33	LOW 33	MEDIUM 51	MEDIUM 54	HIGH 66	HIGH 66
	Likelihood	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY
LANDSLIDE	Consequence	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR	MINOR
	Residual Risk	LOW 24	LOW 24	LOW 24	LOW 24	LOW 24	LOW 24	LOW 24	LOW 24	LOW 24	LOW 24	LOW 24	LOW 24
	Likelihood	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY	UNLIKELY
TSUNAMI	Consequence	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR	MAJOR
	Residual Risk	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 60	MEDIUM 60

LIKELIHOOD RATING SCALE	IMPROBABLE	RARE	UNLIKELY	POSSIBLE	LIKELY	ALMOST CERTAIN
OVERAL	L RESIDUAL RI	SK RATING	LOW (3-39)	MEDIUM (42-63)	HIGH (66-81)	EXTREME (84-90)

Residual Risk

The LDMG recognises its treatment options will not always be adequate and residual risk will remain. Residual risks are the risks which remain after the LDMG has applied the risk mitigation strategies within their capacity, but those strategies have not sufficiently reduced or eliminated the risk.

The following is a list of identified risks that are not within the capacity of the LDMG to address and are therefore deemed to be Residual Risks to be escalated to the DDMG. This list is not exhaustive and further residual risks will likely emerge as the QERMF is progressed.

			HAZARD									
RISK	TREATMENT (Examples)	RESIDUAL RISK (Risk remaining after risk treatment – those beyond the capacity of local arrangements)		Severe Tropical Cyclone	Storm Tide and Storm Surge	Riverine Flooding	Bushfire	Earthquake	East Coast Low	Heatwave	Landslides	Tsunami
Injury or death of a large number of people	 Early warning to at-risk population Open evac centres early Provide transport out of danger zone. 	Potential for large numbers of citizens to be in need of medical attention post disaster with limited capacity locally to source and roll out. Capacity to deal with a large number of deceased.		>				~				~
Evacuation of large numbers from isolated locations	 Evacuation planning Early evacuation Evacuation centres in safe locations Evac messaging 	Mass evacuation will require early warning to enable enough time to undertake the evacuation, suitable modes of transport and a safer location to establish evacuation centre/s. Rapid onset events will provide challenges.		۲	٢	~	*	>				~
		If high update of self-evacuation strategy has not occurred there will be limited potential to mass evacuate.										
		Moving a large number of people out of the Local Government Area will prove complex and require multiple levels of government and extensive resources.										
Inability of emergency services assets to deploy (due to severe weather or damage to infrastructure or availability of personnel.	Pre-deployment of assets	Minimal assets are available locally for most agencies; determining safe yet strategic locations to pre-deploy assets will potentially require coordination at State level.	~	>	>	~	~	~	~		>	>
Inability to access/provide medication	 Community messaging to have emergency kit/evacuation kit. Local arrangements with chemists and doctors 	Mass evacuation will likely result in a high proportion of evacuees not bringing their medication or scripts. Long periods of regional isolation will deplete local holdings of particular medications, which will need to be sourced and transported from outside the region.		>	>	~	~	~				>

							HAZ	ARD				
RISK	TREATMENT (Examples)	RESIDUAL RISK (Risk remaining after risk treatment – those beyond the capacity of local arrangements)		Severe Tropical Cyclone	Storm Tide and Storm Surge	Riverine Flooding	Bushfire	Earthquake	East Coast Low	Heatwave	Landslides	Tsunami
Lack of accommodation available	 Messaging "evacuate to friends and family." Open evacuation centres in safe locations. 	Competition for available accommodation following a major event remains. Other options will need to be explored including "tent city" type of accommodation sourced from outside the region.		~	~	*	~	~				~
Lack of supplies (food, fuel, water, medicine)	 Community messaging to have emergency kit/evacuation kit. Resupply arrangements with District and SDCC 	Resupply of isolated individuals, households and communities will be required. Extended isolation of the Bundaberg LGA may require resupply by air from outside the region.		>	>	~	~	~				~
Erosion of natural environment	 Land Use Planning controls. Reinforcement of dunes, wetlands etc. 	A loss of community amenity and damage to the environment may see long-term impacts on industry such as tourism, farming, fishing. Ongoing financial and development programs at both a State and Commonwealth level may be required.	~	>	>	>			~			~
Loss of agriculture	 Business continuity Grants/loans for re- establishment of industry 	Significant loss of crops for short- medium terms, requiring financial assistance to effected providers and communities. Ongoing financial and development programs at both a State and Commonwealth level may be required.	~	>	~	>	~	~	~		~	~
Reduction in industry economic sustainability	 Business continuity Grants/loans for re- establishment of industry 	Lack of employment opportunities and viability of whole industries, impacting negatively the gross regional product and sustainability of some communities. Ongoing financial and development programs at both a State and Commonwealth level may be required.		>	>	~	~	~				~
Damage to critical infrastructure	 Relocate critical infrastructure to safer locations; "harden" infrastructure; integrate redundancies. 	Critical infrastructure may be offline for considerable periods of time, impacting large swathes of the community. Lack of technical expertise locally to re-establish critical infrastructure	~	>	>	•	~	~	~		~	~
Limited road access	Funding has enhanced the resilience of some road infrastructure.	High cost to all levels of government to repair and make resilient roads infrastructure.		>	>	>	~	~				~

							HAZ	ARD				
RISK	TREATMENT (Examples)	RESIDUAL RISK (Risk remaining after risk treatment – those beyond the capacity of local arrangements)		Severe Tropical Cyclone	Storm Tide and Storm Surge	Riverine Flooding	Bushfire	Earthquake	East Coast Low	Heatwave	Landslides	Tsunami
Telecommunications failure	 Telecommunications infrastructure has been hardened and redundancies developed by telecoms. Emergency services have advanced radio comms capacity. BRC has radio comms capacity, which includes the Warden's network (a set of community members in strategic locations). 	Telecommunications resilience remains a cost- benefit-politics compromise. No single platform exists for emergency services/ disaster response. L ikelihood of "black spots" remains following disasters.	~	٨	v	~	~	~			~	~
Capacity of local government to respond to disaster event	 Local Disaster Management Plan QDMA Training LDMG LDCC Exercises 	A single or combination of multiple large-scale events in quick succession have the capacity to overwhelm local government resources.	~	٨	~	~	~	>	>		~	>
Local aged care providers have not implemented adequate disaster planning	Local level engagement with providers, providing planning tools and assistance.	Direction from State or Commonwealth for aged care providers to have a thorough business continuity plan.	~	~	~	~	~	~	~	~	~	>

Events that may require assistance from outside the region

The following identifies hazards at particular intensities or scale that would likely require disaster response and recovery assistance from District, State or Commonwealth

- **Cyclone above Cat 3**. However, lower-level cyclones may bring with them storm surge and high rainfall (see below), which may have major impacts that require assistance from District/State.
- **Storm tide above 1m HAT** (although erosion issues of significance can occur at lower levels, which would require assistance from the State for resolution).
- **Riverine flooding that exceeds MAJOR FLOOD LEVELS** (the greater the flooding is above MAJOR FLOOD LEVEL, the less likely local resources will be adequate).
- **Tsunami above 1m HAT** (although erosion issues of significance can occur at lower levels, which would require assistance from the State for resolution).
- Major bushfire in izone/urban areas.
- **Earthquake** above X on Richter scale and located within Y kms of built-up area at a depth less than Z kms (these values are not quantified) but qualitatively: "a moderate sized quake, shallow, close to BUNDABERG CBD/CHILDERS/GIN GIN centres".
- Severe thunderstorm would need to be a very severe storm, likely including very strong wind, heavy rain, hail.

PART 6 – PREVENTION

Prevention is the elimination or minimisation, to the greatest extent possible, of exposure to the hazard. Effective disaster response and recovery activities begin with preparedness and awareness raising activities that are conducted on an ongoing basis, in advance of any potential disaster, to ensure that if an event occurs, communities, resources and services are able to cope with its effects.

Prevention comprises regulatory and physical measures undertaken to prevent or reduce the likelihood of a disaster event occurring or to decrease (mitigate) the severity of an event should it occur. The implementation of appropriate and targeted mitigation measures contributes to saving lives and reducing the cost of response and recovery operations.

Local and District Disaster Management Groups and the State Recovery and Resilience Group (SRRG) each have a responsibility for prevention activities.

Mitigation strategies

In the Bundaberg region, prevention and mitigation strategies are based on risk assessment and include:

- Community education to preparing communities and response agencies;
- Land use planning and building codes;
- Design improvements to reduce the risk of disaster and to provide more resilient future infrastructure, or updating/hardening existing infrastructure services;
- Resilience activities, including establishing partnerships between sectors and the community;
- A clear understanding of hazards, their behaviour and associated risks and interaction with vulnerable elements and communicating these.

Examples of mitigation strategies undertaken by Bundaberg Regional Council and the LDMG include:

- Public information to raise awareness of local disaster risks, what is likely to happen during a disaster, local evacuation arrangements and specific measures available for groups who require particular assistance (for example, the elderly, ill and people with disability);
- Community education programs to build knowledge of the appropriate actions to prepare for and respond to a disaster event, including Opt In service for alerts on emergency news, weather events and river levels;
- Resilience activities including partnership building and engagement between sectors;
- Design improvements to infrastructure and services;
- Land use planning and development decisions that account for natural hazard risks and changes in those risks;
- Annual programs (e.g. vegetation management around essential services and critical infrastructure such as power lines).
- Construction and maintenance of evacuation routes and infrastructure such as the proposed Bundaberg East Flood Levee.

Community education

Section 30 of the Act requires the LDMG to ensure that 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 LDMG recognises that local knowledge is invaluable to the disaster planning process. The community plays a key role in contributing to its own safety by understanding the risks they face, how to prepare themselves, their home and their community for the possibility of a disaster event to minimise impacts, can adapt to the circumstances, recover quickly and emerge stronger than their pre-disaster state.

Bundaberg Regional Council uses the State-wide *Get Ready Queensland* campaign for messaging on disaster awareness and funding made available to Council through the *Get Ready Queensland program* to produce community education and awareness products and undertake disaster preparedness activities.

Land Use Management/Planning

Land use planning is the process by which the use and development of land is managed for the benefit of the whole community. Land use planning that anticipates likely risk and vulnerability of the population can reduce the potential impact of future disaster events. Responsible land use planning can therefore prevent or reduce the likelihood of hazards.

<u>Bundaberg Regional Council Planning Scheme 2015</u> includes plans, references for land-use management, codes for development, and requirements relating to the assessment of proposed developments. Various land use management initiatives have been introduced and implemented by the Planning Scheme and the measures taken to minimise and mitigate the potential impact of disasters can be reviewed in detail <u>online</u> or accessed at Council libraries. It continues to be reviewed periodically to ensure it remains relevant in the contemporary environment and aligned with planning provisions and frameworks directed by other levels of Government.

Building codes, regulations and standards

Building codes, regulations and standards are designed to ensure consistent, safe and sustainable development of buildings and infrastructure. Building is regulated by Council under the *Building Act 1975* and the *Building Regulation 2021*. The codes, regulations and standards cover areas including drainage, fire separation, and construction in flood hazard areas.

More information on building standards can be located at <u>https://www.qld.gov.au/housing/building-home/laws-standards</u>

Bundaberg Flood Protection Study

As a result of the devastation caused by ex-Tropical Cyclone Oswald, the Queensland Government completed the Bundaberg Flood Protection Study in early 2017. Undertaken by independent consultant Jacobs Group (Australia) Pty Ltd, this study was a crucial component of the Queensland Government's commitment to developing a 10-year action plan for flood mitigation works in Bundaberg.

The Bundaberg 10-year Action Plan was launched in Bundaberg on 6 June 2017 as a roadmap setting out the action required to reduce flood risks in Bundaberg. It builds on projects undertaken by Council and harnesses the collective knowledge of the Bundaberg community, experts and government to prioritise cost-effective flood mitigation solutions for the people of Bundaberg, their homes, property, businesses and the local economy. The flood mitigation options investigated as part of the Bundaberg 10-year Action Plan included Bundaberg North Evacuation Routes, Bundaberg East Levee, Upper Floodplain Evacuation Improvements and the Floodway Property Buy-Back Scheme.

Bundaberg East Flood Levee

Federal and State Government funding was announced in June 2023 for the construction of the Bundaberg East Levee to protect parts of Bundaberg East, Bundaberg South and the city's CBD from future flood events. Project involves construction of a 1.7 km concrete levee in two main sections near the Burnett River's southern bank, with floodgates, flood doors and pump stations across Saltwater Creek and an unnamed creek known locally as 'Distillery Creek'. Engineering consultants were appointed in March 2024 to conduct a comprehensive review of the design work done to date and make updates where necessary to progress the levee's final alignment and design.

Hazard reduction programs

The agencies that make up the LDMG are responsible for ensuring risk sources are managed and/or reduced wherever possible and could include actions such as:

- Development of flood management plans.
- Bushfire fuel load reduction through contemporary land management practices including
 prescribed burning, maintenance of existing fire breaks and identification of additional fire breaks.
- Inspection and maintenance of high-risk hazards and structures.
- Public education to reduce disaster risks around the home.
- Waterway/natural drainage maintenance/annual drain clean.

Climate change adaptation

While climate change is not a direct hazard, it is an amplifier of existing climate variation and will affect Queensland's diverse communities, regions, and industries in different ways, presenting both opportunities and risks. The Bundaberg Region already experiences climate extremes such as floods, heatwaves, and bushfires and climate change has the ability to affect the frequency, intensity and severity of severe weather events.

To assist in understanding and adapting to climate change, Bundaberg Regional Council has developed a <u>Coastal Hazard Adaptation Strategy (CHAS)</u>. The CHAS looks at hazards such as coastal erosion, storm tide inundation and sea level rise and identifies adaptation options to reduce risks associated with these coastal hazards.

Council also has its <u>Sustainable Bundaberg 2030 Strategy</u> that sets forth the goals and vision for a sustainable region, with a particular focus on delivering tangible benefits that include reduced operational costs, positive environmental outcomes and innovative opportunities for business and industry.

In addition, Bundaberg Regional Council has developed <u>Towards Net Zero Bundaberg</u>, along with a regional assessment of renewable energy opportunities that will aid in the overarching goals of achieving net zero emissions for the Bundaberg region.

Insurance cover

Natural disasters are a risk faced by many communities and the general insurance industry plays an important role in the economic recovery within communities after a disaster.

Bundaberg Regional Council encourages all residents and primary producers, business and property owners to purchase appropriate insurance and to continually review their insurance policy. Residents should contact their insurer to clarify that they have appropriate level of cover in the event of a disaster.

Insurance Council of Australia is the representative body for the general insurance industry of Australia. Their role is critical in ensuring their members, consumer groups and all levels of government serves to support consumers and communities when they need it the most.

More information can be found on the Insurance Council of Australia website.

PART 5 - PREPAREDNESS

Introduction

Effective disaster response and recovery activities begin with preparedness activities designed to increase the capability of communities in order to reduce the impact of disasters. All activities are undertaken in advance of the occurrence of an event to decrease the impact, extent, and severity of the incident and to ensure more effective response activities.

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 activities include:

- Developing and implementing community education and engagement programs.
- Developing effective information management and collection of historical data events.
- Ensuring accurate and current plans and arrangements are in place.
- Participating and facilitating 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.

Resilience

Increased community resilience to disaster events is a performance outcome contained within Bundaberg Regional Council's Corporate Plan (2021-2026). The aim of resilience for the Bundaberg region is to reduce the impact of an event so as to limit those that need support to recover and set conditions to enable transformation and adaptation to the range of stresses and shock experienced.

Bundaberg Regional Council and the LDMG are committed to strengthening the resilience of our region so the community can successfully prepare for, respond to, and recover from any disaster-related event. Council supports the four objectives that underpin the <u>Queensland Strategy for Disaster Resilience</u> (2022-2027):

- Understand our potential disaster risks.
- Work together to better manage those risks.
- Seek new opportunities to reduce disaster risks.
- Continually improve how we prepare for, respond to and recover from disasters.

Disaster resilience is significantly increased by proactive planning and preparation for the protection of life, property and the environment through an awareness of hazards, associated risks and local disaster management arrangements.

Responsibility

Disaster management in Queensland is a shared responsibility and the community needs to play a vital and active role in meeting the challenges presented by disasters which will inevitably impact our region. Self-reliance will come through the community taking personal responsibility for first understanding and then contributing efforts to support the effective management of the risks that their community is exposed to. This will be done through education, communication and at times direct actions. This is supported by the services and information provided by Local and State Governments and all other stakeholders that engage regularly with local communities about disasters.

The State Disaster Management Plan identifies the key elements which contribute to a resilient community:

- risk-informed and appropriately prepared individuals.
- the capacity to adapt to changing environments and circumstances.
- healthy levels of community connectedness, trust and cooperation.

The local communities are encouraged and will be supported to play an active and central role in disaster risk prevention, preparedness, mitigation, and in building resilience.

Response capability

In addition to Local Government response requirements under section 80 of the Act, Council maintains a response capability through its funding and extensive support of the local State Emergency Service (SES) Units. Council also collects and distributes the Emergency Management Levy on behalf of the Queensland Government.

Internally, council has identified teams with relevant capabilities and expertise to assist in providing a disaster response capability.

Training programs

Education and training for those involved in disaster and emergency management work is a key preparedness and capability building activity. QPS has the responsibility to ensure that persons performing functions under the Act in relation to disaster operations are appropriately trained. Bundaberg Regional Council and Bundaberg LDMG works with QPS and other relevant agencies to ensure all required mandatory training and inductions are undertaken and captured in the training register.

It is the responsibility of all stakeholders with disaster management and disaster operations roles to undertake training relevant to their role as outlined in the Queensland Disaster Management Training Framework (QDMTF). QPS Emergency Management Coordinators (EMC) facilitate this training under the QDMTF.

All Members and Advisors to the LDMG are to complete, as a minimum, the Queensland Disaster Management Arrangement (QDMA) module.

Exercising of plan

The *Disaster Management Act 2003* requires the effectiveness of a LDMP must be reviewed at least once a year. In accordance with Section 59 of the Act, Council is responsible for ensuring the effectiveness and capability of the Plan with key stakeholders. One means of doing this is by exercising of the LDMP.

An exercise is a controlled activity used to train or assess personnel, evaluate procedures and test the availability and suitability of resources. Various types of exercises may be conducted to ensure currency and effectiveness of the plan and stakeholder's capability to respond to and recover from a disaster event.

In addition, the Bundaberg LDMG may participate in other Local, District or State exercises to enhance knowledge, experience, and skills in disaster management activities.

Type of exercise	Description
Discussion	Discussion exercises are built around discussion of a scenario. Participants can explore issues in depth and provide verbal responses to situations. These types of exercises are useful for developing agreed approaches to particular events.
Functional	Functional exercises are closely related to discussion exercises but normally take place in an operational environment and require participants to perform the functions of their roles. These types of exercises are designed to test and practice a function. Functional exercises are normally run-in real time and participants would receive information like the way they would receive it in a real-world event.
Field	Field exercises involve deployment of personnel to a simulated incident or emergency. These exercises may involve elements of functional exercises and often test control arrangements as well as 'on the ground' skills. These types of exercises are designed to practise, develop or assess the competencies of on-ground personnel, evaluate the effectiveness of inter-agency coordination and evaluate the activation of an emergency plan.

At the conclusion of an exercise, it is important that debriefs are conducted to capture issues and areas for improvement.

Pre-season briefings

Lead authorising agencies (such as BoM) deliver pre-seasonal briefings to provide weather outlooks and an overview of readiness activities prior to the severe weather season. The benefits of pre-seasonal briefings are to assist agencies with:

- Pre-planning.
- Community preparedness campaigns and messaging.
- Public information campaigns.

Council attends these briefings and subscribes to a number of different alert systems including Bureau of Meteorology severe weather warnings and Early Warning Network alerts.

Community Information

Council promotes disaster preparedness messaging throughout the year, through the most effective combination of mediums, including but not limited to:

- Council's Disaster Dashboard (including Opt-In service)
- Social media channels
- Broadcast media.
- Local community radio stations
- Council's website
- Community workshops
- Community events

Prior to an event declaration or activation of the LDCC, Council's Corporate Communications team, on advice from the Disaster Management Unit, assists with preparing and distributing warnings and information received from State and hazard-specific lead agencies (refer Public Information and Warnings Sub-Plan).

Understanding your local risk

There are a number of tools for residents to access to help with understanding their risk within the Bundaberg region before, during and after an event and to assist with any preventative or preparedness measures.

Disaster Dashboard

Bundaberg Regional Council's <u>Disaster Dashboard</u> provides the community with a comprehensive and user-friendly platform for accessing information on the current status of events in the region. It includes emergency news, road conditions, weather warnings, power outages and other information along with an opt-in service for residents to receive weather and flood level alerts.

Interactive Flood Mapping

Bundaberg Regional Council provides an online interactive mapping system that allows residents, businesses and emergency services to easily correlate flood gauge heights to potential inundation of individual properties. An important flood education tool, it allows an understanding of what the flood gauges mean to a particular property and assists with preparation for future floods. The tool is available on <u>Council's website</u>

River and Rain Gauge Network

Bundaberg Regional Council partners with the Bureau of Meteorology to provide and maintain a river and rain gauge network. The data collected by the river and rain gauge network allows the LDMG, emergency services and other disaster management agencies, and the community, to have timely, accurate information during disasters and severe weather events to aid in planning response (including evacuation and resupply). The data is used to quantify local effects of rainfall and river conditions. Furthermore, the data is provided free of charge to the community via the Bureau of Meteorology's website

Storm Tide Evacuation Maps

Storm Tide Evacuation Zones are based upon geographical data from the National Storm Tide mapping program. Evacuation Zones are designed to provide an easy-to-understand method for the public to identify coastal areas that may be affected by storm tides caused by tropical cyclones or severe east

coast lows. Storm Tide Evacuation Maps can be found on the Situation Map on Council's <u>Disaster</u> <u>Dashboard</u>

Community Evacuation Guides

Council has prepared a number of Community Evacuation Guides to assist residents in particular areas of the Bundaberg Region to prepare for evacuation in significant weather events, bushfires, or other disasters. Information is locally relevant with Guides currently available for Bargara, Burnett Heads, Coonarr, Coral Cove, Elliott Heads, Innes Park, Moore Park Beach, North Bundaberg, Woodgate and Paradise Dam. Guides are found on Council's website - <u>Community Evacuation Guides – Bundaberg</u> Regional Council

Bushfire - Postcode Checker

Provided by QFD, the Rural Fire Services postcode checker is an online map which assists residents to understand the bushfire potential to their neighbourhood. Entering an address, postcode, or suburb into the checker will show the potential bushfire risk.

PART 7 – RESPONSE

Introduction

The Act defines disaster response as 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.

In accordance with Section 4A(d) of the Act, Local Governments are primarily responsible for responding to disaster events in their LGA with District and State levels providing appropriate resources and support.

Response priorities

The following priorities apply to any response:

- Preservation of life.
- Protection of critical infrastructure and property.
- Safeguard the economy.
- Protect the environment.

Response principles

The LDMG will:

- Activate early to prepare and to plan for the response and coordination of disaster operations.
- Work closely with the responsible lead agency and the DDMG to manage and coordinate disaster operations.
- Provide warnings, alerts and public information early and consistently to the community or those who need it.
- Ensure disaster operations and response activities are coordinated.
- Ensure resources are accessed and used effectively.
- Provide support to meet community needs.
- Provide situational reporting.

Responsible Lead Agencies

The LDMG will ensure the responsible lead agency is supported by the disaster management system during their response to an event. The responsible lead agencies for each hazard can be found in the <u>State Disaster Management Plan – refer pg. 47-50</u>

Levels of activation

Activation of Bundaberg Regional Council's disaster management arrangements will occur in accordance with the following four level escalation model as per the following table:

Levels of activation	Description
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.
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.
Stand-up	The operational state following 'lean forward' whereby resources are mobilised, personnel are activated, and operational activities commenced. Disaster Coordination Centres are activated.
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.

Activation levels are based on community impacts or consequences, and the required level of coordination of Council's response. Bundaberg Regional Council has adopted a flexible and scalable approach to activation. The Bundaberg LDMG will activate using this escalation model reflecting State response phases. However, 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 nature or the speed of onset of the event.

Local Disaster Management Group Activation Triggers and Actions

	TRIGGERS	ACTIONS
ALERT	• There is awareness of a risk source (threat) that has the potential to affect the Bundaberg Region LGA to an extent that a coordinated multi- agency response would be required or requested.	 Monitor the risk source through communication with the primary agency. Maintain situational awareness. Brief the LDC and key staff. Provide advice of the LDMG response level to the DDC. Report, by exception only, to the DDC and/or LDMG. Undertake emergency response activities through LDMG members' core business arrangements.
LEAN FORWARD	 There is a likelihood that a threat may affect the LGA to an extent that a coordinated multiagency response would be required or requested. Threat is quantified but may not yet be imminent. There is a need for public awareness. LDMG is now to manage the event 	 LDC places the Chairperson and Deputy Chairperson of LDMG on watching brief. Establish communication protocols with the primary and warning agencies. Maintain situational awareness and confirm level and potential of the threat. Provide advice of the LDMG response level to the DDC. Issue warning orders to key staff and agencies. Prepare LDCC but do not activate it. Determine trigger point for move to stand up. Conduct initial briefing of LDMG. Provide ad-hoc reporting by exception only to DDC and/or LDMG. Initiate public information and warnings.
STAND UP	 Threat is imminent or occurred. Community will be or has been impacted. Requests for support received by the LDMG. There is a need for coordination 	 LDC briefs Chairperson and Deputy Chairperson of LDMG. LDMG meets. LDCC is activated and operational. LDMG assumes control of disaster operations in the LGA. Implement standard operating procedures. Provide regular reporting to DDC and/or LDMG. Recovery needs and operations are scoped.
STAND DOWN	 No requirement for coordinated response. Community has returned to normal function. Recovery taking place. 	 LDC approves stand down. Final checks of outstanding tasks are conducted. Transition to business as usual and/or recovery is made. Staff of the LDCC and LDMG are debriefed. Final situation report to DDC and/or LDMG is made. Through the Local Recovery Group, manage medium to long term recovery operations.

The LDMP will be activated automatically whenever the LDMG activates. The LDC is responsible for activating approved Sub-Plans as required by the nature and circumstances of the event.

The following are **explicit triggers** that are likely to require activation of Bundaberg LDMP (at either Alert, Lean Forward, or Stand Up status, depending on event and event-specific analysis of impacts).

- BoM issues any of the following:
 - Flood Watch;
 - Flood Warning;
 - Severe Weather Warning;
 - Storm Tide Warning;
 - Tsunami Watch; and
 - Tsunami Warning (Marine or Land Inundation).
- Widespread rainfall in excess 200mm in 48 hours (moderate to major flooding a possibility).
- Rainfalls in excess 300mm in 48 hours (localised flash flooding and/or major flooding likely). <u>Note</u>: Department of Transport and Main Roads will close main traffic bridges over Burnett River at 7 m at Bundaberg Gauge (located at end of Targo Street).
- BoM issues a cyclone track map that indicates possible impacts within 400 kms of Bundaberg LGA.
- Shallow earthquake detected above Magnitude 4 within close proximity of Bundaberg (or "felt"

earthquake experienced).

• Fire warnings and/or fire weather warnings from QFD or Bureau of Meteorology

Local Disaster Coordination Centre (LDCC)

The LDCC is managed by the Bundaberg Regional Council, staffed by Local Government employees, and supported by agency Liaison Officers from government and non-government organisations as appropriate to the local area.

The LDCC is established to support the LDMG in the primary functions and key activities required for response and recovery activities during an event:

- forward planning,
- resource management, and
- information management

<u>Structure</u>

The LDC has overall responsibility for the establishment and operation of the LDCC. During a disaster event, Council will coordinate resources, operational response activities at a whole-of Local Government level. It is responsible for:

- operationalising the decisions made by the LDMG.
- maintaining operations of Council assets.
- managing all internal operations directly related to the event response within the region, and
- collecting, evaluating, disseminating, and using the information to support the active management of Council resources and personnel within the whole LGA.

Location

The primary location for the LDCC is the Bundaberg Regional Council Councillors Office, 1st Floor, 190 Bourbong Street, Bundaberg Central. This site is equipped to coordinate all phases of disaster and is resilient to business impact events including power loss, to allow responses to continue uninterrupted.

Dependent on the event and connectivity, the LDCC may also operate virtually utilising Microsoft TEAMS or via a hybrid of face-to-face and virtual operations.

If the Primary Location is adversely affected by the disaster event, potential Secondary Locations for the establishment of an LDCC include:

- Civic Centre Supper Room, 190 Bourbong Street, Bundaberg Central
- Bundaberg Multiplex Sport and Convention Centre, 1 Civic Ave, Bundaberg
- Bundaberg SES Headquarters, Kendalls Road, Avoca
- Bundaberg Regional Council Administration Building, 4 Dear Street, Gin Gin
- Bundaberg Regional Council Administration Building, 45 Churchill Street, Childers
- Bundaberg TAFE College, 118 Walker Street, Bundaberg West
- CQUniversity, University Drive, Branyan

Refer to Local Disaster Coordination Centre Standard Operating Procedures for further information.

Requests for Assistance

When resources under the management of the LDMG are exhausted or overwhelmed or a specific technical resource or capability is not able to be located or available, the LDC is to contact the DDC so that resources can be accessed or made available. All requests for assistance shall go through the LDC via the "Request for Assistance" (RFA) process.

The LDC will be proactive in informing the DDC if it is likely that requests for additional resources are to be made so that in turn the DDCC can also be proactive in its planning for requests for additional resources from within the region, or if these are not available, from the State.

Further information on the RFA process can be found in the Local Disaster Coordination Centre Standard Operating Procedures.

Declarations

In accordance with Section 64 of the Act, a DDC may, with the approval of the Minister, declare a disaster situation for the District or one or more Local Government areas within the District in whole or in part. As outlined in Sections 75 and 77 of the Act, the Declaration confers extra powers on particular groups to perform actions, give directions and control movements within the declared area.

In declaring a disaster situation, the DDC is to be satisfied that a disaster has happened, is happening or is likely to happen and it will be necessary, or reasonably likely to be necessary, to exercise declared disaster powers to prevent or minimise the loss of human life, illness or injury to humans, property loss or damage, or damage to the environment. 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.

The declaration of a disaster situation relates directly to the provision of additional powers for a specific event. A declaration of a disaster situation is not required to activate the disaster management arrangements or to obtain financial assistance through established disaster relief schemes.

A Disaster Declaration has a 14-day duration from the date it is declared unless it is extended or ended sooner by the Minister under Sections 67(A) and 68(1) of the Act.

A Disaster Declaration will immediately trigger activation at Stand Up status.

Public information and warnings

Emergency warnings are intended to inform the community of an impending or current threat and promote appropriate responsive actions. Community messaging needs to be frequent and consistent, clear and concise to avoid confusion and provide actions for the at-risk community to take.

In the event of a potential emergency situation, emergency warnings may be issued by any agency that has primary responsibility for a hazard, such as the BoM, QPS and QFD.

Additional disaster-related information may be available via Council's <u>Disaster Dashboard</u> and through Council's social-media channels.

Warning authorities

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

Organisation	Warnings/Information Type
Biosecurity Queensland (Department of Agriculture and Fisheries)	Animal/Plant Disease
Bureau of Meteorology (BoM)	Severe weather alerts
Department of Transport and Main Roads	 Major road disruption Maritime incidents Queensland Rail disruption
Queensland Fire Department (QFD)	 Bushfire and hazardous materials incidents
Queensland Health	Public Health alertsHeatwave
Queensland Police Service (QPS)	 Emergency Alerts (EA) Standard Emergency Warning Signal (SEWS) Public Safety Preservation Act declarations Community evacuations
Sunwater	Dam release notifications.Dam spilling.Dam recreational safety
Utility or Facility owner (e.g., Ergon, APA)	Major Infrastructure failure

Community warnings and dissemination

When an event is imminent, it is essential the community are warned of the danger and provided with information about the event and advice on recommended actions.

Under Section 30 of the Act, the LDMG is responsible for ensuring the community is aware of ways of mitigating the adverse effects of an event, and preparing for, responding to and recovering from a disaster. 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.

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.

The LDMG Chairperson, or delegate, is the official source of public and media information for the group's coordination and support activities. Primary and functional lead agencies will provide media liaison for issues relative to their agency role/s.

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 through a number of communication sources including but not limited to:

- Electronic media (Council's Disaster Dashboard, Council's website)
- Landline and Mobile telephone including SMS messaging.
- Social media
- Broadcast media (Radio)
- Television
- Media websites
- Email
- Door knocking
- UHF Repeater network

Other alerts or warnings such as those delivered through the use of Standard Emergency Warning Signal (SEWS), 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, libraries and evacuation centres as well as other community meeting places.

Other means to alert and warn the community prior to, during and post an emergency include personal visits to property by emergency services personnel or council employees, letter box drops, loud hailers or similar in the street, variable messaging signs, agencies on the ground, or any other means deemed appropriate.

Media Management

The Public Information and Warnings Sub-Plan has been developed 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 will undertake this role prior to activation of arrangements.

Emergency Alert

<u>Emergency Alert</u> (EA) is a national telephone emergency public warning system that can be used to convey emergency warnings to the public. The initiating and approving authority for the use of EA in Queensland is QPS. Pre-prepared polygons and messages, based on the risk assessment process for the region, have been stored on the Disaster Management Portal.

Emergency Alerts will be requested by the LDC and are managed through the State Disaster Coordination Centre Watch Desk.

Standard Emergency Warning Signal

The Standard Emergency Warning Signal (SEWS) is a distinctive audio signal (warning siren) used in Australia to alert the public to the broadcast of an urgent safety message relating to an emergency or disaster, requiring immediate attention and a call to action.

EA campaigns that are urgent and require voice messages to be sent to landlines will have the SEWS tone play for four (4) seconds before the audio message begins.

Further information on Emergency Alerts and Weather Warnings can be found on the <u>Queensland</u> <u>Governments</u> website.

Australian Warning System

The <u>Australian Warning System</u> (AWS) is a national approach to provide uniform information for all hazards, specifically telling the community what impacts are expected and what actions they should take to be safe. It uses a nested model that includes the warning level + hazard/location + action statements. Each warning level is combined with an action statement to give the community clearer advice about what to do.

Bundaberg LDMG's Emergency Alerts conform with AWS requirements. Further information on the AWS can be found in the <u>Public Information and Warning Sub-Plan</u>.

Evacuation strategies

There are several emergency or disaster situations that may require evacuations or temporary relocation of people or part of the community. Further information can be found in the <u>Evacuation Sub-</u><u>Plan</u>.

The key evacuation objectives adopted by the LDMG are:

- to ensure the preservation of life during a disaster event
- to use evacuation when it is deemed to be the most appropriate strategy.
- to ensure the effective coordination of the evacuation operation.

Generally, most of the public will act in their own interest and evacuate dangerous areas when advised to do so by the authorities. In the first instance, evacuees will be encouraged to be self-sufficient and seek shelter with family or friends or use commercial accommodation providers. In some circumstances, Evacuation Centres and/or Places of Refuge may need to be established to meet the basic needs of those evacuated.

The following five stages apply to each evacuation:

Stages	Description
Decision	The decision to evacuate (or not) is the first stage of the evacuation process. Many complex issues need to be considered in making this decision, often with only limited information and time available. A decision not to evacuate is just as important as a decision to evacuate.
Warning	An evacuation warning is the second stage of the evacuation process. Warning messages should provide guidance and sufficient detail, must be clear, issued by a credible issuing authority and provide clear actions statements.
Withdrawal	Withdrawal is the third stage of the evacuation process and involves the organised movement of people from a dangerous or potentially dangerous area to one that is safer. At this stage the following considerations should be considered in the withdrawal planning:• Time available• Egress routes.• People at higher risk• Traffic Management• Those who choose to remain.• Assembly areas• Family groups• Location• Animal Management• Security, and• Partial and phased evacuations• Communications
Shelter	Shelter is the fourth stage of the evacuation process and involves the provision for basic needs of people affected by the emergency, away from the immediate or potential effects of the hazard. Residents or visitors are encouraged to check Council's <u>Disaster Dashboard</u> or refer to the warning message for open evacuation centres within the region. The preferred option is to reside/relocate to friends and family members outside of the exposed area in the first instance.

Stages	Description
Return	Return is the fifth stage of the evacuation process; the period during which those who have left the hazard impact area and have been unable to return are now able to do so, more or less permanently. It will be necessary to undertake an impact assessment of the area to determine if return is possible and to identify any special conditions which may need to be imposed.

Evacuation centres

Where possible, and if safe to do so, the community should shelter in place either in their place of residence or by staying with friends and family or in commercial accommodation outside the unsafe location.

If required to evacuate, people are encouraged to seek refuge with family or friends in the first instance.

Council has identified various community facilities across the region as potential evacuation centres or places of refuge. The LDCC is responsible for coordinating the activation and closure of the facilities.

These facilities can be used as outlined below:

- **Evacuation centre** a facility located beyond a hazard, set aside to provide short-stay emergency accommodation for displaced (evacuated) residents.
- **Place of refuge** a facility identified or set aside to provide a brief respite from disaster effects and does not require the provision of accommodation.
- **Neighbourhood Safer Places** open spaces or buildings where people may gather, as a last resort, to seek shelter from bushfire or another hazard.
- **Relief and recovery centres** are not evacuation facilities, but provide a range of welfare, support, financial and emotional recover services.

It should be noted there are no Cyclone Shelters within the Bundaberg LGA. The nearest Public Cyclone Shelter is at Yeppoon.

Community Evacuation Centres or Places of Refuge may be opened by Council as required as a result of an impending threat within the region. The affected community will be notified of the establishment and operation of a centre via various communication sources including Council's <u>Disaster Dashboard</u>, social media and local broadcast (radio/TV).

If evacuating, community members are encouraged to utilise <u>Register.Find.Reunite</u>. to ensure family and friends know they are safe.

Animal Management

Pet ownership is a personal responsibility. The sheltering, welfare, protection, and identification of domestic animals (including livestock) is the responsibility of their owners. In times of emergency or disaster, public interests and welfare may take precedence regarding sheltering, evacuating and care of animals.

Owners are responsible for making evacuation and accommodation plans that include their animals, and the handling and caring for these animals while they are away from their primary residence.

Persons self-evacuating using their own transportation out of the risk area, and taking along a companion animal, are expected to take that animal with them in their own vehicle.

Pet owners will be encouraged to:

- take the animal with them if they are self-evacuating and encourage them to identify pet friendly accommodation prior to departing.
- locate the pet/s with a friend/relative outside the hazard area.
- board the pet in an animal hotel/cattery.

The Bundaberg LDMG cannot guarantee that all safer locations will have the capacity or resources to offer the shelter of pets. As a rule, pets are <u>NOT</u> permitted at many safer locations and Evacuation Centres.

Apart from service animals, pets will not be accommodated in the same location as evacuees, and it may be necessary for Bundaberg Regional Council to establish an animal management facility to accommodate pets/animals. Pets must be caged and/or suitably restrained and will remain the responsibility of their owners.

Guide, hearing, and assistance dogs will be accommodated with their owners at all Safer Locations in accordance with the *Guide, Hearing and Assistance Dog Act 2009*. Proof is required from persons evacuating with an assistance animal providing evidence that it is an assistance animal and has been trained to meet standards of hygiene and behaviour that are appropriate for an animal in a public place.

Livestock is NOT the responsibility of the Bundaberg LDMG and will not be accepted at evacuation centres. Owners of large animals, particularly those with large numbers of animals, will be encouraged to make point-to-point accommodation arrangements with locations outside the risk area.

Neighbourhood Safer Places

Neighbourhood Safer Places (NSP) are identified, assessed and managed by QFD. A NSP is a local open space or building, such as ovals or sports clubs where people may gather as a last resort to seek shelter from a bushfire.

An NSP may be part of a contingency plan when:

- A bushfire survival plan has failed.
- The plan was to stay and defend a property, but the extent of the fire means that the impact of the fire is too great and therefore the property is no longer a safe place to shelter.
- The fire has escalated to an 'extreme' or catastrophic' level and voluntary evacuation is the safest option.

NSP's will NOT GUARANTEE safety in all circumstances. Firefighters may not be present. Open spaces may not provide shelter from the elements, particularly flying embers.

A list of identified NSPs in the region can be found on the <u>Queensland Fire Department</u> website.

Information management systems

Information Privacy

Under the *Information Privacy Act 2009* (IP Act) personal information held by Queensland public sector agencies is protected. However, in managing a disaster event, information flows do not need to be unreasonably restricted by privacy concerns.

The IP Act has in-built flexibilities for dealing with personal information in an emergency. Importantly, the IP Act recognises that the privacy principles may not apply in emergency events and/or where the health and safety of individuals may be at risk.

All agencies and staff involved in disaster management activities are bound by the IP Act. Therefore, all operational information is to be stored securely and protected against unauthorised access, use, modification, disclosure or misuse.

Further information for privacy and managing disaster events and information sharing can be found online at the <u>Office of the Information Commissioner</u>

Incident Management System

Bundaberg's LDCC operates during events using an Incident Management System (IMS) to provide a multi-modal incident management solution that is used by the LDCC as the primary means of providing tactical and operational updates, situation reports and tasks. Currently, Bundaberg Regional Council utilises Guardian IMS for this purpose.

In the event of power and/or generator failure, the LDCC can revert to a paper-based IMS. All documentation will be scanned and stored into the appropriate record management system, once available.

Situation reports

During operational activity, the LDC, through the operation of the LDCC, will be responsible for the preparation and distribution of Situation Reports (SitReps). The SitRep captures up-to-date, accurate and specific data of the current and forecast situation.

It is particularly important that the SitRep provides details of the current response actions undertaken by each agency, impacts to the region and emerging issues to inform and support the decision making of the LDMG to respond or recover from an event. SitReps will be submitted at intervals as determined by the LDC from member agencies in order to ensure that the LDCC has complete situational awareness.

LDMG SitReps will be submitted on a regular basis to the DDC and the SDCC. The SitReps will be forwarded at times as requested by the LDMG to other agencies. SitRep templates can be found in LDCC Standard Operating Procedures (SOPs).

Operational information and reporting

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 of sharing operational information and intelligence products, across all entities.

The demand for information increases substantially during times of activation, and whilst the LDMG accepts these demands and will facilitate requests for information, it must not allow the reporting system to be circumvented.

LDMG is to report to the DDMG. In turn the District Group will report to the State Group. The Local Group should not report directly to the State group and all requests for information must go through the District Group. Individual agencies have two reporting obligations:

1. Each agency must report all activities to the Chairperson and LDC of the group. Without this

information full situational awareness cannot be achieved. Reporting must be in writing surmising the activities of the agency.

2. Each supporting agency has a responsibility to keep their normal command structure informed of their actions and activities. The structure and nature of this reporting is by individual arrangement.

In turn, the LDCC has a responsibility to keep all the members of the LDMG informed of the situation. The LDC is responsible to ensure that all members of the LDMG receive situation reports and up to date information.

Details on managing information, Event Action Planning and SitReps can be found in the LDCC SOPs.

Financial management

Disaster-related finances are not normally included in the budgetary processes of Council or other responding agencies. All LDMG member organisations are responsible for their financial management and procurement matters. This includes the provision of their own financial services and support, meeting and recording their own operational expenses incurred during a disaster event and for claiming reimbursement of any expenses allowed under the State Disaster Relief Arrangements (SDRA) and the Disaster Recovery Funding Arrangements (DRFA).

Council will assume responsibility for financial management of the LDCC during the event. Council's Finance department assists with the collation of all supporting documents to meet the requirements for funding claims.

Logs, formal records and file copies of all expenditure must be maintained to provide clear and reasonable accountability and justification for future audit and potential reimbursement purposes.

Logistics capability

The LDCC provides capability to manage and coordinate resources internally. Bundaberg Regional Council has staff, plant, and equipment resources available to respond to a disaster event. If additional resources are required, the resources will initially be sourced through Council's local suppliers that are:

- Contracted to Council to provide a service or resources.
- Capable of providing the resources, or
- Can support Council in response to a disaster through the provisions of resources.

However, once these measures have been exhausted a Request for Assistance (RFA) can be lodged through to the DDCC. The request must provide sufficient details about description, quantity, and delivery time to ensure an efficient and timely response. The District level must review all available resources before placing a request with the SDCC for assistance from another agency.

Resupply

Most events that isolate communities occur on a seasonal basis and their affects upon roads and transport networks can be predicted with reasonable accuracy. Communities which 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.

Bundaberg Regional Council supports the development of community resilience, including encouraging residents to 'know their risks' and be prepared for disaster events that may result in temporary isolation through regular public information campaigns, social media engagement, disaster education events, and engagement with State and Other Agency disaster resilience campaigns such as <u>Get Ready</u> <u>Queensland</u>.

Should isolated communities or residents require resupply, the LDMG will coordinate resupply operations in accordance with the <u>Queensland Resupply Manual</u>. This process provides a fair and equitable system for support to isolated persons without compromising the fundamental responsibilities of individuals and communities for self-help and mutual assistance.

Fatigue management

In the event that the activation continues for an unspecified 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.

Impact assessments

The purpose of disaster impact assessment is the process of collecting and analysing information to provide disaster management groups with comprehensive, standardised information on the impact of an event:

- Extent of loss or injury to human life.
- Damage to property and infrastructure.
- The needs of the affected community for response, recovery and future prevention and preparedness assistance.

Impact assessments provide the LDMG with a source of comprehensive, standardised information on the effect an event has had on various elements of the community. This information is then used to set priorities and make decisions relating to the response to an emergency or disaster and to the initial steps leading to recovery.

Immediately following an event, QRA/QFD may undertake a rapid damage assessment providing intelligence on the number of homes and other buildings damaged and the nature of the damage. LDMGs, DDMGs and State agencies also provide information on impacts through daily situational reporting to the SDCC.

In the longer term, assessments expand to include a broader social assessment together with an assessment of the impacts on the economy and the environment. This assessment could identify implications for business and government continuity and may alter the conduct of the recovery activities.

Lessons Management

Lessons management is the collecting, analysing, disseminating of data, and applying learnings from events, exercises, programs, and reviews to ensure a continuous improvement of organisational capability and individual learning. Lessons management is incorporated into Bundaberg Region's disaster management practices to ensure continuous sustainable improvement of effectiveness, and an overall reduction in risk.

To contribute to the lesson's management process, debriefs are conducted after each exercise or event.

Hot debrief

Undertaken immediately after operations are complete, the Hot Debrief gives participants the opportunity to share learning points while the experience is still fresh in their minds. This allows a better understanding of how their role may have influenced the outcomes of the exercise. The Hot Debrief will discuss:

- what worked well?
- what didn't work well?
- identified safety issues.
- what immediate actions are required?

Post event debrief

This debrief can be conducted days or weeks after the operation, when participants have had an opportunity to take a considered view of the effectiveness of the operation. This is a key component of developing capacity and provides opportunities for the improvement of disaster management arrangements.

Post event debrief reviews and assessments are conducted to:

- Assess disaster operations undertaken for an event including actions, decisions and processes.
- Document processes that did and didn't work and identify a course of action to ensure they are captured and updated in relevant plans/Sub-Plans, and
- Assess capability and consider where additional planning, training and/or exercises may be required.

Post operational report

Following the completion of all debriefs, a Post Exercise Report or Post Operational Report is developed. This report provides an overview of the learnings identified following an event and identifies findings/issues and recommendations for actions required to address any identified issues. If lessons have been identified, an action plan will be included in the report and the progress of the lessons identified to become lessons learned. This plan will be monitored by Council.

Volunteer management

Volunteers are a vital resource during all phases of disaster management, providing unpaid assistance to residents, businesses, the wider community and other government sectors.

Coordinating offers of assistance from people willing and able to assist at times of need can be challenging and easily overwhelm government and non-government organisations.

Those wishing to volunteer are encouraged to start by finding out if family, friends or neighbours need assistance. This should always be done under their direction and with their consent. After assisting family, friends or neighbours, volunteers should register with Volunteering Queensland's Emergency Volunteering Service. Further information can be found on <u>Volunteering Queensland</u> website.

Donations/GIVIT

Bundaberg Regional Council partners with GIVIT to manage all offers of donated goods and services during a disaster including corporate offers of assistance.

GIVIT is a national not-for-profit organisation and registered charity, providing a platform to manage the donation of goods, services and financial donations to people impacted by an event. GIVIT does not transport items; delivery arrangements are made between the charity and donor.

Further information can be found by visiting their website - GIVIT

Council to Council arrangements

Cross-boundary arrangements (C2C) exist between Bundaberg Regional Council and other Local Government Areas. During a disaster event, Local Councils may seek assistance from other Local Councils to provide personnel or physical resources. If resources permit, activities relating to disaster response and recovery for affected communities across Council borders will be initiated.

In addition, and at the request of the DDC, the Chairperson of the LDMG or delegate may activate the LDMG and the Plan to provide support to disaster-affected communities outside the region. Local requests for C2C support are made through the Request for Assistance (RFA) process to the DDC via the LDMG.

Local Government Association of Queensland is also involved with distributing requests and linking Councils requiring assistance with disaster recovery activities.

PART 8 - RECOVERY

Introduction

Disaster recovery is the coordinated process of supporting disaster-affected communities' psychosocial (emotional and social), and physical well-being; reconstruction of physical infrastructure; and economic and environmental restoration (including regeneration of the natural environment, associated infrastructure, heritage sites and structures, and the management of pollution and contamination).

Rationale

Disaster relief and recovery is a complex and often lengthy process, requiring a collaborative, coordinated, adaptable and scalable approach. Responsibility for its delivery is shared between multiple sectors including Local, State and Australian government agencies, non-government and not-for-profit organisations that work closely with the community to achieve the desired outcomes.

Council has developed a dedicated <u>Recovery Sub-Plan</u> to provide guidance and direction on the preparation for, conduct and support of disaster recovery operations in the Bundaberg Region and to assist in building a more disaster resilient and informed community.

Principles of recovery

The following principles underpin all recovery planning and operations in Queensland:

- **Understanding the context** understanding community context, with each community having its own history, values and dynamics.
- **Recognising complexity** responsive to the complex and dynamic nature of both emergencies and the community.
- **Using local, community-led approaches** community-centred, responsive and flexible, engaging with the community and supporting them to move forward.
- **Coordinating of all activities** a planned, coordinated and adaptive approach, between community and partner agencies, based on continuing assessment of impacts and needs.
- **Communicating effectively** built on effective communication between the affected community and other partners.
- **Recognising and building capacity** recognising, supporting and building on individual, community and organisational capacity and resilience to disaster events.

Stages of recovery

Recovery is not a retrospective process, but a process that focuses on building a recovered community. The Local Recovery Group (LRG) recognises that individuals, groups, and communities may be at different stages of recovery simultaneously and recovery arrangements should reflect the non-linear nature of recovery.

The disaster recovery process can generally be categorised into three phases:

- Stage 1: Immediate recovery (post-impact relief and emergency) this phase often occurs at the same time as response, involving addressing and supporting the immediate needs of individuals, businesses and the community affected by the event. In this phase the LRG will be established. Impact assessments are undertaken, and recovery plans developed and implemented.
- Stage 2: Short-to-medium term recovery (re-establishment, rehabilitation, and reconstruction) this phase includes medium-term recovery and focuses on the coordinated process of supporting affected communities with their re-establishment, rehabilitation and reconstruction of infrastructure, community programs and the economy. Psychosocial support for community members is also continuing during this stage of recovery, Coordination of impact assessments, community engagement, communication and collaboration of all recovery partners continues, and recovery progress is monitored by the Local Recovery Coordinator (LRC).
- Stage 3: Long-term recovery (restoration, rebuilding, reshaping and sustainability) this phase continues on with the re-establishment, rehabilitation, and reconstruction of the community recovery and reconstruction is progressively handed over to agencies or organisations, including

government, community-based or industry-led sectors that would normally support the functional area. Lessons are identified and implemented to increase the community's resilience. Exit strategies are continually planned for to allow return to normal business for agencies so that the 'stand down' level of activation of recovery operations can be reached. This phase ends when all recovery and reconstruction responsibilities are back to being managed as business as usual and the community realises its post-disaster "new normal".

Functional Recovery Groups

The LRG is designed to provide overarching recovery coordination and oversight of functional recovery groups within the Bundaberg Region which includes the following functional Sub-Groups:

- Human-Social Recovery Sub-Group
- Economic Recovery Sub-Group
- Environment Recovery Sub-Group
- Infrastructure Recovery Sub-Group (comprising focus areas that may include buildings and/or roads and transport, depending on need).

Local Recovery Coordinator

Council has appointed Branch Manager Community Services to the role of Local Recovery Coordinator (LRC) to coordinate and facilitate local recovery operations.

Bundaberg Recovery Plan

The Bundaberg Regional Council <u>Recovery Sub-Plan</u> provides further information on the following:

- The role of Local Government in recovery to provide a collaborative approach across all levels of government and non-government agencies.
- The roles of the LRG, LRC and how they link in with the LDMG.
- Activation and reporting of the LRG as well as relevant Sub-Groups
- State and Commonwealth government funding arrangements.

Financial Arrangements

The <u>Queensland Reconstruction Authority (QRA)</u> manages and coordinates Queensland's program of recovery and reconstruction funding within disaster impacted communities.

The Queensland Disaster Funding Guidelines 2021 outline financial assistance available to communities, small businesses, primary producers, non-profit organisations, Local and State governments affected by disasters for events that occur from 1 July 2021 onwards. The arrangements are designed to provide immediate relief for those who are unable to affect their own recovery.

Two types of funding arrangements are available, which can be activated depending upon the scale of the disaster. These include:

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

Council works with the QRA to meet various financial requirements when funding is provided to Council. When activated for disaster response and recovery activities, all relevant agencies are responsible for meeting and processing operational expenses incurred during a disaster event, as per their relevant policies, and obligations under SDRA and DRFA, if activated.

PART 10 – APPENDICES

Appendix A - Abbreviations/Definitions used in Disaster Management

The <u>Prevention, Preparedness, Response and Recovery Disaster Management Guideline</u> includes a Disaster Management glossary of terms and acronyms.

A <u>Disaster Management Lexicon</u> is also provided by the Office of the Inspector General Emergency Management (IGEM)

The following acronyms and initialisms are not contained in the links above but are used by Bundaberg Regional Council in their disaster management arrangements.

Acronym/definition	Full detail
ABC	Australian Broadcasting Corporation
AHD	Australian Height Datum
BRC	Bundaberg Regional Council
Council	Bundaberg Regional Council
Disaster District	Part of the State prescribed under a regulation as a Disaster District. The Bundaberg Disaster District covers the Bundaberg Local Government Area.
Disaster Recovery	The coordinated process of supporting disaster-affected communities' psychosocial (emotional and social), and physical well-being; reconstruction of physical infrastructure; and economic and environmental restoration (including regeneration of the natural environment, associated infrastructure, heritage sites and structures, and the management of pollution and contamination).
Disaster Relief	The efforts to meet the immediate needs of persons affected by a disaster, to minimise further loss through the provision of immediate shelter and life support.
Disaster Response	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.
DMO	Disaster Management Officer
DMU	Disaster Management Unit
DRFA	Disaster Recovery Funding Arrangements
Guidelines	Guidelines about the preparation of Disaster Management Plans, matters to be included in Disaster Management Plans and other appropriate matters are developed under Section 63 of the Act.
LGA	Local Government Area
QDMA	Queensland Disaster Management Arrangements
Reconstruction	Actions that have been taken to re-establish a community after a period of rehabilitation after a disaster. Actions would include the construction of permanent housing, full restoration of all services, and complete resumption of the pre-disaster state.
Region/the region	The area governed by Bundaberg Regional Council.
Risk treatment	Strategies that aim to determine and implement the most appropriate actions to treat (control or mitigate) the identified inherent risk. These actions typically comprise both short and longer-term strategies to address immediate impacts and the resultant ongoing issues.
SMS	Short Message Service
Sub-Plan	Plans for specific actions or events containing more in-depth information than that contained in the main plan.
The Plan	Local Disaster Management Plan

Appendix B – Website Links (Documents)

DOCUMENT	LOCATION	
Building Codes, Regulations and Standards	https://www.qld.gov.au/housing/building-home/laws-standards	
Bundaberg District Disaster Management Plan	https://www.police.qld.gov.au/qps-corporate-documents/disaster- management-plans	
Bundaberg Local Disaster Management Plan	https://www.bundaberg.qld.gov.au/downloads/download/141/bundaberg- local-disaster-management-plan	
Bundaberg Regional Council Corporate Plan (2021-2026)	https://www.bundaberg.qld.gov.au/our-performance	
Bundaberg Regional Council Planning Scheme	https://www.bundaberg.qld.gov.au/brc-planning-scheme-2015	
Bundaberg Regional Council Potable Bulk Water Filling Stations and Locations	https://www.bundaberg.qld.gov.au/bulk-water-supply	
Bundaberg Regional Council Risk Management Policy	https://www.bundaberg.qld.gov.au/downloads/file/142/risk-management- policy	
Bureau of Meteorology River and Rain Gauge Network	www.bom.gov.au/qld/flood/widebay.shtml	
Bureau of Meteorology Tropical Cyclone Knowledge Centre	http://www.bom.gov.au/cyclone/tropical-cyclone-knowledge-centre/	
Bureau of Meteorology - Understanding Heatwaves	http://www.bom.gov.au/australia/heatwave/knowledge- centre/understanding.shtml	
Burnett River Flood Gauge Mapping System	https://www.bundaberg.qld.gov.au/community/burnett-river-flood- information/2	
Coastal Hazard Adaptation Strategy	https://www.bundaberg.qld.gov.au/coastlines-and-rivers	
Community Evacuation Guides	https://www.bundaberg.qld.gov.au/downloads/download/63/community- evacuation-guides	
Disaster Management Act 2003	https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-2003-091	
Disaster Management Regulation 2014	https://www.legislation.qld.gov.au/view/pdf/inforce/2017-04-30/sl-2014-dmr	
Emergency Alerts	https://www.emergencyalert.gov.au/	
IGEM Emergency Management Assurance Framework (EMAF)	https://www.igem.qld.gov.au/sites/default/files/2021- 06/Emergency%20Management%20Assurance%20Framework%20v2.1.pdf	
IGEM Queensland Disaster Management Lexicon	https://www.igem.qld.gov.au/assurance-framework/queensland-disaster- management-lexicon/web-version	
IGEM Standard for Disaster Management	https://www.igem.qld.gov.au/standard	
Neighbourhood Safer Places	https://www.fire.qld.gov.au/prepare/bushfire/neighbourhood-safer-places	
Queensland Disaster Management Strategic Policy Statement	https://www.disaster.qld.gov.au/data/assets/pdf_file/0022/337234/2016- Strategic-Policy-Statement.pdf	
Queensland Prevention, Preparedness, Response and Recovery Disaster Management Guideline	https://www.disaster.qld.gov.au/disaster-management-guideline	
Queensland Resupply Manual	https://www.disaster.qld.gov.au/data/assets/pdf_file/0022/339421/M1205-Queensland-Resupply-Manual.pdf	
Queensland State Disaster Management Plan	https://www.disaster.qld.gov.au/ data/assets/pdf file/0027/339336/Interim- 2023-QSDMP-V1.2.pdf	

DOCUMENT	LOCATION
Queensland Strategy for Disaster Resilience	https://www.qra.qld.gov.au/qsdr
Register.Find.Reunite	https://www.redcross.org.au/emergencies/about-register-find-reunite/
Rural Fire Services postcode checker	https://www.fire.qld.gov.au/postcode-checker
Standard Emergency Warning Signal	https://www.qld.gov.au/emergency/dealing-disasters/warnings-alerts
Standard for Disaster Management	https://www.igem.qld.gov.au/standard
Sustainable Bundaberg 2030 Strategy	https://www.bundaberg.qld.gov.au/downloads/download/191/sustainable- bundaberg-2030-strategy
Towards Net Zero Bundaberg	https://www.bundaberg.qld.gov.au/us/economic-development/2

Appendix C - Website links (Organisations)

ORGANISATION	LOCATION
APA Group	https://www.apa.com.au
Australian Red Cross	https://www.redcross.org.au
Australian Warning System	https://www.australianwarningsystem.com.au/
Bundaberg Disaster Dashboard	https://disaster.bundaberg.qld.gov.au/
Bundaberg Regional Council	https://www.bundaberg.qld.gov.au
Bundaberg Tourism	https://bundabergregion.org
Department of Agriculture and Fisheries	https://daf.qld.gov.au
Department of Environment, Science and Innovation	https://www.desi.qld.gov.au/
Department of Housing, Local Government, Planning and Public Works	https://www.housing.qld.gov.au/
Department of Transport and Main Roads	https://tmr.qld.gov.au
Department of Treaty, Aboriginal and Torres Strait Islander Partnerships, Communities and the Arts	https://www.dsdsatsip.qld.gov.au/
Energy Queensland	https://energyq.com.au
Get Ready Queensland	https://www.getready.qld.gov.au/
GIVIT	https://www.givit.org.au/
Gladstone Ports Corporation (Port of Bundaberg)	https://www.gpcl.com.au/ports-and-trade/port-of-bundaberg/
Insurance Council of Australia	https://insurancecouncil.com.au/
Joint Australian Tsunami Warning Centre	http://www.bom.gov.au/tsunami/
Maritime Safety Queensland	https://msq.qld.gov.au
National Broadband Network Co	https://nbnco.com.au
Office of the Information Commissioner	https://www.oic.qld.gov.au/guidelines/for- government/guidelines-privacy-principles/applying-the-privacy- principles/privacy-and-managing-disaster-events
Queensland Ambulance Service	https://ambulance.qld.gov.au
Queensland Fire Department	https://www.fire.qld.gov.au/
Queensland Health	https://www.health.qld.gov.au/
Queensland Police Service	https://police.qld.gov.au
Queensland Rail	https://queenslandrail.com.au
Queensland Reconstruction Authority	https://qra.qld.gov.au
Regional Housing Ltd	https://regionalhousing.org.au
Rural Fire Service Queensland	https://www.fire.qld.gov.au/about-us/frontline-services/rural- fire-service-queensland
State Emergency Service	https://www.ses.qld.gov.au/
Sunwater	https://www.sunwater.com.au/
Surf Life Saving (Queensland)	https://lifesaving.com.au
Telstra	https://telstra.com.au
Volunteer Marine Rescue	https://marinerescueqld.org.au
Volunteering Queensland	https://volunteeringqld.org.au/emergency-volunteering/
WICEN	https://wicen.org+.au/