TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP

City of Townsville

Tsunami Sub Plan

Local Disaster Management Plan (LDMP) Sub Plan

V12 July 2026

This plan is to be read in conjunction with the Townsville Local Disaster Management Plan (LDMP)

Executive Summary

This Tsunami Sub Plan has been developed by the Townsville Local Disaster Management Group (TLDMG) to ensure arrangements are in place to support frontline disaster response and recovery operations to a tsunami in the Townsville City Council (TCC) local government area.

Section 1 provides an overview of the plan including the aim and objectives, ownership, functional responsibility and the support agencies required to implement the plan. It also provides links to other key documents that inform this plan.

Section 2 relates to how the plan is activated, who needs to be notified and includes a visual aid flowchart as a quick reference guide.

Section 3 provides an overview of the concept of operations with a specific focus on the Evacuation and Transport Working Group (who have responsibility for activating and outworking the Tsunami Sub Plan) and the role and responsibilities of key stakeholders.

Section 4 provides an overview of the National Tsunami Warnings Process including when, why and how tsunami watch, and warning messages are issued.

Section 5 provides detailed information on how tsunami warnings are received and processed and includes an operational procedure checklist.

Section 6 provides information on the areas at risk of tsunami impact and how to access mapping. Vulnerable communities and critical infrastructure are identified, and the process involved in issuing public information and warnings to the affected communities including assembly areas and evacuation centre facilities.

Appendices A-C provides information on the email set up and distribution process for tsunami warnings, a copy of the tsunami evacuation guide and a summary of vulnerable communities and infrastructure.

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Endorsement

This Tsunami Hazard Specific Plan is recommended for distribution by the Townsville Local Disaster Management Group.

Zac Dawes
Local Disaster Coordinator
Townsville Local Disaster Management Group

Date: 15/07/26

Cr Nicholas Dametto
Chair
Townsville Local Disaster Management Group

Date: 15/9/26

Version Control & Record of Amendments

Amendment		Plan Updated		
Version No.	**Issue Date**	**Inserted by**	**Action**	**Date**
01 Initial Plan	November 2009	Allen Morris	Initial Plan	1 November 2009
02	July 2010	Allen Morris	Annual Review	27 July 2010
03	January 2013	Allen Morris	Annual Review	20 January 2013
04	October 2015	Gavin Hammond	Annual Review	20 October 2015
05	November 2016	Catherine Jordan	Annual Review	1 November 2016
06	January 2018	Wayne Preedy	Annual Review	5 January 2018
07	January 2019	Wayne Preedy	Annual Review	9 April 2019
08	July 2021	Wayne Preedy	Annual Review	14 July 2021
09	April 2023	Wayne Preedy	Annual Review	30 June 2023
10	August 2024	Zac Dawes Deloitte	Annual Review Consultation from Deloitte	3 Sep 24
11	July 2025	Zac Dawes	Annual Review	July 2025
12	July 2026	Zac Dawes	Annual Review	July 2026

Consultation

A consultative process is used when developing the LDMP and associated Sub Plans. Prior to adoption, the Sub Plan is released for consultation with all core members and advisors of the LDMG and the working group members The key stakeholders to be consulted in the development of Sub Plans varies for each plan and is determined by TCC. Updates to plans are based on stakeholder feedback and records are maintained by TCC on the stakeholders that were consulted and those that provided feedback.

1. Overview of Plan

1.1. Aim & Objectives of Plan

The aim of this Tsunami Sub Plan is to outline the tsunami specific preparedness, prevention and response for the Townsville Local Disaster Management Group (TLDMG) and residents of Townsville, who may be threatened by a tsunami.

The objectives are to:

- Define legal requirements and authority to evacuate
- Define management structure with roles and responsibilities
- Provide effective warning and information to the community
- Provide managed temporary shelters with welfare provision for displaced people
- Maintain effective transport resources, routes and procedures
- Coordinate the return of displaced people.

1.2. Context & Assumptions

Tsunamis are recorded in Australia about once every two (2) years. Most of these tsunamis are small and present little threat of land inundation to our coastal communities. Recent world events have shown that even if tsunamis occur infrequently, their effects can be catastrophic.

Australia has a comprehensive, independent tsunami warning service (Joint Australian Tsunami Warning Centre) to advise the media, public and emergency authorities of any threat to Australia. People living or working in areas, which may potentially be affected by a tsunami, need to know that they should move to safer areas if a tsunami warning is issued.

1.3. Ownership

This sub-plan is owned by the Local Disaster Coordinator (LDC) on behalf of the TLDMG. All significant amendments must be approved by the TLDMG.

The LDC will ensure the:

- master document is retained with relevant supporting documents
- level of circulation of the sub-plan is determined by the TLDMG and details are recorded of copyholders
- sub-plan is updated and reviewed on at least an annual basis, or after activation, whichever is the sooner
- sub-plan is tested and exercised as determined by the TLDMG.

1.4. Functional Responsibility & Support Agencies

The LDC is to ensure all agencies and members of the TLDMG are aware of the Tsunami Sub Plan. Each agency or support organisation is responsible for:

- providing its own financial services and support to its response operations in the field
- maintaining compliance with its own financial policies and procedures; and,
- ensuring accurate recordkeeping of expenditure for submission of their own claims under SDRA/DRFA to relevant funding bodies post-event.

1.5. Links with Other Documents

This sub-plan is interdependent on, and should be read in conjunction with, the Townsville Local Disaster Management Plan (TLDMP). It links directly to all other sub-plans including the TLDMG Emergency Contact Lists. This sub plan also links to the:

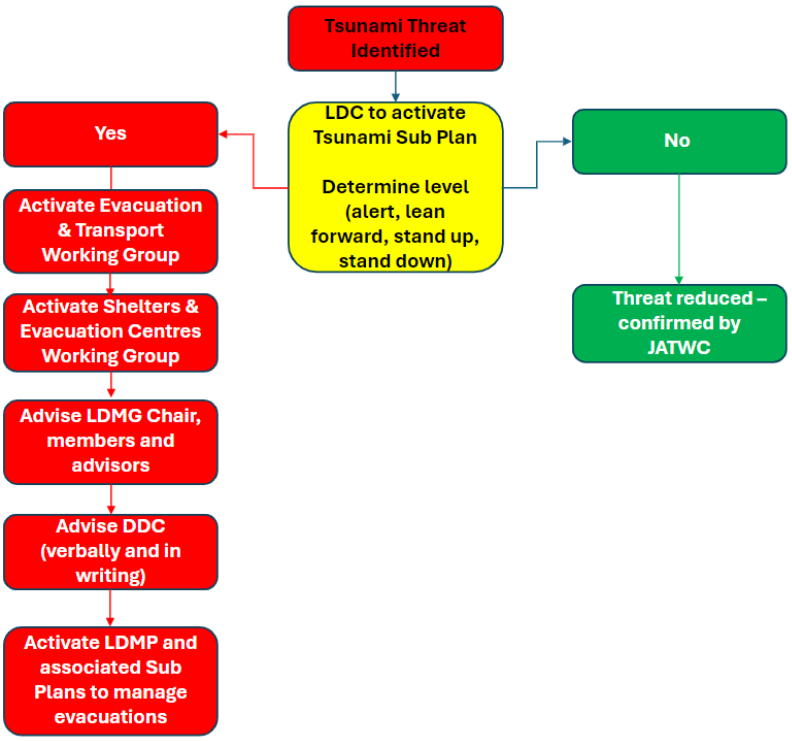
- TLDMG Evacuation Sub Plan
- TLDMG Shelters and Evacuation Centres Sub Plan
- TLDMG Public Information and Warnings Sub Plan
- Queensland Warnings Manual
- Evacuation: Responsibilities, Arrangements and Management Manual.1.190

2. Overview of Plan

2.1. Activation of the Plan

Section 4.4 of this plan outlines the national process for tsunami warnings. This Sub Plan will be activated by the Local Disaster Coordinator (LDC) of the LDMG whenever there is a threat identified to Townsville from a tsunami. This decision will be communicated to the TLDMG Chair and Core and Advisory members of the TLDMG as soon as practicable.

2.2. Notification Flowchart



2.3. Notification Process

When this sub-plan is activated, the LDC will need to activate the Evacuation Sub Plan, Logistics Sub Plan and the Evacuation and Transport Working Group to determine the time of potential impact and available time for evacuation. The Public Information and Warnings Sub Plan and the Shelters and Evacuation Centres Sub Plans will also need to be activated. The LDC will ensure that all notifications to TLDMG Chair, core members, advisors and the DDC are undertaken in a timely manner.

If a decision is made to not activate the sub-plan, this will be based on official advice confirmed by the Joint Australian Tsunami Warning Centre (JATWC)– refer section 4.

3. Concept of Operations - Response

3.1 Evacuation & Transport Working Group

The Tsunami Sub Plan is executed through the Evacuation and Transport Working Group – refer Evacuation Sub Plan. This is due to the response to tsunamis being primarily a matter of evacuation. This Sub Plan provides supplementary information that is specific to tsunami hazard.

3.2 Roles and Responsibilities of Key Stakeholders

Organisation	Role	Responsibility	Stage		
			WATCH	WARNING - Marine Inundation	WARNING - Land Inundation
Townsville Local Disaster Management Group (TLDMG)	Local Disaster Coordinator (LDC) / Core Member Agencies	Activation of process on advice from state and federal agencies if time permits.	**R**	**R**	**R**
		If time permits supporting state led advice to the public regarding voluntary evacuations			**R**
		If time permits modelling and forecasting in conjunction with BoM		**R**	**R**
		If time permits, implementing TLDMG's community messaging			**R**
	Chairperson	Public communications - local preparedness and response that complements other warnings		**R**	**R**

Organisation	Role	Responsibility	Stage		
			WATCH	WARNING - Marine Inundation	WARNING - Land Inundation
		Seek clarification if a directed evacuation order from the District Disaster Coordinator (DDC) or State Disaster Coordinator (SDC) has been made.			R
	Evacuation & Transport WG	If time permits support the TLDMG with evacuations			R
	Shelters & Evacuation Centres WG	Identification of suitable evacuation centres and routes			R
		If time permits open evacuation centres			R
Council	Chair, Council's Emergency Response Group (ERG) and various Departments	If time permits, critical asset protection in risk areas: - Continuity of services - Coordinate post-impact resource needs for Council assets	R	R	R
		If time permits, beach Closures		R	R
		If time permits, assist with coordination of traffic flows.			R
		Manage evacuation centres			R
	District Disaster Coordinator (DDC) and Committee	Provide technical advice on mitigation options and assist in the coordination of suitable response		R	R

Organisation	Role	Responsibility	Stage		
			WATCH	WARNING - Marine Inundation	WARNING - Land Inundation
District Disaster Management Group (DDMG)		Seek approval to declare a disaster situation at request of the TLDMG			**R**
Ergon Energy		Critical asset protection in risk areas			**R**
Mass Media		Dissemination of tsunami information and warnings	**R**	**R**	**R**
Queensland Ambulance Service (QAS)		Critical asset protection in risk areas			**R**
		Preparation for use of QAS Station sites outside of impact zone for evacuation and community support			**R**
		Assistance with evacuations (persons with medical conditions)		**R**	**R**
		Provision of advice regarding medical special needs sectors of the community			**R**
Queensland Fire Department (QFD)		Agency asset protection in risk areas			**R**
		Provide resources for QPS as required			**R**
		Coordination of Evacuation arrangements			**R**

Organisation	Role	Responsibility	Stage		
			WATCH	WARNING - Marine Inundation	WARNING - Land Inundation
Queensland Police Service (QPS)		Critical asset protection in risk areas			**R**
State Emergency Service (SES)		Provide resources for QPS as required			**R**
Telecommunication Providers		Critical asset protection in risk areas			**R**
Townsville Hospital & Health Service (THHS)		Critical asset protection in risk areas			**R**
		Coordination of hospital transfers			**R**
Others		Responsibilities as required			

4. National Tsunami Warnings

4.1 Joint Australian Tsunami Warning Centre

The Joint Australian Tsunami Warning Centre (JATWC), jointly operated by the Bureau of Meteorology (BoM) and Geoscience Australia, is the issuing authority for tsunami warning products in Australia. The role of the JATWC is to determine possible impacts, verify tsunami existence and forecast wave arrival times.

Note: The Pacific Tsunami Warning Centre and other international Tsunami Warning Centres are no longer regarded as authoritative sources of tsunami warnings for Australia, although individuals can subscribe to their email warning services.

4.2 Types of Tsunami Warning

Warning Type	Purpose
National No Threat Bulletin	To advise people that the earthquake has been assessed and that **no tsunami threat exists**
National or State/Territory Watch	To advise people that a tsunami threat **may exist** and that they should look out for further updates
State/Territory Warning	To advise people that a tsunami threat **does exist** and to advise them of the level of threat and action they should take
National Warning Summary	To provide the public, media and emergency authorities with the status of tsunami warnings nationally
Event Summary	To provide the public, media, emergency authorities and government with summary information that can be used in post-event analysis

4.3 Categories of Threat Levels

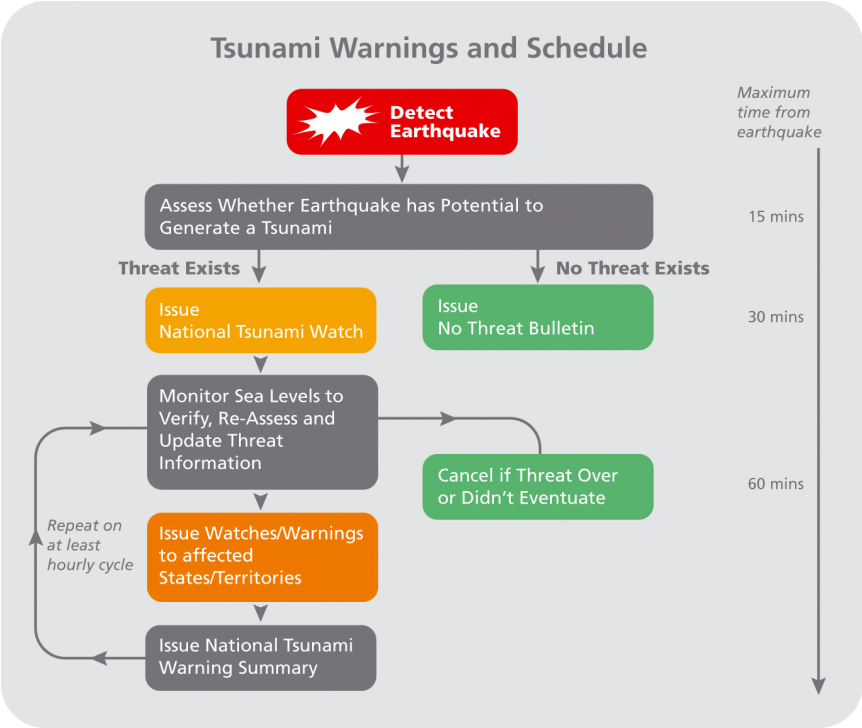
Warnings are categorised into three (3) levels with required community responses. These Threat Levels will be specified for the same coastal areas that are used for routine *Bureau Coastal Waters Forecasts*, which are already known to marine users:

Level of Threat	Description
1 - No threat	An undersea earthquake has been detected; however, it has not generated a tsunami, or the tsunami poses no threat to Australia and its offshore territories.
2 - Marine and immediate foreshore threat	Warning of potentially dangerous rips, waves and strong ocean currents in the marine environment and the possibility of only some localised overflow onto the immediate foreshore.
3 - Land inundation threat	Warning for low-lying coastal areas of major land inundation, flooding, dangerous rips, waves and strong ocean currents.

4.4 Tsunami Watch and Warnings Process

The JATWC operates 24 hours a day to detect, monitor, verify and warn of any tsunami threat to the coastline of Australia and its offshore territories.

The Tsunami Warning Process is as follows:



4.4.1 Tsunami Watch

The first stage of the tsunami warning process is a ”tsunami watch” phase, where seismologists have determined that there is the potential for an identified undersea earthquake to cause a tsunami threat to Australia.

- If a threat exists, the Bureau will issue a “National Tsunami Watch.”
- If no threat exists, a “National Tsunami No Threat Bulletin” will be issued.

The “National Tsunami Watch” may be reissued if a tsunami remains unconfirmed by sea level observations and if any potential first point of impact on Australia is more than 90 minutes away (i.e. the minimum time criteria for warning).

4.4.2 Tsunami Warning

If sea level observations and further data confirm the tsunami threat, or if any potential first point of impact is less than 90 minutes away, the BoM, on behalf of the JATWC, will use its severe weather communication infrastructure to issue Tsunami Warnings for the States and Territories under threat. The Bureau's decision support teams located in each state are the main liaison point for emergency services during tsunami events.

4.4.3 National Tsunami Warning Summary

Once separate tsunami watches or warnings are being issued for individual States and Territories, a “National Tsunami Warning Summary” will also be issued listing all the watches, warnings and cancellations that are in effect for the current tsunami event. The JATWC website will provide a complementary coastal threat graphic showing the regions currently under threat.

4.5 Issuing of Tsunami Watch and Warnings

Warnings will be relayed through Emergency Authorities via:

- official channels (e.g. Queensland Government’s Emergency Alert Service, radio, television, sign boards and the internet), Lifeguards, Surf Lifesavers; and/or
- unofficial channels (e.g. face-to-face or verbal announcement).

Depending on the level of threat determined by JATWC, the Bureau may issue a “tsunami warning” restricted to the marine environment and immediate foreshore area for parts of the Australian coastline. Tune into warnings via:

- Emergency Alert website (www.emergencyalert.gov.au).
- Television or radio.
- “1300 TSUNAMI” information line (1300 878 6264); or,
- Bureau of Meteorology website (www.bom.gov.au/tsunami/).

5. Procedure for Tsunami Warnings

5.1. Processing of Tsunami Warnings

During work hours the Emergency Management Team will receive notifications along with the security team located within the LDCC. After hours, the security team will receive all notifications of tsunamis occurring. The Bureau of Meteorology Tsunami Bulletin will be forwarded to the Emergency Management Team and to LDCC Security by e-mail at any hour of the day. The Bureau will issue advice within 15 to 30 mins of an undersea earthquake or other event that may trigger a tsunami affecting Australia – refer process checklist at section 5.5.

5.1 Assessment of JATWC Advice

When receiving the email, the Emergency Management Team and security staff will check immediately if the notice has any effect to the Australian coastline, specifically noting the risk to the Townsville coastline.

5.1.1 No Threat to Australia

Most Tsunami warnings state **"No threat to Australia."** In these circumstances, notification will be distributed via GROUP – Tsunami Alerts email list to those listed in Appendix A. For noting only.

5.1.2 Tsunami Threat to Australia

If a threat to Australia exists and / or Townsville is considered at risk, Contact **MUST be made IMMEDIATELY** by phone relaying the Bureau advice to all those listed in the private contact list – refer Guardian IMS.

5.2 Procedures for LDCC Camera Control for Tsunami Alerts

The Bureau of Meteorology Tsunami Bulletin will be forwarded to the Emergency Management Team and to LDCC Camera Control by e-mail at any hour of the day. The Bureau issue advice within 15 to 30 minutes of an undersea earthquake or other event that may trigger a tsunami affecting Australia.

The Emergency Management Team and/or Security Staff to assess the Bureau advice and action accordingly based on "No Threat" or "Threat" – refer section 5.2.

Security staff to record the time when the identified contacts on the phone list have been notified. Refer to Private Contact List for LDCC Security Staff for a Tsunami

Security staff are to forward the notification records to the Team Manager Emergency Management & Community Safety as soon as possible after the task has been completed.

TM EMCS to ensure these records are delivered to the LDC and the TLDMG.

5.3 Cancellation of Tsunami Warnings

When the main threat has passed or if a tsunami did not eventuate, the BoM will issue a “Tsunami Watch Cancellation” or “Tsunami Warning Cancellation.” The relevant State or Territory emergency authority will inform the public when it is safe to return to the affected area. A “National Tsunami Event Summary” is then issued after the event.

5.4 Tsunami Process Checklist

Townsville City Council and the TLDMG will implement the following procedures in the event of a Tsunami Warning **if Time Permits and is required**:

Stage	Activity	Timeline	Actions Required	Comments
1	BoM issue Tsunami Advice or Warning	00 mins	BoM send advice within 30 mins of earthquake activity	
2a	BoM advice is received by Council via e-mail (TCC Tsunami). E-mail message is re-directed to Council's LDCC Camera Control.	15 – 30 mins	LDCC Camera Control activate the Tsunami Procedure and ensure appropriate Council staff are notified if there is a threat to the Townsville area.	Chair ERG, LDC and Media Officer made aware. If there is a threat to the area, Chair ERG and/or the LDC contacts the Chairperson TLDMG.
2b	If advice received during or outside of normal working hours		If outside of normal work hours the LDCC Camera Control Tsunami Procedure is activated. Chair ERG and LDC **must** be notified **immediately** by phone (refer to section 3.7)	
3a	Chair ERG activates TCC Emergency Response Plan	30 – 45 mins	Council Directors and General Managers enact ERG procedures	
3b	LDC: • contacts BoM for latest advice and advises Chairperson TLDMG and the Chair ERG. • contacts District Disaster Coordinator • activates Townsville Local Disaster Management Group and the Local Disaster Coordination Centre (LDCC)		Assessment of area that may require evacuations. Evacuation information relayed to District Disaster Coordinator	The LDC to contact the Bureau via the SDCC Watch Desk Maps to be accessed. Existing Procedure activated

Stage	Activity	Timeline	Actions Required	Comments
3c	LDC consults with Chairperson TLDMG and Media Officer on content of public warnings (refer to Public Information & Warnings Sub Plan).		Consult with QPS	The SDCC Watch Desk may send out an Emergency Alert 'approval without delay'
4a	Chairperson TLDMG advises public of additional local information	45 – 60 mins	Council vehicles and staff may need to assist QPS with public warnings in the suburbs regarding evacuations	Schools, businesses, nursing homes, caravan parks, etc. to be contacted
4b	LDC arranges for preparation and dissemination of Community Messaging (refer to Public Information & Warnings Sub Plan).		Transport Plan & Traffic Control. Emergency Alert (EA) prepared and forwarded to State Disaster Coordination Centre (SDCC) and the Emergency Management Coordinator, QPS-EMC	The SDCC Watch Desk may send out an Emergency Alert 'approval without delay'
4c	LDC commences process for opening evacuation centres, if required		Shelters and Evacuation Centres Working Group activated	Evacuation Centres Operating Procedure activated
4d	Evacuation within the community would commence		Transport plan and traffic control **Note:** Evacuation will commence BEFORE evacuation centres are open	Evacuation procedure activated through QPS.
5a	Evacuation Centre(s) open	60 – 120 mins	Advice given to public	Evacuation Centres Standard Operating Procedure activated
5b	Chairperson TLDMG continues to advise public of additional local information		Through LDCC Staff, updating of Guardian IMS and the Emergency Management and Disaster Dashboard (disaster.townsville.qld.gov.au)	

Stage	Activity	Timeline	Actions Required	Comments
6	Chair ERG through TCC *Emergency Response Plan* arranges for inspection team to assess damage	After the event	Information relayed to Emergency Operation Coordination Centre (EOCC) and the LDCC for collation and Situation Reports (SitReps)	

6. Tsunami Risk Areas & Public Advice

6.1. Tsunami Mapping

Council has developed a suite of Community Disaster Management Profile Zone maps and text tables, which include population by suburb, critical infrastructure and essential service information, shelter and evacuation centre locations and other relevant local details. These Profile Zone maps and text tables will be utilised internally by the LDC and Chair of the TLDMG, in conjunction with the Bureau of Meteorology advice, to assess which areas would be affected by the event.

Hazard specific mapping has been developed for tsunami events which may affect the local community. Council has developed the Tsunami Evacuation Guide to assist residents with understanding this mapping and the risks and recommended actions relevant to tsunami events (refer Appendix B).

6.2. Vulnerable Communities and Infrastructure

Detailed demographic and infrastructure information is contained within section 3 of the Townsville Local Disaster Management Plan. This information has been summarised to provide the elements of the community vulnerable to tsunami (refer Appendix C).

6.3. Special Needs Groups

Annual meetings are held with Government and non-Government organisations (incl. local nursing homes), which support the aged and disabled in residential care, to assist with preparation of evacuation plans for disaster events including tsunamis. Through this network, these agencies are encouraged to build some level of disaster resilience within their respective organisations and for their clients. Calls for assistance from these groups will be managed within the Local Disaster Coordination Centre processes.

6.4. General Advice to the Community - Public Media

Advice for the community will be forwarded from the TLDMG by Council's Community Engagement team to local media outlets. Refer *TLDMG Public Information and Warnings Sub Plan*.

The beachside communities of Townsville have been advised in 2007 and 2012 of possible areas of inundation and evacuation routes via the mailing of the TLDMG" Tsunami Evacuation Guide" to all beachside properties. Advice for an event would be similar to that in the "Tsunami Evacuation Guide" and would include:

- If you are at the beach, immediately move inland or to higher ground.
- If your boat is in deep water and offshore, maintain your position.
- If your boat is berthed or in shallow water, secure your vessel and move inland or to higher ground.
- If you are on the coast and cannot move inland, seek shelter in the upper levels of a stable building. Ensure your neighbour is aware of the current situation.
- Do not return to the coast until you receive official clearance.
- Advice on Assembly Areas (see section 6.4 below)
- Continue to follow emergency services instructions.

The State Government's "Emergency Alert System" will be used to send specific messages to areas that have been included in the potential inundation zone. AusAlert will be used in conjunction with Emergency Alert System for the 26/27 high-risk weather season and will live in October 2026.

Council's Emergency Management and Disaster Dashboard (disaster.townsville.qld.gov.au) will serve as the TLDMG's "single point of truth" for critical disaster-related information.

Refer TLDMG Public Information and Warnings Sub Plan.

6.5. Specific Advice to the Affected Communities

In conjunction with the QPS, vehicles and staff from Council and SES would be used to relay warning advice **if time permits & safe to do so** (i.e. via sirens, vehicle horns, megaphones) to the community in areas that may be affected by the tsunami. With the short timeline available, this planning would be undertaken (by phone) as quickly as possible with the resources available at the time.

6.6. Emergency Alerts and AusAlert

The Queensland Government's "Emergency Alert Service" will be used to send warning messages to landlines and mobile telephones, AusAlert will be used in conjunction with Emergency Alert System for the 26/27 high risk weather season and will live in October 2026. – refer Public Information and Warnings Sub Plan.

Due to the threat of an instant onset of a potential tsunami to the Queensland coast, EA messages for a tsunami event should be disseminated without delay to save lives, as decided by the QDMC. Due to the complexities of the Emergency Alert system (e.g. device count limitations) and the threat existing across multiple council areas, prepared polygons and wording were explored and are uploaded into the EA system for expedient delivery of the warning to the public. Use of the Emergency Alert system will also be coordinated through the Watch Desk with other state governments to ensure warnings for all Australians are efficiently executed. A copy of the wording endorsed is located within the EA Manual.

Predefined EA messages and mapped polygons have been prepared for tsunami zones and are held in Guardian IMS. Copies are also stored by the Watch Desk, State Disaster Coordination Centre. These messages and mapped areas will be reviewed by the LDC annually in collaboration with Council's Spatial Analysts and Community Engagement Team.

6.7. Assembly Areas

Management of the Assembly Areas will involve TCC, QPS and SES supplemented with private contractors where required.

Although actual locations must be confirmed once the Bureau warning has been received, areas where residents **may** be directed to assemble until the event occurs are:

Suburbs	Assembly Area
Bluewater north to Rollingstone	Rollingstone Hotel carpark
Toolakea and Saunders Beach	On highway at Yabulu turnoff
Bushland Beach	Higher ground on Lynwood Dr or Deeragun Shopping Complex
Mt Low, Burdell	Deeragun Shopping Complex
Bohle, Mt St John	High Vista Park, Bayswater Rd
Pallarenda, Rowes Bay, North Ward, Belgian Gardens	Castle Hill or CBD
South Townsville, Railway Estate	CBD, showgrounds or Cambridge Park
Oonoonba, Rosslea, Idalia, Cluden	To Wulguru or University Dr fronting Lavarack Barracks
Garbutt, Currajong, Hyde Park, Hermit Park, Mysterton	Cambridge Park, showgrounds or Cranbrook Park
Magnetic Island	To higher ground on the Island

6.8. Evacuation Centres

The Chair of the Shelters and Evacuation Centres Working Group, in consultation with the LDC will determine what evacuation centres may be opened, this will likely be post-impact.

6.9. Return

The decision for the return of evacuees and the development of a Return Strategy will be undertaken bythe TLDMG in consultation with:

- Evacuation & Transport Working Group
- District Disaster Coordinator and relevant District Functional Committees
- Electricity provider
- Telecommunication providers
- Council's Emergency Response Group (including environmental health, water and sewerage,roads and drainage and infrastructure services).

The Impact Assessment Process will be implemented as soon as possible after an event – refer section 7 of LDMP. Data gathered will be used in assessing the Decision for Return.

For further information regarding the return of evacuees after a disaster event refer to the *TLDMG Evacuation Sub Plan*.

Appendix A: Set Up for Email Notification

The Bureau of Meteorology (BoM) will issue Tsunami Bulletins within 15 to 30 minutes of an undersea earthquake or other event that may trigger a tsunami affecting Australia. The tsunami notifications are distributed from aifsqld@bom.gov.au and will be received by the TCC.Tsunami e-mail address (TCC.TSUNAMI@townsville.qld.gov.au).

No Threat to Australia

An e-mail distribution list (**GROUP-Tsunami Alerts**) has been created in Microsoft Outlook for the management of these **'No Threat"** notifications, with distribution to the following:

- TCC Enquiries.
- LDCC Security.
- CCTV Monitoring Group.
- Local Disaster Coordinator (shared e-mail account).

This is for noting purposes only.

Example of a No Threat Tsunami Warning

MEDIA:
NO USE OF STANDARD EMERGENCY WARNING SIGNAL [SEWS] PLEASE BROADCAST THIS INFORMATION IF REFERRING TO THE EARTHQUAKE IN NEWS REPORTS.
****

NO TSUNAMI THREAT TO AUSTRALIA
Issued by the Joint Australian Tsunami Warning Centre [JATWC] at 12:48 AM AEDT on Saturday 19 November 2022

****
SUMMARY:
An undersea earthquake of magnitude 6.8 has occurred at 12:37 AM AEDT on Saturday 19 November 2022 near Southwest of Sumatra, Indonesia.

THERE IS NO TSUNAMI THREAT TO THE AUSTRALIAN MAINLAND, ISLANDS OR TERRITORIES.

For further information check the Bureau's website
https://urldefense.com/v3/__http://www.bom.gov.au/tsunami__;!!BJ4_NyxjzOSanw!WwWaVbbrptEi6RknwS9rnrps2cfMSssg_WLhGDzujhJbDsgEGuT3Ha0YWKxOLOYWb6BhSFvDCgWEiuNBk5mZ5UlietcTcOgrC5ThbDLGxxU$ or call
1300 TSUNAMI [1300 878 6264].

No further updates will be issued unless the situation changes.
****

Threat to Australia

If a threat to Australia exists and / or Townsville is considered at risk, Contact **MUST be made IMMEDIATELY** by phone relaying the Bureau advice to all those listed in the private contact list – refer Guardian IMS.

Appendix B: Tsunami Evacuation Guide

TSUNAMIS EXPLAINED

A tsunami is a series of waves generated by a sudden upward movement of the ocean floor due to earthquakes. Tsunamis can also be generated by undersea landslides, volcanic eruptions, and meteorite impacts.

A tsunami can travel great distances, sometimes across entire oceans, at up to 950 kilometres per hour in the open sea. It can range from a few centimetres in height offshore to many metres high once the wave slows down and shoals in shallow water.

Depending on how tsunamis approach the coastline, they may look like rapidly rising or falling tides or a series of breaking waves.

The first wave may not be the highest and because a tsunami is like a surge of water, it is much more powerful than a normal beach wave of similar height.

Not all earthquakes cause tsunamis – only those with significant upward movement of the sea floor.

Although the risk of a tsunami impacting the Australian coast is relatively low, the effect on vulnerable, low lying areas could be significant. Even relatively small tsunamis of between 25 and 70 centimetres can cause unusual currents and rises in sea level that may impact on swimmers and other coastal users.

DIFFERENCE BETWEEN STORM TIDES AND TSUNAMIS

Storm tides and tsunamis can both result in significant damage to coastal areas; however they are generated by different forces.

Storm tides are produced by tropical cyclones. Strong winds whip up the sea and generate currents which push a raised mound of seawater, called a storm surge, onto the shoreline. A surge combined with the astronomical tide is called a storm tide. This rise in sea level comes across the shoreline like a rapidly rising tide.

Tsunamis can be generated by undersea events, such as earthquakes, landslides, volcanic eruptions or meteorites. These can trigger a series of sea waves which can affect vast lengths of coastal land.

PREPARE – MAKE A FAMILY PLAN

Read the attached maps and determine where each member of the family is during the day and whether they will need to move to higher ground. Make a plan as to where each member of the family will go.

- If you have children, find out what plans are in place at their school and move students to higher ground.
- Discuss with your employer what plans exist if you need to leave your workplace.

UNDERSTANDING THESE MAPS

- These maps provide general guidance. The areas below the six metre contour are most susceptible to inundation, however higher areas may be affected in a severe tsunami.
- The Bureau of Meteorology may give advice on the expected height of the waves.

TSUNAMI WARNINGS

Tsunami warnings will be issued by the Bureau of Meteorology on advice from the Joint Australian Tsunami Warning Centre (JTWC).

The categories of threat level within tsunami warnings are:

No threat - an earthquake has been detected but it has not generated a tsunami.

Marine and immediate foreshore threat - warning of dangerous waves and strong ocean currents in the marine environment.

Land inundation threat – flooding and dangerous waves will affect low-lying coastal areas.

Cancellation – updates may lead to the cancellation of this warning by JTWC.

Specific evacuation instructions will be broadcast on local radio stations when a tsunami threatens our region.

EVACUATIONS

The Council does not have the authority to order mandatory evacuations. This responsibility lies with the Chair of the District Disaster Management Group. If such an order is issued, it will be implemented by police.

FREE EMERGENCY ALERTS

Council's emergency alert system will be used to advise residents of tsunami warnings. Visit council's website www.townsville.qld.gov.au for free subscription details.

WHEN YOU HEAR A TSUNAMI WARNING

Move to high ground. Seek the highest ground nearest to you. In many cases, you will only need to relocate a few streets away. If you are unable to leave the area by vehicle, go to the third floor of the nearest high rise building.

Take water, emergency supplies and listen to the radio. Continue listening to advice issued by the Bureau of Meteorology. Take other items you need such as baby food and medications. Do not move back to lower ground until an all clear is issued on the radio.

Never go to the shore to watch the tsunami. As a tsunami travels into the shallow water near the coast, its height grows. If you are at the shore you may be too close to escape.

FOR LATEST TSUNAMI WARNINGS CALL

1300 TSUNAMI (1300 878 6264)
or **visit the Bureau's website**
www.bom.gov.au/tsunami

For tsunami assistance call SES on 132 500
or contact Council's customer service centre on 1300 878 001

For life threatening emergencies contact 000.

FOR MORE INFORMATION

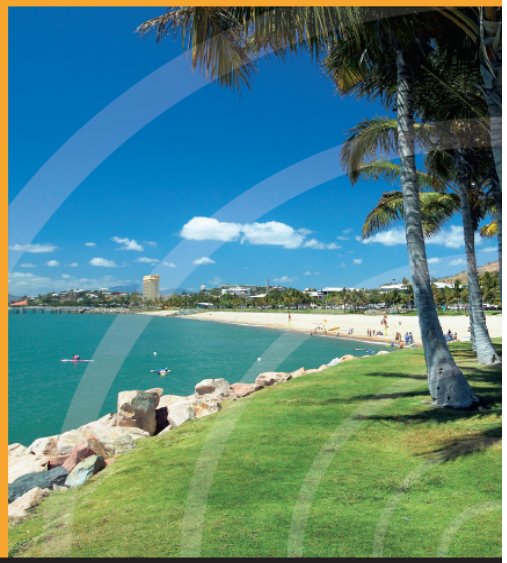
Townsville City Council
www.townsville.qld.gov.au

Bureau of Meteorology
www.bom.gov.au/tsunami

Emergency Management Australia (EMA)
www.emergency.qld.gov.au/emq

TOWNSVILLE

TSUNAMI EVACUATION GUIDE



TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP

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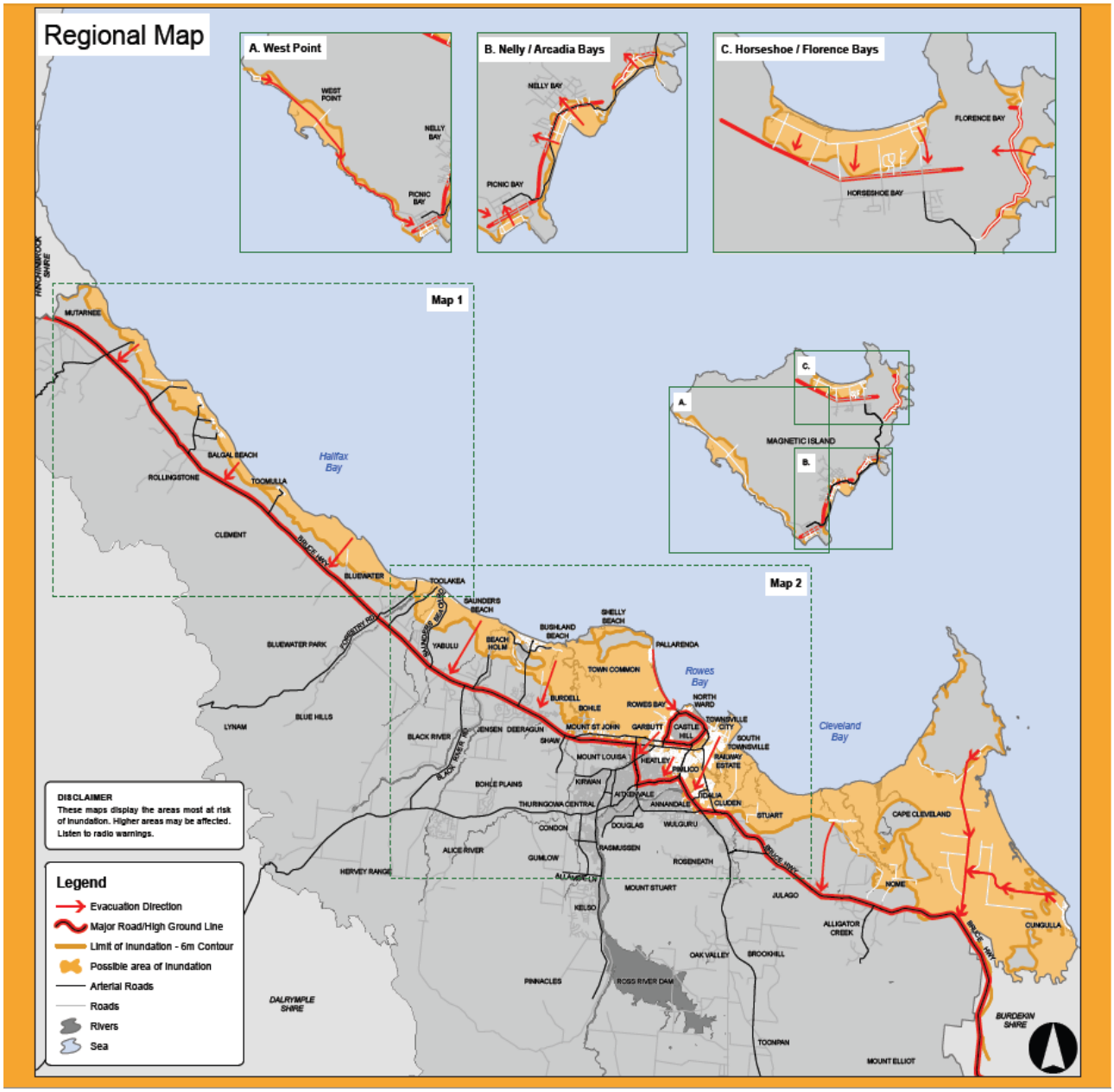

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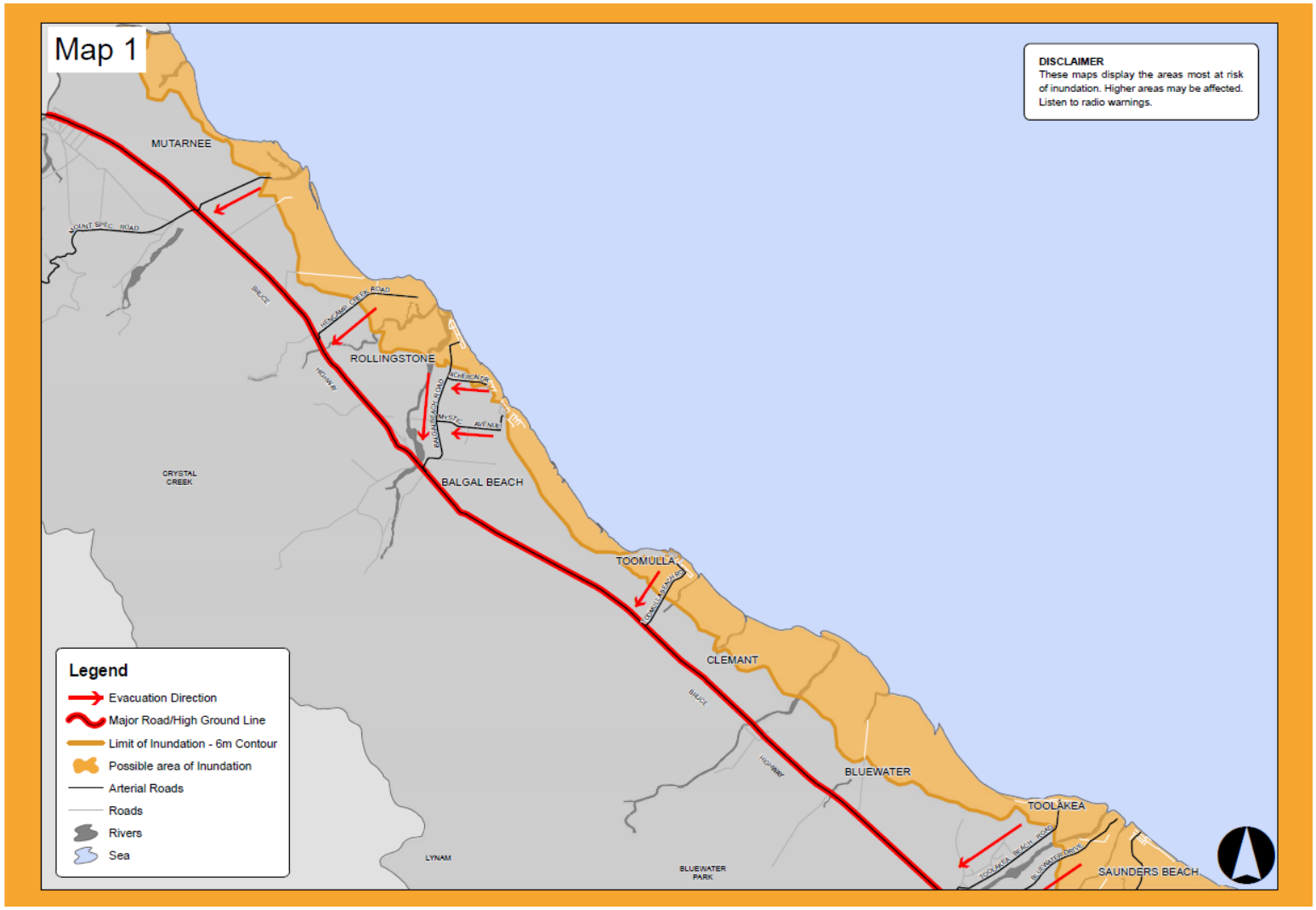

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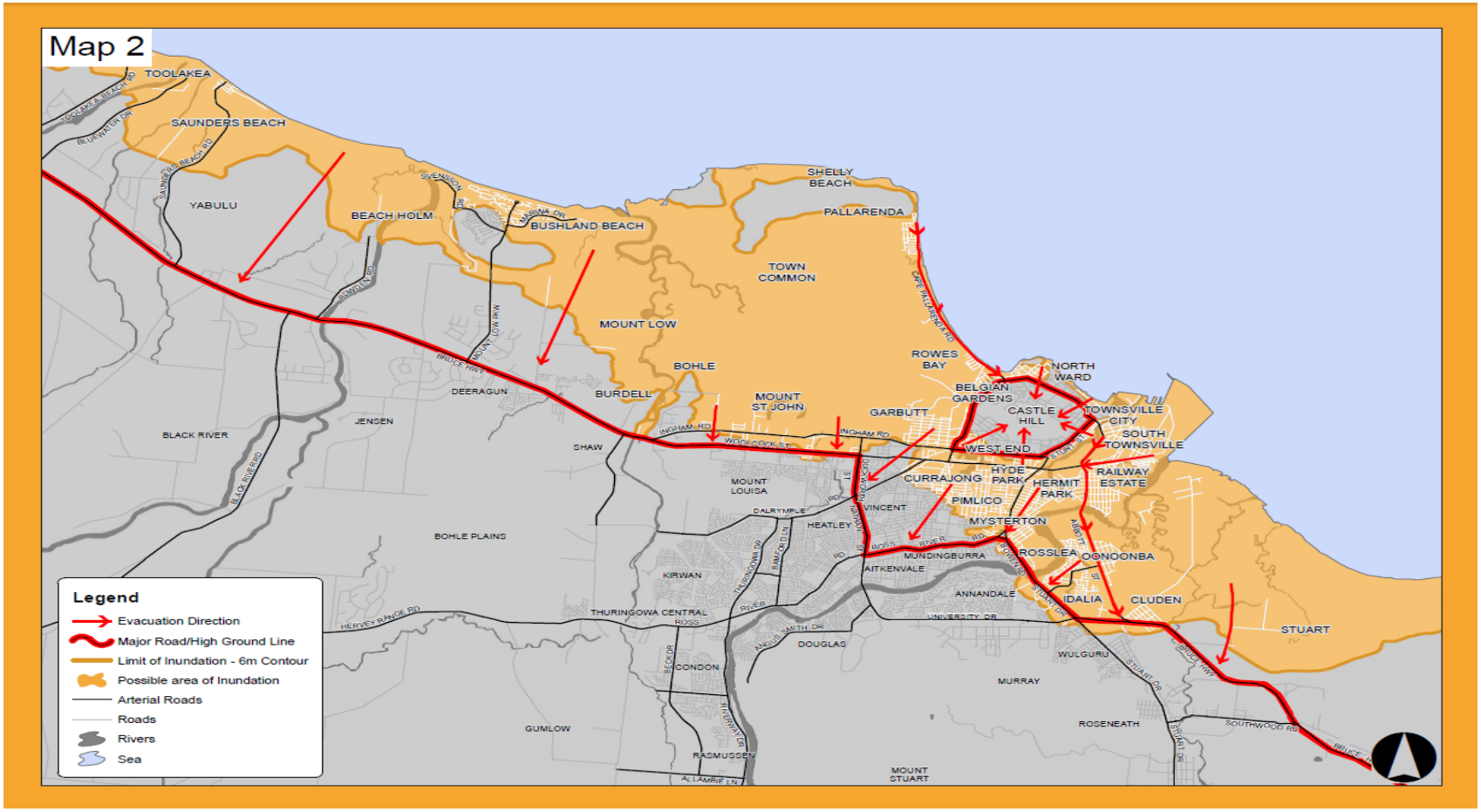

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Appendix C: Vulnerable Communities and Infrastructure

Elements within the Community	Exposure in Vulnerable Areas*	
Population	0 -9 years	5,607
	10-19 years	5,516
	20-59 years	25,619
	60-69 years	4,706
	70+ years	4,465
	TOTAL	45,943
Residential Dwellings; Industrial and Commercial building	Residential Dwellings -	23,470
	Industrial -	868
	Commercial -	786
Caravan Parks/Camping Grounds	8	
Marinas	4	
Public Schools; Private Schools; Childcare Centres	Public Schools -	13
	Private Schools -	12
	TAFE -	2
	Cleveland Education & Training Centre -	1
	Childcare Centres -	2
Public Hospitals; Private Hospitals, Aged Care/Nursing Home Facilities	Public Hospitals -	1
	Private Hospitals -	3
	Aged Care/Nursing Homes -	4
Submarine Infrastructure i.e. Electricity, sewerage	Underwater electricity to Magnetic Island	
	Underwater water pipeline to Magnetic Island	
Island Communities	Magnetic Island -	1

** Notes:

1. Vulnerable Area defined by less than 6m above mean sea level. (Consistent with RED, ORANGE and YELLOW storm-tide evacuation zones)
2. Exposure likely to be dependent on nature of tsunami warning (i.e. marine or land inundation).
3. Mitigation strategies are included in the *Townsville Local Disaster Management Plan* and the awareness and capacity building section of this sub plan.
4. Statistics sourced from Townsville Growth Model (8.8.22) and/or Australian Exposure Information Portal (AEIP) for the Vulnerable Area (26.5.23).

TOWNSVILLE
LOCAL DISASTER
MANAGEMENT GROUP

City of
Townsville