



# **2023/24**

# **TSUNAMI RESPONSE**

# **SUB PLAN**



# Endorsement

This plan is recommended for distribution by the Townsville Local Disaster Management Group.



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**Wayne Preedy ESM**  
**Local Disaster Coordinator**  
**Townsville Local Disaster Management Group**

Date: 11 / 07 / 2023



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**Cr Jenny Hill**  
**Chair**  
**Townsville Local Disaster Management Group**

Date: 11 / 07 / 2023

## Consultation

Organisation	Name of consulted	Date distributed	Comments received
TLDMG - LDC	Wayne Preedy	03 Apr 2023	15 May 2023
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TLDMG	Seren McKenzie	03 Apr 2023	4 Apr 2023
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	Richard Hannay	03 Apr 2023	
	Katrina Appleton	03 Apr 2023	
	Melissa McKeown	03 Apr 2023	26 Apr 2023
	Tamarah Moore	03 Apr 2023	
Townsville City Council	Anita Bray	03 Apr 2023	
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	Nadine Turner	03 Apr 2023	15 May 2023
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	Darron Irwin	03 Apr 2023	26 May 2023
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Todd Noble		03 Apr 2023	
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BoM	Luke Shelly	03 Apr 2023	
	Hilary Wilson	03 Apr 2023	26 Apr 2023
DDMG	Kerry Melrose	03 Apr 2023	

# Document Control

## Amendment Control

The *Tsunami Response Sub Plan* is a controlled document. The controller of the document is the Townsville Local Disaster Coordinator (LDC). Any proposed amendments to this plan should be forwarded in writing to:

Local Disaster Coordinator  
Townsville City Council  
PO Box 1268  
Townsville, QLD 4810

The LDC may approve inconsequential amendments to this document. The LDC will ensure that any changes to the content of the document will be submitted to the Townsville Local Disaster Management Group (TLDMG) for approval and be endorsed by the Townsville City Council.

## Amendment Register

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

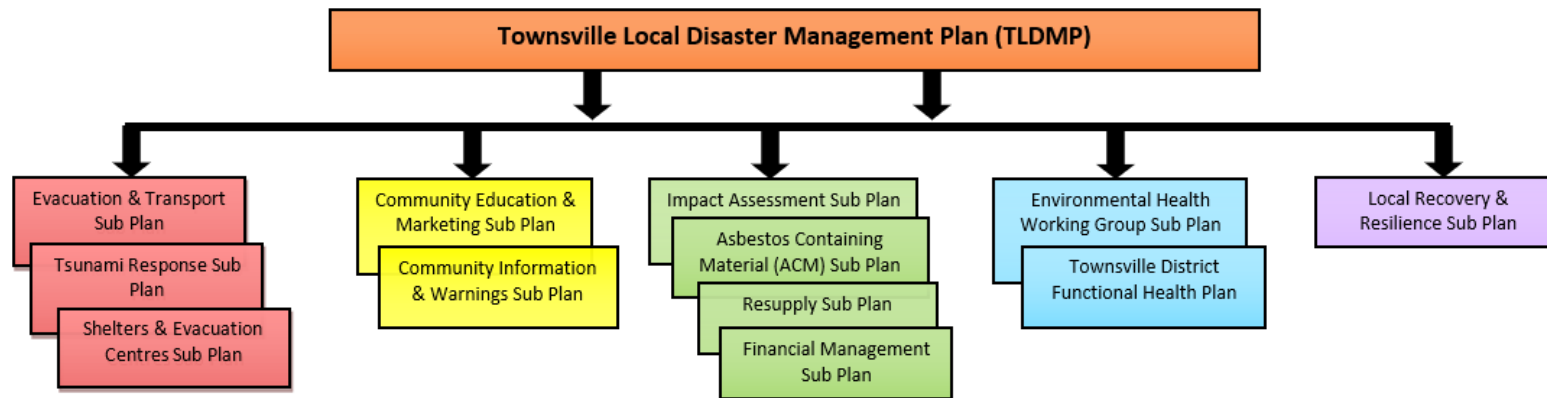
## Abbreviations List

BoM	Bureau of Meteorology
DDC	District Disaster Coordinator
DDMG	District Disaster Management Group
ERG	Emergency Response Group
GM PFEM	General Manager, Property, Fleet & Emergency Management
JATWC	Joint Australian Tsunami Warning Centre
LDC	Local Disaster Coordinator
LDCC	Local Disaster Coordination Centre
QAS	Queensland Ambulance Service
QFES	Queensland Fire and Emergency Services
QPS	Queensland Police Service
SDCC	State Disaster Coordination Centre
SES	State Emergency Service
SITREP	Situation Report
TCC	Townsville City Council
THHS	Townsville Health and Hospital Service
TLDMG	Townsville Local Disaster Management Group
TLDMP	Townsville Local Disaster Management Plan

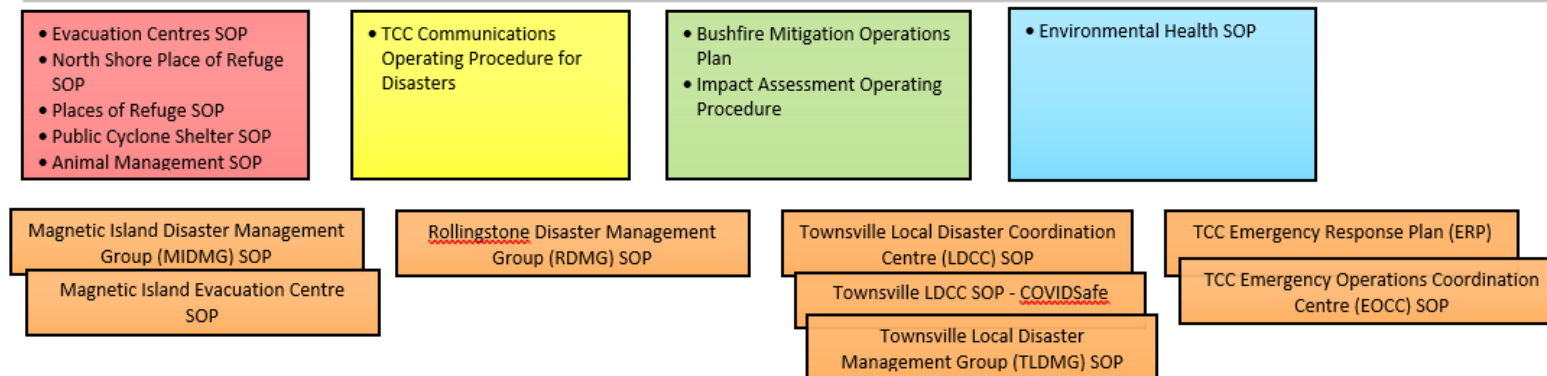
# Plan Matrix

## Townsville Local Disaster Management Plan Matrix

*Please note:* This matrix depicts plans and procedures, which have been grouped based on their relationship to one another rather than on hierarchy or trigger points for activation.



## Operating Procedures (Internal Documents)



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# Part One – Overview

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## 1.1 Purpose

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.

The aim of this document 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.

## 1.2 Objectives

The objectives of this document 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.

## 1.3 Scope

The *TLDMG Tsunami Response Sub Plan* applies to emergency/disaster events occurring within the Townsville City Council area, which are within the resources of the Local Government and Statutory Services to adequately deal with on an individual basis.

## 1.4 Authority

This plan forms a sub plan of the *Townsville Local Disaster Management Plan (TLDMP)* for the city of Townsville under the authority of the *Disaster Management Act 2003*. This document will be managed in accordance with the administrative and governance processes outlined within the TLDMP including approval, document control, distribution and review and renew.

## **1.6 Plan Testing and Review**

The Local Disaster Coordinator will be responsible for reviewing and updating this plan by the 30 June each year in consultation with relevant internal and external stakeholders. Assessment of the plan may be achieved through operational activation, feedback received or by the conduct of exercises. The LDC is to brief the TLDMG on the results of such reviews/exercises.

## Part Two – Administration and Governance

### 2.1 Functional Responsibility

The LDC is to ensure all agencies and members of the TLDMG are aware of these arrangements.

### 2.2 Functional Execution of the Tsunami Response Plan

#### 2.2.1 Evacuation and Transport Working Group Membership

The Tsunami Response Plan is executed through the Evacuation and Transport Working Group of the TLDMG due to the response being primarily a matter of evacuation. All relevant and up to date information and data will be utilised when considering risks to the community, which may require the evacuation of residents.

The Evacuation and Transport Working Group consists of the following membership:

<i>Meeting frequency:</i>	At least annually
<i>Chair:</i>	QPS Core Member on TLDMG
<i>Deputy Chair:</i>	QPS Deputy Core Member on TLDMG (OIC of one of the major stations)
<i>Membership:</i>	<ul style="list-style-type: none"> <li>• Local Disaster Coordinator, TLDMG</li> <li>• TCC Media/Communications – Representative</li> <li>• Shelters and Evacuation Working Group – Representative</li> <li>• DTMR – Passenger Services Manager (Translink)</li> <li>• QFES – Representative</li> <li>• QAS – Representative</li> <li>• THHS – Representative</li> <li>• SES – Representative</li> <li>• Magnetic Island Barge/Ferry (Fantasea &amp; Sealink)– Representative</li> <li>• (Advisory) CommLink / TransitCare – Representative</li> <li>• (Advisory) Department of Community Housing and Digital Economy – Representative</li> <li>• (Advisory) Department of Defence – Representative</li> <li>• (Advisory) DTMR – Representative</li> <li>• (Advisory) Ergon – Representative</li> <li>• (Advisory) Port of Townsville – Representative</li> <li>• (Advisory) QFES Emergency Management Coordinator</li> <li>• (Advisory) Queensland Rail/Aurizon – Representative</li> <li>• (Advisory) Bus Company – Representatives</li> <li>• (Advisory) Taxi Company – Representative</li> <li>• (Advisory) TEL – Representative</li> <li>• (Advisory) TOTTS/CommLink – Representative</li> <li>• (Advisory) TCC Infrastructure Planning/AECOM – Flood Modellers</li> </ul>

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	<ul style="list-style-type: none"><li>• (Advisory) TCC Property, Fleet and Emergency Management (PFEM) – Representative</li><li>• (Advisory) TCC Construction Maintenance &amp; Operations (CMO) – Representative</li><li>• (Advisory) TCC Spatial Services – Representative</li><li>• (Advisory) Townsville Airport Pty Ltd – Representative</li><li>• (Advisory) Willows Shopping Centre – Representative</li></ul>
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## 2.3 Roles and Responsibilities of Organisations

The roles and responsibilities outlined below will only be carried out **if time permits** depending on the expected time to impact.

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.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		If time permits supporting state led advice to the public regarding voluntary evacuations			<input checked="" type="checkbox"/>
		If time permits modelling and forecasting in conjunction with BoM		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		If time permits, implementing TLDMG’s community messaging			<input checked="" type="checkbox"/>
	Chairperson	Public communications – local preparedness and response that complements other warnings		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Seek clarification if a directed evacuation order from the District Disaster Coordinator (DDC) or State Disaster Coordinator (SDC) has been made.			<input checked="" type="checkbox"/>
	Evacuation & Transport WG	If time permits support the TLDMG with evacuations			<input checked="" type="checkbox"/>
	Shelters & Evacuation Centres WG	Identification of suitable evacuation centres and routes			<input checked="" type="checkbox"/>
If time permits open evacuation centres				<input checked="" type="checkbox"/>	
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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		If time permits, beach Closures		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Organisation	Role	Responsibility	Stage		
			WATCH	WARNING – Marine Inundation	WARNING – Land Inundation
		If time permits, assist with coordination of traffic flows.			<input checked="" type="checkbox"/>
District Disaster Management Group (DDMG)	District Disaster Coordinator (DDC) and Committee	Provide technical advice on mitigation options and assist in the coordination of suitable response		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Seek approval to declare a disaster situation at request of the TLDMG			<input checked="" type="checkbox"/>
Ergon Energy		Critical asset protection in risk areas			<input checked="" type="checkbox"/>
Mass Media		Dissemination of tsunami information and warnings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Queensland Ambulance Service (QAS)		Critical asset protection in risk areas			<input checked="" type="checkbox"/>
		Preparation for use of QAS Station sites outside of impact zone for evacuation and community support			<input checked="" type="checkbox"/>
		Assistance with evacuations (persons with medical conditions)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Provision of advice regarding medical special needs sectors of the community			<input checked="" type="checkbox"/>
Queensland Fire and Emergency Services (QFES)		Agency asset protection in risk areas			<input checked="" type="checkbox"/>
		Provide resources for QPS as required			<input checked="" type="checkbox"/>
Queensland Police Service (QPS)		Coordination of Evacuation arrangements			<input checked="" type="checkbox"/>
		Critical asset protection in risk areas			<input checked="" type="checkbox"/>
State Emergency Service (SES)		Manage evacuation centres			<input checked="" type="checkbox"/>
		Provide resources for QPS as required			<input checked="" type="checkbox"/>
Telecommunication Providers		Critical asset protection in risk areas			<input checked="" type="checkbox"/>

Organisation	Role	Responsibility	Stage		
			WATCH	WARNING – Marine Inundation	WARNING – Land Inundation
Townsville Health and Hospital Service (THHS)		Critical asset protection in risk areas			<input checked="" type="checkbox"/>
		Coordination of hospital transfers			<input checked="" type="checkbox"/>
Others		Responsibilities as required			

## Part Three – National Tsunami Warnings

### 3.1 National Tsunami Warnings

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.

### 3.2 Types of Tsunami Warnings

Warning Type	Purpose
National No Threat Bulletin	To advise people that the earthquake has been assessed and that <b><u>no tsunami threat exists</u></b>
National or State/Territory Watch	To advise people that a tsunami threat <b><u>may exist</u></b> and that they should look out for further updates
State/Territory Warning	To advise people that a tsunami threat <b><u>does exist</u></b> 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

### 3.3 Categories of Threat Levels within Tsunami Warnings

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.

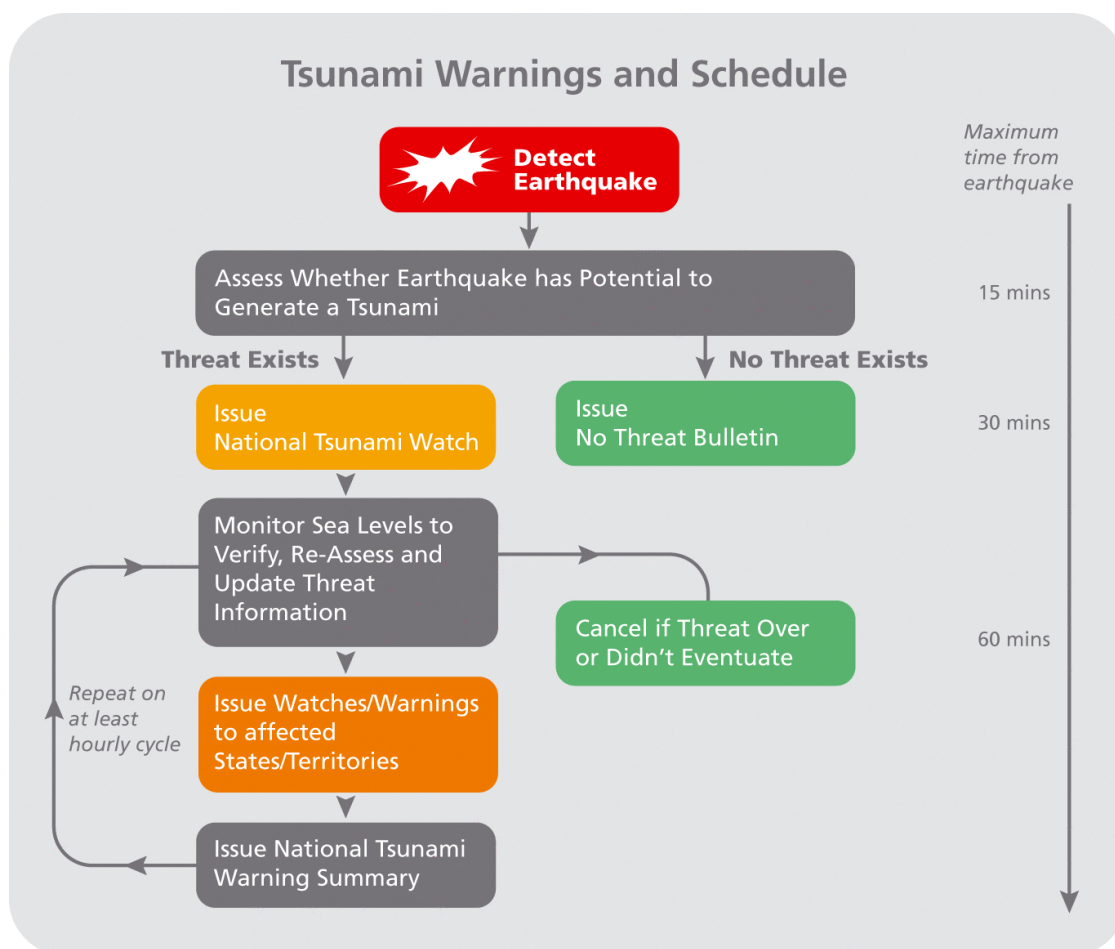


<b>3 - Land inundation threat</b>	Warning for low-lying coastal areas of major land inundation, flooding, dangerous rips, waves and strong ocean currents.
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### 3.4 Tsunami Watch and Warnings

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:



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).

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.

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.

### 3.5 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](http://www.emergencyalert.gov.au));
- Television or radio;
- "1300 TSUNAMI" information line (1300 878 6264); or,
- Bureau of Meteorology website ([www.bom.gov.au/tsunami/](http://www.bom.gov.au/tsunami/)).

### 3.6 Processing of Tsunami Warnings by Council

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.

When receiving the email, the Emergency Management Team and security staff will check immediately if the notice has any effect to the Australian coastline or to the Townsville coastline. Most Tsunami warnings state "**No threat to Australia**".

#### Assessment of BOM advice:

"No Threat" to Townsville region

Notification will be distributed via GROUP – Tsunami Alerts email list to those listed in [Annexure A](#).  
For noting only.

"Threat" to Townsville region

Contact **MUST be made IMMEDIATELY** by phone relaying the Bureau advice to all those listed in [Annexure B](#).

### 3.7 Procedures for LDCC Security Staff for Tsunami Alerts

1. 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 issue advice within 15 to 30 minutes of an undersea earthquake or other event that may trigger a tsunami affecting Australia.
2. The Emergency Management Team and/or Security Staff to assess the Bureau advice and action accordingly based on "No Threat" or "Threat".
3. Security staff to record the time when those identified contacts on the phone list have been notified. Refer to [Annexure B – Contact List for LDCC Security Staff for a Tsunami](#)
4. Security staff are to forward the notification records to the General Manager, Property, Fleet and Emergency Management (GM PFEM) as soon as possible after the task has been completed.
5. GM PFEM to ensure these records are delivered to the LDC and the TLDMG.

### 3.8 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

## Part Four – Procedure for Tsunami Warnings

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 Security.	15 - 30 mins	LDCC Security 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 Security Tsunami Procedure activated. Chair ERG and LDC <b>must</b> be notified <b>immediately</b> 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: <ul style="list-style-type: none"> <li>contacts BoM for latest advice and advises Chairperson TLDMG and the Chair ERG.</li> <li>contacts District Disaster Coordinator</li> <li>activates Townsville Local Disaster Management Group and the Local Disaster Coordination Centre (LDCC)</li> </ul>		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
3c	LDC consults with Chairperson TLDMG and Media Officer on content of public warnings (refer to <a href="#">Annexure E</a> and <a href="#">Annexure F</a> )		Consult with QPS	

Stage	Activity	Timeline	Actions Required	Comments
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 <a href="#">Annexure E</a> and <a href="#">Annexure F</a> )		Transport Plan & Traffic Control.  Emergency Alert (EA) prepared and forwarded to State Disaster Coordination Centre (SDCC) and the Emergency Management Coordinator, QFES-EMC	The SDCC Watchdesk 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 <b>Note:</b> 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 ( <a href="https://disaster.townsville.qld.gov.au">disaster.townsville.qld.gov.au</a> )	
6	Chair ERG through TCC <i>Emergency Response Plan</i> 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)	

## Part Five – Areas Affected

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### 5.1 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 storm tide, tsunami and flooding 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 [Annexure C](#)).

### 5.2 Vulnerable Communities and Infrastructure

Detailed demographic and infrastructure information is contained within the *Townsville Local Disaster Management Plan*. This information has been summarised to provide the elements of the community vulnerable to tsunami (refer [Annexure D](#)).

## Part Six – Evacuation Process

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### 6.1 Authority to Evacuate

If time permits, the Chairperson of the TLDMG will issue initial information to the community regarding voluntary evacuations based on the assessment of the areas that will be affected – see *TLDMG Evacuation & Transport Sub Plan*.

If time permits, the LDC will make a recommendation to a DDC that a directed evacuation is required, based on their situational awareness in preparation for an imminent disaster. However, as the LDMG/LDC has no legislative power to affect a directed evacuation, the responsibility for authorising a directed evacuation remains with the DDC.

A directed evacuation under the Disaster Management Act 2003 (the Act) requires the declaration of a disaster situation. A DDC may declare a disaster situation if satisfied that the requirements of section 64 of the Act have been met. The declaration of a disaster situation requires the approval of the Minister for Fire and Emergency Services and must be made in accordance with section 65 of the Act. The legislative authorities for evacuations are contained in:

- *Disaster Management Act 2003*; and
- *Public Safety Preservation Act 1986*.

The lead agency for a directed evacuation is the Queensland Police Service (QPS), which will authorise declared disaster officers and other agencies to assist as required. Local SES and Council staff would be available to assist with this process if time permits.

Refer to – [Evacuation: Responsibilities, Arrangements and Management Manual – M.1.190](#)

### 6.2 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 Community 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.
- Continue to follow emergency services instructions.

It is the intention of the TLDMG to redistribute the 'Tsunami Evacuation Guide' to possible areas of inundation and evacuation routes in 2023/24.

Advice on Assembly Areas (see section 6.4 below) would also be given.

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.

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

### 6.3 Advice to the Community – Affected Areas

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.

### 6.4 Emergency Alerts (EA)

The Queensland Government's "Emergency Alert Service" is the national telephone-based emergency warning system, emergency alert relies on Australian based telecommunication networks to send warning messages to landlines and mobile telephones. Text messages can be sent to the last known location of mobile handsets at the time of the disaster or emergency situation. This includes visitors and travellers if the mobile phones are registered to "roam" on an Australian network. The "Emergency Alert" (EA) system will be utilised by the TLDMG as required and as per the [Queensland Emergency Alert Manual](#).

Messages will:

- warn targeted areas of the local community of imminent and severe threats from disaster events; and
- direct those warned to other sources of information and/or direct them to move away from an imminent hazard or threat.

Agencies will utilise Geographic Information System (GIS) data to generate a map of the region, which includes a polygon of the defined incident area. Using this map, the EA system will:

- identify the phone services located within that polygon area,
- send a voice message of up to max 4000 characters, ideally message should be less than 450 characters to all identified landline telephone services,
- send a text message of up to a maximum of 612 characters, ideally should be less than 160 characters including spaces to all identified mobile phone devices containing a SIM card, and
- report on the delivery of these messages.



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 messages and mapped areas have been prepared for tsunami and storm tide zones as per the *TLDMG Transport and Evacuation Sub Plan*, *TLDMG Community Information and Warnings Sub Plan* ([www.townsville.qld.gov.au](http://www.townsville.qld.gov.au)) and 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.

A list of pre-approved emergency alert messages and map polygons have been prepared for implementation when required – refer to [Annexure E](#) and [Annexure F](#).

More information on this process can be found at [www.emergencyalert.gov.au](http://www.emergencyalert.gov.au).

## 6.4 Assembly Areas

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
Onoonba, 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

Management of the Assembly Areas will involve council staff and Police.

## 6.5 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.

## 6.6 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 natural 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.

## 6.7 Return

The decision for the return of evacuees and the development of a Return Strategy will be undertaken by the 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 TLDMG Impact Assessment Process will be implemented as soon as possible after an event. Data gathered will be used in assessing the Decision for Return.

Refer to *TLDMG Impact Assessment Sub Plan*

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

## Related Documents

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Queensland Disaster Management Act 2003

Townsville Local Disaster Management Plan

TLDMG Evacuation & Transport Sub Plan

TLDMG Community Information and Warnings Sub Plan

TLDMG Impact Assessment Sub Plan

TLDMG Shelters and Evacuation Centres Sub Plan

Queensland Emergency Alert Manual M.1.174

Evacuation: Responsibilities, Arrangements and Management Manual.1.190

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## Annexure Index

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A	Setup for E-mail Notification Process
B	Contact List for LDCC Security Staff for a Tsunami
C	Tsunami Evacuation Guide
D	Vulnerable Communities and Infrastructure Profile
E	Tsunami Emergency Alert Messaging
F	Tsunami Emergency Alert Map Polygons

## Annexure A – Setup for E-mail Notification Process

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](mailto:aifsqld@bom.gov.au) and will be received by the TCC.Tsunami e-mail address ([TCC.TSUNAMI@townsville.qld.gov.au](mailto:TCC.TSUNAMI@townsville.qld.gov.au)).

### **“No Threat” to Townsville region**

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!WwWaVbbrptEi6RknwS9rnrs2cfMSsg\\_WLhGDzujhJbDsgEGuT3Ha0YWKxOLOYWb6BhSFvDCgWEiuNBk5mZ5UlietcTcOgrC5ThbDLGxxU\\$](https://urldefense.com/v3/__http://www.bom.gov.au/tsunami__;!BJ4_NyxjzOSanw!WwWaVbbrptEi6RknwS9rnrs2cfMSsg_WLhGDzujhJbDsgEGuT3Ha0YWKxOLOYWb6BhSFvDCgWEiuNBk5mZ5UlietcTcOgrC5ThbDLGxxU$) or call 1300 TSUNAMI [1300 878 6264].

No further updates will be issued unless the situation changes.

\*\*\*\*\*

## **Annexure B – Contact List for LDCC Security for a Tsunami**

This page has been intentionally left blank as it contains personal information as defined under the *Information Privacy Act 2009*.

## Annexure C – 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](http://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](http://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](http://www.townsville.qld.gov.au)

Bureau of Meteorology  
[www.bom.gov.au/tsunami](http://www.bom.gov.au/tsunami)

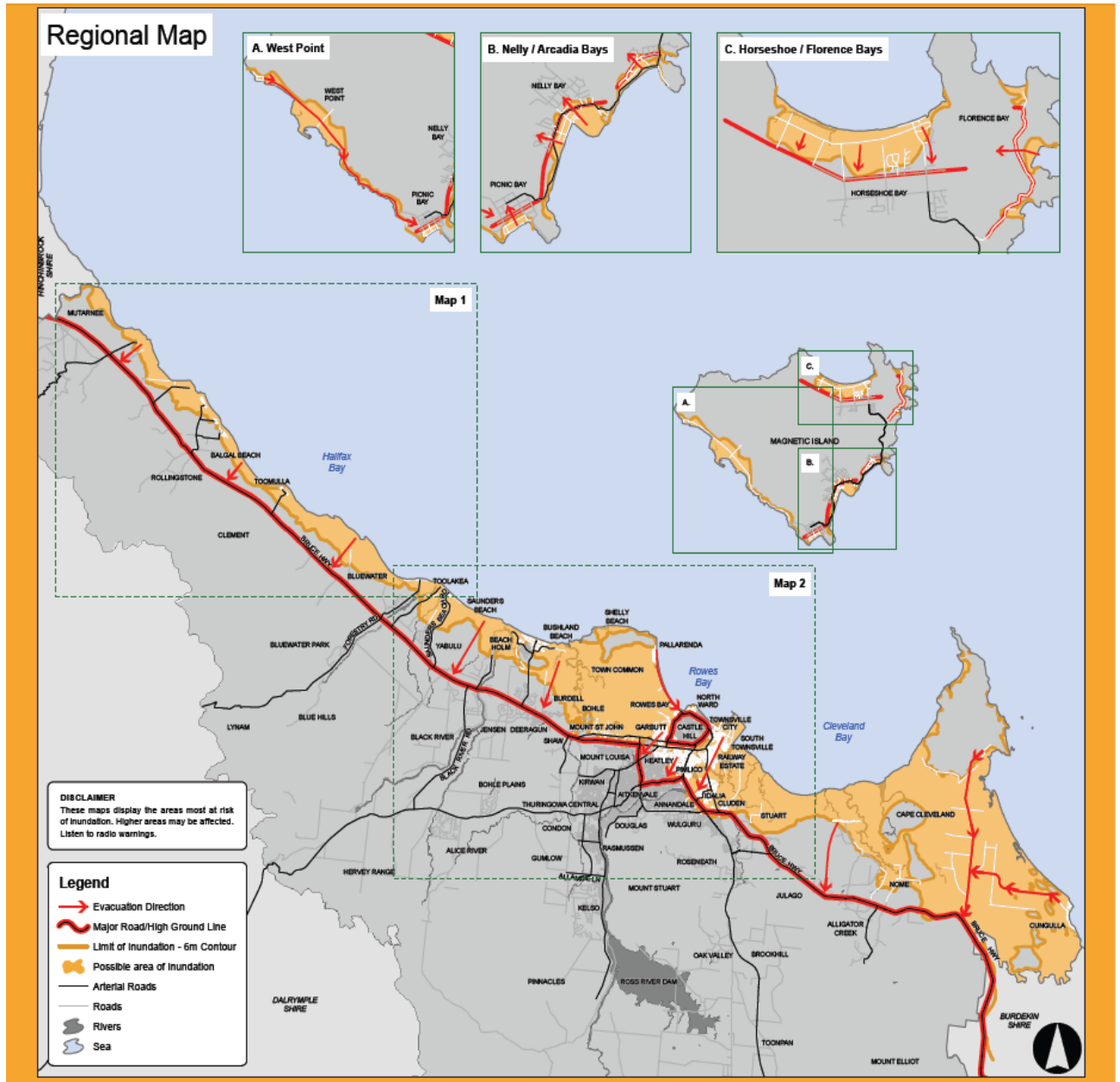
Emergency Management Australia (EMA)  
[www.emergency.qld.gov.au/emq](http://www.emergency.qld.gov.au/emq)

TOWNSVILLE

# TSUNAMI EVACUATION GUIDE

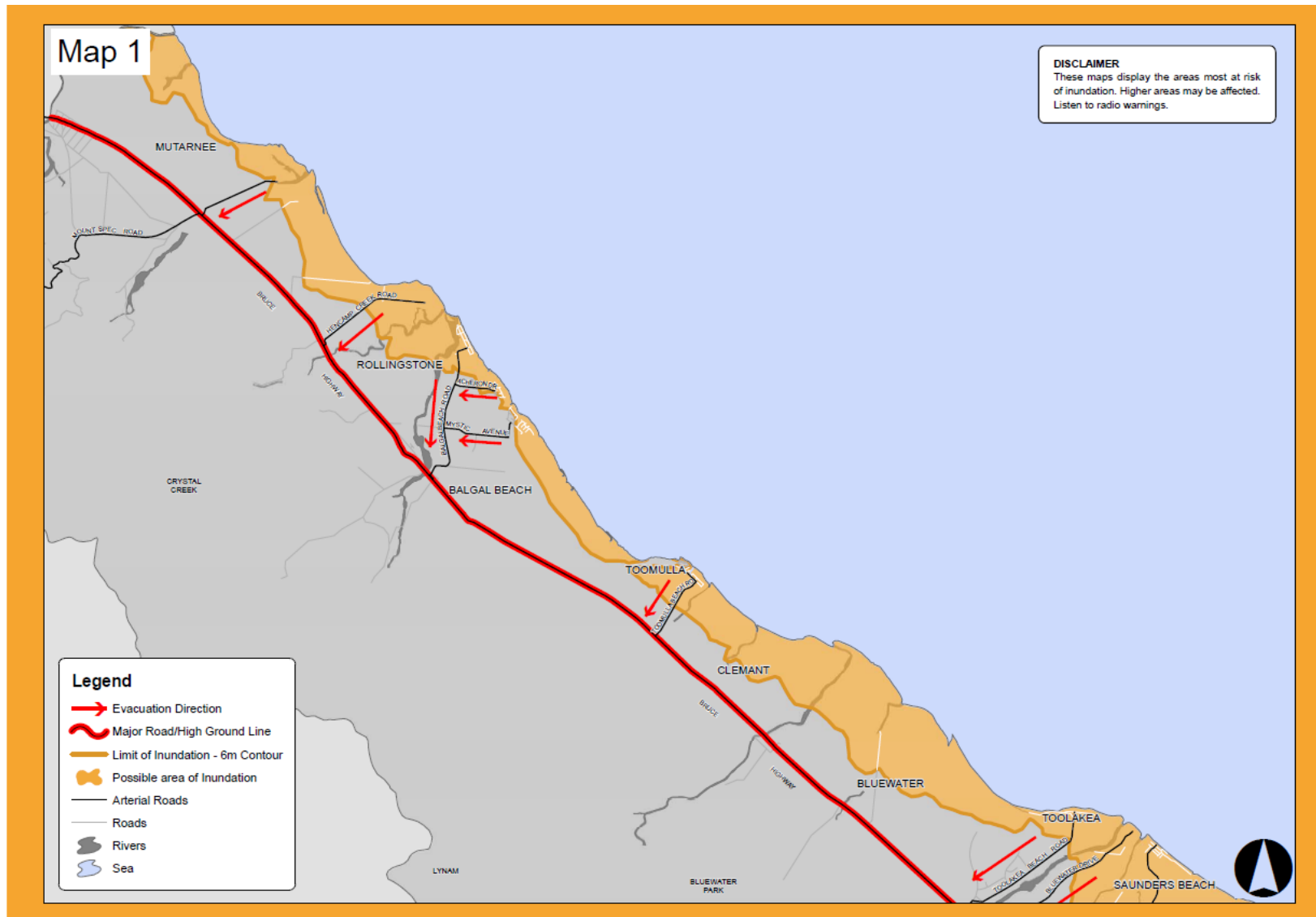


**TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP**

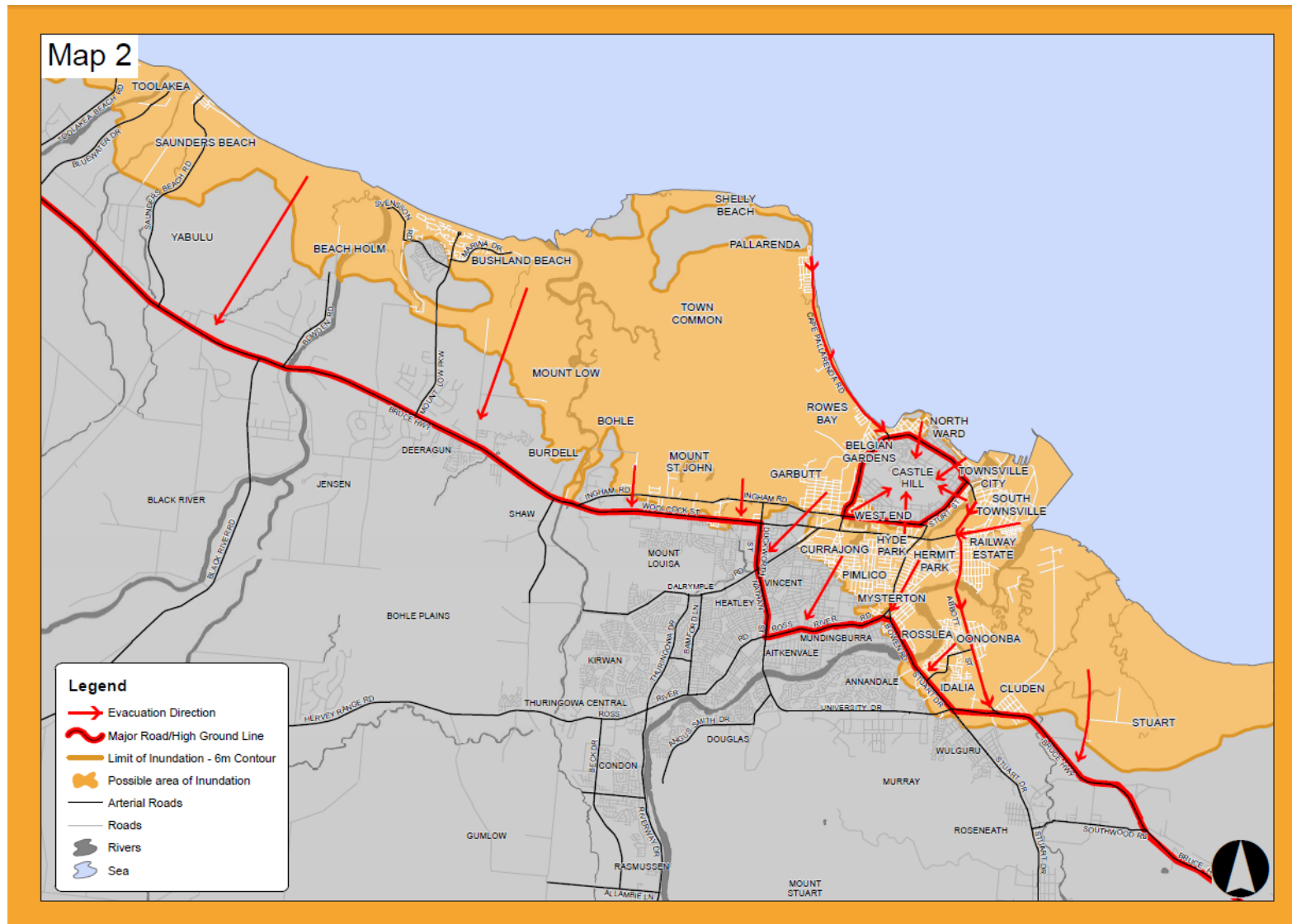


Tsunami Evacuation Guide, Page 1b





Tsunami Evacuation Guide, Page 2a



Tsunami Evacuation Guide, Page 2b






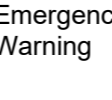
## Annexure D – Vulnerable Communities and Infrastructure


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).

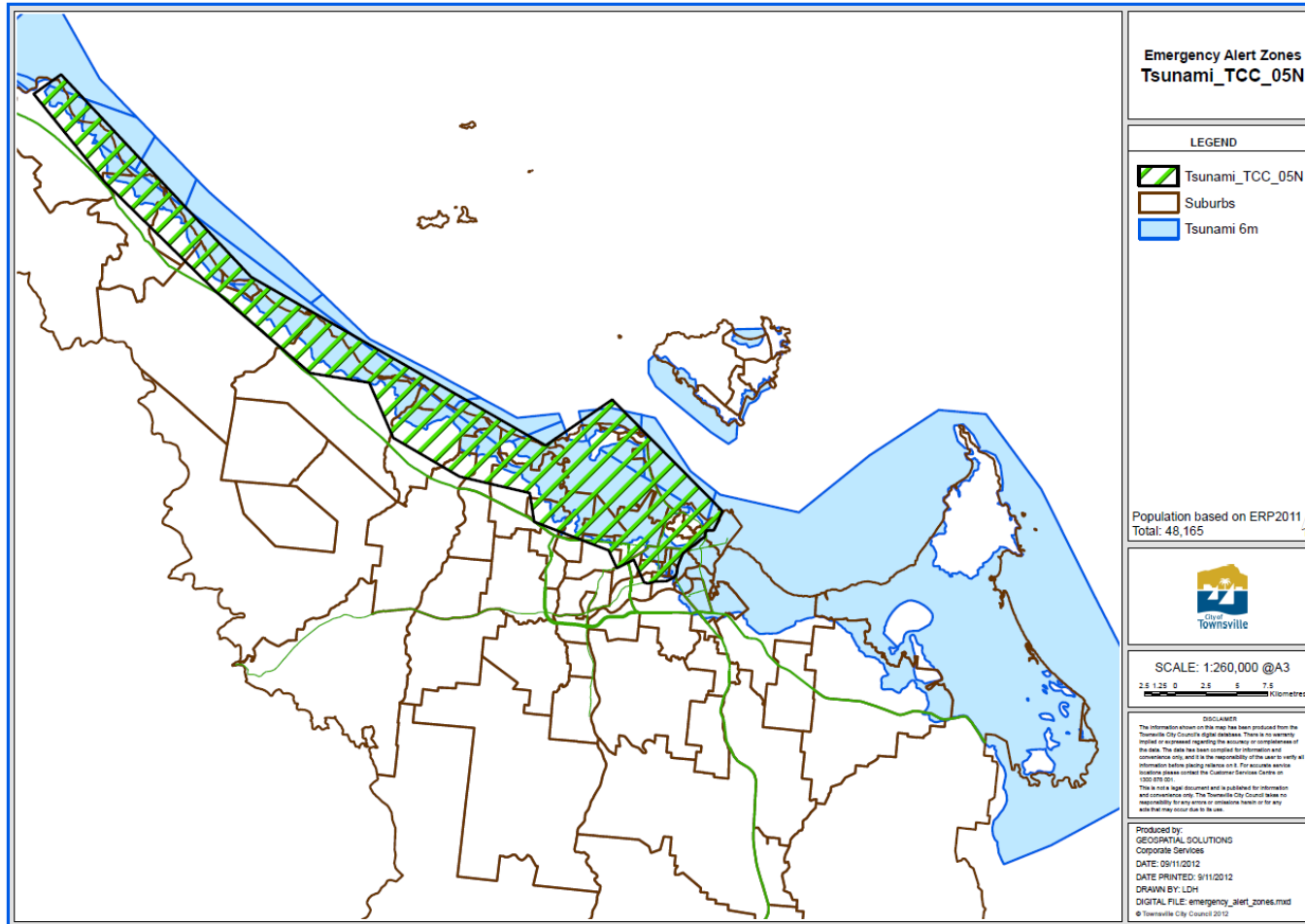
## Annexure E – Tsunami Emergency Alert Messaging

Tsunami	<b>EA 6.1</b> (All areas North bounded by Charters Towers Rd and Ross River Rd - incl. Magnetic Island)	Tsunami_TCC_05N	Advice 	This is a Tsunami Advice from the TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP. Areas between [LOCATION] may experience dangerous and destructive waves around [TIME]. You should warn neighbours, move to higher ground immediately, at least ten metres above sea level, or if possible, move at least one kilometre away from all beaches, harbors and coastal creeks and rivers. For more information listen to local radio or visit disaster dot Townsville dot Q L D dot gov dot au	TSV DISASTER GROUP Tsunami Advice warning for [LOCATION]. Possible destructive waves at [TIME]. WARN OTHERS AND GO TO HIGHER GROUND NOW. For more information listen to local radio or visit disaster.townsville.qld.gov.au
	<b>EA 6.2</b> (All areas North bounded by Charters Towers Rd and Ross River Rd - incl. Magnetic Island)		Watch and Act 	This is a Tsunami Watch and Act message from the TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP. Areas between [LOCATION] could experience dangerous and destructive waves around [TIME]. You should warn neighbours, move to higher ground immediately, at least 10 metres above sea level, or if possible, move at least one kilometre away from all beaches, harbors and coastal creeks and rivers. For more information listen to local radio or visit disaster dot Townsville dot Q L D dot gov dot au	TSV DISASTER GROUP Tsunami Watch and Act warning for [LOCATION]. Expect destructive waves at [TIME]. WARN OTHERS AND GO TO HIGHER GROUND NOW. For more information listen to local radio or visit disaster.townsville.qld.gov.au
	<b>EA 6.3</b> (All areas North bounded by Charters Towers Rd and Ross River Rd - incl. Magnetic Island)		Emergency Warning 	Emergency. Emergency. This is a Tsunami Emergency Warning from the TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP. Places between [LOCATION] will experience dangerous and destructive waves around [TIME]. You should warn neighbours, move to higher ground immediately, at least 10 metres above sea level, or if possible, move at least one kilometre away from all beaches, harbors and coastal creeks and rivers. Do not wait. Act immediately. For more information listen to local radio or visit disaster dot Townsville dot Q L D dot gov dot au	TSV DISASTER GROUP Tsunami Emergency Warning for [LOCATION]. Expect destructive waves at [TIME]. WARN OTHERS AND GO TO HIGHER GROUND NOW. For more information listen to local radio or visit disaster.townsville.qld.gov.au
	<b>EA 7.1</b> (All areas South bounded by Charters Towers Rd and Ross River Rd - incl. Magnetic Island)	Tsunami_TCC_05S	Advice 	This is a Tsunami Advice from the TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP. Areas between [LOCATION] may experience dangerous and destructive waves around [TIME]. You should warn neighbours, move to higher ground immediately, at least 10 metres above sea level, or if possible, move at least one kilometre away from all beaches, harbors and coastal creeks and rivers. For more information listen to local radio or visit disaster dot Townsville dot Q L D dot gov dot au	TSV DISASTER GROUP Tsunami Advice warning for [LOCATION]. Possible destructive waves at [TIME]. WARN OTHERS AND GO TO HIGHER GROUND NOW. For more information listen to local radio or visit disaster.townsville.qld.gov.au
	<b>EA 7.2</b> (All areas South bounded by Charters Towers Rd and Ross River Rd - incl. Magnetic Island)		Watch and Act 	This is a Tsunami Watch and Act message from the TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP. Areas between [LOCATION] could experience dangerous and destructive waves around [TIME]. You should warn neighbours, move to higher ground immediately, at least 10 metres above sea level, or if possible, move at least one kilometre away from all beaches, harbors and coastal creeks and rivers. For more information listen to local radio or visit disaster dot Townsville dot Q L D dot gov dot au	TSV DISASTER GROUP Tsunami Watch and Act warning for [LOCATION]. Expect destructive waves at [TIME]. WARN OTHERS AND GO TO HIGHER GROUND NOW. For more information listen to local radio or visit disaster.townsville.qld.gov.au
	<b>EA 7.3</b> (All areas South bounded by Charters Towers Rd and		Emergency Warning 	Emergency. Emergency. This is a Tsunami Emergency Warning from the TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP. Places between [LOCATION]	TSV DISASTER GROUP Tsunami Emergency Warning for [LOCATION]. Expect destructive waves at [TIME]. WARN OTHERS AND GO TO HIGHER GROUND NOW.

	Ross River Rd - incl. Magnetic Island)			will experience dangerous and destructive waves around [TIME]. You should warn neighbours, move to higher ground immediately, at least 10 metres above sea level, or if possible, move at least one kilometre away from all beaches, harbors and coastal creeks and rivers. Do not wait. Act immediately. For more information listen to local radio or visit disaster dot Townsville dot Q L D dot gov dot au	For more information listen to local radio or visit disaster.townsville.qld.gov.au
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## Annexure F - Tsunami Emergency Alert Map Polygons

### Tsunami\_TCC\_05N



### Tsunami\_TCC\_05SG

