



2023/24
EVACUATION &
TRANSPORT
SUB PLAN

Endorsement

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



Dean Cavanagh
Chair
TLDMG Evacuation & Transport Working Group
Date: 11/07/2023



Wayne Preedy ESM
Local Disaster Coordinator
Townsville Local Disaster Management Group
Date: 11/07/2023



Cr Jenny Hill
Chair
Townsville Local Disaster Management Group
Date: 11/07/2023

Consultation

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Document Control

Amendment Control

The *Evacuation & Transport Sub Plan* is a controlled document. The controller of the document is the Local Disaster Coordinator (LDC) for the Townsville Local Disaster Management Group (TLDMG). 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 TLDMG for approval and be endorsed by the Chair of this Working Group and Townsville City Council.

Amendment Register

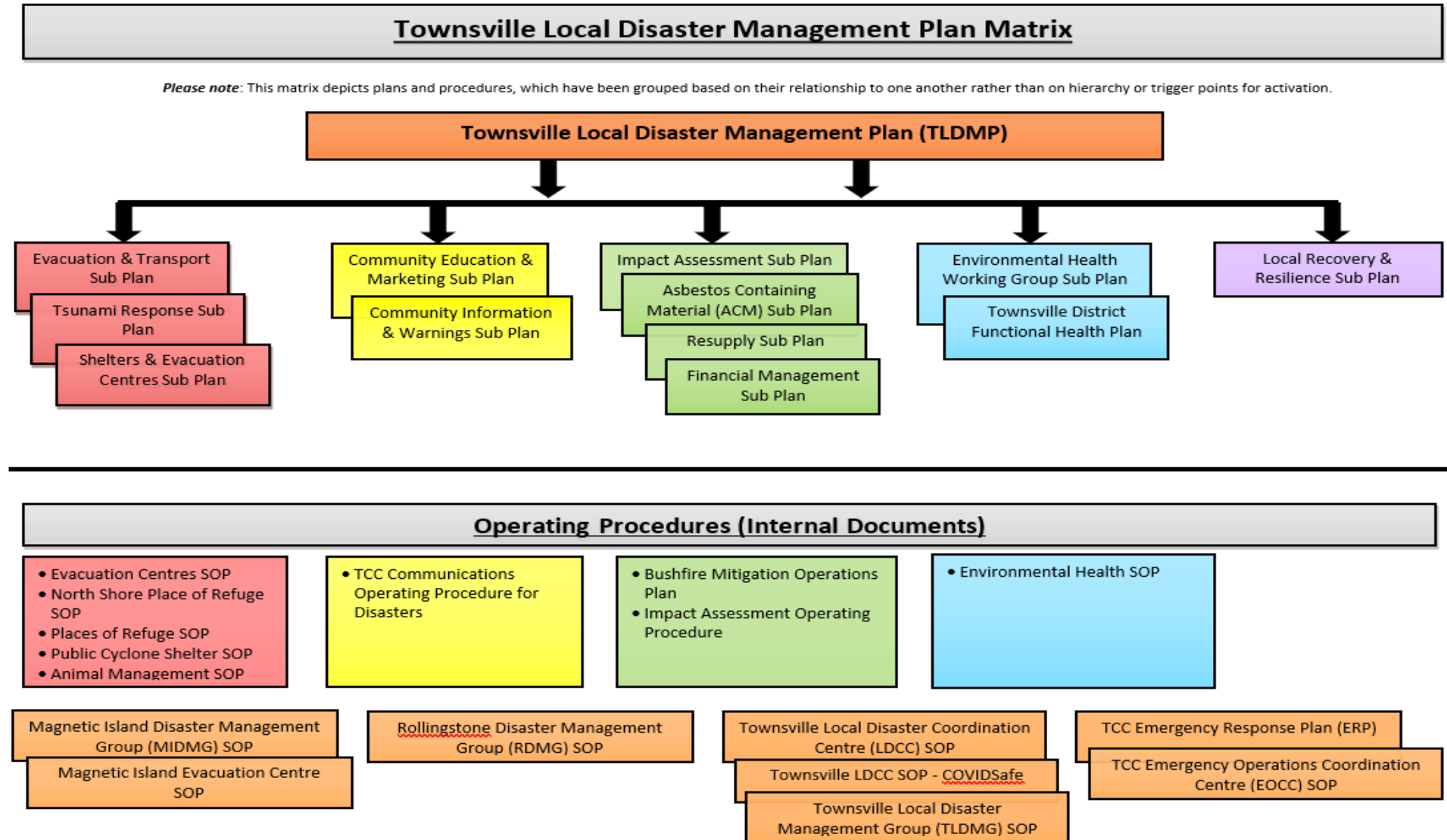
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03		February 2021	Wayne Preedy Darron Irwin	EA Coloured Zones changed (All reference to brown removed) wording in voice message and text also updated.	10 February 2021
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		Matthew Lockhorst – TCC Chris Briggs – SeaLink Dean Warren – Transit Care Libby Preedy – THHS Kevin Anderson – QFES Andrew Thomas – DTMR Philip Donnelly – DTMR Anthony Partridge – Translink Darron Irwin – TCC David Wright – QAS Claudia Brumme-Smith – TEL Ben Sanderson – Energy QLD Tania Sheppard –DCHDE Neville Johnstone – SUNBUS Michael McCall – TCC Sharmaine Snape – TCC Ryan Wheelhouse – Willows Donna Schifilliti – Willows Katie Lord – SeaLink Wes Bailey – AECOM		
05	March 2023	Wayne Preedy – LDC Dean Cavanagh – QPS	Annual Review	30 June 2023

Abbreviations Used in Disaster Management

BOM	Bureau of Meteorology
DDC	District Disaster Coordinator
DDCC	District Disaster Coordination Centre
DDMG	District Disaster Management Group
LDC	Local Disaster Coordinator
LDCC	Local Disaster Coordination Centre
PCS	Public Cyclone Shelter
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
SOP	Standard Operating Procedures
TACPG	Townsville Aged Care Partnership Group
TCC	Townsville City Council
TLDMG	Townsville Local Disaster Management Group
TLDMP	Townsville Local Disaster Management Plan

Plan Matrix



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Part One – Overview

1.1 Purpose

The purpose of the *Evacuation & Transport Sub Plan* is to outline the arrangements for the implementation of an evacuation of "at risk" persons (including transportation) within the Townsville Local Disaster Management Group (TLDMG) area of responsibility.

The implementation of this plan will allow the TLDMG to make informed, timely decisions regarding evacuation, ensure an orderly release of warnings to the community, the safe and managed movement of persons at risk to a safer location and a structured return.

1.2 Objectives

The objectives of the *TLDMG Evacuation & Transport Sub Plan* are to:

- Identify appropriate transportation requirements in the event of an emergency/disaster; to support an evacuation.
- Define emergency services and supporting agencies responsibilities.
- Provide effective liaison between all emergency services and supporting agencies.
- Provide arrangements for efficient coordination of local resources and any external support resource and
- Prescribe arrangements for testing, evaluation, and maintenance of this plan.

1.3 Scope

The *TLDMG Evacuation & Transport 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) and is developed under the authority of the *Disaster Management Act 2003*. This sub plan will be managed in accordance with the administrative and governance processes outlined within the TLDMP including approval, document control, distribution and review and renew.

1.5 Plan Testing and Review

The Local Disaster Coordinator and the Chair of the Evacuation and Transport Working Group 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 – Governance

2.1 Activation of Sub Plan

The *TLDMG Evacuation & Transport Sub Plan* will be activated by the LDC of the TLDMG, where the nature of a threat/hazard to the community will require the movement of "at risk" persons to a safer location.

This sub plan is supported by the:

- *Townsville Evacuation Operational Procedure.*
- *TLDMG Community Information and Warnings Sub Plan; and*
- *TLDMG Shelters and Evacuation Centres Sub Plan.*

The activation of these support plans should be considered concurrently with this plan.

2.2 Evacuation & Transport Working Group

2.2.1 Meetings

The Evacuation & Transport Working Group will meet at least annually to perform planning, review and renew activities associated with the arrangements outlined within this sub plan. A formal Attendance Record will be kept, and minutes will be documented for each meeting.

2.2.2 Membership

The Evacuation & Transport Working Group is responsible for planning and coordinating evacuation & available transportation requirements in the event of an emergency or disaster.

The Evacuation & Transport Working Group consists of the following members or their nominated delegate:

<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"> • Local Disaster Coordinator, TLDMG • TCC Media/Communications – Representative • Shelters and Evacuation Working Group – Representative • DTMR – Passenger Services Manager (Translink) • QFES – Representative • QAS – Representative • THHS – Representative • SES – Representative • Magnetic Island Barge/Ferry (Fantasea & Sealink)– Representative • (Advisory) Bus Company – Representatives • (Advisory) CommLink / TransitCare – Representative • (Advisory) Department of Community Housing and Digital Economy – Representative

	<ul style="list-style-type: none"> • (Advisory) Department of Defence – Representative • (Advisory) DTMR – Representative • (Advisory) Ergon – Representative • (Advisory) Port of Townsville – Representative • (Advisory) QFES Emergency Management Coordinator • (Advisory) Queensland Rail/Aurizon – Representative • (Advisory) Taxi Company – Representative • (Advisory) TEL – Representative • (Advisory) TOTTS/CommLink – Representative • (Advisory) TCC Infrastructure Planning/AECOM – Flood Modellers • (Advisory) TCC Property, Fleet and Emergency Management (PFEM) – Representative • (Advisory) TCC Construction Maintenance & Operations (CMO) – Representative • (Advisory) TCC Spatial Services – Representative • (Advisory) Townsville Airport Pty Ltd – Representative • (Advisory) Willows Shopping Centre – Representative
<p><i>Responsibilities:</i></p>	<ul style="list-style-type: none"> • Review and maintain the <i>Evacuation Operation Procedure</i> • Develop event-specific evacuation plans as required; • Assess Rapid Damage Assessment and hydrology data to inform the decision to evacuate; • Establish strategies, tactics and operational requirements for the development of traffic management plans; • Provide reports and make recommendations to the TLDMG about matters relating to transportation disaster management issues; • Regularly review and assess the <i>Evacuation & Transport Sub Plan</i>; • Review and maintain the <i>Transport Resource List</i> available to assist the TLDMG with its response to disaster events; and • Coordinate the provision of transport of personnel, equipment, provisions and the public as required, in the event of a disaster or major event.

An Evacuation & Transport Working Group Contact List can be found at [Annexure A](#).

2.3 Use of Sub Plan during Operations

While disaster management at the local level is clearly the responsibility of the local governments, the disaster management system in Queensland involves a whole of government management framework with responsibilities shared between the state government, local governments and the community. One of the very important roles for Local Government in disaster management processes is the evacuation of persons from an unsafe location to a safer location.

The Queensland Police Service is the lead agency for managing directed evacuation (refer to *Townsville Operational Evacuation Plan*). Strategies need to be in place for the most efficient means of evacuating not only isolated areas or suburbs, but potentially entire communities throughout the Townsville Local Government Area.

This plan has been developed as an operational guide with pre-determined strategies able to be adapted to the specific circumstances of the event (refer to [Annexure B – Evacuation: Operational Checklist](#)).

2.4 Functional Responsibility

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

Part Three – Concept of Operations & Evacuation Strategy

It is recognised that Local Disaster Management Groups (LDMG) are responsible for managing disasters within their respective local government areas under existing plans, however, the Queensland Police Service is the lead agency for Evacuations on a daily basis across Queensland and therefore it makes practical sense for the QPS Core Member of the TLDMG to Chair the Townsville Evacuation and Transport Working Group.

The provision of transport resources in response to a major event is an area, which requires the development of information in relation to the resources available locally.

Transport assistance may be required in a number of areas including

- Persons requiring assistance to evacuate
- Return of evacuees
- Transportation of mobility impaired persons
- Medical transportation
- Delivery of supplies and resources
- Delivery of food and medical supplies
- Transportation of emergency service personnel.

Where additional transport requirements are identified (which cannot be sourced by the TLDMG), requests shall be made to the Townsville District Disaster Management Group (TDDMG) for assistance.

3.1 Activation of the Local Disaster Management Group and Local Disaster Coordination Centre

It is likely that the TLDMG and/or the Townsville Local Disaster Coordination Centre (LDCC) will have already been activated. Further details regarding activation is located within 5.2 & 5.3 of the *Townsville Local Disaster Management Plan*, the *LDCC Standard Operating Procedures (SOP)* and the *TLDMG Standard Operating Procedure (SOP)*.

3.2 Activation of the Evacuation & Transport Working Group

The LDC or the Chair of the TLDMG will direct the Chair of this working group to activate when and if required. When time permits this will be endorsed via the core membership of TLDMG.

Table 3.3 outlines a pre-determined evacuation strategy for a range of threats and associated risks identified in Townsville's *All Hazard Risk Assessment Study*.

The evacuation strategy provides a basis of reference data to enable prompt decision making and can be refined at the time of an event, where the data is influenced by event specific factors such as size, magnitude and likely impacts of the event.

Evacuation Zone Maps (refer [Annexure C](#)), have been developed for Storm Tide, Tsunami and Riverine Flooding threats. These will be utilised to inform decision making regarding areas and suburbs requiring to be evacuated.

Strategies have been considered for:

- Cyclone only
- Storm Tide (associated with cyclone)
- Flooding including riverine flooding associated with Ross River Dam or Ross River Dam break
- Tsunami (if time permits to consider evacuation operations)
- Landslide and
- Bushfire.

Refer to [Annexure M – Studies and Reports](#).

Refer to Section 4.3 of this plan for details on evacuation timelines and timeframes.

3.3 Townsville Local Disaster Management Group Evacuation Strategy

Threat	Areas at risk	Population	Evacuation Method	Safer Location	Evacuation Route	Estimated Evacuation Timeframe	Transport Issues
Cyclone Cat 1	Nil	195,223	Shelter in Place	n/a	n/a	n/a	n/a
Cyclone Cat 2	Nil	195,223	Shelter in Place	n/a	n/a	n/a	n/a
Cyclone Cat 3	Total LG Area	195,223	Voluntary for "at risk" homes	<ul style="list-style-type: none"> Family and friends Place of Refuge/Shelter 	As per plan (see Annexure D)	12 - 18 hours	Rail, Airport and Port will be closed
Cyclone Cat 4	Total LG Area	195,223	Voluntary for "at risk" homes	<ul style="list-style-type: none"> Family and friends Place of Refuge/Shelter 	As per plan (see Annexure D)	12 - 18 hours	Rail, Airport and Port will be closed
Cyclone Cat 5	Total LG Area	195,223	Voluntary for "at risk" homes	<ul style="list-style-type: none"> Family and friends Place of Refuge/Shelter 	As per plan (see Annexure D)	12 - 18 hours	Rail, Airport and Port will be closed
Storm Tide	Red Zone	9,935	Directed	<ul style="list-style-type: none"> Family and friends Place of Refuge/Shelter 	As per plan (see Annexure D)	12 - 18 hours	Rail, Airport and Port will be closed
	Orange Zone (plus Red Zone)	12,151 (Total = 22,086)	Directed	<ul style="list-style-type: none"> Family and friends Place of Refuge/Shelter 	As per plan (see Annexure D)	12 - 18 hours	Rail, Airport and Port will be closed
	Yellow Zone (plus Red/Orange Zones)	20,850 (Total = 42,936)	Directed	<ul style="list-style-type: none"> Family and friends Place of Refuge/Shelter 	As per plan (see Annexure D)	12 - 18 hours	Rail, Airport and Port will be closed
	Blue Zone (plus Red/Orange/Yellow Zones)	23,294 (Total = 66,230)	Directed	<ul style="list-style-type: none"> Family and friends Place of Refuge/Shelter 	As per plan (see Annexure D)	12 - 18 hours	Rail, Airport and Port will be closed
Minor Flooding		Nil	Shelter in Place	n/a	n/a	n/a	n/a
Moderate Flooding	As per flood maps (see Annexure B)	Dependent upon location	Voluntary	<ul style="list-style-type: none"> Family and friends Place of Refuge/Shelter 	As per plan	Unknown	Dependent upon location
Major Flooding (including Riverine Flooding)	As per flood maps (see Annexure B)	> 1,000	Voluntary or Directed	<ul style="list-style-type: none"> Family and friends Place of Refuge/Shelter 	As per plan	12 - 18 hours	

Threat	Areas at risk	Population	Evacuation Method	Safer Location	Evacuation Route	Estimated Evacuation Timeframe	Transport Issues
Tsunami (marine threat)	Marinas	>200	Directed	As per Marina Evacuation Plan	n/a	n/a	n/a
Tsunami (land threat)	Coastal suburbs	<30,000	Directed	As per Tsunami Evacuation Guide	As per plan (see Annexure D)	1 to 3 hours	Nursing Homes will require assistance
Severe Weather (flash flooding, damaging winds, anomalously high tides <0.5m above HAT)	Nil	Nil	Shelter in Place	n/a	n/a	n/a	n/a
Severe Weather (flash flooding, damaging winds, anomalously high tides >0.5m above HAT)	Parts of coastal suburbs	<5,000	Directed	Evacuation Centre (see relevant Procedure)	As per plan (see Annexure D)	1 to 3 hours	Nursing Homes will require assistance
Bushfire	As per Bushfire Study	Unknown	Directed	Bushfire Safe Locations	As per plan (see Annexure D)	6 to 8 hours	-
Landslide	As per Landslide Study	<1,000	Directed	Away from steep slope areas	n/a	3 to 6 hours	-

1. Population figures are based on 2021 census data
2. Estimated evacuation timeframe is derived from the Timelines outlined under Decision to Evacuate.
3. Minor flooding: Causes inconvenience. Low-lying areas next to water courses are inundated which may require the removal of stock and equipment. Minor roads may be closed and low-level bridges submerged.
4. Moderate flooding: In addition to the above, the evacuation of some houses may be required. Main traffic routes may be covered. The area of inundation is substantial in rural areas requiring the removal of stock.
5. Major flooding: In addition to the above, extensive rural areas and/or urban areas are inundated. Properties and towns are likely to be isolated and major traffic routes likely to be closed. Evacuation of people from flood affected areas may be required.
6. Severe Weather: Includes any non-tropical cyclone conditions that may produce anomalously high tides and coastal inundation, for example East Coast Lows.

Part Four – Decision to Evacuate

4.1 Considerations for Decision to Evacuate

The decision to evacuate is the first stage of the evacuation process. During this stage, the TLDMG will analyse specific event information and intelligence and make an assessment on the necessity to evacuate persons at risk. If they consider that an evacuation “may” be required they will activate this group. Factors, which will affect this decision, include:

- Advice from relevant authorities on severity, arrival and impact areas.
- The applicability of predetermined vulnerable zones and modification of existing or development of additional maps as required.
- The population within the "at risk" area and the numbers of persons that may require evacuation.
- The time required to complete the evacuation and the lead time available.

Is evacuation achievable, safe and the most suitable option?

- The best shelter and evacuation option.

- *What type of evacuation is necessary – voluntary or directed?*
- *Is shelter-in-place a safer alternative?*

- The capacity of proposed evacuation routes to support rapid egress by pedestrian and/or vehicular traffic given the specific event-related conditions.
- The suitability of proposed shelter and/or assembly points, including the ability to establish them quickly and sustain them for the duration of the event.
- Specific transportation requirements (e.g. for vulnerable groups).
- Specific arrangements for facilities to support and accommodate special needs populations.
- Availability and access to the resources required to effectively manage the evacuation.

The final decision to conduct an evacuation will be based on a full and measured risk assessment of all available data, as well as consideration for the availability of alternative public protection measures.

4.2 Authority to Evacuate

Evacuations undertaken during small-scale incidents for the purposes of public safety would be conducted by Emergency Service responders in the execution of their normal duties and authorised in accordance with their relevant legislation. This *Evacuation & Transport Sub Plan* is designed for the evacuation of persons at risk from large-scale disaster events in accordance with, and under the authority of, the *Disaster Management Act 2003*.

There are three (3) types of evacuations, two (2) of which can be authorised.

4.2.1 Self-Evacuation

Self-evacuation refers to when persons, who may be impacted by an impending hazard, proactively choose to evacuate without advice or direction from authorities (Evacuation: Responsibilities, Arrangements and Management 2018).

4.2.2 Voluntary Evacuation

Voluntary evacuation refers to the encouragement of exposed (i.e. "at risk") persons, who may be impacted by an impending hazard, to commence evacuation voluntarily (Evacuation: Responsibilities, Arrangements and Management 2018).

The voluntary evacuation of "at risk" persons may be authorised and implemented by the LDC of the TLDMG. The LDC will take reasonable steps to consult with and brief the Townsville District Disaster Coordinator (DDC) prior to the implementation of this decision.

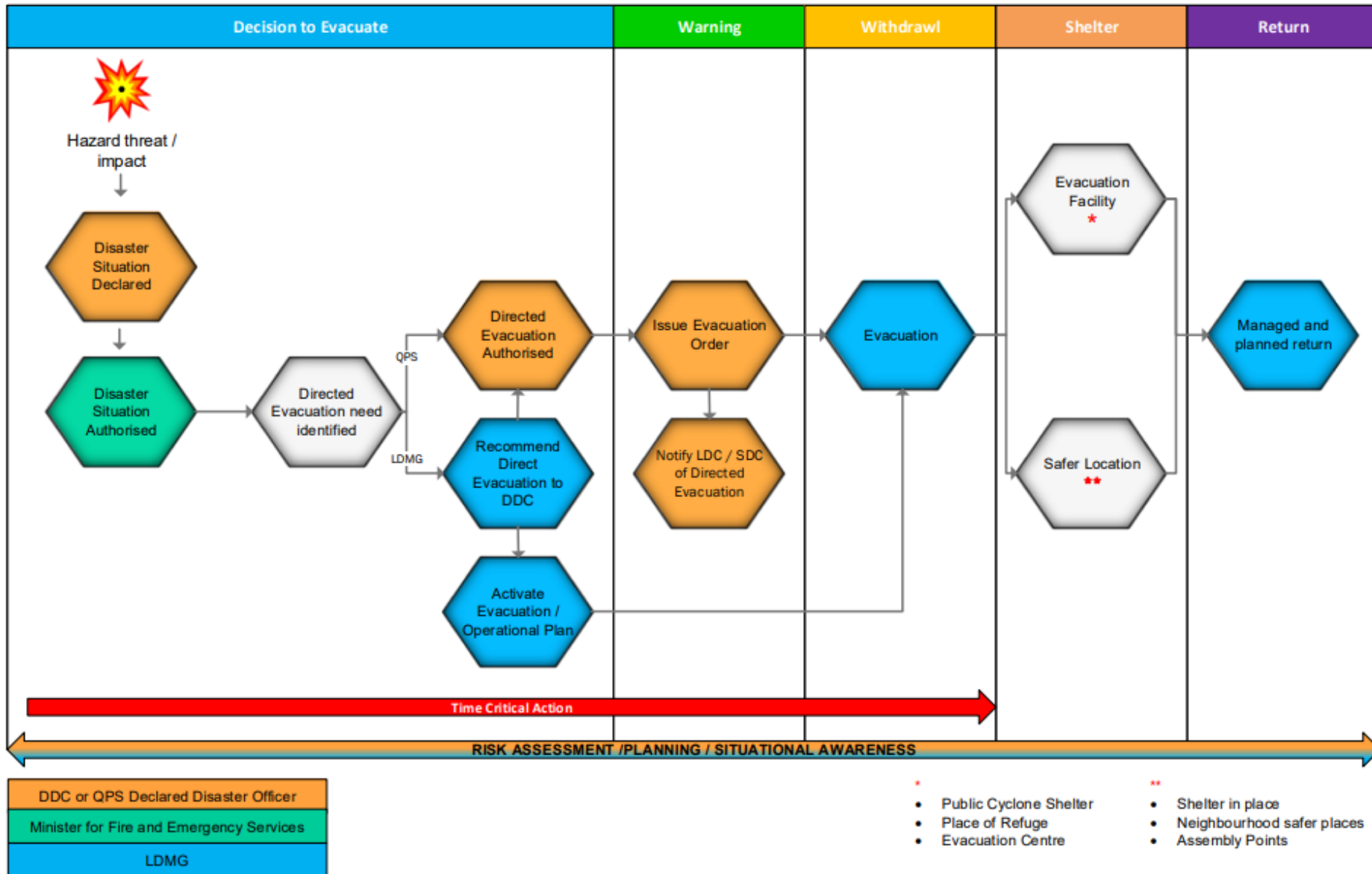
4.2.3 Directed Evacuation

Directed evacuation refers to the directed evacuation of exposed ("at risk") persons by the DDC or Declared Disaster Officer under legislation to evacuate an exposed (disaster) area (*Evacuation: Responsibilities, Arrangements and Management 2018*).

A directed evacuation requires the approval of the DDC upon recommendation by the Townsville LDC. This request would also be based on advice from the chair of this group. Upon receipt of a recommendation for directed evacuation from the LDC or following consultation between the DDC and the LDC, the DDC will seek the approval from the Minister of Police, & Corrective Services and Emergency Services for the declaration of a disaster situation in accordance with the provisions of the *Disaster Management Act 2003*.

Upon approval of the declaration, a directed evacuation order may be issued by the DDC, and persons may be authorised to exercise declared disaster powers to enable the effective conduct of the withdrawal process. This is detailed in the *Townsville Operational Evacuation Procedure*.

Below is the process for Directed Evacuation, it aligns with the stages of evacuation which is based on the [Australian Institute for disaster Resilience National evacuation planning handbook](#).



4.3 Evacuation Timelines

For each event, timelines have been developed considering:

Timeline Type	Description
Decision Time	(Includes assembly of Evacuation & Transport Working Group) Time required to make an informed decision; mobilisation and deployment of resources.
Warning Time	Time required to advise community of evacuation.
Withdrawal Time	Time required for persons at risk to travel to a safer location.
Leave Time	Time required for people to secure home and prepare to leave.
Travel Time	Time to travel from evacuation zone to a safer location.
Time Past-a-Point	Time for all people and/or traffic being evacuated to pass a point on the evacuation route.
Shelter Time	Time for people to take shelter at a safer location.

4.3.1 Decision Points

The following decision points have been used to determine the timeframes for effective execution of an evacuation:

Event	Decision Point
Storm Tide	Advice on triggers listed in 'The Tropical Cyclone Storm Tide Warning – Response System Handbook' – State Disaster Management Group and the Australian Bureau of Meteorology – North Edition 2011; Council's Storm Tide Zone Evacuation mapping
Flooding	Information from the Hydrology action of Bureau of Meteorology (Brisbane) to determine river heights; current information through the <i>Ross River Dam Emergency Action Plan</i> , council's flood gauge system (Enviromon – monitored by TCC Trades and Technical Services) and local knowledge within council's Emergency Response Group and the TLDMG; Council's flood mapping and “Water Ride” flood forecasting software.
Landslide	Most usually associated with wet weather events; inspection and advice as per Landslide Inspection Procedures managed by TCC Construction and Maintenance Operations; monitored rainfall levels (using Enviromon) from rain gauges located in risk areas; Council's landslide risk mapping.
Tsunami	Warnings issued by the Bureau using information from the Joint Australian Tsunami Warning Centre (JATWC) (Melbourne); Council's disaster mapping; Council's Tsunami Evacuation Guide.

Event	Decision Point
Bushfire	Warning advice issued by the Bureau and QFES; Council's Bushfire Risk Plans; QFES 'Safe Area – Neighbourhood Safer Places" on advice from QFES, "at risk" properties underthreat or in path of predicted spread of a bushfire may be evacuated.
Evacuated Route Capacity	Route conditions at the time of the event to be analysed – see Annexure D .

4.3.2 Evacuation Timeframes

Following are the timeframes for the effective execution of an evacuation, relative to each event:

Event	Evacuation Timeframe
Storm Tide	Variable *Timeframes were calculated for each coloured storm tide evacuation zone in Tropical Cyclone Debbie (March 2017), using a specially formatted Microsoft Excel spreadsheet. These documents are held by Council. (Refer to: Annexure C- Evacuation Zone Maps Annexure F - Example of Calculating Evacuation Times)
Flooding	6 hours
Landslide	6 hours
Tsunami	1 hour (refer to <i>TLDMG Tsunami Response Plan</i>)
Bushfire	6 – 8 hours

4.3.3 Aged Care Facilities

Evacuation and relocation of Aged Care residents is to occur as per the *Townsville Aged Care Partnership Group (TACPG) Agreement*, where practicable.

The most “at risk” sites for natural disaster events are coastal facilities, including:

- Bolton Clarke Rowes Bay (RACF) – Havana Street, Rowes Bay.

Details of this and other local aged care facilities are listed within [Annexure H- Townsville Aged Care Partnership Group \(TACPG\) – Facility Information List](#).

A review in January 2015 of evacuation and transportation arrangements for Bolton Clarke Rowes Bay showed that it requires an absolute minimum of 20 hours notification to allow personnel to implement and complete the evacuation of their clients, with the following considerations in mind:

- Destination of evacuated patients will be determined as per the individual nursing home disaster management plans and processes

- Approximately 42 residents may require ambulance transport (including wheelchair ambulance)
- The TLDMG may be required to organise a minimum of four (4) trucks and up to 12 staff to assist (Bolton Clarke have worked on their planning and have engaged a local removals company to shift them, however we need to be prepared to assist).

Case study

The Bolton Clarke Rowes Bay facility was required to evacuate in Tropical Cyclone Debbie (March 2017) due to the threat of storm tide inundation. The evacuation of 99 residents was completed in 4.5 hours. At the time of the event, 28 residents required ambulance transport. Council provided two (2) trucks and two (2) staff to move all required equipment. Residents were relocated as follows:

- Carinity Fairfield Grange (33 Kokoda Drive, Idalia) – 39 residents
- OzCare Villa Vincent (2 Acacia Street, Mundingburra) – 42 residents
- Gone to families – 17 residents and,
- In Hospital prior to evacuation – 1 resident.

Note: The capacity for Aged Care Facilities to receive evacuees will vary depending on current occupancy and availability of resources at the time of an event.

Note: The District Disaster Health Functional Working Group may activate in support of an evacuation decision being taken. Also, reference the District Disaster Health Functional Plan.

Part Five – Warnings

5.1 Warning Dissemination and Methods

Advice for the community will be forwarded from the TLDMG to media outlets by the TLDMG Communications Manager as per the *TLDMG Community Information and Warnings Sub Plan*.

Warning methods may include:

- Media – Radio and Television Broadcasts
- Councils “Emergency Management and Disaster Dashboard” (disaster.townsville.qld.gov.au)
- Door knocking (QPS, volunteers)
- Telephone, Mobile, Email – public alerting systems
- Council’s website (www.townsville.qld.gov.au)
- Social Media (Facebook, Twitter) – Townsville Disaster Information Facebook page
- Marine Radio and distress Systems and Networks
- Mobile Public Address System
- Queensland Emergency Alert System
- Australian Warning System
- Variable Message Signs (Permanent or trailer mounted)

The following table documents the agencies responsible for the dissemination of evacuation warnings to "at risk" populations.

"At Risk" Population	Warning Method	Agency primarily responsible for dissemination of warnings
General Public	Media releases	LDCC/TLDMG via media contact lists
	Door knocking	QPS with assistance from SES/ADF, etc. as required
	Emergency Alert System	SDCC (LDCC formally requests through QFES)
	TCC Emergency Management and Disaster Dashboard, Internet and Social Media	LDCC/TLDMG via <i>TLDMG Community Information and Warnings Sub Plan</i>
	variable message signs (Permanent or trailer mounted)	LDCC/TLDMG via TCC Resource Plant Allocation

"At Risk" Population	Warning Method	Agency primarily responsible for dissemination of warnings
Hospitals, Aged Care Facilities		LDCC/TLDMG via TLDMG members and TACPG List (refer Annexure H)
Schools, Day cares, University		LDCC/TLDMG via agency representative on TLDMG
Shopping Centres (Centre Management)		LDCC/TLDMG via agency representative on TLDMG
Detention Centres		LDCC/TLDMG via agency representative on TLDMG
Tourists	Via Tourism Operators, Accommodation Providers, Location-based Emergency Alerts, etc.	Townsville Enterprise Ltd
Caravan Parks & Marinas		LDCC/TLDMG via contact list (refer Annexure I)
Non-English Speaking	Contact Townsville Multicultural Support Group and Migrant Resource Centre	LDCC/TLDMG via agency representative on TLDMG
People with a Disability		NGO's, Agencies, Government Departments via their contact lists
Marine Users	Marine Radio and Distress Systems and Networks	Maritime Safety Queensland (Department of Transport and Main Roads)
Rough Sleepers		Queensland Police Service with assistance from CARE Coordination Group and SES
Mass Gathering Venues		LDCC/TLDMG via agency representative on TLDMG

5.2 Standard Messages to the Community

Refer to [Annexure J](#) for Standard Evacuation Order message templates.

The standard wording contained in these templates will be utilised across all warning methods to ensure consistent messages are provided to all elements of the community.

For more details on warning messages, including the State Government's "Emergency Alert System" and the Australian Warnings System, refer to the *TLDMG Community Information and Warnings Sub Plan*.

Part Six – Withdrawal

6.1 Evacuation Routes

Evacuation Routes are reflected in [Annexure D](#).

Specific "at risk" areas in the Townsville local government area include (but not limited to):

"At Risk" Area	Transport Mode	Transport Provider	Pick Up Point	Destination	Comment
Magnetic Island	Ferry	Private company	Nelly Bay Harbour	Ross Creek terminal	
	Barge		Nelly Bay Harbour	Ross Creek terminal	
Bolton Clarke Rowes Bay Residential Aged Care Facility	Ambulance/ Bus	QAS Council	Pallarenda Road	To be advised	As per <i>TACPG Agreement</i>
	Ambulance/ Bus	QAS Council	Pallarenda Road	Other Aged Care Facilities, likely to be Bolton Clarke Glendale facility on Dalrymple Rd	As per <i>TACPG Agreement</i>
Cungulla	Cars	Personal	Cungulla	Australian Institute of Marine Science (AIMS)	For inundation events

6.2 Guidelines for Local Traffic Management Plans (LTMP)

Localised traffic management plans should be scalable and flexible in order to be responsive to changing operational tempo, priorities and conditions.

Objectives

The objectives of a LTMP are to:

- Increase traffic management planning and preparedness.
- Reduce the adverse impacts of a disaster event or other critical incident on the community.
- Support the emergency management framework.
- Facilitate timely response and recovery activities.

Developing a Local Traffic Management Plan

Personnel familiar with the local area should be responsible for the development of localised traffic management plans as it is their local knowledge that will inform traffic management plans. Council and local QPS should be the lead agencies with support from additional agencies as required.

Major and Arterial Roads

Priority should always be given to major and arterial roads – see [Annexure D](#).

Road Closures

Manned: Consider whether the closure requires control by police, a contracted traffic controller, or a member of the SES.

Unmanned: Type of barrier and signage that will be required.

- Duration and frequency of the closure
- Establishment of strategic traffic control points
- Use of Variable Messaging Signs
- Rolling and static closure programs and grid closures. This approach may assist with effective and efficient resource allocation
- Where possible closures should be established early to prevent unwanted traffic from entering the area
- Establishment of exclusion zones where entry is permissible only to emergency or other authorised vehicles (e.g. commercial operators clearing waste)

Ingress and Egress

Where necessary, traffic should be limited to emergency vehicles, other authorised vehicles and operators (e.g. commercial operators clearing waste), and bona fide residents.

Where possible:

- Identify suitable vehicle staging areas for persons visiting and assisting such as volunteers and trades people (e.g. nearby parks' carparks)
- Establish dedicated routes IN and OUT (i.e. one way, contra flow)
- Implement rolling stoppages for response and recovery operations. This will minimise the time spent in any one particular location
- Identify and establish suitable haulage routes and run-on areas for trucks to marshal prior to entering the controlled area. Separate these routes from general traffic routes
- Identify and establish suitable staging areas for the disembarkation from public transport of mass volunteers
- Identify and establish suitable pedestrian routes for general pedestrian traffic as well as mass volunteers
- Identify alternate routes and options
- Monitor the wider traffic area for emerging issues such as congestion or other incidents that may impact on the traffic management plan.

Distribution Points

Areas may need to be designated for the purpose of distributing materials (e.g. bottled water, sandbags).

Ideally, distribution points should be hardstand and operate on a one way in, one way out system with identified ingress and egress routes. Sufficient room should exist for through traffic.

Temporary fencing can be utilised to manage ingress and egress at distribution points i.e. orderly funnelling in and funnelling out.

Distribution points should have a police presence, where possible, to maintain public order and safety at the site. Where QPS are unavailable, security guard services may be considered in line with Council procurement processes. Minimum security resources required at the site include 2 x officers and 1 x vehicle. Consideration can also be given to mobile distribution if appropriate (e.g. bottled water on a flatbed truck). Multi-purpose distribution points can also be considered if appropriate (e.g. sandbag and bottled water at the same location; or bottled water at waste centres).

Communications

Emergencies and disasters will draw significant media interest and a very significant requirement for public information. The Council response to these needs will be coordinated by the media group within the LocalDisaster Coordination Centre (LDCC).

Roadside Variable Messaging Signs (VMS) are an effective field communication field tool.

Communications channels available to the LDCC include:

- Fact Sheets
- Community Service Announcements – Radio and Television
- Council website
- Queensland Police Service website
- Social Media – Facebook, Twitter

Review and Forward Planning

The traffic management plan is a fluid document and should be reviewed regularly (daily, every 4 hours, every hour) based on the tempo of the operation, available intelligence and other information.

The traffic management plan should be reviewed at the end of the day and the plan amended as required to meet the requirements of the next day.

6.3 Traffic Management Strategy

Transport issues will be assessed and managed by the Chair of the Evacuation and Transport Working Group on advice from the DTMR representative and the TCC Team Leader Traffic Management of this working group. Community messages will be issued advising on road conditions and evacuation routes for disaster events. Refer to the *TLDMG Community Information and Warnings Sub Plan*.

6.3.1 Major Transport Infrastructure

ITEMS	OWNER	COMMENTS
MAJOR ROAD INFRASTRUCTURE	Department of TMR	
Bruce Highway		<p>Major highway to the region – The Bruce Highway, Queensland's most well-known highway, carries the state's highest amount of traffic and links Brisbane with all the major regional centres along the Queensland coastline. Within the Townsville area, there are several critical points that make travel times on the Bruce Highway unreliable during the wet season:</p> <ul style="list-style-type: none"> • Plantation Creek south of Ayr – frequent flooding, however, closures are more infrequent. • Flooding at the Barrattas (more frequent) and Haughton River (less frequent) causes delays. Traffic is generally held at Sandy Corner rest area north of Brandon and Hodel Road south of Townsville depending on the nature of the event. • Gairloch washaway Seymour River and Arnot Creek – North of Ingham extensive flooding, long duration and vulnerable structures make this link extremely unreliable in the wet season.

ITEMS	OWNER	COMMENTS
Flinders Highway		<p>Flinders Highway Townsville to Charters Towers is reasonably flood free, with only minor creeks flooding for short durations in most events.</p> <ul style="list-style-type: none"> • Macrossan Bridge over the Burdekin River is infrequently flooded, however, when flooded, is up to seven (7) metres submerged. This usually happens once per annum on average. • Charters Towers to Torrens Creek – flooding is frequent at locations such as Bonney Flats, Shovel Creek, Gardiner Creek, Campaspe River to name a few. These creeks are impassable with in excess of one (1) metre of water over the road, even in quite small rainfall events.
Woodstock – Giru Road		<p>The Woodstock – Giru Road is a major bypass between the Flinders Highway and the Burdekin. The route is notoriously unreliable during the wet season due to the many causeways and low level bridges on the route. Crossings such as Walkers Creek, Serpentine Lagoon and other creeks make this road impassable in low rainfall events.</p>
Townsville Urban Precinct		<p>The road network within Townsville is reasonably reliable, and there are other alternative routes available for avoiding known trouble spots (i.e. Lower Bohle on Ingham Road, Abbott Street, Stuart Drive)</p>
RAIL INFRASTRUCTURE	Queensland Rail	
Western Rail Corridor		<p>Economically important train line for the transportation of minerals, passengers, freight and livestock.</p> <p>Local flooding areas are around Cluden, Calcium and Reid River. Macrossan Bridge over the Burdekin River has not been flooded at this stage.</p>
Northern Access (Townsville, Cairns)		<p>Economically important for the transportation of freight and livestock. Passenger trains also operate on this line.</p>

ITEMS	OWNER	COMMENTS
		<p>Localised flooding can happen around Mather and Weston Streets. Further North, the line does flood at Francis and Cattle Creeks. This generally happens at least once per year.</p>
Southern Rail Corridor		<p>Economically important for the transportation of freight and livestock. Passenger trains also operate on this line.</p> <p>Local flooding areas at Cluden and further South between Cromarty and Pioneer, with the Houghton, Cromarty Wetlands and Barrattas occurring yearly.</p>
Bridges		<p>Two major bridges that cross the Burdekin River are of importance to Queensland Rail:</p> <ul style="list-style-type: none"> • Macrossan at Sellheim; and • the Burdekin between Ayr and Home Hill. <p>At this stage they have not been flooded.</p> <p>On the Southern Line, Margaret Creek Bridge at Cromarty and Killymoon Creek Bridge do become flooded.</p> <p>On the Western Line, only culverts between Woodstock and Reid River are affected by flood waters.</p>
Regional Offices & Stations		<p>The Rail Network from Rockhampton up to Cairns and the Tablelands, as well as West to Mount Isa and the Central West from Emerald to Winton, is controlled from the Control Centre located at 502 Flinders Street.</p> <p>Regional Infrastructure Depots are located at 180 Ingham Road (Bohle), Ayr, Ingham and Charters Towers.</p>
AIRPORTS	Townsville Airport	<p>Critical Infrastructure for Defence, Pax/freight and emergency support services.</p> <p><i>Aerodrome Emergency Plan (AEP) and Disaster Management Plan (DMP) contain relevant contact information. Activation of the AEP/ DMP will be in conjunction with Defence and the TLDMG/ TDDMG.</i></p> <p>Civil access to the airport via John Melton Black Drive and Meenan Street may be</p>

		inaccessible from flood waters. Alternate access via the Halifax Street access gate is available as required.
PORTS/HARBOURS	Port of Townsville, Department MSQ	<p>Economically important for the import of:</p> <ul style="list-style-type: none"> • Fuels • Chemicals • Oil • Bitumen • Cement • Construction materials • Containerised goods • Motor Vehicles <p>And export of:</p> <ul style="list-style-type: none"> • Minerals concentrates • Metals (e.g. Copper/Lead/Zinc) • Sugar • Molasses • Livestock • Fertilisers. <p>Also becomes the principal transport hub for resupply when road and rail corridors are compromised for extended periods. Can receive ADF vessels.</p>

6.4 Security Strategy

The security strategy may include:

- Suitably signed physical road closures – manned by Council, SES, QPS, private security personnel, traffic controllers or a combination of the above.
- QPS may undertake mobile patrols of evacuated areas.
- **Physical road closures will NOT be established if a cyclone threatens the local community.**
Decisions on closures will be considered by TLDMG/DDMG once winds have commenced to abate.

Part Seven – Shelter

7.1 Shelter and Evacuation Options

Shelter and evacuation options for residents of the Townsville region include:

1. Shelter in Place	If you live in a well-constructed home (built after 1982) located outside of the storm tide evacuation zone.
2. Evacuate to Shelter in a Safer Place	(Preferred option) a) with friends or family, who: <ul style="list-style-type: none"> ○ are located outside the storm tide evacuation zone and in a well maintained structure/home, or ○ live in another community outside the cyclone warning area;
	b) commercial accommodation located outside the warning area;
	(Last resort) c) Public Shelter <ul style="list-style-type: none"> ○ Place of Refuge; ○ Public Cyclone Shelter; or ○ Evacuation Centre (emergency is not a cyclone)

Detailed information regarding these options can be found at [Annexure K](#).

7.2 Facility Locations

Detailed information of each nominated Shelter and Evacuation Centre is contained within the *Shelters and Evacuation Centres Sub Plan*. This plan also contains specific information to support decision-making in selecting locations most suitable to the nature of the event.

The *TLDMG Shelters and Evacuation Centres Sub Plan* is available on council's website at www.townsville.qld.gov.au.

Shelters and/or evacuation centres that have been activated during an event will be displayed on council's Emergency Management and Disaster Dashboard (disaster.townsville.qld.gov.au)

7.3 Management of Shelters and Evacuation Centres

The processes and responsibilities for the opening and management of Shelters and Evacuation Centres are detailed in the following documents:

- *TLDMG Shelter and Evacuation Centres Sub Plan*
- *Operating Procedures – Evacuation Centres*
- *Operating Procedures – Places of Refuge*
- *Operating Procedures – Public Cyclone Shelter*
- *Evacuation Centres – Operating Procedures.*

Details of which locations are to be used will be released to the community once the centres have been established. This information will also be displayed on the Emergency Management and Disaster Dashboard.

7.4 Pets and Animal Welfare

Residents will be encouraged, via annual community awareness campaigns, to:

- Plan ahead
- Make a household or farm emergency plan that includes your animals
- Be aware that shelters and evacuation centres will not accept animals
- Gather essential phone numbers (for services that affect your animal) for your emergency plan
- Make a disaster kit for your animal and
- Consider and act on your plan when an event is expected.

Additional information can be found in ‘Managing your pets in disasters’ section of council’s *Get Ready Townsville Guide* (www.townsville.qld.gov.au).

7.5 Transport Strategy – Heatley Public Cyclone Shelter

The LDC, Chair of the Evacuation & Transport Working Group and Chair of the Shelters & Evacuation Centres Working Group have established an agreed process with a major shopping centre to utilise an area of their carpark as a “staging area”, which will allow members of the public to park private vehicles there and be transported (via buses sourced by TransLink) to Heatley Public Cyclone Shelter (PCS) (when activated). At the time of the event messaging will be pushed out to the community to detail the parking and ride arrangements.

Part Eight – 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).

Council's 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* and *TCC Impact Assessment Operating Procedure*)

8.1 Decision for Return

To determine if the disaster area is safe for return the following issues will be assessed:

- Absence of the hazard and the possibility of its return
- Safety of buildings and structures
- Safety of transport infrastructure
- Availability of evacuation centres and routes
- Availability of schools and workplaces
- Operation of utilities; power, water, sewerage, and communications
- Public health
- Security of remaining damaged or unsafe areas and
- Availability of support services and infrastructure.

8.2 Return Strategy

Once it is determined that areas are safe for return, a Return Strategy will be developed to outline the arrangements necessary to plan and execute an organised return and how that process will be coordinated and managed. The Return Strategy will address:

- Specific areas deemed safe for return
- Security of damaged, unsafe structures or infrastructure
- Detailed return advice to evacuees
- Traffic management plan and
- Transportation requirements.
- Transportation requirements from evacuation locations back to staging areas.

Related Documents

Townsville Local Disaster Management Plan

TLDMG Community Education and Marketing Sub Plan

TLDMG Community Information and Warnings Sub Plan

TLDMG Impact Assessment Sub Plan

TLDMG Shelters and Evacuation Centres Sub Plan

Townsville Aged Care Partnership Group Agreement (TACPG)

Queensland Disaster Management Act 2003

Evacuation: Responsibilities, Arrangements and Management 2018

Townsville Operational Evacuation Procedure

Annexure List

A	Evacuation & Transport Working Group Contact List
B	Evacuation: Operational Checklist
C	Evacuation Zone Maps
D	Evacuation Routes Map
E	Priority Council Roads in Emergencies and Disasters
F	Example Calculation of Evacuation Times
G	Townsville Transport Resource List
H	Townsville Aged Care Partnership Group (TACPG) Agreement – Facility Information Lists
I	Caravan Parks and Marinas – Facility Information Lists
J	Standard Evacuation Order Message Templates
K	Shelter and Evacuation Options for Residents of the Townsville Region
L	Local Equipment Held by Council
M	Studies and Reports

Annexure A – Evacuation & Transport Working Group – Contact List

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

Annexure B – Evacuation: Operational Checklist

Event Name:	
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It is recommended that this checklist be maintained by the Evacuation & Transport Working Group. This checklist may be used electronically and displayed within the Local Disaster Coordination Centre.

Action	Responsible Agency/ Officer	Specific Information	Status
Decision to Evacuate			
<p>Consider the specific circumstances of the event and review/ refine the pre-determined Evacuation Strategy in light of:</p> <ul style="list-style-type: none"> advice from relevant authorities on severity, arrival and impact area; the applicability of predetermined vulnerable zones and modification of existing or development of additional maps as required; the nature of the "at risk" population; the capability of proposed evacuation routes to support rapid egress given the specific event related conditions; the suitability of safe locations; the needs of special needs populations and associated actions; specific transport issues the availability of appropriate resources to effectively manage all aspects of the evacuation. 	<p>LDC</p> <p>LDC/TCC Spatial Services</p> <p>LDC/ TCC Spatial Services</p> <p>LDC/ TCC Spatial Services</p> <p>TCC Environmental Health & Regulation LDC</p> <p>LDC</p> <p>LDC / Chair of TCC Emergency Response Group</p>	<p>Detailed data on possible event</p> <p>Analysis of existing disaster management mapping layers and data</p> <p>Analysis of existing disaster management mapping layers and data</p> <p>Analysis of existing disaster management mapping layers and data</p> <p>Analysis of event and location of centres</p> <p>Areas affected</p> <p>Areas affected</p> <p>As per Emergency Response Plan</p>	<p>Assigned <input type="checkbox"/></p> <p>Completed <input type="checkbox"/></p>
<ul style="list-style-type: none"> Consider all aspects with particular emphasis on the time required to complete the evacuation and the lead time available. Conduct a risk assessment. Is evacuation achievable, safe and the most suitable option? 	Evacuation & Transport Working Group	As listed above	<p>Assigned <input type="checkbox"/></p> <p>Completed <input type="checkbox"/></p>

Evacuation & Transport Sub Plan

Action	Responsible Agency/ Officer	Specific Information	Status
Decision to Evacuate (cont'd)			
Make decision on the type of evacuation being contemplated.	Evacuation & Transport Working Group		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Define the timeframe for conduct of evacuation if pre-impact.	Evacuation & Transport Working Group		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Determine the amount of external assistance that will be required to affect evacuations.	Evacuation & Transport Working Group	Request to DDMG if necessary	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Advise DDC that evacuation decision has been made and make request for assistance, if required.	LDC	Request to DDMG if necessary	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
If determined necessary , recommend to DDC that directed evacuation is required.	LDC	Request to DDMG if necessary	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Pre-Implementation Preparation			
Ensure adequate copies of evacuation zone maps for operation teams.	LDC		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Check current and predicted status of evacuation routes.	TCC Emergency Response Group	Report data to LDCC	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Populate Evacuation Order templates with relevant information including affected zones and sequence of evacuation. Hold pending approval for release.	LDC / TLDMG Communications	As per templates and plans	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Confirm and ready warning mechanisms.	TLDMG Communications	As per templates and plans	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Where transportation will be required, review Transport Strategy and activate <i>Townsville Evacuation Operational Plan</i> .	LDC / TCC Emergency Response Group		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Refine traffic management strategy and stage traffic control at required locations.	LDC / TCC Emergency Response Group		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Confirm evacuation centres, arrange opening, manning of centres and test of communication system back to LDCC.	TCC Environmental Health & Regulation	As per SOPs	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Activate <i>Shelters and Evacuation Centres Sub Plan</i> .	TCC Environmental Health & Regulation	As per Shelters and Evacuation Centres Sub Plan and SOPs	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Where warning mechanisms will include door knocking, mobile public address systems, etc., refine grid/locality system to ensure coverage.	LDC	Request to DDC	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>

Action	Responsible Agency/ Officer	Specific Information	Status
Warning			
Upon authorisation for release, issue evacuation advice to "at risk" population.	TLDMG Communications	As per Communications Plan	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Provide notice to "at risk" population establishments of requirements to evacuate.	LDC	Through LDCC	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Receive authorisation for directed evacuation from DDC.	LDC		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Issue directed evacuation order to "at risk" population.	TLDMG Communications		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Issue advice re self/Voluntary evacuation			
Directed			
Provide evacuation teams with written order to be provided to members of public.	LDC		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Activate traffic management strategy.	LDC / QPS		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Activate transport strategy.	LDC / QPS		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Activate door to door evacuation teams.	QPS		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Withdrawal			
Ensure evacuation messages continue to be conveyed to public.	TLDMG Communications / QPS		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Provide regular situation reports (SitReps) on evacuation to TLDMG / DDMG.	LDC	SitReps	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Ensure regular reporting from field teams of completed tasks.	LDC	Impact Assessment Process	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Implementation of security strategy for evacuated areas.	QPS		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Shelter – Requires Updating			
Ensure evacuation centre management being coordinated through <i>Evacuation Centres Standard Operating Procedures</i> .	TCC Environmental Health & Regulation	As per SOPs	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>

Evacuation & Transport Sub Plan

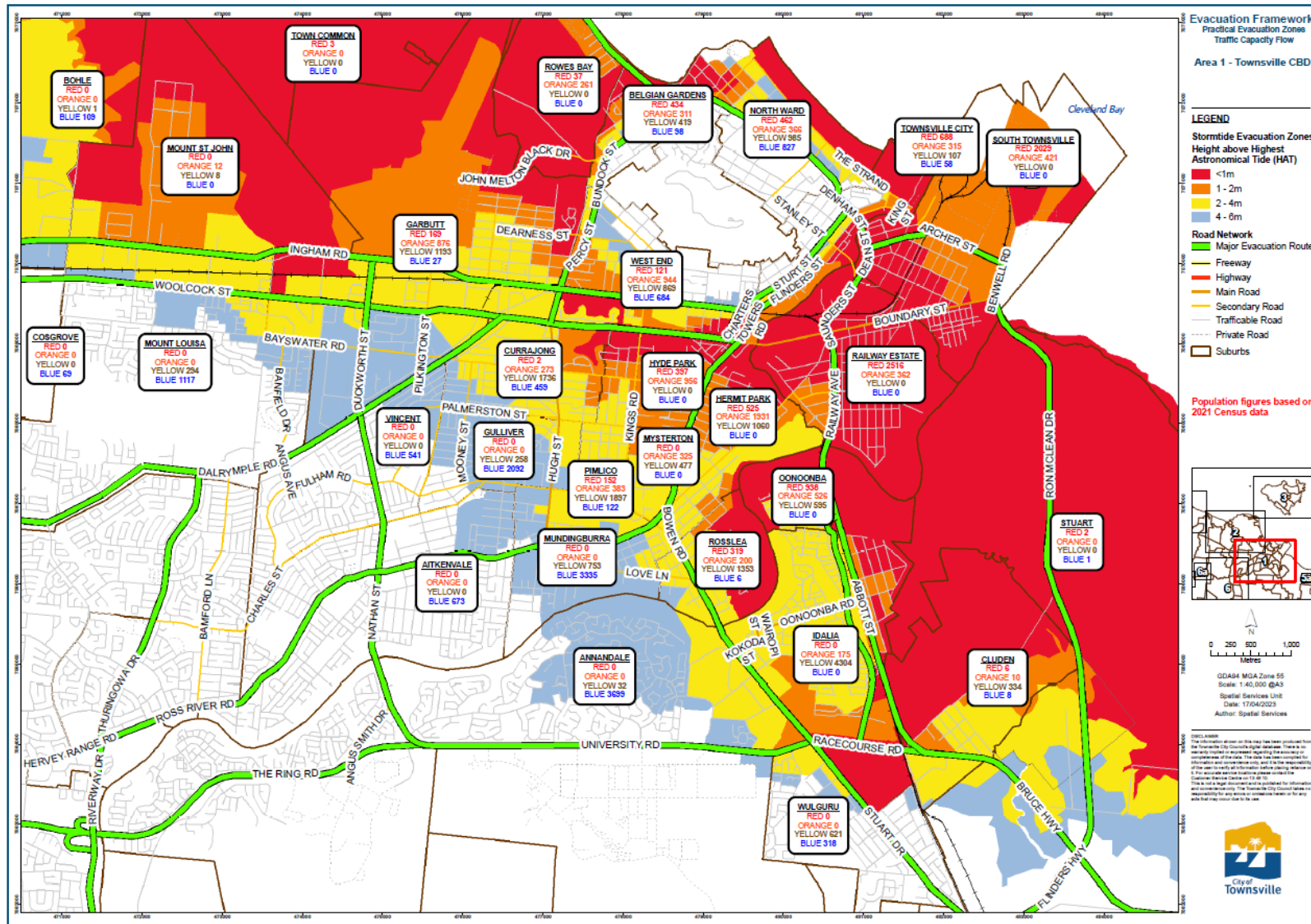
Action	Responsible Agency/ Officer	Specific Information	Status
Request and maintain a record of evacuees at evacuation centres.	TCC Environmental Health & Regulation	As per SOPs	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
If evacuees are being registered upon leaving "at risk" areas, ensure record is being maintained including details of destination.	Australian Red Cross		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Return			
Determine areas that are safe for return with consideration of the following issues: <ul style="list-style-type: none"> Content of impact assessment; Health and safety issues; Functioning of utilities; power, water, sewerage and communications; and Status of repair; clearing and re-opening of roads. 	LDC / Impact Assessment Teams	Status of infrastructure	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Review and modify the Return Strategy, addressing: <ul style="list-style-type: none"> Specific areas deemed safe for return; Security of damaged, unsafe structures or infrastructure; Detailed return advice to evacuees; Traffic management plan; and Transportation requirements. 	LDC / Impact Assessment Teams	Status of infrastructure	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Advise DDMG of Return Strategy.	LDC		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Issue media release outlining return strategy for evacuees. Distribute return advice to Evacuation Centres and notify specific facilities.	LDC	Communications Plan	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Release appropriate information to returning evacuees on reactivation of utilities, damage repairs, clean up and debris removal.	Mayor	Communications Plan	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Implement traffic management plan.	LDC / QPS		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Maintain security controls for those areas that cannot be safely reoccupied.	QPS		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Ensure the coordination of temporary housing for evacuees unable to return to their residences.	Local Recovery and Resilience Group		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Close Shelters and/or evacuation centres.	TCC Environmental Health & Regulation	As per SOPs	Assigned <input type="checkbox"/> Completed <input type="checkbox"/>
Complete final SitRep on evacuation and stand down Evacuation & Transport Working Group.	LDC		Assigned <input type="checkbox"/> Completed <input type="checkbox"/>

Annexure C – Evacuation Zone Maps

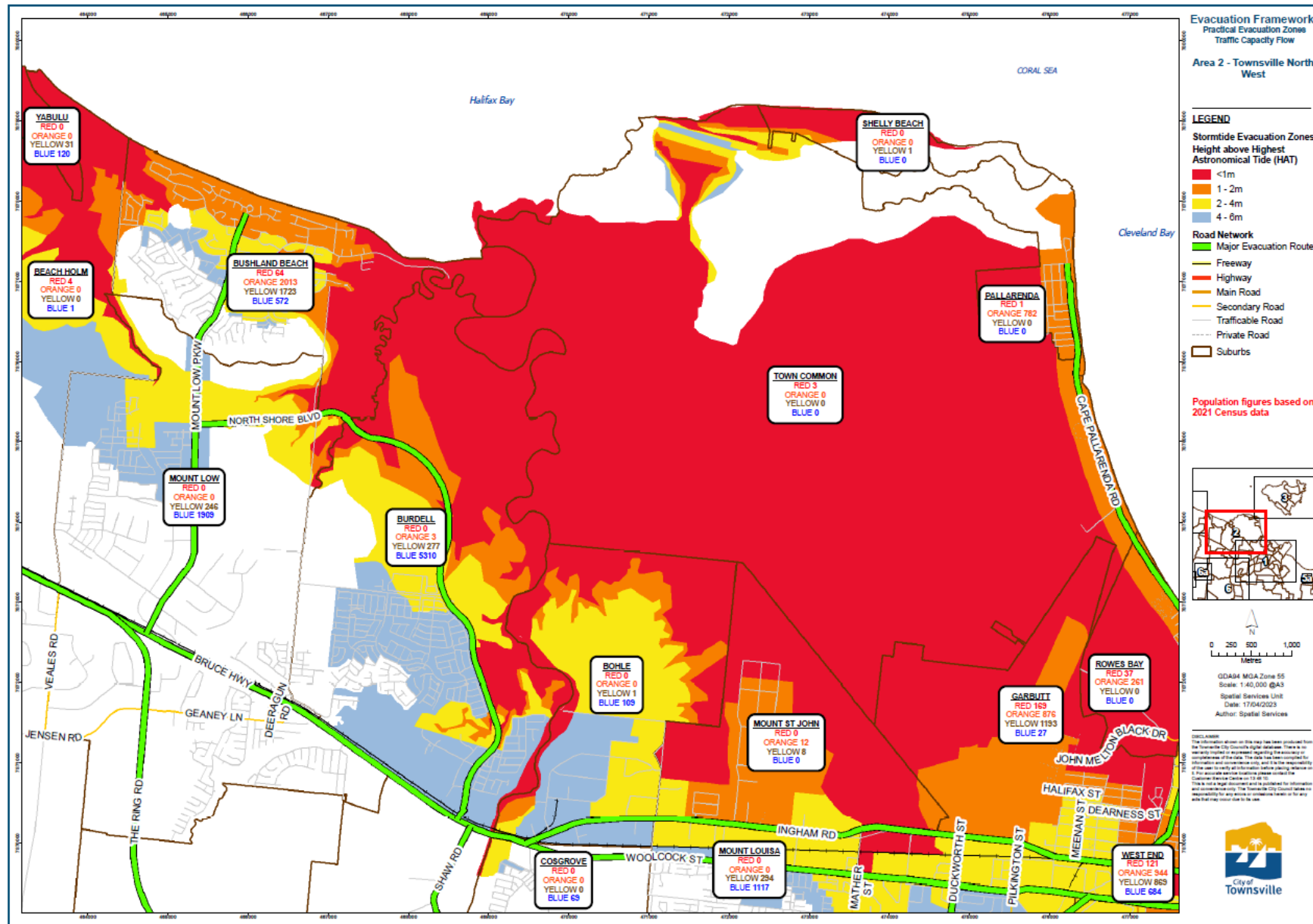
Index

Reference No.	Event
C1	Storm Tide
C2	Tsunami
C3	Riverine Flooding associated with Ross River Dam (draft)

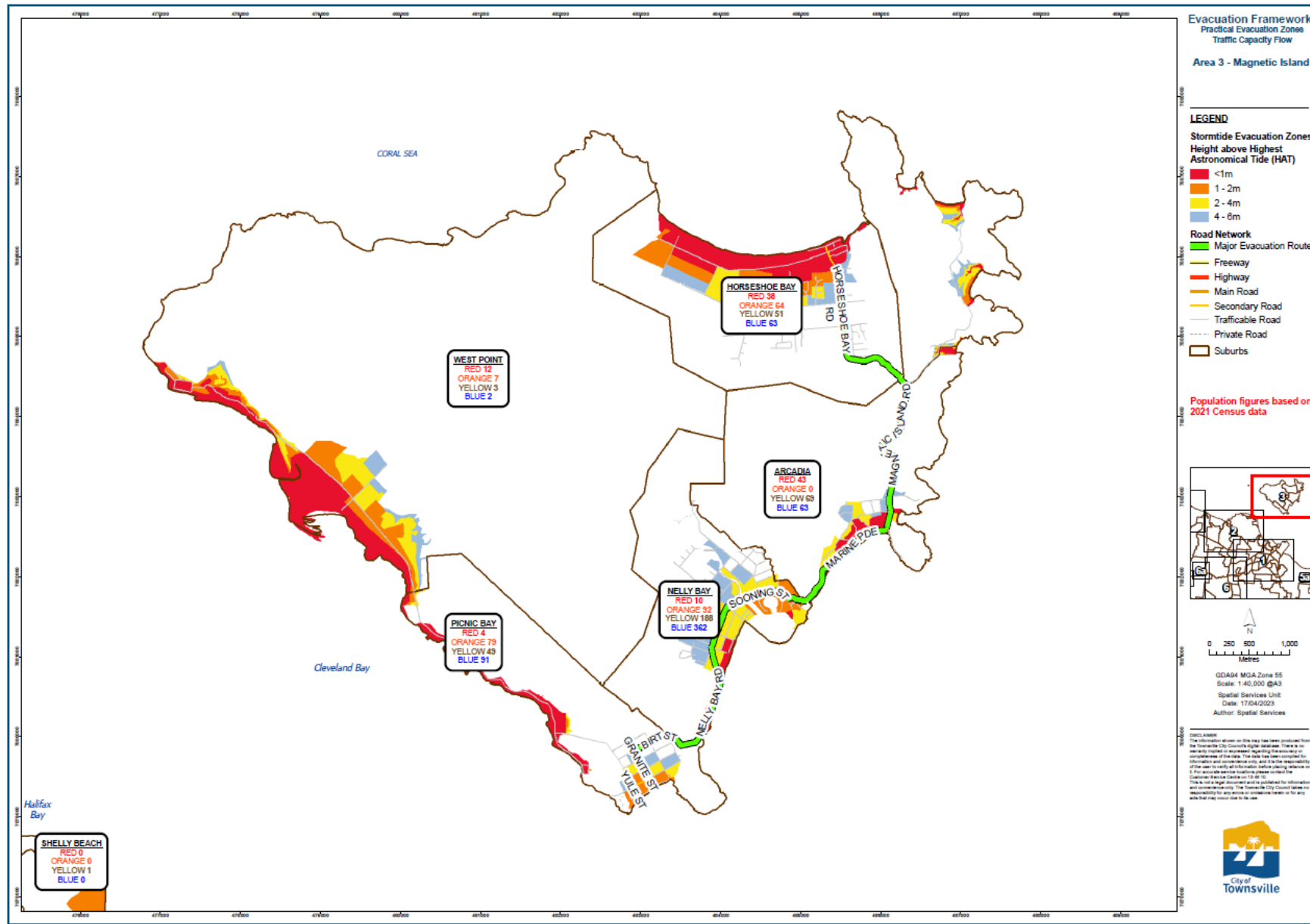
C1 - Storm Tide



Storm Tide Evacuation Framework Practical Evacuation Zones, Traffic Capacity Flow Area 1, 18/04/22 (based on 2021 census data)



Storm Tide Evacuation Framework Practical Evacuation Zones, Traffic Capacity Flow Area 2, 18/04/22 (based on 2021 census data)



Storm Tide Evacuation Framework Practical Evacuation Zones, Traffic Capacity Flow Area 3, 18/04/22 (based on 2021 census data)

C2 – Tsunami

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

Council does not have the authority to order mandatory evacuations. This responsibility lies with the Chair of the Townsville Local 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 to sign up to the Emergency Communications updates.

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
bom.gov.au/tsunami

For tsunami assistance call SES on 132 500
or contact Council's Customer Service Centre
on 13 48 10

For life threatening emergencies contact 000.

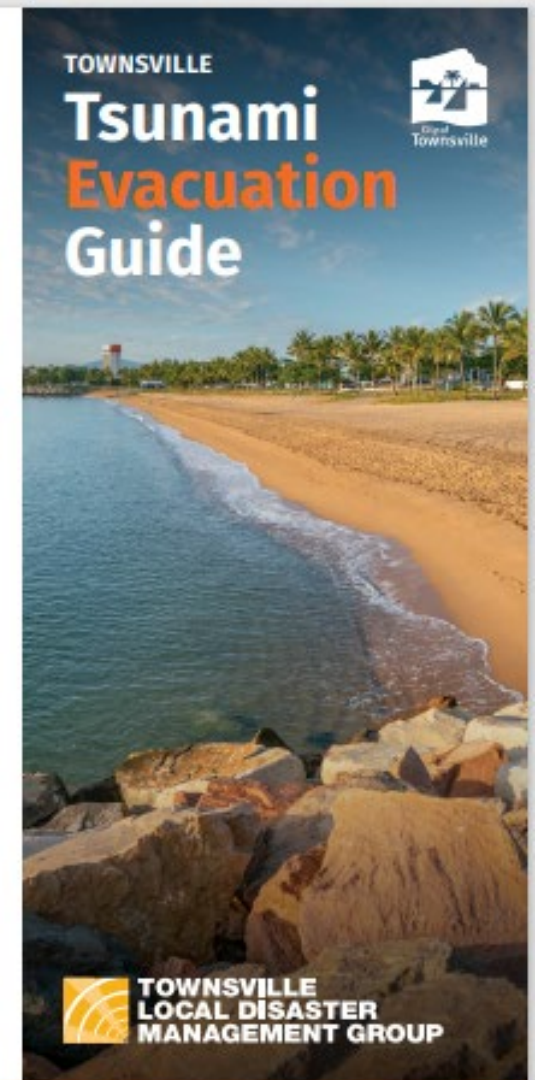
FOR MORE INFORMATION

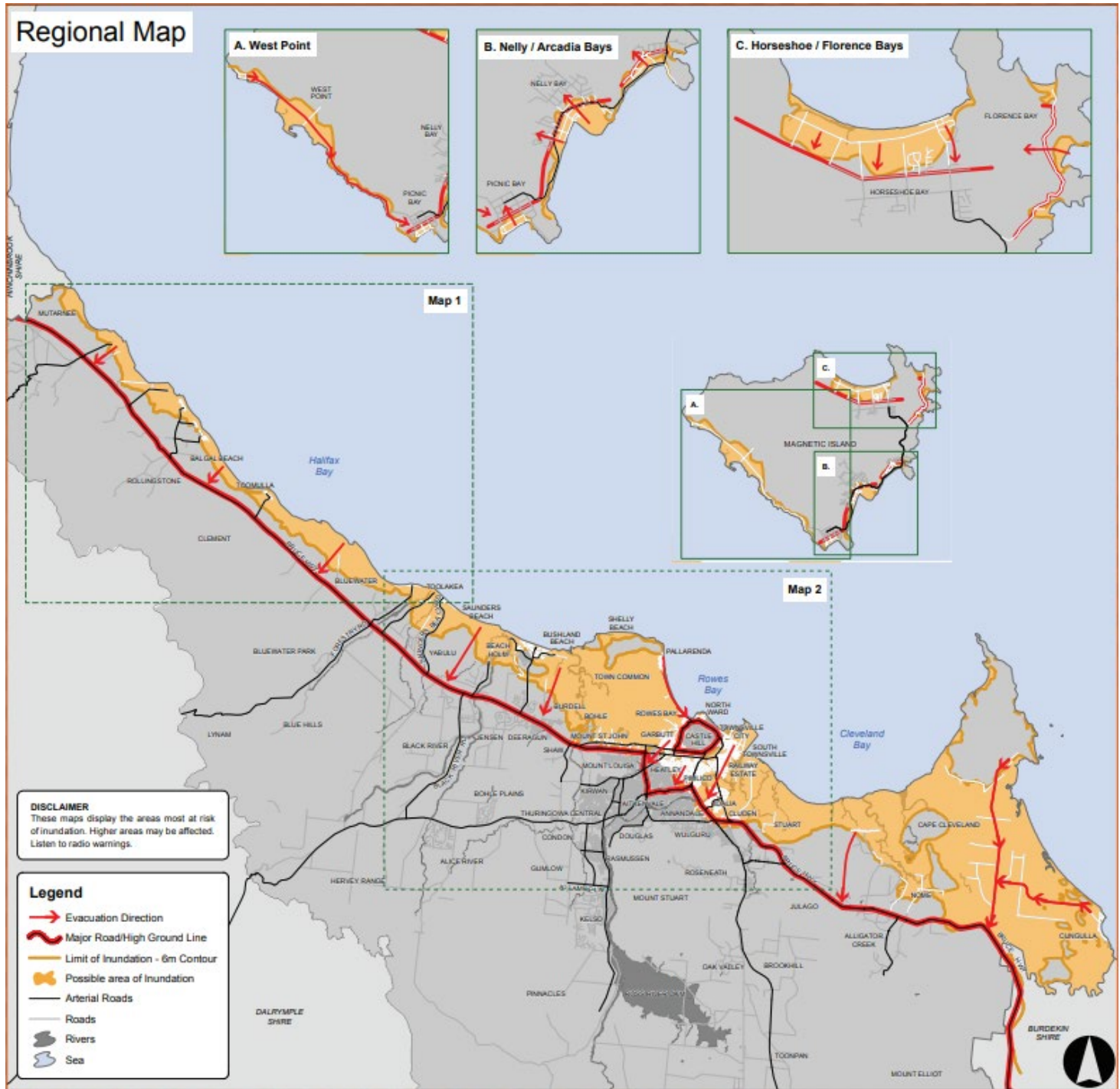
Townsville City Council
townsville.qld.gov.au

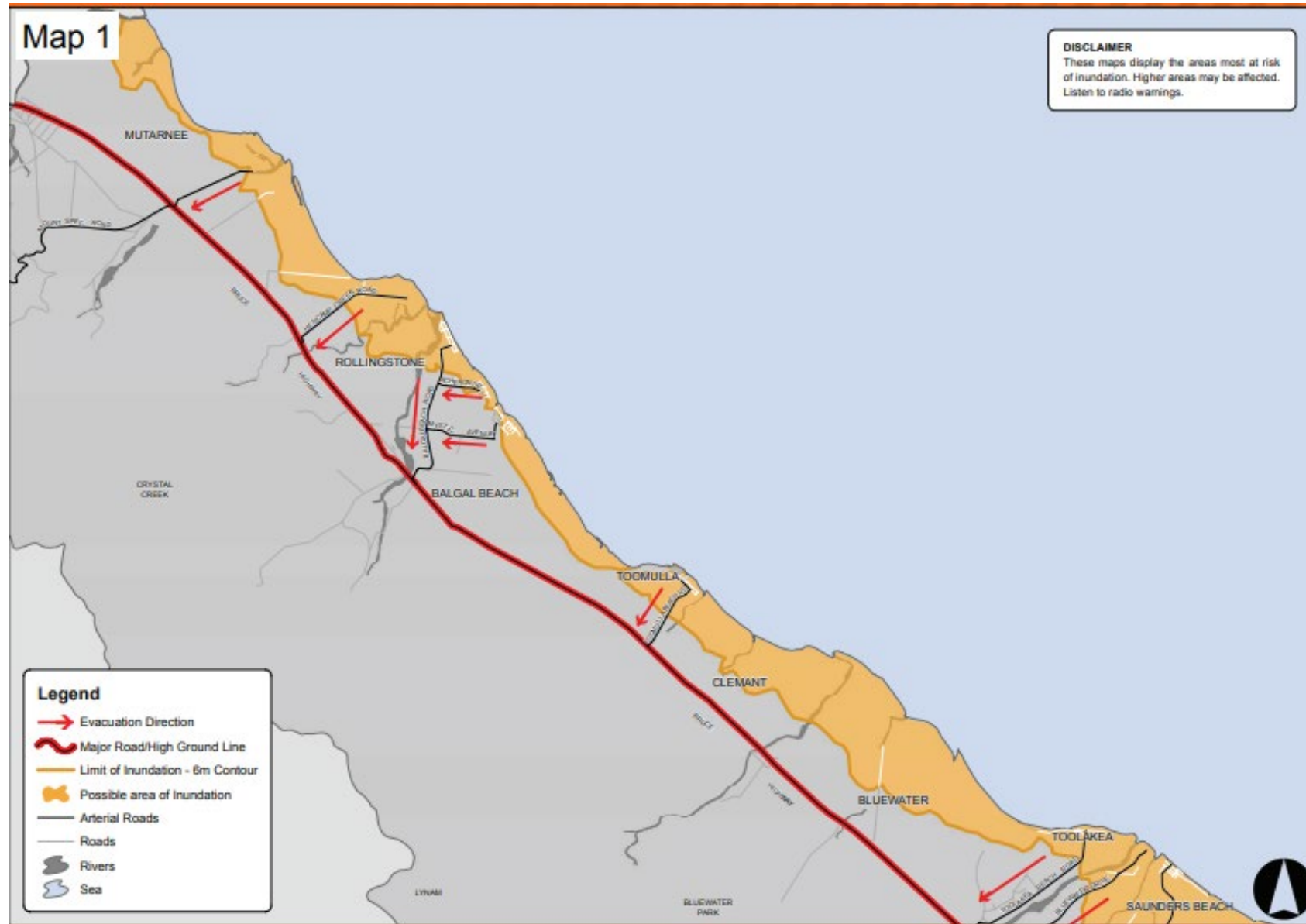
Bureau of Meteorology
bom.gov.au/tsunami

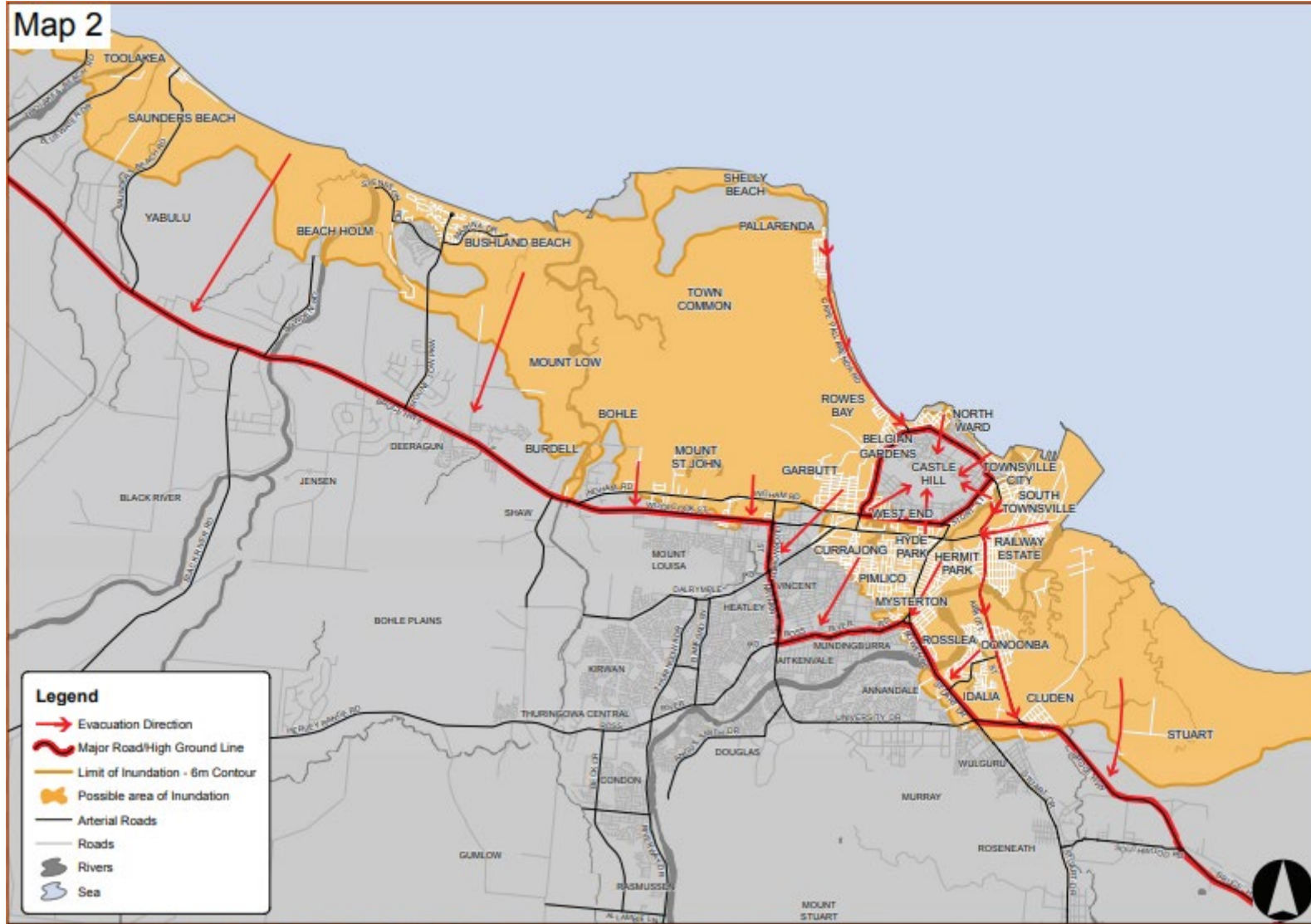
Emergency Management Australia (EMA)
emergency.qld.gov.au/emq

Modified: 11 February 2021







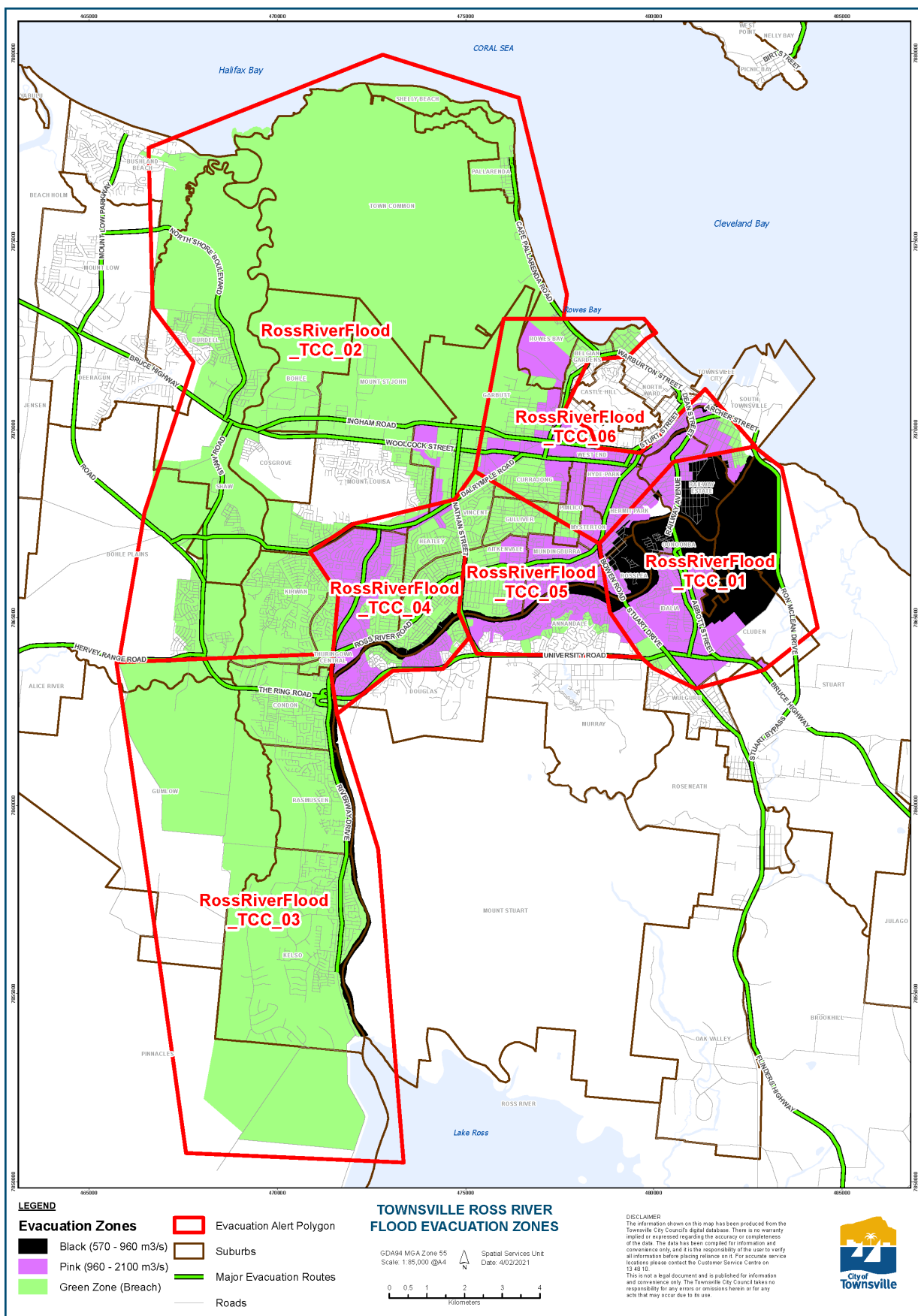


C3 – Riverine Flooding associated with Ross River Dam

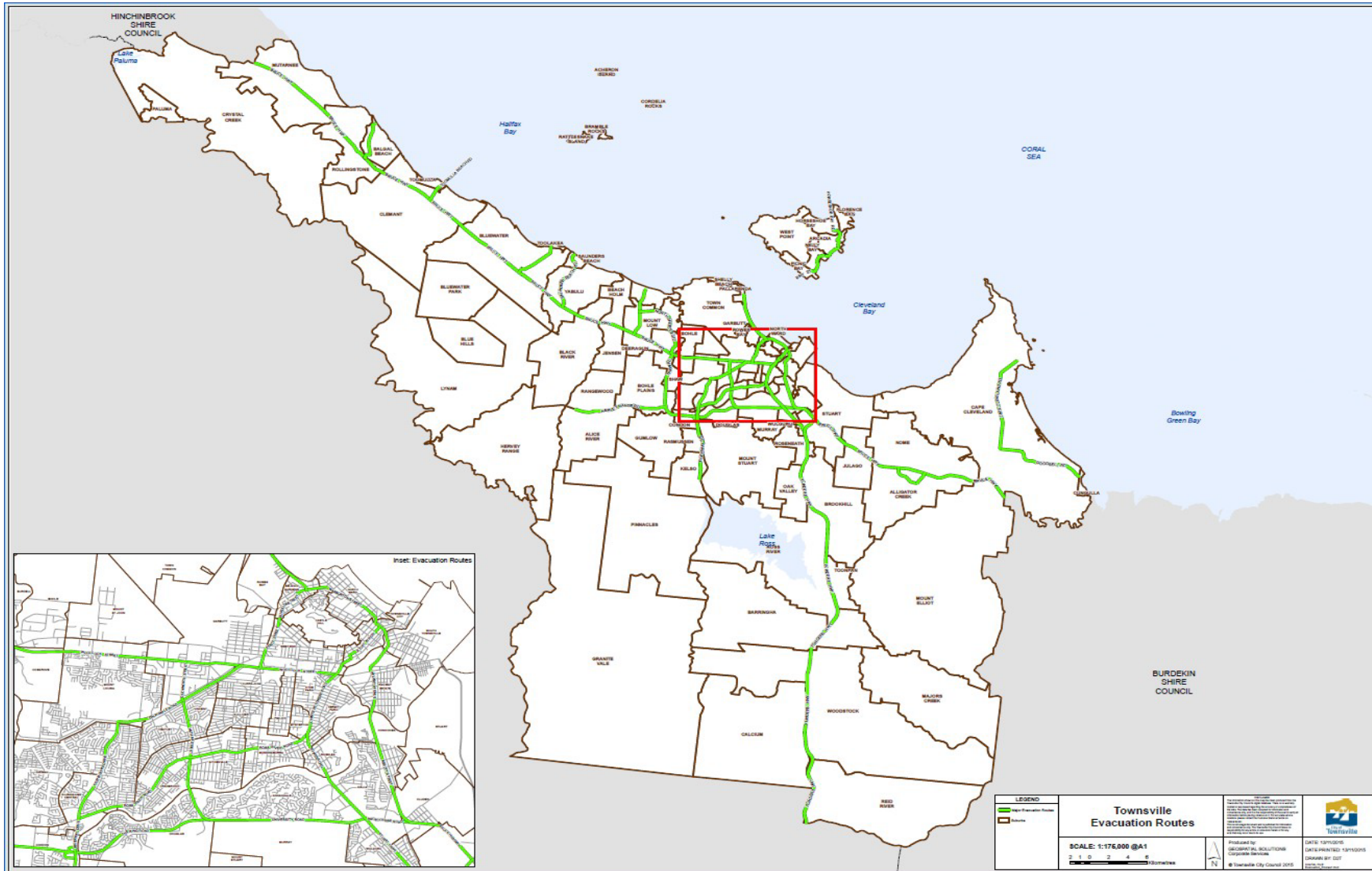
Evacuation Zones for Ross River Dam are as follows:

Evacuation Zone	Description
Black Zone	<p>The Black Zone represents the areas of Townsville first impacted by flows within Ross River. Ross River Dam discharges commence at a dam water level of 38.65m AHD. Residential property starts to become flooded after 435m³/s discharge from Ross River Dam (40.3m AHD). Buildings commence flooding at approximately 570m³/s (41.1m AHD). The dam gates continue to open at small increments until 960m³/s (42.4m AHD), when approximately 105 residential properties are impacted, and after which accelerated gate opening occurs. The Black Zone depicts the flood extent up to this stage. Areas within the Black Zone include parts of Rosslea and Railway Estate, Oonoonba and Idalia, which may also be impacted when tidal levels are elevated. With standard operating conditions for the dam gates, the probability of flood emergency issues in the Black Zone is between 5% and 0.5% in any given year. It should be noted that rainfall downstream of Ross River Dam will also influence flooding, potentially beyond the zone depicted.</p>
Pink Zone	<p>The Pink Zone represents the areas of Townsville impacted by large flows from Ross River Dam from the stage where accelerated gate opening occurs, to when the gates are no longer able to control the releases downstream, and up to the point where the vicinity of the dam is also to be evacuated. Accelerated gate opening commences at 960m³/s (42.4m AHD dam water level). Gates are fully open at 1,777m³/s (43.0m AHD). The vicinity of the Ross River Dam is required to be evacuated at 2,100m³/s (43.8m AHD) at which stage 4,280 residential properties are expected to be impacted. Areas within the Pink Zone include parts of Rosslea, Railway Estate, Oonoonba, Idalia, Hermit Park, Hyde Park, Pimlico, Currajong, West End, Mundingburra, Aitkenvale, Annandale, Douglas, Kirwan, and South Townsville. With standard operating conditions for the dam gates, the probability of this event is between 0.5% and 0.05% in any given year. It should be noted that rainfall downstream of Ross River Dam will also influence flooding, potentially beyond the zone depicted.</p>
Green Zone	<p>The Green Zone represents the areas impacted by flows in the event of a failure of Ross River Dam. The Green Zone depicts areas with flood emergency issues for a collapse of the dam embankment followed by a massive outflow from the dam. Much of the urban area of Townsville around and to the east of the Bohle River is within the Green Zone, other than higher ground around Mount Louisa, Castle Hill and Mount Stuart (Annandale/Douglas). The probability of the dam failure is difficult to quantify, however it would be an extremely rare event, with a probability far lower than that for the Pink Zone event.</p>

Ross River Flood Evacuation Map



Annexure D – Evacuation Routes Map



Annexure E – Priority Council Roads in Emergencies and Disasters

Road	Owner	Comments/Purpose
EVACUATION ROUTES (PRIORITY 1)		
Mt Spec Road	TMR	Evacuation Route – Paluma
Balgal Beach Road	TCC	Evacuation Route – Balgal Beach
Toomulla Beach Road	TCC	Evacuation Route – Toomulla Beach
Toolakea Beach Road	TCC	Evacuation Route – Toolakea Beach
Saunders Beach Road	TCC	Evacuation Route – Saunders Beach
Mt Low Parkway	TCC	Evacuation Route – Bushland Beach
North Shore Boulevard	TCC	Evacuation Route – Bushland Beach
Bruce Highway (North to TCC boundary)	TMR	Evacuation Route
Bruce Highway (South to TCC boundary)	TMR	Evacuation Route
Woolcock Street	TMR	Evacuation Route
Dalrymple Road	TMR	Evacuation Route
Nathan Street	TMR	Evacuation Route
Ross River Road	TMR	Evacuation Route
Charters Towers Road	TMR	Evacuation Route
University Road	TMR	Evacuation Route
Angus Smith Drive (Hospital route to Bruce Hwy)	TMR	Evacuation Route – Hospital Access
Bowen Road/Stuart Drive	TMR	Evacuation Route
Ring Road	TMR	Evacuation Route
Riverway Drive	TMR	Evacuation Route
Thuringowa Drive	TMR	Evacuation Route
Hervey Range Road	TMR	Evacuation Route
Armand Way	TCC	Evacuation Route
Marine Parade	TCC	Evacuation Route
Sooning Street	TCC	Evacuation Route
Nelly Bay Road	TCC	Evacuation Route
Arcadia Road	TCC	Evacuation Route
Horseshoe Bay Road	TCC	Evacuation Route
Duckworth Street	TMR/TCC	Evacuation Route
Discovery Drive	TCC	Access to Hospital
The Strand	TCC	Evacuation Route
KEY ROADS		
Veales Road (Jensen)	TCC	Main Access in Jensen
Geaney Lane (Deeragun)	TCC	Main Access in Deeragun
Golf Links Drive	TCC	Kirwan Access
Kern Brothers Drive	TCC	Kirwan Access
Beck Drive	TCC	Rasmussen Alternate to Riverway Drive
Gollogly Lane	TCC	Rasmussen access to Riverway Drive
Hugh /Gulliver Streets	TCC	Access to Evacuation Route
Boundary Street	TCC	Access to Port

Road	Owner	Comments/Purpose
John Melton Black Drive	TCC	Access to airport
Meenan Street	TCC	Access to airport
Halifax Street	TCC	Access to airport
Northward Road (MR) (George Roberts Bridge)	TMR	Evacuation Route
Cape Pallarenda Road	TCC	only Access for Pallarenda Residence
Alligator Creek Road	TCC	Access for Alligator Creek residence
AIMS Road Cungulla	TCC	only Access for Cungulla township
Ingham Road	TCC	Access to Evacuation Route
Bayswater Road	TCC	Access to Evacuation Route
Fulham Road	TCC	Access to Evacuation Route
Sturt Street	TCC	Access to Evacuation Route
Castle Hill Road	TCC	Access to Coms, Stability
Abbott St (Rooneys Bridge) / Lakeside Drive	TMR	Access to Evacuation Route
Railway Avenue	TCC	Access to Evacuation Route
Queens Road	TCC	Access for Green waste staging site
Mount Stuart Road	TCC	Access to Coms
KEY BRIDGES		
Rollingstone Bridge	TMR	Evacuation North
Bluewater Bridge	TMR	Evacuation North
Saunders Creek Bridge	TMR	Evacuation North
Black River Bridge (Black River Road)	TCC	Black River Evacuation
Stony Creek Bridge (Geaney Lane)	TCC	Jenson/Deeragun alternate routes
Stony Creek Bridge	TMR	Evacuation North
Bohle Bridge (Bruce Highway- lower)	TMR	Evacuation North
Bohle Bridge (Bruce Highway - upper)	TMR	Evacuation North
Bohle Bridge (Hervey Range Road)	TMR	Evacuation West
Bohle Bridge (Ring Road)	TMR	Ring Road
Little Bohle Bridge (Ring Road)	TMR	Ring Road
Allambie Lane Bohle Crossing	TCC	Access for Gumlow
Charles Barton Bridge (Nathan Street)	TMR	Evacuation Route
Causeway Culverts (Sturt Street and Charters Towers Road)	TMR	Evacuation Route
Woolcock Street Culverts (Hyde Park weir)	TMR	Evacuation Route
Lowths Bridge (Stanley Street)	TCC	CBD Evacuation
Ross River Bridge (Bowen Road)	TMR	Evacuation Route
Rooneys Bridge (Abbott Street)	TMR	Evacuation Route
Boundary Street culverts	TMR	Access to Port
Mundy Creek Bridge (Cape Pallarenda Rd)	TCC	Evacuation for Pallarenda
Stuart Creek Bridge (Bruce Highway)	TMR	Evacuation South
3 Mile Creek Bridge (Pallarenda)	TCC	Evacuation for Pallarenda
Southwood Road Bridge	TCC	Low level requires closure in wet season
George Roberts Bridge - (Dean Street / Denham Street)	TCC	CBD Evacuation

Foot Bridge at Weir on Ross River Road – Aplins Weir & Blacks Weir	TCC	Closure required when Ross River Dam is releasing water
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Annexure F – Example Calculation of Evacuation Times

Scenario: Evacuation required for Red, Orange and Yellow Storm Tide Zones for impending cyclone (with storm tide)											
Step 1 – Confirm population to be evacuated and destination											
Total No. of People to be evacuated	40,000+										
- Estimated No. to Self-Evacuate / Voluntarily Evacuate OUT OF STORM TIDE AREA (from previous events)	- 23,000										
- Estimated No. to Voluntarily Evacuate TO OTHER LGA'S	- 2,000										
- Estimated No. to Voluntarily Evacuate TO SHELTERS (max. 3,000)	- 3,000										
Estimated No. REMAINING Requiring evacuation =	12,000 people										
Step 2 – Estimate the number of vehicles for the population that will be evacuated (estimate 2 persons per vehicle)											
No. of Vehicles = (Remaining population to be evacuated / 2)	6,000 vehicles										
Step 3 – Calculate Route Travel Time											
Route Travel Time = (Distance / Average Speed)	DISRUPTED TRAVEL ROUTE										
<p>*The Distance was estimated at 200km for travelling West (to Charters Towers) or South of “risk area”.</p> <p>*Note: Average Speed is estimated from the following table:</p> <table border="1" data-bbox="398 850 1682 1289"> <thead> <tr> <th>Route Condition ²</th> <th>Capacity (people per hour per lane)</th> </tr> </thead> <tbody> <tr> <td>Normal – Fine weather with normal traffic control.</td> <td>600 (assumes travel speed of 40kph)</td> </tr> <tr> <td>Enhanced – Emergency response agencies intervene to increase route capacity. Traffic management strategies may include: traffic controlled intersections, contra flow, banning vehicles towing caravans and trailers.</td> <td>800 (assumes travel speed of 50kph)</td> </tr> <tr> <td>Disrupted – Heavy rain with possible vehicle breakdowns, traffic accidents, land-slips, minor flooding across road etc.</td> <td>300 (assumes travel speed of 20kph)</td> </tr> <tr> <td>Blocked – Route is closed by flood waters, impact of fire or large scale land-slip etc; an alternative route or means of transport may be required.</td> <td>100 (assumes travel speed of 5kph)</td> </tr> </tbody> </table> <p>(Queensland Evacuation Guidelines 2011)</p>		Route Condition ²	Capacity (people per hour per lane)	Normal – Fine weather with normal traffic control.	600 (assumes travel speed of 40kph)	Enhanced – Emergency response agencies intervene to increase route capacity. Traffic management strategies may include: traffic controlled intersections, contra flow, banning vehicles towing caravans and trailers.	800 (assumes travel speed of 50kph)	Disrupted – Heavy rain with possible vehicle breakdowns, traffic accidents, land-slips, minor flooding across road etc.	300 (assumes travel speed of 20kph)	Blocked – Route is closed by flood waters, impact of fire or large scale land-slip etc; an alternative route or means of transport may be required.	100 (assumes travel speed of 5kph)
Route Condition ²	Capacity (people per hour per lane)										
Normal – Fine weather with normal traffic control.	600 (assumes travel speed of 40kph)										
Enhanced – Emergency response agencies intervene to increase route capacity. Traffic management strategies may include: traffic controlled intersections, contra flow, banning vehicles towing caravans and trailers.	800 (assumes travel speed of 50kph)										
Disrupted – Heavy rain with possible vehicle breakdowns, traffic accidents, land-slips, minor flooding across road etc.	300 (assumes travel speed of 20kph)										
Blocked – Route is closed by flood waters, impact of fire or large scale land-slip etc; an alternative route or means of transport may be required.	100 (assumes travel speed of 5kph)										
Route Travel Time =	10 hours										

Scenario: Evacuation required for Red, Orange and Yellow Storm Tide Zones for impending cyclone (with storm tide)	
Step 4 – Calculate Time Past-a-Point	
Time Past-a-Point = (No. of Vehicles / Vehicle Travel Rate per hour (vph))	DISRUPTED TRAVEL ROUTE
<i>*Note: Vph is estimated from the above table.</i>	
Time Past-a-Point = 6,000 Vehicles / 300vph	20 hours
Step 5 – Calculate Total Travel Time	
Total Travel Time = (Leave Time + Time Past-a-Point + Shelter Time + Safety Buffer)	DISRUPTED TRAVEL ROUTE
Leave Time (Allow 1 hr) – <i>(likely to be much longer)</i>	1 hr
Route Travel Time	10hrs
Time Past-a-Point	20hrs
Shelter Time (Allow 2hrs) – <i>(to get established at destination)</i>	2hrs
Safety Buffer (Allow 1 hr)	1 hr
Total Travel Time	34 hours
<i>*For this scenario, this only works for people evacuating to other parts of the city or heading West of Townsville</i>	
Step 6 – Calculate Latest Evacuation Start Time (in relation to onset of 80kph winds on coast, as advised by BoM)	
Latest Evacuation Start Time = (Total Travel Time + 2 to 3 hours for plan to be finalised by TLDMG)	37 hours
Step 7 – Determine deadline to make the decision to evacuate	
Deadline to make decision to Evacuate = (Latest Evacuation Start Time + 2 hours)	39 hours prior to onset of 80kph winds on coast

Annexure G – Townsville Transport Resource List

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

*Conditions for use of Sunbus resources

Contact numbers (in order of escalation):

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

Sunbus is part of Transit Australia Group, the largest privately owned public transport company in Queensland.

Sunbus is contracted through the Queensland Department of Transport and Main Roads (TMR) to provide urban and school route services. These services will continue to run until either TMR or Sunbus deem it unsafe to do so.

Sunbus has an extensive fleet that is available for charter also and can offer buses with disabled / wheelchair access or storage bins if requested. All charter rates, terms and conditions need to be agreed in writing prior to the commencement of a chartered service.

Limiting factors for consideration in regard to a local disaster event:

- Before the event:
 - Buses may continue to operate until wind speeds reach 80km/h.
 - Buses may continue to operate until the water on Woolcock Street service road exceeds 300mm.
 - Bus availability will be subject to driver availability.
 - Buses will not ford any flooded roads deeper than 200mm.
- During the event - no buses will be available.
- After the event:
 - Bus availability will be subject to driver availability.
 - Buses will only be permitted to drive on roads that have been cleared for bus access by TMR or Townsville City Council.
 - Buses will not operate on any road that requires reversing to manoeuvre.
 - Buses will not operate until wind speeds drop below 80km/h.
 - Buses will not operate until flooded roads are less than 200mm under water.

Annexure H – Townsville Aged Care Partnership Group (TACPG) – Facility Information Lists

Updated June 2023

- Arcare North Shore
- Blue Care Townsville
- Bolton Clarke Glendale
- Bolton Clarke Rows Bay (Residential Aged Care Provider)
- Bolton Clarke Rows Bay (Retirement Village)
- Brooklea Lifestyle Village
- Carinity Fairfield Grange, The Residences
- Carlyle Gardens (Blue Care)
- Churches of Christ (CoC) Palms Aged Care Service (Ingham)
- Churches of Christ Rockingham Aged Care Service (Cardwell)
- Churches of Christ St James Retirement Village
- Loreto Home for the Aged
- Villa Vincent Aged Care
- OzCare Community Care, Townsville
- Parklands Residential Aged Care Facility
- PresCare Protea Townsville
- Regis Aged Care, Kirwan
- Shalom Elders Village
- The Good Shepherd Home

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

Annexure I – Caravan Parks and Marinas – Facility Information Lists

Updated June 2023

Caravan Parks

- Big4 Ingenia Holiday Parks, Townsville
- Rowes Bay Holiday Park
- Bluewater Caravan Park
- Coral Coast Tourist Park
- Coconut Glen Van Village
- Discovery Parks – Townsville
- Rollingstone Beach Holiday Park
- Town & Country Caravan Park
- Townsville Eco Resort
- Townsville Gateway Holiday Village
- Townsville Lakes Caravan Park
- Townsville Tourist Lifestyle Village

Marinas




- Breakwater Marina
- Magnetic Island Marina
- Port of Townsville
- Townsville Yacht Club

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

Annexure J – Standard Evacuation Order Message Templates

The following are examples of templated Emergency Alert messages, which will be used by council’s Community Engagement Department in the preparation and dissemination of messages to the community:

For more information on Emergency Alert templates Refer to the *TLDMG Community Information and Warnings Sub Plan* on council’s website.

<p>EA 5.1 (Red/Orange/Yellow/Blue Zone - all areas South bounded by Charters Towers Rd and Ross River Rd - incl. Magnetic Island)</p>	<p>StormTide_TCC_04S</p>	<p>Advice </p>	<p>This is a Storm Tide Advice from the TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP. You may be affected by a dangerous Storm Tide caused by Cyclone [NAME] in [NUMBER] hours OR at [TIMEandDAY]. Check your zone at disaster dot Townsville dot Q L D dot gov dot au or call 13 48 10. Warn neighbours, secure belongings and seek safe shelter. For more information listen to local radio.</p>	<p>TSV DISASTER GROUP Advice warning for coastal areas. Dangerous Storm Tide is possible in [XX] hours OR at [TIME]. Check your zone at disaster.townsville.qld.gov.au or call 13 48 10. For more information listen to local radio.</p>
<p>EA 5.2 (Red/Orange/Yellow/Blue Zone - all areas South bounded by Charters Towers Rd and Ross River Rd - incl. Magnetic Island)</p>		<p>Watch and Act </p>	<p>This is a Storm Tide Watch and Act message from the TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP. The red, orange, yellow and blue storm tide zones are likely to be affected by a dangerous Storm Tide caused by Cyclone [NAME] in [NUMBER] hours OR at [TIMEandDAY]. Check your zone at disaster dot Townsville dot Q L D dot gov dot au or call 13 48 10. You should warn neighbours, secure belongings and seek safe shelter away from coastal areas. For more information listen to local radio.</p>	<p>TSV DISASTER GROUP Watch and Act warning. Storm tide warning for the red, orange, yellow and blue zones. Dangerous Storm Tide is likely in [XX] hours OR at [TIME]. WARN OTHERS AND PREPARE NOW / LEAVE NOW. Check your zone at disaster.townsville.qld.gov.au or call 134810.</p>
<p>EA 5.3 (Red/Orange/Yellow/Blue Zone - all areas South bounded by Charters Towers Rd and Ross River Rd - incl. Magnetic Island)</p>		<p>Emergency Warning </p>	<p>Emergency. Emergency. This is a Storm Tide Emergency Warning from the TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP. [Red / Orange / Yellow / Blue] is likely to be affected by a dangerous Storm Tide caused by Cyclone [NAME] in [NUMBER] hours OR at [TIMEandDAY]. Move to higher ground away from the coast, creeks and rivers and shelter in place. For more information listen to local radio or visit disaster dot Townsville dot Q L D dot gov dot au or call 13 48 10.</p>	<p>TSV DISASTER GROUP Storm Tide Emergency Warning. [Red / Orange / Yellow / Blue] Dangerous Storm Tide is likely in [XX] hours OR at [TIME]. LEAVE IMMEDIATELY / SHELTER IN PLACE. For more information listen to local radio or visit disaster.townsville.qld.gov.au or call 134810</p>

Annexure K – Public Shelter Options for Residents of the Townsville Region



**Public shelter options
IN A DISASTER.**

PLAN. PREPARE. SURVIVE.

Residents are encouraged to have an evacuation plan in place and either shelter at home or evacuate to a safer place (with family or friends) outside of an evacuation zone.

Public shelters have limited capacity, so this option should only be used as a last resort. Priority is generally given to residents in storm tide evacuation zones or wind vulnerable accommodation.

Remember to consider your pets in a disaster.

What are the shelter options available in a disaster?

Generally, public cyclone shelters and places of refuge are opened to keep residents safe during a disaster. After a disaster, evacuation centres will be available for residents who cannot return home. Shelter options are subject to change, depending on the nature and severity of the event. Residents will be advised through local radio and Council's Disaster Dashboard when the shelters will be opened. The location of the shelters will be included in this advice.

What do I bring?

All personal belongings should be kept in one small bag/backpack. This should include items such as medications, non-perishable food and a water bottle.



Facilities available

The places of refuge and public cyclone shelters only provide basic necessities such as toilets and hand washing facilities, first aid and limited emergency potable water.

Important information: If evacuating to a public cyclone shelter, you will be allocated a chair and will be sitting the whole time. Sleeping areas will not be available.

Evacuation centres will be provided with food, bedding supplies, toilets and hand washing facilities. Clothing, welfare, recovery services and general comforts will be provided where necessary.



Animals

Pets, except for assistance animals, are not permitted in the shelters and evacuation centres. For further information on the safety of your furry loved ones during a disaster, please visit Council's website.

disaster.townsville.qld.gov.au

TOWNSVILLE LOCAL DISASTER MANAGEMENT GROUP

TOWNSVILLE CITY COUNCIL

#localfirst T1 March 2023

Link: [Public-Shelter-Options_A4_170321.pdf \(townsville.qld.gov.au\)](https://disaster.townsville.qld.gov.au)

Annexure L – Local Equipment Held by Townsville City Council

Asset Description	Count of Plant
Commercial Vehicle	305
Bus	4
Dual Cab	147
Extra Cab	38
Single Cab	94
Troop Carrier	5
Van	17
Compaction	13
Compactor	2
Roller	9
Roller Multi Tyre	2
Earthmoving	32
Backhoe	5
Dozer	1
Excavator	13
Grader	2
Loader	2
Posi Track	4
Skidsteer	5
Generator	12
Extra Large 100KVA to 550KVA	1
Large 50KVA to 100KVA	2
Medium 6KVA to 50KVA	5
Small 2KVA to 6KVA	4
Lifting Equipment	17
EWP	1
Forklift	11
Scissor Lift	3
Telehandler	1
Walker Stacker	1
Marine	13
Hull	6
Trailer	5
Weed Harvester	2
Motorcycle	7
Motorbike	2
Quad	5
Mower	57
Ride on Mower with deck	57
Passenger Car	50
Hatch	11
Sedan	17

SUV	22
Refuse Truck	35
Overhead Loader	3
Rear Loader	7
Side Loader	25
Tractor	24
Large 75HP to 150HP	20
Medium 50HP to 75HP	3
Small Up to 50HP	1
Truck	210
Asphalt	3
Dual Cab	61
EWP	2
Fuel	1
Hook	3
Mobile Library	1
Prime Mover	1
Single Cab	100
Streetsweeper	5
Tilt Tray	2
Tip Truck	23
Vac	4
Water	4
Grand Total	775

Annexure M – Studies and Reports

- Townsville Landslide Hazard Study
- Townsville City Council Bushfire Hazard Study – 30 April 2021 (**not yet a public document**)
- Natural Disaster Risk Management Study – Former Thuringowa City Council Area – 2010
[https://edocs.townsville.qld.gov.au/api/Doc/EAAAAPa!lw!doZXZDSy0JkDbbcF7\]oteqeSK8X1EN!UcZmzA?ext=pdf](https://edocs.townsville.qld.gov.au/api/Doc/EAAAAPa!lw!doZXZDSy0JkDbbcF7]oteqeSK8X1EN!UcZmzA?ext=pdf)
- Townsville–Thuringowa Storm Tide Study, April 2007
- Storm Tide Evacuation Guide
- Townsville Storm Tide Mapping Update, November 2017 (**not yet a public document**)
- Flood Studies under City Wide Flood Constraints Project (2008– 2016)
- New Flood Studies under Townsville Recalibrated Flood Modelling and Mapping Project (**not yet a public document**)
- Flood Classification Project, June 2021 (**not yet a public document**)