City of Ipswich
Local Disaster Management Sub Plan

Evacuation Process

A3980093: April 2018

Approval and Endorsement

Approved by resolution at the Infrastructure and Emergency Management Committee No. 2018(04) of 16 April 2018 and Council Ordinary Meeting of 23 April 2018.

Endorsement by the City of Ipswich Local Disaster Management Group Meeting of 15 May 2018.
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PART 1: ADMINISTRATION AND GOVERNANCE

1.1 Authorising Environment

This plan is prepared by Ipswich City Council under the auspices of the Local Disaster Management Plan (LDMP) for the City of Ipswich and pursuant to the provisions of Section 57(1) of the Disaster Management Act 2003.

1.2 Principles

This sub plan has been prepared as supporting document to the LDMP. Accordingly it must be read in conjunction with the LDMP itself. With the exception of pertinent information, reference to existing statements, definitions and acronyms will be excluded from the sub plan.

Each disaster event is unique and adaptations to this material will required on a case by case basis.

1.3 Purpose

The purpose of this sub plan is to assist with the planning and implementation of an evacuation of at-risk persons within the Ipswich Local Disaster Management Group (LDMG) area of responsibility.

1.4 Key Objectives

The key objectives of this sub plan is to:

- Identify the legislated authority for evacuation
- Identify potentially high risk and vulnerable populations for evacuation
- Identify key strategies for each stage of the evacuation process

1.5 Continuous Improvement

This document will be reviewed at least annually\(^1\) with relevant amendments made and distributed as needed. The review process will be in accordance with the State guidelines. Minor amendments that do not materially affect the plan are able to be authorised by the Principal Officer (Emergency Management).

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\(^1\) Section 59, Disaster Management Act 2003, Reviewing and Renewing (the) Plan
It is acknowledged that feedback from stakeholders is essential. Proposals for amendments or inclusions can be addressed in writing to:

Post
Chief Executive Officer
Attention: Emergency Management Unit
Ipswich City Council
PO Box 191, Ipswich QLD 4305

Email
council@ipswich.qld.gov.au

![Continuous Improvement Cycle Diagram]

**1.6 Amendment Register**

Major document review history is maintained through Council’s internal electronic document management system. Table 1 outlines minor and inconsequential amendments that have occurred between major reviews or amendments.

<table>
<thead>
<tr>
<th>Vers</th>
<th>Date</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.00</td>
<td>April 2018</td>
<td>Approved and endorsed version</td>
</tr>
<tr>
<td>3.01</td>
<td>Feb 2019</td>
<td>Annual review – Minor and inconsequential amendments – changes to templates</td>
</tr>
<tr>
<td>3.02</td>
<td>21 May 2019</td>
<td>Minor and inconsequential amendments</td>
</tr>
</tbody>
</table>

Table 1 – Amendment Register
PART 2:  EVACUATION GENERALLY

Evacuation involves the planned and coordinated movement of affected persons from a currently or potentially unsafe location, to a safer location, and their eventual return home. It is a strategy that can potentially mitigate the adverse effects of a disaster on a community.

Ipswich City Council in conjunction with the LDMG are best placed to conduct evacuation planning prior to the onset of an event through their local knowledge, experience, community understanding, and existing community relationships.

An evacuation involves five stages: Decision to evacuate, Warning, Withdrawal, Shelter, and Return.

![Figure 2 – The 5 Stages of Evacuation](image)

The LDMG may identify that resources available at the local level and/or local capability will be inadequate for certain volumes of evacuation. In these instances, assistance should be sought from the District Disaster Management Group (DDMG).

2.1 Assignment of Organisation Evacuation Specific Responsibilities

Disaster management roles and responsibilities by agency are defined in the LDMP. This plan provides that the appropriate incident management protocols have been followed in accordance with individual organisation incident response plans and standard operating procedures.
2.2 How to use this Sub Plan Operationally

This sub plan should be utilised as a guide to conducting an evacuation. In particular, the actions outlined in the associated manuals and SOPs are to be referenced and recorded. This sub plan has been developed as a supporting document to the LDMP and the manuals and SOPs are operationalising pre-determined strategies able to be adapted to the specific circumstances of the event.

2.3 Authority to Evacuate

Evacuations of any size may only be conducted under the approval of an appropriate authority. Small scale incidents requiring evacuation for the purposes of public safety may be undertaken by emergency service responders in the execution of their normal duties, and authorised in accordance with their relevant legislation.

The Queensland Police Service (QPS) has the authority to evacuate using the Public Safety Preservation Act 1986 Part 2 Section 5 (1), Section 6, and Section 8 (1)(d).

The Public Safety Preservation Act 1986 Part 2 Section 8 (1)(d) states the Emergency Commander can:

“direct the evacuation and exclusion of any person or persons from any premises and for this purpose may remove or cause to be removed (using such force as is necessary for that purpose) any person who does not comply with a direction to evacuate or any person who enters, attempts to enter or is found in or on any premises in respect of which a direction for the exclusion of persons has been given.”

Queensland Fire and Emergency Services (QFES) have the authority to require people to leave an area under the Fire and Rescue Service Act 1990 Part 6 Section 53 (2):

(k) require any person not to enter or remain within a specified area around the site of the danger;

(l) remove from any place a person who fails to comply with an order given pursuant to paragraph (k) and use such force as is reasonably necessary for that purpose.

Evacuations in response to larger scale incidents are undertaken using the authority of the Disaster Management Act 2003.

Upon the declaration of a disaster by the appropriate Minister, a directed evacuation order may be issued by the District Disaster Coordinator (DDC), and persons may be authorised to exercise declared disaster powers to enable the effective conduct of the withdrawal process.
Section 77 General Powers (partial extract)

(1) A relevant district disaster coordinator or declared disaster officer may do all of the following –

(a) Control the movement of persons, animals or vehicles within, into, out of or around the declared area for the disaster situation;

(b) Give a direction to a person to regulate the movement of the person, an animal or vehicle within, into, out of or around the declared area;

(c) Evacuate persons or animals from the declared area or a part of the area.

2.4 Making the Decision to Evacuate

An evacuation can be:

- Self-evacuation
- Voluntary (may be referred to as ‘recommended’); or
- Directed (may be referred to as ‘mandatory’)

The LDMG, represented by the Local Disaster Coordinator (LDC), may recommend that a community voluntarily evacuates an area, but it does not have the authority to initiate a directed evacuation.

A directed evacuation can only be initiated by the DDC after the Minister’s Declaration of a Disaster, or upon approval of the Minister.

2.4.1 Self-Evacuation

This refers to the self-initiated movement of people to safer places prior to, in the absence of official advice or warnings.

2.4.2 Voluntary Evacuation

In the case of a voluntary evacuation, the LDMG or primary agency will recommend that persons in designated risk areas relocate to other locations for their own safety.

Voluntary evacuation may be employed when a disaster is likely to occur but the exact impact or location has not been identified. Priority groups such as the aged or those with high dependency or special needs should be targeted for early voluntary evacuation.

Voluntary evacuation is also a valid strategy for moving people located in areas when the certainty of the event is low, but the effect of the impact would put people at high risk of injury or death.

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Queensland Prevention, Preparedness, Response and Recovery Disaster Management Guideline, section 4.4.5
A voluntary evacuation of ‘at risk’ persons can be recommended and implemented by the LDC.

However, the LDC should take reasonable steps to notify and/or consult the DDC prior to this decision being implemented.

### 2.4.3 Directed Evacuation

A directed evacuation is the compulsory relocation of persons away from harm. Directed evacuation is enforceable by law.

The decision for directed evacuation is made by the DDC acting on advice from the LDC, or by the Queensland Fire and Emergency Services (QFES) for fires and hazardous material/s incidents. Any recommendation to evacuate will need to be immediately communicated to, and coordinated with, the District Disaster Management Group (DDMG). Under the *Public Safety Preservation Act 1986*, the decision to evacuate can be made by the commissioned officer making the declaration.

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Authority to Evacuate</th>
<th>Local Disaster Management Group Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe Weather</td>
<td>District Disaster Coordinator</td>
<td>Coordination and support</td>
</tr>
<tr>
<td>Flood, Storm, Cyclone</td>
<td>District Disaster Coordinator</td>
<td>Coordination and support</td>
</tr>
<tr>
<td>Biological (human related)</td>
<td>Queensland Health</td>
<td>Coordination and support</td>
</tr>
<tr>
<td>Communicable Disease</td>
<td>District Disaster Coordinator</td>
<td></td>
</tr>
<tr>
<td>Radiological</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Collapse</td>
<td>Queensland Fire and Emergency Services</td>
<td>Support as requested by QFES</td>
</tr>
<tr>
<td></td>
<td>District Disaster Coordinator</td>
<td></td>
</tr>
<tr>
<td>Landslip</td>
<td>Queensland Police Service</td>
<td>Support as requested by QPS</td>
</tr>
<tr>
<td></td>
<td>District Disaster Coordinator</td>
<td></td>
</tr>
<tr>
<td>Earthquake</td>
<td>Queensland Police Service</td>
<td>Coordination and support</td>
</tr>
<tr>
<td></td>
<td>District Disaster Coordinator</td>
<td></td>
</tr>
<tr>
<td>Hazardous Material/s Incident</td>
<td>Queensland Fire and Emergency Services</td>
<td>Support as requested by QFES and QPS</td>
</tr>
<tr>
<td></td>
<td>District Disaster Coordinator</td>
<td></td>
</tr>
<tr>
<td>Terrorism</td>
<td>Queensland Police Service</td>
<td>Support as requested by QPS</td>
</tr>
<tr>
<td></td>
<td>District Disaster Coordinator</td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>Queensland Fire and Emergency Services</td>
<td>Support as requested by QFES and QPS</td>
</tr>
<tr>
<td></td>
<td>District Disaster Coordinator</td>
<td></td>
</tr>
</tbody>
</table>
In the case of a directed evacuation order, the DDC will direct all persons in designated impact areas to relocate to safer locations as directed by the lead agency and LDMG. A directed evacuation order will apply to the public. Exceptions to the directed evacuation order may include public safety officials, disaster response personnel, and organisation, agency, or business employees designated as ‘critical workforce’ or ‘essential’. However, it is expected that all of these individuals must eventually seek adequate shelter prior to the onset of the event.

At the discretion of QPS, people who refuse to comply with a directed evacuation order may or may not be forcibly removed from their homes for their own safety. However, if people elect to stay they must be told that they should not expect rescue or other lifesaving assistance after the onset of the event conditions.

### Examples for directed evacuation:
- The predicted water height will result in an inhabited dwelling being submerged.
- The predicted flood height will result in the area being isolated beyond the point of sustainability (i.e. three or more days without external assistance).
- High levels of uncertainty about the upper level of flooding.
- The DDC determines that the risk of injury or death to any persons or animals remaining in an area is likely.
- The lead agency with authority to order an evacuation determines that any persons remaining in the area would likely put themselves or others at risk of injury or death.

### 2.5 Evacuation Planning

Detailed evacuation operational planning involves the establishment of instructions and guidelines governing the following:
- The processes for making the decision to evacuate.
- Evacuation routes and expected timeframes.
- The roles and responsibilities of various agencies during evacuation.
- Public warning systems.
- The use of Council resources to assist evacuation.
- The provision of temporary accommodation and food.
- The provision of medical support.
- Traffic control requirements.
- Transportation requirements.
• Location and availability of emergency facilities (e.g. hospitals)
• Location and suitability of registration and evacuation centres
• Assessing impacts and making the decision to return to affected areas

### 2.6 Evacuation Strategy

#### 2.6.1 Evacuation Strategies

The following table outlines a pre-determined evacuation strategy for the top three hazards and associated risks for the City.

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. The contents of the table are an overview of the broad strategies being adopted. Specific operational information is detailed in Council’s Isolated Communities Sub Plan.

<table>
<thead>
<tr>
<th>Threat</th>
<th>Key Areas At Risk</th>
<th>Indicative Shelter Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Flood Levels³</td>
<td>Bundamba Creek – Booval</td>
<td>Shelter in place</td>
</tr>
<tr>
<td></td>
<td>Woogaroo Creek – Goodna</td>
<td>Shelter in place</td>
</tr>
<tr>
<td></td>
<td>Goodna Creek – Goodna</td>
<td>Shelter in place</td>
</tr>
<tr>
<td>Moderate and Major Flood Levels⁴</td>
<td>All minor flood level key areas at risk</td>
<td>Shelter in place</td>
</tr>
<tr>
<td></td>
<td>Karalee</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td>Brassall</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td>Bundamba</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td>Leichhardt</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td>Marburg</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td>Moores Pocket</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td>North Ipswich</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td>One Mile</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td>Rosewood</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td>West Ipswich</td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td>Major Flood Levels⁵</td>
<td>All moderate and major flood level key areas at risk</td>
<td>Shelter in place</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Voluntary evacuation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Directed evacuation</td>
</tr>
<tr>
<td>Bushfire</td>
<td>Pine Mountain</td>
<td>Shelter in place</td>
</tr>
</tbody>
</table>

³ Minor Flooding: Causes inconvenience. Low lying areas next to watercourses are inundated and 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.
### 2.6.2 Shelter in Place

The best option when evacuation is not necessary is to take shelter in a safe and secure structure at home or with family and friends. Residents, if evacuation is not required, should be encouraged to seek refuge in a building structure that is safer than their own in terms of the impending hazard.

Shelter in place may be a suitable option for storm, east coast low, some fire hazards, chemical spills, and heatwave. Typically for flood event, residents of dwellings that will not have flood waters over their floor level should shelter in place. This strategy should also be used if there is a definite prediction that a road evacuation route will be cut but the isolated area will not be substantially inundated. The recommended maximum time for sheltering in place should be 3 days, with an evacuation ordered for longer timeframes.

### 2.6.3 Evacuate

Evacuations should only occur when the primary agency determines that the risk of sheltering in place is greater than the risks associated with leaving. Evacuation should be considered when one or more of the situations below exist:

- Flood water will be at or above the lowest living area of a building
- A property will be isolated by flood waters for an extended period
- The location is at imminent threat of fire
- Personal safety is under threat
- There are properties classified as unsafe, unsanitary, or both
- Public health is gravely threatened
- Food and water are not available
• The burden of caring for people in the area is greater than if they were evacuated
• If the lead agency determines that it is necessary

2.6.4 Neighbourhood Safer Places
Neighbourhood Safer Places are areas assessed by QFES to meet specific criteria for seeking shelter from a bushfire. They are areas of last resort, and are not somewhere people should congregate if a better solution is available. They normally consist of open fields or recreational areas, with a recommended buffer of at least 300 metres from vegetated or hazardous areas. It is likely that these areas will have no facilities or emergency services on hand.

QFES has evaluated the City of Ipswich and determined that there are no suitable sites to be designated as Neighbourhood Safer Places, and that they are not required for this region.

2.7 Vulnerable Populations

2.7.1 Aged Care Facilities

It is the responsibility of each aged care facility to develop and regularly review an all hazards evacuation plan. It is recommended that the movement of aged people in care be planned and implemented pre-emptively in advance of unfavourable conditions. Aged care facilities in Ipswich should have their own evacuation plans, including procedures for the complete evacuation of the facility, specialised transport requirements, and formal agreements with other aged care facilities or suitable accommodation providers that will be able to provide a safe location for residents, with an appropriate level of care.

Local aged care facilities must ensure that they each have a thorough and effective evacuation plan.

It is important for the LDMG to communicate early and regularly with aged care facilities before, during, and after an event, to ensure appropriate and timely information is disseminated, and to assist them in making informed decisions.

Ipswich City Council will maintain a register of Aged Care facilities.

2.7.2 Schools

The LDC must ensure that the Principal of any school likely to be impacted by an event is notified in a timely manner. The Department of Education is responsible for issuing school closure information.

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6 Australian Standard AS4083-1997
Ipswich City Council will maintain a register of schools.

2.8 Specific Strategies

2.8.1 Fire

QFES is responsible for evacuation decisions with regards to fires in the City of Ipswich local government area (LGA). If required, QPS will then act as the lead agency for the evacuation. Owing to the speed of operations, the LDC can expect that evacuation communications will predominantly flow between these two agencies, with notifications being sent to the LDC when time allows. The LDMG may be required to provide support in coordination roles.

2.8.2 Dam Failure

Owners of referrable dams must prepare emergency action plans (EAPs) and redacted versions of these EAPs are publically available via the Department of Natural Resources, Mines and Energy (DNRME) website http://dnrme.qld.gov.au.

Ipswich City Council prepares and maintains EAPs for a number of managed dams, and detention basins. Seqwater provides copies of their EAPs for Maroon Dam, Moogerah Dam, Wivenhoe Dam, Somerset Dam and Lake Manchester Dam.

Within the City of Ipswich there are a number of other dam operators who also prepare and provide a copy of their EAP to Council. Each EAP makes provision regarding advice to the LDMG of impending failure situations, the likely impacts, population and risk and evacuation strategies.

2.8.3 Earthquake

Should an earthquake affect the Ipswich region, the evacuation strategy is to walk people away from structurally damaged buildings and infrastructure, and direct them towards large open areas away from any collapsed buildings. An exclusion zone should be implemented as soon as practicable after the event, and all non-emergency personnel should walk out of the impact area as soon as possible.

Other response strategies, which are largely employed by Queensland Ambulance Service (QAS) as part of their core role, may be:

- Remove casualties to a suitable triage location, which should be located in an open space, such as a nearby sporting oval or park reserve. These locations are ideal owing to the open space and well-kept grounds.
- Identify possible helicopter landing areas close to the triage locations, for easy evacuation of seriously injured persons.
- Emergency services personnel should warn the public to evacuate the main impact areas as they move through the area performing search and rescue operations.
The Christchurch earthquake in February 2011 highlighted people’s desire to assist in the rescue of trapped persons. This facilitates the removal of easy-to-access casualties, however further rescue by non-trained personnel should be discouraged for their own safety. People should be instructed to look after themselves first; neighbours second; and assist as volunteers only if asked to do so by the authorities. First and foremost, they should be ordered to evacuate the impact area.

### 2.8.4 Hazardous Material/s Incidents

The evacuation strategy for incidents involving hazardous materials is determined by the lead agency. The lead agency should contact the LDC and provide advice accordingly once the decision to evacuate has been made.

### 2.8.5 Landslip

The evacuation strategy for landslips is to move people away from the area as soon as the slip is detected. QPS will control the area around the landslip using the *Public Safety and Preservation Act 1986*, and may enforce the directed removal of residents. When the area is safe and the appropriate authority has been given, people will be permitted to return.

### 2.8.6 Biological Incidents

For incidents involving biological hazards, such as pandemics, communicable diseases, or radiological hazards, the strategy is to shelter in place unless otherwise directed by the primary agency.

### 2.8.7 Structural Collapse

The evacuation strategy for structural collapse is for QPS and QFES to move people away from the hazardous area to an assembly area. The QFES has responsibility for technical rescue, the act of search and rescue (SAR) coordination is the primary responsibility of QPS as per the Intergovernmental agreement that nominates QPS as the SAR authority.

### 2.8.8 Severe Wind

Shelter in place is the strategy for any severe wind event, provided that the building is structurally sound.

### 2.8.9 Severe Storm

Provided that the building is structurally sound, shelter in place is the strategy for a severe storm event.

### 2.8.10 Flood

The initial strategy for a flood event where flood water is not predicted to encroach over the floor of a property is to shelter in place. If the forecasted water level will rise above the floor level of a
dwelling, or if the building will become isolated for more than three days, voluntary or directed evacuation may be recommended.

- If the flooding is **anticipated** to be widespread, and the water level will rise to a level that **may** allow it to enter buildings, or if a particular area is **expected** to become isolated, a **voluntary** evacuation order may be issued by the LDC.
- If the forecasted flooding **will** encroach into buildings, or the water level **will** isolate areas for more than a few days, or if there is an estimation that the flooding will cause a significant hazard to the health, wellbeing, or risk to the life of residents or livestock, the DDC may issue a **directed** evacuation order.

### 2.8.11 Heatwave

Shelter in place is the recommended strategy for a heatwave, provided that the building provides adequate shelter (e.g. it has adequate ventilation, and a working cooling system such as air conditioning or fans that keep the temperature at a safe level).

### 2.8.12 Major Transport Accident

In the event of a major transport accident, the lead agency will advise the LDC of any decision to evacuate.

### 2.8.13 Oil / Gas Incidents

The primary agency will advise the LDC of any decision to evacuate in the event of an oil or gas related incident.
PART 3: DECISION TO EVACUATE

3.1 Considerations for Decision to Evacuate

The decision to evacuate should be based on a hazard assessment and event intelligence. The triggers to evacuate will differ for each event.

The following issues should be considered when making decisions regarding evacuation:

- Advice from the relevant authorities on severity, arrival, and impact area
- Whether previously identified vulnerable zones are applicable, and any necessary amendment to existing, or development of additional maps as required
- The time required to complete the evacuation and the lead time available. Is evacuation achievable, safe, and the most suitable option?
- What type of evacuation is necessary (voluntary or directed)? Is ‘shelter in place’ a safer alternative to evacuation in this instance?
- The capacity of the proposed evacuation routes to support rapid egress by pedestrian and/or vehicular traffic, given the conditions related to the specific incident
- The suitability of proposed shelter and/or assembly points, including whether they are able to be established efficiently, and sustained for the duration of the event
- Specific transportation requirements
- If plans are in place to assist special needs populations and facilities
- If the appropriate resources are available to effectively manage the evacuation

The process of evacuation carries a level of risk to evacuees and emergency response agencies. Therefore, the final step in the decision making process is to undertake a risk assessment as to whether evacuation is the most appropriate and risk-mitigating response to the incident, and whether there are any viable alternatives available.

In consideration of all issues, including the risk assessment and available data, the LDC in consultation with the lead agency will provide a recommendation regarding the evacuation of at-risk persons.

3.2 Authority to Evacuate

A directed evacuation under the Disaster Management Act 2003 requires the declaration of a disaster situation. The 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, and must be made in accordance with Section 65 of the Act. During a disaster
situation, the DDC and Declared Disaster Officers are provided with additional powers under Sections 77-78 of the Act. These powers may be required to give effect to a directed evacuation.

3.3 Evacuation Timelines

There are two critical factors in the decision making process in recommending or ordering evacuation:

- The time necessary to clear evacuees from the evacuation area (i.e. the clearance time, which is defined as the time required to clear roadways of all vehicles evacuating).
- Weighing the time past a point (also known as ‘clearance time’) in respect to the arrival time of the event.

Time past a point refers to the time taken for all vehicles to safely traverse the evacuation route network; it does not refer to the travel time of a single car. It begins when the first vehicle enters the evacuation route network, and ends when the last vehicle reaches a shelter or council boundary line on the way to another shelter.

This includes the time required for evacuees to secure their homes and prepare to leave, the time spent by all vehicles travelling along the evacuation route network, and any additional delays caused by traffic and road congestion. This does not guarantee that vehicles will safely reach their destination once outside the anticipated boundary of the disaster area.

Time past a point is primarily calculated on the basis of:

- Number of people evacuating
- Number of vehicles on roadways
- Number and capacity of evacuation roadways
- Potential roadway choke points or bottlenecks
- Time of day
- Response times for evacuees after orders are issued

The capacity of evacuation routes will vary depending on road conditions. It is important to consider a number of route conditions, as identified below\(^7\). The formula applied for calculating travel times for all road classes i.e. urban, rural, and highway/motorway, and the flow rates, is also shown.

<table>
<thead>
<tr>
<th>Route Condition</th>
<th>Capacity (vehicles per hour per lane)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced</td>
<td>800 (assumes travel speed of 50kph)</td>
</tr>
<tr>
<td>Emergency response agencies intervene to increase route capacity. Traffic management strategies may include traffic controlled intersections, contra-flow, and banning vehicles towing caravans and trailers.</td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td>600 (assumes travel speed of 40kph)</td>
</tr>
<tr>
<td>Fine weather with normal traffic control.</td>
<td></td>
</tr>
</tbody>
</table>

\(^7\) Department of Public Works: Mitigating the Adverse Impacts of Cyclones – Evacuation and Shelter Guidelines (2008)
### 3.4 Total Evacuation Time

The total time required to evacuate a community is calculated across the phases of decision, warning, withdrawal, and sheltering. This time is then subtracted from the predicted time of impact. The resulting time is equal to the present location on the evacuation timeline. The evacuation officially commences once the decision has been made, as soon as a warning is issued. The completion deadline is the moment after the total amount of time required for the community to evacuate and reach the sheltering phase, which encompasses the warning, withdrawal, and sheltering phases of evacuation.

**Table 4 - Traffic Flow Rates from the Evacuation Planning Guidelines**

<table>
<thead>
<tr>
<th>Route Condition</th>
<th>Capacity (vehicles per hour per lane)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disrupted</strong></td>
<td>300 (assumes travel speed of 20kph)</td>
</tr>
<tr>
<td>Heavy rain with possible vehicle breakdowns, traffic collisions, landslips, minor flooding across road etc.</td>
<td></td>
</tr>
<tr>
<td><strong>Semi-Blocked</strong></td>
<td>100 (assumes travel speed of 5kph)</td>
</tr>
<tr>
<td>Route is closed by flood waters or large scale landslide. An alternate route or transport method may be required.</td>
<td></td>
</tr>
</tbody>
</table>

### 3.5 Decision Time – Initiate Response

The decision time is the time required by the LDC, DDC, or lead agency to make the informed decision to evacuate. This calculation should include time for mobilisation and deployment of resources, inclusion of one to two hours is recommended.

### 3.6 Warning Time

The warning time is the time taken to advise the community of the evacuation. This warning time will likely overlap into the withdrawal phase, as public messages should continue to be conveyed throughout the period of evacuation. Consideration also needs to be given to the time taken to develop and implement any Emergency Alert campaigns.

### 3.7 Withdrawal Time

The withdrawal time is the time taken for persons within the impact area to travel to a safer location. The withdrawal time is the combined total of the leave time, travel time, and clearance time.
3.7.1 Leave Time

Leave time is the time people take to secure their homes and prepare to leave. It is recommended to allow one hour of leave time in the calculation.

3.7.2 Travel Time

Travel time is the time taken by a person or vehicles to travel from the evacuation zone to the shelter zone.

3.7.3 Time Past A Point

The time past a point is the time taken for all people being evacuation to pass a point on the evacuation route. This can be calculated in hours by dividing the number of people to be evacuated by the route capacity in people per hour. For consistency, assume an average occupancy of two people per vehicle.

3.8 Shelter Time

The shelter time refers to the time taken for people to reach shelter at a safer location. An allowance of one to two hours is recommended.

3.9 Rescue Operations

Coordinated rescue may need to commence when a portion of the affected population still need to move to safety (evacuate), but the current disaster incident has cut evacuation routes. The rescue phase should be planned simultaneously with withdrawal.

Identifying in advance where people will most likely not have time to evacuate is a key priority for the LDMG.

3.10 Deadlines for Evacuation Decisions (Decision Points)

Where possible, the LDMG should be assembled well in advance of any evacuation decision point. Consideration needs to be given to the time required to reach an appropriate decision, notify emergency operations personnel of that decision, and if appropriate, prepare a news release and press conference. This should be undertaken before an evacuation order is publicly announced. The decision point will differ depending on the type of disaster event and its location; sufficient time needs to be given for each scenario.
PART 4: WARNINGS

When ‘at risk’ areas and the location of safer areas have been determined, the decision to evacuate ‘at risk’ members of the community can be made. This information needs to be communicated to the community.

Information regarding warning dissemination and methods can be found in Local Disaster Management Plan and the Public Information and Warnings Sub Plan.

4.1 Warning Approval and Process

The LDC should approve all public warnings. When a decision to evacuate has been made, the DDC and the LDC should:

- Ensure stakeholders have the information they need to respond appropriately to the disaster (for example, residents and visitors should be alerted as to which roads and bridges to avoid after a severe weather event, and when infrastructure is expected to be operational again)
- Ensure the ongoing flow of accurate information throughout the initial response period of the crisis
- Ensure that messages have been shared with relevant stakeholders

4.2 Warning Templates

Templates for the different methods of providing warnings to the public regarding disaster events should be held by the responsible organisation.

Warning templates need to be populated with the following information:

- What is happening and when is it likely to happen
- What people have to do in order to maximise their safety
- The evacuation route/s showing where they should go
- Transportation assistance services available to people without means to travel
- When the evacuation will be happening
- Which assembly areas and evacuation centres will be used
- How long they are likely to be away from their residence
- What to pack
- Which agencies will be assisting with the evacuation
- Where to access more information
- Potential hazards that they may face during the evacuation
PART 5: WITHDRAWAL

5.1 Evacuation Routes

Once an evacuation order is issued, all major roadway networks that are unaffected by the incident will be considered as evacuation routes for local travel. Advice to the public should include the location of assembly points or evacuation centres, and information on road closures.

The location of the emergency will determine which major road networks will be utilised for the purpose of evacuating ‘at risk’ persons. Recommendations of pre-determined routes for different suburbs within the Ipswich City Council region, including population statistics and estimated timeframes, can be found in Council’s Evacuation Arrangements Manual; these should be assessed based on incident-specific information prior to their use.

5.2 Traffic Management Strategy

Traffic management will be planned and managed by QPS in conjunction with the LDMG and DDMG. QPS, Department of Transport and Main Roads (DTMR), and Ipswich City Council will implement a Traffic Management Plan, with the primary emphasis on fostering a safe environment for evacuation.

The LDCC will provide flood modelling information as required.

The Brisbane Metropolitan Transport Management Centre (BMTMC) is a good source of information relating to the road network. It has access to a wide array of information sources that can verify closures and delays to the road network. The phone number for the BMTMC is 13 19 40.

5.3 Traffic Management Devices

All traffic management techniques should be assessed to ensure that they are appropriate to the specific hazard. For example, temporary devices such as traffic cones and road closed signs may become hazards during severe wind events. However, they should be used at impacted road sections, where high winds are not anticipated. They require minimal resources to install, maintain, and remove. If Variable Message Signal (VMS) boards are to be used, it is recommended that fixed/permanent units be used where possible. Some temporary VMS trailers are lightweight, and may become a potential hazard as they are vulnerable to high winds.
5.4 Coordinated Transport Operations

In the event of a disaster incident, the transport of persons from within the affected area will be coordinated via a multi-agency approach, with the primary agency determining whether an evacuation is necessary, and the lead agency managing the coordination of the evacuation itself, in conjunction with the LDCC and other associated agencies and LDMG members. Within the LDCC a team will be established to consider transport management where necessary.

5.5 Assisted Transport – Concept of Operations

The primary method of evacuation for those people located in defined evacuation zones is self-evacuation using their own vehicles to centres outside the affected area. The expected number of people who will need to be evacuated is assessed by the relevant LDCC team member.

In order to assist with planning, assume the number of people located in the evacuation zones who will require assisted transport to evacuate is likely to be approximately 20% of the total population of the affected area.

Where assisted evacuation is required, the following will apply:

- Local pick-up will be conducted by the local public transport resources coordinated by the transport team. Pick-up points will be established at local assembly points.
- Evacuees will then be transported along defined evacuation routes to an operational evacuation centre in accordance with a transportation schedule coordinated by the team.
- In order to conduct this transfer of people within a reasonable and limited timeframe, this operation must be coordinated efficiently, and begun at the earliest opportunity. This can be achieved by ensuring that there is a surplus of vehicles available for use in order to cope with an unexpected level of demand, and informing the drivers that they can expect that a number of shuttle trips will be necessary.
- Evacuees with pets are to transport them in cages or improvised carriers. Animals should be tagged with the owners’ details. They must be able to contain/control the animal.

The transportation plan must be easily communicated and understood, simple to execute, and designed to safely maximise outbound roadway capacity.

5.6 Self-Evacuation

During an evacuation, the majority of the affected population should self-evacuate using their own vehicles. They should be encouraged to evacuate early as traffic congestion is likely. Evacuation routes will need to be advertised and, if possible, marked with traffic evacuation signs (temporary or permanent VMS boards may be useful in this instance). Evacuees should be instructed to remain tuned to local radio stations (River 94.9 FM) and ABC radio (ABC 612 AM) for updates on
evacuation activities. These evacuation messages should include details of road closures, traffic delays, and actions on breakdowns.

Information on evacuation procedures and routes can be included on the Council Emergency Management Dashboard, refer to http://emd.ipswich.qld.gov.au.

5.7 Buses

Once the impact zone has been identified, bus evacuation loading points will be recommended by the LDCC as part of the evacuation planning process. It is anticipated that if a mass evacuation is called, all available transport providers will be asked to accept evacuees from designated assembly areas such as state schools, supermarkets, and other similar locations, and transport them to a designated evacuation centre. The pick-up points will be existing locations where buses can turn around safely and with sufficient capacity to both accommodate queuing passengers and buses, and transfer them out of the impact zone or to an evacuation centre.

5.8 Pedestrian

The LDMG should expect that there will be a considerable number of pedestrians among the population being evacuated from an unanticipated major event, particularly if an immediate evacuation is required.

People who are already in a private vehicle, along with those who can access their vehicle quickly, will create a sudden surge of vehicles onto roadways. Large numbers of people exiting from shopping centres and similar locations in a relatively short amount of time will create a large mass of pedestrians. The uncertainty accompanying the event, along with the disruption of the normal use of a given area, can be expected to create a brief period of seemingly chaotic behaviour. This should give way to more purposeful actions that will result in evacuees moving away from the impacted area.

Potential strategies for managing pedestrian evacuation are presented below. These approaches are designed to promote the safety and mobility of pedestrians, while minimising their contribution to any traffic congestion caused by the evacuation.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Strategic Objectives</th>
</tr>
</thead>
</table>
| Designate and manage separate evacuation corridors for outbound vehicles and for pedestrians. | • Minimise the need for complex logistical activities on the part of the transportation managers  
• Minimise the number of points where pedestrians and vehicles are in close proximity |
| Provide dedicated evacuation transit hubs at the outer perimeter of the evacuation zone. | • Minimise the distance that evacuees are on foot and exposed to certain hazards    
• Provide a transit option for evacuees who began evacuation on foot owing to lack of other options  
• Ensure the separation of disruptive activities such as bus loading from the command and operations area  
• Increase the likelihood of having an appropriate space for gathering evacuee and loading buses |
<table>
<thead>
<tr>
<th>Approach</th>
<th>Strategic Objectives</th>
</tr>
</thead>
</table>
| Provide shuttle buses between areas where large numbers of people are emerging from buildings, to designated points at the edge of the area being evacuated. | • Avoid the need for extremely complex logistical activities by transit services  
• Reduce the magnitude of the stream of evacuees on foot in the area with the greatest potential for obstructing vehicles  
• Take the buses into the evacuation zone to provide greater visibility of the option to be evacuated by bus  
• Give evacuees on foot with limiting conditions an option besides walking  
• By using a short route loop, reduce the time it takes each bus to return to the staging area for another load |

Table 5 – Managing Pedestrian Evacuation

### 5.9 Security Strategy

Security in evacuated areas is an important issue. Evacuees whose property is damaged or stolen in their absence may be disinclined to evacuate again should they need to do so in a future emergency.

QPS is responsible for the security of evacuated areas, including the security of any damaged property. Should further resources be required, the LDMG may need to procure additional security services from preferred suppliers.

If an evacuated area has sustained damage and cannot be reoccupied for an extended period of time, a permit system may be established, in order to limit access to emergency workers, homeowners, utility workers, and contractors working to restore damaged structures and remove debris.
PART 6: SHELTER

Shelter in the event of a disaster situation takes a variety of forms. \textit{Generally speaking, unless otherwise advised, the best option for residents is to shelter in place.}

The LDC and/or the primary agency should make an informed decision, in conjunction with information provided by other related agencies, as to which emergency shelters should be opened, depending on the specific event as it unfolds.

Council’s \textit{Evacuation Arrangements Manual} provides a list of locations classified by type, which may be used for shelter.

Pre-incident planning should consider temporary shelter, short term housing, and long term housing. Resource and logistical considerations include fixed facility requirements, staffing, food and water, medical supplies, security, triage and medical care, mental health care, and relocation assistance.

Shelters provide protection from the elements away from immediate or potential effects of the hazard, and basic personal needs. They include:

- Assembly Areas – temporary areas, no more than six hours
- Evacuation Centres – short term accommodation, three to four days

Recovery services are provided through:

- Temporary Accommodation – weeks to months

Emergency shelters are for immediate and short term displacement. Recovery centres may be operational for longer periods depending on the needs of the community and its ability to return to normal.

6.1 Assembly Points

Assembly points may be used for situations that are short term (<six hours). An assembly point is a temporary designated location specifically selected as a point which is not anticipated to be adversely affected by the hazard. Assembly points would usually only be utilised during events where specific shelter is not required and the duration of the evacuation is not predicted to be lengthy.
Assembly points are most frequently used as marshalling or transit locations for staging to evacuation centres or alternate accommodation. If this is the case, limited services and staffing may be available. Registration of those who are leaving the area by their own means and do not require accommodation may be carried out by relevant agencies. Registration of those people being given assistance with accommodation and/or transport should be conducted at their destination.

6.2 Evacuation Centres

An evacuation centre offers provision for the basic needs of displaced persons, such as:

- Food and clean water
- Showering and toilet facilities
- Personal hygiene items and access to clothing and bedding
- Accommodation for the duration of the emergency, until the affected area is deemed suitable for re-habitation
- Baby needs
- Access to other support agencies

For further information about evacuation centres, refer to the Evacuation Centre Sub Plan.

6.3 Animal Strategy

If residents must evacuate, it is advisable that they take their pets with them. If it is not safe for residents to stay in the disaster area, it is not safe for their pets.

The following are some recommendations for pet owners:

- Contact their veterinarian prior to an event for a list of preferred boarding kennels and facilities for use in the event of an emergency
- Identify hostels and motels that accept pets
- Ask friends and relatives if they would accept pets during an emergency

Residents should make sure that their pets are collared with up-to-date identification. The tags should include pet owner’s name, telephone number, and any urgent medical needs.
6.4 Evacuees from Other Areas

The LDC is to activate this sub plan and any associated sub plans, manuals and SOPs when requested by the DDC, in order to receive evacuees from other local government areas.
PART 7:  RETURN

7.1 Decision for Return

The decision for the return of evacuees, and the development of a return strategy, will be undertaken by the LDMG in consultation with the DDC and the primary agency.

To determine if the disaster area is safe for return, it will be necessary to assess the following issues:

- Has the hazard passed, and is it going to return?
- Are buildings and structures in the affected area safe?
- Is transport infrastructure in the affected area safe and operational?
- Are schools and workplaces able to be re-opened?
- Are utilities such as power, water, sewerage, and communications operational?
- Are there any residual public health concerns?
- Are there any remaining damaged or unsafe areas, and are they secure?
- Are there support services and infrastructure available for those residing in the affected area?

7.2 Return Strategy

The LDMG will manage the return phase of an evacuation. Duties should be delegated by the LDC as circumstances dictate. Evacuees returning to their homes or businesses in evacuated areas require the same consideration, coordination, and control as the original evacuation. For limited incidents, the lead agency will make the decision to return evacuees and disseminate the information as appropriate.

There are three phases of return:

**In the initial phase of re-entry, access to impacted areas should be limited to:**

- Emergency service and public utility personnel tasked with eliminating major hazards
- Utility company employees engaged in turning off or repairing damaged utilities
- Contractors clearing roads and removing debris or hazardous materials
In the **second phase of re-entry**, access to the disaster area may be expanded to include:

- Residents and business owners in the affected area, when it is safe to enter in order to salvage belongings and make expedient repairs. The LDMG should consider communicating information regarding safe limited re-entry by:
  - Placing notices in newspapers, evacuation centres, and other areas evacuees frequent, advising of where, when, and how people can return
  - Providing maps to show areas of return
  - Setting times for the transport to and from the area
  - Providing transport to and from the area
- Insurance agents
- Media representatives
- Contractors repairing damaged buildings
- Commercial vehicles delivering food, essential supplies, life support equipment, construction supplies, and related materials

The **third phase of re-entry involves reopening the disaster area to normal traffic.** The manager of the recovery should ensure that evacuees can easily access information on:

- Recovery centre locations
- Utilities and government functions status
- Transport information
- Documenting damage for insurance purposes
- Caution in reactivating utilities and damaged appliances
- Clean-up instructions
- Removal and disposal of debris
- Disposal of dead animals

### 7.3 Transition to Recovery

The longer term accommodation requirements of those unable to return to their homes are managed through the recovery process. Appropriate longer term temporary accommodation will be required for these evacuees once the evacuation centres are closed. Other assistance to affected community members to be managed through the recovery process is detailed in the **Recovery Sub Plan.**
PART 8: ANNEXURES

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