

Boulia Shire Council Local Disaster Management Plan Evacuation Sub Plan 2021-2022

Version 3



Boulia Shire Local Disaster Management Plan- Evacuation Sub Plan.
Prepared under the authority of the Queensland Disaster Management Act, 2013

Forward



The Boulia Shire is committed to its vision of providing leadership, direction, representation and services to ensure that Boulia Shire is both attractive and prosperous, providing a high quality of life. The people that chose to live in the Boulia Shire are a community minded and resilient group that have seen floods and drought and everything in between. The Boulia Shire Council and the Local Disaster Management Group are committed to the safety and prosperity of the Boulia Shire community, a large part of this commitment is to ensure that we maintain best practice planning, training and exercising to ensure the safety of the community.

We recognise that the decision to evacuate people from their homes is not a decision to be taken lightly, the rights and wishes of the individual will always be at the forefront of our decisions. The decision to evacuate will ultimately rest with the individual but we will ensure you have the information and assistance to make the right decision for yourself, your family and your community.

Mayor Rick (Eric) Britton
Chair, Boulia Shire Local Disaster Management Group.

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Chair, Boulia Shire Local Disaster Management Group.

Administration and Governance

Purpose

The purpose of this evacuation sub-plan is to provide support to local government when planning and implementing an evacuation of exposed persons within the Boulia Shire Local Disaster Management Group (LDMG) area of responsibility.

The completion of this plan will support the LDMG to:

- identify local hazards and the population exposed
- map relevant data
- document community education awareness programs - before, during and after an event
- document the decision to evacuate
- develop and disseminate user-friendly public information and warnings to the community
- coordinate an organised and coordinated movement of exposed persons to a safer location and their eventual return home.

This sub-plan forms part of the Local Disaster Management Plan (LDMP).

Authority

This plan forms a sub-plan to the Boulia Local Disaster Management Plan 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 Boulia Local Disaster Management Plan including approval, document control, distribution and review.

Activation

This evacuation sub-plan will be activated by the Boulia LDMG where the movement of exposed persons to a safer location is required to be coordinated by the LDMG, in close consultation with Mount Isa DDMG.

Evacuation Committee

The human resources available to the Boulia LDMG dictate that an evacuation sub committee is not required. Planning for evacuation will be included in LDMG normal business and effecting evacuation will be included in LDCC duties.

Amendment Register

Amendment Number	Date	Section Amended	Amended By
1			
2			
3			

Version Control

Version	Date	Date accepted by LDMG
1	21/1/2016	Reviewed by LDMG 23/11/2015, endorsed by Chairperson of LDMG 23/11/2015, accepted by resolution of council 21/1/2016.
2	14/6/2017	Reviewed by LDMG 14/06/2017, endorsed by Chairperson of LDMG 14/06/2017, accepted by resolution of council 21/6/2017
3	22/5/2019	Reviewed by LDMG 22/5/2019, endorsed by Chairperson of LDMG 22/5/2019, accepted by resolution of council 19/8/2019
3	24/3/2021	Reviewed by LDMG 24/3/2021 – no changes made accepted by resolution of council on 26 th March 2021

Review of the Plan

In accordance with Disaster Management Act Queensland 2003 the Local Disaster Management Plan may be reviewed or renewed at any time but must be reviewed for effectiveness **at least annually**.

Annual review completed	24/3/2021
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Distribution and availability of plan

<i>Boulia Shire Council Office: 1 Herbert St Boulia Qld 4829</i>	07 4746 3188
<i>Boulia Shire Council website:</i>	www.boulia.qld.gov.au

RISK RATING

The hazard/risk rating can be found by assessing consequence and likelihood using Table 1 below. This table can be used to determine a hazard/risk rating for each of the hazards/risks listed, for both before and after the proposed risk treatment strategies are applied.

Table 1 : Risk rating

		Consequence				
		Insignificant	Minor	Moderate	Major	Severe
Likelihood	Almost Certain	Medium	High	High	Extreme	Extreme
	Likely	Medium	Medium	High	High	Extreme
	Possible	Low	Medium	Medium	High	High
	Unlikely	Low	Low	Medium	Medium	High
	Rare	Low	Low	Low	Medium	Medium

Local hazards

The following tables are extracted from the 2012 QRMC risk study.

Flood- Diamantina / Hamilton

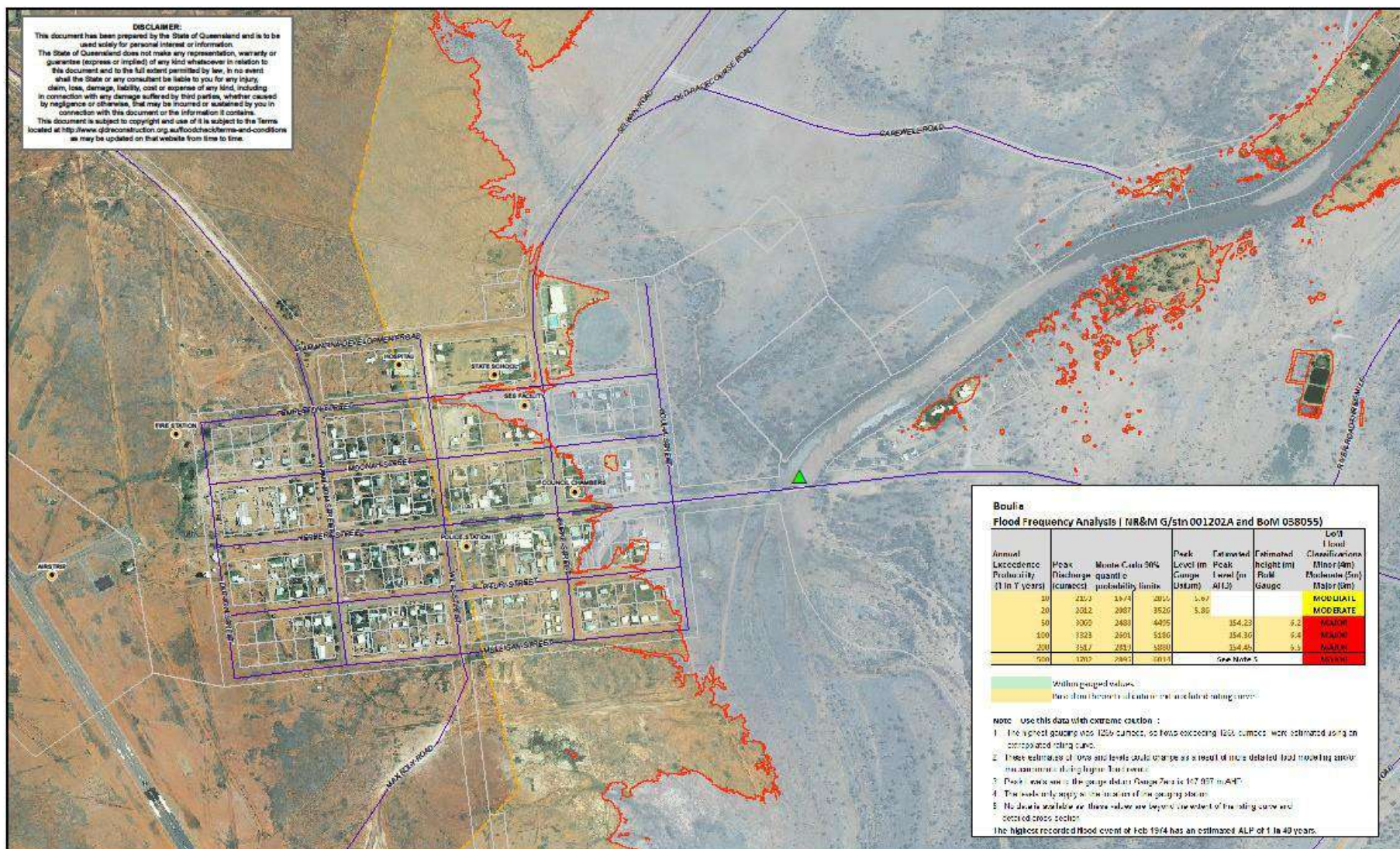
Statement of Risk and immediate consequence	Causation/Source of Risk	Existing Risk Treatments	Consequence	Likelihood	Residual Risk Rating	Risk Custodian
<p>Diamantina / Hamilton River flooding (Between Boulia and Winton), leading to:</p> <p>The isolation of towns and properties and the extensive inundation of grazing lands which can last several months in some areas, with road transport disrupted for considerable periods of time.</p>	<p>The river does not have a well-defined main channel but consists generally of a series of wide relatively shallow channels. Floods normally develop in the headwaters of the Diamantina River and its major tributaries, however, flooding may result from heavy rainfall falling in the middle to lower reaches of the catchment around Diamantina Lakes. Local area rainfalls can be a significant factor throughout these areas.</p> <p>Roads to North of Boulia are sealed</p> <p>Roads to South and West of Boulia are not sealed.</p>	<ul style="list-style-type: none"> • North road sealed • Airport is constructed above the 1974 flood line • Disaster Management Plan (DMP) in place 	Minor	Likely	Medium	LDMG

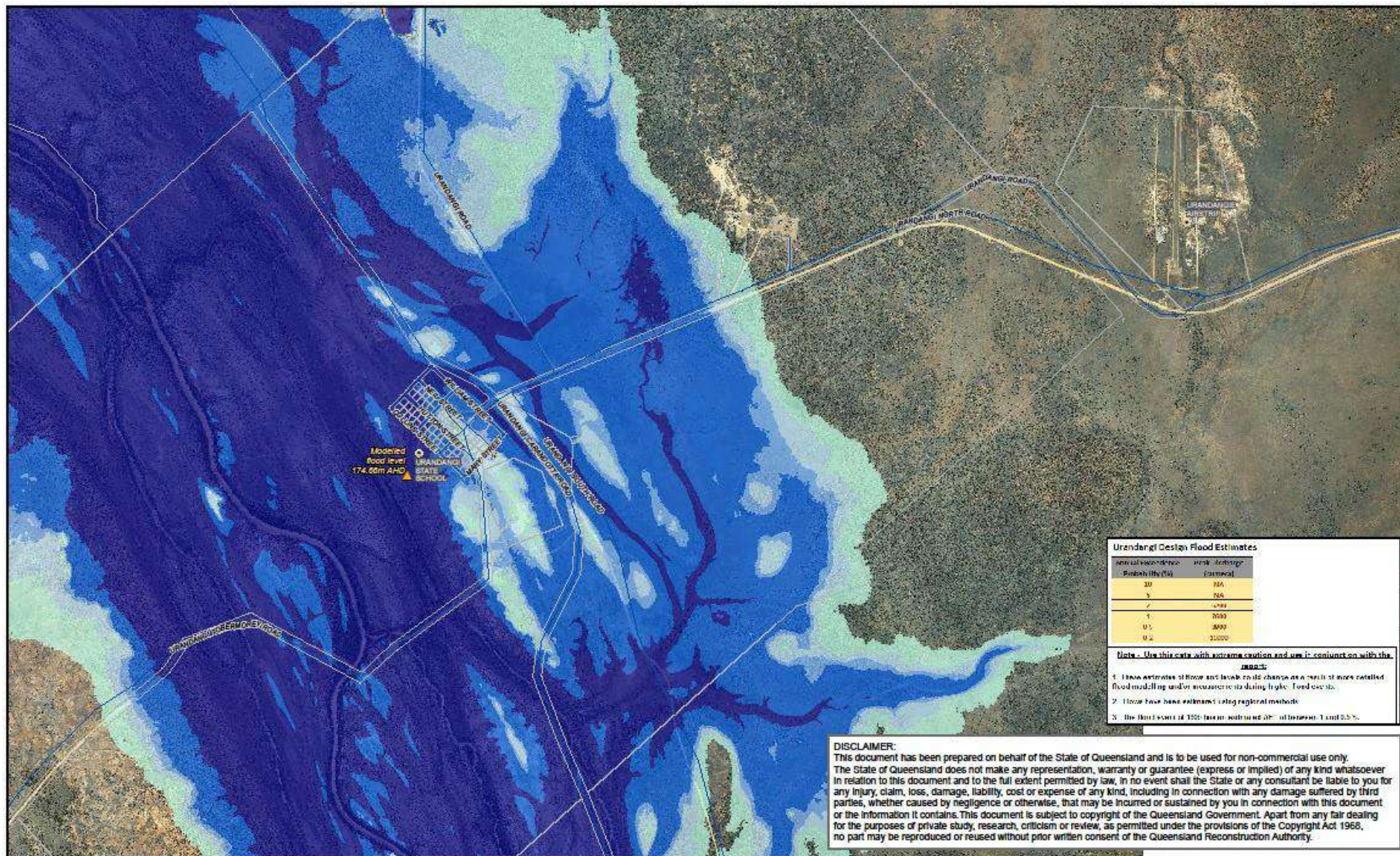
Georgina River / Burke

Statement of Risk and immediate consequence	Causation/Source of Risk	Existing Risk Treatments	Consequence	Likelihood	Residual Risk Rating	Risk Custodian
<p>Georgina River / Burke river (a tributary of Georgina River) flooding the town of Boulia, leading to:</p> <p>The isolation of towns and properties and the extensive inundation of grazing lands which can last several months in some areas. Road transport is disrupted for long periods</p>	<p>Following flood rains, the main channel fills rapidly and then disperses out into the neighbouring channels and watercourses for kilometers on either side. In the event of severe flooding, the Georgina River can vary in width in the upper reaches from 15 to 20 kilometers, and in the lower reaches it is estimated in some sections to be 25 to 30 kilometers wide.</p> <p>No levee banks protecting the town of Boulia</p> <p>Roads to North of Boulia are sealed</p> <p>Roads to South of Boulia are not sealed.</p>	<ul style="list-style-type: none"> Flooding would only effect lower end of town & caravan park Boulia airport is on a ridge above the flood plain Ergon power generation plant on high ground in the town. Mt Isa Road is not impassable for more than 24hrs at a time during flooding Fuel depots exist in Boulia 	Minor	Likely	Medium	LDMG

West and South Channel Flooding

Statement of Risk and immediate consequence	Causation/Source of Risk	Existing Risk Treatments	Consequence	Likelihood	Residual Risk Rating	Risk Custodian
<p>Flooding west of Boulia (including Urandangi), leading to:</p> <p>The isolation of towns and properties and the extensive inundation of grazing lands which can last several months in some areas. Road transport is disrupted for long periods</p>	<p>Flooding due to heavy rainfall – roads not sealed</p> <p>Tourists ignore road signage (All areas)</p> <p>Road accidents as a result of driving on flood affected roads</p>	<ul style="list-style-type: none"> • Stations retain stock of food and water • Many stations have helicopters • Radio road reports • Road reports distributed to businesses • Signs on roads showing conditions updated regularly 	Minor	Almost certain	Medium	LDMG
<p>Flooding south of Boulia towards Bedourie, leading to:</p> <p>The isolation of towns and properties and the extensive inundation of grazing lands which can last several months in some areas. Road transport is disrupted for long periods</p>	<p>Flooding due to heavy rainfall – roads not sealed</p> <p>Tourists ignore road signage (All areas)</p> <p>Road accidents</p>	<ul style="list-style-type: none"> • Stations retain food and other essential stocks • Many stations have helicopters • Radio road reports • Road reports distributed to businesses • Signs on roads showing conditions updated 	Minor	Almost certain	Medium	LDMG





ABN 91 007 860 317

BEW251-TD-WE-GIS-0018

● Points of Interest
▲ BoM gauging station
▲ NRM gauging station
▭ Cadastre

— Road
— Rail

▭ Flood Depth (m)
0 - 0.5
0.6 - 0.8
0.9 - 1.2
1.3 - 2.0
2.1 - 2.5

▭ Historic Flood Records

Local Authority: Boonah
 Locality: Urundangi
 Datum: GDA 1984
 Projection: GDA 1984 MGA Zone 56

Queensland Reconstruction Authority
 1800 110 841
www.qldreconstruction.org.au

0 240 480 720 960 1,200
 Metres
 Scale at A3 - 1:24,000

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Urundangi Flood Investigation
Flood Depth Component
May 1905 Validation Event
174.66m AHD at
BoM Gauge 37043

WJV-004

4/04/2013

0

PROFILE

Population

The Boulia Shire has a population of 426 people (ABS 2016) with the following dispersion: Boulia: 230 , Urandangi: 50-60, Other: 136

The Shire covers an area of 61,000 Km2 giving it a population density of .006 persons per square kilometer.

Vulnerable People

Elderly and infirmed individuals in the community are minimal; these individuals are known to the care providers.

Community Preparedness

Residents of the Boulia Shire are resilient and accustomed to the regular isolation that accompanies the wet season in the area.

Industry

Industry in the Boulia Shire is predominately agriculture.

Critical Infrastructure

Critical infrastructure includes power, water, sewage, roads and essential services buildings.

Electricity Supply

Boulia is powered by generators supplied through Ergon energy located next to the council depot. Power is reliable but subject to occasional power outages which can last for several hours. Urandangi is powered by generators (individual). Critical facilities are able to operate from auxiliary power if required.

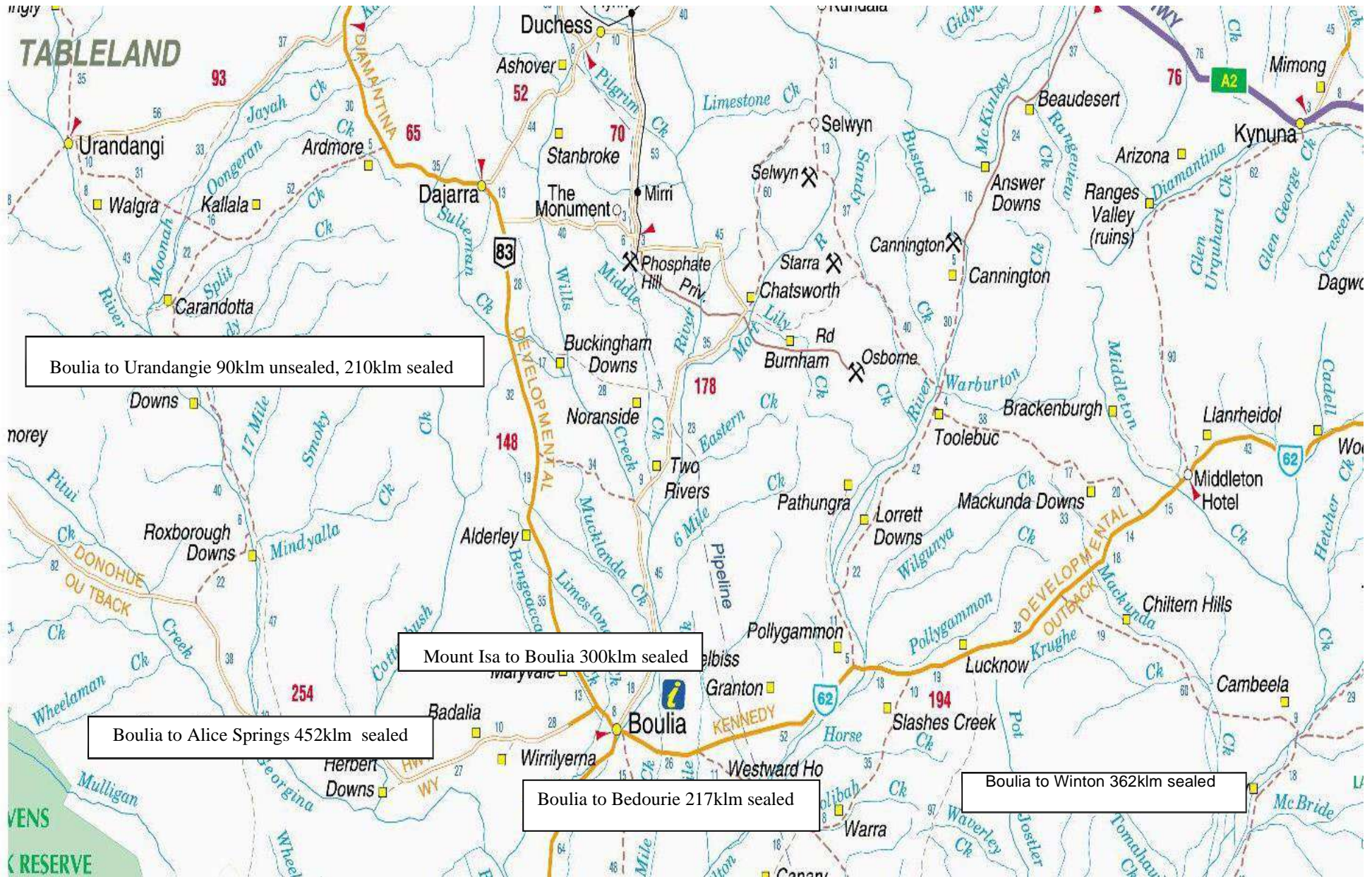
Water Supply

Water supply is delivered by sub artesian bores pumped into a bottom tank then pumped to a head tank and gravity fed to the town. Urandangi is similar. This water is not processed through a water treatment plant but is chlorinated and processed through a Hydro smart system.

Sewerage

Across the Shire there is a mixture of sewage and septic systems.

ROADS



Airports

Boulia

Airport codes: BQL YBOU *Type:* regional airport
Scheduled airline service: yes
Latitude: -22.913300 | 22 54.797974 S | S22 54 47
Longitude: 139.899994 | 139 53.999634 E | E139 53 59
Field elevation: 542 ft/165 m MSL
Magnetic variation: 6.4°E
4,180 x 98 ft (1,274 x 30 m) — paved — lighted

Urandangi

Airport codes: YUDG
Type: local airport(light traffic)
Scheduled airline service: no
Latitude: -21.590000 | 21 35.400009 S | S21 35 24
Longitude: 138.358002 | 138 21.480103 E | E138 21 28
3,280 ft (1,000 m) — other (X)

Boulia Town Evacuation Strategy

Due to the elevation of the town of Boulia and the historical data available it is not likely that a large scale evacuation of the town would be required. In the event of high level flooding residential areas with inundation above the floor level would be relocated to other areas in the town.

The caravan park on the southern side of town may be evacuated as a precautionary measure or due to inundation. Persons from the caravan park can be accommodated in the town area.

Effected Areas-Town (based on 1974 flood levels)



Effected Areas- Caravan Park (based on 1974 flood levels)



Decision

The decision to evacuate effected areas of the Boulia Township will be made based on the behavior of the river, channel conditions downstream, rainfall upstream and anticipated time for the arrival of peak levels.

It must be noted that floods in this river system are slow moving, there is no risk of flash flooding.

Warning

The warning to evacuate will be issued face to face, it is not anticipated there is any need to use Emergency Alert due to the small number of effected residence and the slow onset nature of the flooding.

Withdrawal

It is anticipated that the withdrawal phase can be handled with local resources. Helicopters may be required to evacuate any persons at the caravan park, this can be sourced from Mount Isa (minimal numbers as very few tourists travel at this time).

Shelter

Shelter will be provided by (in priority)

- Billet with friends and family
- Commercial accommodation
- Shire hall

Site	Beds	Toilets	Showers	Access
Desert Sands	12	12	12	Double entry/exit
Australian Hotel	15	15	15	Double entry/exit
Shire Hall	0	6	0	Front and side entry

Evacuation centers

Return

The return phase will be developed by the LDMG as part of the recovery plan. The following factors will be taken into account:

- Damage to buildings
- Availability of essential service (water, sewage, power)
- Potential of further flooding
- Habitability of the dwelling.

Evacuation centres



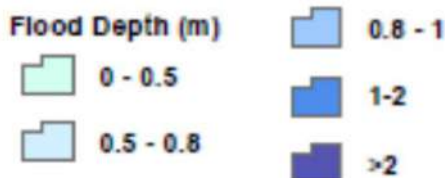
Boulia Shire Local Disaster Management Plan- Evacuation Sub Plan.

Urandangi Town Evacuation Strategy

Urandangi is susceptible to flooding due to the proximity of the Georgina River system. Historically the Georgina River has reached heights of 7.45m (surveyed mark) in 1974 and in more recent times 6.85m in 2009

Whilst the level of flooding based on the 1974 model would not cause widespread loss of life or injury due to limited access evacuation of Urandangi is a possibility in a major flood.

Effected Areas-Town (based on 1974 flood levels)



Effectuated Areas-Town (based on 1974 flood levels)



Decision

The decision to evacuate effected areas of the Urandangi Township will be made based on the behavior of the river, channel conditions downstream, rainfall upstream and anticipated time for the arrival of peak levels vs the time to effect evacuation.

It must be noted that floods in this river system are slow moving, there is no risk of flash flooding.

The LDMG Chair and the DDC will discuss managed vs voluntary evacuation and the requirement for any declaration of a disaster situation.

During the decision phase the LDMG and the DDMG will liaise closely , the LDMG must establish the number of persons in Urandangi and the ages (Adult, Teen, Child, Infant) as soon as possible.

Warning

The warning to evacuate will be issued face to face, it is not anticipated there is any need to use Emergency Alert due to the small number of effected residence and the slow onset nature of the flooding and the lack of mobile coverage or widespread use of landlines.

The warning message will need to be specific and include meeting locations, times and what baggage limit will be applied to evacuees. The message will also include information on where they are being evacuated to and what the security plans are for the evacuated town.

Additional staff may be required to deliver the warning message (Police and SES), these would be sourced from Mount Isa.

Withdrawal

Should an evacuation of Urandangie be required the Boulia LDMG will request (via a Request for Assistance) that this be coordinated at District level. There are a number of reasons for this:

- Boulia lacks the resources to effect this evacuation.
- Mount Isa is the logical reception point due to distance (70km closer than Boulia) and has the infrastructure accommodate the population.
- Due to the river system it is very likely that if Urandangie is flooded Boulia will be isolated.

Transport will be by Air (fixed wing) as the airstrip is sealed and well above flood levels. Charter aircraft will be sourced from Mount Isa. In the event that the airstrip cannot be used rotary wing aircraft will be sourced (this will increase the time taken)

The SES Flood boat would be required to ferry people from the main part of town to the airport side of the Urandangi North Road.

Additional staff may be required to undertake the withdrawal phase message (Police and SES), these would be sourced from Mount Isa.

Accurate records of persons being evacuated must be kept, this should include phone numbers where possible.

Consideration must be given to the weather conditions and the assembly point as there is minimal shelter at the airstrip.

Aircraft	Seating Capacity
Cessna 402	8
Cessna 404 Titan	10
Beechcraft Super King Air B200	10
Britten-Norman Islander	10
Cessna 208B Grand Caravan	11
Beechcraft 1900D	19

Shelter

The DDC may exercise the option to stand up the Mount Isa LDMG to manage the accommodation of evacuees. Given the small number of people that reside in Urandangi (50-60) it is not anticipated that accommodation would be difficult to source via commercial means in Mount Isa.

Transport from the airport to the accommodation will be organised by the DDCC using commercial transport companies.

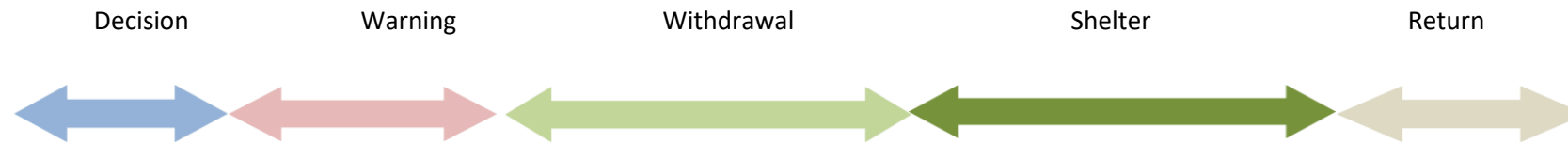
The DDMG will organise human social support for evacuees.

Return

The return phase will be developed by the LDMG as part of the recovery plan. The following factors will be taken into account:

- Damage to buildings
- Availability of essential service (water, sewage, power)
- Potential of further flooding
- Habitability of the dwelling

Planning timeline for the evacuation of Urandangi



Time:	Time:	Time:	Time:	Time:
Actions	Actions	Actions	Actions	Actions
12-24+ projections of river heights Number of pers to DDCC				
Considerations	Considerations	Considerations	Considerations	Considerations
Heights at Lake Nash. Backup. At risk persons. Don't evacuate at night.				