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Flood Emergency Management Plan

65 Telford Street, Virginia

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Basis of Report

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Acronyms and Abbreviations

Acronym	Meaning
1% AEP + CC	The 1% Annual Exceedance Probability design flood event, with inclusion of allowance for Climate Change effects including increased rainfall intensity and sea level rise.
AEP	Annual Exceedance Probability – the likelihood of occurrence of a flood of given size or larger occurring in any one year. AEP is expressed as a percentage (%).
AHD	Australian Height Datum – the adopted national height datum that generally relates to height in metres above mean sea level.
ALS	Aerial Laser Survey
ARR	Australian Rainfall and Runoff, 2019
BoM	Bureau of Meteorology
Catchment	The area of land draining to a site. It always relates to a particular location and may include the catchments of tributary streams as well as the main stream.
Climate Change	A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.
DFE	Design flood event – a flood of known magnitude or AEP. In the case of Brisbane City Council, this is the 1% AEP event
Discharge (Flow)	The rate of flow of water measured in terms of volume (measured in megalitres (ML) or cubic metres (m^3)) over time (measured in days or seconds), i.e., ML/d or m^3/s. It is to be distinguished from the speed or velocity of flow which is a measure of how fast the water is moving rather than how much is moving. (Note 1 m^3/s = 86.4 ML/d).
EAP	Emergency Action Plan
Effective Warning Time	The time available for flood-liable residents to defend their properties, if appropriate, and evacuate themselves and their possessions after having received a warning to do so.
FEMP	Flood Emergency Management Plan
FFL	Finished Floor Level
Flash Flooding	Sudden and unexpected flooding caused by sudden local heavy rainfall or rainfall in another area. Often defined as flooding which occurs within six (6) hours of the rainfall event.
Flood	The temporary inundation of land by expanses of water that overtop the natural or artificial banks of a watercourse i.e., a stream, creek, river, estuary, lake or dam.
Flood Awareness	An appreciation of the likely effects of flooding and knowledge of the relevant flood warning, response and evacuation procedures.
Flood Study	A study to determine and document the nature of flooding for an area. It usually includes a review of history of flooding; and for detailed studies an understanding of flood velocity, depth, frequency and extent.

Acronym	Meaning
Flood Warning	Flood warning involves the timely collection, interpretation and dissemination of flood information before and during a flood event to enable the community to respond effectively to the flood threat. The BoM is responsible for collecting rainfall and stream flow data, operating flood prediction models and preparing and issuing flood warnings to the media, key agencies and other bodies for non-flash flooding situations. Councils are responsible for disseminating flood warnings to the local community, local authorities and other local bodies for flash flooding and non-flash flooding situations.
Floodplain	Area of land adjacent to a creek, river, estuary, lake, dam or artificial channel which is subject to inundation by the Probable Maximum Flood (PMF).
Hydrology	The study of the rainfall and runoff process as it relates to the derivation of hydrographs for given floods.
Likelihood of Flooding	A quantitative or qualitative description of the likelihood that a specified event will occur. The likelihood of occurrence of flooding can be measured in terms of Annual Exceedance Probability (AEP).
Minor, Moderate and Major Flooding	BoM use the following definitions in flood warnings to give a general indication of the type of problems expected with a flood: *Minor Flooding:* causes inconvenience such as closing of minor roads and the submergence of low level bridges. *Moderate Flooding:* low-lying areas are inundated requiring removal of stock and/or evacuation of some houses. Main traffic bridges may be covered. *Major Flooding*: extensive rural areas and/or appreciable urban areas are flooded, with properties and towns isolated.
Mitigation	Any measure intended to reduce the severity of a natural hazard.
Natural Disaster	A natural hazard event that severely disrupts the fabric of a community and requires the intervention of the various levels of government to return the community to normality.
Natural Hazard	A naturally occurring situation or condition with the potential for loss or harm to the community, property or environment. The natural hazards addressed in the State Planning Policy are flood, bushfire and landslide.
Natural Hazard Management Area	An area that has been defined for the management of a natural hazard (flood, bushfire or landslide), but may not reflect the full extent of the area that may be affected by the hazard (e.g., land above the 1% AEP floodplain may flood during a larger flood event).
Nature of the Natural Hazard	The important characteristics of the hazard including the type of hazard and its severity.
Peak Discharge (Flow)	The maximum discharge occurring during a flood event.
Probability	A quantitative measure of the likelihood of occurrence of an event. It normally reflects the relative frequency of or expectation that an event will occur, and is usually expressed as a percentage, e.g., the probability of throwing a given number by rolling a die is 1 in 6, or 16.7%.
PMF	Probable Maximum Flood – the largest flood that could conceivably occur at a particular location. This flood defines the maximum extent of land liable to flooding. The PMF event may form the basis of evacuation planning and the identification of refuge areas.
PMP	Probable Maximum Precipitation

Acronym	Meaning
Recovery	The assisting of people and communities affected by emergencies to achieve a proper and effective level of functioning.
Response	The combating of emergencies and the provision of rescue and immediate relief services.
Risk	The chance of something happening that will have an impact upon objectives. It is measured in terms of consequence and likelihood.
Unacceptable Risk	A situation where people or property are exposed to a predictable hazard event that may result in serious injury, loss of life, failure of community infrastructure, or property damage that would make a dwelling unfit for habitation.
Stormwater Runoff	Inundation by local runoff. Stormwater flooding can be caused by local runoff exceeding the capacity of an urban stormwater drainage system or by the backwater effects of mainstream flooding causing the urban stormwater drainage system to overflow.
Waterway	A river, creek, stream or watercourse that may permanently or sometimes flow throughout the year.

1.0 INTRODUCTION

This Flood Emergency Management Plan (FEMP) has been prepared specifically for the proposed development (referred to as the "site") located at 65 Telford Street, Virginia. The site is described as Lots 44, 45 and 46 on RP26037. The site has an area of 5.27 hectares and is located within the Nundah Creek catchment. The site location and extent are shown on **Figure 1**.

Figure 1 Locality Plan



The site is to be reconfigured so that the lot boundaries are aligned north-south. The proposed lot boundaries are shown on **Figure 2**.

Figure 2 Lot Reconfiguration



The site is subject to flooding from Nundah Creek. Once the lot reconfiguration occurs, Brisbane City Council's Flood Data Requests team have stated that the flood levels for the new lots will range from 4.7 mAHD at the eastern end to 5.2 mAHD a the western end.

As the entire site will not be above these levels, and Telford Street is subject to inundation, in accordance with the requirements of Council's Planning Scheme, a flood emergency management plan is required.

A Flood Emergency Management Plan is proposed for the site to reduce flood risk in major flood events to an acceptable level. The focus of this Flood Emergency Management Plan is to effectively manage and mitigate the effects of flooding on the those on the site, before, during and after a flood event.

This plan seeks to minimise the effects of flooding and provide clear guidance on the management activities required to respond to a flood event. The FEMP was developed in accordance with the following documentation:

- Standards Australia, 2018, Risk Management – Guidelines, AS ISO 31000:2018;
- Australian Institute for Disaster Resilience (AIDR), 2017, Australian Disaster Resilience Handbook Collection Handbook 7: Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia;
- Australian Institute for Disaster Resilience (AIDR), 2015, Australian Disaster Resilience Handbook Collection Handbook 10: National Emergency Risk Assessment Guidelines; and
- Queensland Disaster Management Act 2003.

The FEMP is based on a risk management approach and outlines operations for effective management across all four phases of disaster management:

- Prevention – the taking of preventative measures to reduce the likelihood of an event occurring or, if an event occurs, to reduce the severity of the event.
- Preparedness – the taking of preparatory measures to ensure that, if an event occurs, communities, resources and services are able to cope with the effects of the event.
- Response – the taking of appropriate measures to respond to an event, including action taken and measures planned in anticipation of, during and immediately after an event to ensure that its effects are minimised and that persons affected by the event are given immediate relief and support.
- Recovery – the taking of appropriate measures to recover from an event, including action taken to support disaster-affected communities in the reconstruction of infrastructure, the restoration of emotional, social, economic and physical wellbeing, and the restoration of the environment.

In accordance with the documentation listed above, the Plan includes a risk assessment based on the following tasks:

- Identification of risk;
- Analysis of risk;
- Evaluation of risk; and
- Identification and evaluation of risk amelioration options

2.0 SITE DESCRIPTION

The site is located at 65 Telford Street, in the suburb of Virginia, within the boundaries of Brisbane City Council (BCC). The site covers three lots - Lots 44, 45 and 46 on RP26037, with an area of approximately 5.27 ha. It is bounded to the north by Telford Street, to the west by Ullswater Street, to the south by existing industrial development and to the east by Nundah Creek and the Virginia golf course.. The location of the site is shown in **Figure 1**.

The existing site varies in level from approximately 13.5 mAHD, in the middle of the site, to approximately 0.2 mAHD in the north-east corner of the site. The site generally slopes to the south-east. The topography of the area is shown on **Figure 3**.

The usage of the site consists of:

- a series of buildings and structures, including a site office, equipment maintenance sheds and workshop;
- a series of material, heavy machinery / equipment and vehicle storage zones that are tenanted;
- 4 secure access driveways – one to Ullswater Street and three to Telford Street; and
- car parking and a number of demountable offices used for training and staff lunchroom etc.

Figure 3 Topography



The watercourse north of the site is Zillman Waterholes. The watercourse south of the site is Downfall Creek. These two watercourses join east of the site to form Nundah Creek. The overall catchment is known as the Nundah Creek catchment.

3.0 NATURE OF FLOOD THREAT

3.1 Sources of Flooding

The site is regionally located in south-east Queensland, which experiences a sub-tropical seasonal rainfall pattern. Storm season typically runs from September to March, with the heaviest rainfall generally occurring in the summer months during a severe weather event.

The area is affected by creek flooding resulting from heavy rainfall in the Nundah Creek catchment.

Flood levels at the site are summarised in **Table 1**. These flood levels are extracted from the FloodWise report for the site. In addition, the levels provided by Council for the lots after reconfiguration are included in the table.

Table 1 Flood Levels Caused by Nundah Creek Flooding

Design Event	Flood Level at site (mAHD)	Flood Level at site (mAHD)		
		Flood level at Lot 44 (mAHD)	Flood level at Lot 45 (mAHD)	Flood level at Lot 46 (mAHD)
20%	4.7			
5%	4.9			
2%	5.1	4.6	4.9	5.1
1%	5.2	4.7	5.1	5.2
0.2%	4.8			

The critical duration for the events listed above is 2 hours. Warning times are therefore very short. The duration of inundation is also short.

It is important to note this behaviour is based on “design events” which statistically represent likely flood events for the catchment. However, as no two floods are the same, changes in rainfall intensity, rainfall location and catchment response may vary these typical results.

The nearest Bureau of Meteorology flood gauges to the site are located at Geebung, approximately 1.5 km upstream of the site on Downfall Creek (south west of the site) and on Zillman Waterholes at Frank Sleeman Park, approximately 1.5 km upstream of the site to the north west. The gauge locations are shown on **Figure 4**. Given the distance of the gauges from the site and the rapid nature of flooding in the catchment, it is considered that the gauges are of limited benefit for flood forecasting purposes. However, the gauge is useful for determining an appropriate time to return to the site.

Figure 4 Flood Gauge Locations



3.2 Site Access and Evacuation Route

There are currently four access points to the site. The level varies at each location, as does the flood level for the 1% AEP event. Based on Council mapping, access to the site is affected by Nundah Creek flooding for all events assessed in the Flood Study – although the access road is trafficable for the more frequent events (39% and 18% AEP).

Interrogation of Council's TUFLOW model results shows that for the storm scenarios investigated, the duration of isolation is less than 4 hours.

In order to evacuate the site, the preferred route to minimise the depth of flooding encountered and maximise evacuation time, is to travel west along Telford Street then south along the Sandgate Road service road and south along Sandgate Road. The lowest point along this route is adjacent to the site.

The preferred evacuation route is shown on **Figure 5**.

Figure 5 Evacuation Route



3.3 Flood Risk Summary

Based on the above information, the following can be concluded:

- The site is affected by creek flooding only. However, the site is not generally accessible during Nundah Creek floods more severe than the 18% AEP.
- One third of the site is subject to inundation during the 2% AEP event.

It is important to note this behaviour is based on “design events” which statistically represent likely flood events for the catchment. However, as no two floods are the same, changes in rainfall intensity, rainfall location and catchment response may occur, resulting in variations from these typical results.

4.0 SOURCES OF FLOOD DATA

4.1 Flood Model Data

Brisbane City Council has commissioned flood study reports including flood modelling for all major catchments and overland flow paths. This information can be obtained from Council and was used to assist in the preparation of this FEMP

Since this FEMP was developed based on the information available at the time of preparation, any updates to the relevant models may impact the extent and understanding of flood risks. Therefore, this FEMP should be reviewed and, if necessary, updated at such time that the Nundah Creek flood study report and/or model is updated.

4.2 Live Data

During an event, there are a number of agencies that provide live flood data which can assist in understanding the severity of the event. These sources are listed in **Table 2**.

Table 2 Available Flood Data and Resources

Agency/Service	Data type	Contact Details
Bureau of Meteorology (BoM)	Queensland Flood Warning Centre	http://www.bom.gov.au/qld/warnings/
	Stream Gauge – Downfall Creek at Geebung alert (540120)	https://www.bom.gov.au/fwo/IDQ65389/IDQ65389.540120.plt.shtml
	Stream Gauge – Zillman Waterholes at Frank Sleeman Park (540431)	https://www.bom.gov.au/fwo/IDQ65389/IDQ65389.540431.plt.shtml
	Recorded Voice Flood Warning System	Main Directory – 1900 955 360 Flood Warnings – 1300 659 219
	General Information	1300 659 219 www.bom.gov.au
	BoM Rainfall Radar	https://www.bom.gov.au/weather-and-climate/rain-radar-and-weather-maps
Brisbane City Council Disaster Management Centre	Disaster Management Centre Links to various information, including rainfall, river heights, road closures, etc.	https://www.brisbane.qld.gov.au/community-and-safety/community-safety/disasters-and-emergencies/emergency-dashboard

5.0 FLOOD RISK MANAGEMENT

5.1 Overview

The risk management assessment was conducted in accordance with *AS ISO 31000:2018 Risk Management – Guidelines*. This document deals specifically with the steps required in determining the flood risk associated with a particular situation.

The risk assessment was based on the following:

- Risk Identification (refer **Table 6**);
- Risk Analysis (refer **Table 7**);
- Risk Evaluation (refer **Table 8**); and
- Identification and evaluation of treatment options (refer **Table 9**).

Based on the use of the site for industrial purposes, including industrial related education, the primary risks associated with the site relate to people, vehicles, and damage to infrastructure and furniture/stored goods. During a flood event, there is the risk that parts of the buildings/vehciles may be inundated.

Risk management measures suitable for the site include:

- a flood warning sign at the entrance/exit to the site;
- installation of a flood warning alarm (similar to a fire alarm); and
- implementation of an emergency action plan.

The following tables provide further detail on the identification, analysis, evaluation and assessment of the risks associated with the site.

5.2 Methodology

Risk assessment involves considering the sources of risk, their consequence and the likelihood of the defined incident occurring. Likelihood and consequences are combined to determine the level of risk.

Risk criteria were therefore developed to evaluate the risks, by differentiating between the likelihood of the risk and the consequence of the event. The likelihood is defined as a qualitative description of probability and frequency. Consequence is defined as the outcome of the event expressed in terms of death, injury, loss or some form of disadvantage.

The consequence and likelihood levels employed in the risk analysis were drawn from Table 3 and Table 2 respectively of the National Emergency Risk Assessment Guidelines (Emergency Management Australia, October 2010). The adopted consequence and likelihood levels are listed in **Table 3** and **Table 4** below. It can be noted that the consequence and likelihood levels nominated for each identified risk relate to conditions without management measures in place.

Table 3 Consequence Levels

Level	Descriptor	Qualitative Description
1	Insignificant	• No injuries • Little disruption to the community • No environmental impact detected
2	Minor	• Small number of injuries • Some displacement of people for a short period of time • Small impact on the environment
3	Moderate	• Medical treatment required • Displacement of people for a short period of time • Short term environmental impact; widespread inconveniences
4	Major	• Extensive injuries and some fatalities • Large number of people displaced • Significant environmental impact at a local scale
5	Catastrophic	• Large number of injuries and fatalities • Widespread displacement of people • Significant environmental impact at a regional scale

Table 4 Qualitative Scale of Likelihood

Level	Descriptor	Qualitative Description
A	Almost Certain	The event is expected to occur at least once a year
B	Likely	The event will probably occur on average once every 10 years
C	Possible	The event may occur on average once per 100 years
D	Unlikely	The event could occur once on average once per 1,000 years
E	Rare	The event could only occur once on average once per 10,000 years

The level of risk depends on the likelihood of the risk occurring, and its consequence. The risk criteria employed for this assessment, which was drawn from the ranking criteria presented in the Safety in Design (Consult Australia, August 2010) (p10) are shown in **Table 5**.

Table 5 Risk Classification Matrix

Likelihood	Consequence				
	1 (Insignificant)	2 (Minor)	3 (Moderate)	4 (Major)	5 (Catastrophic)
A (Almost Certain)	Medium	High	Extreme	Extreme	Extreme
B (Likely)	Medium	Medium	High	Extreme	Extreme
C (Possible)	Low	Medium	Medium	High	Extreme
D (Unlikely)	Low	Low	Medium	Medium	High
E (Rare)	Low	Low	Low	Medium	Medium

5.3 Assessment

Based on this information, the risks were assessed and categorised for the site as detailed in the following tables (Table 6, Table 7 and Table 8).

Table 6 Risk Identification

Vulnerable Element	Risk	Consequence
People	People may try to wade through deep floodwaters.	People may be injured or drowned.
People	People may be trapped in buildings by floodwaters.	People may be injured or drowned.
Vehicles	Inundation and potential loss of vehicles.	Potential for damage to or loss of vehicles.
Access	Subject site becomes isolated for vehicular traffic for events greater than the 18% AEP Nundah Creek event.	Isolation of people and vehicles.
Buildings	Damage to buildings (including furniture, fittings, stored goods and equipment) for extreme flood events.	Potential for damage of furniture and fittings, damage of goods stored in building.
Emergency Services	Difficulty in accessing the site and rescuing people if road access becomes significantly inundated. Emergency vehicles cannot access inundated areas if the depth of inundation is more than approximately 500 mm.	Potential inability to reach sick or injured people requiring the attendance of emergency services.

Table 7 Risk Analysis

Vulnerable Element	Risk	Likelihood Rating	Consequence Rating	Risk Rating
People	People may try to wade through deep floodwaters.	Possible	Moderate	Medium
People	People may be trapped in buildings by floodwaters.	Possible	Moderate	Medium
Vehicles	Inundation and potential loss of vehicles.	Unlikely	Moderate	Medium
Access	Subject site becomes isolated for vehicular traffic for events greater than the 18% AEP Nundah Creek event.	Likely	Moderate	High
Buildings	Damage to buildings (including furniture, fittings, stored goods and equipment) for extreme flood events.	Likely	Minor	Medium
Emergency Services	Difficulty in accessing the site and rescuing people if road access becomes significantly inundated. Emergency vehicles cannot access inundated areas if the depth of inundation is more than approximately 500 mm.	Possible	Moderate	Medium

Table 8 Risk Evaluation

Vulnerable Element	Risk	Risk Rating	Risk Evaluation	Risk Priority
People	People may try to wade through deep floodwaters.	Medium	Low depth/velocity conditions expected for local events. Duration of inundation less than 4 hours.	Medium Priority
People	People may be trapped in buildings by floodwaters.	Medium	Low depth/velocity conditions expected for local events. Duration of inundation less than 4 hours.	Medium Priority
Vehicles	Inundation and potential loss of vehicles.	Medium	Inundation of vehicles may occur for events greater than the 1% AEP. However some high ground is available for vehicles.	Low Priority
Access	Subject site becomes isolated for vehicular traffic for events greater than the 18% AEP Nundah Creek event.	High	A small number of people are located on the site. Evacuation is recommended.	Medium Priority
Buildings	Damage to buildings (including furniture, fittings, stored goods and equipment) for extreme flood events.	Medium	Bulidings are above the 1% AEP flood level. Damage could occur for events more severe than this.	Low Priority
Emergency Services	Difficulty in accessing the site and rescuing people if road access becomes significantly inundated. Emergency vehicles cannot access inundated areas if the depth of inundation is more than approximately 500 mm.	Medium	It is unlikely that emergency vehicles would need to access the site during a flood event.	Low Priority

Table 9 Identification and Evaluation of Treatment Options

Vulnerable Element	Risk	Risk Priority	Treatment Option	Evaluation of Treatment Option
People	People may try to wade through deep floodwaters.	Medium Priority	Signage to be displayed at the access points for the building to ensure users are aware of the flood immunity of surrounding roads. Preparation of an action plan to be implemented in the event of flooding.	The adoption of a flood emergency management plan with a clear strategy will minimise the potential for people to be wading through deep water.
People	People may be trapped in buildings by floodwaters.	Medium Priority	As above.	The adoption of a flood emergency management plan with a clear strategy will minimise the potential for people to be wading through deep water.
Vehicles	Inundation and potential loss of vehicles.	Low Priority	As above.	Sufficient warning time is available to enable vehicles to be moved to higher ground or to leave the site.
Access	Subject site becomes isolated for vehicular traffic for events greater than the 18% AEP Nundah Creek event.	Medium Priority	As above.	The adoption of a flood emergency management plan with a clear strategy will minimise the potential for people to be entering deep water.
Buildings	Damage to buildings (including furniture, fittings, stored goods and equipment) for extreme flood events.	Low Priority	As above	Damage to buildings in extreme events is to be accepted.
Emergency Services	Difficulty in accessing the site and rescuing people if road access becomes significantly inundated. Emergency vehicles cannot access inundated areas if the depth of inundation is more than approximately 500 mm.	Low Priority	Notification of potential for flooding and isolation. All those on site to be made aware of the recommendation to evacuate site prior to an extreme flood event. Preparation of an action plan to be implemented in the event of flooding.	The adoption of an evacuation strategy will minimise the need for emergency services to access the site.

6.0 FLOOD EMERGENCY MANAGEMENT

6.1 Management Approach

As noted above, there are gauges located approximately 1.5 km upstream of the site on both Downfall Creek and Zillman Waterholes. However, given the rapid nature of inundation of the area, these gauges are not considered to be useful for setting a trigger for evacuation.

Whilst sufficient area is available on site for safe refuge up to the 1% AEP event, given the limited number of people typically on the site at any given time, and the rapid nature of flooding in the area, the preferred option for flood emergency management is to evacuate the site. Whilst the chance of an event more extreme than the 1% AEP event is remote, if such an event were to occur and evacuation had not occurred, there would be no means of escape.

As there are a limited number of people on site, it is recommended that evacuation of the site occur at least 2 hours prior to the Bureau of Meteorology forecasts a severe storm to affect the suburb of Virginia. It is acknowledged that this is likely to result in evacuations when no flooding eventuates. However this is considered necessary as there is no reliable trigger for effective evacuation.

It is recommended that signage be installed at the entry/exits from the site advising that Telford Street and Ullswater Street are subject to flooding and that floodwaters should not be entered. Example wording is: "*Surrounding streets are subject to flooding. Do not enter floodwaters.*"

6.2 Emergency Action Plan

An Emergency Action Plan (EAP) provides a road map of activities based on the risks and consequences of the event. The plan should appropriately balance the need for site operations and prioritising the safety of the residents.

The EAP follows the four levels of action described in the Queensland Disaster Management Arrangements (2018). The levels are listed in **Table 10**.

Table 10 Emergency Action Plan Levels of Activation

Level of Activation	Definition
Alert	A heightened level of vigilance and preparedness due to the possibility of an event in the area of responsibility. Some action may be required and the situation should be monitored by residents capable of assessing and preparing for the potential threat.
Lean Forward	An operational state prior to 'stand up' characterised by a heightened level of situational awareness of a disaster event (either current or impending) and a state of operational readiness. Disaster coordination centres are on stand-by, prepared but not activated.
Stand up	The operational state following 'lean forward' whereby resources are mobilised, personnel are activated and operational activities commenced. Disaster coordination centres are activated.
Stand down	Stand down Transition from responding to an event back to normal core business and/or recovery operations. There is no longer a requirement to respond to the event and the threat is no longer present.

The triggers for emergency action are shown in **Table 11**. It should be noted that the action plan has been based on typical catchment behaviour and response. The plan cannot account for all risks that arise. Situational awareness is required and information provided by authorities should always be prioritised and appropriate action taken.

Table 11 Triggers for Emergency Action

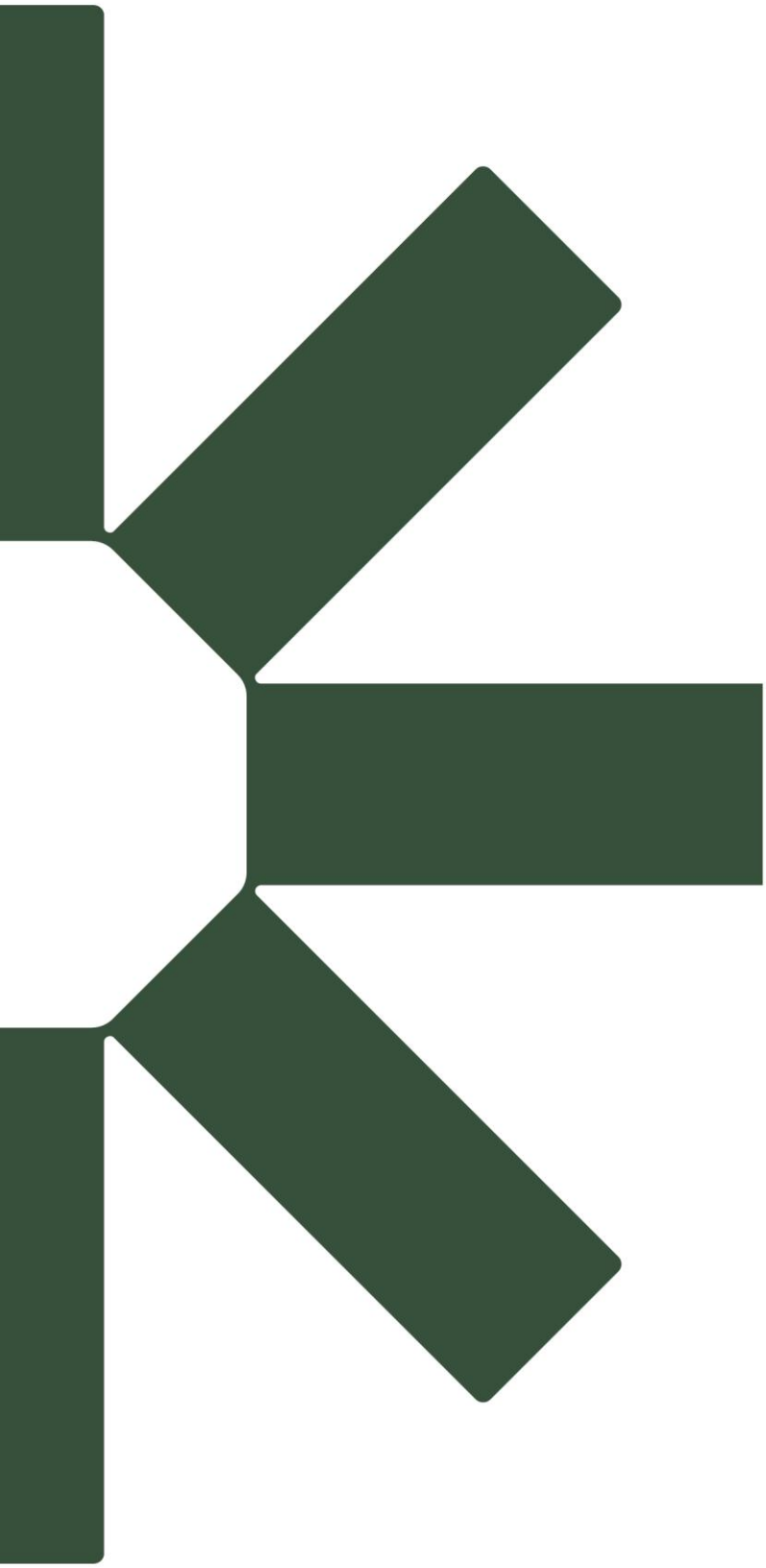
Level of Activation	Trigger	Emergency Classification	Response
Alert	At all times, particularly during storm season (October – February)	Low Risk	Monitor flood forecasts and warnings issued by BoM and Brisbane City Council.
Lean Forward	October - February	Low Risk	Continue to monitor extreme weather warnings issued by BoM.
Stand up	BoM forecasts extreme storm	Moderate Risk	Evacuation to occur at least two hours before storm is forecast to affect Virginia.
Stand down	Storm has passed and no inundation of surrounding streets is occurring.	Low Risk	Commence recovery operations.

7.0 RECOVERY

Once the flood threat has passed and floodwater receded, it is important that the site is inspected for damage if inundation has occurred. In addition to the expected clean up required to meet Occupation Health and Safety requirements, the following activities should be carried out as a minimum.

- Hazard assessment undertaken by residents, noting mitigating actions to prevent slips, trips, falls, injury from sharp debris, protection from venomous animals and contaminated waste and sediment. Persons undertaking the recovery assessment should be wearing appropriate personal protective equipment (PPE).
- Inspection of all previously inundated areas should be carried out. Remove debris and check for damage to fences, driveways, pipes, vegetation etc.
- Certification by an appropriately qualified electrician that no risk of electrocution is possible.

Following the conclusion of the event, all processes including this plan should be reviewed and altered where necessary.



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