## STATEMENT OF CHRISTOPHER JOHN ARNOLD

I, Christopher John ARNOLD of oath as follows:

in the State of Queensland, state on

## POSITION AND QUALIFICATIONS

- I am the Executive General Manager, Network Performance for ENERGEX Limited (ENERGEX).
- 2. In this role I am responsible for the asset management function within ENERGEX. This includes accountability for Network Standards, Network Maintenance Strategies and Plans and Capital Strategies and Plans. The role also includes accountability for Corporate Safety, Environmental Management, Network Property Acquisition, Network Data, Network Demand and Risk Management.
- 3. From 4 January to 17 January 2011 I was the acting CEO of ENERGEX while the CEO, Mr Terry Effeney was overseas.
- I have a Bachelor or Engineering (Electrical) from the Darling Downs Institute of Advanced Education and a Post Graduate Diploma in Business Management from Deakin University.

#### I am also:

- (a) a Corporate member of the Institute of Engineers Australia;
- (b) a Chartered Professional Engineer;
- (c) a Registered Professional Engineer, Queensland; and
- (d) a Graduate member of the Australian Institute of Company Directors.

#### **ENERGEX'S BUSINESS**

- 5. ENERGEX is a Government Owned Corporation (**GOC**) established under the *Government Owned Corporations Act 1993* (Qld). It is an electricity entity as defined in the *Electricity Act 1994* (Qld). <sup>1</sup>
- 6. ENERGEX is responsible for the electricity distribution network throughout South East Queensland, including the regions of Brisbane, Ipswich, Gympie and the Lockyer Valley which were affected by the flood events. A map of ENERGEX's coverage is attached and marked CJA-1.

## **ENERGEX'S NETWORK**

- 7. ENERGEX supplies electricity to a population of more than 2.8 million people. It owns the electrical distribution infrastructure required to supply electricity to these customers. It employs approximately 3,800 employees.
- 8. ENERGEX is responsible for the distribution portion of the network between the power station and the customer.
- It takes supply of electricity from Powerlink Queensland at various Connection Points throughout the network and distributes this via a Sub-Transmission Network and Distribution Network to customers in South East Queensland.

<sup>&</sup>lt;sup>1</sup> Section 21, Electricity Act 1994

- 10. Zone Substations and Distribution Substations then convert the voltages as necessary to minimise network losses and meet customers' voltage requirements.
- 11. Explanations of the key features of the ENERGEX electricity network are as follows:
  - (a) **Transmission Network:** This is the electricity supply network which transmits power from an electricity generator to Bulk Supply Substations. The transmission network is controlled by Powerlink Queensland (**Powerlink**). ENERGEX is not responsible for this part of the network.
  - (b) Connection Point: This is an agreed point of supply between ENERGEX and Powerlink. A Connection Point is generally located at a Powerlink Transmission Substation and converts the electricity from 275kV to 132kV, 110kV or 33kV.
  - (c) **Bulk Supply Substation:** These assets are usually jointly owned by ENERGEX and Powerlink. The equipment provides control and voltage transformation from the Transmission Network to the Sub-Transmission Network. It is also referred to as a Bulk Supply Point.
  - (d) Sub-Transmission Network: This is the term used to describe the electricity supply network which operates and supplies Zone Substations or customer connection points at nominal voltages of 132kV or 110kV and 33kV. There are 132kV or 110kV Feeders that supply power from a Powerlink Transmission Substation to a Bulk Supply Substation and 33kV Feeders that supply power from a Bulk Supply Substation to a Zone Substation.
  - (e) **Zone Substation:** This is an asset owned by ENERGEX which provides control and voltage transformation from the Sub-Transmission or Transmission Network to the Distribution Network.
  - (f) **Distribution Network:** This is the term used to describe ENERGEX's electricity supply network. It supplies power from the Zone Substations to Transformers or customer connection points via 11kV Feeders (or where so designated, a 33kV Feeder).

The Feeders can be overhead lines, underground cables or a combination of both. There can be up to ten or more 11kV Feeders connected to each Zone Substation which transmit electricity to pole or pad mount Transformers.

There is also a network of Feeders in each suburb which supply power to Transformers. Each Feeder has a number of Transformers connected to it. One 11kV Feeder supplies power to between 200 and approximately 4000 customers. In the case of CBD or major customers the situation will be different and one feeder might supply a single customer.

- (g) **Distribution Substation/Transformer**: This is an ENERGEX asset that provides control and voltage transformation from the Distribution Network to the Low Voltage (415/240 V) Network. Generally, a transformer will typically supply 100 to 200 customers with electricity.
- (h) Low Voltage Network: Customers are supplied with power to a primary fuse via low voltage service on the Low Voltage Network with the closest point of interruption being the Primary Fuse, which is generally mounted at the property boundary.

12. A diagram demonstrating how the elements of the ENERGEX electricity network deliver supply to the customer is attached and marked **CJA-2**.

## **ENERGEX'S OBJECTIVES DURING THE FLOOD EVENTS**

- On Monday 10 January 2011, the catastrophic events in Toowoomba and the Lockyer Valley compounded what was already a significant flood in the Upper Brisbane Valley resulting in wide spread flooding throughout South East Queensland. Further rainfall in the Brisbane Valley resulted in a major flood of the Brisbane River (flood events).
- 14. The flood waters caused widespread damage and presented an imposing and unprecedented threat to the safe supply of electricity throughout South East Queensland.
- 15. As a result, ENERGEX's paramount priority at all times during the flood events was to ensure it took whatever steps were necessary to protect the safety of the community and ENERGEX workers.
- 16. Once it was safe to do so, ENERGEX's objective was to restore power to the community as quickly as possible.

#### **SAFETY OBJECTIVES**

## **Pre-emptive Disconnection of Supply**

- 17. During the flood events power supply was disconnected by ENERGEX to:
  - (a) approximately 10 major commercial and industrial substations in the CBD in preparation for the rising water;
  - (b) around 120 feeder systems throughout Brisbane and Ipswich.
- 18. ENERGEX also removed as much equipment from the substations as possible in order to minimise damage to those substations which were at risk from the flood water.
- 19. The decision to pre-emptively disconnect supply was driven by two factors:
  - (a) the need to prioritise the safety of people above all other factors; and
  - (b) to assist in the timely reconnection of supply by reducing the potential for damage to assets.
- 20. In the 1974 flood event my understanding is that there was at least one electricity related fatality. Irrespective of the number, such a flood event poses a high risk to the public if electricity lines in the vicinity of water are left live. ENERGEX's primary and overarching objective during the flood events was to ensure this did not happen.
- 21. Water provides a path for electricity. As a result, when electrical equipment is submerged short circuits will occur. This has the potential to damage equipment so it becomes unserviceable and, in some cases, cause the equipment to fail explosively risking injury to staff or other people nearby
- 22. It is also important from a reconnection perspective that power is disconnected to allow sufficient time for ENERGEX crews to remove critical plant prior to inundation.
- 23. This allows a quicker re-connection process because critical parts of the assets (for example, relays, batteries and other critical items) do not become damaged by water and can be reinserted once the water subsides.

## Implementation of Decision to Pre-emptively Disconnect Supply

- 24. On 11 January 2011 the predicted flood levels for the Brisbane River were revised upwards throughout the day.
- 25. ENERGEX primarily relied upon the Brisbane City Council (**BCC**) Local Disaster Centre Situation Reports and maps provided by BCC's Spatial Information Services to assess the areas of the ENERGEX Distribution Network at risk of inundation from the flood waters. These reports were released by the BCC on a regular basis. ENERGEX overlaid the BCC flood information onto its own maps of the electrical network.
- 26. The Bureau of Meteorology (**BoM**) also provided information regarding flood heights. ENERGEX used this information to corroborate the predictions it had received from the BCC to assist in determining which ENERGEX assets needed to be pre-emptively disconnected from supply.
- 27. ENERGEX prepared plans on the basis that disconnection of supply might become necessary in some areas. The objective was to switch power off **before** the inundation of ENERGEX assets occurred.
- 28. On the afternoon of Tuesday 11 January 2011 the information ENERGEX received from the BCC was that:

'Based on the likely Wivenhoe release strategy (6,400 m³/s this evening 8:00pm), the predicted peak flood height at the Brisbane City Gauge is between 5 m AHD and 5.5 m AHD, (10,500 m3/s). The timing of this predicted peak is 3AM Thursday morning 13/01/11. This flood event will be similar to the 1974 flood.'

A copy of this information is attached and marked CJA-3.

- 29. On the basis of these predictions, ENERGEX's Corporate Emergency Response team made the decision to pre-emptively interrupt supply to potentially impacted areas. The decision was made in accordance with ENERGEX's right under section 40E of the *Electricity Act 1994* (Qld) and clause 12.2 of the Standard Connection Contract contained in the Electricity Industry Code made under the *Electricity Act 1994* (Qld).
- 30. ENERGEX then implemented its plans to start evacuating equipment and isolating supply from the Brisbane CBD and other areas on the evening of 11 January 2011. A media release went to the public at 5.00pm on 11 January 2011 indicating interruptions would start from 7.00am the following morning. A copy of this media release is attached and marked CJA-4.
- 31. The decision was also communicated by ENERGEX on 12 January 2011 to the relevant stakeholders at the first meeting of the State Disaster Management Group (**SDMG**) that ENERGEX was invited to attend. I was in attendance at this meeting. At the SDMG meeting, the Police and BCC advised ENERGEX that they would coordinate evacuation and needed time prior to disconnection to do so.
- 32. On behalf of ENERGEX, I advised the SDMG meeting in words to the effect that:
  - (a) ENERGEX would provide notice of disconnection where feasible but if water was coming into a building substation then ENERGEX would have no choice but to switch off power immediately; and

- (b) any undue delays in disconnecting power would cause excessive damage to ENERGEX equipment resulting in cost and extensive delays in restoration.
- 33. Agreement was reached at the SDMG for the shutdowns to proceed and the process (including a priority plan for disconnection) commenced soon afterwards on Wednesday morning.

## The Lockyer Valley

- 34. The Lockyer Valley flash flooding event was an extreme event which occurred without warning.
- 35. ENERGEX was not able to pre-emptively disconnect supply in relation to the Lockyer Valley event because water inundated the Lockyer Valley area with no warning and great force. As a result, switches controlling a number of 33kV and 11kV feeders automatically tripped.
- Where automatic switches are tripped (as opposed to being pre-emptively disconnected) the time it takes to repair the equipment and reconnect supply can be greater.
- 37. Importantly, however, the automatic switches worked as they should in an emergency situation. There were no electricity related injuries or deaths in the Lockyer Valley as a result of the devastating flash flooding in that area. This result is attributable to all of the automatic switches operating in accordance with their design.

#### **Central Business District**

- 38. CBD substations and buildings that were required to be shut down were generally located below ground level and were subject to inundation.
- 39. In addition there were many transformer sites that supply individual buildings or street shops and offices that were also shut down due to the risk of water ingress or inspection after the flooding. Some supply was also interrupted to buildings where that supply connected to a flooded building.

#### Milton

- 40. Around noon on Wednesday 12 January 2011, flood waters impacted on Suncorp Stadium at the Castlemaine Street side. The supply sub-station at that location became submerged by the flood waters. When the flood waters reached the 11kV terminals of the Ring Main Unit (RMU), there was an explosive electrical fault. ENERGEX did not have time to pre-emptively disconnect this substation, as its resources were already committed to other competing priorities at that time.
- The flood waters also damaged the low voltage switchboard supplied by the distribution substation, rendering the power supply and fire protection system on the Castlemaine street side of the stadium out of service.
- 42. The incident demonstrates why pre-emptive supply disconnection is far preferable where this can be achieved. However, it also demonstrates that, although not the preferred position, ENERGEX's automatic safety switches operated as they should in terms of shutting off supply to the sub-station.

## **Ipswich and Brisbane Suburbs**

43. The majority of premises pre-emptively disconnected were in the Ipswich and Brisbane suburbs. The customers disconnected were disconnected on the basis of flood

predictions of 5.5 m or above late on Tuesday 11 January. All electricity assets likely to be inundated (or those connected to assets likely to be inundated) were disconnected.

#### **ENERGEX ASSETS AND INFRASTRUCTURE**

One of the key challenges for ENERGEX arose because the flood events seriously damaged a significant amount of ENERGEX's electricity assets in South East Queensland.

## Western Region – Withcott and Lockyer Valley

- 45. The worst of the damage affected the ENERGEX network in the Lockyer Valley which is largely an overhead system.
- The most significant damage to ENERGEX assets in this region occurred in the areas of Murphy's Creek, Helidon, Grantham, Lake Clarendon, Spring Creek and Carpendale.
- 47. Due to the velocity of the water, some lines crossing or near watercourses went under water or were washed away. Ground-mounted switchgear and transformers were also inundated.
- 48. The initial impact of the water surge on the afternoon of Monday 10 January 2011 affected the main feeder lines in the region outlined in the table below. This resulted in approximately 5,000 customers in this area losing power.
- 49. In total, in the Lockyer Valley region alone approximately:
  - (a) 31 poles had to be replaced;
  - (b) 18 transformers had to be replaced; and
  - (c) 36km of 11kV line and 650m of 415V electrical lines had to be reinstalled.

## Zone substation impacts

- 50. ENERGEX's zone sub-stations provide control and voltage to the Distribution Network. Damage to a zone substation means that up to approximately 20,000 customers who receive electricity through that zone substation will be affected.
- 51. ENERGEX records indicate that some twenty-five zone substations throughout South East Queensland lost supply during the flood resulting in a peak of approximately 150, 000 customers without supply.
- 52. The majority of substations were impacted by the loss of incoming 33kV supply rather than inundation or damage.
- 53. Ten zone substations (affecting approximately 53,000 customers) in the Tennyson Bulk Supply Zone were interrupted for several hours late on Wednesday 12 January 2011 as a result of manual interruption of the Powerlink Queensland bulk supply at Rocklea.
- 54. Supply to eight substations, was directly attributable to flood damage to incoming supply circuits or significant damage on all outgoing circuits.
- Although separate to the flood events, three other substations (Marburg, Bethania and Karrabin) were also interrupted for short periods during storms or other network events on either Monday 17 January 2011, Tuesday 18 January 2011 and Wednesday 19 January 2011.

#### **Central Business District Distribution Substations**

- 56. Two types of CBD distribution substations were affected during the flood events:
  - (a) those that supplied the immediate building itself; and
  - (b) major substations that connect a number of main feeder routes within the CBD supply network.
- 57. Many CBD distribution substations are located below ground level and were subject to inundation by flood water.
- 58. In addition, there were many transformer sites that supply individual buildings or street shops and offices in the CBD that had to be shut down due to the risk of inundation by flood water or where these sites connected to inundated substations. For the reasons explained above, ENERGEX made a decision to pre-emptively interrupt supply at those locations.
- 59. Other buildings experienced loss-of-supply faults on the 'customer side' of the supply transformers.

# Impacts on the ENERGEX Distribution Network (including Brisbane, Ipswich and the Lockyer Valley)

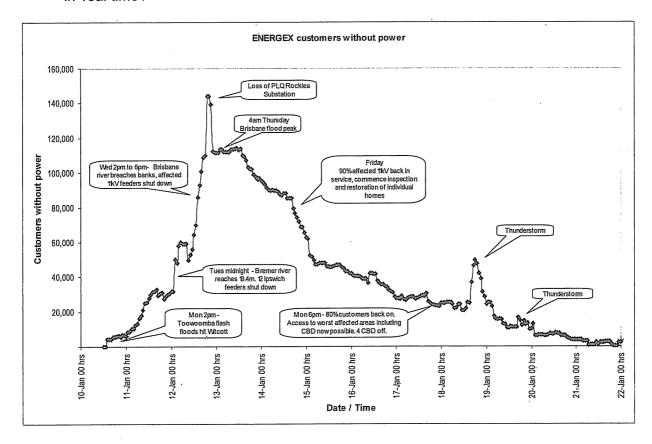
- 60. In addition to the damage done to sub-stations, other parts of the ENERGEX distribution network suffered widespread damage. Specifically, as at 1 February 2011:
  - (a) Ninety-five poles had to be replaced, most in the western region (including both the Lockyer Valley and the Brisbane Valley).
  - (b) A total of 101 pad-mounted and ground distribution transformers had to be removed and replaced, with the removed units being returned to Banyo for refurbishment.
  - (c) Ninety-eight kilometres of overhead line required replacement.
  - (d) Numerous low voltage pillars and other apparatus were cleaned and returned to service.
  - (e) High Voltage and Low Voltage switchgear from a number of pad-mounted subs required extensive repairs and replacement.
  - (f) As at 1 February 2011, 3,645 water-damaged electricity meters have been replaced with current-standard electronic units.
- The table below contains a summary of the total items replaced due to flood damage as at 1 February 2011:

Equipment	Number
Distribution Transformers	101
Switch Fuse gear	55
Substation relays	55
Watt hour meters	3645

Poles	95
Overhead Cable	98 km

#### **ENERGEX OUTAGE AND RECONNECTION DATA**

- The flood events resulted in interruption of supply to over 300,000 customers in Ipswich and Brisbane. However supply was able to be restored to approximately 90% of the high voltage feeders (at the substations) by the end of 15 January 2011.
- 63. The chart below represents ENERGEX's estimate of the customers without supply throughout the flood events. There may be some minor discrepancies between the data displayed in this chart and estimates provided by ENERGEX in media releases during the flood events itself. Any differences in the data result from the fact that these flood events were unique within the ENERGEX network in terms of the widespread nature of outages and the challenges involved in reporting and updating any changes to outages in 'real time'.



Tables setting out the location and relevant substations and the outage and restoration dates for all ENERGEX sub-stations in South East Queensland are attached and marked CJA-5. This data relates to network restoration (rather than customer restoration). It is difficult to give precise customer restoration times as there are a number of different variables relating to when individual customers were restored (including for example whether their premises was flood affected and therefore unable to be safely reconnected).

#### PREPARATION FOR THE FLOOD EVENTS

Despite the challenges it faced, ENERGEX was well prepared for the flood events and the emergency that followed as a result of its:

- (a) Summer Preparedness Plan;
- (b) Flood Risk Management Plan (produced in preparation for the 2010/11 summer);
- (c) Business Continuity Plans; and
- (d) the development of relevant work practices and instructions as the flood event evolved.
- 66. The early preparation and initiation of these plans and practices allowed ENERGEX to prioritise safety as well as continue on a 'business as usual basis' throughout the flood events, notwithstanding the devastation caused by the flood waters.

#### **SUMMER PREPAREDNESS PLAN**

- 67. ENERGEX undertakes detailed preparation and planning for each summer season in South East Queensland prior to 31 August each year. The preparation is recorded in its Summer Preparedness Plan in accordance with the requirements under the Electricity Industry Code pursuant to the *Electricity Act 1994* (Qld).
- 68. In planning for the 2010/2011 summer season ENERGEX focussed on the following four key areas:
  - (a) significantly increasing the capacity and security of the network to meet high summer energy and peak demand;
  - (b) improvements to the resilience of the network in times of severe weather;
  - (c) improvements to ENERGEX's operational response to network emergencies;
  - (d) ensuring the provision of timely and accurate communications with customers and media in relation to network emergencies.
- 69. In particular, the planning undertaken at items (b) to (d) above meant ENERGEX was well equipped to manage its emergency response to the flood events.
- 70. The planning undertaken and the outcome achieved when the flood events occurred is outlined below:
  - (a) ENERGEX reviewed its Corporate Emergency Management Plan (CEMP) and conducted simulations of the processes provided by it.

The CEMP was central to ENERGEX's management of the flood crisis and because of the summer preparedness planning the CEMP was activated quickly and effectively on 11 January 2011 (a further explanation of the activation of the CEMP is outlined below).

The simulation to test the CEMP was conducted in the early part of summer with 2 exercises held on 28 and 29 September 2010. There were also other tests conducted at regular intervals including in relation to standby roles and trials of systems.

(b) ENERGEX obtained access to a range of weather forecasting services to assist it in preparing for weather events.

ENERGEX received forecasting data from the Bureau of Meteorology (**BoM**). Together with the flood maps provided by the Brisbane City Council in January

- 2011, this data assisted ENERGEX to make measured decisions on the potential impact of the flood events and prepare the necessary organisational response.
- (c) Training schedules for all emergency related activities were prepared in advance of the 2010/2011 summer season to ensure that ENERGEX personnel were instructed about safe driving and working conditions during a potential flood event.
- (d) ENERGEX ensured that the Control and Contact Centres were able to be relocated to disaster recovery sites.

ENERGEX maintains a fully operational Control Centre at Victoria Park and Contact Centre at Warry Street in Spring Hill. It ensures that there is infrastructure at the disaster recovery sites that mean alternate Control and Contact Centres can be up and running quickly.

A closure of the Newstead site subsequently became necessary during the flood events. The summer preparedness planning meant that this was able to be achieved smoothly.

(e) Maintained its minimum capability to respond to up to 100,000 customer calls per hour via its processes in the Contact Centre.

The Contact Centre was able to manage the increased call volume during the flood events without the need to rely on additional staffing of the Contact Centre external to ENERGEX.

(f) ENERGEX ensured it had a proactive, multi-faceted communications strategy.

This preparation was invaluable during the flood events where communicating with customers, industry stakeholders, Government and staff was essential to protect the safety of the community and minimise damage to assets and disconnect and reconnect assets.

## FLOOD RISK MANAGEMENT PLANS

- 71. As part of the ongoing and proactive Summer Preparedness Program ENERGEX developed a Flood Risk Management Plan 2010/2011 (**the Flood Plan**) during 2010 when it became aware of the incoming La Nina weather system. The Flood Plan applied to Brisbane and Ipswich. A copy of the Flood Plan is attached and marked **CJA-6**.
- 72. A Gympie specific Flood Plan had been in operation since 1995/96 because the Mary River in Gympie is prone to flooding.

## Flood Plan

- 73. The Flood Plan was developed in 2010 as part of ENERGEX's Summer Preparedness Plan. During the flood events the Flood Plan assisted ENERGEX to:
  - (a) identify which assets were at risk of inundation;
  - (b) develop asset management procedures based on this risk;
  - (c) coordinate its network operations response;
  - (d) liaise effectively with other stakeholders; and

- (e) determine how and what information needed to be provided to customers related to flood risks and public safety.
- 74. The Flood Plan also contains a detailed plan for ENERGEX's communication internally, with Emergency Services (including the Police, SES and local disaster coordinators) and with the public during a flood event.
- 75. The key objectives of ENERGEX Flood Plan are:
  - (a) Safety at all times to public, employees and other emergency services employees.
  - (b) A coordinated response to an emergency.
  - (c) Speedy restoration of adequate supply to customers.
  - (d) Timely restoration of the network to normal operating conditions.
  - (e) Resumption of normal operations as quickly as possible.
- 76. The Flood Plan was activated on Sunday 9 January 2011. The implementation of the plan changed frequently over the following 48 hour period particularly when ENERGEX issued a Purple Alert on Tuesday 11 January 2011.
- 77. During the flood events the Flood Plan requires information to be readily available about 11kV Feeder switching locations. This information (together with flood maps provided by the Brisbane City Council) assisted ENERGEX to make decisions about where and when to interrupt supply.
- 78. The Flood Plan requires ENERGEX to consider the following when contemplating disconnections:
  - (a) What is the earliest stage to interrupt supply to maximise safety and plant protection yet at the same time minimising inconvenience to customers?
  - (b) Selection of the appropriate isolation points to minimise the extent of the interruptions and avoid interrupting supply to unaffected homes and businesses.
- 79. In preparation for the next summer season, ENERGEX intends to have the Flood Plan endorsed as part of its Summer Preparedness Plan and to have high level information about the plan publicly available to allow customers to plan their own Business Continuity Plans or Disaster Recovery Plans.

#### **Gympie Flood Plan**

- 80. The Gympie Flood Plan details the emergency response to be implemented when the Mary River reaches the 6 to 11 metre mark at Kidd Bridge in Gympie. A copy of the Gympie Flood Plan is attached and marked **CJA-7**.
- 81. On 8 January 2011, the Mary River rose to flood levels which prompted ENERGEX to issue a media release on 8 January 2011 advising Gympie customers that ENERGEX may cut off power supply to affected areas in Gympie due to flooding.
- 82. From this point, ENERGEX enacted the Gympie Flood Plan and placed crews on standby ready to respond to a flood in Gympie.
- 83. Crews were able to refer to the Gympie Flood Field Book (attached to the Gympie Flood Plan) for information relating to disconnection and reconnection of premises. The Field

- Book was also used as a guide for crews to determine which assets needed to be disconnected depending on the height of the Mary River.
- 84. The Gympie Flood Plan worked well during the January floods. An internal ENERGEX review has been conducted and refinements are being made to this Plan.

### **BUSINESS CONTINUITY PLANS**

- 85. ENERGEX's Business Continuity Plan (**BCP**) is drafted in accordance with the guidelines for Business Continuity Management contained in Australian Standard HB292. It is comprised of the following:
  - (a) Tier 1 CEMP. This plan co-ordinates business continuity for the whole of ENERGEX. It is used for events that affect the entire organisation and drives the activation of the Tier 2 plans.
  - (b) Tier 2 Plans at the Tier 2 level are group or location based and maintain critical business functions of ENERGEX.
  - (c) Tier 3 This level of plan ensures the provision of critical resources to critical business functions identified in Tier 2 plans.
- 86. All three tiers were activated during the flood events.

## Tier 1 - Corporate Emergency Management Plan

- 87. ENERGEX held its initial meeting regarding the emerging flood situation at 8.15am on Tuesday 11 January 2011. A decision was made to activate the CEMP and initiate a Purple Alert at this meeting.
- As a result the CEMP team took responsibility for providing corporate level support to the management of the flood event and dealt with the strategic issues including the political impact and customer communication.
- 89. A Purple Alert is ENERGEX's highest level of alert under the CEMP. Under the CEMP Manual a flood can be a trigger for a Purple Alert if it is forecast to have a significant impact on the distribution network. The information ENERGEX had about the flood events meant that this was likely.
- 90. ENERGEX maintained a Corporate Emergency Response Log during the flood events which provided a central registry of key decision making issues which could be referred back to at any time. The Log was commenced at the first meeting at 8.15am on 11 January 2011.

### **Closure of Newstead**

- 91. At a CEMP meeting at 11.15am on 11 January 2011 a decision was made to relocate the Newstead site including the Control Room to Victoria Park and the Contact Centre and Central Dispatch to Warry Street. Other critical functions were maintained through the suite of pre-existing BCPs.
- 92. The closure was largely due to access concerns as the waters rose in the car park at Newstead. The Newstead site remained evacuated until 17 January with the return of office staff. The Control Room, Contact Centre and Central Dispatch returned Newstead on 22 January 2011.

## **Further CEMP Meetings**

- 93. From 11 January 2011 throughout the flood events the focus of the CEMP team was to:
  - (a) pre-emptively disconnect supply to ensure safety was a priority and limit damage to ENERGEX assets; and
  - (b) manage and plan for restoration to ensure that reconnections occurred as efficiently and as soon as possible.

#### **DEVELOPMENT OF WORK INSTRUCTIONS**

- 94. On the evening of Sunday 9 January 2011, when a major flood event appeared likely, the Storm room activated the ENERGEX Flood Risk Management Plan. The next day priority was given to the development of standard procedures to deal with flood affected equipment.
- 95. ENERGEX's main priority during the flood was protecting the safety of its workers and the community. All ENERGEX workers were faced with unusual working conditions during the flood event. The main purpose of developing these work procedures was to ensure that ENERGEX workers could carry out the work safely and that the risk to the community posed by the combination of flood water damaged items and electricity was minimised.
- 96. The procedures developed included:
  - (a) Work Practice WP-1133: Installation Reconnection After Natural Disaster which provided guidelines for the reconnection of installations affected by structural damage, rainwater or flood inundation.
  - (b) Work Practice WP-1134: Re-energisation of Flood Affected Distribution Equipment which provided direction for re-energising underground assets which have been inundated by flood water.
  - (c) Work Practice WP-1135: Re-instating Pole Mounted Plant.
  - (d) Network Ops Standards: Process for managing LV in the CBD following flooding which was prepared to ensure the LV network in the CBD was not energised unless it was safe to do so.
  - (e) Network Operations Emergency Work Procedure Restoration of Electricity Supply Following Flooding which was prepared to ensure that the electricity network was safely and appropriately re-energised following the flood event.
- 97. These procedures were invaluable during the flood response and contributed to the efficient and safe restoration of power to customers.

#### 98. COMMUNICATION WITH KEY STAKEHOLDERS

## Corporate Emergency Management Plan

- 99. Once a Purple Alert was activated on 11 January 2011 under the ENERGEX BCP communication with key stakeholders was guided by the CEMP.
- 100. The CEMP recognises that one of the most important aspects of crisis management is communication. During an event all communications are managed by a Communications Team Leader who is assisted by:

- (a) a customer contact group and community communications;
- (b) staff and internal communications;
- (c) media communications;
- (d) government communications.
- 101. From 11 January 2011 the Corporate Communications team operated from the same site as the Control Room at Victoria Park. The close proximity of the Corporate Communications team to the Control Centre greatly assisted in the flow of information from ENERGEX to the public and other relevant stakeholders.
- 102. ENERGEX was also guided by its Flood Plan in ensuring that it communicated effectively with all relevant stakeholders.

## **Corporate Communications Strategy**

- 103. During the flood event ENERGEX committed to ensuring that the public was well informed about issues affecting supply of electricity to their homes and businesses and to ensure safety in relation to electricity.
- 104. ENERGEX's Corporate Communications team (guided by the CEMP) managed all communications during the flood event. At all times communication specialists were on-call on rotating 12 hour shifts which allowed ENERGEX to provide 24 hour media updates.
- 105. ENERGEX's Corporate Communications based on data from ENERGEX's recording systems, between 11 January 2011 and 25 January 2011 was comprised of:
  - (a) 4,874 media mentions including in the press, television, radio and online.
  - (b) 54 media releases.
  - (c) 3 Courier Mail advertisements.
  - (d) 974 Australia Traffic Network radio spots.
  - (e) 2,331 Twitter followers and 270 Twitter messages.
  - (f) New flood information website.
  - (g) Deployment of the mobile communication centre.
  - (h) Delivery of the community flyer.

## Television, Radio, Press and Online

- 106. ENERGEX kept its customers regularly informed of the status of the disconnection and reconnection process and provided important health and safety messages through television, radio, press and online reporting on a 24 hour basis.
- 107. Mr Mike Swanston was the leading ENERGEX spokesperson during the flood event. Mr Swanston is a senior employee at ENERGEX with a detailed technical knowledge of the ENERGEX network.

- 108. A central part of ENERGEX's corporate communications strategy involved regular media releases. The releases were used by all media channels to obtain accurate and timely information for the public. The media releases were also accessible by any member of the public on the ENERGEX website.
- 109. ENERGEX also issued regular 'ENERGEX Flood Fast Facts'. This type of media release provided a snapshot of the situation as it related to ENERGEX in short and simple language. Examples of some of the key ENERGEX media releases during the flood events are attached and marked **CJA-8**.

#### Social Media

- 110. During the flood events ENERGEX's Twitter followers increased from approximately 800 followers to approximately 2,331 individuals. ENERGEX provided 270 Twitter messages on power restoration and safety during the flood event to its Twitter followers. Some examples of the Twitter messages sent to followers are contained at **CJA-9**.
- 111. ENERGEX also coordinated with the Queensland Police Service media to post message on the QPS Facebook page. A copy of the Facebook message is contained at CJA-10.

#### Website

- 112. During the flood events ENERGEX developed a new flood information page on its website. A copy of the information page is attached and marked **CJA-11**. It provided centralised information including:
  - (a) important safety information;
  - (b) information for electrical contractors;
  - (c) restoration updates as detailed at street level.
- 113. The ENERGEX website experienced a significant increase in usage during the flood events and was one of the most accessed websites in Australia at the time.
- 114. The increased traffic to the ENERGEX website caused it to fail for a short period of time during the flood events. The failure was predominantly due to an error in an embedded code. ENERGEX had a backup plan in place which was activated and operated as intended. The embedded code error has subsequently been rectified by ENERGEX's IT supplier.

## Community Flyer

During the flood events ENERGEX issued a 'Power Restoration Update' to its customers. A copy of the flyer is attached and marked **CJA-12**.

## Staff

- 116. Multiple staff bulletins were issued during the flood events to inform:
  - (a) office staff of restoration progress (including plans for return to Newstead); and
  - (b) field staff of the restoration progress and to provide alerts on safety and health risks associated with flood hazards.
- 117. ENERGEX also set up an event information intranet page that staff could access.

#### **Contact Centre**

- 118. The Contact Centre was an essential component of ENERGEX's communication strategy during the flood events.
- 119. Following the closure of the Newstead site on 11 January 2011, the Contact Centre operated from its disaster recovery location at Warry Street in accordance with its Tier 2 and Tier 3 BCPs. As part of the ENERGEX Summer Preparedness Plan 2010/2011 the Contact Centre was able to respond to up to 100,000 customer calls per hour and was fully operational from its disaster recovery site.
- 120. The ENERGEX Contact Centre is structured to allow it to answer the high volume of calls that it did during the flood events. When a customer telephones the Contact Centre:
  - (a) the customer is:
    - (i) recognised by the system and receives a specific outage message based on location (usually down to street level) through the interactive voice response system; or
    - (ii) not recognised by the system and is asked to key in their postcode and receives a more generic outage message (based on suburb).
  - (b) if the system does not provide the information the customer is seeking, the customer can select to speak with a customer service representative;
  - where the options at (a) and (b) are operating at capacity the customer call is diverted to a 'Telstra Cloud'. When a call is sent to this location the customer receives a message explaining that ENERGEX is currently receiving a large number of calls, it is aware of power outages in particular areas and asks the customer to telephone back shortly;
  - (d) if the Contact Centre requires additional support it can rely on Ergon Energy Contact Centre staff or other trained external staff (these arrangements are tested at least annually).
- 121. During the flood events the Contact Centre operated efficiently and there was no need to divert calls to Ergon Energy or rely on external staff.

## ENERGEX's Communication strategy in Withcott and the Lockyer Valley

- 122. In July 2009 ENERGEX introduced a forward command/communications facility in response to a recognised need to develop a mobile response centre to assist in severe weather cleanups.
- During the flood events ENERGEX's communication strategy was global to ensure that the public and all stakeholders received relevant information. However, because of the special circumstances in the Lockyer Valley, ENERGEX took the additional step of deploying its 'Forward Command Centre' caravan into this region to provide face to face communication with the community in that region.
- The centre became a 'one-stop-shop' for information in the Lockyer Valley community and provided a range of computer based data, safety advice, basic amenities, a hub for ENERGEX crews working locally and emergency mobile power generation.
- 125. Other emergency services were able to use the facility as an operations base which meant the mobile response centre was a gathering point for all involved.

126. ENERGEX also attended the Local Disaster Management Group meetings to provide regular updates on progress of electricity restoration activities.

## 127. RECOVERY AND RESTORATION

- 128. Over 12,000 homes and businesses in South East Queensland were affected by the floodwaters in a physical way (ie the premises suffered at least some inundation by water).
- 129. ENERGEX's focus on safety required that all installations affected by the flood waters were inspected before re-energising the premises. To achieve this, an efficient process for inspection of a customer's premises and reconnection of supply was critical.

## **Process for restoration priorities**

- 130. The restoration of power supply to homes and businesses was driven by a central process, as outlined in the Flood Plan. ENERGEX took the following steps to restore supply throughout its network in a consistent and logical way.
  - **Step 1 -** Open switches to isolate segments of the high voltage network that were damaged, washed away or affected by floodwaters (including ground-mounted transformers).
  - **Step 2-** Isolate the low voltage output of any transformers feeding areas suspected of supplying an area that was affected by floodwaters
  - **Step 3 -** Restore supply to unaffected segments of the high voltage network, therefore restoring supply to customers who were well clear of floodwater.
  - **Step 4** Commence patrols of the low voltage network, isolating any affected premises at the primary fuse and issue a defect notice (Form 3) to the occupant. Approximately 12, 000 homes received defect notices during this stage.
  - **Step 5** After inspection and isolation, restore supply to the low voltage sections areaby-area by closing the local distribution transformer low voltage output switch, thereby restoring supply to more unaffected premises in the local area.
  - Step 6 Repair damaged plant and equipment, and re-energise when safe.
  - **Step 7** Following inspection and repair by a qualified person (and the submitting of a Form 2), restore the primary fuse to the individual premises one-by-one.

## Specific issues regarding the operation of the network in the flood events

## Feeders

- 131. The 11 kV feeders in the ENERGEX network can be overhead lines, underground cables or a combination of both. Generally supplying between 200 and 4000 homes in urban areas, or two or three CBD buildings, these feeders form the backbone of the ENERGEX supply network, and include automatic switches that detect a fault on the line. When a Feeder has a fault, it is designed to automatically disconnect the line from the power.
- In a flood event, for example, if ENERGEX had not already pre-emptively disconnected a Feeder, disconnection should occur automatically when the flood waters touch energised equipment. However, it is still safer to avoid the situation where the flood waters reach the live asset by switching it off first, if this can be achieved. This is not only safer but it also improves the ability to recover the equipment and quickly restore supply afterwards.

- 133. Once a Feeder is disconnected from the network, there will be customers who are remote from the flood waters but still lose power. This occurs because those customers receive power from a Transformer connected to the Feeder which has been affected by water. For example, in the CBD a number of Transformers that were isolated from the network were not directly affected by flood water, and the interruption resulted from the fact that the remote feed-in points were affected by water.
- 134. During the flood events ENERGEX inspected the affected Feeders, then opened a switch along the line disconnecting the affected section. The healthy part of the feeder was then re-energised, restoring power to homes in unaffected areas.
- 135. Sometimes, this isolation is not possible as either the isolation points are inaccessible due to floodwaters, or the 'front end' of the line is affected, meaning supply cannot be restored to homes further down the line despite the fact they are clear of floodwater.
- 136. The role of Feeders, a description of how the switches can be closed and opened and how this affects customers is attached and marked **CJA-13**. This illustration is provided by using the Sherwood 11kV feeder as an example.

#### Transformers

- During a flood event it is common for a number of houses connected to a Distribution Transformer to be inundated with water. In this situation ENERGEX will disconnect the power to the Transformer. All customers connected to that Transformer will lose power even though not all of the customers have been affected by flood waters.
- 138. This is rectified once the flood waters subside and ENERGEX inspects the damage. If premises went underwater, the primary fuse for the premises is removed, isolating power to the individual premises. Once all premises connected to the Transformer have been inspected, ENERGEX will reconnect the Transformer which supplies power to the houses which were not underwater and did not have their fuse removed.
- 139. ENERGEX then advises the customers still without power of the need to get their premises inspected by a qualified electrician. Once this is done, the electrician advises ENERGEX and the primary fuse is replaced, restoring power to the premises.

#### Coordination with Master Electrician's Association

- 140. As set out above, if ENERGEX considered that the electrical safety at a customer's premises had been affected by water it issued that customer with a Form 3 Disconnection Notice, typically left at the premises. The effect of a Form 3 was that the customer was disconnected from the distribution network because it was not safe to reconnect supply to the premises in these circumstances.
- 141. To be reconnected to the network, customers were required to arrange for a qualified electrician to inspect the premises and issue a Form 2 Reconnection Notice, typically issued electronically to ENERGEX. Once the Form 2 was issued ENERGEX could then safely reconnect the customer to the ENERGEX distribution network.
- During the flood events ENERGEX was regularly asked by customers for information about retaining a qualified electrician. In order to assist customers, many of whom were experiencing distress, ENERGEX coordinated with the Master Electricians Association (MEA) the leading peak body for the electrical and communications industry in Australia to develop a plan for the restoration of electrical supply.

- 143. Under the plan with the MEA, ENERGEX advised customers through the media and at site level that electricians could be found in the Yellow Pages, local newspaper classifieds or by contacting the MEA.
- 144. When ENERGEX disconnected numerous premises in a particular area, it informed the MEA of this so that the MEA could arrange to have electricians available in the area for customers in need of services.
- 145. ENERGEX also reached agreement with the MEA that MEA electricians would charge a recommended fee of \$200 for a mandatory basic inspection service to customers. This fee did not cover the cost of any required additional work or subsequent safety inspections.
- 146. By coordinating with the MEA ENERGEX was able to offer assist customers with a seamless reconnection process. Other electricians who were not MEA members were able to work through the arrangements put in place by the MEA.

## Field response and resource utilisation

- 147. Local knowledge and accountability for an area was a big advantage in prioritising restoration efforts.
- 148. The allocation of senior staff to local geographic areas to direct local restoration efforts and act as local liaison with other authorities also proved very effective.
- 149. The impact on staff home lives and personal impacts in very challenging conditions required a focussed HR response.

## Deployment of ENERGEX generators in the community

- 150. ENERGEX provided up to 40 generators (26 from ENERGEX's own fleet plus 14 from local hire companies) ranging in size from 30 kVA to 1000 kVA during the flood events.
- 151. These proved to be extremely useful, particularly to get electricity supply back onto Fernyale township and the Rocklea markets.

## **ENERGEX's Response in Withcott and the Lockyer Valley**

152. The extent of the devastation in the Lockyer Valley meant ENERGEX had to take a different approach to recovery and restoration which took into account the difficult conditions.

## Approach to Restoration in the Lockyer Valley

- 153. Because of the extent of the damage in the Lockyer Valley ENERGEX crews were required to rebuild whole sections of the network and clean, repair or replace numerous assets that had either been swept away or inundated by the flood waters that swept through the Lockyer Valley on Monday 10 January 2011.
- 154. Further disconnections of supply occurred on 11 January 2011 as a result of further flooding in the area.
- 155. ENERGEX deployed generators where critical to establish temporary supply.
- 156. Part of the Lockyer valley was classified as 'red zones' following the flood events. Red zones were areas where ENERGEX could not gain access due to the water levels and

- damage to bridges although ENERGEX did have some crews isolated in these locations and utilised them from these locations where possible.
- 157. As access was gained to these red zones, the area was taken off the list to allow jobs to be sent out for repairs. At the peak there was over 460 jobs assigned to areas in the red zones.
- 158. Up to 80 ENERGEX crews worked extended hours, typically 12 hours each day for two weeks to safely restore power to the homes and businesses in the Lockyer Valley. A senior ENERGEX manager was allocated responsibility for managing restoration to the area.
- 159. Restoration works were completed and supply restored, to those customers who were ready for connection, within approximately one week on the initiating flood event. A schedule outlining the outage and restoration dates and times of ENERGEX assets located in and around Spring Bluff, Murphy's Creek, Helidon, Withcott, Postman's Ridge and Grantham is attached and marked CJA-14.
- 160. ENERGEX crews then set about restoring supply to those connections where further works were required on the customer's installation to enable safe reconnection of supply. This typically consisted of irrigation pumps located along the various creek banks and those houses severely damaged. Some houses still remain disconnected due to the extent of the damage to the property.
- There is no doubt that the restoration process was lengthy for some customers in this region due to the nature and extent of the damage and access difficulties to ENERGEX assets. However, ENERGEX staff worked closely with the Lockyer Valley Regional Council, Department of Main Roads and the Local Disaster Management Group to gain access and prioritise restoration works.

#### Safety

- 162. During the restoration process, safety was ENERGEX's first priority.
- 163. There were no electricity related injuries to ENERGEX staff, emergency services staff or members of the community.

## Ongoing work in the Lockyer Valley

- The only outstanding ENERGEX flood related work in the region is reinstating lines where temporary solutions were put in place or to restore supply to individual premises as these become able to be reconnected. ENERGEX crews are completing these tasks now.
- 165. ENERGEX also recently completed a post flood helicopter patrol of ENERGEX assets impacted by the floods, to identify any previously unidentified issues and to determine any ENERGEX assets at risk due to the revised location of creek banks and washouts. A list of helicopter patrols conducted during and after the flood event are attached and marked CJA-15.
- Any work identified from this patrol has been prioritised and included in ENERGEX's works program for completion over the coming months. An ongoing effort will also be required to recover those ENERGEX assets stranded or washed away by the flood waters. These outstanding works have not resulted in delays to customers being reconnected, where the houses were in a state that they were able to be reconnected.

Due to the extent of the damage to ENERGEX 11kV low voltage assets and the significant changes in creek alignments, in some cases, ENERGEX has been unable to reinstate the poles and wires in their original locations. Alternate routes and locations have been used to reinstate supply. Some new lines have been established where possible in more accessible locations away from immediate impact zones. Where possible, creek crossings have been avoided.

## **OPPORTUNITIES FOR IMPROVEMENT**

- 168. ENERGEX is taking full advantage of the opportunity to improve its processes by conducting a full review of the flood events in order to identify any improvements it can make to its current systems and processes.
- 169. Where the review identifies the matters affecting ENERGEX's preparation for Summer 2011/2012 these matters will be factored into ENERGEX's internal planning processes including their Network Management Plan, the Summer Preparedness Plan and the Flood Risk Management Plan.
- 170. ENERGEX has already identified a number of areas where there is an opportunity for improvement. Some of these opportunities relate to ENERGEX's internal processes while others relate to issues affecting the wider community.

## Location of CBD electricity distribution assets

- 171. A number of the ENERGEX distribution substations in the CBD are positioned below Q100 flood levels (for example in the basement of high rise offices). As a result, there is a significant risk of inundation by flood waters for these assets. Accordingly this also means that if a flood occurs supply must be pre-emptively interrupted to these locations.
- 172. At present ENERGEX does not have any statutory power to **require** that a substation installed in customers' premises be installed above the Q100 Flood Level.
- 173. ENERGEX's position is that consideration should be given to amending the appropriate legislation to give ENERGEX greater powers to obtain suitable locations for electricity assets, in consideration of flood levels, access and other design factors.

## Flood Exposure of ENERGEX assets

- 174. A number of ENERGEX's substations were exposed to flood waters. These sub-stations are large pieces of infrastructure and obviously, there are considerable costs and logistical issues involved in re-locating these assets to areas not prone to flooding.
- 175. Since 1974 ENERGEX has relied upon the so-called "Q100" flood level supplied by Local Authorities to site or relocate the electrical assets in these substations and help mitigate against flood options. Despite this, some sub-stations built above the Q100 flood levels (for example Milton) were still inundated during the flood events.
- 176. ENERGEX is investigating the flood exposure of these existing major substations and any flood-mitigation options.
- 177. ENERGEX is also investigating the flood exposure of underground distribution assets and considering modifying standards to encourage the installation of pad mount transformers above relevant flood levels wherever possible.
- 178. ENERGEX understands that work is being done by the BCC and other Councils to revise the Q100 flood levels following the flood events. ENERGEX intends to work with the BCC on this issue and factor this into its review of flood exposure of ENERGEX assets.

## **Planning and Preparation**

- 179. The preparation ENERGEX undertook prior to the flood events was invaluable. ENERGEX has identified ways in which planning and preparation could be improved if an event like this happens again.
- 180. ENERGEX proposes to take a number of steps prior to the next wet season to ensure it and other stakeholders are prepared for another flood event.

#### Contact with CBD

- 181. ENERGEX will review the availability of contact data with all relevant CBD and near CBD sites. ENERGEX's database should include both the contact details and substation/switching access point for each CBD site.
- 182. Using this database it will make contact with building owners and operators in the CBD and other 'at risk' areas near the CBD to discuss exposure to floods and assist those owners and operators with the development of BCPs in relation to electricity supply.

Review of flood maps and contingency switching providers

- 183. ENERGEX intends to review the flood maps and contingency switching priorities related to various floods levels or dam release volumes to allow ENERGEX to prepare for isolation of unaffected areas in the event of another flood event in the 2011/12 wet season.
- The purpose of this review is to minimise the extent of outages by ensuring that ENERGEX has up to date knowledge of potential flood impact overlayed onto the ENERGEX network. This will allow ENERGEX to optimise the network switching in advance and disconnect power **only** to those that need to be isolated.

Review of Emergency Communication and Co-ordination Processes

- 185. Review the emergency communication and co-ordination processes with building owners and operators for pre-emptive switching and work with the relevant stakeholders (including but not limited to the State Government, local councils, Police and Emergency Services) as broader communication protocols are also required. Improved communication will enable ENERGEX to get a better understanding as to what assets will need to be switched off for floods of specific heights and being able to communicate this to various stakeholders.
- 186. This will assist ENERGEX to keep stakeholders even better informed about what is occurring.

## **Response and Restoration**

- 187. ENERGEX's response, recovery and restoration worked well. However, ENERGEX also recognises there are aspects of its response which could be improved.
- 188. To this end ENERGEX intends to:
  - (a) examine plans for the use of flood warning information to better inform network switching arrangements and flood communications in areas other than the Brisbane CBD; and
  - (a) confirm the arrangements put in place during the flood events for co-operation with private electricians to effect repairs to premises as occurred during the flood events.

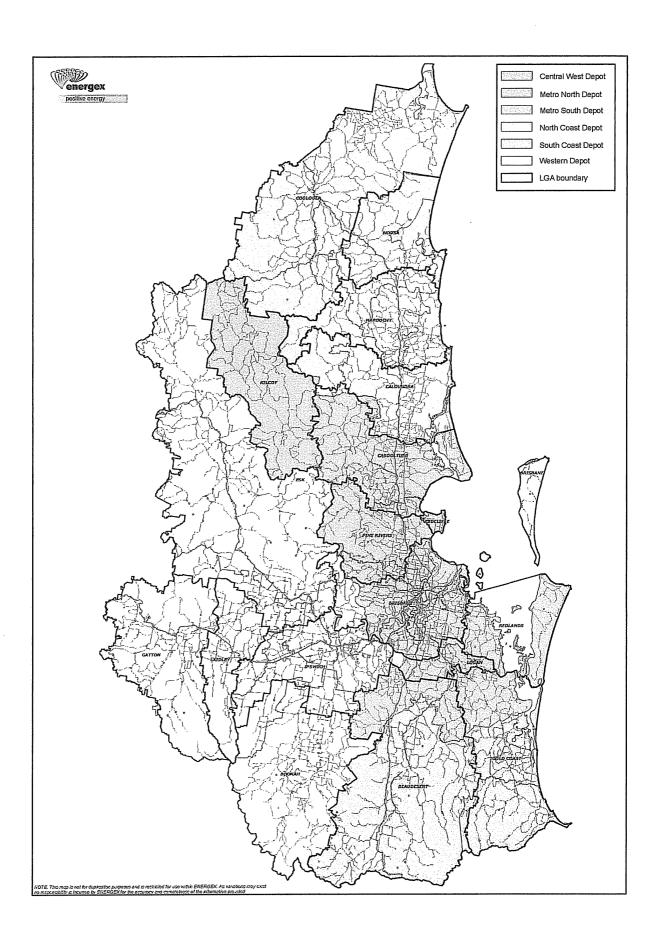
- (a) develop a process to more accurately track the connection status of individual premises, for timely response to customers.
- (a) feed information on the planning, priorities and targets for field staff involved in restoration activities through to the operators of the Power Outage Console, so that estimated restoration times better reflect restoration activities
- (a) review opportunities for an even more effective deployment of mobile generators by:
  - (i) identifying generator connection locations for key sites and maintaining these details in a database; and
  - (ii) updating the Flood Plan to include generator deployment (including the possibility pre-emptive distribution of generators).

SWORN UNDER OATH by CHRISTOF	PHER JOHN ARNOLD on 5 APRIL 2011
at BRISBANG	in the presence of:
Deponent	Seliciter/Commissioner for Declarations/Justice of the Peace

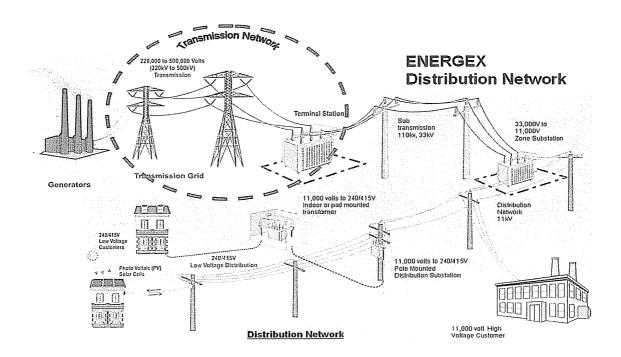


## ATTACHMENT CJA-1

## **AREA OF COVERAGE**



## ATTACHMENT CJA-2



## ATTACHMENT CJA-3

## SITREP

## BCC Local Disaster Coordination Centre SITUATION REPORT

Phone: 3403 38108 Facsimile: 3403 3



TO:				
	Brisbane City Local Disaster Management Group			
	Lord M	layor		
		Executive Officer		
		er District Coordinator		
	Region	nal Manager EMQ		
			AND AND THE RESIDENCE OF THE PROPERTY OF THE P	
EVENT NA	ME:	January 2011 Flood Event	SITREP NUMBER:	11
EVENT NA	ME:	January 2011 Flood Event	SITREP NUMBER: PRIORITY:	11 Routine
	ME:			
DATE:		11/01/2011		

## **OPERATIONS AND ASSESSMENTS**

The BoM have communicated to us the following:

The predicted height at the high tide tomorrow is 4.5 mAHD at the Brisbane City Gauge.

Based on the likely Wivenhoe release strategy (6,400 m3/s this evening 8:00pm), the predicted peak flood height at the Brisbane City Gauge is between 5 mAHD and 5.5 mAHD, (10,500 m3/s). The timing of this predicted peak is 3AM Thursday morning 13/01/11.

This flood event will be similar to the 1974 flood.

The BoM further advised that they are briefing the Premier accordingly.

#### **CURRENT ACTIVITES:**

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- An initial 45 sand bags were delivered to Gyatt Park in St Lucia followed by an additional 150, in response to requests made to the Walter Taylor Ward Office by local residents being flooded.
- RRG have distributed 5000 FAQ sheets on the flooding of property and LAS have distributed 2000 flyers targeted at cars parked in streets.

 Some lower lying areas in West End and Westlake have been evacuated by the Queensland Police Service.

## **Contact Centre**

Grade of Service - 31.56% responded to within 20secs

1828 SES calls 5952 General calls

2995 calls for current flooding info 1197 calls for SES info 119 calls for SES assistance

## **FUTURE OPERATIONS AND ACTIVITIES:**

### ISSUES:

#### Resources

 Sandbags have been made available from Council depots at six locations, in addition to local collection points being established at various suburban locations. Stocks are being replenished, with approx 53,000 distributed.

## **Evacuation**

RNA is confirmed as the first point of call for evacuations.
 Entries from Gregory Street.
 Council staff are in attendance.
 Red Cross staff have been notified and are on their way
 St Johns first aid have been notified and are on their way
 Food and water is being coordinated by Red Cross and the Salvos
 Bedding to be ordered by 4pm

No evacuees are currently in attendance

Channel 10 is on site and filming

## **ADMINISTRATION:**

Nil to report

## **OVERALL ASSESSMENT:**

 72 hr planning is being undertaking with consideration to the projected Thursday tidal and river peak.

See Annex A for detailed report of predicted affects.

## Annex A to SITREP No: 11

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Date: Period: 11.01.1011 To: 200 hrs

0800 hrs

**POTENTIAL** AREAS AFFECTED predicted streets affected by a Brisbane River Flood of 7000m3/s peak flow.

Impact France	SineeviRoad Sine	Suburos PECE
Partially Flooded	Lismore Street	ACACIA RIDGE
Flooded	Walson Road	ACACIA RIDGE
Flooded	Colebard Street W	ACACIA RIDGE
Flooded	Beatty Road	ACACIA RIDGE
Flooded	Gregory Street	ACACIA RIDGE
Flooded	Loam Street	ACACIA RIDGE
Partially Flooded	Allison Street	ALBION
Partially Flooded	Dover Street	ALBION
Flooded	Crosby Road	ALBION
Flooded	Lucy Street	ALBION
Flooded	Collingwood Street	ALBION
Flooded	: Tate Street	ALBION
Flooded	Kingsford Smith Drive	ALBION .
Flooded	Beaumont Street	ALBION
Flooded	Gartrell Street	ALBION
Flooded	. Sandgate Road	ALBION
Flooded	Wallace Street	ALBION
Flooded	Argyle Street	ALBION
Flooded	Bogan Street	ALBION
Flooded	Elliot Street	ALBION
Flooded	Fox Street	ALBION
Flooded	Immarna Street	ALBION
Flooded	Jobson Street	ALBION
Flooded	Pedder Street	ALBION
Flooded	Agnes Street	ALBION
Flooded	Amy Street	ALBION
Flooded	Nariel Street	ALBION
Flooded	Higgs Street	ALBION
Flooded	Yulestar Street	ALBION
Flooded	Hutcheson Street	ALBION
Flooded	Park Street	ALBION
Flooded	Inner City Bypass	ALBION
Flooded	Boyle Road	ANSTEAD
Flooded	Mount Crosby Road	ANSTEAD
	Wirrabara Road	ANSTEAD
Flooded	Willingdon Street	ARCHERFIELD
Partially Flooded	Bangor Street	ARCHERFIELD
Partially Flooded	Lilydale Street	ARCHERFIELD
Flooded	Amaroo Street	ARCHERFIELD
Flooded	······································	ARCHERFIELD
Flooded	Brecknock Street	ARCHERFIELD
Flooded	Nemo Street	
Flooded	Rodwell Street	ARCHERFIELD ARCHERFIELD
Flooded	Boniface Street	ARCHERFIELD
Flooded	Hampshire Street	ARCHERFIELD ARCHERFIELD

	Rocklea Street	ARCHERFIELD .
Flooded	Gladstone Street	ARCHERFIELD
Flooded	Thomas Street	AUCHENFLOWER
Partially Flooded	Kellett Street	AUCHENFLOWER
Partially Flooded	Coronation Drive	AUCHENFLOWER
Partially Flooded	Annie Street	AUCHENFLOWER
Flooded	Grimes Street	AUCHENFLOWER
Flooded	Haig Road	AUCHENFLOWER
Flooded	Milton Road	AUCHENFLOWER
Flooded	Park Avenue	AUCHENFLOWER
Flooded	Beard Street	AUCHENFLOWER
Flooded	Dunmore Terrace	AUCHENFLOWER
Flooded	Kingsford Street	AUCHENFLOWER
Flooded	McIlwraith Street	AUCHENFLOWER
Flooded	. Aldridge Street	AUCHENFLOWER
Flooded	Fortitude Street	AUCHENFLOWER
Flooded		AUCHENFLOWER
Flooded	Land Street	AUCHENFLOWER
Flooded	Cue Street	AUCHENFLOWER
Flooded	Eagle Terrace	AUCHENFLOWER
Flooded	Lang Parade	AUCHENFLOWER
Flooded	Macintosh Street	AUCHENFLOWER
Flooded	Vincent Street	AUCHENFLOWER
Flooded	Auchenflower Terrace	AUCHENFLOWER
Flooded	Dixon Street	AUCHENFLOWER
Flooded	Patrick Lane	AUCHENFLOWER
Flooded	Roy Street	AUCHENFLOWER
Flooded	Park Lane	AUCHENFLOWER
Flooded	Torwood Street	
Flooded	Huxham Terrace	AUCHENFLOWER
Flooded	Marie Street	BALMORAL
Partially Flooded	Waverley Road	BANKS CREEK
Flooded	Lake Manchester Road	BANKS CREEK
Flooded	Fawkner Crescent	BARELLAN POINT
Flooded	Brisbane Crescent	BARELLAN POINT
Flooded	Riverside Avenue	BARELLAN POINT
Flooded	Mitchell Street	BARELLAN POINT
Flooded	Junction Drive	BARELLAN POINT
Flooded	Junction Road	BARELLAN POINT
Partially Flooded	Lacebark Street	BELLBOWRIE
Flooded	Golden Crest Place	BELLBOWRIE
Flooded	Bushlark Street	BELLBOWRIE
Flooded	Banyan Street	BELLBOWRIE
Flooded	Ghost Gum Street	BELLBOWRIE
Flooded	Birkin Road	BELLBOWRIE
Flooded	Sugarwood Street	BELLBOWRIE
Flooded	Conebush-Grescent	BELLBOWRIE.
Flooded	Moggill Road	BELLBOWRIE
Partially Flooded	Burrows Street	BOWEN HILLS
Partially Flooded	Murray Street	BOWEN HILLS
Flooded	Abbotsford Road	BOWEN HILLS
Flooded	Gebbie Street	BOWEN HILLS

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Flooded	Inner City Bypass	BOWEN HILLS
Partially Flooded	Goodwill Bridge	BRISBANE
Partially Flooded	Elizabeth Street	BRISBANE
Partially Flooded	Howard Street	BRISBANE
	Edward Street	BRISBANE
Partially Flooded Flooded	Charlotte Street	BRISBANE
Flooded	Creek Street	BRISBANE
	Eagle Street	BRISBANE
Flooded	Beatrice Lane	BRISBANE
Flooded	Mary Street	BRISBANE
Flooded	Alice Street	BRISBANE
Flooded	Lane	BRISBANE
Flooded	Albert Street	BRISBANE
Flooded	Coronation Drive	BRISBANE
Flooded	Boomerang Street	BRISBANE
Flooded		BRISBANE
Flooded	Esk Lane	BRISBANE
Flooded	Margaret Street	BRISBANE
Flooded	Gardens Pt Road	BRISBANE
Flooded	Queens Whrf Road	
Flooded	Private Rd Qut	BRISBANE
Flooded	Riverside Expressway	BRISBANE
Flooded	Wybelenna Street	BROOKFIELD
Flooded	Rafting Ground Road	BROOKFIELD
Flooded	Moggill Road	BROOKFIELD
Flooded	Kilkivan Avenue	BROOKFIELD
Partially Flooded	Reach Place	BULIMBA
Partially Flooded	Riverbend Place	BULIMBA
Partially Flooded	Coutts Street	BULIMBA
Partially Flooded	Bevis Street	BULIMBA
Partially Flooded	Shore Crescent	BULIMBA
Partially Flooded	Karthina Street	BULIMBA
Partially Flooded	Michael Street	BULIMBA
Partially Flooded	Corio Street	BULIMBA
Partially Flooded	Love Street	BULIMBA
Partially Flooded	Tide Lane	BULIMBA
Partially Flooded	Waterline Crescent	BULIMBA
Flooded	Cambridge Street	BULIMBA
Flooded	Walter Street	BULIMBA
Flooded	Carbeen Street	BULIMBA
Flooded	. Carr Street	BULIMBA
Flooded	Eton Street	BULIMBA
Flooded	Godwin Street	BULIMBA
Flooded	Hawthorne Road	BULIMBA
Flooded	Redcar Street	BULIMBA
Flooded	Stuart Street	BULIMBA
Flooded———	Barramul-Street-	BULIMBA
Flooded	Jamleson Street	BULIMBA
Flooded	Smallman Street	BULIMBA
Flooded	Taylor Street	BULIMBA
Flooded	Oxford Street	BULIMBA
Partially Flooded	Plumridge Street	CHELMER
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	Sutton Street	CHELMER
Flooded	Appel Street	CHELMER
Flooded	Victoria Avenue	CHELMER
Flooded	Regatta Street	CHELMER
Flooded	Chelmer St East	CHELMER
Flooded	Bridge Street	CHELMER
Flooded	Turner Street	CHELMER
Flooded	Wharf Street	CHELMER
Flooded	Halsbury Street	CHELMER
Flooded	Queenscroft Street	CHELMER
Flooded	Glenwood Street	CHELMER
Flooded	Campsey Street	CHELMER
Flooded	Parker Street	CHELMER
Flooded	***************************************	CHELMER
Flooded	Harte Street	CHELMER
Flooded	Oxley Road	CHELMER
Flooded	Luxford Street	CHELMER
Flooded	Scout Lane	**************************************
Flooded .	Hargreaves Avenue	CHELMER
Flooded	Rosebery Terrace	CHELMER
Flooded	Jarrott Street	CHELMER
Flooded	Leybourne Street	CHELMER
Flooded	Richardson Street	CHELMER
Flooded	Chelmer Street	CHELMER
Flooded	Hanlan Street	CHELMER
Flooded	Kholo Road	CHUWAR
Flooded	Kholo Bridge	CHUWAR
Flooded	Mount Crosby Road	CHUWAR
Flooded	Oban Street	COOPERS PLAINS
Flooded	Beaudesert Road	COOPERS PLAINS
Flooded	Alton Street	COOPERS PLAINS
Flooded	Edith Street	COOPERS PLAINS
Flooded	Norbury Street	COOPERS PLAINS
Flooded	Deal Street	COOPERS PLAINS
Flooded	Musgrave Road	COOPERS PLAINS
Partially Flooded	Castlemaine Street	COORPAROO
Partially Flooded	Halifax Street	COORPAROO
Partially Flooded	Cavendish Road	COORPAROO
Partially Flooded	Holdsworth Street	COORPAROO
Partially Flooded	Temple Street	COORPAROO
Partially Flooded	Churchill Street	COORPAROO
Partially Flooded	Harries Road	COORPAROO
Flooded	Ninth Avenue	COORPAROO
Flooded	Jellicoe Street	COORPAROO
Flooded	Lackey Avenue	COORPAROO
Flooded	Stanley St East	COORPAROO
Flooded	Turbo-Drive	COORPAROO
Flooded	Gladstone Street	COORPAROO
	Main Avenue	COORPAROO
Flooded	Milsom Street	COORPAROO
Flooded	Barnes Avenue	COORPAROO
Flooded	Landsdowne Street	COORPAROO
Flooded	Morley Street	COORPAROO
Flooded	I Willey Sueet	

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· · ·	Clarence Street	COORPAROO
Flooded	Salisbury Street	COORPAROO
Flooded	Cambridge Street	COORPAROO
Flooded	Rome Street	COORPAROO
Flooded	Venice Street	COORPAROO
Flooded	Deshon Street	COORPAROO
Flooded	Railway Terrace	CORINDA
Flooded	Brush Box Close	CORINDA
Flooded	Richmond Street	CORINDA
Flooded		CORINDA
Flooded	Stanfell Street	CORINDA
Flooded	Oxley Terrace	CORINDA
Flooded	Rinora Street	CORINDA
Flooded	Cliveden Avenue	CORINDA
Flooded	Edmondson Street	
Flooded	Eddystone Road	CORINDA
Flooded	Neata Street	CORINDA
Flooded	Deniven Street	CORINDA
Flooded	Penaton Street	CORINDA
Flooded	Teesdale Street	CORINDA
Flooded	Francis Street	CORINDA
Flooded	Blackheath Road	CORINDA
Flooded	Pratten Street	CORINDA
Flooded	Archer Parade	CORINDA
Flooded	Kennard Street	CORINDA
Flooded	Cliveden Avenue	CORINDA
Partially Flooded	Ramu Street	DARRA
Flooded	Kokoda Street	DARRA
Flooded	Markham Street	DARRA
Flooded	Wau Road	DARRA
Flooded	Sanananda Street	DARRA
Flooded	Bowhill Road	DURACK
Flooded	T J Doyle Memorial Drive	DUTTON PARK
	Norman Street	EAST BRISBANE
Partially Flooded	Withington Street	EAST BRISBANE
Partially Flooded	Stanley St East	EAST BRISBANE
Flooded	Hanworth Street	EAST BRISBANE
Flooded	Lisburn Street	EAST BRISBANE
Flooded	Hampton Street	EAST BRISBANE
Flooded	Kingfisher Lane	EAST BRISBANE
Flooded		EAST BRISBANE
Flooded	Caswell Street	EAST BRISBANE
Flooded	Fisher Street	-EAST BRISBANE
Flooded	Barker Street	
Flooded	Chorlion Street	EAST BRISBANE
Flooded	Camberwell Street	EAST BRISBANE
Flooded	Heath Street	EAST BRISBANE .
Flooded	Lerna-Street	EAST-BRISBANE
Flooded	Longlands Street	EAST BRISBANE
Flooded	Ashfield Street	EAST BRISBANE
Flooded	Clarendon Street	EAST BRISBANE
Flooded	Didswith Street	EAST BRISBANE
Flooded	Walter Avenue	EAST BRISBANE
Flooded	Hilton Street	EAST BRISBANE

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- 0 11 etcd-d	Cross Street	FAIRFIELD
Partially Flooded	Princess Street	FAIRFIELD
Flooded	Lanyard Street	FAIRFIELD
Flooded	Glena Street	FAIRFIELD
Flooded	Hefferan Street	FAIRFIELD
Flooded	Sunbeam Street	FAIRFIELD
Flooded		FAIRFIELD
Flooded	Turley Street	FAIRFIELD
Flooded	Meams Street	FAIRFIELD
Flooded	Cameron Street	FAIRFIELD
Flooded	Sharp Street	FAIRFIELD
Flooded	Fenton Street	FAIRFIELD
Flooded	Bledisloe Street	FAIRFIELD
Flooded	Crutchley Street	
Flooded	Fairview Street	FAIRFIELD
Flooded	Glengregory Street	FAIRFIELD
Flooded	Brisbane Corso	FAIRFIELD ·
Flooded	Noble Street	FAIRFIELD .
Flooded	Rallway Road	FAIRFIELD
Flooded	Stimpson Street	FAIRFIELD
Flooded	Forsyth Street	FAIRFIELD
Flooded	Sydney Street	FAIRFIELD
Flooded	Newcastle Street	FAIRFIELD
Flooded	Allamanda Street	FAIRFIELD :
Flooded	Ashby Street	FAIRFIELD
Flooded	Fairfield Road	FAIRFIELD
Flooded	Victoria Street	FAIRFIELD
Flooded	Turner Avenue	FAIRFIELD
	Venner Road	FAIRFIELD
Flooded	Home Street	FAIRFIELD
Flooded	Brougham Street	FAIRFIELD
Flooded	William Parade	FAIRFIELD
Flooded	Eccleston Street	FIG TREE POCKET
Partially Flooded	Porchester Street	FIG TREE POCKET
Flooded	Leinster Street	FIG TREE POCKET
Flooded	Botticelli Street	FIG TREE POCKET
Flooded		FIG TREE POCKET
Flooded	Cottesmore Street	FIG TREE POCKET
Flooded	Moorfields Street	FIG TREE POCKET
Flooded	Michelangelo Street	FIG TREE POCKET
Flooded	Mandalay Street	
Flooded	. Ribot Street	FIG TREE POCKET
Flooded	Ormsby Street	FIG TREE POCKET
Flooded	Donatello Street	- FIG TREE POCKET
Flooded ·	Kenny Street	FIG TREE POCKET
Flooded	Goya Street	FIG TREE POCKET
Flooded	Needham Street	FIG TREE POCKET
Flooded	Cubberla-Street	FIG TREE POCKET
Flooded	Thiesfield Street	FIG TREE POCKET
Flooded	Ramada Place	FIG TREE POCKET
Flooded	Aminga Street	FIG TREE POCKET
Flooded	Jesmond Road	FIG TREE POCKET
Flooded	Ningana Street	FIG TREE POCKET
Flooded	Karella Street	FIG TREE POCKET

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		POCKET
Flooded	Sprenger Street	FIG TREE POCKET
Flooded	Fig Tree Pocket Road	FIG TREE POCKET
Flooded	Wickham Street	FORTITUDE VALLEY
Flooded	Ann Street	FORTITUDE VALLEY
Flooded	Ipswich Motorway access	GAILES
Flooded	Brisbane Road	GAILES
Flooded	Newman Street	GAILES
Flooded	Ipswich Motorway	GAILES
Partially Flooded	Prokuda Close	GOODNA
Flooded	Norfolk Street	GOODNA
Flooded	Mooney Close	GOODNA
Flooded	Evans Street	GOODNA
Flooded	Lower James Street	GOODNA
Flooded	Barram Street	GOODNA
······································	Lowe Street	GOODNA
Flooded Flooded	Lower Albert Street	GOODNA
	Lower Cross Street	GOODNA
Flooded	Ipswich Motorway	GOODNA
Flooded	William Street	GOODNA
Flooded		GOODNA
Flooded	Peel Street	GOODNA
Flooded	Short Street	GOODNA
Flooded	Lower William Street	
Flooded	Woogaroo Street	GOODNA
Flooded	Church Street	GOODNA
Flooded	George Street	GOODNA
Flooded	Brisbane Terrace	GOODNA
Flooded	Layard Street	GOODNA
Flooded	Noel Kelly Drive	GOODNA
Flooded	Wilruna Street	GOODNA
Flooded	Lower Stuart Street	GOODNA
Flooded	Park Road	GRACEVILLE
Flooded	Pamphlett Bridge	GRACEVILLE
Flooded	Gamble Street	GRACEVILLE
Flooded	Nadine Street	GRACEVILLE
Flooded	Park Drive	GRACEVILLE
Flooded	Sandon Street	GRACEVILLE
Flooded	Seng Street	GRACEVILLE
Flooded	Verney Rd East	GRACEVILLE
Flooded	Jaora Street	GRACEVILLE
Flooded	Lorna Street	GRACEVILLE
Flooded	Coleman Street	GRACEVILLE
Flooded	Graceville Avenue	GRACEVILLE
Flooded	White Street	GRACEVILLE
	Strickland Terrace	GRACEVILLE
Flooded	Baronsfield Street	GRACEVILLE
Flooded	Austral-Avenue	GRACEVILLE
Flooded		GRACEVILLE
Flooded	Acada Avenue	GRACEVILLE
Flooded	Cordalba Street	
Flooded	Strong Avenue	GRACEVILLE
Flooded	Chanter Street	GRACEVILLE
Flooded	Waratah Avenue	GRACEVILLE
Flooded	Allora Street	GRACEVILLE

Flooded	Haldane Street	GRACEVILLE
Flooded	Long St East	GRACEVILLE
Partially Flooded	Lincoln Street	GREENSLOPES
Flooded	Gladys Street	GREENSLOPES
Flooded	Constance Street	GREENSLOPES
Flooded	Beata Street	GREENSLOPES
Partially Flooded	Goldsworthy Avenue	HAMILTON .
Flooded	Hunt Street	HAMILTON
	Cooksley Street	HAMILTON
Flooded	Amy Street	HAMILTON
Flooded	Barton Street	HAWTHORNE
Partially Flooded	Leura Avenue	HAWTHORNE
Partially Flooded	Gordon Street	HAWTHORNE
Partially Flooded	Hawthome Road	HAWTHORNE .
Flooded	Mcdonald Street	HAWTHORNE
Flooded ·	<del></del>	HAWTHORNE
Flooded	Elliott Street	HAWTHORNE
Flooded	Lindsay Street	HAWTHORNE
Flooded	Malcolm Street	HAWTHORNE
Flooded	Barton Road	
Partially Flooded	Burnby Road	HEMMANT
Partially Flooded	Garth Street	HEMMANT
Partially Flooded	Ragnor Road	HEMMANT
Partially Flooded	Aquarium Avenue	HEMMANT
Flooded	Hemmant And Tingalpa Road	HEMMANT
Flooded .	Gosport Street	HEMMANT
Partially Flooded	Garrick Terrace	HERSTON
Flooded	Butterfield Street	HERSTON .
Flooded	Athens Street	HIGHGATE HILL
Flooded	Dudley Street	HIGHGATE HILL
Flooded	Saint James Street	HIGHGATE HILL
Flooded	Dauphin Terrace	HIGHGATE HILL
Partially Flooded	Jainba Street	INDOOROOPILLY
Partially Flooded	Magor Street	INDOOROOPILLY
Flooded	Minkara Street	INDOOROOPILLY
**** * *** ** **** ***** **************	Glencairn Avenue	INDOOROOPILLY
Flooded	Nindethana Street	INDOOROOPILLY
Flooded	Balmore Street	INDOOROOPILLY
Flooded	Harefield Street	INDOOROOPILLY
Flooded	Jilba Street	INDOOROOPILLY
Flooded	Furlong Street	INDOOROOPILLY
Flooded	Clandon Street	INDOOROOPILLY
Flooded	Dobell Street	INDOOROOPILLY
Flooded		INDOOROOPILLY
Flooded	Brinkworth Place	INDOOROOPILLY
Flooded	Indooroopilly Road	INDOOROOPILLY
Flooded	Lambert Road	-INDOOROOPILLY
- Flooded	Boundary-Road	······································
Flooded	Aragon Street	INDOOROOPILLY
Flooded	Rennies Road	INDOOROOPILLY
Flooded	Market Street	INDOOROOPILLY
Flooded	Twigg Street	INDOOROOPILLY
Flooded	Spring Street	INDOOROOPILLY
Flooded	Radnor Street	INDOOROOPILLY

	Vera Street	INDOOROOPILLY
Flooded	Jerrang Street	INDOOROOPILLY
Flooded	Bridge Street	INDOOROOPILLY
Flooded	Kate Street	INDOOROOPILLY
Flooded	Kinloch Street	INDOOROOPILLY
Flooded	Witton Road	INDOOROOPILLY
Flooded	Aaron Place	INDOOROOPILLY
Flooded	Meiers Road	INDOOROOPILLY
Flooded	Jenee Street	JINDALEE
Partially Flooded	Gareel Street	JINDALEE
Flooded		JINDALEE
Flooded	Jindivick Street	JINDALEE
` Flooded	Kooringal Drive	JINDALEE
Flooded	Moorilla Place	JINDALEE
Flooded	Mankinna Street	JINDALEE
Flooded	Tangara Street	JINDALEE
Flooded	Arrabri Avenue	
Flooded	Noolinga Street	JINDALEE
Flooded	Bangalee Street	JINDALEE
Flooded	Warill Street	JINDALEE
Flooded	Lanena Street	JINDALEE
Flooded	Pantheon Street	JINDALEE
Flooded	Curragundi Road	JINDALEE
Flooded	Arakoola Street	JINDALEE
Flooded	Centenary Highway	JINDALEE
Flooded	Moolanda Street	JINDALEE
Flooded	Mount Ommaney Drive	JINDALEE
Flooded	Nero Close	JINDALEE
Flooded	Wongaburra Street	JINDALEE
Flooded	Warandoo Street	JINDALEE
Flooded	Looranah Street	JINDALEE
Flooded	Umina Street	JINDALEE
Flooded	Burrendah Road	JINDALEE
Flooded	Capitol Drive	JINDALEE
Flooded	Kangaloon Street	JINDALEE
Flooded	Seventeen Mile Rocks Road	JINDALEE
Flooded	Yallambee Road	JINDALEE
Flooded	Centenary Highway access	JINDALEE
Flooded	Sinnamon Road	JINDALEE
Partially Flooded	Darragh Street	KANGAROO POINT
Partially Flooded	Hamilton Street	KANGAROO POINT
Flooded	Rotherham Street	KANGAROO POINT
Flooded	Goodwin Street	KANGAROO POINT
Flooded	Holman Street	KANGAROO POINT
Flooded	Bright Street	KANGAROO POINT
Flooded	Annie Street	KANGAROO POINT
	Lower-River-Terrace	KANGAROO POINT
Flooded	LONO, INVEST.	
Partially Flooded	······	KARALEE
Partially Flooded	Carlock Promenade Wirriboot Court	KARALEE KARANA DOWNS
Partially Flooded Flooded	Carlock Promenade Wirriboot Court	
Partially Flooded Flooded Flooded	Carlock Promenade Wirriboot Court College Road	KARANA DOWNS
Partially Flooded Flooded	Carlock Promenade Wirriboot Court	KARANA DOWNS KARANA DOWNS

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Flooded	Mount Crosby Road	KARANA DOWNS
Partially Flooded	Hoggwaller Lane	KENMORE
Flooded	Centenary Highway	KENMORE
Flooded	Scandia Street	KENMORE
	Kingfisher Place	KENMORE
Flooded	Durness Street	KENMORE
Flooded	Cromarty Street	KENMORE
Flooded	Kilkivan Avenue	KENMORE
Flooded	Sunset Road	KENMORE
Flooded	Calshot Street	KENMORE
Flooded	Gem Road	KENMORE
Flooded	Fortrose Street	KENMORE
Flooded		KENMORE
Flooded	Margaret Court	KENMORE
Flooded	Moggill Road	KENMORE
Flooded	Scenic Road	KENMORE HILLS
Flooded	Branton Street	
Flooded	Shelley Road	KHOLO
Flooded	Lake Manchester Road	KHOLO
Flooded	Kholo Bridge	KHOLO
Partially Flooded	Port Of Brisbane Motorway	LYTTON
Partially Flooded	Frank Milan Drive	LYTTON
Flooded	Beanland Street	MIDDLE PARK
Flooded	Loffs Road	MIDDLE PARK
Partially Flooded	Patrick Street	MILTON
Partially Flooded	Gordon Street	MILTON :
Flooded	Wight Street	MILTON
Flooded	Graham Street	MILTON
Flooded	Cribb Street	MILTON
Flooded	Park Road	MILTON
Flooded	Isaac Street	MILTON
Flooded	Boomerang Street	MILTON
Flooded	Coronation Drive	MILTON
	Dorsey Street	MILTON
Flooded	Bellevue Street	MILTON
Flooded	Gardner Close	MILTON
Flooded	Blaxland Street	MILTON
Flooded		MILTON
Flooded	Railway Terrace	MILTON
Flooded	. Crombie Street	MILTON
Flooded	. Mcdougall Street	MILTON
Flooded	Heussler Terrace	
Flooded	Manning Street	MILTON
Flooded	Walsh Street ·	MILTON
Flooded	Baroona Road	MILTON
. Flooded	Bayswater Street	MILTON
Flooded	Finchley Street	MILTON
Flooded	Paten-Street	-MILTON-
Flooded	Halg Road	MILTON
Flooded	Lucy Street	MILTON .
Flooded	Parkview Street	MILTON
Flooded	Douglas Street	MILTON
Flooded	Castlemaine Street	MILTON '
Flooded .		

Flooded	Granzella Street	MILTON
Flooded	Black Street	MILTON
Flooded	Chippendali Street	MILTON
Flooded	Frew Street	MILTON
Flooded	Camford Street	MILTON
Flooded	Eagle Terrace	MILTON
Flooded	Kilroe Street	MILTON
Flooded	Milton Road	MILTON :
Flooded	Roy Street	MILTON
Partially Flooded	Avonmore Street	MOGGILL
Flooded	Vanwall Road	MOGGILL
Flooded	Weekes Road	MOGGILL
Flooded	Hawkesbury Road	MOGGILL
Flooded	Myora Street	MOGGILL
Flooded	Priors Pocket Road	MOGGILL .
Flooded	Moggill Road	MOGGILL
	Cobden Street	MOOROOKA
Flooded	Ipswich Road	MOOROOKA
Flooded	Ellen Street	MOOROOKA
Flooded	Gladstone Street	MOOROOKA
Flooded	Baldock Street	MOOROOKA
Flooded	John Bright Street	MOOROOKA
Flooded	Muriel Avenue	MOOROOKA
Flooded	Sherwood Road	MODROOKA
Flooded	Evesham Street	MOOROOKA
Flooded	Stumers Road	MOUNT CROSBY
Flooded	Mount Crosby Road	MOUNT CROSBY
Flooded	Bridge	MOUNT CROSBY
Flooded	Cringle Place	MOUNT OMMANEY
Flooded	Drysdale Street	MOUNT OMMANEY
Flooded	Capitol Drive	MOUNT OMMANEY
Flooded	Hannah Street	MOUNT OMMANEY .
Flooded	Summit Place	MOUNT OMMANEY
Flooded	Westlake Drive	MOUNT OMMANEY
Flooded	Riverside Drive	MUIRLEA
Flooded	Dixon Street	NEW FARM
Partially Flooded	Hawthome Street	NEW FARM
Partially Flooded	Mountford Road	NEW FARM
Partially Flooded	Sargent Street	NEW FARM
Partially Flooded	Moray Street	NEW FARM
Flooded	Oxlade Drive	NEW FARM
Flooded		NEW FARM
Flooded	Fuljames Lane	NEW FARM
Flooded	Lamington Street	NEW FARM
Flooded	Brunswick Street	
Flooded	Refinery Parade	NEW FARM
Flooded	Sydney-Street-	NEW FARM
Flooded	Alford Street	NEW FARM
Flooded.	Welsby Street	NEW FARM
Partially Flooded	Helen Street	NEWSTEAD
Partially Flooded	Masters Street	NEWSTEAD
Partially Flooded	Wyandra Street	NEWSTEAD
Partially Flooded	Wyatt Street	NEWSTEAD

Destinible Flooded	Doggett Street	NEWSTEAD
Partially Flooded	Stratton Street	NEWSTEAD
Partially Flooded .	Breakfast Creek Road	NEWSTEAD
Flooded	Edmund Street	NEWSTEAD
Flooded	Evelyn Street	NEWSTEAD
Flooded	Maud Street	NEWSTEAD
Flooded	Longland Street	NEWSTEAD
Flooded	Durong Street	NEWSTEAD
Flooded	Byres Street	NEWSTEAD
Flooded	Austin Street	NEWSTEAD
Flooded	Gordon Street	NEWSTEAD
Flooded	Ross Street	NEWSTEAD
Flooded	Wickham Grove	NEWSTEAD
Flooded	Commercial Road	NEWSTEAD
Flooded	Creswell Street	NEWSTEAD
Flooded		NEWSTEAD
Flooded	Waterloo Street	NORMAN PARK
Partially Flooded	Hall Avenue	NORMAN PARK
Partially Flooded	Thynne Avenue	NORMAN PARK
Partially Flooded	Morehead Avenue	NORMAN PARK
Partially Flooded	Pattison Avenue	NORMAN PARK
Flooded	Brentnall Street	NORMAN PARK
Flooded	Frank Street	1
Flooded	Milsom Street	NORMAN PARK
Flooded	Vectis Street	NORMAN PARK
Flooded	Bennetts Road	NORMAN PARK
Flooded	Myall Street	NORMAN PARK
Flooded	Canara Street	NORMAN PARK
Flooded	Wordsworth Street	NORMAN PARK
Flooded	Crown Street	NORMAN PARK
Flooded	Adina Street	NORMAN PARK
Flooded	Waite Street	NORMAN PARK
. Flooded	Gillan Street	NORMAN PARK
Flooded	Norman Avenue	NORMAN PARK
Flooded	Bodalla Street	NORMAN PARK
Flooded	Hope Street	NORMAN PARK
Flooded	Milton Street	NORMAN PARK
Flooded	Pope Street	NORMAN PARK
Flooded	Moreton Street	NORMAN PARK
Flooded	Scott Street	NORMAN PARK
Flooded .	Donaldson Street	NORMAN PARK
Flooded	Wendell Street	NORMAN PARK
- Partially Flooded	Prestwick Street	- OXLEY
Partially Flooded	Epworth Street	OXLEY
Flooded	Munbilla Street	OXLEY
Flooded	William Terrace	OXLEY
- Flooded	Calston-Street-	OXLEY
Flooded	Enright Street	OXLEY
Flooded	Heathrow Street	OXLEY
Flooded	Idriess Street	OXLEY
Flooded	Price Street	OXLEY
Flooded	Blackheath Road	OXLEY
Flooded	Jutland Street	OXLEY
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Flooded	California Road	OXLEY
Flooded	Mabel Street	OXLEY
	Manor Street	OXLEY
Flooded	Campana Street	OXLEY
Flooded	Cook Street	OXLEY
Flooded	Thomburgh Street	OXLEY
Flooded	Cliveden Avenue	OXLEY .
Flooded	Bayford Street .	OXLEY
Flooded	Alban Street	OXLEY
Flooded	Aldersgate Street	OXLEY
Flooded	Bannerman Street	OXLEY
Flooded	Wilpowell Street	OXLEY
Flooded	Kendali Street	OXLEY
Flooded	Lawson Street	OXLEY
Flooded	Colwel Street	OXLEY
Flooded		OXLEY
Flooded	Englefield Road	OXLEY
Flooded	Blunder Road	OXLEY
Flooded	Boundary Road	OXLEY .
Floaded	Oxley Station Road	OXLEY
Flooded .	Lincoln Street	OXLEY
Flooded	Gladstone Street	OXLEY
Flooded	Ipswich Motorway access road	OXLEY
Flooded	Factory Rd Loop	OXLEY
Flooded	Factory Road	
Flooded	Selma Street	OXLEY
Flooded	Oxley Road	OXLEY
Flooded	Ipswich Road	OXLEY
Flooded	Logan Avenue	OXLEY
Flooded	Ipswich Motorway	OXLEY
Flooded	Agars Street	PADDINGTON
Flooded	Elizabeth Street	PADDINGTON
Flooded	Nash Street	PADDINGTON
Flooded	Baroona Road	PADDINGTON
Flooded	Beck Street	PADDINGTON
Flooded	Fernberg Road	PADDINGTON
Flooded	Riverside Drive	PINE MOUNTAIN
Flooded	Kholo Bridge	PINE MOUNTAIN
Flooded	Moggill Road	PINJARRA HILLS
Flooded	Pinjarra Road	PINJARRA HILLS
Partially Flooded	Brownlee Street	PINKENBA
Partially Flooded	Gannon Road	PINKENBA
Partially Flooded	Hopper Street	PINKENBA:
Partially Flooded	Orient Avenue	PINKENBA
Partially Flooded	Sandmere Road	PINKENBA
Partially Flooded	Serpentine Road	PINKENBA
Partially Flooded	Yarra-Street-	-PINKENBA
Partially Flooded	Gregg Street	PINKENBA
Partially Flooded	Neill Street	PINKENBA
Partially Flooded	Unwin Street	PINKENBA
Partially Flooded	School Road	PINKENBA
Flooded	Bancroft Road	PINKENBA
Flooded	Esker Street	PINKENBA
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Part - and and	Brand Road	PINKENBA
Flooded	Marine Drive	PINKENBA
Flooded	Lancing Street	PULLENVALE
Partially Flooded	Boyle Road	PULLENVALE
Flooded	Montgomery Street	REDBANK
Flooded	Mcauliffe Street	REDBANK
Flooded	Cross Street	REDBANK
Flooded	Monash Road	REDBANK
Flooded	Plain Street	REDBANK
Flooded	Monash Street	REDBANK
Flooded		REDBANK
Flooded	Brisbane Terrace	RIVERHILLS
Partially Flooded	Paluna Street	RIVERHILLS
Partially Flooded	Bogong Street	RIVERHILLS
Flooded	Tigris Street	
Flooded	Loddon Street	RIVERHILLS
Flooded	Rufus Street	RIVERHILLS
Flooded	Sumners Road	RIVERHILLS
Flooded	Ipswich Motorway	RIVERVIEW
Flooded	Brisbane Road	RIVERVIEW
Flooded	Duncan Street	RIVERVIEW
Flooded	Caroline Street	RIVERVIEW
Flooded	Old Ipswich Road	RIVERVIEW
Flooded	Moggill Fry Road	RIVERVIEW
Partially Flooded	Annie Street	ROCKLEA
Partially Flooded	Boundary Road	ROCKLEA
Partially Flooded	Station Street	ROCKLEA
Flooded	Beaufighter Avenue	ROCKLEA
Flooded	Heaton Street	ROCKLEA
	Beatty Road	ROCKLEA
Flooded	Railway Terrace	ROCKLEA
Flooded	Shettleston Street	ROCKLEA
Flooded	Emcroft Place	ROCKLEA
Flooded	Dawn Street	ROCKLEA
Flooded	Albert Street	ROCKLEA
Flooded	Abercromble Street	ROCKLEA
Flooded	······································	ROCKLEA
Flooded	Riawena Road	ROCKLEA
Flooded		ROCKLEA
Flooded	Ashover Road	
Flooded	Carisbrook Street	ROCKLEA
Flooded	Balham Road .	ROCKLEA
Flooded	Dollis Street	ROCKLEA
Flooded	Permarig Place	ROCKLEA
Flooded	Short Street	ROCKLEA
Flooded	De Hayr St	ROCKLEA
Flooded	Fairfield Road	ROCKLEA
Flooded	Grindle-Road—	ROCKLEA
Flooded	Collinsvale Street	ROCKLEA
Flooded	Martin Taylor Drive	ROCKLEA
Flooded	Wileri Street	ROCKLEA
Flooded	Granard Road	ROCKLEA
Flooded	Suscaland Street	ROCKLEA
. Flooded	Blackdown Street	ROCKLEA

Flooded	Lillian Avenue	ROCKLEA
Flooded	Randolph Street	ROCKLEA
Flooded	Sperling Street	ROCKLEA
Flooded	Goburra Street	ROCKLEA
Flooded	Ipswich Motorway	ROCKLEA
Flooded	Galah Street	ROCKLEA
	Golf Links Road	ROCKLEA
Flooded	Leeds Street	ROCKLEA
Flooded	Pegg Road	ROCKLEA
Flooded	Salisbury Street	ROCKLEA
Flooded	Damley Street	ROCKLEA
Flooded	Tramore Street	ROCKLEA
Flooded	Elkedra Avenue	ROCKLEA
Flooded	Beaudesert Road	ROCKLEA
Flooded	Freney Street	ROCKLEA
Flooded	Gilmour Place	ROCKLEA
Flooded		ROCKLEA
Flooded	Brooke Street	ROCKLEA
Flooded	Macbarry Place	ROCKLEA
Flooded	Bale Street	ROCKLEA
Flooded	Colvin Street	
Flooded	Corella Street	ROCKLEA
Flooded	Inskip Street	ROCKLEA
Flooded	Elmes Road	ROCKLEA
Flooded	Ipswich Road	ROCKLEA
Flooded	Breadwell Street	ROCKLEA
Flooded	Shoebury Street	ROCKLEA
Flooded	Boobook Street	ROCKLEA
Flooded	De Hayr Street	ROCKLEA '
Flooded	Melbourne Street	ROCKLEA
Flooded	Donaldson Road	ROCKLEA
Flooded	Franklin Street	ROCKLEA
Flooded	Sherwood Road	ROCKLEA
Flooded	Cambridge Street	ROCKLEA
Flooded	Andrew Street	ROCKLEA
Flooded	Dunn Road	ROCKLEA
Flooded	Marshall Road	ROCKLEA
Flooded	Medway Street	ROCKLEA
Flooded	Herbert Street	ROCKLEA
Flooded	Perrin Place	SALISBURY
Flooded	Riawena Road	SALISBURY.
Flooded	Benronalds Street	SEVENTEEN MILE ROCKS
Flöoded	Counihan Road	SEVENTEEN MILE ROCKS
Flooded	Sinnamon Road	SEVENTEEN MILE ROCKS
Partially Flooded	Hood Street	SHERWOOD
Flooded	Chancellor Street	SHERWOOD
- Flooded :	Dudley-Street	SHERWOOD-
Flooded	Ferry Street	SHERWOOD
Flooded	Borden Street	SHERWOOD
Flooded	Blackwood Street	SHERWOOD
Flooded	Plumer Street	SHERWOOD
Flooded	Dunella Street	SHERWOOD
	Turner Street	SHERWOOD
Flooded	I diller offeet	

Flooded	Central Avenue	SHERWOOD
Flooded	Jolimont Street	SHERWOOD
Flooded	Johnstone Street	SHERWOOD
Flooded	Sherwood Road	SHERWOOD
Flooded	Strickland Terrace	SHERWOOD
Flooded	Mcculla Street	SHERWOOD
Flooded	' Hall Street	SHERWOOD
Flooded	Thomas Street	SHERWOOD
Flooded	Egmont Street	SHERWOOD
Flooded	Barcoo Crescent	SINNAMON PARK
Partially Flooded	Brinley Place	SINNAMON PARK
Flooded Flooded	Oldfield Road	SINNAMON PARK
Flooded	Bremer Lane	SINNAMON PARK
Flooded	Burdekin Drive	SINNAMON PARK
Flooded	Balonne Avenue	SINNAMON PARK
Flooded	Condamine Drive	SINNAMON PARK
Flooded	Sinnamon Road	SINNAMON PARK
	Little Stanley Street	SOUTH BRISBANE
Partially Flooded Partially Flooded	Nott Street	SOUTH BRISBANE
Flooded	Cordelia Street	SOUTH BRISBANE
Flooded	Edmondstone Street	SOUTH BRISBANE
Flooded	Hockings Street	SOUTH BRISBANE
Flooded ·	Mollison Street	SOUTH BRISBANE
Flooded	Boundary Street	SOUTH BRISBANE
Flooded	Melbourne Street	SOUTH BRISBANE
Flooded	Brereton Street	SOUTH BRISBANE
Flooded	Cameron Street	SOUTH BRISBANE
Flooded	Fish Lane	SOUTH BRISBANE
. Flooded	Grey Street	SOUTH BRISBANE
Flooded	Manning Street	SOUTH BRISBANE
Flooded	Merivale Street	SOUTH BRISBANE
Flooded	Russell Street	SOUTH BRISBANE
Flooded	Bouquet Street	SOUTH BRISBANE
Flooded	Hope Street	SOUTH BRISBANE
Flooded	Montague Road	SOUTH BRISBANE
Flooded	Norfolk Road	SOUTH BRISBANE
Flooded	Glenelg Street	SOUTH BRISBANE
Flooded	Fleet Lane	SOUTH BRISBANE
Flooded	Busway	SOUTH BRISBANE
Flooded	Stanley Street	. SOUTH BRISBANE
Flooded	Riverside Drive	SOUTH BRISBANE
Flooded	Jerdanefield Road	STLUCIA
Flooded	Union Road	ST LUCIA
Flooded	Staff House Road	ST LUCIA
Flooded	Douglas Street	ST LUCIA
Flooded	Prospect-Terrace	ST-LUCIA
Flooded	The Esplanade	ST LUCIA
Flooded	Hiron Street	ST LUCIA
Flooded	Thynne Road	ST LUCIA
Flooded	Bellevue Terrace	ST LUCIA
Flooded	Keith Street	ST LUCIA
Flooded	Bryce Street	ST LUCIA

Flooded	Blair Drive	ST LUCIA
Flooded	Mitre Street	ST LUCIA
Flooded	Carr Street	ST LUCIA
Flooded	Macquarie Street	ST LUCIA
Flooded	College Road	ST LUCIA
Flooded	Brisbane Street	ST LUCIA
Flooded	Carmody Road	ST LUCIA
Flooded	Twelfth Avenue	ST LUCIA
Flooded	Sisley Street	ST LUCIA
Flooded	Durham Street	ST LUCIA
Flooded	Laurence Street	ST LUCIA
Flooded	Sir Fred Schonell Drive	ST LUCIA
Flooded	Sandford Street	ST LUCIA
Flooded	Sir William Macgregor Drive	ST LUCIA
Flooded	Austral Street	ST LUCIA .
Flooded	Warren Street	ST LUCIA
Flooded	Coleridge Street	ST LUCIA
Flooded	Glasshouse Road	ST LUCIA
Flooded	4 North Tartes	ST LUCIA
Flooded	Underhill Street	ST LUCIA
Flooded	Walcott Street	ST LUCIA
Flooded	Munro Street	SUMNER
Flooded	Boron Street	SUMNER
Flooded	Jijaws Street	SUMNER
Flooded	Brumby Circuit	SUMNER
Flooded	Forge Close	SUMNER
Flooded /	Bullockhead Street	
Flooded	Neon Street	SUMNER
Flooded	Wolston Road	SUMNER
Flooded	Ciydesdale Place	SUMNER.
Flooded	Wacol Station Road	SUMNER
Flooded	Spine Street	SUMNER
Flooded	. Oxford Terrace	TARINGA
Flooded	Brasted Street	TARINGA
Flooded	Westerham Street	TARINGA
Flooded	Gailey Road	TARINGA :
Flooded	Bellevue Parade	TARINGA
Flooded	Alpha Street	TARINGA
Flooded	Indooroopilly Road	TARINGA
Flooded	Moore Street	TARINGA
Flooded	Heroes Avenue	TARINGA
Flooded	Gerlee Street	TENNYSON
Flooded	Vivian Street	TENNYSON
Flooded	Lancelot Street	TENNYSON
Flooded	Curzon Street	TENNYSON
Partially Flooded	Fleming Road	TINGALPA
Partially Flooded	Wynnum-Road	TINGALPA
Flooded	Boundary Street	TINGALPA
Partially Flooded	Booth Street	TOOWONG
Partially Flooded	Herbert Street	TOOWONG
Flooded	· Campbell Street	TOOWONG
. Flooded	Coronation Drive	TOOWONG
Flooded	Holmes Street	TOOWONG

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Flooded	Landsborough Terrace	TOOWONG
Flooded	Burns Road	TOOWONG .
Flooded	Sylvan Road	TOOWONG
Flooded	Mayne Street	TOOWONG
Flooded	Patrick Lane	TOOWONG
Flooded	Josling Street	TOOWONG
Flooded	Land Street	TOOWONG
Flooded	Progress Road	WACOL
Partially Flooded	Ipswich Motorway	WACOL
Flooded	Ellerton Drive	WACOL
Flooded	Boyce Road	WACOL
Flooded	Wolston Road	WACOL
Flooded	Wacol Station Road	WACOL
Flooded	Wilruna Street	WACOL
Flooded		WEST END
Partially Flooded	Drury Street	WEST END
Flooded	Filmer Street	WEST END
Flooded	Doris Street	WEST END
Flooded	Duncan Street	WEST END
Flooded	Anthony Street	
Flooded	Beesley Street	WEST END
Flooded	Donkin Street	WEST END
Flooded	Buchanan Street	WEST END
Flooded	Greet Street	WEST END
Flooded	Musgrave Street	WEST END
Flooded	Scott Street	WEST END
Flooded	Ferry Road	WEST END
Flooded	Gray Road	WEST END
Flooded	Forbes Street	WEST END
Flooded	Lower Hardgrave Road	WEST END
Flooded	Tondara Lane	WEST END
Flooded	Hill End Terrace	WEST END
Flooded	Jane Street	WEST END
Flooded	Avebury Street	WEST END
Flooded	Morry Street	WEST END
Flooded	Ryan Street	WEST END
Flooded	Carlow Street	WEST END
Flooded	Balley Street	WEST END
Flooded	Orleigh Street	WEST END
Flooded	Hoogley Street	WEST END
Flooded	Montague Road	WEST END
Flooded	Kurilpa Street	WEST END
Flooded	Victoria Street	WEST END
Flooded	Riverside Drive	WEST END
Partially Flooded	Timaru Close	WESTLAKE
Flooded	Westlake Drive	WESTLAKE
Flooded	Bowhill-Road-	WILLAWONG
Partially Flooded	Edmondstone Street	WILSTON
Partially Flooded	Silvester Street	WILSTON
Partially Flooded	Newmarket Road	WILSTON
Partially Flooded	Mill Street	WINDSOR
Partially Flooded	Newmarket Road	WINDSOR
Partially Flooded	Algar Street	WINDSOR
L GOOGIT 170000		

Partially Flooded	Byrne Street	WINDSOR		
Partially Flooded	Turner Street	WINDSOR		
Flooded	Blackmore Street	WINDSOR		
Flooded	Kidman Street	WINDSOR		
Flooded	Melbourne Street	WINDSOR		
Flooded	Swan Terrace	WINDSOR		
Flooded	Taylor Street	WINDSOR		
Flooded	Gennon Street	WINDSOR		
	Hadfield Street	WINDSOR		
Flooded Flooded	Lane Street	WINDSOR		
Flooded	Mcdonald Road	WINDSOR		
	Green Terrace	WINDSOR		
Flooded	Le Geyt Street	WINDSOR		
Flooded	Allom Street	WINDSOR		
Flooded	Cartwright Street	WINDSOR		
Flooded	Downey Street	WINDSOR		
Flooded	Grafton Street	WINDSOR		
Flooded		WINDSOR		
Flooded	Robert Lane	WINDSOR		
Flooded	Albany Street	WINDSOR		
Flooded	Bowen Street	WINDSOR		
Flooded	Cullen Street			
Flooded	Edgar Street	WINDSOR		
Flooded	Edmund Street			
Flooded	Federation Street	WINDSOR		
Flooded	Noble Street	WINDSOR		
Flooded	Somerset Street	WINDSOR		
Flooded	Addison Street	WINDSOR		
Flooded	Maurice Street	WINDSOR		
Flooded	Nicholas Street	WINDSOR		
Flooded	Northey Street	WINDSOR		
Flooded	Victoria Street	WINDSOR		
Flooded	Bryden Street	WINDSOR		
Partially Flooded	Norman Street	WOOLLOONGABBA		
Flooded	Lucinda Street	WOOLLOONGABBA		
Flooded	Deshon Street	WOOLLOONGABBA		
Flooded	Holden Street	WOOLLOONGABBA		
Flooded	Mountjoy Street	WOOLLOONGABBA		
· Flooded	Atherton Street	WOOLLOONGABBA		
Flooded	Leonard Street	WOOLLOONGABBA		
Flooded	Salisbury Street	WOOLLOONGABBA		
Flooded	Longlands Street	WOOLLOONGABBA		
- Flooded	Preston Street	WOOLLOONGABBA		
Flooded	Flower Street	WOOLLOONGABBA		
Flooded	Hampton Street	WOOLLOONGABBA		
Flooded	Albion Street	WOOLLOONGABBA		
Flooded	Maynard-Street	-WOOLLOONGABBA		
Flooded	Churchill Street	WOOLLOONGABBA		
Flooded	Lotus Street	WOOLLOONGABBA		
Flooded	Line Street	WOOLLOONGABBA		
Partially Flooded	Haynes Road	WYNNUM WEST		
Partially Flooded	Alness Street	WYNNUM WEST		
Flooded	Varley Street	YEERONGPILLY		

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Flooded	Pulle Street	YEERONGPILLY		
Flooded	Palomar Road	YEERONGPILLY		
Flooded	Chale Street	YEERONGPILLY		
Flooded	Ortive Street	YEERONGPILLY		
Flooded	Moolabin Crescent	YEERONGPILLY		
Flooded	Allawah Street	YEERONGPILLY		
Flooded	Nares.Street	YEERONGPILLY		
Flooded	Fairfield Road	YEERONGPILLY		
Partially Flooded	Grounds Street	YERONGA		
Partially Flooded	Nelson Street	YERONGA		
Partially Flooded	Ovendean Street	YERONGA		
Partially Flooded	Orvieto Road	YERONGA		
Flooded	Arras Street	YERONGA		
Flooded	Violet Street	YERONGA		
Flooded	Astolat Street	YERONGA		
Flooded	Orontes Road	YERONGA		
Flooded	Otaki Road	YERONGA		
Flooded	Hibiscus Lane	YERONGA		
Flooded	Utzon Street	YERONGA		
Flooded	Lane	YERONGA		
Flooded	, Osric Street	YERONGA		
Flooded	Anita Street	YERONGA		
	Stevens Street	YERONGA		
Flooded Flooded	Cansdale Street	YERONGA .		
	Cassia Lane	YERONGA		
Flooded	Brisbane Corso	YERONGA		
Flooded	Orlando Road	YERONGA		
Flooded	Orient Road	YERONGA		
Flooded Flooded	Ellesmere Street	YERONGA		
Flooded	, Aranul Street	YERONGA		
Flooded	Kingsley Parade	YERONGA		
	Yvonne Street	YERONGA		
Flooded	Orsova Road	YERONGA		
Flooded Flooded	Eversley Terrace	YERONGA		
Flooded	Park Road	YERONGA		
Flooded	Oriana Crescent	YERONGA		
Flooded	Hyde Road	YERONGA		
Flooded	Ormadale Road	YERONGA		
Flooded	Tecoma Lane	YERONGA		
Flooded	Diane Street	YERONGA		
	Fairfield Road	YERONGA		
Flooded	' Venner Road	YERONGA		
Flooded	Esplanade	YERONGA		
Flooded	Ortive Street	YERONGA		
		YERONGA		
Flooded Flooded	Rome-Street-South	YERONGA		

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ITEM	COMMENTS				
Impact Area and Scale	We have now been advised by the BoM at 14:55 that they expect peak flood levels are likely to exceed 1974 levels on Thursday 13/01/2011.				
Communications	A temporary website is now available via the normal URL (www.brisbane.qld.gov.au)				
	In additional, the network carriage provider (Optus) has been notified and advised that as the load increases on our network, we may need to ramp up our network capacity quite quickly. They are on standby.				
Electricity					
	region         customers affected (approx)           Brisbane Nth         56           Brisbane Sth         1539           Brisbane West         789				
Water Supply	QUU advise water booster and sewerage pumps stations are operating normally. No further advice available as to outstanding jobs logged for sewer surcharge.				
-	QUU are providing regional support by way of distribution of bottled water to the Toowoomba region.				
Sewerage	Treatment plants may be affected by rising flood waters. No further information available at this time. QUU are meeting to discuss.				
Gas	No issue				
Transport	Current road closures:     Fox St, Albion     Bowman Rd, Bardon     Kangaroo Gully Rd, Bellbowrie     Lancing St, Pullenvale     Paradise Rd, Larapinta				
	<ul> <li>Illaweena St, Drewvale</li> <li>Youngs Crossing Rd, Joyner</li> <li>Wembley Rd, Berrinba</li> <li>Rafting Ground Rd at Rees Way, Greentrees Ave and</li> </ul>				
	Deerhurst Rd, Brookfield  Widdop St, Clayfield  Melton St, Nundah				
ı	Egmont St, Sherwood     Gap Creek Rd, Brookfield     Marshall-Rd, Rocklea				
	<ul> <li>Formosa Rd between Stanborough Rd and Dairy Swamp</li> <li>Rd, Gumdale</li> <li>Murphys Creek Rd, Lockyer</li> </ul>				
	<ul> <li>Manly Rd between New Cleveland Rd and Castlerea St,</li> <li>Manly</li> <li>Ropley Rd, Wynnum West</li> </ul>				
	Rosewood Warrill View Rd, Rosewood				

 Massey Street between Sykes St and Morgan Street at Bartleys Hill Resevoir, Ascot

Blunder Road exit from the Ipswich Motorway westbound at

### Oxley

Redfern St Morningside

- Wacol Station Rd near Sumner Rd, Sumner
- Muriel Ave and Sherwood Rd, Rocklea
- Cunningham Hwy at Harrisville

### **Public Transport closures:**

All CityCats and CityFerry services have stopped. Some train services continue to run.

# Hospitals/Schools etc

No issue

**Public Services** 

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Evacuation centres have been established, with the evacuation centre opened at the RNA showgrounds.

**Properties/Buildings** 

Council's Macquarie Street Archives building was hit by lightning at 1:50pm. There was some minor damage to the building but no injuries reported.

Two pontoons were reported to be loose in the river.

### STATUS REPORT

ITEM	COMMENTS		
Supply Problems (Food, clothing, etc)	No issue		
Equipment (Sandbags, lighting, etc)	Total stock estimated at 32,000 bags		
	Total supplied estimated at up to 53,000 bags.		
	Depots at:		
	SES Depot Newmarket.		
	BCW Zillmere Depot  BOW Power Penet		
	<ul> <li>BCW Darra Depot</li> <li>BCW / SES Balmoral Depot</li> </ul>		
	BCW Stafford		
	BCW Eagle Farm		
Labour (Volunteers, contractors, etc)	Staff are required across the various depots to be able to fill sand bags.		
Media Issues	Media releases are being prepared concerning:		
	<ul><li>Sandbags</li><li>Evacuation centres</li></ul>		
	Roads affected.		
Political Issues	No issue		

City Waste Issues	All cleansing operations in the mall have been suspended, except a small skeleton crew. All available staff have been tasked to sandbagging operations.					
External Stakeholder Issues Internal Work Unit Issues	No issue					
JOB REPORT			I	1100	EH	RAT
DESCRIPTION		LAS	SES	·Veg	<u> </u>	1041
Number of jobs received					ļ	<u> </u>
Number of jobs generated by Regional Incident Management Team					<u> </u>	
Total number of jobs					ļ	
Total number of jobs completed to this time					ļ	
Total jobs remaining						
Expected delay for teams to new jobs (if known)						
Number of teams activated					<u> </u>	<u> </u>
Evacuations REPO	RT					
From:	To:			Persons Evacuated:		
TOTAL EVACUATED: 0	TOTAL EVACUATED: 0			<u> </u>		
					£ 1.010000000000000000000000000000000000	
AUTHORISATION:	idani Cant	rollor			•	
Name: Glenn Gomez – Inc	iueni coni	IOHEI		•		
Signature:						
-						
Date and Time: 11/01/11	1530 hrs		,			

## ATTACHMENT CJA-4