

## WITNESS STATEMENT OF PETER McMANAMON

This written statement is provided in response to a Requirement, dated 11 May 2011, to provide a written statement, under oath or affirmation, to the Queensland Floods Commission of Inquiry pursuant to section 5(1)(d) of the *Commissions of Inquiry Act 1950* (Qld)

I, Peter McManamon, Chief Executive Officer of the Queensland Bulk Water Transport Authority ("LinkWater"), 200 Creek Street, Brisbane in the State of Queensland, state on oath as follows:

### Introduction and Qualifications

1. The Queensland Bulk Water Transport Authority, trading as LinkWater, was established in November 2007 as part of the water reform effected under the *South East Queensland Water (Restructuring) Act 2007*. At the time that LinkWater was established I was appointed as its Chief Executive Officer. LinkWater became operational in July 2008.
2. Prior to that, on 2 July 2007 I had been appointed Chief Executive Officer of the Southern Regional Water Pipeline Company Pty Ltd, now trading as LinkWater Projects. I continue as the CEO of LinkWater Projects.
3. I hold the following qualifications:
  - Bachelor of Engineering, Water Resources (Monash University);
  - Master of Engineering Science, Water Resources (Monash University);
  - Graduate Diploma of Management (Deakin University);
  - Master of Business Administration (LaTrobe University); and
  - Company Director's Diploma (Australian Institute of Company Directors).
4. I am also a member of a number of professional bodies and associations.

4. I am also a member of a number of professional bodies and associations including the following:

- Fellow, Australian Institute of Company Directors;
- Fellow, Institution of Engineers, Australia;
- Fellow, Institute of Water Administration;
- Member, Australian Water Association; and
- AusAid Registered Consultant.

5. I have 35 years relevant experience in water management both in Australia and overseas. Prior to my appointment as CEO of the Southern Regional Water Pipeline Company in July 2007, my previous employment included:

- 1976-1990: Various roles in Government and Private Sector;
- 1990-1999: Director of Technical Services, Goulbourn Valley Water;
- 1999-2004: CEO of Grampians Region Water Authority; and
- 2004-2007: CEO of GWMWater (Grampians Wimmera Mallee Water).

6. In 2004 I managed the formation of GWMWater, one of only two Victorian Rural and Urban water management authorities. This was undertaken to implement the Wimmera Mallee Pipeline Project which was the largest project of its type in the Australian Water Sector. This project involving some 11,000 km of pipeline was completed ahead of schedule and within the project funding.

7. LinkWater is the entity with responsibility for:

- (a) the management, operation and maintenance of potable bulk water pipelines and related infrastructure in the South East Queensland Water Grid ("SEQ Water Grid");

- (b) the monitoring and maintenance of water quality throughout the potable bulk water transport network; and
  - (c) the movement of potable water of appropriate quality and quantity across the SEQ Water Grid network from the bulk water suppliers to the water distributor-retailers at the places and at the times, and in the quantities, required.
8. The SEQ Water Grid comprises the areas serviced by the Brisbane, Ipswich, Gold Coast, Sunshine Coast, Redland, Logan, Scenic Rim, Lockyer Valley, Somerset and Moreton Bay city and regional local government areas. The potable bulk water transport network for which LinkWater is responsible operates in each of these areas other than Lockyer Valley and Somerset.
9. During the December 2010 and January 2011 flood event ("**the flood event**") the local government areas within which the LinkWater potable bulk water transport network operates which were directly impacted by the event were Brisbane, Ipswich and a small part of Moreton Bay. However, the indirect impact of the event extended over most of the SEQ Water Grid area.
10. For the duration of the flood event, LinkWater successfully managed the water source and systems challenges occasioned by the event to ensure the maintenance of water quality and the movement of potable water throughout the SEQ Water Grid network to meet system demand.
11. LinkWater's current assets include 535km of potable bulk water pipelines, 28 reservoirs/balance tanks, 22 pump stations and 6 water quality facilities. Including projects planned or on foot and scheduled for completion by 2012, LinkWater manages an asset base of approximately \$2.5 billion. Attached to my statement and marked "**PM-1**" is a map published in the 2009 - 2010 LinkWater Annual Report indicating the nature and location of LinkWater's assets and projects (existing and planned) as at September 2010. At the time of the flood event LinkWater Projects was also responsible for operating the Toowoomba Pipeline from Wivenhoe Dam to Cressbrook Dam on behalf of Toowoomba Regional Council. The Toowoomba Pipeline system is not regarded as part of the SEQ Water Grid.

12. LinkWater's corporate office and the Grid Network Management Centre ("**Control Room**"), responsible for the day to day network management and operation of LinkWater's assets and for the movement of water throughout the grid, are located in premises at 200 Creek Street, Spring Hill. The Control Room operates 24 hours a day and 365 days a year.
13. In addition to myself, the current LinkWater executive team comprises:
- General Manager Business Services - Mr Ron Anderson
  - General Manager Corporate Services - Mr Kelvin Tytherleigh
  - General Manager Legal Services and Company Secretary - Ms Sally Frazer
  - General Manager Operational Services - Mr Andrew Moir
  - General Manger Project Services - Mr Michael Hortz.
14. On 11 March 2011, LinkWater provided a submission on flood preparedness relevant to the 2011-2012 summer wet season to the Queensland Floods Commission of Inquiry. Attached to my statement and marked "**PM-2**" is a copy of this submission.
15. In this statement I will address, at a relatively high or overview level, the following topics as requested by the Commission:

**Topic 1** - an overview of the operation of the SEQ Water Grid;

**Topic 2** - LinkWater's preparation and risk mitigation planning for the 2010/2011 summer wet season;

**Topic 3** - LinkWater's response to the flood event with particular reference to:

- the operation of LinkWater's Crisis Management and Incident Management Teams;
- the water source and systems challenges experienced by LinkWater relevant to the flood event;



- the means by which potable water supply was maintained by LinkWater to meet demand throughout the flood event; and
- the means by which potable water quality was maintained by LinkWater throughout the flood event;

**Topic 4** - the emergence of LinkWater's premises as the de facto SEQ Water Grid Emergency Management Centre during the flood event;

**Topic 5** - an assessment of the effectiveness of LinkWater's premises as a crisis management centre;

**Topic 6** - a description of the impact of the flood event on LinkWater's assets and infrastructure; and

**Topics 7 and 8** - lessons learned and actions arising from the flood event.

16. To the extent that these matters are already addressed in LinkWater's 11 March 2011 submission (annexure PM-2) I will endeavour to minimise repetition of them.

## **Topic 1 - An overview of the operation of SEQ Water Grid**

### **Background**

17. In 2007 the Queensland Government embarked on a reform of the water industry in South East Queensland resulting in the establishment of the SEQ Water Grid and the associated SEQ Water Market ("**Market**"). This reform also resulted in the establishment in November 2007 of a number of "new water entities" under the *South East Queensland Water (Restructuring) Act 2007*. Then, in 2010, local authorities within South East Queensland were divested of responsibility for water retail and distribution, and those functions were invested in new distributor-retailers established pursuant to the *South East Queensland Water (Distribution and Retail Restructuring) Act 2009*.

## **The SEQ Water Grid**

18. The SEQ Water Grid includes the network of water pipelines that connects various bulk water supply sources across South East Queensland, the major dams and water treatment plants, the Western Corridor Recycled Water Scheme facilities, and the Gold Coast desalination plant. Attached to my statement and marked "PM-3" is a map published by the SEQ Water Grid Manager indicating the nature and location of the water supply sources and the pipelines.
19. The SEQ Water Grid enables the transport of water between certain of the water supply sources through a network of two-way pipelines for delivery to the distributor-retailers, discussed further below, thereby managing long term water supply for the region.

## **The SEQ Water Grid Participants**

20. The responsibilities for operation of the SEQ Water Grid are shared between a number of parties under the regulatory structure known as the Market, which is established under the Water Act 2000 (Qld) ("Water Act"). The Market is operated under a set of rules ("Market Rules") and statutorily deemed contracts ("Grid Contracts").
21. The Queensland Water Commission ("QWC") is the rules administrator for the Market Rules and is responsible for the administration and enforcement of the Market Rules. The QWC sets the System Operating Plan which prescribes, at a high level, how the SEQ Water Grid is to be operated, including the desired levels of service objectives for the region, which are based around ensuring security of water supply.
22. Attached to my statement and marked "PM-4" is a document published by the SEQ Water Grid Manager which identifies the key participants in the operation of the grid and broadly describes their respective roles.
23. These participants are:
  - (a) SEQ Water Grid Manager, which owns the urban water entitlements in South East Queensland and is responsible for managing the SEQ Water Grid;

- (b) Queensland Bulk Water Supply Authority, trading as Seqwater, which owns and operates water supply and water treatment infrastructure in the SEQ region and whose role is to harvest and store raw water and manage water treatment plants;
- (c) Queensland Manufactured Water Authority, trading as WaterSecure, which owns and operates the Western Corridor Recycled Water Scheme and the SEQ (Gold Coast) desalination plant;
- (d) Queensland Bulk Water Transport Authority trading as LinkWater;
- (e) the Northern SEQ Distributor-Retailer Authority trading as Unitywater;
- (f) the Central SEQ Distributor-Retailer Authority trading as Queensland Urban Utilities; and
- (g) the Southern SEQ Distributor-Retailer Authority trading as Allconnex Water.

#### **General operation of the SEQ Water Grid**

- 24. The SEQ Water Grid Manager does not itself treat, transport or supply water. Rather, it procures these services through a series of Grid Contracts entered into between the SEQ Water Grid Manager and the various grid service providers or distributor-retailers (also known as grid customers). However, there is no direct contractual relationship between a grid service provider and a grid customer, notwithstanding that their operations or assets may physically interact. Operating Protocols set out the terms of arrangements as agreed between the grid participants in relation to their physical interactions.
- 25. The Water Act provides for the making of Grid Contracts by the Minister for the supply of bulk water within the SEQ Water Grid. Each Grid Contract has effect as a contract between the relevant grid service provider or grid customer and the SEQ Water Grid Manager.
- 26. The SEQ Water Grid Manager is therefore a common party to all Grid Contracts so that:

- (a) a grid service provider (such as LinkWater) must supply its declared water service only to the SEQ Water Grid Manager (and then, only in accordance with the relevant Grid Contract); and
  - (b) a grid customer must be supplied water from a declared water service only from the SEQ Water Grid Manager (and again, only in accordance with the relevant Grid Contract).
- 27. Generally, Grid Contracts govern the specific commercial transactions between grid participants and the SEQ Water Grid Manager. For example, the Grid Contract between the SEQ Water Grid Manager and LinkWater sets out the terms and conditions upon which LinkWater will transport potable water between bulk supply points within the SEQ Water Grid. This contract operates for the period 1 July 2010 to 30 June 2020, and imposes obligations on both the SEQ Water Grid Manager and LinkWater with respect to approval of and compliance with any Operating Protocols.
- 28. As noted above the Operating Protocols govern the specific operational interactions between the grid participants which interact with one another in the management of the physical flow of water within the SEQ Water Grid. The specific requirements for the development and approval of Operating Protocols are prescribed by the Market Rules.
- 29. The matters properly the subject of an Operating Protocol include:
  - (a) document control information and certification;
  - (b) network operations;
  - (c) issuing operating instructions and notifying of capacity or supply constraints;
  - (d) treated water quality and disinfection management;
  - (e) asset management;
  - (f) security and site access; and

(g) provision of SCADA information and access.

30. Therefore, in the ordinary course, the SEQ Water Grid operates by way of a series of:

- instructions from the SEQ Water Grid Manager to the grid participants; and
- operating instructions and agreed protocols between the grid participants, consistent with the instructions from the SEQ Water Grid Manager.

31. For the SEQ Water Grid Manager to decide what instructions to give, each grid participant provides the SEQ Water Grid Manager with relevant monthly supply and demand forecasts for availability and demand of water. Each grid customer must also provide the SEQ Water Grid Manager with an annual demand forecast setting out grid customer's best estimate of its annual water requirements for the following three years.

32. The SEQ Water Grid Manager issues Grid Instructions to the grid service providers and distributor-retailers for particular periods. Essentially, Grid Instructions specify how relevant infrastructure is to be operated to move the water through the water grid during the relevant instruction term.

33. To give effect to the SEQ Water Grid Manager Grid Instructions, the grid service providers and distributor-retailers may issue operating instructions to each other. Essentially, operating instructions specify the volume of water, flow rate and pressure at which water is to be supplied to the relevant supply point. These instructions are supported by the approved Operating Protocols which are designed to, amongst other things, clearly allocate the responsibilities and expectations of the grid participants in relation to operational interactions, communications and notifications.

34. Accordingly, the Market Rules operate within a hierarchy of statutory instruments, programs, plans, licences and contracts. These include the relevant legislation, the System Operating Plan, the Market Rules and any Grid Instructions issued pursuant to the Markets Rules, the Grid Contract Documents and the Operating Protocols made under the Market Rules, including any Operating Instructions issued pursuant to the Market Rules.

## **Topic 2 - LinkWater's preparation and planning for the 2010/2011 summer wet season**

### **LinkWater Emergency Response plan**

35. In terms of general preparedness for an emergency event, the Market Rules provide for the preparation of Emergency Response Plans by each of the SEQ Water Grid participants. Under the Market Rules the Water Grid Manager must prepare, implement and maintain a Water Grid Emergency Response Plan.
36. In addition, each grid participant must, by no later than 30 September 2010, have prepared and submitted to the Water Grid Manager an Emergency Response Plan for that participant's own infrastructure, consistent with the Water Grid Emergency Response Plan, for approval by the Water Grid Manager.
37. The LinkWater General Manager Corporate Services, Mr Tytherleigh, coordinated LinkWater's compliance with these requirements. At the time of the flood event LinkWater had in place an approved Emergency Response Plan. Attached to my statement and marked "PM-5" is a copy of the approved LinkWater Incident Management Plan.

### **Duty Manager Contact Roster**

38. Also, in terms of general preparedness and readiness for an incident, LinkWater operates on the basis of a Duty Manager contact roster. The role of Duty Manager is rotated through the five General Managers on a weekly (Wednesday to Wednesday) basis. Each Duty Manager carries a specially designated Duty Manager telephone and laptop computer, so that, whilst on duty, they are contactable on a 24/7 basis, and are also linked at all times to the Water Grid Manager OCA system. The OCA system is the common grid wide ICT platform for the management of emergencies in the SEQ Water Grid.
39. The Duty Manager contact roster is issued weekly and identifies the roster for the coming months. The roster also includes contact details for the LinkWater Control Room, the Network Operations Coordinator, the Communications Manager and the back-up OCA officer.

By way of example, attached to my statement and marked "PM-6" is a copy of the Duty Manager contact roster for the week of 29 December 2010 - 4 January 2011.

40. At the time of flood event Mr Tytherleigh was the Duty Manager from Wednesday, 5 January 2011 to Wednesday, 12 January 2011 and Ms Frazer was the Duty Manager who replaced Mr Tytherleigh.

**Specific preparation by LinkWater for the 2010/2011 summer wet season**

41. From October 2010, in response to long range weather forecasts predicting long periods of rain and heavy storm activity over the 2010-2011 Christmas/New Year holiday period and into the early months of 2011, LinkWater identified potential risk areas in terms of its operations, and implemented actions to mitigate the identified risks.
42. This planning and preparation was primarily coordinated by the Operational Services Group under the direction of its General Manager, Mr Moir. The Operational Services Group is divided into three teams: Service Delivery, Strategic and Asset Management and Infrastructure Planning. Mr Chris Evans is the Service Delivery Manager. Service Delivery is the team primarily responsible for operating LinkWater's water infrastructure, and it is the Operational Services team that was particularly involved in contingency planning for potential water delivery risk.
43. From October 2010 the Operational Services Group ran a series of risk workshops with internal LinkWater stakeholders and also with representatives of Seqwater. The coordination with Seqwater included a review of Seqwater assets, in particular water treatment plants throughout the Greater Brisbane, Ipswich, Gold Coast and Sunshine Coast areas, and the undertaking of a risk assessment in relation to those assets.
44. Throughout the latter part of 2010 an Operational Services team comprising a number of key LinkWater managers including:
- Mr Evans, responsible for Service Delivery;

- Mr Jeff Browne, responsible for Network Management;
- Mr Gavan Beyers, responsible for IT Control Systems;
- Mr Manny Reis, responsible for Asset Maintenance Coordination;
- Mr Craig Meinieke, responsible for Service Contract Management;
- Mr Mark Crabtree, responsible for Water Quality Management; and
- Mr James Moffatt, responsible for Systems Modelling;

met regularly under the direction of Mr Evans to review and develop contingency planning.

45. Also, in the lead in to the summer holiday period my Executive Management Team, which usually meets weekly, commenced bi-weekly meetings, held on the Monday and Thursday of each week. During this period I also kept the LinkWater Board updated on the risk mitigation and management work being undertaken in preparation for the summer holiday period.
46. As a result of these internal risk workshops and management meetings, plans were compiled to mitigate risk and to prepare for possible intense periods of activity. The workshops identified a number of key areas requiring enhanced risk mitigation over this period, including:
  - the risk of loss of supply from water treatment sources;
  - the risk of variability in water quality;
  - potential risk in relation to SCADA communication reliability (SCADA stands for Supervisory Control And Data Acquisition. It is the computer system that monitors and controls LinkWater's water infrastructure network. The "nerve centre" of this network is the Control Room, which operates on a 24/7 basis. From the Control Room, LinkWater can remotely access all of its infrastructure and it is from here that LinkWater controls how, when and where water is moved within the bulk water transportation system);



- staff and resources (such as contractors) availability over the holiday period;
  - asset maintenance during severe weather events; and
  - loss of critical services (such as power and communications) and loss of access to assets and infrastructure.
47. A number of actions were taken in response to these identified risks.
48. Critically, LinkWater took steps to increase the bulk storage levels in the LinkWater reservoirs from 60% to 80% capacity. The LinkWater reservoirs servicing the Brisbane region and surrounding areas have a capacity of 580 megalitres. However, that capacity involves every reservoir being full to overflowing, it is not a realistic operational capacity. Typically the reservoirs operate at no greater than 60% capacity.
49. There are good reasons for operating the reservoirs at a lower capacity. The lower the storage the more quickly the water is "turned over", ensuring that the water is "fresh", thereby lowering the risk of a reduction in water quality.
50. Also, the distributor-retailers, who only carry a relatively low capacity within their own reservoirs, prefer the water to be held at a lower level, as this reduces the pressure in the system, thereby reducing the risk of leakage and burst pipes. These occurrences occur less frequently under lower pressure.
51. Nevertheless, as a risk mitigation measure, prior to Christmas 2010 and into January 2011 LinkWater reservoir levels were increased to around 80% capacity so as to mitigate the risk of a loss of supply to LinkWater by Seqwater as the result of an emergency event.
52. Contingency plans were also developed to address potential loss of water supply from the bulk treatment sources, and to address water quality issues, including arrangements whereby water quality sampling was increased across the network from weekly to twice weekly, and to daily at high risk sites.

53. During December 2010 extensive administrative and logistical preparations were also undertaken, including:

- (a) full network operations and redundancy testing was undertaken to ensure the continued operation of critical systems, including the 24/7 Control Room, computer systems and other LinkWater corporate systems in the event of the loss of key services, such as power or communications failures. In this regard LinkWater operates with three back-up communications systems, comprising data centres based at Woolloongabba and at Fortitude Valley, and access to the 3G network; and the head office premises at 200 Creek Street, including the Control Room are serviced by several power entries, as well as back-up generator power. This testing included undertaking simulated communications failures throughout the network to check "fall over" contingency plans;
- (b) undertaking tests to ensure the back-up generator was available and operating, including emergency fuel;
- (c) making arrangements through Contract Managers to ensure the availability of contractors, sub-contractors and SLA (Service Level Agreement) providers over the holiday period;
- (d) running a larger than normal operational and support staff level during the December 2010/January 2011 holiday period, including operating a full time reception, administration, communications and IT capability, and developing a roster for key operational staff;
- (e) ensuring the operational readiness and testing of the LinkWater special purpose Crisis Management room (located on level 5) and Incident Management room (located adjacent to the Control Room on level 4);
- (f) reviewing stock and critical equipment availability and arranging for an increase in critical spares in water quality instrumentation and SCADA components;

- (g) revising the turnover frequency for all reservoir sites to maintain water quality performance;
- (h) ensuring appropriate arrangements were in place regarding access to and the security of LinkWater assets and infrastructure; and
- (i) a decision was made to postpone the carrying out of capital works until after the summer holiday period had passed.

54. As examples of the type of risk management plans produced in preparation for the summer holiday period I have attached to my statement:

**"PM-7":** LinkWater-Service Delivery 2010/11 Summer Holiday Period  
(13/12/10-10/1/11) Operational Risks matrix;

**"PM-8":** A briefing note to me from Mr Evans dated 21 December 2010 entitled  
"Holiday and Summer Risk Mitigation"; and

**"PM-9":** A joint Seqwater/LinkWater Summer Risk Assessment 2010-2011  
matrix produced in early November 2010.

### **Topic 3 - LinkWater's response to the flood event**

#### **Background 24 December 2010 - 10 January 2011**

55. I was on leave over the Christmas period from 25 December 2010, returning to work on Tuesday, 4 January 2011. Prior to my going on leave there was increased alertness, based on the current weather events and forecasts, of the possibility of flooding. Prior to my commencing leave I met with Mr Evans who briefed me on LinkWater's operational and administrative preparedness for an emergency event. I requested that further support resources be arranged to ensure ongoing support to operational and management staff over the holiday period. In accordance with our emergency planning procedures, the rostered Duty Manager was in charge over this period and I was contactable if required.

56. As it transpired there was no major incident over this period. However a number of discrete weather-related incidents did impact on LinkWater's operations, and enabled LinkWater to test some of its emergency planning procedures.
57. These incidents included:
- (a) on Christmas Day 2010, a water quality problem arose at the Kimberley Park pump station and reservoir;
  - (b) during late December 2010 interruptions to supply from the Mt Crosby Water Treatment Plant ("Mt Crosby") were experienced due to raw water quality issues; and
  - (c) in early January 2011 a loss of supply was experienced from the Capalaba water treatment plant.
58. These issues were successfully managed by the LinkWater Incident Management Team who made arrangements with contractors and LinkWater operations staff to carry out remedial actions. As noted above, sufficient LinkWater staff were rostered from Christmas Day and throughout the Christmas/New Year period to maintain water supplies and to ensure that water quality was not compromised.
59. From early January 2011 the LinkWater Crisis Management Team (comprising members of LinkWater's Executive Management team, and chaired by the Duty Manager) and the LinkWater Incident Management Team, responsible for the monitoring and management of operational issues within the LinkWater network, were actively responding to the developing events.
60. As at Tuesday, 4 January 2011:
- LinkWater reservoirs were in a healthy state, and being maintained at around 80% of capacity;
  - water quality was being maintained across the network;

- the Seqwater water treatment plants were operating and producing water for the network;
  - redundancy and back-up testing had been carried out on all LinkWater systems;
  - service contractors were regularly checking assets to ensure no storm or other damage had been sustained;
  - critical sites such as creek crossings were being checked regularly to ensure integrity of the pipeline; and
  - operations were being conducted within LinkWater in accordance with the Holiday and Summer risk mitigation plan.
61. On Thursday, 6 January 2011, LinkWater was notified of the declaration by Seqwater of a level 3 severity incident (planned release of stored flood waters from Wivenhoe Dam). Attached to my statement and marked "PM-10" is a copy of the SEQ Water Grid notification of this incident.
62. On Monday, 10 January 2011, LinkWater was notified of the declaration by Queensland Urban Utilities, of a level 3 severity incident (an extreme weather event, including loss of supply to certain customers, supply issues in certain areas and peak river levels in the Brisbane and Bremer Rivers). Attached to my statement and marked "PM-11" is a copy of the SEQ Water Grid notification of this incident.

#### **11 January 2011 - 18 January 2011**

63. On Tuesday, 11 January 2011 LinkWater formally convened its Crisis Management and Incident Management Teams. This formalised the previous monitoring and management roles of the Executive Management team and the Incident Management Team, each of whom were, from early January 2011, actively responding to the developing events.
64. Within LinkWater's corporate office, the Crisis Management Team operated from level 5 and the Incident Management Team operated from level 4. Both teams operated from fully

outfitted incident management rooms. The outfitting of these rooms for incident management had been undertaken by LinkWater with professional assistance from emergency management specialists some 18 months earlier. The Incident Management Team was physically located in close proximity to the Control Room.

65. The role of these teams is different. The Incident Management Team is focussed on the operational management of the incident, that is, ensuring the continued supply of potable water of appropriate quality and quantity for the duration of the incident. The Crisis Management Team has more of an external focus, on communications, stakeholder relationships and coordination of emergency resources.
66. During the event, the Crisis Management Team met twice daily, at 9:00am and 4:00pm. On Wednesday, 12 January 2011 the Crisis Management Team also met at 11:00am. These meetings were chaired by the Duty Manager, who, in accordance with the provisions of the LinkWater Incident Management Plan, acted as the Crisis Management Team leader. In accordance with the plan, Crisis Management Team meetings were also supported by communications, secretarial/administrative and OCA operator personnel.
67. At an early stage, the recovery process was commenced in parallel with the incident management process to ensure that an effective transition from crisis and incident management mode to recovery mode was enabled. Due to the nature of its operational oversight responsibilities, the Incident Management Team operated, in effect, on a continuing basis. However, it also sought to formally meet twice daily, though on a less structured basis than the Crisis Management Team, once in the morning and once in the afternoon, generally at around 10:00am and around 3:00pm. The Incident Management Team meetings were chaired by Mr Evans.
68. The Incident Management Team produced regular (twice daily) updates to the General Managers and to the Crisis Management Team. These updates were described as "LinkWater Severe Weather Operating Plan January 2011" reports. The reports detailed updated status, actions and responsibilities under three headings:

- Service Contracts and Resources;
  - Water Quality; and
  - Networks.
69. The Incident Management Team also produced "LinkWater Severe Weather Recovery Plan January 2011" reports. Attached to my statement and marked "PM-12" is a copy of the LinkWater Severe Weather Operating Plan reports and of the LinkWater Severe Weather Recovery Plan reports produced by the Incident Management Team for the period 11 January 2011 - 19 January 2011.
70. From Tuesday, 11 January 2011 the primary responsibilities and activities of the Incident Management Team related to managing:
- (a) the potential impact of the flood event on water supply and water quality, including managing any loss of supply;
  - (b) the maintenance of communications and dealing with any loss of communications;
  - (c) the status of LinkWater assets, including putting in place processes to check assets (such as pipeline crossings), dealing with any damage to assets and making arrangements for the carrying out of remedial work. In this regard a prioritised inspection schedule for critical assets was produced, identifying each asset, its location and the date of last inspection. During the currency of the flood event further information on who conducted the inspection, whether the asset was accessible, and any other relevant comments were recorded. Attached to my statement and marked "PM-13" is a copy of the prioritised inspection schedule for critical assets;
  - (d) the rostering of staff so as to ensure the continual availability of key operation skills and IT support whilst managing fatigue related issues;
  - (e) contractors and SLA providers;

- (f) logistical issues such as availability and deployment of spares, equipment, resources, sandbags, availability of generators and the such like; and
  - (g) the recovery process.
- 71. In addition to the reports produced by the Incident Management Team, LinkWater's Crisis Management Team also maintained an incident and management register for the duration of the flood event. Attached to my statement and marked "PM-14" is a copy of the LinkWater incident and management register.
- 72. On and from the morning of Wednesday, 12 January 2011, key representatives of the Water Grid Manager, Seqwater and WaterSecure relocated to, and began operating from LinkWater's premises at Spring Hill after those organisations had to evacuate their own premises due to rising floodwater. This matter is addressed further below in Topic 4 of my statement.
- 73. The Water Grid personnel were located on level 6 of LinkWater's premises and the Water Grid Manager Emergency Management Team operated from that location on and from Wednesday, 12 January 2011.
- 74. At 10:08am on Wednesday, 12 January 2011 I received an email from Mr Dan Spiller of the Water Grid Manager:
  - (a) advising that the flood and impacts on water supply had been declared a level 4 incident under the Water Grid Manager Emergency Management Plan;
  - (b) asking that I identify an executive level manager to sit on the Water Grid Manager Emergency Management Team;
  - (c) advising that the Water Grid Manager Emergency Management Team would meet daily, at 7:30am and 4:00pm;
  - (d) advising that the Water Grid Manager was establishing six separate Technical Coordination teams; and



- (e) advising that LinkWater was the "Chair" organisation for the proposed Water quality, Coordination of staff resources and Water balance teams, and asking that I nominate appropriate representatives and chairs for each team.

Attached to my statement and marked "PM-15" is a copy of Mr Spiller's email to me of 12 January 2011.

75. I responded to Mr Spiller's email at 11:00am on 12 January 2011, nominating Mr Moir to be the LinkWater representative on the Water Grid Manager Emergency Management Team, and nominating or confirming the appointment of Mr Crabtree, Mr Evans and Mr Browne as Chairs of the Water quality, Coordination of staff resources and Water balance Technical Coordination teams respectively. Attached to my statement and marked "PM-16" is a copy of my email to Mr Spiller.
76. In the early hours of 13 January 2011 one of LinkWater's external IT communications providers failed when a server went down due to a power loss situation in Woolloongabba. LinkWater's emergency system cut in immediately to the secondary provider in Fortitude Valley and all services were maintained, validating LinkWater's investment in secondary systems, as by this time all water grid communications were operating off the LinkWater system, including email services and internet.
77. On Thursday, 13 January 2011, with a view to better managing fatigue related issues within the Water Grid Manager Emergency Management Team, I was requested by the Department of Environment and Resource Management to undertake the Water Grid Manager Emergency Manager role within the Water Grid Emergency Management Team on a rotational basis with Mr Keith Davies, the CEO of WaterSecure. This request was subsequently confirmed on 14 January 2011 by an e-mail from Mr Dan Spiller on behalf of the Water Grid Manager. I undertook this role during the period from Friday, 14 January 2011 to Tuesday, 18 January 2011. Attached to my statement and marked "PM-17" is the email I received from Mr Spiller dated 14 January 2011 requesting that I assume this role, and my email of 18 January 2011

advising of my standing down from the role. Given the operational nature of the role, I undertook it on a generally continuous basis throughout the relevant period.

78. From LinkWater's perspective, the operational challenges in maintaining supply of potable water to where it was required (these challenges are detailed further below) largely abated during the period from Friday, 14 January 2011 to Saturday, 15 January 2011. This is because the primary system constraint occasioned by the flood event was the impact of the event on the Mt Crosby water treatment plants. By Thursday, 13 January 2011 the flood peak had passed Mt Crosby, and, subject to the management of ongoing turbidity issues and getting Mt Crosby back on line and ramping up production, water supply issues in relation to Mt Crosby had passed. Thereafter, LinkWater's focus was on restoration of water balances throughout the system, ensuring that water was available to meet clean-up demand, maintaining water quality, an assessment and review of damage to LinkWater assets and infrastructure as a result of the flood event, and the continued provision of support to the other water grid entities who continued to operate from LinkWater's premises.
79. Throughout the critical stages of the flood event I provided an update to the LinkWater Board at the end of each day. These updates provide a concise, high level daily summary of the status of the event. Attached to my statement and marked "**PM-18**" is a copy of my updates to the LinkWater Board (without the attachments referred to in the updates) for 11, 12, 13 and 14 January 2011.

#### **Water source and systems challenges relevant to the flood event**

80. The availability of water for supply to the network is dependent on the supply sources and, in the event that supply from any source is comprised, careful management of the system is required to ensure the continuing supply of water of appropriate quality throughout the Grid.
81. LinkWater moves an average of 600 megalitres of water per day through the SEQ Water Grid. The Greater Brisbane area (primarily comprising Brisbane, Logan, Ipswich, Redcliffe and the previous Pine Rivers Shire) has an average daily consumption in the order of 400 megalitres. Within these areas the distribution of consumption is approximately Brisbane/Redcliffe/Pine

Rivers - 320 megalitres per day ("ML/d"), Ipswich - 40ML/d and Logan - 40ML/d. Within the SEQ Water Grid it was supply to this area that was primarily impacted by the flood event. Water supply to the Gold Coast, Sunshine Coast and Redland areas was not impacted by the event.

82. Because of the wet conditions being experienced in South East Queensland in the weeks prior to the flood event daily demand had in fact been lower, at around 360 ML/d. However, it was expected that demand would increase to well in excess of 400ML/d during the post flood cleaning period.

83. This daily demand can generally be satisfied by the supply of water into the Greater Brisbane area from:

- (a) Mt Crosby (approximately 270 ML/d);
- (b) North Pine Dam (approximately 105 ML/d) and
- (c) other relatively minor supply sources such as the Eastern Pipeline Interconnector from North Stradbroke Island to Logan (5 ML/d) and supply from the Gold Coast to Logan (20 ML/d).

84. However, as noted in Topic 1 above, the grid is structured so that water can also be supplied to the Greater Brisbane area from the Southern Regional Water Pipeline ("SRWP") sourced by the Gold Coast desalination plant, and from the Northern Pipeline Interconnector ("NPI") sourced by the North Pine dam. If supply from the North Pine dam is comprised, the Landers Shute water treatment plant on the Sunshine Coast can be utilised. However, the combined capacity of the SRWP (95 ML/d) and North Pine/NPI (105 ML/d) together with supply to Logan from the EPI and the Gold Coast (25 ML/d) is approximately 225ML/d when compared to an anticipated daily demand of 400 ML/d. This would result in a shortfall of approximately 175 ML/d without Mt Crosby flows.

85. It is therefore apparent that the sourcing of water for the grid is highly dependent on supply from Mt Crosby. Mt Crosby operates with two water treatment plants, Eastbank, with a

capacity of 750ML/d (from 15 raw water pumps capable of pumping 50ML/d of raw water) and Westbank, with a capacity of 250ML/d (from 3 raw water pumps). Although it has been more than 15 years since Mt Crosby has operated at this capacity, the position is that Mt Crosby alone has sufficient capacity to meet the total Greater Brisbane area demand, if both its plants were operating at full rate.

86. However, when Mt Crosby is unavailable for any reason, the total supply capacity of the grid to meet demand within the Greater Brisbane area is around 225ML/d. Until production from Mt Crosby resumes, this shortfall of approximately 175ML/d can then only be managed by a combination of:

- (a) the supply of water retained in the LinkWater and distributor-retailer reservoirs (which is typically not more than around 400-450 ML/d in total); and
- (b) management of consumer demand.

**The means by which potable water supply was maintained by LinkWater during the flood event**

87. There were considerable water source and systems challenges and constraints occasioned by the flood event. The principle issues were the flooding of the Mt Crosby Eastbank raw water pump stations, which rendered the pump stations inoperable for a period of time, and water turbidity, which impacted on the efficient and continual operation of the water treatment plants and hence the quantity of supply of bulk water from Mt Crosby Westbank and from North Pine dam.

88. Mt Crosby's water treatment infrastructure was shut down for extended periods because of water turbidity during the Brisbane River flood. The processing of raw water was also curtailed in North Pine dam's water treatment plant, because of the scouring of the dam walls and floor during the same time period. North Pine dam's treatment plant operates with somewhat more sophisticated water treatment infrastructure than Mt Crosby. The shut down of Mt Crosby's water treatment infrastructure and the curtailment of the processing of raw water at North Pine was to avoid the risk of severe damage to the water treatment filters. This

is because the time taken to replace a damaged filter is much longer than the time that the treatment plant must be shut down (or capacity reduced) to allow the turbid (dirty) water to pass.

89. The Mt Crosby Westbank water treatment plant was shut down because of poor water quality as a result of turbidity on 8 January 2011 and remained off line until Thursday, 13 January 2011. From 8 January 2011 supply from Eastbank was utilised to ensure that the LinkWater reservoirs were kept at around 80% capacity. The production of water from Mt Crosby was significantly constrained (and for some time no water was produced) after the inundation and damage to the Eastbank raw water pump stations on 11 January 2011. This continued until after the Brisbane River flood peak passed Mt Crosby, (that is, for the period from 11 January 2011 to 13 January 2011). Such production as was available was insufficient to meet system demand.
90. These constraints in relation to supply from Mt Crosby, together with the curtailed production from the North Pine water treatment plant made it necessary to source bulk water supply from the SRWP and from the NPI. The supply constraints, combined with the expected increased demand for clean-up purposes post the flood event necessitated LinkWater, through its Systems Modelling Manager, Mr Moffatt, in conjunction with the Network Operations Manager, Mr Browne, to undertake extensive water balancing modelling of the available bulk water supply sources within the grid, including the water storage retained within the LinkWater reservoirs. This modelling examined supply and demand throughout the network under various scenarios, examined the options as to the movement of water throughout the network, and simulated "time to fail" scenarios under various options, so as to ensure that the system was managed to maintain potable water supply.
91. This extensive modelling enabled LinkWater to manage the expected demand so that, by balancing alternative supply sources, LinkWater was able to successfully manage the movement of potable water to meet system demand during the flood event, including during the intensive clean-up period from Friday, 14 January 2011.

92. Throughout the event, the EPI (supporting the Logan area by supplying water from the North Stradbroke primary trunk main to the Kimberley Park reservoir) and the SRWP were not affected by turbidity issues and the EPI was able to supply water as normal.

**The means by which potable water quality was maintained by LinkWater during the flood event**

93. Mr Crabtree, LinkWater's Water Quality and Compliance Manager, is the LinkWater officer with primary responsibility for the monitoring and management of water quality within LinkWater's network. Mr Crabtree was also appointed as the Chair of the Water Grid's Manager Water Quality Technical Coordination team for the duration of the flood event.
94. Water quality is strictly monitored to ensure that the standards set out in the Drinking Water Quality Management Plan are adhered to. As noted earlier in my statement, as part of the risk mitigation planning for the summer holiday period, increased levels of monitoring had been undertaken at high risk sites, extra chemicals orders delivered, and arrangements put in place to ensure the availability of key contractors and LinkWater staff.
95. Potable water is treated upon entry to LinkWater's network. Many of the pipelines contain instrumentation that allows for the on-line monitoring of water quality. As a verification back-up, regular physical samples are also taken from across the network and analysed for water quality.
96. Due to flood inundation resulting in some access restrictions, there was some reduction in LinkWater's physical verification monitoring program during the course of the flood event. However, LinkWater's on-line monitoring capability remained fully operational throughout the event.
97. A key issue in terms of water quality is to maintain close scrutiny on the supply/demand balance to ensure bulk water and reticulation systems remained pressurised, as loss of pressure in the system increases the risk of contamination and presents a public health risk. For this reason, Mr Crabtree worked closely with Mr Browne and Mr Moffatt to ensure that treated

water flows and reservoir levels were being kept up so as to maintain an appropriate level of water pressure throughout the supply system.

98. As Chair of the Water Quality Technical Coordination team, Mr Crabtree also worked closely throughout the flood event with water quality representatives from Seqwater, the retail entity (Queensland Urban Utilities), Queensland Health and other agencies, and produced regular situation reports on the water quality position to the Water Grid Manager Emergency Management Team. These reports were also posted on OCA.
99. As a result of the impact of the flood event on the local water supply infrastructure for some of the smaller towns and communities not connected to the bulk distribution network, arrangements were made by QUU for the supply of bottled water to a number of communities in the Lockyer and Somerset regions. Also, a "boil water notice" issued for the Lockyer Valley and for parts of the Somerset and Marburg regions.
100. However, throughout the duration of the flood event, no positive *E.coli* results were returned in respect of any testing undertaken within the SEQ Water Grid bulk transportation network and no known water quality complaints were received in relation to supply through the network. The operational monitoring and verification monitoring of water samples taken and tested prior to and during the flood event demonstrated that water quality was maintained at appropriate levels throughout the LinkWater bulk transportation network for the duration of the event.

**Topic 4 – The emergence of LinkWater's premises as the de facto SEQ Water Grid Emergency Management Centre during the flood event**

101. Early in the morning of Wednesday, 12 January 2011 representatives of the Water Grid Manager and Seqwater attended at LinkWater's head office at 200 Creek Street. They had evacuated their own premises due to flood inundation and related power and communications issues. Their attendance had been foreshadowed in a telephone call the previous evening to the LinkWater's General Manager Operational Services, Mr Moir.

102. Initially approximately 10 representatives were met by the LinkWater Duty Manager, Mr Tytherleigh at around 7:00am. Ultimately, a core team of approximately 25 people from the SEQ Water Grid Manager, Seqwater and WaterSecure were based at LinkWater for the duration of the flood event. In total, approximately 50 representatives from other relevant agencies attended at LinkWater's premises over the course of the flood event. In addition to the representatives from the SEQ Water Grid Manager, Seqwater and WaterSecure, there were also representatives from the QWC, DERM, Queensland Health and QUU.
103. LinkWater provided the Water Grid representatives with IT, logistical, resourcing and operations support. This included reallocating laptops from LinkWater staff to Water Grid representatives and establishing temporary IT and communications networks for use by those representatives. This also involved reworking the LinkWater IT support roster to ensure that a 24/7 IT support capability was available; providing LinkWater staff to assist with communications and administrative activities; and providing or sourcing other logistical support and resources such as copiers, printers, food and the such like.
104. By way of assistance Mr Tytherleigh produced and issued a "fact sheet" providing the visitors with important background information. A copy of this fact sheet is attached to my statement and marked "PM-19".
105. The Water Grid parties were based on the 6th floor of LinkWater's premises and from Wednesday, 12 January 2011 the Water Grid Manager Emergency Management Team met in and operated from LinkWater's premises. The premises became the SEQ Water Grid command and control centre for the flood event from 12 January 2011 until the Water Grid Manager and Seqwater representatives vacated LinkWater's premises on Monday, 24 January 2011.

**Topic 5 - An assessment of the effectiveness of LinkWater's premises as a Crisis Management Centre**

106. LinkWater's Creek Street premises were ideally suited as a base for the operation of the SEQ Water Grid's Emergency Management Centre during the flood event, and I consider the



premises to be ideally suited for the location of an Emergency or Crisis Management Centre in any future event.

107. My reasons for this include:

- (a) LinkWater is the Network Manager for the Water Grid, and houses the Control Room. The Control Room is a 24/7 operation. It is the "nerve centre" for the SEQ Water Grid operations, providing remote access to the grid transport infrastructure and management of water flows throughout the network. It is from the Control Room that LinkWater controls how, when and where water is moved within the system. I therefore consider it to be prudent that, in an emergency event involving the operation of the water grid network, the Water Grid Manager Emergency Management Team be located as close as practicable or in the same premises as the Control Room;
- (b) LinkWater's premises at 200 Creek Street are located on high ground and are at no risk of inundation in a flood event;
- (c) LinkWater's premises at 200 Creek Street has good access to public transport (in particular the public rail service, the premises being located adjacent to Central Railway Station, and the public bus service, being closely proximate to the routes serviced by a number of bus routes). The premises also has good access to non-flood prone car parking facilities and non-flood prone access to the general road network;
- (d) LinkWater's premises are located directly adjacent to and at the same address as the Novotel Brisbane hotel. This provides ready access to accommodation for the purposes of fatigue management, and also for the purpose of accommodating flood bound personnel, as well as providing readily available access to food. During the flood event, a number of LinkWater staff, particular IT support staff, were accommodated at the Novotel hotel so that they could be rested, but in

circumstances where they were also immediately contactable and available in an emergency situation;

- (e) the premises are centrally located, close to the centre of government and government offices. In an emergency disaster situation I consider it is important that the Water Grid Manager Emergency Management Team and senior water grid officers are located in close proximity to government (both elected government representatives and senior public servants) and readily available to and accessible by government representatives and other grid participants as and when this may be required;
- (f) the LinkWater premises are not dependent on the CBD power grid. Therefore, LinkWater is unaffected in the event that power to the CBD is shut down. Because the 200 Creek Street location is on the same grid as St Andrews hospital and the Holy Spirit hospital, LinkWater's premises are benefitted by the requirement, so far as possible, to maintain power supply to these facilities. The premises are also configured so that the site has the benefit of several independent entries to the power grid and has back-up generator based emergency power. This generator power was available during the flood event, but as power remained available to the site, this was not called upon;
- (g) LinkWater's communications and IT facilities are supported by three "fail safe" communications systems, with back-up data centres located at Woolloongabba and Fortitude Valley, as well as access to the 3G network;
- (h) the premises are fully secured with secure door and pass coded entry, so as to manage and control access;
- (i) the premises offer kitchen, catering and shower facilities;

- (j) the premises have two professionally designed, fully outfitted and equipped and permanently maintained crisis management/incident management rooms which can be immediately deployed for use in an emergency event; and
  - (k) although located very approximate to the CBD, the premises are located on the CBD fringe, with numerous different road access entry points, and, in the event of a grid lock or shut down situation in the CBD, or should some means of access become unavailable due to an emergency event, it is highly likely that the premises will remain accessible from alternate approaches.
108. I consider each of these factors to be relevant considerations in the location of premises to serve as a general coordination centre for emergency management in a flood, extreme weather or other disaster related event.

**Topic 6 - A description of the impact of the flood event on LinkWater's infrastructure**

109. The most significant impact of the flood event on LinkWater's infrastructure was the inundation of the Bundamba pump station. This pump station operates as a booster pump station for the southerly flow (Brisbane to Gold Coast) of water within the SRWP. The SRWP was operating in a northern flow direction during the flood event, and therefore the loss of the pump station did not have any immediate impact on the operation of the SRWP. There will also be no immediate ongoing impact, as the SRWP has been operating in a northern flow direction for an extended period of time and there is no immediate need for southern flow operation as the Hinze Dam, providing water supply to the Gold Coast region, is at full capacity. If for any reason the southern flow direction was required, the SRWP can operate in a southern flow direction at a reduced flow rate pending the completion of repairs to the pump station.
110. At the time of the pump station design in 2006, the Bundamba pump station was constructed with a flood level 1.15 metres above the 1 in 100 year flood level. However, the Bundamba pump station is located on the Bremer River floodplain, and, during the flood event, was unexpectedly affected by backwater from the Brisbane River flood. Due to inundation

experienced on Wednesday, 12 January 2011, the flood water reached approximately 1.2m above the floor level of the pump station.

111. The pump station sustained considerable damage. Rectification cost is estimated to be in the order of \$5 million and may take in the order of nine months, as the sourcing of variable speed drives for the pumps (which were damaged) has a reasonably long lead time. LinkWater holds insurance policies which will answer this loss.
112. The primary server for the SCADA system for the SRWP is also located at the Bundamba pump station, with a secondary server located at the Molendiner (Gold Coast) pump station. During the flood event, communication to the primary server was lost and the LinkWater Control Room had to switch over to the secondary server.
113. The SCADA server for the SRWP has been temporarily relocated to the Chambers Flat pump station and the LinkWater Operational Services team are carrying out an options analysis regarding permanent re-establishment of the SCADA server.
114. The Bundamba off take, located adjacent to the Bundamba pump station was also flooded, sustaining damage to communication and electrical equipment. LinkWater has replaced all damaged electricity and communications equipment and the off take is now fully operational.
115. Subsequent to the flood event, LinkWater has undertaken a flood risk assessment of all of its 22 pump stations. This assessment indicates that one pump station is located in a "flood plain management area" another is located in an "overland flow path" and therefore may be subject to flash flooding, and six other pump stations are located close to indicated flood areas and may be at risk should an extreme flood event occur.
116. LinkWater will undertake further investigation of the pump stations located in potential risk areas with a view to mitigating the potential impact on these locations of any future extreme flood event.
117. The most significant impact of the flood event on the infrastructure under construction by LinkWater Projects occurred on the Toowoomba Pipeline. This damage is generally associated

with some scouring of the pipeline alignment. Rectification cost is estimated to be in the order of \$25 million. LinkWater Projects holds insurance policies which will answer this loss.

#### **Topics 7 and 8 - Lessons learned and actions arising from the flood event**

118. With the benefit of the experience of the flood event, I consider that:

- LinkWater was well prepared for the flood event;
- the planning and risk mitigation strategies that LinkWater had in place from October 2010 were effective and efficient;
- LinkWater's people responded efficiently and effectively to the challenges to the flood event;
- LinkWater's communication, power and information management systems, including back-up capability responded well to the flood event (as evidenced by the seamless switch over to back-up servers upon the flooding of the primary server for the SCADA system for SRWP on 12 January 2011 and the loss of the Woolloongabba server on 13 January 2011),
- LinkWater's premises responded well to the event, including successfully housing and supporting the SEQ Water Grid Manager and Water Grid Manager Emergency Management Team from 12 January 2011;
- system constraints during the flood event, particular constraints in relation to the supply of water from Mt Crosby and North Pine dam were effectively managed;
- LinkWater's network supplied sufficient volumes of water including increased demand for flood cleanup; and the overall quality of water supplied met all required standards; and
- LinkWater has demonstrated its ability to move water where required, notwithstanding source and system constraints, and is well placed by reference to its

preparation for the flood event and its learnings from the flood event to ensure the supply of potable water of the requisite quantity and quality to where it is required in coming wet seasons.

119. In relation to its assets and infrastructure, LinkWater will undertake a full asset affectation review. That review has commenced. I have referred to the risk assessment which has been carried out in relation to LinkWater's 22 pump stations. LinkWater will also investigate the flood proofing of the Bundamba pump station to ensure that it can survive a future similar event with minimum damage. An options analysis for the permanent re-establishment of the SRWP SCADA server will be carried out. Although investigations to date have not revealed any structural damage to pipelines, a full survey will be carried out of all below and above ground assets. Any sites subjected to erosion and other high impact issues as a consequence of the flood event will be fully assessed.
120. The flood event highlighted the reliance of the SEQ Water Grid on the Mt Crosby Water Treatment Plant as a source of bulk water supply. If supply from Mt Crosby was to be compromised for an extended period of time this would place significant pressure on the ability of the grid to meet network demand.
121. In the context of longer term forward planning to ensure the continued supply of water to the network, I believe that consideration should be given to measures which mitigate the consequences of a compromise of supply from the principal bulk water sources. In particular, measures should also be considered to further supplement supply to the network in the event of such compromise.
122. The flood event also highlighted the importance of having appropriately outfitted and located premises to serve as a coordination centre for the emergency management of a flood event. I have detailed in paragraph 107 of this statement the characteristics that I consider to be relevant and important in relation to the locating of an emergency management centre. For these reasons I consider the LinkWater premises at 200 Creek Street were ideally suited for that purpose during the flood event.

123. Critically, the coordination centre should be located on non-flood prone ground. It must have assured 24/7 access, IT, communications and power supply, close availability to emergency accommodation, accessibility for staff and third parties during an extreme weather event, and ready proximity and accessibility to Government and related agencies.
124. LinkWater is willing for its current premises to serve as a coordination centre for emergency management of a future flood or emergency event. The premises functioned effectively as such a centre during the flood event. LinkWater is progressing steps to properly equip and outfit a second crisis management room on level 6 at 200 Creek Street, to be available as a fully functioning SEQ Water Grid emergency response room should this be required.
125. Finally, in terms of my observation of the effectiveness of the various emergency management functions during the flood event:
- (a) the planned co-location of the LinkWater Incident Management Team and the LinkWater Control Room worked very effectively. The Incident Management Team is focussed on the operational response to the emergency event, and it is essential that the Incident Management Team remains in close contact with the Control Room operations;
  - (b) the separation of the Incident Management and Crisis Management functions, a requirement of the LinkWater Incident Management Plan was also effective. To my mind, the experience of the flood event highlighted the value in the separation of the Crisis Management (focussed outwardly) and Incident Management (focussed operationally) functions during the management of the event. The parallel development of the recovery function was also crucial; and
  - (c) although unplanned, the close co-location of the Water Grid Manager Emergency Management Team and the Control Room during the event proved to be effective in the management of the event. I do not consider this would have been as effective had the Water Grid Manager Emergency Management Team and the LinkWater Control Room been located remotely. In terms of emergency planning and

preparation for a future event, I believe that consideration should be given to the co-  
location of these functions.

Sworn this 13th day of May 2011 at Brisbane in the State of Queensland in the presence of:



Peter McManamon (deponent)



Kelvin Chin Fat (solicitor)



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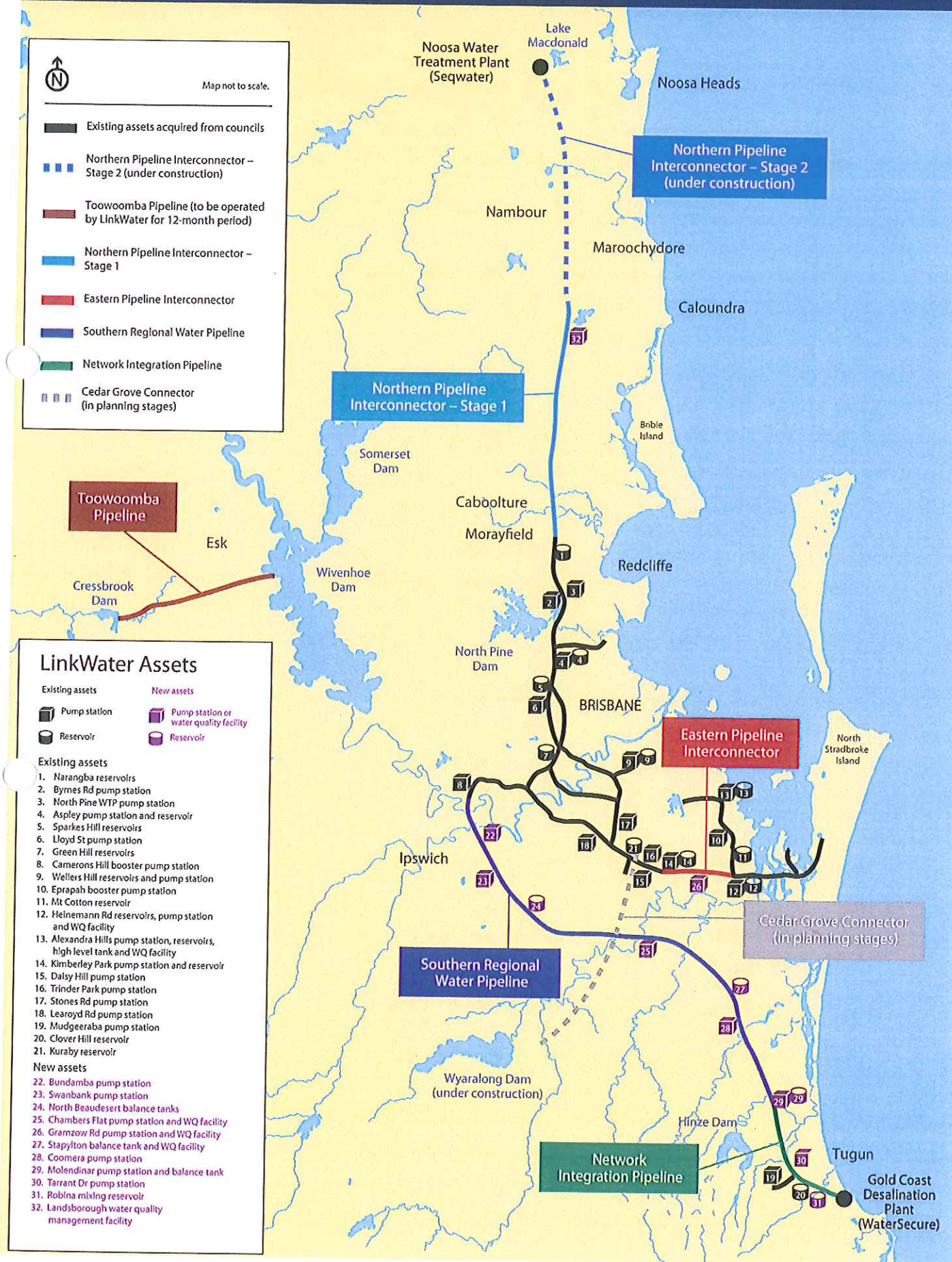
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**Table of Attachments**

	<b>Description</b>	<b>Date</b>
<b>PM-1</b>	Map published in the 2009 - 2010 LinkWater Annual Report	September 2010
<b>PM-2</b>	LinkWater submission to the Queensland Floods Commission of Inquiry on flood preparedness relevant to the 2011-2012 summer wet season	11 March 2011
<b>PM-3</b>	Map published by the SEQ Water Grid Manager indicating the nature and location of the SEQ Water Grid water supply sources and the pipelines	
<b>PM-4</b>	Document published by the SEQ Water Grid Manager identifying the key participants in the operation of the SEQ Water Grid	
<b>PM-5</b>	LinkWater Incident Management Plan	as at January 2011
<b>PM-6</b>	LinkWater Duty Manager contact roster for the week 29 December 2010 - 4 January 2011	
<b>PM-7</b>	LinkWater-Service Delivery 2010/11 Summer Holiday Period (13/12/10-10/1/11) Operational Risks matrix	December 2010
<b>PM-8</b>	Briefing note from Mr Evans to Mr McManamon entitled "Holiday and Summer Risk Mitigation"	21 December 2010
<b>PM-9</b>	Joint Seqwater/LinkWater Summer Risk Assessment 2010-2011 matrix	Produced early November 2010
<b>PM-10</b>	SEQ Water Grid notification of the declaration by Seqwater of a level 3 severity incident	6 January 2011
<b>PM-11</b>	Queensland Urban Utilities' notification of the declaration of a level 3 severity incident	10 January 2011
<b>PM-12</b>	LinkWater Severe Weather Operating Plan and LinkWater Severe Weather Recovery Plan reports	11 January 2011 - 19 January 2011
<b>PM-13</b>	Prioritised inspection schedule for LinkWater's critical assets	January 2011
<b>PM-14</b>	LinkWater's incident and management register	12 January 2011 - 18 January 2011
<b>PM-15</b>	Email Mr Spiller to Mr McManamon	12 January 2011
<b>PM-16</b>	Email Mr McManamon to Mr Spiller	12 January 2011
<b>PM-17</b>	Email exchange Mr Spiller and Mr McManamon	14 January 2011 and 18 January 2011
<b>PM-18</b>	Updates by Mr McManamon to the LinkWater Board	11, 12, 13 and 14 January 2011
<b>PM-19</b>	LinkWater Visitors Information Sheet	January 2011

# LinkWater Assets and Projects

## Current and future



**In the matter of the  
Commissions Of Inquiry Act 1950**

**Commission of Inquiry Order (No. 1) 2011**

**QUEENSLAND FLOODS COMMISSION OF INQUIRY**

**SUBMISSIONS BY QUEENSLAND BULK WATER TRANSPORT AUTHORITY (LinkWater)**

**Flood preparedness relevant to 2011-2012 summer wet season**

**11 March 2011**

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Submissions  
Lodged on behalf of Queensland Bulk Water Transport  
Authority

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**Queensland Floods Commission of Inquiry**  
**Submission by Queensland Bulk Water Transport Authority**

**1. Executive Summary**

- 1.1 Clause 3 of the Commission of Inquiry Order (No. 1) 2011 contemplates an interim report being made by 1 August 2011 on matters associated with flood preparedness to enable early recommendations to be implemented before next summer's wet season.
- 1.2 Queensland Bulk Water Transport Authority (**LinkWater**) provides an essential service. It is responsible for the day to day operational management of the movement of potable water of appropriate quality across the South East Queensland Water Grid network to where it is required.
- 1.3 For the duration of the 2010-2011 flood events (**the flood events**) LinkWater successfully managed the water source and systems challenges occasioned by the events to ensure the maintenance of water quality and the movement of potable water throughout the water grid network to meet system demand.
- 1.4 In relation to those matters which fall within LinkWater's areas of responsibility it is submitted that no changes need to be recommended by the Commission before next summer's wet season to ensure the continued management and supply by LinkWater of that essential service.
- 1.5 It is submitted that the Commission can be satisfied that, in the event of a future flood event, LinkWater has in place the requisite capital, management and operational infrastructure and procedures, including redundancy systems and risk management planning, to ensure the delivery of water of appropriate quality to where it is required for the duration of such an event, and that LinkWater's existing powers, rights and authorities within the Water Grid structure are sufficient to enable LinkWater to deliver this essential service, and should be maintained.
- 1.6 Having regard to LinkWater's experience during the flood events, LinkWater submits that, in terms of preparation for next summer's wet season, recommendations may be considered as to:
- (a) the location and outfitting of appropriate premises above the flood line to serve as a coordination centre for emergency management of a flood event; and
  - (b) the interrelationship between and co-location of the crisis management, incident management and water grid network management functions during a flood event;

and, in the context of longer term forward planning:

- (c) measures to mitigate the consequences of a compromise of supply from the principal bulk water supply sources to the bulk water transport network (notably the Mount Crosby Water Treatment Plant).

## **2. Introduction**

- 2.1 This submission is made by LinkWater in response to the call for written submissions relating to issues of flood preparedness relevant to next summer's wet season.

- 2.2 LinkWater is the bulk water transport authority for South East Queensland with responsibility for:

- the movement of potable water from the bulk water suppliers (Seqwater and WaterSecure) to the water distributor/retailers (UnityWater, Queensland Urban Utilities and Allconnex Water) at the places and at the times, and in the quantities, required;
- the monitoring and maintenance of the quality of that water within the water grid network; and
- the day to day operational management of the movement of water across the water grid network by LinkWater from its 24/7 Grid Network Management Centre (Control Centre).

- 2.3 The principal sources of water supply into the LinkWater network, relevant to the areas affected by the flood events, are the Mount Crosby treatment plants (sourced by the Brisbane River and Wivenhoe Dam) and the North Pine Dam. Of these, the Mount Crosby treatment plants are the primary supply source, typically contributing between 200 – 300 megalitres per day toward a daily system demand of between 360 – 390 megalitres per day.

## **3. 2010-2011 Flood Events**

- 3.1 In October 2010, in response to long range weather forecasts predicting long periods of rain and heavy storm activity over the 2010-2011 Christmas/New Year holiday period and into the early months of 2011, LinkWater identified potential risk areas in terms of its operations and implemented actions to mitigate the identified risks, including the preparation of a Holiday and Summer Risk Mitigation Strategy.

3.2 These actions included:

- increasing and maintaining storage levels in the LinkWater reservoirs above the usual storage levels;
- ensuring the availability of contractors, staff and other resources over the holiday period;
- running a larger than normal operational and support staff level during the December 2010/January 2011 holiday period including a full time reception capability;
- developing contingency plans to address potential loss of critical services (for example, power and communications), and for continued access to and management of LinkWater assets;
- developing contingency plans to address loss of water supply from the bulk treatment sources and to address water quality issues, including making provision for increased regularity of water quality sampling;
- ensuring the operational readiness of the LinkWater special purpose crisis management room and special purpose incident management room;
- putting in place arrangements to ensure continued operation of the 24/7 Grid Network Management Centre in the event of power or communication failures.

3.3 LinkWater also had in place an approved Emergency Response Plan as required by the South East Queensland Water Market Rules.

3.4 A number of discrete, weather-related incidents impacted on LinkWater's operations in the period from 24 December 2010 to early January 2011. An ongoing Incident Management Team successfully dealt with these incidents and was in readiness for future summer incidents.

3.5 The LinkWater Crisis Management team, comprising members of LinkWater's executive management team, and the LinkWater Incident Management team, responsible for the monitoring and management of operational issues within LinkWater, were, from early January 2011, actively responding to the developing events.

3.6 On Thursday, 6 January 2011, LinkWater was notified of the declaration by Seqwater of a level 3 severity incident (planned release of stored flood waters from Wivenhoe Dam).

3.7 On Monday, 10 January 2011, LinkWater was notified of the declaration by Queensland Urban



Utilities, of a level 3 severity incident (an extreme weather event, including loss of supply to certain customers, supply issues in certain areas and peak river levels in the Brisbane and Bremer rivers).

- 3.8 On Tuesday, 11 January 2011, LinkWater formally convened its Crisis Management and Incident Management teams. This formalised the previous monitoring and management roles of the executive management team and the Incident Management Team, each of whom were, from early January 2011, actively responding to the developing events.
- 3.9 LinkWater's corporate office is located at levels 4-6, 200 Creek Street, Spring Hill (adjacent to the Novotel Hotel). The premises include a fully outfitted Incident Management room on level 4, located adjacent to the 24/7 Grid Network Management Centre, and a fully outfitted Crisis Management room on level 5, all with fully redundant communications and power facilities.
- 3.10 On and from the morning of Wednesday, 12 January 2011, key representative of the Water Grid Manager, Seqwater and WaterSecure relocated to, and began operating from, LinkWater's premises at Spring Hill after those organisations had to evacuate their own premises. From that date, the Water Grid Manager Emergency Management Team operated from LinkWater's premises and the premises became the water grid command and control centre for the duration of the flood events.<sup>1</sup>
- 3.11 LinkWater will address its preparation for, management of, and response to, the flood events more fully in the submission to be made by 4 April 2011.
- 3.12 For the purpose of this submission, it suffices to note that the LinkWater premises were ideally suited as an emergency management centre for a number of reasons:
- the premises house the Grid Network Management Centre;
  - the premises are located on high ground, well out of any flood prone areas;
  - there is hotel accommodation as part of the office complex;
  - there is good access to public transport and car parking;
  - the premises are centrally located and close to Government buildings/offices;
  - there is no dependence on the CBD power grid;
  - there are three independent entries to grid power and backup (generator based)

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<sup>1</sup> The Water Grid Manager and Seqwater representatives vacated LinkWater's premises on Monday 24 January 2011

emergency power;

- there are backup data centres located at Woolloongabba and Fortitude Valley;
- there is full security at the premises; and
- the premises offer kitchen, catering and shower facilities.

#### **4. Water Source and System Challenges during the Flood Events**

- 4.1 The availability of water for supply to the network is dependent on the supply sources and, in the event supply from any source is compromised, careful management of the system is required to ensure the continuing supply of water of appropriate quality throughout the Grid.
- 4.2 There were considerable water source and systems challenges and constraints occasioned by the flood events. The principal issues were the flooding of the Mount Crosby Eastbank raw water pump stations, which rendered the pump stations inoperable for a period of time, and water turbidity, which impacted on the efficient and continual operation of water treatment plants and the quantity of supply of bulk water from Mount Crosby and North Pine Dam. The Eastern Pipeline Interconnector (supporting the Logan area by supplying water from the North Stradbroke primary trunk main to the Kimberley Park reservoir) and the Southern Regional Water Pipeline (SRWP) were not affected by turbidity issues.
- 4.3 These constraints made it necessary to supply bulk water from the SRWP (sourced by the Gold Coast desalination plant) and the Northern Pipeline Interconnector (NPI) (sourced by the North Pine Dam and Landers Shute water treatment plant). The Eastern Pipeline Interconnector was able to supply water as normal.
- 4.4 By using alternative supply sources, LinkWater was able to successfully manage water quality and move potable water to meet system demand during the flood events, including during the intensive initial clean up period from Friday, 14 January 2011.
- 4.5 The most significant impact of the flood events on LinkWater infrastructure was the inundation of the Bundamba pump station. This pump station operates as a booster pump station for the southerly flow (Brisbane to Gold Coast) of water within the SRWP. The inundation, which considerably exceeded previous local flood levels, caused considerable damage but did not impact upon the availability of water during the flood events as, during that period, the flow of water within the SRWP was in a northerly (Gold Coast to Brisbane) direction.
- 4.6 Since the flood events, and with the benefit of the knowledge of local flood levels gained in



the flood events, LinkWater has commissioned a full flood affectation review of its assets with a view to assessing flood mitigation steps in relation to vulnerable assets before next summer's wet season.

## **5. Flood Preparedness for Next Summer's Wet Season**

5.1 LinkWater makes the following submissions based on its experience during the flood events:

- (a) LinkWater is satisfied that the planning and risk mitigation strategies it had in place from October 2010 were effective and efficient. Similar strategies will be put in place for the next wet season.
- (b) System constraints during the flood events were effectively managed and there are no additional measures that need to be taken by LinkWater to ensure water supply for the next wet season. In any longer term forward planning for the supply of essential services, however, consideration should be given to measures to mitigate the consequences of a compromise of supply from the principal bulk water sources (in particular, Mount Crosby) or measures to supplement those sources in the event of compromise.
- (c) In managing essential services during an emergency, there should be separation of the functions of crisis management, which is focussed outwardly on communication, coordination with emergency resources and the like, and incident management, which is focussed on the operational management of the incident so as to ensure the continued provision of services.
- (d) It would be prudent, however, to have the crisis management and incident management functions closely co-located in a future flood event.
- (e) In relation to the Water Grid, the incident management and Network Management Centre functions should also be closely co-located in a flood event.
- (f) There should be a coordination centre for emergency management of a future flood event. The centre must have assured 24/7 access, IT, communications and power supply, close availability of emergency accommodation, accessibility for staff and third parties during an extreme weather event, and accessibility to Government and related agencies.
- (g) LinkWater is willing for its premises to serve as a coordination centre for emergency management of a future flood event. The premises functioned

effectively as such a centre during the 2010-11 flood events.

- (h) LinkWater will be progressing steps to properly equip and outfit a second crisis management room on level 6 at 200 Creek Street to be available to fully function as a Water Grid emergency response room should this be required.

**6. Further Assistance to the Commission**

- 6.1 LinkWater will provide a comprehensive submission by 4 April 2011 detailing the management of its response to the flood events and the management of essential services (water) during the flood events. LinkWater will also provide statements from officers of LinkWater who managed its response to the flood event, as requested by the Commission in its letter to Clayton Utz dated 7 March 2011.

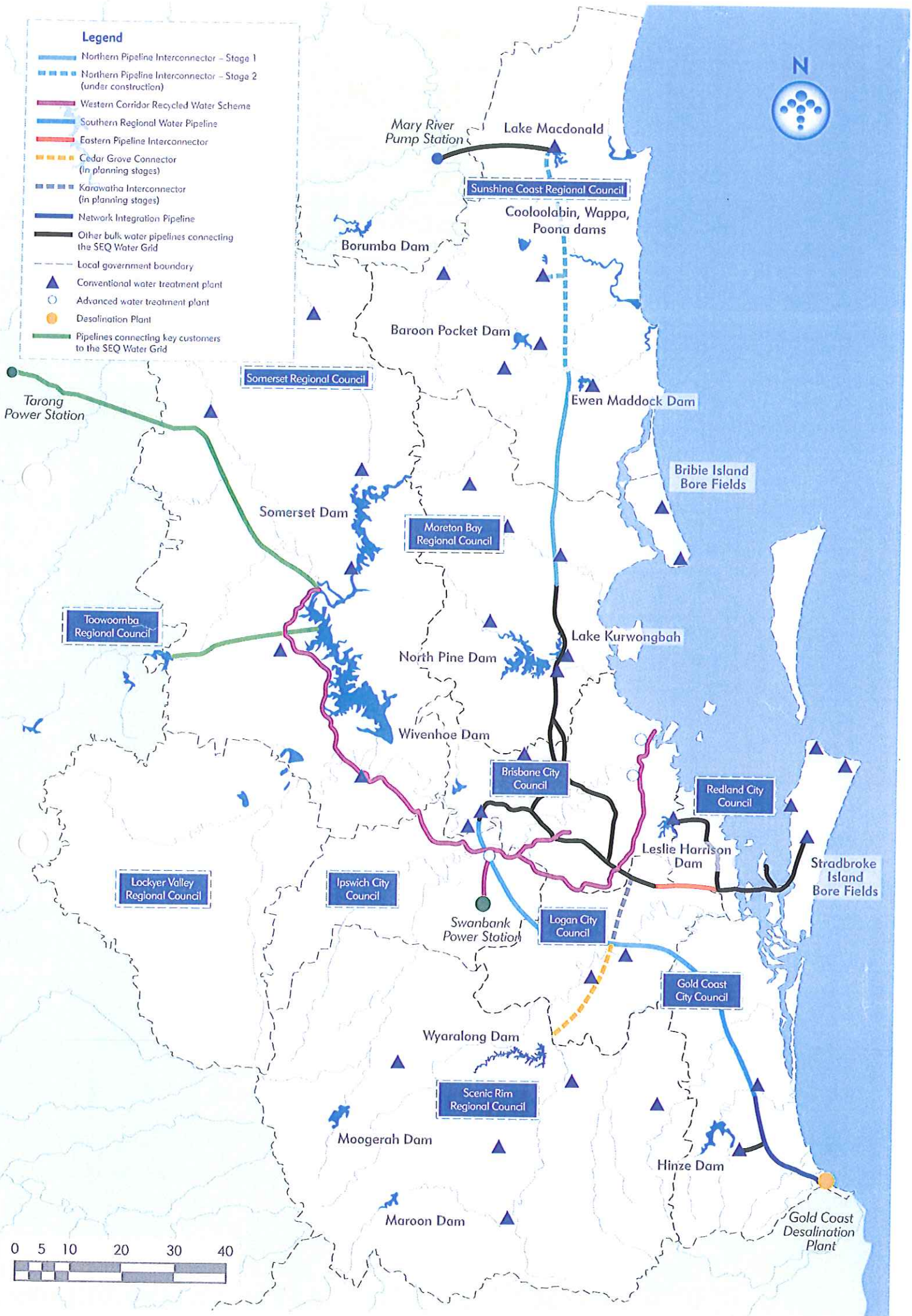
Dated 11th March 2011

  
\_\_\_\_\_  
Solicitors for Queensland Bulk Water Transport Authority



# Legend

- Northern Pipeline Interconnector – Stage 1
- - - Northern Pipeline Interconnector – Stage 2 (under construction)
- Western Corridor Recycled Water Scheme
- Southern Regional Water Pipeline
- Eastern Pipeline Interconnector
- - - Cedar Grove Connector (in planning stages)
- - - Karawatha Interconnector (in planning stages)
- Network Integration Pipeline
- Other bulk water pipelines connecting the SEQ Water Grid
- - - Local government boundary
- ▲ Conventional water treatment plant
- Advanced water treatment plant
- Desalination Plant
- Pipelines connecting key customers to the SEQ Water Grid







The SEQ Water Grid Manager owns the urban water entitlements in South East Queensland and is responsible for managing the SEQ Water Grid. It purchases services to store, treat, produce and transport bulk water from Seqwater, LinkWater and WaterSecure. It then sells treated water to council-owned retail distribution businesses and power stations.



Seqwater supplies water from dams, weirs and borefields; and is responsible for the catchment, treatment and storage of bulk water for the SEQ Water Grid Manager.



WaterSecure supplies water from the Gold Coast Desalination Plant and the Western Corridor Recycled Water Scheme to the SEQ Water Grid Manager.



LinkWater moves drinking water from treatment plants and reservoirs through bulk pipelines and into the distribution networks, for the SEQ Water Grid Manager.



This is the distribution and retail business for Brisbane, Scenic Rim, Ipswich, Somerset and Lockyer Valley areas. Queensland Urban Utilities sells and delivers drinking water to customers and collects, transports and treats wastewater and sewage.



**allconnex water.**

This is the distribution and retail business for Gold Coast, Logan and Redlands areas. Allconnex Water sells and delivers drinking water to customers and collects, transports and treats wastewater and sewage.



**Unitywater**

This is the distribution and retail business for Sunshine Coast and Moreton Bay areas. Unity Water sells and delivers drinking water to customers and collects, transports and treats wastewater and sewage.

State-owned statutory authorities

Council-owned authorities

## Legend



Contractual transaction



Water supply



SEQ Water Grid Manager



Water storage and treatment



Recycling/desalination



Bulk water transport



Water and wastewater distribution/retail



Customers – households and businesses

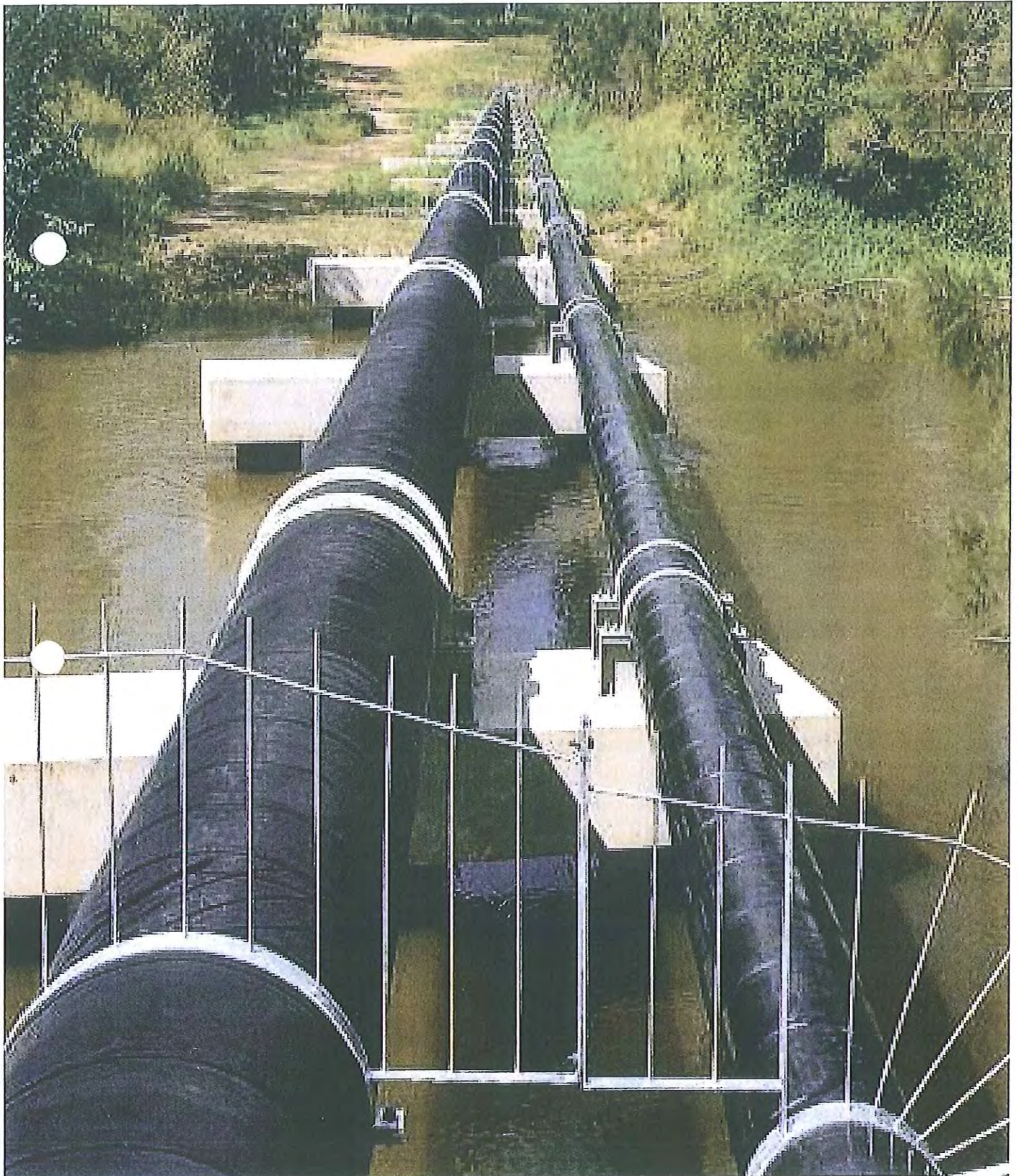
Customer  
– households  
and businesses







# Incident Management Plan





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## 1 PRELIMINARIES

The Preliminaries section includes:

- Distribution List
- Document Review and Approval
- Abbreviations
- Definitions
- Policy Statement.

In the context of this Incident Management Plan (IMP), "LinkWater" (in italics) means The Queensland Bulk Water Transport Authority (trading as LinkWater), and their services contractor.

### 1.1 Document Review and Approval

Rev	Revision Description	Date	Prepared by	Approved by
A	First Draft	08/09/08	RFM Consulting Services	GM Corporate Services
B	Final	15/09/08	Corporate Comms	Risk Manager
C	Quarterly update 1.1, 1.2, 2.6, 4.4.1, 7.3.2, 7.3.3, 7.3.5, 8.3, 8.6, 8.11, 9.4, 9.6, 10.10, 11.4, 12.1, TabA1, TabA2, TabA3, TabA5 TabA6, TabB1, TabB3, TabB6, TabB9, TabB11, TabC1, TabE1	28/01/09	Risk Manager	Risk Manager
D	Full review	14/08/09	Rowland. Pty Ltd	Risk Manager
E	Update with Truscott's	22/12/09	Risk Manager	Risk Manager
F	Update with ERP (2)	10/9/10	Risk Manager	Risk Manager
G	Update with ERP (3)	14/11/10	Corporate Comms	GM Corporate Services

## 1.2 Abbreviations

The meaning of abbreviations and acronyms are below.

Abbreviation	Meaning
CEO	Chief Executive Officer
CMT	Crisis Management Team
CMTR	Crisis Management Team Room
IMT	Incident Management Team
ERP	Emergency Response Plan of the Water Grid Manager
GM	General Manager
HR	Human Resources
HSE	Health, Safety and Environment
ICP	Incident Communication Plan
IMP	Incident Management Plan
IMT	Incident Management Team
IMTR	Incident Management Team Room
NCR	Non Conformance Report
OWSR	Office of the Water Supply Regulator
PPE	Personal Protective Equipment
RM	Response Manager
SEQ	South East Queensland
SEQWG	South East Queensland Water Grid
SEQWGM	South East Queensland Water Grid Manager
SOPs	Standard Operating Procedures



Abbreviation	Meaning
WGM	Water Grid Manager
WSA	Water Supply (Safety and Reliability) Act 2008

### 1.3 Definitions

The key definitions used in the IMP are:

Word/Term	Definition
Alert	A Level 1, or 2 incident that has potential impacts if realised, would trigger a level 3 or above emergency.
Control	The overall direction of response activities in an emergency or incident situation. (SEQWGM)
Crisis	A crisis is any business continuity, reputation or liability incident that threatens the strategic goals, major stakeholders, reputation and commercial position of LinkWater. They will almost always involve media interest on a national scale, and be driven by perceptions rather than facts
Disaster	A serious disruption in the community, caused by the impact of an event, that requires a significant coordinated response by the State and other entities to help the community recover from the disruption. (DM Act)
Emergency	A situation which poses an <i>immediate and substantial risk</i> to health, life, property or environment. Most emergencies require urgent intervention to prevent worsening the situation. ( <i>LinkWater</i> ) For the purposes of the Water Grid, an 'emergency' is an incident that impacts on water quality, water supply reliability and/or public reassurance, and has an overall severity rating of level 3, 4 or 5 under the severity classification approach outlined in the SEQWG ERP.
Grid Participant	An entity that is referred to in section 2.3 of the Market Rules.
Incident	An event or circumstance which could have or did lead to unintended and/or unnecessary harm to a person and/or loss or damage or adverse consequences to the water supply, water quality, environment, assets, service quality, supply chains, property, reputation or a combination of these and classified against a gradient from 1 to 3. Ongoing conditions that have the potential to result in adverse consequences and non-compliances with legal and regulatory requirements are also considered to be incidents.
Incident Management	The emergency response function largely involving managing the physical incident on site.



Word/Term	Definition
Interagency Operations/Technical Team	An expert reference panel assembled by the Water Grid Manager when required to provide technical, operational and risk assessment advice and recommendations on any aspect of managing a given emergency. This team may be located in the LinkWater Office, 200 Creek Street, Spring Hill.
LinkWater	The Queensland Bulk Water Transport Authority (trading as "LinkWater")
<i>LinkWater</i>	In the context of this IMP, " <i>LinkWater</i> " (in italics) means The Queensland Bulk Water Transport Authority (trading as LinkWater) and its Services Contractor.
Public reassurance	The confidence of the general public in the quality and security of water supply, and in the ability of the Water Grid and Grid Participants to deliver their contracted services.
Response	Measures taken in anticipation of, during, and immediately after an emergency (or incident) to ensure its effects are minimised. (AEM Glossary)
Risk	The chance of something happening that will have an impact on objectives. It is measured in terms of the consequences of an event and their likelihood.
SEQWater	The Queensland Bulk Water Supply Authority (trading as SEQWater)
Technical coordination	The emergency response function largely involving coordinating whole of grids operations and support. This team may be located in the LinkWater Offices.
Water Grid Manager	The entity established under section 6(1)(d) of the <i>South East Queensland Water (Restructuring) Act 2007</i> (SEQWGM)

## 2 BACKGROUND

### 2.1 Introduction

Under the SEQ Water Market Rules, the SEQ Water Grid Manager (SEQWGM) is required to develop and manage the SEQ Water Grid (SEQWG) Emergency Response Plan (ERP). In turn, the SEQWGM requires *LinkWater*, as a grid participant, to develop, maintain and test an incident management plan.

In accordance with the requirements of Chapter 4.26 of the SEQ Water Market Rules, and the SEQWG ERP, this Incident Management Plan (IMP) has been developed to provide *LinkWater* with a framework to manage the response and recovery to an incident or emergency.

### 2.2 Objectives

The objectives of this IMP are to:

- provide procedures for reporting and assessing incidents accurately in order to apply an appropriate response before they escalate
- provide a framework for *LinkWater*'s response for all SEQWG levels of incident and emergency, including how *LinkWater* will work with other Water Grid Participants
- meet *LinkWater*'s obligations to SEQWGM, the Office of the Water Supply Regulator (OWSR) and other Grid Participants and stakeholders
- guide the members of the incident management teams by detailing their roles and responsibilities
- provide guidance for training *LinkWater* personnel in incident and crisis management
- contribute to the development of best practice and continuous learning within the organisation.

### 2.3 Scope

This IMP applies to all *LinkWater* people and assets which include, but are not limited to:

- chemical storages and dosing facilities
- balance tanks
- pumping stations
- council off-takes
- water storage reservoirs
- valve and meter chambers
- pipelines
- offices.

### 2.4 Related Plans

Other plans related to this IMP are:

- SEQWG ERP Whole of Grid Response (Second version 2010)
- The Queensland Bulk Water Supply Authority (trading as Seqwater) ERP
- Manufactured Water Authority ERP



- Distribution Service Providers' ERP
- LinkWater Water Quality Management: Incident Reporting, Investigation and Close-Out
- State, District and Local Disaster Management Plans.

## 2.5 Responsibilities under the SEQWG ERP

Under the SEQWG ERP, all Grid Participants have the following general responsibilities:

- develop an emergency response plan that is consistent with this emergency response plan and the Market Rules
- manage the response to incidents and emergencies in accordance with this plan and more detailed plans specific to each Grid Participant, including business continuity, emergency response, risk management, and other risk management mechanisms
- communicate the incident as appropriate to:
  - the relevant emergency authorities, where applicable
  - the Water Grid Manager
  - the Office of the Water Supply Regulator
  - responsible Ministers, Mayors or Chief Executive Officers, where applicable
  - other affected Grid Participants
- work cooperatively with the WGM Emergency Management Team (EMT) and any appointed Emergency Manager.

## 2.6 Training

The LinkWater Quality, Environment and Safety Manager is responsible for coordinating an annual incident management training program. This annual training program is to be submitted to the Board each January for consideration.

The annual training program will incorporate:

- induction training
- refresher training
- emergency management staff training
- executive familiarisation
- media training
- refresher OCA training.

Guidance for the training program is as follows:

- **Induction training.** The emphasis in induction training is on:
  - familiarisation with the SEQWG ERP and IMP
  - notification and escalation
  - responsibilities of the First Able Person.
- **Refresher training.** Annually, all staff members of *LinkWater* should receive an update briefing on:
  - the emergency arrangements
  - essentials of this IMP
  - their role, including as a First Able Person.



- **Incident Management Team (IMT) and Crisis Management Team (CMT) training.** In addition to the above training, all persons who may be directly involved in managing an incident are to receive:
  - specific training on the IMP's procedures and their responsibilities
  - 'hands-on' training in communication protocols, equipment and systems record keeping, and the skills needed to fulfil their duties
  - team training with others they will be working with during an incident
  - lessons learnt from previous incidents or tests of the IMP
  - familiarisation training in the requirements of site specific plans, contingency plans and SOPs for a range of scenarios that may eventuate.
- **Executive and Board familiarisation.** All executive level managers and Board Members should receive a briefing on the IMP and their responsibilities.
- **Media training.** All executive level managers, including the CEO, should receive media training and refresher courses on an annual basis.

The General Manager Corporate Services is to provide an annual training report to the Board (and for records as required by the SEQWGM) in December of each year.

## 2.7 Testing and review

The SEQWGM directs that this LinkWater IMP is to be tested and reviewed at least once each year by:

- participating in at least one exercise internally or with the Water Grid Manager and/or other Grid Participants, allowing incident classification assessment, notification procedures and communication protocols to be practiced
- ensuring members of the Linkwater CMT and IMT understand their roles and responsibilities
- ensuring the Linkwater CMT and IMT take part in any emergency management planning activities that are undertaken within the Water Grid
- undertaking a gap analysis between this IMP and the SEQWG ERP and other Grid Participant response plans
- including lessons learnt from real or simulated incidents involving the activation of the CMT and/or IMT after each activation of the IMP
- circulating a receipted copy of the formally documented results from any audits or reviews to all Grid Participants.

## 2.8 Record of Training and Testing

The HR Training Officer is to retain a log of all IMP training and testing activities undertaken by and for *LinkWater* individuals and teams.

The IMP is to be submitted to the SEQWGM annually, unless otherwise stipulated, for approval in accordance with Chapter 4.31 of the SEQ Water Market Rules.



### 3 INCIDENT MANAGEMENT SYSTEM

#### 3.1 General roles and responsibilities

##### 3.1.1 SEQWG emergency response hierarchy

The Water Grid has a three-tiered response for managing incidents and emergencies. Within each level of the structure, Grid Participants are responsible for managing the incident to a successful resolution, while informing the next level to assist in emergency response.

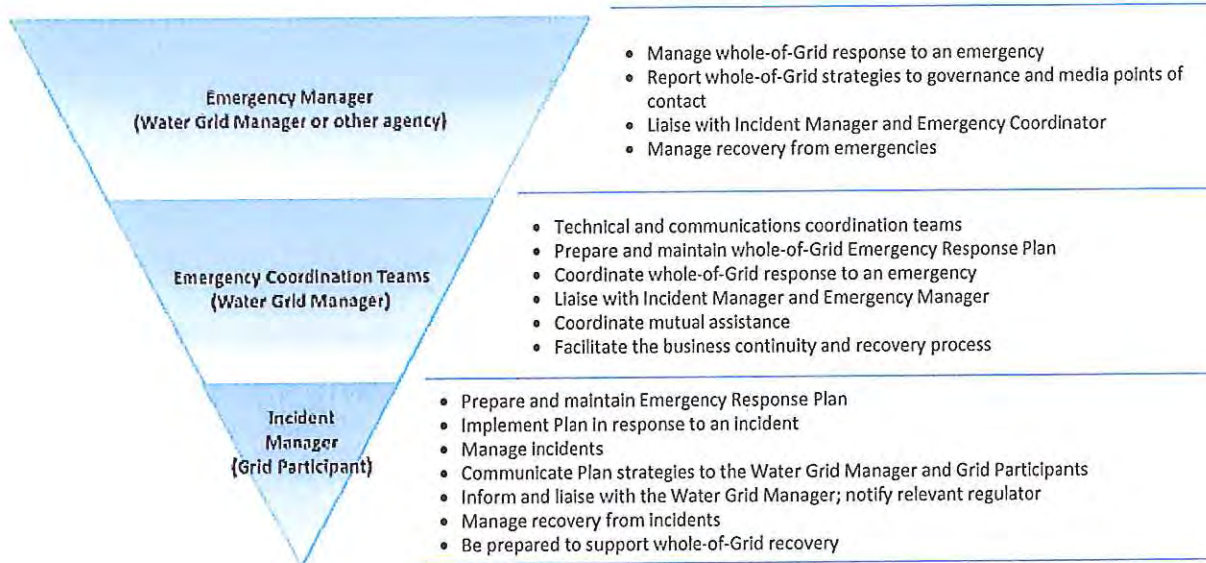


Figure 3.1: Water Grid emergency response hierarchy.

##### 3.1.2 LinkWater incident response hierarchy

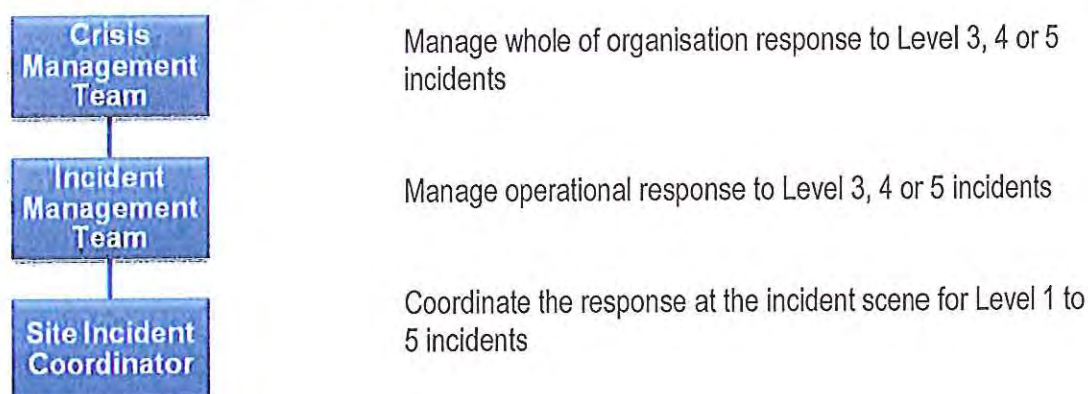


Figure 3.2: LinkWater incident response hierarchy.



### 3.2 Site Incident Coordinator

The Site Incident Coordinator will be the most senior LinkWater person at the incident scene. The Site Incident Coordinator may form a Site Team to respond to the situation, including the First Able Person, LinkWater people at the incident site and any functional or specialist support people deployed to support them, as required.

The Site Team will operate during all LinkWater incidents if the nature of the event is an operational incident requiring a site level response. The Site Incident Coordinator retains command and control of the actions at the incident site while keeping the Control Room advised.

The key roles in the LinkWater Site Team may include:

- First Able Person (**Appendix B1**)
- Site Incident Coordinator (**Appendix B2**)
- Other staff, including specialist advisors, as required.

### 3.3 Incident Management Team

The *LinkWater* Incident Management Team (IMT) is the central element in the *LinkWater* incident management system. It is a flexible and scalable team, which will be activated to manage operational aspects of level 3, 4 or 5 incidents under the control of the Response Manager (IMT Leader).

The IMT supports operational response and takes as much pressure as possible off the impacted area through the provision of planning support, technical and specialist advice, coordination of administration and logistics, and liaison with external stakeholders, including the media, so it can focus on managing the operational aspects of the response.

Although the IMT will be formed to meet the requirements of any particular operational situation, there are a number of key roles which will generally be required in most incident situations. The key roles in the LinkWater IMT may include:

- Field Operations Officer
- Planning Officer
- Logistics Officer
- LinkWater Control Centre (**Appendix B3**)
- Response Manager (**Appendix B4**)
- Incident Communications Manager (**Appendix B7**)
- Administrative Support Team
- Log Keeper (**Appendix B6**).

### 3.4 Crisis Management Team

The crisis response is managed by the Duty GM with direction from the CEO. A key role of the CMT is to make integral decisions to safeguard LinkWater's reputation.

On activation of the CMT, the Duty GM (CMT Leader) ensures that the CMT is assembled and briefed, then provides planning guidance, allocates priorities and coordinates the outputs from the CMT.

Should an incident occur which involves more than one Water Grid Participant; the *LinkWater* IMT / CMT is sufficiently flexible to integrate elements from other Grid Participants if *LinkWater* is the lead Grid Participant for an incident, under the general direction of the Water Grid Manager.

Although the CMT will be formed to meet the requirements of any particular crisis situation, there are a number of key roles which will generally be required in most crisis. The key roles in the *LinkWater* CMT are:

- Duty General Manager (CMT Leader) (**Appendix B5**)
- CEO
- Incident Communications Manager (**Appendix B7**)
- Company Secretary or legal designate
- Administrative Support Team
- Log Keeper (**Appendix B6**)
- OCA Operator.

A detailed diagram of the IMT and CMT organisational structure is shown in Figure 3.3.



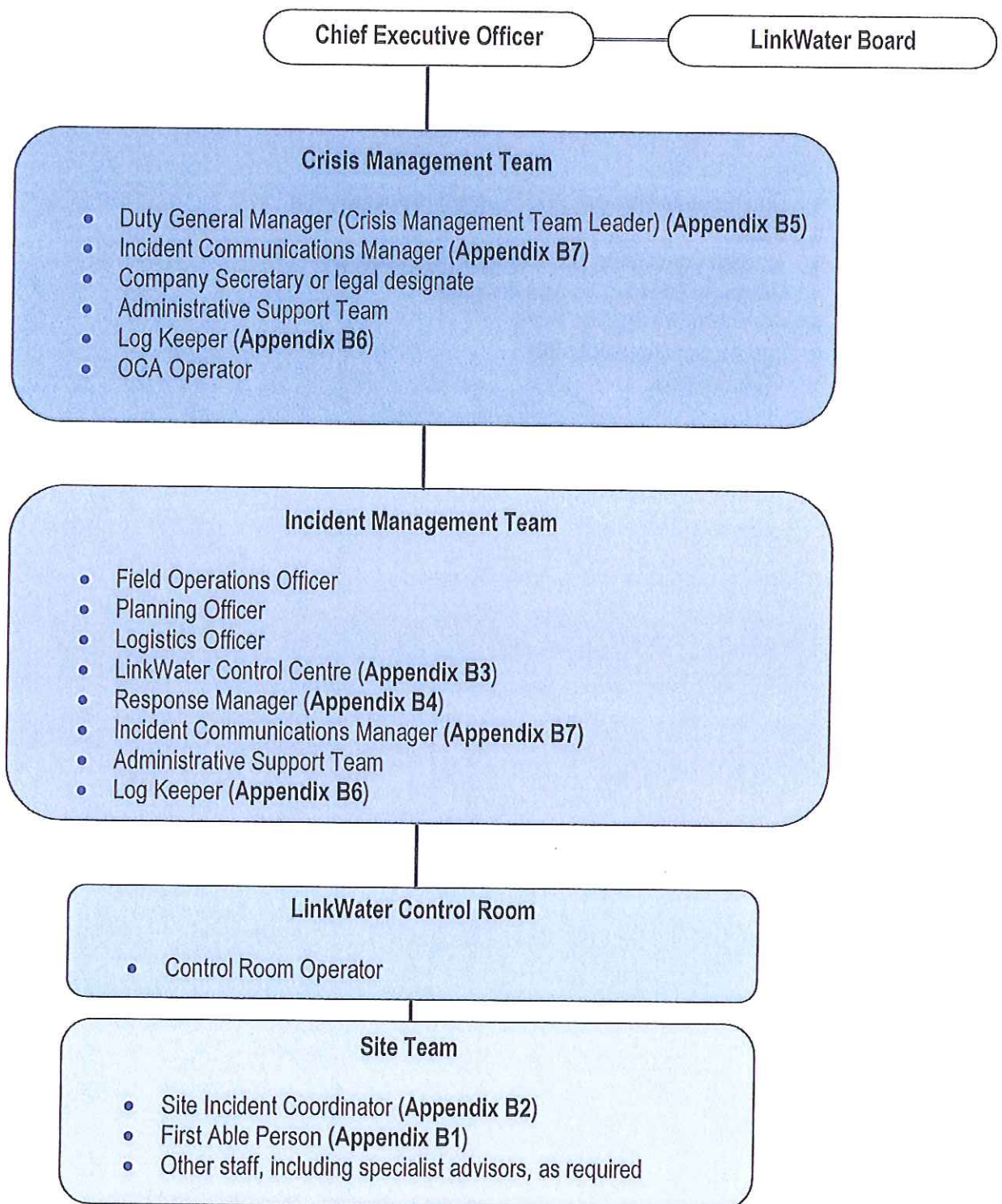


Figure 3.3: Incident Management Team (IMT) and Crisis Management Team (CMT) structure.

### 3.5 SEQWG Emergency Response Team structure

Based on the above functions and their 'owners', the SEQWG Emergency Response Team structure will be as follows:

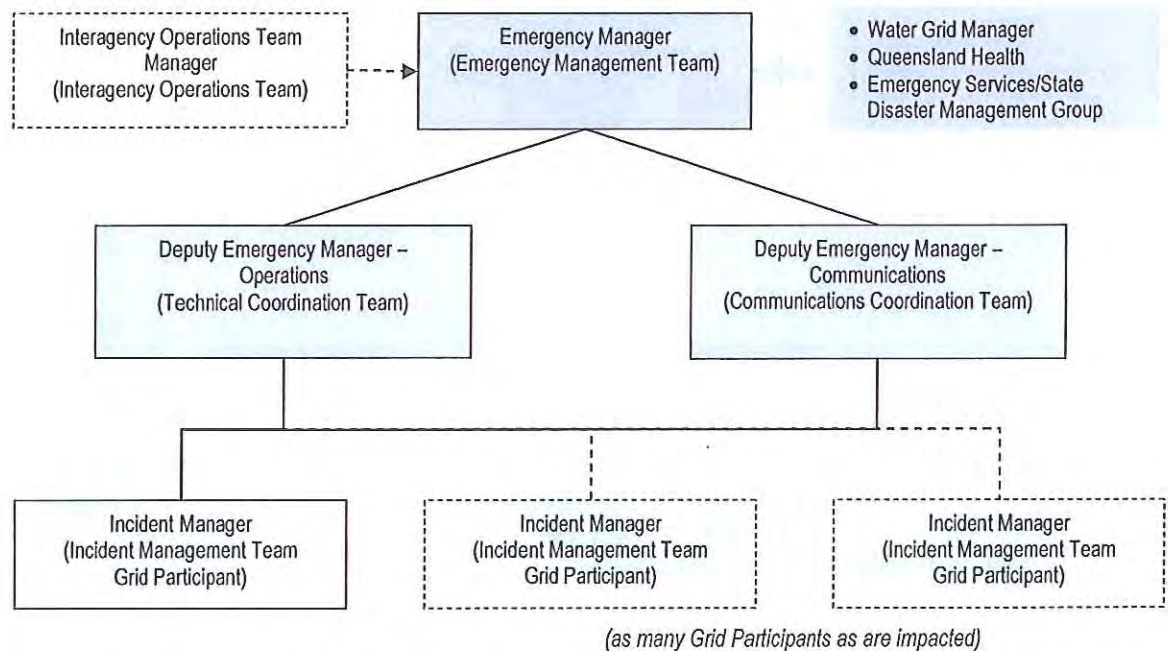


Figure 3.4 SEQWG Emergency Response Team structure.

For emergencies where the Water Grid Manager is the Emergency Manager, the Water Grid Manager will determine the composition of the Emergency Management Team. Detailed information on these teams and groups is provided in the SEQWGM ERP.

#### 3.5.1 Function teams membership

In general terms, the function teams shown above will be made up as follows:

Function	Agency	Team	Team leader	Team members
Incident management	LinkWater	Incident Management Team / Crisis Management Team	Incident Manager / Duty General Manager/CEO	<ul style="list-style-type: none"> <li>LinkWater staff (refer to figure 3.3)</li> </ul>
Technical coordination	Water Grid Manager	Technical Coordination Team	Deputy Emergency Manager - Operations	<ul style="list-style-type: none"> <li>Water Grid Manager staff</li> <li>Relevant Grid Participant staff</li> </ul>



Function	Agency	Team	Team leader	Team members
Communications coordination	Water Grid Manager	Communications Coordination Team	Deputy Emergency Manager - Communications	<ul style="list-style-type: none"> <li>Water Grid Manager staff</li> <li>Relevant Grid Participant staff</li> </ul>
Emergency management	Water Grid Manager	Emergency Management Team	Emergency Manager	<ul style="list-style-type: none"> <li>Water Grid Manager staff</li> <li>Relevant Grid Participant staff</li> <li>Communications staff</li> </ul>
	Queensland Health	Emergency Management Team based on Major Water Incident Management Group	State Health Incident Coordinator (Chief Health Officer)	<ul style="list-style-type: none"> <li>Senior Health Officer Queensland Health</li> <li>CEOs of Water Grid entities</li> <li>Premier's Department</li> <li>Ministerial staff</li> <li>Communications staff</li> <li>State regulators</li> <li>Specialist advisors, as needed</li> </ul>
	Emergency Services/ State Disaster Management Group	Emergency Management Team based on State Disaster Management Group	State Disaster Manager	

Table 3.1: Function teams membership.

### 3.5.2 Command and Control Functions

The command and control functions of these teams are outlined in the table below.

Function	Description	Key responsibilities
Incident management	Managing the physical incident on-site	<ul style="list-style-type: none"> <li>(Linkwater CMT, IMT and Site Teams, as applicable.)</li> <li>Manage the incident as per the LinkWater IMP</li> <li>Respond to incidents impacting the environment and LinkWater's people, assets and reputation</li> <li>Maintain continuity of water supply</li> <li>Assist the Emergency Manager and other Water Grid Manager function teams</li> </ul>

Function	Description	Key responsibilities
Technical coordination	Coordinating whole-of-Grid operations and support	<ul style="list-style-type: none"> <li>• Assist the Emergency Manager</li> <li>• Facilitate interagency liaison</li> <li>• Facilitate resource sharing and mutual assistance among Grid Participants from an operations perspective</li> <li>• Seek and share additional expert advice</li> <li>• Remodel the water security position</li> <li>• Issue Grid Instructions and Emergency Operating Instructions, as necessary</li> <li>• Facilitate close-out debrief</li> <li>• Prepare Technical Operations Strategy for Emergency Management Team approval</li> </ul>
Communications coordination	Coordinating Water Grid internal and external communications	<ul style="list-style-type: none"> <li>• Assist the Emergency Manager</li> <li>• Internal stakeholder management</li> <li>• Facilitate interagency liaison</li> <li>• Prepare all internal and external communications materials as required</li> <li>• Issue all internal communications</li> <li>• Facilitate resource sharing and mutual assistance among Grid Participants from a communications perspective</li> <li>• Seek and share additional expert advice</li> <li>• Prepare Communications Strategy for Emergency Management Team approval</li> </ul>
Emergency management	Strategic command and key stakeholder management	<ul style="list-style-type: none"> <li>• Strategically manage response to the emergency</li> <li>• Determine risk management strategy</li> <li>• Coordinate investigations</li> <li>• Single contact point (Emergency Manager) for the emergency unless this is delegated to other Emergency Response Team member/s</li> <li>• Key stakeholder management</li> <li>• Approve all external communications: <ul style="list-style-type: none"> <li>• Briefings</li> <li>• Media releases</li> <li>• Public interface</li> </ul> </li> <li>• Approve Technical Operations and Communications Strategies</li> <li>• Issue all external communications</li> </ul>

Table 3.2: Command and Control functions.



## 4 INCIDENT RESPONSE

### 4.1 Quick Guide to Incident Response

Step		Key Tasks	Tools
<b>1</b>	<b>Report and assess incident severity</b>	<p>Report the Incident</p> <p>Assess the Incident</p> <p>Escalate to the appropriate level</p>	<p><b>Appendix A2</b> Incident reporting and escalation process</p> <p><b>Appendix A3</b> Incident Assessment Matrix</p> <p><b>Appendix D1</b> Incident Information Forms</p> <p>Office of the Water Supply Regulator water quality reporting guidelines</p>
<b>2</b>	<b>Notify</b>	<p>Notify LinkWater internal emergency contacts</p>	<p><b>Appendix A2</b> Notification and Escalation Process Map</p>
	Actions to alert impacted Grid Participants and stakeholders	<p>Notify the Water Grid Manager Duty Manager of Alert and Level 3–5 incidents:</p> <ul style="list-style-type: none"> <li>Alert/Level 3 – ☎ and email via form in OCA – within 2 hours</li> <li>Levels 4 and 5 – ☎ and email via form in OCA – within 1 hour</li> </ul> <p>Notify the Office of the Water Supply Regulator if required</p> <p>Notify other stakeholders as required</p> <p>Open Incident Response Log/s</p>	<p>Water Grid Manager Duty manager ☎</p> <p><b>Appendix A3</b> Incident Assessment Matrix</p> <p><b>Appendix A4</b> Key Stakeholder Notification Guide</p> <p>Log into, and initiate reporting over, OCA. Refer to <b>Appendix C1</b> IMR SOPs, OCA Protocols</p> <p>Drinking Water Incident hotline- ☎ 1300 596 709</p> <p><b>Appendix A4</b> Key Stakeholder Notification Guide</p> <p><b>Appendix A4</b> Key Stakeholder Notification Guide</p> <p><b>Appendix C3</b> Incident Management Register</p>
<b>3</b>	<b>Establish command and control</b>	<p>Establish the Incident Management Team</p>	<p><b>Figure 3.3:</b> Incident Management Team Structure</p> <p><b>Appendix C1</b> IMR SOPs</p>



Step		Key Tasks	Tools
	Actions to determine the lead agency, and continuously reassess risk level and command and control through more detailed assessment	Review initial assessment	<b>Appendix A3</b> Incident Assessment Matrix <b>Appendix A4</b> Key Stakeholder Notification Guide <b>Appendix D1</b> Incident Information Forms
<b>4</b>	<b>Manage the incident</b> Actions to eliminate the immediate risk to operations	Manage the incident at asset/site level Coordinate the response at whole-business level with IMT Establish the CMT if required Implement communication process	Incident Management Plan Incident Management Plan and Specific Incident Response Plans (Incident Management tab on intranet) Site Management and Emergency Plans (Incident Management tab on intranet) Reporting over OCA for all Alert and Level 3-5 Incident Response related activities in the Water Grid
<b>5</b>	<b>Recovery</b> Actions to return operations to normal	Agree recovery objectives Recover asset Implement close out communications	Recovery consultation process Specific Incident Response Plans (Incident Management tab on intranet)
<b>6</b>	<b>Improvement actions</b>	Hot debrief following Level 3, 4 or 5 incident close-out Update risk registers	<b>Appendix D8</b> – Group Debrief Guide <b>Appendix D9</b> – Issues Debrief Form <b>SEQWGM ERP</b> – Debriefing minutes template Attachment K <b>SEQWGM ERP</b> – Post-emergency Report Template Attachment L Risk registers

## 5 REPORT AND ASSESS INCIDENT SEVERITY

### 5.1 Reporting incidents

An incident or issue which may require the activation of this IMP can originate internally or externally. Operational incidents will be reported to the LinkWater Control Centre in the following ways:

- from a member of the public via a council or distribution entity call centre or *LinkWater* 1800 number
- from a council or distribution entity via their control room
- via the SCADA system to the LinkWater control room
- from a LinkWater employee
- from the WGM.

Other issues will be reported by LinkWater employees at any level via their normal management chain or from external stakeholders raising an issue with the appropriate LinkWater representative.

On being alerted to an operational incident, the Control Room Operator is to record the incident details conduct an initial evaluation using the Incident Assessment Matrix (**Appendix A3**), activate resources to respond and escalate accordingly. For incidents higher than level 2, the Control Room Operator will alert the impacted Team Manager.

Once notified, the impacted Team Manager, or Duty Manager (after hours), is to assess the situation using the Incident Assessment Matrix (**Appendix A3**). Depending on the incident level, the impacted Team Manager, or Duty Manager (after hours), will complete a number of duties. These may include:

- informing key LinkWater staff, including the Duty General Manager, impacted Group General Manager or the Communications Manager if there is a media risk
- establishing an Incident Management Team (IMT)
- notifying key external stakeholders (**Appendix A4**).

The Duty General Manager will confirm the incident level using Incident Assessment Matrix (**Appendix A3**) and implement a number of actions, depending on the nature and level of the situation. These actions may include the following:

- inform the Chief Executive Officer and other General Managers are aware of the situation
- confirm that key stakeholder notifications have been undertaken within the specified timeframe (**Appendix A4**)
- establish the Crisis Management Team (CMT) and assume the role of CMT Leader.

Detail on this process, including responsibilities for each role, is provided in the Reporting and Escalation Process Map at **Appendix A2**.



## 5.2 Incident Assessment

The Incident Assessment Matrix provides guidance on assessing the incident level and determining the appropriate response. The Matrix is aligned to the SEQWGM Incident Severity Classification Table and outlines examples of incidents for levels one to five. The Incident Assessment Matrix is at **Appendix A3**.

As a rule of thumb:  
***"If in doubt – activate or escalate"***.  
It is easier to stand down a team than  
it is to activate during an incident.

## 6 NOTIFY

### 6.1 Water Grid Manager Duty Manager

Once the incident has been reported and assessed a number of key stakeholders require notification within certain timeframes. Guidance on notifying the Water Grid Manager Duty Manager is outlined in the table below.

Incident level	Notify	Water Grid Manager Duty Manager
1 and 2	No	
Alert	Yes	<ul style="list-style-type: none"> <li>☎ Within 2 hours of incident detection</li> <li>✉ Email Incident Notification Form within 2 hours of incident detection</li> </ul>
3	Yes	<ul style="list-style-type: none"> <li>☎ Within 2 hours of incident detection</li> <li>✉ Email Incident Notification Form within 2 hours of incident detection</li> </ul>
4 and 5	Yes	<ul style="list-style-type: none"> <li>☎ Within 1 hour of incident detection</li> <li>✉ Email Incident Notification Form within 1 hour of incident detection</li> </ul>

Table 6.1: WGM Duty Manager notification.

Note: this table is reproduced in **Appendix A4**.

### 6.2 Key stakeholders

Depending on the nature of the incident, there may be a number of key stakeholders, in addition to the WGM, requiring notification, such as:

- Office of the Water Supply Regulator
- Other Grid participants
- Workplace Health and Safety
- Appropriate emergency services departments.

The Key Stakeholder Notification Guide provides guidance on when to notify a number of stakeholders, who is responsible for notifying them and how quickly they require notification. The Key Stakeholder Notification Guide is at **Appendix A4**.



## 7 ESTABLISH COMMAND AND CONTROL

### 7.1 Team Activation

The first step in establishing control is activating the IMT and CMT and the Incident Management Room (IMR) and Crisis Management Room (CMR). Activation of all or part of the IMT and/or CMT will be achieved by face-to-face communication or telephone calls notifying the appropriate *LinkWater* employees required to activate and join the IMT to manage the incident or issue.

Detail on the IMT and CMT structure and key roles is contained in paragraphs 3.2 to 3.4.

Once notified of the situation, IMT and CMT members are to proceed to the IMR and CMR, respectively. On arrival, team members are to assist with setting up the room and prepare to receive a brief on the situation by the Response Manager or Duty GM.

The nominated locations for LinkWater IMT and CMT are:

- **Incident Management Team:** Room on Level 4 at 200 Creek Street, Spring Hill
- **Crisis Management Team:** Board Room on Level 5 at 200 Creek Street, Spring Hill or the Logan Room on Level 6 if the Board Room is being used by the Interagency Operational Team.

#### 7.1.1 Incident Management Room SOPs

The SOPs for the IMR are at **Appendix C1**. They include:

- IMR SOPs
- OCA Protocols
- IMR Pack.

The IMR Pack, including the IMR copy of this IMP and the IMT Process Guide is contained in marked boxes in the IMR wall unit.

### 7.2 Water Grid Manager Function Teams

The WGM will coordinate a number of emergency activated function teams from affected Grid participants in the event of a declared level 3, 4 or 5 emergency. These include:

- Technical Coordination Team
- Communications Coordination Team
- Emergency Management Team.
- Interagency Operations Team.

LinkWater may be required to provide representation on one or more of these teams as directed by the WGM. Some of these functional teams may be co-located with LinkWater, depending on the nature of the emergency.

### 7.2.1 Locations

The nominated locations for the Water Grid function teams are shown in the table below.

Water Grid Functional Team	Location
Technical Coordination Team*	Logan Room on Level 6 at 200 Creek Street, Spring Hill*
Communications Coordination Team	Water Grid Manager's Incident Room, Level 15, 53 Albert Street, Brisbane
Emergency Management Team	Water Grid Manager's Incident Room, Level 15, 53 Albert Street, Brisbane
Interagency Operations Team	As directed by the Emergency Manager

Table 7.1 Emergency response function team locations (\*Location designated by the WGM).

### 7.3 Continuous incident assessment

The initial incident severity classification may require adjustment as the incident and its wider impacts evolve and are better understood. The Response Manager is responsible for the continual reassessment of the situation and can recommend to the Duty General Manager to escalate the incident if needed.

The Incident Assessment Matrix in Appendix A3 should be used for this purpose.

A phone call to the Water Grid Manager on [REDACTED] or email to [REDACTED] to advise of any proposed escalation if necessary. The Water Grid Manager also reserves the right to escalate emergencies as per page 37 of the Water Grid Emergency Response Plan.



## 8 MANAGE THE INCIDENT

### 8.1 Water Grid emergency coordination

The Water Grid Manager is responsible for establishing the Technical and Communications Coordination Teams. A range of coordination activities will be required to facilitate the total emergency response and to ensure whole-of-Grid operations maintain supply (as distinct from managing the incident at the entity or asset level).

### 8.2 Incident management

LinkWater is responsible for managing all aspects of an incident at the site/asset and whole of business level. During an incident, LinkWater management objectives are developed according to the following priorities:

- Protect life
- Protect the environment
- Maintain operations
- Protect assets
- Protect reputation.

#### 8.2.1 Specific Response Plans

Actions taken to respond to incidents should adhere to normal operating protocols as much as possible. In some cases, this may be difficult and the situation may require a specific type of response. LinkWater has identified the following potential emergency situations and developed Specific Response Plans for them:

- **Disruption to Supply.** This plan provides guidance for Operational Services response to Level 3, 4 or 5 water supply disruption, with a focus on Control Room and on-site management. Examples are pipe burst or reservoir drain downs. The plan outlines the roles of essential response persons associated with disruption to supply, support contacts, initial actions, ongoing actions during the event, stand down actions and post event actions.
- **Water Quality.** This plan provides guidance for Operational Services response to Alerts and Level 3, 4 or 5 water quality incidents and issues, with a focus on Control Room and on-site management. Examples are exceedences of operational quality targets, critical control points, ADWG aesthetics or health parameters. The plan outlines the roles of essential response persons associated with water quality issues, support contacts, initial actions, ongoing actions during the event, stand down actions and post event actions.
- **Environmental Incidents.** This plan provides guidance for a response to Level 3, 4 or 5 environmental Incidents. Examples are chemical spills, burst pipes, heavy rain, and flooded assets resulting in environmental impacts. The plan outlines step procedures for environmental incidents, action times, an environmental impacts matrix, a checklist for the first able person, and details of environmental consultant support services
- **Harm to People.** This plan provides guidance for a response to a serious injury or death to a member of the public on a *LinkWater* controlled site. The plan outlines step procedures, actions to take, time requirements, recovery actions and managing contingencies.



- **Natural events – Floods.** This plan provides guidance for a response to a serious flood event which impacts on LinkWater operations, assets or staff. Examples are, rising waters and potential flooding situations. The plan outlines flooding impacts, controls, initial preparation, the immediate phase, the recovery phase, post flood actions, emergency kits for vehicles and flood classifications according to the Bureau of Meteorology.
- **Other incidents scoped include:** Bushfires, oil spills, asbestos incidents, water treatment chemicals and discharge of water to the environment.

The Specific Response Plans are located on the intranet under the Incident Management tab.

### 8.2.2 Site Management Plans

Site Management Plans also outline important emergency response actions and considerations specific to each site. This also includes evacuation and emergency plans for the corporate office in Creek Street.

The Site Management Plans are located on the intranet under the Incident Management tab.

## 8.3 Information management

Effective collection, assessing and sharing of information is critical during an incident. The Response Manager or Duty GM (IMT Leader) must ensure clear and unambiguous directions are given to their teams and the decision-making rationale is systematic and easily supported by the facts at hand. To do this, they require accurate and timely information from the scene of the incident and on how other organisations involved in the situation are responding. This is achieved by the following:

- Completing a detailed initial brief and regular update briefs
- Displaying information on boards that are easy to view and understand
- Maintaining an accurate event log
- Conducting structured handovers during long running events.

Detail on information management procedures is contained in the IMR SOPs at **Appendix C1**.

## 8.4 Internal Communication

Employees can be either LinkWater's strongest ambassadors or its strongest opponents, depending on how the organisation communicates with and treats them. Ensure employees always receive information before (or at the same time) as the media to facilitate trust between LinkWater management and employees.

The following should be considered:

- ensure open communication with union representatives
- be attuned to miscommunication and rumours circulating among employees, so they can be corrected
- reassure employees (using the key messages) in response to any negative stories appearing in the media.



## 8.5 External Communication

The protocol for managing external communication is determined by the incident level.

Incident Level	Levels 1 and 2	Levels 3, 4 and 5
Media and external Communication Managed by:	LinkWater	SEQWGM or Relevant Minister
LinkWater's role in Incident Communication:	LinkWater takes the lead Communication Role	LinkWater provides support

### 8.5.1 Level 1 and 2

Media aspects for an Alert or Level 1 or 2 incident will be managed by LinkWater when directed by the WGM. Holding statements and media statements are only to be prepared by the LinkWater Incident Communication Team.

If media attention is likely or confirmed, LinkWater is to notify the WGM Grid Communications Team on [REDACTED] or email [REDACTED]

The WGM will provide directives for briefing up to responsible Minister(s) or other key external stakeholders.

LinkWater responsibilities as directed by the WGM are:

- preparing situation reports
- preparing briefing notes to support media holding statements and media releases
- preparing and gaining approval for releases and bulletins
- determining triggers and timing for interviews and conferences
- media monitoring
- briefing spokespersons
- managing enquiries
- scripting for call centres and voice mail services.

### 8.5.2 Level 3, 4 or 5

The WGM Communication Coordination Team will take the lead for all communication during Level 3, 4 or 5 incidents, except when another agency is acting as the Emergency Manager. LinkWater plays a support role for external communication.

*LinkWater* is required to identify a single point of contact to notify WGM, maintain liaison and assist with media management. Other strategy support and assistance may include:

- the preparation of situation reports
- preparing briefing notes to support media holding statements and media releases
- preparing and gaining approval for releases and bulletins
- determining triggers and timing for interviews and conferences
- media monitoring
- briefing spokespersons



- managing enquiries
- scripting for call centres and voice mail services.

OCA is the primary means for sharing information with the Water Grid Manager and other Grid participants. Details on the use of OCA are outlined in the OCA Protocols in the IMR SOPs at **Appendix C1**.

### 8.5.3 Managing the Media

*All media enquiries must first be reported to the WGM Grid Communications Team on [REDACTED] or email [REDACTED]*

Once given the directive to comment during an Alert, level 1 or 2 incident, LinkWater can only comment on how the incident relates to its own assets and to its subsequent response. Comments on Water Grid security are to be referred to the WGM.

During a Level 3, 4 or 5 incident, the Incident Communications Manager's role is to take directives from the WGM Communications Coordination Team to determine the communication strategy and to provide support to the WGM.

All media materials, including holding statements, media releases, situational reports, briefing notes etc must be signed off by the CEO or delegate prior to release to the State Government or media outlets.

### 8.5.4 Procedural Guidelines

- All media enquiries must be transferred, in the first instance, to the Incident Communications Manager. Information for frontline staff or other employees on how to handle media enquiries is at **Appendix D2**.
- All media calls must be logged by the Incident Communications Manager and reported to the WGM Communications Coordination Team
- Under no circumstances should employees or sub-contractors comment to the media or say "no comment".  
*The correct response is "I am not the correct person to comment but I will pass your enquiry onto the LinkWater Communications Manager. If you provide me with your details I will ensure they return your call as soon as possible"*
- Details of all enquiries received by staff should be logged on a Telephone Message Sheet (**Appendix D3**) and passed on to the Incident Communications Manager
- The Incident Communications Manager should circulate the above media policy to all employees and contractors.

### 8.5.5 Spokespersons

The designated *LinkWater* spokespersons for all levels of incident are the CEO or CEO nominated delegate.

#### **8.5.6 Media Conference/Briefing**

In the case of an extremely serious incident, it may be necessary and/or most efficient to call a media conference or briefing to address all the media at once. The WGM Communications Coordination Team will work with the relevant affected Grid participants to facilitate this.

#### **8.6 Advising Nominated Emergency Contacts (NEC)**

When a serious incident occurs which causes injury or death, advice and support for the NEC and acquaintances must be prompt and empathetic. Details on handling enquiries from NEC, advising them of injuries or fatalities and managing them on site are at **Appendix E1**.

#### **8.7 LinkWater Call Centre**

The call centre must receive regular updates to keep the public informed during an incident. These messages will be developed by the Incident Communications Manager and approved by the CEO prior to implementation.

#### **8.8 Contact List**

The summary of **Key Contacts** is at **Appendix A1**.

This directory is also available on the Intranet. The SEQWG ERP has additional contact listings which might be required during a response.



## 9 RECOVERY

### 9.1 Aim

The aim of the recovery phase is to enable a reversion to routine operations which can be managed under normal organisational and management arrangements. It is essential that outstanding issues and actions are passed from the incident and emergency management teams back to normal management arrangements effectively and efficiently.

### 9.2 Roles and responsibilities

The roles and responsibilities for SEQWG incident and emergency teams during recovery are summarised below.

Action	LinkWater Incident Management Team (Other Grid Participant/s)	Technical Coordination Team (Water Grid Manager)	Communications Coordination Team (Water Grid Manager)	Emergency Management Team (Water Grid Manager or other)
Agree recovery plan and objectives	•	•	•	•
Recover asset	•			
Issue Grid Instructions, as necessary		•		
Implement close-out communications protocols			•	•
Close-out incident	•			
Complete Incident Close-out Report	•			
Close-out emergency				•

Table 9.1: Water Grid recovery responsibilities.

#### 9.2.1 LinkWater

LinkWater is responsible for planning and implementing actions to recover our assets, services and/or products in accordance with the agreed recovery objectives and the Water Grid Manager's Grid Instructions. LinkWater is also responsible for providing information and resources to the Emergency

Management Team and Emergency Coordination Teams as directed by the WGM in order to assist the whole-of-Grid recovery effort.

### **9.2.2 Emergency Management Team (Water Grid Manager or other)**

The Emergency Management Team is called together by the WGM and is responsible for directing the whole-of-Grid recovery process. This is primarily achieved by outlining the recovery objectives and the subsequent priority of work.

This process may involve input and assistance from a number of other government departments and stakeholders such as:

- Grid Participants
- Queensland Treasury
- Department of Community Safety (Emergency Services)
- Department of Employment, Economic Development and Innovation
- Queensland Water Commission
- Department of Environment and Resource Management
- Department of Premier and Cabinet
- Department of Infrastructure and Planning
- Grid Customers
- Queensland Health.

### **9.2.3 Communications and media**

The Emergency Management Team, when called together to manage Level 3, 4 or 5 incidents, is responsible for managing recovery communications across the Grid participants and to external stakeholders such as Grid customers and relevant parts of government. The Emergency Management Team is also responsible for issuing a close-out statement/media release, if appropriate.

## **9.3 De-escalation**

The SEQWG ERP states there are two elements for de-escalation in the emergency response context:

- emergency de-escalation
- incident de-escalation (a sub-set of emergency de-escalation).

Incident de-escalation relates to incident management, and the status of the physical event. LinkWater is responsible for incident de-escalation. The Incident Assessment Matrix in Appendix A3 should be used for this purpose.

Emergency de-escalation takes into account a broader range of factors including emergency coordination and management, which may continue well after the incident that caused the emergency has been rectified. As such, it is possible that the emergency may stay ongoing after LinkWater has de-escalated the incident. As a result, only the Emergency Manager can de-escalate the Water Grid emergency.



## **9.4 Stand-down**

Once the incident has been de-escalated and normal organisational and operational arrangements can be restored, the Response Manager or Duty GM (IMT Leader) will direct teams to "stand-down". On stand-down, the Response Manager or Duty GM (IMT Leader) is to ensure incident close-out reporting is completed within required timeframes.

### **9.4.1 Water Grid Manager Incident Close-out Report**

For alerts and Level 3, 4 and 5 incidents, the Response Manager or Duty GM is to ensure the Incident Close-out Report is completed in OCA. The report should include results of any investigations and rectification procedures performed.

### **9.4.2 Office of the Water Supply Regulator**

For all incidents that have required LinkWater to submit Part A of the form 'Drinking water quality: incident reporting' to the Office of the Water Supply Regulator, the Response Manager or Duty GM is to ensure Part B of the form is submitted to the OWSR and a copy to the Water Grid Manager on close-out.

### **9.4.3 Workplace Health and Safety reporting**

All serious OH&S Incident Investigation Reports are to be submitted via the General Manager Operational Services or General Manager Corporate Services to Workplace Health and Safety Queensland in accordance with legislative guidelines.

## **9.5 Documentation and Records**

All documentation collected, collated and disseminated during an incident is to be securely retained by the respective team managers. This includes event logs, records of stakeholder communications, telephone message logs, master files, photographs, video imagery and any correspondence relating to the emergency. These items will be necessary for debriefs, root cause analyses and for the post-incident report. They may also be required for investigations and inquiries.



## 10 IMPROVEMENT ACTIONS

### 10.1 Debriefing

The Emergency Manager will decide if a formal debriefing process is to be carried out, based on the nature of the incident.

The following table outlines responsibilities for carrying out debriefings following incident close-out.

Level	LinkWater Incident Manager	Emergency Manager (Water Grid Manager or other) <sup>8</sup>
1, 2 and Alert	The incident log and other documentation is completed and retained for reference in the Control Room. The impacted Team Manager will determine debrief requirements.	No involvement
3, 4 and 5	Carry out 'hot' debrief – informal debriefing which must occur as soon as practicable following the event to capture immediate learning's and details	Water Grid Manager to facilitate a 'cold' debrief including all entities involved in the emergency response in order to: <ul style="list-style-type: none"> <li>• carry out a root cause analysis</li> <li>• capture and disseminate experiences and lessons learnt throughout the incident</li> <li>• enable process improvements and modifications</li> </ul>

Table 10.1: Debriefing requirements.

#### 10.1.1 Debrief conduct

The impacted Team Manager is to coordinate the debrief for Level 1 and 2 incidents and Alerts.

The Response Manager, in consultation with the impacted General Manager, will coordinate the 'hot' debrief for Level 3, 4 or 5 incidents.

The Group Debrief Guide at **Appendix D4** is a guide to conducting group debriefs.

All debriefs following level 3, 4 or 5 incidents require a completed Issues Debrief Form (**Appendix D5**).

### 10.2 Reporting

The post-incident report is compiled by the impacted line GM or the Response Manager and will include, as a minimum:

- Summary of the incident
- Who was involved and what capacity
- Recommendations for improving incident management capability, based on the lesson learnt
- Copies of logs, forms and reports generated during the incident.



### 10.2.1 WGM Post-emergency Report

The WGM Post-emergency Report functions as a summary of information and feedback on an emergency and as a cover form for the file of associated documentation. It is a vehicle for information consolidation, analysis and formalised recommendations.

It should be completed by the Emergency Manager or Emergency Coordinator following a thorough debriefing process.

The Emergency Manager/Emergency Coordinator will distribute copies of the Post-emergency Report to all entities involved in the emergency response.

## 10.3 Risk Register

Recommendations arising from the debriefing process and Post-emergency Report must be forwarded to Grid Participant Risk Managers for inclusion in the entities' risk registers, as appropriate.

The Water Grid Manager is responsible for incorporating recommendations which address:

- whole-of-Grid systems and continuous improvement
- learning's from the experience that have value for all Grid Participants, and should be shared with others not involved in the incident.

LinkWater will address recommended actions relevant to our assets and systems. This shall include updating operational documentation such as:

- operational procedures
- training schedules
- water quality improvement plans
- asset improvement plans.

## 10.4 Incident Investigation

The Duty General Manager at the time of the event is to instigate a root cause analysis or investigation into the incident, as appropriate. Legal advice is to be obtained before this occurs. The investigation will only consider and document the known facts of the incident.

The Duty General Manager at the time of the event will coordinate LinkWater representation for external inquiries or investigations. Legal advice is to be obtained before this occurs. The investigation will only consider and document the known facts of the incident.

A report is to be raised as a result of the root cause analysis or investigation. The report is to recommend corrective or preventative action and assign responsibilities for any remedial actions.

## 10.5 Post Trauma Stress Counselling

For those closely involved in a traumatic event, professional trauma counselling and support may be required. It is the responsibility of the HR Department to coordinate these arrangements through the Employee Assistance Program.

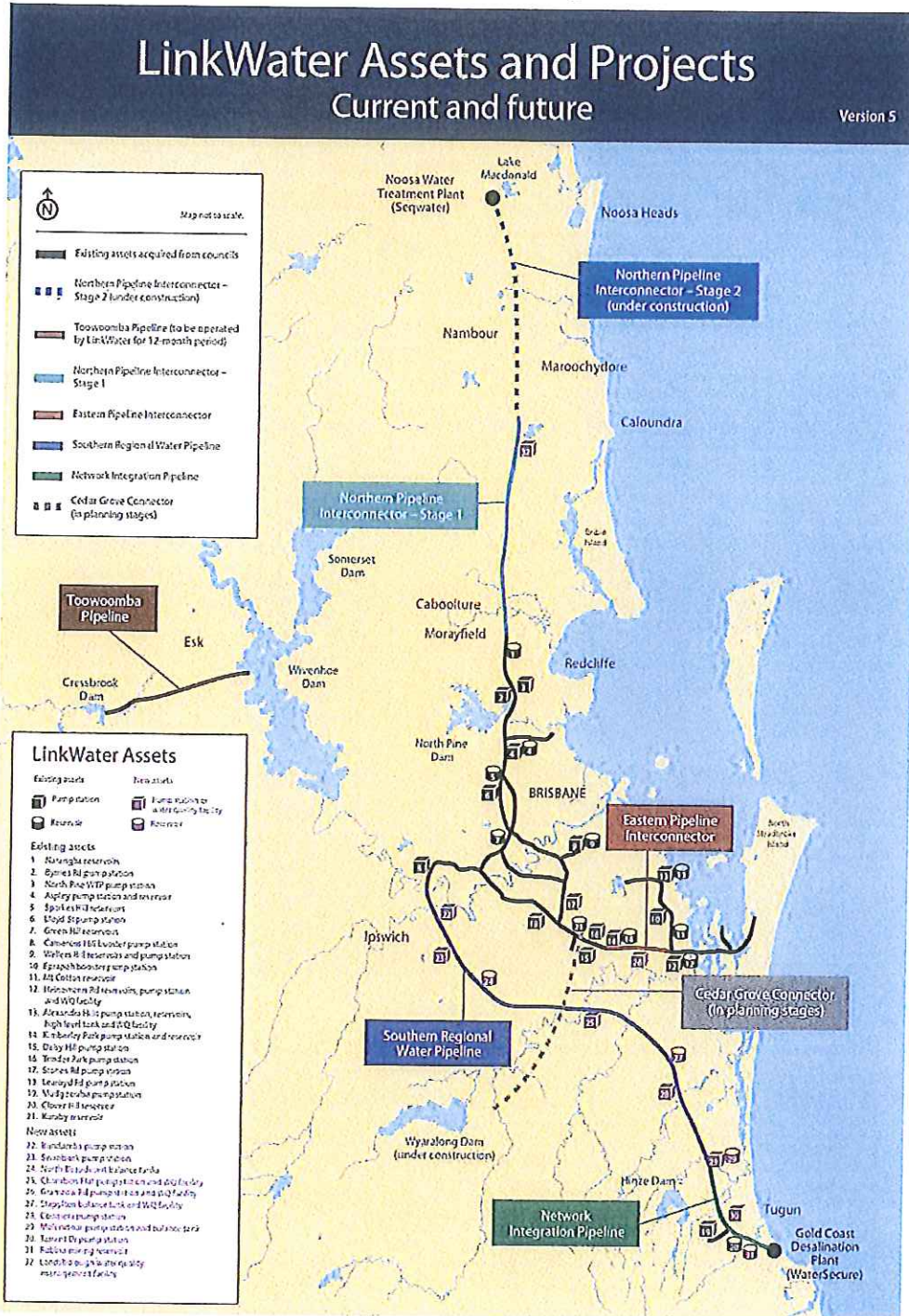
## 10.6 Remedial Actions

Remedial actions required as a result of the post-emergency report are to be logged in the Non-Conformance Report (NCR) database, integrated into standard reporting regimes and monitored by the responsible managers until they are closed off.



## 11 OTHER RESOURCES

### 11.1 Asset Map [current as at Sept 2010]



### 11.2 LinkWater Intranet

Additional information is located on the LinkWater intranet. Go to the tab marked Incident Management for this Plan and other incident management specific resources.



## 12 DISTRIBUTION LIST

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Copy No	Appointment	Location
1	Chairperson	Chairperson's Office
2 – 5	Director (Board Members)	Director's Office
6	LinkWater CEO	CEO's Office
7	EA to CEO	EA's Office
8	General Manager Business Services	GM Business Services Office
9	Legal Counsel	Legal Counsel's Office
10	General Manager Corporate Services	GM Corporate Services Office
11	General Manager Operational Services	GM Operational Services Office
12	General Manager Project Services	GM Alliance Project Office
13	Operations and Maintenance Alliance Manager	Operations and Maintenance Alliance Manager's Office
14	EA to Operations and Maintenance Alliance Manager	EA's Office
15	Operations and Maintenance Manager	Operations and Maintenance Manager's Office
16	Asset and Maintenance Manager	Asset and Maintenance Manager's Office
17	Engineering Integration Manager	Engineering and Integration Manager's Office
18	Modelling and Planning Manager	Modelling and Planning Manager's Office
19	HSE Manager	HSE Manager's Office
20	HSE Coordinator	HSE Coordinator's Office
21-22	Communications Manager/s	Comms Manager's Office Stakeholder Manager's Office

Copy No	Appointment	Location
23	QES Manager	Risk Manager's Office
24	HR Manager	HR Manager's Office
25	Emergency Management Room	IMR Pack
26	<i>LinkWater</i> Control Centre	<i>LinkWater</i> Control Centre
27	Incident Management Team	<i>LinkWater</i> Control Centre
28	North Zone Office	North Zone Office
29	Director (Charnwood Communications Consultants)	Charnwood Office (Melb) [LOAN]
30	Knowledge Manager	Knowledge Manager's Office
31	Water Grid Manager	WGM's Office
32	Water Quality Manager	Water Quality Manager's Office
33	Crisis Management Team Room	Pack in Board Room
34-50	Uncontrolled Training Copies (17)	Store Room



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## APPENDIX A1 – KEY CONTACTS

Organisation	Role	Phone	Email
LinkWater	Network Operations Coordinator		
	Control Room		
	GM Operational Services		
	Water Quality Manager		
	Duty Manager		
SEQ Water Grid Manager	Duty Manager		
	Notifications		
Office of the Water Supply Regulator (Regulator) - DERM	Incident Manager		
	Emergency Coordinator		
SeqWater	Coastal Water Treatment Plant Operations Manager		
	Central Water Treatment Plant Operations Manager		
	Dam Safety and Source Operations		



Organisation	Role	Phone	Email
Queensland Urban Utilities	Manager		
	Water Quality Product Manager		
	Senior Operations Manager		
	General Manager Support Services (for communication/media issues)		
	Desalination Operations Manager		
Alconnex	Water Distribution Control Room		
	Chief Operating Officer		
	Media Duty Manager		
	Acting Group Manager Policy and Systems		
	Gold Coast Duty Incident Manager		
Unitywater	Gold Coast Duty Operator		
	Logan Duty Manager		
	Redland District Manager		
	Network Control Room		



Organisation	Role	Phone	Email
	Duty Shift Officer		
	Manager Operations South		
	Manager Operations North		
	Media and PR Manager		
	Customer Service Centre		
Environmental Protection Agency (EPA)	*Contact if there is any risk there may have been environmental harm (i.e. treated water discharge due to infrastructure failure) or a wildlife incident		
Queensland Department of Main Roads	Emergency Incident Manager		
	*Contact if the incident affects major roads		
Queensland Department of Transport	Principal Advisor for Emergency Management		
	*Contact if the incident affects the transport system		
Queensland Department of Employment and Industrial Relations	WHS Inspector & Workplace Accident Notification*		
	Contact if the incident is a WH&S accident		
Elgas	LPG Emergency		
ENERGEX	Electricity		
Powerlink	Electricity		
Origin Energy	Gas Leaks		
Telstra	Communications		
Dial Before You Dig	Underground pipes and cable information		



## APPENDIX A2 – REPORTING AND ESCALATION PROCESS MAP

Chief Executive Officer

LinkWater Board

External influences,  
issues or crises

- Community
- Water Grid
- Government

• Media

• Legislative

• Water quality

• Contracts

• Security

• Utilities

• Legal

### Duty General Manager (Crisis Management Team Leader)

The Duty General Manager is to:

- Confirm the evaluation of the event/issue (Incident Assessment Matrix Appendix A3)
- Confirm that regulatory notifications have been undertaken within the specified timeframes detailed in the Key Stakeholder Notification Guide (Appendix A4)
- If Level 3, 4 or 5, assume the role of Duty General Manager (CMT Leader), if a crisis
- Activate the LinkWater resources required to manage the crisis
- Ensure other General Managers are aware of the crisis
- Inform the Chief Executive Officer
- Oversee the management of the crisis

Internal issues  
or crises

- Safety
- Systems
- Equipment
- Human resources

### Response Manager

The impacted Team Manager or Duty Manager (after hours) is to:

- Conduct an assessment of the situation using the Incident Assessment Matrix (Appendix A3)
- If Level 3, 4 or 5 assume the role of Response Manager and advise the Duty General Manager
- Advise the line General Manager impacted by the situation and keep them informed throughout the response
- Undertake regulatory notifications within the specified timeframe as detailed in the Key Stakeholder Notification Guide (Appendix A4)
- Form a team to manage the incident
- Commence initial response actions
- Activate the team resources required to manage the event

- Culture
- Costs
- Security
- Retention

### LinkWater Control Room

The Control Room Operator is to:

- Confirm the details of the incident or issue
- Conduct an initial assessment and escalate accordingly (Incident Assessment Matrix)
- Call out a Site Team if required
- Alert and inform the Duty Manager
- Alert the Corporate Communications Manager if the community is impacted or the media are present

- Recruitment
- Legal
- Industrial relations

Council Control Room

Council Call Centre

LinkWater #1800

Council Employee

Member of Public

LinkWater Employee

Supply interruption, asset reliability, water quality, safety, environmental or security incident or issue



## APPENDIX A3 – INCIDENT ASSESSMENT MATRIX

Level 1 – Insignificant		
General principles	Incident criterion – direct impacts on water supply	Examples
<ul style="list-style-type: none"> <li>• Little disruption to normal operations, low increase in normal operating costs</li> <li>• Local incident with impact limited to a single facility within one Grid Participant</li> <li>• Overall system impact limited to temporary or no reduction in capacity</li> <li>• No effect on monthly Grid Instruction volumes</li> <li>• Minor or no impact on bulk Grid Customers</li> <li>• Minor short-term impact on a small number of retail Grid Customers</li> <li>• Managed by the resources of the affected Grid Participant without the need to notify other Grid Participants, Emergency Services or the Water Grid Manager</li> <li>• These incidents occur as part of normal operations and are managed by a site supervisor or relevant duty officer as part of their normal responsibilities</li> </ul>	Water quality	<ul style="list-style-type: none"> <li>• Local water quality incident isolated to a zone; possibly caused by valve change</li> <li>• Potential contamination source identified, but no contaminated water has entered the system</li> </ul>
	Water asset failure	<ul style="list-style-type: none"> <li>• Minor unplanned asset failure – no facility output affected</li> </ul>
	Water quantity	<ul style="list-style-type: none"> <li>• Limited or no impact on bulk Grid Customers</li> <li>• Minor short-term disruption to retail Grid Customers</li> </ul>
	Security and natural disaster	<ul style="list-style-type: none"> <li>• Localised natural disaster damage</li> <li>• Minor storm damage to asset</li> </ul>
	Incident criterion – ancillary impacts associated with water supply	
	Health and safety of employees or public	<ul style="list-style-type: none"> <li>• Employee minor injury sustained requiring first aid</li> <li>• Slight injury or health affects</li> <li>• Low risk of other injuries</li> </ul>
	Environment	<ul style="list-style-type: none"> <li>• Brief pollution event but no environmental impact. Insignificant risk of breaching environmental regulatory requirements</li> <li>• Minor spike in discharge concentrations</li> </ul>
	Public reassurance	<ul style="list-style-type: none"> <li>• Lack of public interest (e.g. reporting, not front page) in suburban newspapers</li> <li>• Single adverse local radio report</li> <li>• Call centre receives a number of complaints but limited to a small area, e.g. a street or two</li> </ul>



## Level 2 – Minor

General principles	Incident criterion – direct impacts on water supply	Examples
<ul style="list-style-type: none"> <li>Minor or no impact on bulk Grid Customers</li> <li>Minor short-term impact on a small number of retail Grid Customers</li> <li>The incident has no effect on monthly Grid Instruction volumes</li> <li>Can be handled within the scope of normal operating protocols between Grid Participants</li> <li>Can be dealt with by the resources of the affected Grid Participants</li> </ul>	<p><b>Water quality</b></p> <ul style="list-style-type: none"> <li>Critical control point limits exceeded, even with corrections in place:               <ul style="list-style-type: none"> <li>– still within Australian Drinking Water Guidelines (2004) health values</li> <li>– minor impact for small population, some manageable operation disruption</li> </ul> </li> </ul> <p><b>Water asset failure</b></p> <ul style="list-style-type: none"> <li>Unplanned asset failure and reductions to asset output, less than or equal to one day duration where:               <ul style="list-style-type: none"> <li>– supply is reduced, but not lost</li> <li>– supply can be sourced from elsewhere if necessary</li> </ul> </li> </ul> <p><b>Water quantity</b></p> <ul style="list-style-type: none"> <li>Single raw water supply source within the Water Grid is showing indications of failure</li> </ul> <p><b>Security and natural disaster</b></p> <ul style="list-style-type: none"> <li>Localised natural disaster damage</li> </ul>	<ul style="list-style-type: none"> <li>Turbidity increased to 1.2 NTU due to lime dosing but reduced to 0.8 at exit of clear water storage</li> <li>Minor asset loss of functionality causes disruption and low water pressures in some zones, but impact is minimised by water grid balancing</li> <li>Localised short-term loss of functions in the SCADA system of up to four hours</li> <li>Minor short term disruption to retail customers of up to four hours</li> <li>Storm causes minor interruptions due to loss of power supply</li> </ul>
<b>Incident criterion – ancillary impacts associated with water supply</b>		
<p><b>Health and safety of employees or public</b></p> <ul style="list-style-type: none"> <li>Employee medical attention required – restricted work duties or limited lost work time. Public injury</li> <li>Inherent risk for more injuries. Immediate action to be taken at Grid Participant level to ensure public safety</li> </ul> <p><b>Environment</b></p> <ul style="list-style-type: none"> <li>Minor transient environmental impact</li> <li>Low risk of breaching environmental regulatory requirements</li> <li>Grid Participant level corrective action</li> </ul> <p><b>Public reassurance</b></p> <ul style="list-style-type: none"> <li>Public questioning of Water Grid operations and decisions for local assets (e.g. local newspaper)</li> </ul>		<p><b>Examples</b></p> <ul style="list-style-type: none"> <li>Slip or fall resulting in broken limbs, lacerations requiring stitches or hospitalisation.</li> <li>A spike in discharge concentrations but unlikely to exceed 95 percentile licence limits</li> <li>Short-term adverse media at a local level</li> <li>Call centre receives a number of complaints, but limited to one suburb</li> </ul>

Alert		
General principles	Incident criterion	Examples
<ul style="list-style-type: none"> <li>Classification for incidents with a possible severity of 3–5 where the consequences have not yet occurred</li> <li>A potential Level 3–5 incident is considered highly likely to be imminent</li> <li>An incident has occurred with severity below Level 3, however, there is a possibility that further deterioration of the situation will breach a Level 3–5 threshold</li> <li>An incident has occurred with severity below Level 3, however, the Grid Participant has notified the responsible Minister/s of media interest or other circumstances of interest, and therefore must also notify the Water Grid Manager</li> <li>The Water Grid is on standby to manage a potential incident</li> <li>Where possible, relevant Grid Participants/Water Grid Manager take action in advance to prepare for the incident eventuating</li> <li>When the incident eventuates, reclassify its severity level in accordance with this Plan</li> </ul>	<p>Water quality</p> <p>Security and natural disaster</p> <p>Public reassurance</p>	<ul style="list-style-type: none"> <li><i>E. coli</i> has been detected, and an Alert is raised while a re-sample is carried out to confirm the contamination event (see 'Attachment E: <i>E. coli</i> Alert escalation process')</li> <li>Natural disaster, such as cyclone, flood, fire, etc., forecast or in progress and likely to cause an impact, though this has not yet happened</li> <li>National counter-terrorism Alert level is raised one level</li> <li>Any incident or potential incident that has /could attract media interest, making negative coverage a possibility</li> </ul>



Level 3 – Moderate		
General principles	Incident criterion – direct impacts on water supply	Examples
<ul style="list-style-type: none"><li>Minor impact for a large population</li><li>Major impact for small population</li><li>Minor impact for retail Grid Customers</li><li>The Water Grid Manager may issue new Grid Instructions</li><li>Can be dealt with within operating protocols but not ‘normal’ protocols</li></ul>	Water quality <ul style="list-style-type: none"><li>Australian Drinking Water Guidelines (2004) health values confirmed as exceeded 1, 2</li><li>Aesthetic impact for large population, but manageable through modification to operations</li></ul>	<ul style="list-style-type: none"><li>Internal contamination of reservoirs, pipelines and balance tanks from sediment/slime accumulation, leaching and corrosion of materials in contact with water</li><li>A chronic health guideline value is exceeded, e.g. total trihalomethanes, with no associated public health risk</li></ul>
	Water asset failure <ul style="list-style-type: none"><li>Significant unplanned asset failure and reductions to asset output greater than one day duration, and may impact Grid Contract obligations being met</li><li>Any single supply source failure</li></ul>	<ul style="list-style-type: none"><li>Major or multiple asset loss of functionality causes disruption and low water pressures in some zones that cannot be minimised by water balancing</li><li>Extended loss of functions in the SCADA system of up to eight hours</li></ul>
	Water quantity <ul style="list-style-type: none"><li>Single raw water supply source within the Water Grid is out of service whereby supply is affected by &gt;20% of Grid Instruction volume</li></ul>	<ul style="list-style-type: none"><li>Reductions to asset output to section of the network (e.g. one suburb) for up to eight hours</li></ul>
	Security and natural disaster <ul style="list-style-type: none"><li>Natural disaster or security event that would disrupt operations and/or service delivery</li></ul>	<ul style="list-style-type: none"><li>Sabotage, contamination or arson impacting assets or systems</li></ul>
Incident criterion – ancillary impacts associated with water supply		
<ul style="list-style-type: none"><li>Health and safety of employees or public</li><li>Environment</li><li>Public reassurance</li></ul>	Health and safety of employees or public <ul style="list-style-type: none"><li>Single fatality involving an employee or a member of the public – <b>Water Grid Manager incident level only</b></li><li>Significant risk of further injuries</li><li>Immediate corrective action by Grid Participant</li></ul>	<ul style="list-style-type: none"><li>Single or multiple injuries requiring treatment off-site and hospitalisation, resulting in lost time of more than 4 days but no long-term medical treatment required</li><li>High potential dangerous event, such as electric shock</li></ul>
	Environment <ul style="list-style-type: none"><li>Significant release of pollutants with mid-term recovery</li><li>High risk of environmental regulatory requirements breach with the potential to affect drinking water supply works</li><li>Notification of an incident to a regulator</li></ul>	<ul style="list-style-type: none"><li>Exceedence of a concentration limit whereby the Queensland Manufactured Water Authority cannot access water from a sewage treatment plant</li><li>Exceedence of a discharge licence where discharge is likely to make its way to a drinking water source</li></ul>
	Public reassurance <ul style="list-style-type: none"><li>Public questioning of Water Grid operations and decisions for local assets (e.g. regional newspaper, regulator enquiry)</li></ul>	<ul style="list-style-type: none"><li>Medium-term adverse media at a regional or State level, such as large increase in volume of adverse calls to call centre</li></ul>



Level 4 – Major		
General principles	Incident criterion – direct impacts on water supply	Examples
<ul style="list-style-type: none"> <li>Single or multiple regions affected. Multiple Grid Participants and the Water Grid Manager with State Governments departments involved or on standby</li> <li>Minister may issue a Water Supply Emergency Declaration</li> <li>Moderate impact for a large population or major impact for a small population</li> <li>Major impact for Grid Customers</li> <li>The Water Grid Manager is likely to issue new Grid Instructions (depending on the type of incident)</li> <li>The Water Grid Manager may need to access the Seqwater or LinkWater control (or incident) rooms to obtain real time data and information</li> <li>Impacts on drinking water regarded as relatively short-term, but involving multiple Water Grid entities and government agencies</li> </ul>	<p><b>Water quality</b></p> <ul style="list-style-type: none"> <li>Major impact for small population, systems significantly compromised and operation ceased or abnormal</li> <li>Significantly enhanced level of monitoring required</li> </ul> <p><b>Water asset failure</b></p> <ul style="list-style-type: none"> <li>Major unplanned asset failure leading to service interruptions – days to weeks to rectify</li> <li>Impacts on Grid Contract obligations or multiple Grid Customer disruptions</li> </ul> <p><b>Water quantity</b></p> <ul style="list-style-type: none"> <li>Drought trigger is reached within any Water Grid supply reserves</li> </ul> <p><b>Security and natural disaster</b></p> <ul style="list-style-type: none"> <li>Localised natural disaster or security event</li> </ul>	<ul style="list-style-type: none"> <li>There are repeated exceedences of a chronic health guideline value affecting a small population, e.g. total trihalomethanes, where Queensland Health or The Regulator determines there may be a risk to public health</li> <li>Source contamination of a reservoir</li> <li>Critical loss of an asset for extended period and the Water Grid cannot fully meet demand, resulting in interruption to customer supply for over 8 hours. Local area needs to go on restrictions</li> <li>Low water pressure in some zones for extended period</li> <li>Disruption to water supply for more than eight hours</li> <li>Credible threat to major infrastructure within the Water Grid received by a LinkWater or the Government</li> <li>Australian pandemic Alert phase 6a, 6b or 6c 3</li> </ul>
Incident criterion – ancillary impacts associated with water supply		
	<p><b>Health and safety of employees or public</b></p> <ul style="list-style-type: none"> <li>Multiple fatalities</li> </ul> <p><b>Environment</b></p> <ul style="list-style-type: none"> <li>Significant long-term environmental effects with the potential to affect drinking water supply works</li> <li>Significant risk of breaching environmental requirements long-term (weeks)</li> </ul> <p><b>Public reassurance</b></p> <ul style="list-style-type: none"> <li>Public confidence in Water Grid operations diminished and looking to validate information decisions (e.g. national TV news and/or regulator investigation)</li> </ul>	<p><b>Examples</b></p> <ul style="list-style-type: none"> <li>Injury causing fatality, long-term medical impacts or permanent disability</li> <li>Major long term damage to water, soil or air and/or damage or death to significant numbers of flora and fauna or destruction of cultural heritage. May include chemical spills and soil or water pollution</li> <li>Serious breach of environmental regulations and prosecution expected</li> <li>Adverse State-wide or national media attention</li> <li>Call centre receives a number of complaints related to multiple suburbs or two or more retailers</li> </ul>



Level 5 – Catastrophe		
General principles	Incident criterion – direct impacts on water supply	Examples
<ul style="list-style-type: none"> <li>Large-scale impact across South East Queensland, other utilities affected. Requires Government intervention at State and Federal levels to manage the incident</li> <li>Minister is likely to issue a Water Supply Emergency Declaration</li> <li>Major impact for large populations, complete failure of systems</li> <li>An emergency incident or combination of incidents with the potential for large-scale short- and long-term impacts to human well-being and the environment including terrorism impacts or natural disasters</li> </ul>	<p>Water quality</p> <ul style="list-style-type: none"> <li>Major impact for large population, extreme volume of complaints</li> <li>Complete failure of systems</li> </ul> <p>Water asset failure</p> <ul style="list-style-type: none"> <li>Extreme unplanned asset failure – weeks to months to rectify</li> <li>Major rectification works to re-establish water supply</li> </ul> <p>Water quantity</p> <ul style="list-style-type: none"> <li>Drought supply reserves are reaching the emergency volumes</li> </ul> <p>Security and natural disaster</p> <ul style="list-style-type: none"> <li>Extreme natural disaster or security event</li> </ul>	<ul style="list-style-type: none"> <li>Severe water contamination in multiple sections of the network requiring issue of boil water/non-drinking notice</li> <li>There are repeated exceedences of a chronic health guideline value affecting a large population, e.g. total trihalomethanes, where Queensland Health or the Regulator determines that there may be a risk to public health or a public health risk is confirmed</li> <li>The SCADA system goes down with significant functional loss for more than eight hours</li> <li>Extreme restrictions apply and emergency supply projects instigated</li> <li>Bomb blast impacts major asset</li> <li>Flood, fire and cyclone impacts on multiple assets</li> <li>Australian pandemic Alert phase 6a, 6b or 6c 4</li> </ul>
Incident criterion – ancillary impacts associated with water supply		
	<p>Health and safety of employees or public</p> <ul style="list-style-type: none"> <li>Multiple fatalities</li> <li>Extreme risk of further fatalities and injuries leading to a Declared State of Emergency</li> </ul> <p>Environment</p> <ul style="list-style-type: none"> <li>Catastrophic, long-term environmental impacts with the potential to affect drinking water supply works</li> <li>Extreme risk of breaching environmental regulatory requirements. Immediate notification of relevant authorities</li> </ul> <p>Public reassurance</p> <ul style="list-style-type: none"> <li>Widespread concerns expressed by public and loss of trust in Water Grid operations (e.g. international TV news headlines and/or government investigation)</li> </ul>	<p>Examples</p> <ul style="list-style-type: none"> <li>Multiple injuries causing permanent disability or fatalities</li> <li>Any incident causing the loss of a water source for more than one month, or the loss of an entire ecosystem</li> <li>Prosecution almost certain and remedial costs exceeding \$50K</li> <li>Adverse national or international media attention</li> <li>Call centre receives an extreme number of serious complaints related to multiple retailers</li> </ul>

<sup>4</sup> Depending on Water Grid impacts assessment



## APPENDIX A4 – KEY STAKEHOLDER NOTIFICATION GUIDE

## Water Grid Manager Duty Manager notification

Incident level	Notify	Water Grid Manager Duty Manager
1 and 2	No	
Alert	Yes	☑ Within 2 hours of incident detection ☑ Email Incident Notification Form within 2 hours of incident detection
3	Yes	☑ Within 2 hours of incident detection ☑ Email Incident Notification Form within 2 hours of incident detection
4 and 5	Yes	☑ Within 1 hour of incident detection ☑ Email Incident Notification Form within 1 hour of incident detection

## Key stakeholder notification

Stakeholder	Trigger	What	When	Responsible
Water Grid Manager	Alert and level 3, 4 or 5 incidents	Notify as per table above	As above	Response Manager
Office of the Water Supply Regulator (OSWR)	On closing the incident	Complete Close-out Report in OCA	When LinkWater deems the Incident over	General Manager – Operational Services
	Alert and level 3, 4 or 5 incidents	<ul style="list-style-type: none"> <li>Contact by telephone and provide initial notification on [REDACTED] and email on [REDACTED]</li> <li>Email Part A of the OSWR Water Quality Incident Reporting form to [REDACTED] and copy to the Water Grid Manager</li> </ul>	<ul style="list-style-type: none"> <li>As soon as possible</li> <li>Within 24 hours</li> </ul>	Response Manager
	On closing the incident	Email Part B of the OSWR Water Quality Incident	Incident officially	General



Stakeholder	Trigger	What	When	Responsible
		Reporting form to <a href="mailto:dwreporting@derm.qld.gov.au">dwreporting@derm.qld.gov.au</a>	declared over	Manager – Operational Services
Other affected Grid Participants	Incidents impacting their operations	Telephone notification (use contact list at <b>Appendix A1)</b>	As soon as possible but must be within 3 hours	Response Manager
Department of Environment and Resource Management	Incidents impacting the environment and/or wildlife	Telephone notification (use contact list at <b>Appendix A1)</b>	As soon as possible but must be within 3 hours	Response Manager
Department of	Incidents impacting transport infrastructure	Telephone notification (use contact list at <b>Appendix A1)</b>	As soon as possible but must be within 3 hours	Response Manager
Queensland Workplace Health and Safety	Notifiable health and safety incident as per web page <a href="http://www.deir.qld.gov.au/workplace/incidents/incidents/notify/index.htm">http://www.deir.qld.gov.au/workplace/incidents/incidents/notify/index.htm</a>	Submit online notification (found on the same webpage as notifiable incident information)	As soon as possible	OHS Specialist / Risk Manager
	Workplace fatality	Telephone <span style="background-color: black; color: black;">[REDACTED]</span> For details refer <span style="background-color: black; color: black;">[REDACTED]</span>	Immediately	OHS Specialist / Risk Manager

## APPENDIX B1 – FIRST ABLE PERSON

### Important Note:

Following an incident, it is important that the incident site is secured until the scene can be examined and all evidence collected. There may be legal or crime scene obligations and the scene should not be interfered without permission of a Workplace Health and Safety inspector or the police. Action taken to save life or prevent further injury does not constitute interference under the law.

### Initial Actions

- Assume initial control of the incident
- Assess the situation, and identify any threats:
  - Ensure safety of all persons at the site – evacuate if necessary
  - Render first aid to anyone injured (**remember DRABC if necessary**):
    - Remove from **D**anger
    - Check for **R**esponse
    - Clear **A**irway
    - Check **B**reathing
    - Perform **C**ompressions.
- Contact and Advise (in priority):
  - Any people in danger at the site
  - Emergency Services (fire/police/ambulance) – Call '000'
  - Your supervisor or senior *LinkWater* person present
  - Seek assistance from others on site
  - Report the incident to the *LinkWater* Control Room – Call [REDACTED]
- Identify the tasks and resources:
  - Secure the area and attempt to control the situation if it is safe to do so (e.g. extinguish fire, contain spill)
  - Respond within your competencies and level of training and in accordance with relevant operational procedures
  - Assess the time constraints.

### On-going Actions

- Maintain your own log or record of events and key timings (decisions, communications, actions taken, events occurring etc)
- Follow Site Incident Coordinator checklist at **Appendix B2** until handover
- Handover incident control to your supervisor or the senior *LinkWater* person present as soon as practical
- Support the Site Incident Coordinator
- Stand-down and follow up actions in accordance with **Sections 9 and 10** of this IMP when response is complete.



**Notes:**

**1. Provide a more detailed report to the Control Room (within 60 minutes):**

- Who was involved?
- What was the nature of the incident?
- Where did it occur?
- When did it occur?
- Why did it happen?
- How did it happen?

**2. Immediate evacuation may be required for events like:**

- major gas leak or chemical spill
- bomb threat (on advice of the Police)
- violent or threatening behaviour by third parties
- fire
- flooding.

**3. Response priorities are:**

- protection of human life
- reduction of trauma
- maintenance of system safety
- protection of the environment, assets, commercial arrangements, reputation and image.



## APPENDIX B2 – SITE INCIDENT COORDINATOR

When advised of an incident, the team leader or senior LinkWater person present at the incident site is to immediately assume the role of Site Incident Coordinator.

### Initial Actions

- Undertake or ensure that initial actions at **Appendix B1** have occurred
- Activate the Site Support team if more resources are required
- Assess the situation and escalate the LinkWater response for Alerts or Level 3 and higher incidents, if required
- Advise the Control Room (for operational incidents)
- Advise the Corporate Communications Manager within 30 minutes of the occurrence if the Control Centre is not involved.

### On-going Actions

- Maintain a log or record of events and key timings (decisions, communications, actions taken, events occurring etc)
- Ensure that on-going actions at **Appendix B1** have occurred
- Assemble a Site Team to manage the incident
- Control the activities at the incident site until relieved or directed otherwise
- Provide support to the emergency services if present
- Provide an initial report then regular situation reports to the Control Room (for Level 1 and 2 incidents) or to the Response Manager (for Alerts or Level 3, 4 and 5 incidents)
- Provide briefings to all employees, contractors, and assigned personnel on site
- Liaise with and support the emergency services and other authorities on site, as required
- Direct any media inquiries to the Incident Communication Manager
- Provide a report to the Incident Communication Manager within 60 minutes of the occurrence advising:
  - **Who** was involved?
  - **What** was the nature of the incident?
  - **Where** did it occur?
  - **When** did it occur?
  - **Why** and **how** it happened (may not be initially possible to report).
- In the case of an injury or workplace accident, notify the HR Coordinator/HR Manager and HSE Manager
- Brief any replacement Site Incident Coordinator and handover as required
- Stand-down and follow up actions in accordance with **Sections 9 and 10** of this IMP when response is complete

**Note:** When the Control Room is involved, some of these actions can be performed through them.



## APPENDIX B3 – LINKWATER CONTROL ROOM

When a network related incident occurs, the LinkWater Control Room will be advised by the Site Team. The Network and Controls Operations Coordinator or Duty Officer will respond with support to the Site Team and advise the Team or Duty Manager and keep him/her advised as the incident unfolds.

### Initial Actions

- On notification of an incident, collect incident information and record it using the relevant Incident Information Form (**Appendix D1**). Consider facts such as:
  - The caller's details
  - The callers telephone contacts
  - An alternate contact
  - Location of the incident
  - Who, what, where, when, why, how about the incident
  - What additional immediate support is required?
- Conduct an initial assessment of the situation using the Incident Assessment Matrix (**Appendix A3**)
- Provide initial notification to key staff
- Assist in site safety management in consultation with the Site Incident Coordinator
- Support the Site Incident Coordinator (for Level 1 and 2 incidents) and the Response Manager (for Level 3,4 or 5 incidents)
- Maintain a log or record of events and key timings (decisions, communications, actions taken, events occurring etc)
- Arrange any additional functional or specialist support people required by the Site Team
- Arrange any other support required by the Site Team.

### On-going Actions

- Maintain close liaison and keep the Site Incident Coordinator (for Level 1 and 2 incidents) and the Response Manager (for Level 3,4 or 5 incidents) advised as the incident unfolds;
- Continue to manage water business continuity
- Arrange for the Control Room to be briefed on the nature of the incident (after obtaining advice from the Corporate Communications Manager)
- Monitor Control Room traffic
- Support the Response Manager and IMT by maintaining contact with the Site Team
- Continue to log or record events and key timings (decisions, communications, actions taken, events occurring etc)
- Stand-down and follow up actions in accordance with **Sections 9 and 10** when response is complete.



## APPENDIX B4 – RESPONSE MANAGER

When the Site Incident Coordinator escalates the LinkWater incident response to Level 3 or higher incidents, the Impacted Team Manager or his/her delegate assumes the role of Response Manager.

### Initial Actions

- Conduct an initial assessment of the situation using the Incident Assessment Matrix (**Appendix A3**) and escalate the LinkWater response for Level 4 and 5 incidents
- Notify key stakeholders within specified timeframes as per Key Stakeholder Notification Guide at **Appendix A4**
- Confirm key staff have been advised, particularly the Duty General Manager, impacted line General Manager and Corporate Communications Manager
- If an operational incident, get a brief from the Control Room Duty Officer and review the Control Room log, records of the incident, and the Incident Information Forms
- Assume overall command and control of the situation and log the time
- Form an appropriate Incident Management Team (IMT) team to manage the incident
- Manage those parts of the business impacted and use all reasonable endeavours to arrange support for the response to the event
- Support the Site Team (if deployed)
- Support the Control Room (if required)
- Escalate or de-escalate the incident level as required
- Commit appropriate personnel, equipment, finances and resources to the response
- Maintain a log or record of events and key timings (decisions, communications, actions taken, events occurring etc)

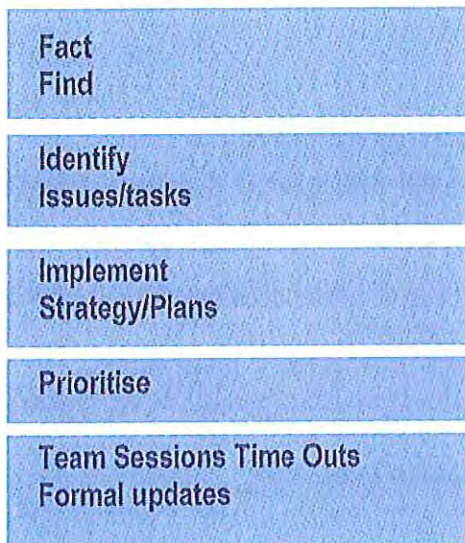
### On-going Actions

- Keep the Duty General Manager and the line General Manager impacted by the situation informed throughout the response
- If a crisis is declared, support the Duty General Manager (Crisis Management Team Leader)
- Develop a plan of action
- Ensure the Corporate Communications Manager has received a report within 60 minutes of the occurrence, advising:
  - **Who** was involved?
  - **What** was the nature of the incident?
  - **Where** did it occur?
  - **When** did it occur?
  - **Why** it happened and **How** it happened if this information is available
- Support the Site Team and arrange and allocate any additional resources required, including functional and specialist staff
- Brief any incoming (relieving) Response Manager on:
  - Incident status actions taken actions planned
  - Personnel status



- Key stakeholders and their contact details
  - Log book
  - any other issues.
- Continue to monitor the evolving situation
- Liaise with external agencies as required
- Notify HR Coordinator/Manager and the HSE Manager of injuries, workplace incidents or environmental impacts
- Continue to receive reports from the LinkWater Control Room
- Set specific times for routine team updates and time outs. Arrange for mobile phone handover or diversion during updates and briefings. This is important to avoid being 'captured' by outside stakeholders. Consider conducting some updates from key stakeholders on speakerphone so that the information does not have to be repeated and to avoid any miscommunication
- Provide regular updates to the Duty General Manager (CMT Leader)
- Provide verbal briefings to key stakeholders and managers as required
- Develop a relief and team change-over roster and notify affected persons
- Initiate an incident investigation, if required
- Stand-down the IMT and follow up actions in accordance with **Sections 9 and 10** when response is complete.

Response Managers should use the following process:





## APPENDIX B5 – DUTY GENERAL MANAGER (CMT LEADER)

When the Response Manager escalates the LinkWater incident response to Level 4 or 5 and the issue is a Crisis, the Duty General Manager or the impacted GM assumes the role of LinkWater Duty General Manager (CMT Leader).

### Find and check the facts

- Confirm the assessment of the situation using the Incident Assessment Matrix (**Appendix A3**)
- Notify key stakeholders within specified timeframes as per Key Stakeholder Notification Guide at **Appendix A4**
- Establish the facts and context for the wider stakeholders concerned with the crisis
- If a crisis, activate a CMT to manage the crisis (default location is the Board Room on Level 5, 200 Creek Street)
- Chair an initial CMT briefing to ensure all CMT members understand the situation
- Set specific times for routine team updates and time outs
- Receive notifications and action alerts from the WGM and ensure they are actioned in OCA

### Identify and Prioritise tasks

- Identify the business impacts and potential impacts on key stakeholders
- Commit appropriate personnel, equipment, finances and resources to the management of the crisis
- Ensure the Corporate Communications Manager has been advised (within 30 minutes of the incident occurring)
- Have the CMT initiate and maintain a formal Master Log or record of events with key timings (decisions made, communications, actions taken, events etc)
- Establish communications with the Response Manager and receive a verbal briefing
- Inform the Alliance Manager, other General Managers, CEO and LinkWater Board (if they have not already been informed by the Response Manager)
- Prioritise tasks that are required for an effective response to the crisis.

### Implement response actions

- Act as the senior LinkWater representative for external stakeholders including SEQWGM, OWSR, Ministers etc
- Represent LinkWater for any involvement with Regulatory agencies and authorities
- Provide a management link between the CEO and Board, other GMs and the CMT
- Provide planning guidance, allocate priorities, task and coordinate the outputs from the CMT members
- Confirm the support the Response Manager requires for the Incident response (your aim is to take as much pressure as possible off the Response Manager to allow them to manage the response)
- Ensure the Corporate Communications Manager has received a report within 60 minutes of the occurrence
- Keep other General Managers, CEO and LinkWater Board informed

- Keep the SEQWGM Duty Officer, relevant Government agencies and other affected Grid Participants informed in accordance with the SEQWG ERP
- Manage external stakeholders (**see Section 8**)
- Approve financial and resource commitments to the crisis
- Approve draft press statements, media holding statements and media releases before they are presented to the CEO/external agencies (**see Section 8**)
- Stand-down and follow up actions in accordance with **Sections 9 and 10** when the response is complete.

Duty General Managers should use the following process:

Fact  
Find

Identify  
Issues/tasks

Implement  
Strategy/Plans

Prioritise

Team Sessions Time Outs  
Formal updates



## APPENDIX B6 – LOG KEEPER

### Initial Actions

- Proceed to the Incident Management Room
- Assist in the preparation of the Incident Management Room
- Source additional administrative support as required to assist the IMT in the maintenance of records and information management
- Start the IMT Master Log.

### On-going Actions

- Maintain a chronological log of events paying special attention to times of significant activities and events (consider tape recordings as appropriate)
- Use the electronic Spreadsheet to log the sequence of events
- Ensure carbonised message pads are used by members of the IMT and CMT to ensure all issues are recorded and passed to the log keeper
- Manage the flow of hard copy communications and oversee that copies are retained for the permanent log
- Assist to keep status boards up-to-date
- Regularly collate the notes and logs from the IMT members into the IMT Master Log
- Alert other IMT members to major changes, issues and outstanding actions
- Provide administrative support as required to the IMT
- Proactively monitor all communications and record pertinent points as they arise
- Stand-down and follow up actions in accordance with **Sections 9 and 10** when response is complete
- Assist with the collection and filing of all documentation from the IMT
- Participate in the IMT post-crisis review
- Assist with refurbishing the Incident Management Room back to a 'ready' state.

## APPENDIX B7 – COMMUNICATIONS MANAGER/S

When an incident occurs the Site Incident Coordinator (through the Control Room) or the Incident Manager (for Level 3 incidents and above) must each ensure the Communications Manager has been advised of the incident within 30 minutes of occurrence and has a detailed report within 60 minutes. The Communications Manager will then develop and implement a communications and media strategy to support the LinkWater response and recovery effort.

### Initial Actions

- Maintain a log of key communications
- Conduct a risk assessment and assess the likely level of political, media and public interest and advise the Incident/Emergency Manager(s)
- Develop a communications and media strategy for the incident
- Identify who is needed to assist with implementing the strategy
- Draft and gain approval for a media holding statement
- Identify key stakeholders for this incident in conjunction with the Incident/Emergency Manager(s).

### On-going Actions

- Implement (and amend where necessary) the communications and media strategy
- Assess public reassurance factor
- Prepare and gain approval for media releases and briefing notes
- Determine triggers and timing for interviews and conferences
- Monitor the media and draft a media analysis
- Brief spokespersons
- Manage enquiries
- Script messages for Control Rooms and voice mail services
- Ensure key stakeholders (including staff) are kept informed
- Participate in the Water Grid Communication Coordination Team which may be formed with Water Grid Participants to provide one point of contact for information management
- Continue to keep a log of communication events and key timings
- Stand-down and follow up actions in accordance with **Section 9 and 10** when response is complete.



## APPENDIX B8 – OCA PROTOCOLS

This guide is applicable to LinkWater users of the OCA web-based portal system for managing incidences across the SEQ Water Grid.

LinkWater must use OCA during all Alert and Level 3-5 incidences to make initial notifications and for all situation and close out reports. LinkWater must also respond to requests and tasks from the WGM via OCA.

OCA is the primary means for sharing information with the Water Grid Manager and other Grid participants.

The Command and Control Reporting Tree diagram overleaf outlines how LinkWater currently sees the integration of OCA in the emergency reporting framework for LinkWater, the Water Grid Manager, other Grid Participants and Government Departments and agencies. This may alter once the WGM detailed protocols have been developed as a result of further training exercises.

### Notification of an incident in OCA

Notify the Water Grid Manager Duty Manager of Alert and Level 3–5 incidents:

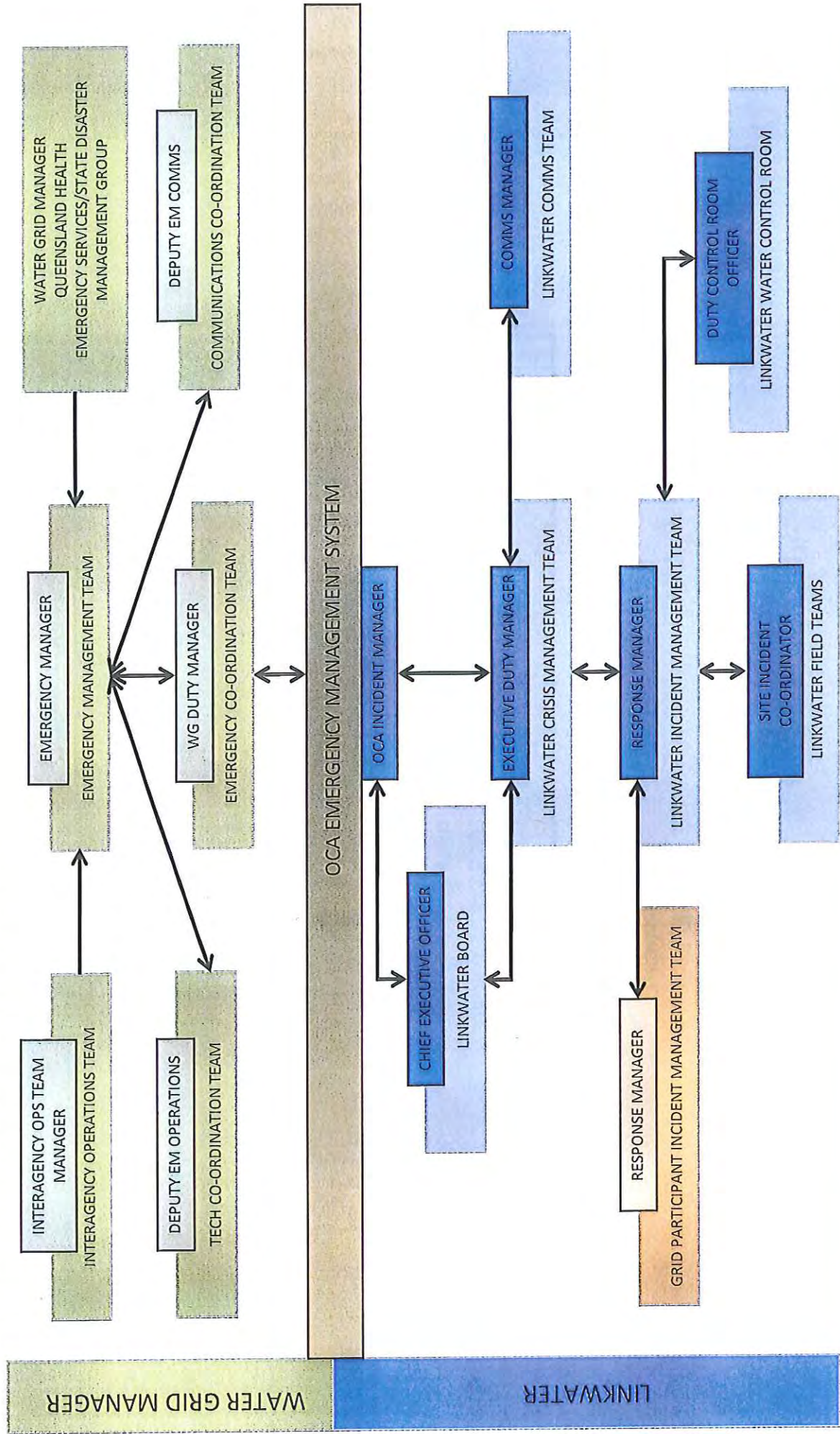
- Alert/Level 3 – ☎ and email via form in OCA – within 2 hours
- Levels 4 and 5 – ☎ and email via form in OCA – within 1 hour

There are three main scenarios where LinkWater would utilise OCA for incident reporting:

- LinkWater operational or water quality alerts
- LinkWater incidents
- Other Grid entity alerts and incidents where we are needed for operational reasons

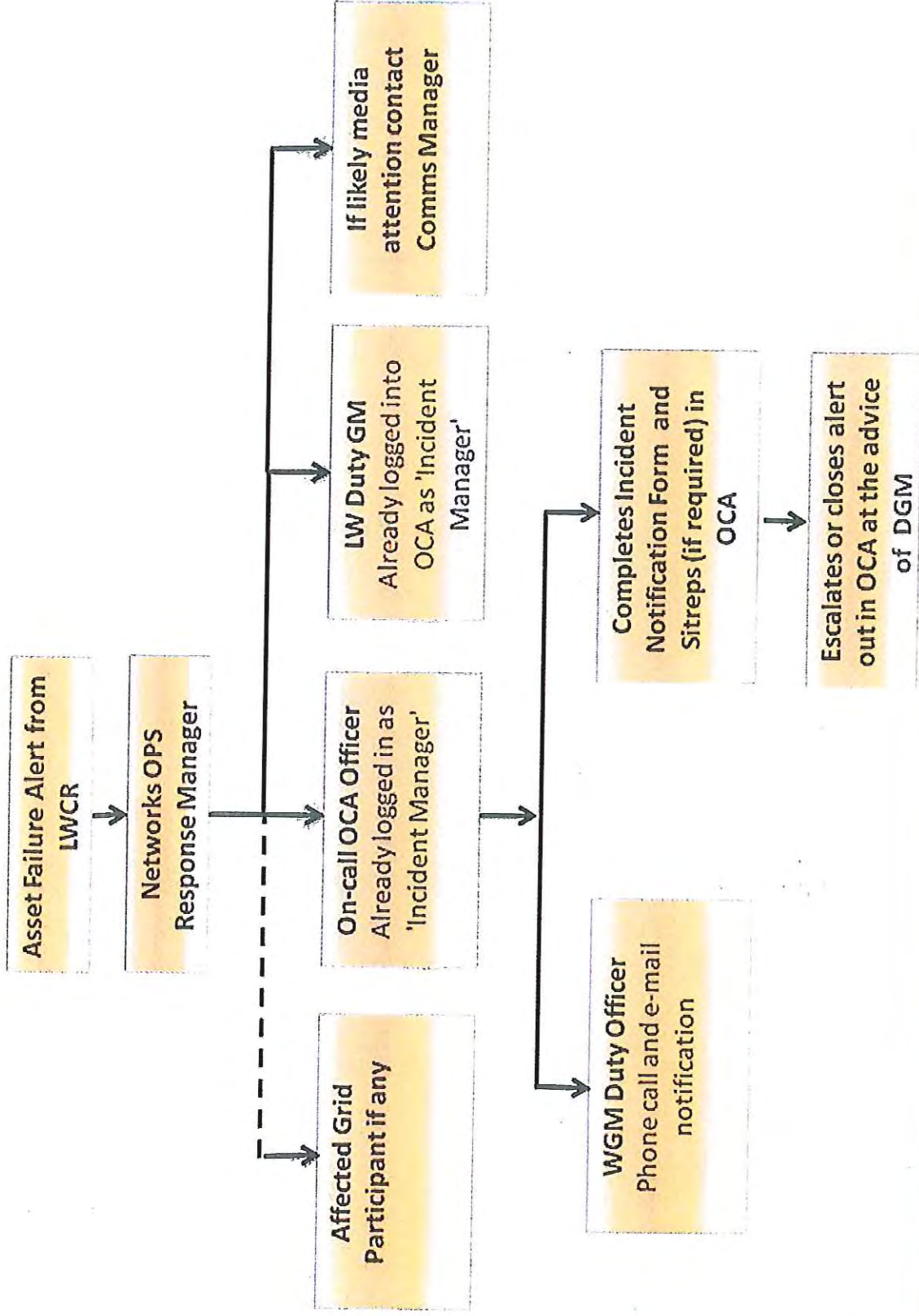


# OCA COMMAND AND CONTROL REPORTING TREE

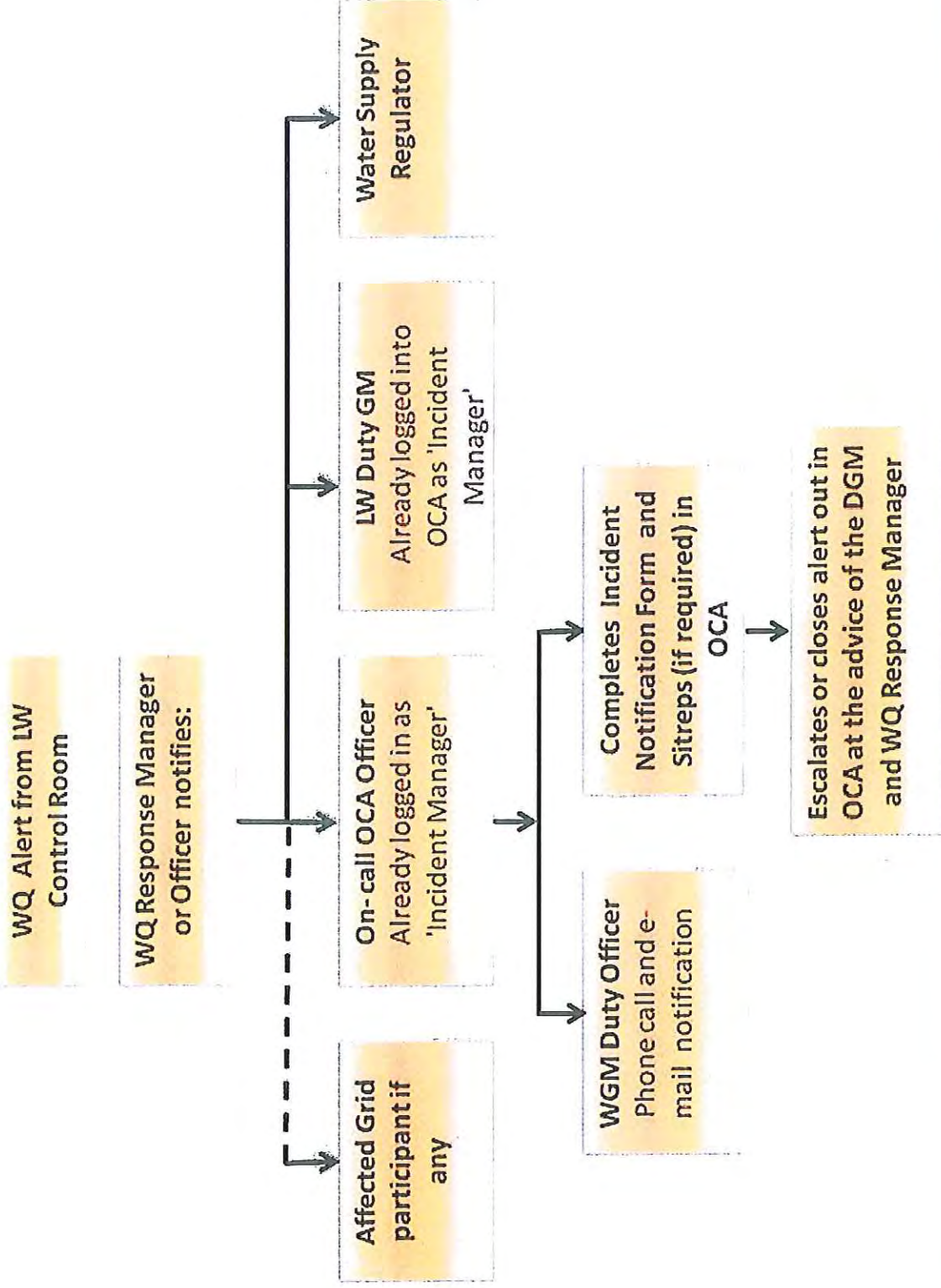




## WATER OPERATIONS ALERT

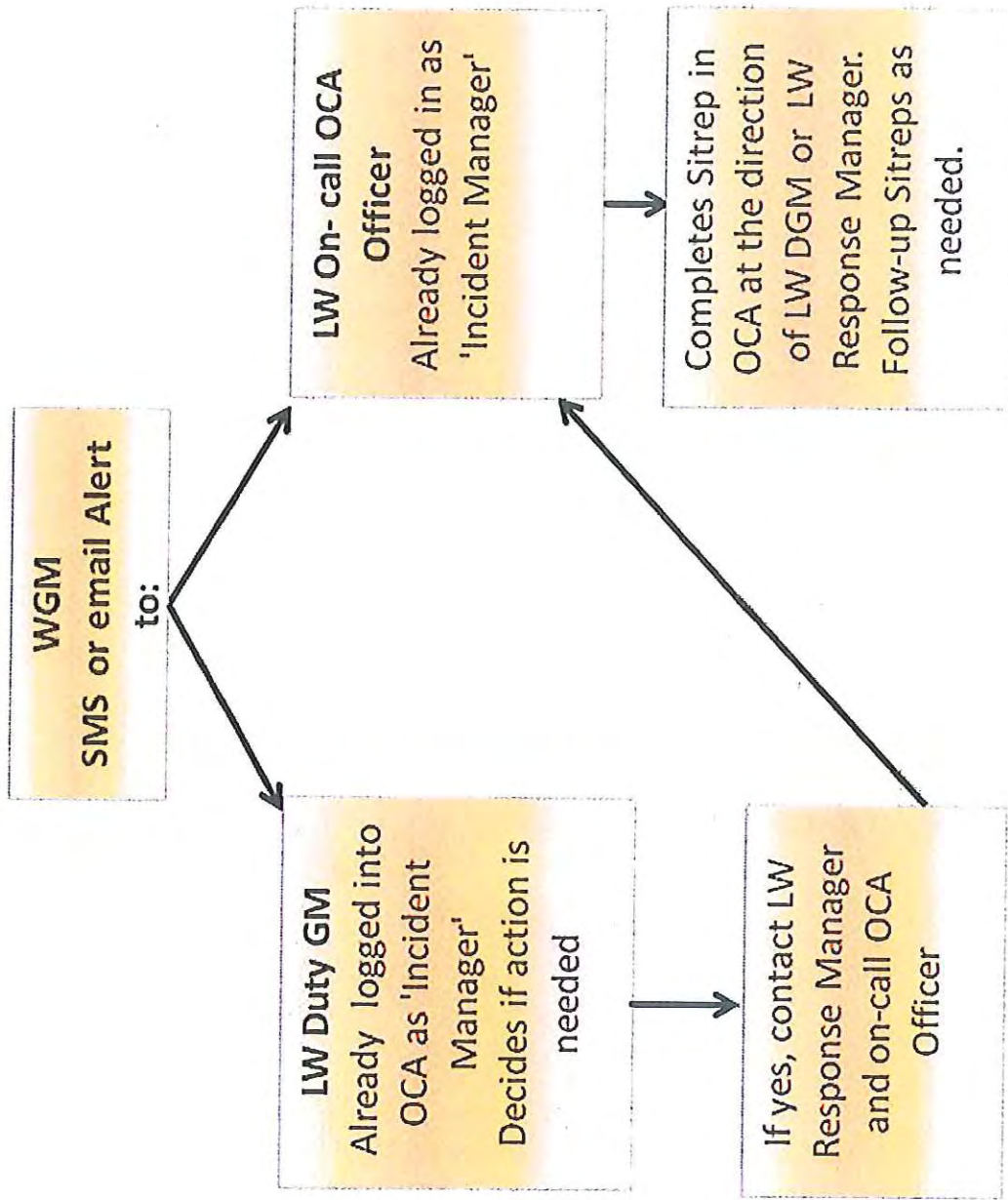


# WATER QUALITY ALERT

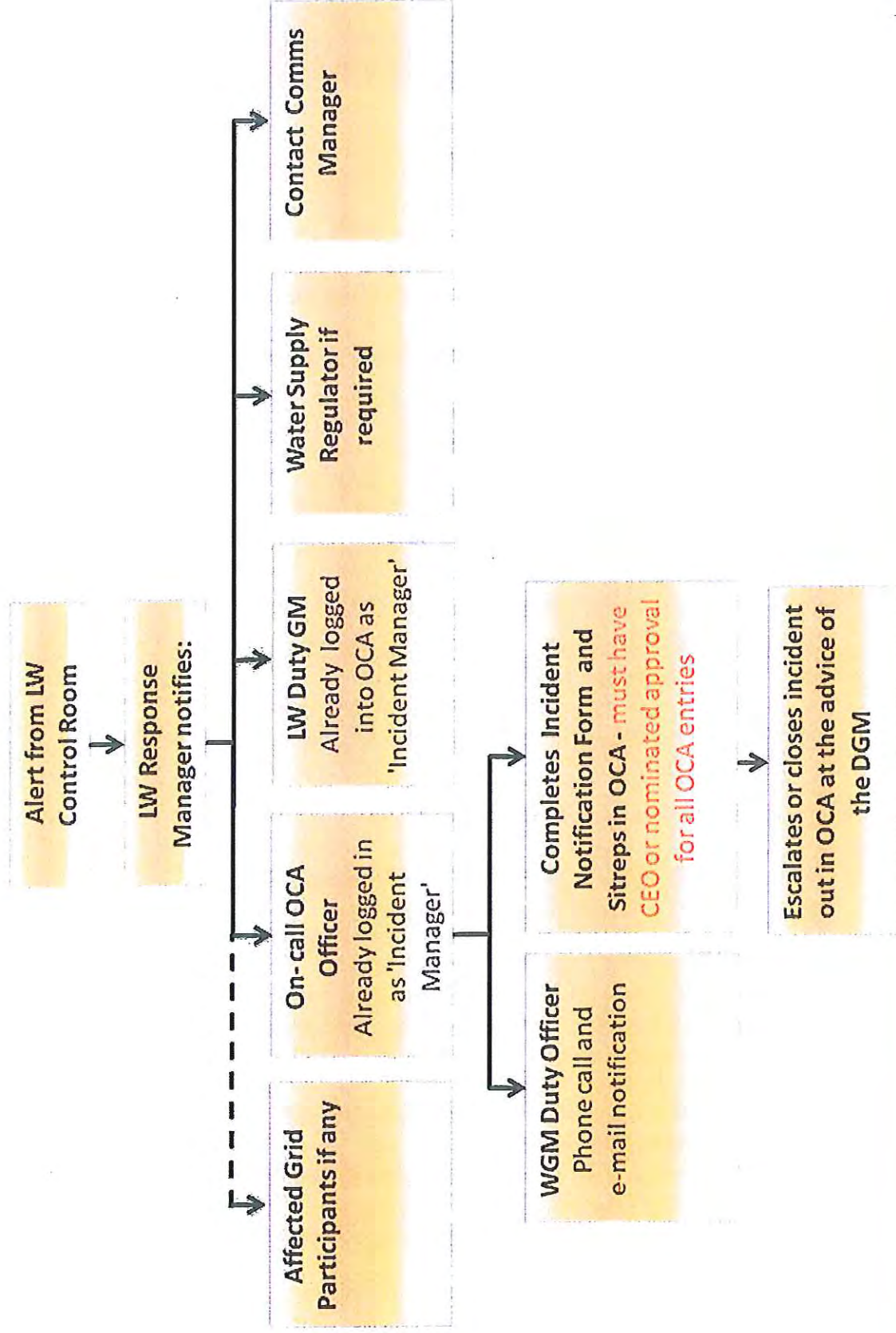




OTHER ENTITY'S INCIDENT



# LINKWATER INCIDENT LEVEL 3-5





## APPENDIX C1 – IMR STANDARD OPERATING PROCEDURES (SOP)

This guide is for use by the IMT during Level 3, 4 and 5 incidents. It is to be used in conjunction with:

- the roles and responsibilities of the IMT members at **Appendix B1 to B7**
- the IMR Pack at **Appendix C2**.

### Preparation (on activation of the IMT)

Response Manager (IMT Leader) is to:

- Confirm that the situation is actually an emergency and has not been over-escalated
- Confirm the facts and impacts of the incident including upstream and downstream impacts and reputation impacts
- Notify the Corporate Communications Manager (if not already done)
- Allocate the following IMT roles:
  - Incident Communication Manager
  - LinkWater Control Room Operator
  - Site Incident Coordinator
  - IMR Administrator (typically the Officer Manager)
- Move to and activate the Incident Management Room (IMR) – Board Room on Level 4 at 200 Creek Street, Brisbane.

The IMR Administrator (Office Manager) is to nominate IMT support staff:

- An Information Coordinator (selected by the Office Manager)
- Log Keeper (selected by the Office Manager)
- Administration Assistant (selected by the Office Manager)
- Any other functional or specialist support as required by the nature of the event.

### Initial Actions (on arrival in the IMR)

- Open the IMR Pack in the Board Room (refer to **Appendix C2**)
- Confirm key staff members required are present
- Commence the Master Log with an activation time entry
- List stakeholders who are to be contacted/informed
- If directed by the WGM, ensure a Media Holding Statement (**see Corporate Communications Manager**) is drafted (for release by responsible Ministers)
- Ensure a situation report is drafted and approved by the CEO
- Commence the Master File system
- Establish communications with the Site Incident Coordinator, through the Control Room, and confirm details of the situation
- Determine which areas are affected, and how widespread the impacts or potential impacts are on operations and services. Undertake a risk assessment, (refer to the Incident Assessment Matrix at **Appendix A3** and the LinkWater Risk Management Plan: OMA-AW-PLN-006) considering:
  - WH&S risk
  - environment risk
  - property (assets) risk (including security risk)



- production/operations risk
  - customer relations risk
  - publicity/stakeholder relations (reputation) risk
  - risks to information, communications and technology systems, administration and support processes and accommodation arrangements.
- Identify and develop a plan of action to deal with the impacts and risks, and assign responsibilities
- Review **your** responsibilities in the IMP and in **Appendix B1 to B7**.

## On-going Actions

- Regularly review risks
- Conduct regular briefings to keep the team up to date on the situation
- Prepare and despatch reports via OCA, as required
- Maintain the Status Boards, Log Books and Master File
- Update stakeholders and ensure the contact is recorded in a Media and Stakeholder Communication Log
- Cooperate with other IMT members and manage your responsibilities
- Continue to monitor progress of the response.

### Operating Procedures

- **Briefing.** The Response Manager (IMT Leader) is to ensure that all IMT staff are comprehensively briefed as soon as possible after arrival in the room. If individuals or an entire shift is changed over, the new staff members are to receive a briefing before assuming duties.
- **Security.** Entry to the IMR is to be restricted to designated staff only. Access will be regulated by the reception staff during office hours and under the IMT arrangements outside office hours.
- **Noise.** The Administrator is to ensure that noise levels are kept to a minimum and voice conversation levels are kept low. If the TV is on to monitor media coverage of an incident, the volume should be low and all media stories should be recorded for later review.
- **OCA.** All formal communication with the WGM and other Grid Participants is through OCA. Refer to OCA Protocols section of this Appendix.
- **Master Log (Incident Management Register).** The Incident Management Register is the Master Log and is the record of all key decisions, actions, briefs and communications. These are recorded in chronological order in the Log by the Log Keeper. During periods of high activity, the Duty General Manager or Response Manager (IMT Leader) may need to supplement the Log Keeper with additional staff. The format for the log which can be used as the master log or an individual log is at **Appendix C3**.
- **Status boards.** In order to accurately capture and record information, and make it readily accessible for all in the IMR, it should be displayed on status boards. The status boards are held in the IMR Pack. They may include:
  - Situation Board
  - Objectives and actions
  - Event/Response
  - Casualty Board.

### Stores and equipment

- **Basic Equipment.** The IMR is fitted with sufficient communications and information technology systems to perform its role. The fitted equipment includes:
  - TV



- Video
  - 2 x fixed telephones
  - 4 x Computer ports (Wireless is also available)
  - Video port
  - 5 x double power points
  - Fixed white board
  - Mobile white board
  - Ceiling mounted Litepro for fixed white board.
- **IMR Pack.** The IMR Pack is a toolbox of resources that are permanently located in the old Board Room on Level 4, for the IMT. The IMR Pack provides the essential resources needed by the IMT to set up and operate the IMR. Should the IMT be required to operate from an alternate location or integrated into another Grid Participant's IMT, the Pack should be deployed with the *LinkWater* IMT. The contents list for the IMR Pack is at **Appendix C2**.

### Handover Process (where 24/7 operations are required)

- Commence handover process 30 minutes before shift change time with situation update for incoming staff members, to include:
  - overall situation and agencies engaged
  - priorities for the next period
  - incidents and actions underway
  - tasks and timings
  - details of regular meetings
  - key stakeholders involved and their contact details
  - forecast changes to planned activities for your shift period
  - other issues
- Incoming staff to review Master Event Log, Master File and Media and Stakeholder Communication Log
- Update status boards on wall
- The name and time of handover should be logged. Key persons from the off-going shift should remain for up to 30 minutes to assist with continuity of operations.

### Stand-down

- Stand-down in accordance with the **Section 9** once the response to an incident is completed to a state where it can be passed back to the normal organisational and operational arrangements
- Advise IMT staff members of any debriefing arrangements, complete the Event Log and Media and Stakeholder Communication Log, and formally hand over responsibilities for any recovery and residual tasks to the appropriate manager.

## APPENDIX C2 – IMR PACK

### Contents of the IMR Pack include:

#### Documents

- Incident Management Plan (IMP), Copy No 25
- *LinkWater* Risk Assessment Plan
- Other related *LinkWater* Plans as they are developed
- SEQWG Emergency Response Plan
- Key Contacts (**APPENDIX A1**) x 3 copies
- Master File Folder
- Master Log Folder
- Range of Maps.

#### Status Boards

- IMR Duty Staff List
- Key Issues Board
- Key Stakeholder List
- Situation Board
- Incident Timeline Chart
- Casualty Board.

#### Stationery Pack

- Range of basic stationery
- Pads of carbon record sheets.

#### Equipment

- Television
- VCR
- Digital Recorders x 2 with spare batteries
- Digital camera/battery charger
- Fixed telephone with speaker system
- Telephone headsets.

#### Templates (available on a CD and in hard copy)

- Master Log sheets
- Telephone Message Pads
- Briefing Format
- Briefing Note
- Issues Debrief
- *LinkWater* Fact Sheet
- Media analysis
- Media and Stakeholder Communication Log.

**Food items:** Some basic food items may be accessed from the kitchen adjacent to the Board Room on Level 5, if the IMT is required to operate after normal business hours.



## APPENDIX C3 – INCIDENT MANAGEMENT REGISTER

Incident Management Register

Update Incident Team Details		Incident Description	Incident Level	Time Declared	Declared by
Incident Number/ID					

## Incident Overviews

## Enter Incident Information

Time/Date	Incident Number/ID	From		To		Log Details	Action Required	Priority	Complete	Comments
		Organisation	Name	Organisation	Name					



## APPENDIX D1 – INCIDENT INFORMATION FORMS

Incident information forms are prepared for the following events:

1. Mains break
2. Security incident/breach
3. Serious injury or fatality
4. Water quality.

Refer to the LinkWater intranet for the latest version of the Incident information forms.

### LinkWater: Incident information form (mains break)

Update one must be completed once notified of an incident with as much available detail as possible. Each additional update should be completed as more information becomes available. The Response Manager will advise the timing of any additional updates (e.g. half-hourly, hourly etc).

MAINS BREAK										
	UPDATE 1		UPDATE 2		UPDATE 3		UPDATE 4		UPDATE 5	
Update status	Time:	Date:	Time:	Date:	Time:	Date:	Time:	Date:	Time:	Date:
<b>Questions</b>	<b>Response / Information</b>									
Has it been confirmed this is a LinkWater asset?	<input type="checkbox"/> Yes <input type="checkbox"/> Not yet sure. <input type="checkbox"/> No. The asset is owned by:  If unsure, how long until it can be confirmed (approximately)?									
When, how and who reported the break?	When: How: Who:									
Has the flow been stopped?										
What is the exact location of the incident and the nearest cross street/s?	Exact location: Nearest cross street/s:									



MAINS BREAK

What area/s  
does the  
pipeline  
service?

Have any  
properties been  
affected? (land  
or structures)

- ☐ No  
☐ Yes

If yes:

How many?

Insert addresses  
and details of  
damage:

Will any clean-up  
be needed? (If yes,  
by who?)

Has the incident  
impacted on  
local  
roads/traffic?

- ☐ No  
☐ Yes

If yes:

How?

What is being done  
to control traffic?

Is there any  
localised  
flooding?

- ☐ No  
☐ Yes

If yes:

MAINS BREAK

	Provide description of how severe the flooding is:					
Are there any safety issues?	<input type="checkbox"/> No <input type="checkbox"/> Yes If yes: What are they/how are these being managed?					
Who is at the incident scene?	<input type="checkbox"/> Fire <input type="checkbox"/> Ambulance <input type="checkbox"/> LinkWater <input type="checkbox"/> Media (name outlets): <input type="checkbox"/> Other (name who): If no one is there yet, who is coming? When are they expected to arrive?	<input type="checkbox"/> Police <input type="checkbox"/> BCC				
Are additional crews required?	<input type="checkbox"/> No <input type="checkbox"/> Yes If yes: Who? When are they expected to arrive?					
Has the incident affected water pressure or caused water outages in the area? <i>(NB: The local Council call centre may need to be</i>	<input type="checkbox"/> No <input type="checkbox"/> Yes If yes: What areas: How many properties (insert address details if known)?					



MAINS BREAK

*phoned to answer this question.)*

When will the water pressure return to normal?

What is being done to fix the problem?

Is the cause known?

☐ No

☐ Yes

If yes, what needs to be done to fix it?

How long (approximately) will this take?

Could there be further outages/loss of pressure as a result?

Will there be any water quality issues?

How old is the pipe?

How big is the pipe?

What is it made of?

Useful contacts:

- Distributor call centre [insert number]
- Key incident contact 1 [insert number]
- Key incident contact 2 [insert number]
- Key incident contact 3 [insert number]



## LinkWater: Incident information form (security incident/breach)

Update one must be completed once notified of an incident with as much available detail as possible. Each additional update should be completed as more information becomes available. The Response Manager will advise the timing of any additional updates (e.g. half-hourly, hourly etc).

SECURITY INCIDENT/BREACH										
	UPDATE 1		UPDATE 2		UPDATE 3		UPDATE 4		UPDATE 5	
Update status	Time:	Date:	Time:	Date:	Time:	Date:	Time:	Date:	Time:	Date:
<b>Questions</b>	<b>Response / Information</b>									
What has happened?	<input type="checkbox"/> Break-in <input type="checkbox"/> Damage to assets/systems <input type="checkbox"/> Theft <input type="checkbox"/> Staff or public threatened <input type="checkbox"/> Contamination detected <input type="checkbox"/> Terrorism attack or threat <input type="checkbox"/> Other:									
When, how and who reported it?	When: How: Who:									
Has anyone claimed responsibility?	<input type="checkbox"/> No <input type="checkbox"/> Yes If yes, who:									
What is the exact location of the incident?	Target: Location:									
Is the site secure?	<input type="checkbox"/> Yes <input type="checkbox"/> No If no, what additional resources are required? (e.g. barricades, area taped off, locks repaired): •									



SECURITY INCIDENT/BREACH

Has this been referred to the Police/Emergency Services?  
☐ No  
☐ Yes  
If yes:  
When:  
To whom:

What is the immediate response? (i.e. Is the water unsafe to drink? Has the water supply been suspended?)

[For any further questions about water quality or supply, use the Water Quality or Mains Break incident information forms]

Useful contacts:

- Distributor call centre [insert number]
- Key incident contact 1 [insert number]
- Key incident contact 2 [insert number]
- Key incident contact 3 [insert number]
- Police – Emergency 000
- Police – Counter Terrorism [redacted]
- Water Police [redacted]



## LinkWater: Incident information form (serious injury or fatality)

Update one must be completed once notified of an incident with as much available detail as possible. Each additional update should be completed as more information becomes available. The Response Manager will advise the timing of any additional updates (e.g. half-hourly, hourly etc).

SERIOUS INJURY OR FATALITY										
	UPDATE 1		UPDATE 2		UPDATE 3		UPDATE 4		UPDATE 5	
Update status	Time:	Date:	Time:	Date:	Time:	Date:	Time:	Date:	Time:	Date:
<b>Questions</b>	<b>Response / Information</b>									
What is the nature of the incident?										
When did it happen?	Time:		Time:		Time:		Time:		Time:	
Where did it happen?	Date:		Date:		Date:		Date:		Date:	
How did this serious incident/ fatality occur?										
Who was first to the scene, and how long after the incident?										
Were there witnesses at the scene?										
What continuing hazards exist, if any?										
What emergency response was followed? (i.e. Has emergency services arrived? How long did they take to arrive?)										
What happens now? (i.e. Is the area sealed off? Has the investigation process been commenced?)										



SERIOUS INJURY OR FATALITY

How many people  
are involved?

What is their  
name/names?

Have the Police  
given approval for  
the name/s to be  
released to  
staff/media?

- ☐ No  
☐ Yes

Is this a notifiable  
Workplace Health  
and Safety Incident?

- ☐ No  
☐ Yes. If yes, when was notification  
made and by whom?

How old are they? (if  
a fatality)

Who is their next-of-  
kin?

Has next-of-kin been  
informed?

- ☐ No  
☐ Yes

If yes:

When?

Who  
informed the  
family and  
how?

Does the deceased  
have a spouse  
and/or children?  
(If a fatality)

- ☐ No  
☐ Yes

If yes:

How many?

What ages?

SERIOUS INJURY OR FATALITY

How long have they worked for LinkWater?

What unit/team/section did they work in?

What is their background? (i.e. have they done this type of work for a number of years or was this a one-off)

When and where will the funeral be held? (If a fatality)

Useful contacts:

- Distributor call centre [insert number]
- Key incident contact 1 [insert number]
- Key incident contact 2 [insert number]



## LinkWater: Incident information form (water quality)

Update one must be completed once notified of an incident with as much available detail as possible. Each additional update should be completed as more information becomes available. The Response Manager will advise the timing of any additional updates (e.g. half-hourly, hourly etc).

WATER QUALITY INCIDENT										
	UPDATE 1		UPDATE 2		UPDATE 3		UPDATE 4		UPDATE 5	
Update status	Time:	Date:	Time:	Date:	Time:	Date:	Time:	Date:	Time:	Date:
<b>Questions</b>	<b>Response / Information</b>									
What was detected?										
What levels were detected?										
What could have caused it?										
When, where and how was it detected?	When: Where: How:									
Is the problem coming from our asset, Council's or another Grid participant's?	<input type="checkbox"/> LinkWater asset <input type="checkbox"/> Council asset <input type="checkbox"/> Another Grid participant's asset:									
Is it likely to cause health issues? If so, what?	<input type="checkbox"/> No <input type="checkbox"/> Yes If yes, what:									
What is being done about it?										
Will this affect water supply? If so, to which area/s?	<input type="checkbox"/> No <input type="checkbox"/> Yes If yes, what area/s:									



WATER QUALITY INCIDENT

How many people / houses may be affected?

Has it been reported to OWSR, WGM and Queensland Health?

☐ No

☐ Yes

If yes, when:

What level has the incident been declared?

How long will the problem take to fix?

Who is working on fixing the problem?

What will we do to prevent this from happening again?

Useful contacts:

- Distributor call centre [insert number]
- Key incident contact 1 [insert number]
- Key incident contact 2 [insert number]
- Key incident contact 3 [insert number]



## APPENDIX D2 – FRONTLINE STAFF GUIDE

### GUIDE TO HANDLING PHONE ENQUIRIES

#### Nominated Emergency Contact (NEC) enquiries:

- Demonstrate care and concern. Stay calm, listen carefully, but do not confirm or deny a person's condition
- Inform the person that you are not an authorised spokesperson, and as such, you are not in a position to comment or provide detailed information
- Take directive from the Corporate Communications Manager or Community Engagement Coordinator as to where to direct calls
- Log all calls.

#### Media enquiries:

- Never say 'no comment'. **The correct response is "I am not the correct person to comment but I will pass your enquiry onto the LinkWater Communications Manager. If you provide me with your details I will ensure they return your call as soon as possible"**
- If possible, transfer the call immediately to the Corporate Communications Manager or take directive from the Corporate Communications Manager as to where to direct calls
- If unsuccessful, ask for the nature of enquiry and deadline for the information. Log the information
- Tell the person you will arrange for someone to call them back as soon as possible  
**Note:** always be polite to the media.

#### Government enquiries:

- Inform the person that you are not an authorised spokesperson, and as such, you are not in a position to comment or provide detailed information
- Try to transfer the call immediately to the Corporate Communications Manager
- If unsuccessful, ask for the nature of enquiry. Log the information
- Tell the person you will arrange for someone to call them back as soon as possible.

#### General enquiries:

- Inform the person that you are not an authorised spokesperson, and as such, you are not in a position to comment or provide detailed information
- Try to transfer the call immediately to a staff member who has been designated to take general enquiries, or the Corporate Communications Manager
- If unsuccessful, ask for the nature of enquiry and log the information
- Tell the person you will arrange for someone to call them back as soon as possible.

#### Useful phone numbers:




## GUIDE TO HANDLING VISITORS

### Nominated Emergency Contact enquiries:

- Demonstrate care and concern. Stay calm, listen carefully, but do not confirm or deny a person's condition
- Inform the person that you are not an authorised spokesperson, and as such, you are not in a position to comment or provide detailed information
- Log their details
- Advise the Human Resources Manager or Corporate Communications Manager, who will designate a person to collect them from reception.
- Ask them to wait in a secure room until escorted to a nominated emergency contact room (if established).

### Media enquiries:

- Inform the person that you are not an authorised spokesperson, and as such, you are not in a position to comment or provide detailed information. Never say 'no comment'
- Log their details
- Advise the Corporate Communications Manager
- All media are to wait in a secure room until they are escorted to the media centre. (They will be provided with continual updates)

#### Notes:

- media do not have automatic access to all areas at the site; any request to speak to staff, film or take photos must be approved by the Corporate Communications Manager
- Safety induction briefs may have to be arranged.

### Government enquiries:

- Inform the person that you are not an authorised spokesperson, and as such, you are not in a position to comment or provide detailed information
- Log their details
- Advise the Corporate Communications Manager.

### General enquiries:

- Inform the person that you are not an authorised spokesperson, and as such, you are not in a position to comment or provide detailed information
- Log their details
- Advise the Corporate Communications Manager
- Tell the person you will arrange for someone to see them as soon as possible.

### Useful phone numbers:



## APPENDIX D3 – TEMPLATE: TELEPHONE MESSAGE SHEET

Your Name:	Date:	Time:
Callers Name:		
Callers Telephone and Mobile Numbers:	Callers Fax Number:	Callers Email Address:
Callers Organisation Affiliation:		
Messages/Notes:	Actions Required:	Deadline:
FOR HANDLING BY: <input type="checkbox"/> Duty General Manager (CMT Leader) <input type="checkbox"/> Response Manager (IMT Leader) <input type="checkbox"/> Incident Communications Manager <input type="checkbox"/> Administration Support Team <input type="checkbox"/> Other: _____		

For Level 3, 4 or 5 Incidents, a hot (informal) debrief is conducted by LinkWater as soon as practicable following the event. The Water Grid Manager will later facilitate a cold debriefing, including all the entities involved. This will include a root cause analysis, capturing and disseminating experiences and lessons learnt and seeking process improvements and modifications.

LinkWater



## APPENDIX D5 – ISSUES DEBRIEF FORM

This debrief form is to be filed with all other documentation produced in the course of responding to the incident.

### ATTENDEES

*Source external input from Grid Manager/relevant Government Agencies/affected Grid Participants prior to de-brief or invite representatives to attend*

INCIDENT :

LEVEL :

RESPONSE MANAGER:

DUTY GM :

LOCATION:

### ESCALATION PROCESS / COMMUNICATION

\_\_\_ Yes or No      LinkWater was informed within 30 mins of incident occurring

\_\_\_ Yes or No      Who, what, where, when, why and how about the issue was supplied in a media holding statement format (within 1 hr) + attached briefing note\_v1 within 2 hrs

If 'no' for items 1 and 2, please include explanation: <attach additional docs if required>

### Were the authorities notified of the incident?

By Whom?

When (time and date)?

Why? Why not?

### Were all key stakeholders captured in stakeholder matrix during and after initial incident briefing and contacted in appropriate timeframes?

<refer to stakeholder assessment and conduct post analysis> < note lessons learnt and why/if key stakeholders were omitted>

### What level of media coverage was secured?

<refer to media analysis report > <% negative vs. positive coverage> < % split of radio, TV, Print, on-line>

### Systems Analysis (see tables below)

#### 6A. LINKWATER SYSTEMS DURING THE INCIDENT

SUCCESSSES	FAILURES
------------	----------

#### 6B. LINKWATER – CORRECTIVE ACTIONS

##### WHAT ACTIONS BEING / WILL BE PUT IN PLACE TO PREVENT RE-OCCURENCE?

SPECIFIC ACTION REQUIRED	PERSON RESPONSIBLE	TARGET DATE	COMPLETED
--------------------------	--------------------	-------------	-----------

#### 7A. SERVICE CONTRACTOR SYSTEMS DURING THE INCIDENT

SUCCESSSES	FAILURES
------------	----------



**7B. SERVICE CONTRACTOR – CORRECTIVE ACTIONS**

**WHAT WERE THE ACTIONS BEING / WILL BE PUT IN PLACE TO PREVENT RE-OCCURENCE?**

SPECIFIC ACTION REQUIRED	PERSON RESPONSIBLE	DUE DATE	STATUS
--------------------------	--------------------	----------	--------

**CLOSE OUT / SIGN OFF**

**CEO**

Name: _____	Signature: _____	Date: _____
-------------	------------------	-------------

**LinkWater Duty Manager (GM)**

Name: _____	Signature: _____	Date: _____
-------------	------------------	-------------

**Response Manager**

Name: _____	Signature: _____	Date: _____
-------------	------------------	-------------

**Incident Communications Manager**

Name: _____	Signature: _____	Date: _____
-------------	------------------	-------------

**Duty Manager**

Name: _____	Signature: _____	Date: _____
-------------	------------------	-------------

**HSE Manager**

Name: _____	Signature: _____	Date: _____
-------------	------------------	-------------

**Service Contractor Manager**

Name: _____	Signature: _____	Date: _____
-------------	------------------	-------------

## APPENDIX E1 – ADVISING NOMINATED EMERGENCY CONTACTS

### Handling Nominated Emergency Contact Enquiries

Enquiries from family members regarding the status of an employee must be directed to the Human Resources Manager.

During an emergency/crisis situation, family members of employees may become extremely emotional – showing signs of fear, shock, worry, anger, and/or frustration.

You can help relatives cope with these emotions by:

- Demonstrating care and concern
- Remaining calm, listening carefully and talking through their concerns
- Reassuring them that all necessary actions are being undertaken to manage and control the situation (e.g. "The health and safety of our people is our first priority. We are taking all necessary actions to ensure the safety of our employees and the community")
- If a relative wants to know the status of an employee, only advise them if you have **CONFIRMED** and are absolutely sure of the employee's status
- Advise that counselling is available, and offer to arrange this for them  
ONLY direct family members can be advised on an employee's status (ie. wife or husband, children, defacto or parents). ONLY the POLICE can advise of a fatality
- If the person is deceased, take the enquirer's name, contact details and status of their relationship to the deceased person, and advise that a *LinkWater* representative will contact them as soon as possible. Contact the police and advise that a relative (state the relationship) of a deceased worker has contacted the site and requested information on the employee.

### Injury Notification

When serious injuries occur (e.g. lost-time accident where an employee requires on-site medical treatment), helping family and acquaintances requires prompt, specific and empathetic action.

If possible, the CEO and the victim's immediate supervisor should make the notification (not for fatalities) to the Nominated Emergency Contacts.

If the injured person is a sub-contractor then the parent organisation should be informed and support from *LinkWater* provided as required.

If the person injured is a member of the public then consideration should also be given to contacting their Nominated Emergency Contacts.

### Death Notification

It is important to remember that notification of death can only be made by the police, in Australia.

Once police have made the notification, the CEO and the deceased's immediate supervisor should arrange for a face-to-face visit to the Nominated Emergency Contacts, or arrange to visit with the police.



If the deceased is a sub-contractor then the parent organisation should be informed and support from *LinkWater* provided, as required.

If the deceased is a member of the public then consideration should also be given to contacting the Nominated Emergency Contacts – via the Police.

### **Nominated Emergency Contacts On-site**

In the case of a serious incident or accident, the Nominated Emergency Contacts may wish to remain on-site to be on hand to receive the most up-to-date information as it happens.

Steps should be taken to set-up a private Nominated Emergency Contacts room on-site, away from the media.





# Duty Manager Contact Roster

FOR: 29-Dec-10 to 04-Jan-11

Duty General Manager

LinkWater Control Room

Network Operations Coordinator

Period	Duty Executive	Communications Manager	OCA Officer
29/12/10 - 05/01/11			
05/01/11 - 12/01/11			
12/01/11 - 19/01/11			
19/01/11 - 26/01/11			
26/01/11 - 02/02/11			
02/02/11 - 09/02/11			
09/02/11 - 16/02/11			
16/02/11 - 23/02/11			
23/02/11 - 02/03/11			
02/03/11 - 09/03/11			
16/03/11 - 16/03/11			
16/03/11 - 23/03/11			
23/03/11 - 30/03/11			
30/03/11 - 06/04/11			
06/04/11 - 13/04/11			
13/04/11 - 20/04/11			

LinkWater - Service Delivery  
2010/11 Summer Holiday Period (13/12/10 - 10/01/11)  
Operational Risks

No.	Site	Risks	Mitigation Measure	Action	Monitor	Responsibility
1	Alexandra Hills Reservoirs 1-5 (dependant on which reservoirs are on-line)	Ingress, leading to microbial contamination, associated with rain events	Service Contractor inspections and removal of debris from gutters and downpipes	Verification required to ensure Service Contractor site inspections are taking place and that defects and associated correction actions are identified and being appropriately progressed.	Monthly reviews of routine maintenance	WM
			Increased microbial monitoring ( twice per week during summer months)	Monitoring to be organised through ALS	LIMS	WM
			Prioritised verification visits by Darren Blackwell	D. Blackwell site visits to be prioritised at this site	Compliance reports	JS
			SCADA monitoring of chlorine levels	Monitoring of SCADA trends and response to critical limit alarms	Monthly reports and site logs	MP
2	Stapylton Balance Tank	Ingress, leading to microbial contamination, associated with rain events	Service Contractor inspections	Verification required to ensure Service Contractor site inspections are taking place and that defects and associated correction actions are identified and being appropriately progressed.	Monthly reviews of routine maintenance	WM
			Increased microbial monitoring ( twice per week during summer months)	Monitoring to be organised through ALS	LIMS	WM
			Prioritised verification visits by Darren Blackwell	D. Blackwell site visits to be prioritised at this site	Compliance reports	JS
			SCADA monitoring of chlorine levels	Monitoring of SCADA trends and response to critical limit alarms	Monthly reports and site logs	MP
3	Sparkes Hill Reservoir 2	Ingress, leading to microbial contamination, associated with rain events	Service Contractor inspections	Verification required to ensure Service Contractor site inspections are taking place and that defects and associated correction actions are identified and being appropriately progressed.		WM
			Increased microbial monitoring ( twice per week during summer months)	Monitoring to be organised through ALS		WM
			Prioritised verification visits by Darren Blackwell	D. Blackwell site visits to be prioritised at this site		JS
			SCADA monitoring of chlorine levels	Monitoring of SCADA trends and response to critical limit alarms		MP
4	Aspley Reservoir	Ingress	Service Contractor inspections	Verification required to ensure Service Contractor site inspections are taking place and that defects and associated correction actions are identified and being appropriately progressed.	Monthly reviews of routine maintenance	WM
			Increased microbial monitoring ( twice per week during summer months)	Monitoring to be organised through ALS	LIMS	WM
			Prioritised verification visits by Darren Blackwell	D. Blackwell site visits to be prioritised at this site	Compliance reports	JS



**LinkWater - Service Delivery**  
**2010/11 Summer Holiday Period (13/12/10 - 10/01/11)**  
**Operational Risks**

No.	Site	Risks	Mitigation Measure	Action	Monitor	Responsibility
			SCADA monitoring of chlorine levels	Monitoring of SCADA trends and response to critical limit alarms	Monthly reports and daily logs	MP
		Reduced chlorine associated with higher chlorine demand	SCADA monitoring of chlorine levels	Monitoring of SCADA trends and response to critical limit alarms	Monthly reports and daily logs	MP
5	General	Water Quality caused by raw water event.	Raise reservoir levels if early warning indicators flag the issue. Adjust various WTP outputs to manage as possible	Seawater to flag issue at earliest known time - SD to identify priority valves Monitor in conjunction with Seqwater	Weekly discussions and following extreme weather Weekly discussions and following extreme weather Use Asset lists daily logs	JB/Seqwater CR CR JB & Legals
6	Trinder Park PS	Power Failure owing to Energex infrastructure in particular	Exercise any valves not operated within the 18 months We permit Energex to connect a genset at this site over summer	SD to identify priority valves Legals should have approved & OK'd this is a repeat of last year		
7	Lloyd St PS	Power Failure or valve failure	Genset from Aspley can run this station but requires lowloader & crane not an easy fix. Better to request energex to supply the gen set if they have power failures. Maintain individual storages above 40 % Exercise valves	All to note & CR to action initially if issue arises	daily logs	JB
8	Impact of planned works to reservoirs	Reduced storage because of planned works		CR to action CR to do remotely & report if issues	Review weekly Jeff to set up a list and monitor	JB JB
9	Beerburum Creek Easment	Erosion or collapse	WTP to be made aware of issues & need for minimum outputs to be available Risk analysis & modelling for project impacts of reservoir has started	Seqwater to be advised Modelling & programming to be completed	Weekly discussions and following extreme weather capital progress reviews	JB JM / JB
10	Nobels Rd	Erosion or collapse	Monthly inspection and reactive inspection following extreme weather	Manny R to raise work orders and monitor	Completed work order reports	MR
11	Caboolture six mile Creek	Erosion or collapse	Monthly inspection and reactive inspection following extreme weather	Manny R to raise work orders and monitor	Completed work order reports	MR
12	Twin View Rd	Erosion or collapse	Monthly inspection and reactive inspection following extreme weather	Manny R to raise work orders and monitor	Completed work order reports	MR
13	Gramsow Road WQF	Loss of comms or power	Monthly inspection and reactive inspection following extreme weather Check generator service schedule. Size appropriate generator, identify comms back up plans	Manny R to raise work orders and monitor	Completed work order reports	MR
14	Caloundra WQF	Loss of comms or power	Check generator service schedule. Size appropriate generator, identify comms back up plans	Jeff to size gen set, Manny to check service schedules, Gavan to advise on back ups and SLA response		JB
15	Chambers Flat WQF	Loss of comms or power	Check generator service schedule. Size appropriate generator, identify comms back up plans	Jeff to size gen set, Manny to check service schedules, Gavan to advise on back ups and SLA response		JB
16	Tarrant Dr PS	SCADA failure	Reduce the flow from deal if possible until the problem can be rectified. Test pump operation week prior to holiday period	Jeff to size gen set, Manny to check service schedules, Gavan to advise on back ups and SLA response	SCADA alarm reports	CR/JB
17	All SCADA sites	Loss of communications to ALL sites	Redundant communications (fibre, ADSL, NextG & PSTN). Pipelines operated locally at the individual sites.	All to note & CR to action initially if issue arises. Arrange pump test operation with desalination plant. Test failover ADSL to ADSL (pipelines) Test failover of ADSL to NextG Test failover NextG to PSTN	Report from fail-over tests	HH / GB
18	All SCADA sites	Unavailability of SCADA SLA Providers	SCADA SLA providers to provide list of available personnel over christmas holiday period	Contact providers to determine staff availability over holiday period	Confirm provider staff availability week prior to holiday period	MJ
19	All SCADA sites	SCADA critical spares unavailable when	Redundant communications (fibre, ADSL, NextG), redundant servers, Ensure SCADA critical spares are available	Contact SLA providers to ensure spares identified in spares lists are available at their storage locations.	Confirm spares availability week prior to holiday period	MJ

LinkWater - Service Delivery  
2010/11 Summer Holiday Period (13/12/10 - 10/01/11)  
Operational Risks

No.	Site	Risks	Mitigation Measure	Action	Monitor	Responsibility
20	All SCADA sites	No SCADA server software backup (up-to-date)	Redundant server available, daily backups stored at data centres	Ensure all servers are operational. Ensure primary server backups to Data Centres are operational. Restore server backup to test server	Weekly check of server backups	HH
21	All SCADA sites	No PLC/RTU backup (up-to-date)	Ensure SLA providers place software backups on the SCADA servers (servers backed up daily).	Review Defect Report completed by SLA providers to ensure form indicates backup is completed.	Continual review of Defect Reports.	MJ
22	Flowmeter sites	RTU Failure	Critical spares available/SLA providers available	Ensure spares and providers are available (Refer Items 18 & 19 above).		MJ
23	All SCADA sites	Availability of SCADA server trends / flow volume reports	Redundant trend servers. SMS trend server error messages to SCADA team.	Ensure SLA provider and SCADA team available to restart trend servers.	CR to monitor trends and advise of failures	GB/HH
24	All SCADA sites	SCADA Alarm Paging System Failure	Redundant alarm paging system. Perform weekly failover to redundant paging system		Monitor failover to redundant paging systems.	
26	All SCADA sites	Fibre optic cable cut on new pipelines	Re-configure clients to receive information from both servers on pipelines. Switch to Remote Manual mode. No planned works during holiday period.	Communications provider (Seek) to reconfigure routing to clients from SCADA servers.		HH/GB
27	All SCADA sites	SCADA server hardware failure	Redundant server available. Service contract with hardware provider	Contact service provider to replace hardware		GB/HH
28	Remote Access via Corporate Network	Unable to access SCADA system from CR and other remote sites	Redundant communications (ADSL, NextG) servers, clients and data centres available	Ensure redundant communications (ADSL, NextG) servers, clients are tested regularly	CR to advise if unable to access SCADA systems.	CR



## Briefing Note – 21<sup>st</sup> December 2010

To Peter McManamon

CEO-LinkWater

### RE: Holiday and Summer Risk Mitigation

#### Background

As a result of recent storm activity and the long term forecast predicting a challenging and wet summer period. LinkWater Service Delivery has implemented a Seasonal Risk Mitigation Strategy.

#### Consultation Activity

The Service Delivery Team has identified risks through a series of internal and external workshops. In addition has also implemented internal processes and procedures to ensure identified risks are considered and in most instances mitigated.

The following areas have been discussed and plans are in place to manage risks to LinkWater and its assets during this period.

The table below summarises the actions taken,

SCADA	WATER QUALITY	NETWORKS	CONTRACT
SLA Providers availability	Increased monitoring at high risk sites	Control room rosta and Network staff availability completed	Staff and sub contract resource checked for availability
Critical Spares checked	Extra chemicals ordered and delivered	Key plant checked for operability (generators etc)	Stock in process of being checked for any shortfalls
System Backups now run weekly	Sampling contractor availability over period	Calibration of instrumentation checked and brought forward.	Security Monitoring increased.
Data Centres checked for access	Review of LIMS System 23/12/10	Service Reservoirs checked and all gutters and roofs cleaned. Orders altered to increase frequency	SLA providers written to and confirmed availability for urgent repairs.
Staff availability	Staff availability	Known erosion points in process of being checked and orders in SAP for fortnightly checks during summer.	Draft letters from Legal on Principle Contractor and Land Access
Fall over tests at key sites tested.	Storage increased at key sites and turnover now weekly	Joint risk plan with SEQ Water in place and being worked to currently	Escalation details circulated
Redundant Server availability		No planned works until 10 <sup>th</sup> Jan 2011	



**Issued by:**

Name Chris Evans  
Title Manager Service Deliver  
Contact number [REDACTED]



Central Region  
Summer Risk Assessment 2010-11

Join Seq/Link Water RA - 5/11/2010

Hazardous Event / Hazard	Hazard	Location	Likelihood	Consequence	Risk	Risk Comments	Current Mitigations	Risk Treatment Needed	Linkwater Mitigations	Residual Risk	Responsible Officer
<b>Water quality risks</b>											
<b>Cyanobacterial bloom</b>	-cyanobacterial toxins -taste and odour compounds	Atkinson Dam				ground water supply - not applicable					
		Esk	3	2	Medium	Low level cylindro toxin historically - below proposed ADWG limits in the Raw Water- Monitoring program under review. New AGMP "Algal Management Plan" being developed. Not assessing saxitoxins! Review RAW Water data nutrient input from previous years to this JB.	Algal Management Plan, multiple draw off levels	Possible relocation of a portable PAC plant based on emerging risks (ie increase in algae numbers this summer), investigate GA for install of PAC plant		Medium	Mal Wright / Stan Stevenson
		Jimna	1	2	Low	No report algal issues to date.					
		Kilcoy	5	2	High	History of toxins in the off stream storage. Limited history	Algal Management Plan, multiple source options. Online chlorine on filtered water connected to alarm.	Possible relocation of a portable PAC plant based on emerging risks (ie increase in algae numbers this summer), investigate GA for install of PAC plant.		Medium	Mal Wright / Stan Stevenson
		Kirkleagh Rec	4	3	High	History of toxins in the RAW Water supply.		Turn plant off and truck water in. Reduce demand by tankering water into the park.		Low	
		Linville				ground water supply - not applicable					
		Lowood	3	2	Medium	River system - Multiple sources of contaminants.	Algal Management Plan, multiple draw off levels from Wivenhoe Improved control of Draw off this year.	Possible relocation of a portable PAC plant based on emerging risks (ie increase in algae numbers this summer), investigate GA for install of PAC plant.		Low	Mal Wright / Stan Stevenson
		Somerset Township	3	3	High	No history of anaeobena	Multiple draw offs and can truck in	Turn plant off and truck water in. Reduce demand by tankering water into the park.		Low	
		Kilcoy - Somerset	3	3	High	History of toxins in the RAW Water supply.	Back up plant for Kilcoy. Refurbishment completed.	Monitoring program to be reviewed.		Medium	
		Wivenhoe Recreational	3	3	High	History of toxins in the RAW Water supply.	Multiple draw offs and can truck in.	Turn plant off and truck water in. Reduce demand by tankering water into the park.		Low	
<b>Storm Event</b>	-high turbidity -high colour -high pathogen load -inability to supply	Mt Crosby Eastbank	3	3	High	Grid wide impact on reputation. Based on T&O risk. Ref	Turn over of weir, trigger procedure, taste panel. Reference to Algal Management Plan. Need to develop a pumping pool management plan. Plan to be developed by mid-October 2010.	PAC/capital improvement, thermister chain to be considered in the pumping pool, retention time monitoring to be adopted for summer lead indication based on Mid Brisbane and Pumping Pool monitoring plan.	LW Options - Blending water from SRWP - Decreasing Q from Crosby - Increasing Q from Nth Pine. Increase system storage. Increase sampling upon Seqwater notifications.	High	QWC - Troy Kasper / Brett to organise management meeting.
		Mt Crosby Westbank	3	3	High	Grid wide impact on reputation. Based on T&O risk. Ref	Turn over of weir, trigger procedure, taste panel. Reference to Algal Management Plan. Need to develop a pumping pool management plan. Plan to be developed by mid-October 2010.	PAC/capital improvement, thermister chain to be considered in the pumping pool, retention time monitoring to be adopted for summer lead indication based on Mid Brisbane and Pumping Pool monitoring plan.	LW Options - Blending water from SRWP - Decreasing Q from Crosby - Increasing Q from Nth Pine. Increase system storage. Increase sampling upon Seqwater notifications.	High	Andrew W / Rob T / Graham Keogan
		Atkinson Dam	2	4	Medium	Ground water supply	Draw off level options, 24 hour shut down	Filter media due for replacement			Peter Myatt / Mal Wright
		Esk	2	3	Medium		Plant upgrade complete. Alarming outstanding.	Operating Procedures currently being developed, Plant Optimisation project			Mal Wright (Procedures), Noel Sinclair
		Jimna	2	4	Medium		Multiple source options, demand management (abbatoirs). Back up plant available.	Modifications to inlet draw offs			Peter Myatt / Mal Wright
		Kilcoy	2	4	Medium		Shut down plant and tanker in if required.				
		Kirkleagh Rec	2	4	Medium		Ground water supply				
		Linville	4	4	High		HACCP Plan in place, limited period shut down, raw water HACCP Plan. Increase staffing levels. Finalise installation of line system.	Evaluation of the replacement / repair of reactivator, environon alert system, plant process alarms are being review for this site.		High pending proof of performance of improvments	Peter Myatt / Stan Stevenson
		Lowood	2	4	Medium		24 hour shut down, tanker in, process improvements implemented, multiple draw off levels, Vertical Profiling System. Operating only during business hours.			Medium	Mal Wright / Stan Stevenson
		Somerset Township	2	4	Medium		Back up plant for Kilcoy. Refurbishment completed.	Process alarming.		Medium	Mal Wright / Stan Stevenson
<b>Elevated Manganese &amp; Iron</b>	-dirty water	Kilcoy - Somerset	2	4	Medium		WTP Ops now control site. Process reviews complete, some alarms in place. Online monitoring but not alarmed.	Finalise column 1 items.		Medium	Mal Wright / Stan Stevenson
		Wivenhoe Recreational	1	4	Medium		Raw Water NTU trigger to reduce flow through plant. Shut down on raw & treated water turbidity, monitoring	Reduce demand on Camerons Hill - Increase Nth Pine and SRWP supply into this zone.		Medium	Brett Myatt / Earle Townsley
		Mt Crosby Eastbank	1	5	Medium		Raw Water NTU trigger to reduce flow through plant. Shut down on raw & treated water turbidity, monitoring	Completion of the capital investment program, installation of flow meters.	Reduce demand on Camerons Hill - Increase Nth Pine and SRWP supply into this zone.	Medium	Brett Myatt / Earle Townsley
		Mt Crosby Westbank	1	5	Medium						
		Atkinson Dam				Raw Water has multiple draw off levels - Impact of recent storm event still hasn't flowed through to the Esk supply however we do have access to a portable Pot Perm system.		Implement training for Operational staff on profiler interpretation and develop trigger points. Review potential for THM formation if Ok look at feasibility of Filter pre chlorination.		med	Jonathon Burcher
		Esk	3	2	Medium		Ability to shut down and source alternative supply "tankers"			low	
		Jimna	2	2	Low		Pre filter Chlorination. Pot Perm. Multiple sources of supply contingency plant available.			low	
		Kilcoy	2	2	Low						
		Kirkleagh Rec	3	2	Medium	Impact of recent storm event still hasn't flowed through to the Kirkleagh supply. Historically during peak demand periods water column would be stratified.	We do have access to a portable Pot Perm system. Ability to shut down and source alternative supply "tankers".	Implement training for Operational staff on profiler interpretation and develop trigger points. THM formation has been an issue and therefore Filter pre chlorination not possible.		Low	Jonathon Burcher
		Linville	1	1	Low	Tankering possible if required.	Protected bore supply. No history of high manganese.			Low	
<b>Elevated Manganese &amp; Iron</b>	-dirty water	Lowood	3	2	Medium	Risk treatment may not be completed by Summer 10-11	Biological filters exist	Time dosing equipment to be installed. Consider utilising Pot Perm to support current controls. Further investigation required to determine permanent solution and priority CAPEX funding determined.		Med	Mike Burns / Mick Drews / Dapo
		Somerset Township	3	2	Medium	Impact of recent storm event still hasn't flowed through to the Somerset supply. Historically during peak demand periods water column would be stratified.	We do have access to a portable Pot Perm system. Ability to shut down and source alternative supply "tankers".	Implement training for Operational staff on profiler interpretation and develop trigger points. THM formation has been an issue and therefore Filter pre chlorination not possible.		Low	Jonathon Burcher





**Central Region**  
**Summer Risk Assessment 2010-11**

[illegible]

**Central Region  
Summer Risk Assessment 2010-11**

[illegible]



Central Region  
Summer Risk Assessment 2010-11

Recreational exposure	cyanotoxins and algae	Jimna								
		Kilcoy								
		Kirkleagh Rec								
		Linvilla								
		Lowood								
		Somerset Township								
		Somerset Recreational								
		Wivenhoe Recreational								
		Mt Crosby Eastbank								
		Mt Crosby Westbank								

## Wivenhoe Dam Releases 1230EST-06JAN11

Incident

<b>Name</b>	Wivenhoe Dam Releases 1230EST-06JAN11	<b>Commenced</b>	06/01/2011
<b>Status</b>	Active		
<b>Lead agency</b>	SEQ WGM	<b>Severity level</b>	Level 3
<b>Incident type</b>	Public reassurance	<b>Location</b>	wivenhoe Dam
<b>Location site name</b>	Wivenhoe Dam		
<b>Reported by</b>	David Roberts	<b>Media interest?</b>	No
<b>Initiating agency</b>	Seqwater		

**Incident details**  
Planned release of stored flood waters to return the dam to full water supply level. Refer latest Sitrep or OCA log for current information

**Emergency Management Team**  
Emergency Manager : WGM Duty Manager (Tel [REDACTED]) Communications : WGM Communications Duty Manager (Tel 07 [REDACTED])

**Incident team organisation**  
Rob Drury - Manager Dam Operations

**Planning objectives**  
Planned release from storage in accordance with Operating Protocol. Refer to latest Sitrep or OCA log for current information

**Agencies notified**  
Refer to attached Sitrep or Incident Log



### Related Contacts (0)

<empty>

### Related Appointments (0)

<empty>

### Related Events (0)

<empty>

### Related Assets (0)

<empty>

### Event Documents (135)



## Extreme Weather Event -2300EST-10JAN11 [Incident Management Team] Incident

<b>Name</b>	Extreme Weather Event -2300EST-10JAN11	<b>Commenced</b>	11/01/2011
<b>Status</b>	Active		
<b>Lead agency</b>	SEQ WGM		
<b>Incident type</b>	Security or Natural Disaster	<b>Severity level</b>	Level 3
<b>Location site name</b>	Murphys Creek rd Withcott	<b>Location</b>	Murphys Creek rd Withcott Q
<b>Reported by</b>	Paul Belz		
<b>Initiating agency</b>	Qld Urban Utilities	<b>Media Interest?</b>	No
<b>Incident details</b>	Extreme Weather Event • Loss of supply to customers in Withcott Helidon. • Supply issues to Kilcoy, Jimna, Linville • Supply issues to Jindalee. • Peak river levels in the Brisbane and the Bremer rivers		

### Emergency Management Team

Emergency Manager : WGM Duty Manager (Tel [REDACTED]) Communications : WGM Communications Duty Manager (Tel [REDACTED])

### Incident team organisation

Name Paul Belz Role Emergency Manager Name Grant + Matthew Role Operations Coord Name Justin Poulus Role Communications Coord Name Cameron Jackson Role Planning Coord Name John Smelt Role Logistics Coord

### Planning objectives

Temporary/ permanent water supply to Withcott, Heildon. Monitor supply to Jimna, Linville. Monitor supply issues at Jindalee Maintain communications with LDMG and DDMG Coordinate Conserve Water Notice with SEQ WGM

### Agencies notified

SEQ Water Grid Manager LDMG DDMG Ipswich SEQ Water

### Other relevant information

First Sit Rep Delayed second to follow shortly

### Related Contacts (0)

<empty>

### Related Appointments (0)

<empty>

### Related Events (1)

This event is related to: E.coli detection at Laidley

### Related Assets (0)

<empty>

# LinkWater Severe Weather Operating Plan Jan 2011

11/1/2010 10:47

	Action No.	Details	Persons Responsible			
1. Service Contract and Resource		<ul style="list-style-type: none"> <li>Details required off staff availability by discipline and area</li> <li>Updated Schedule of planned maintenance for week ahead</li> <li>Identification of priority inspections and maintenance</li> <li>Identification of areas under threat and cross checked against urgent maintenance.</li> <li>Plans and mitigation for works that cannot be completed</li> <li>Sub contractor resources for remedial and emergency works to be compiled.</li> <li>Comdain availability to be checked.</li> <li>All previously identified erosion points to be checked (weather permitting)</li> <li>Service Reservoir inspections to be brought forward for end of week/weekend.</li> <li>Monitoring and communication of all identified high risk sites and status with regular updates.</li> <li>On site generation recently tested, brought forward again for this week</li> </ul>	Glenn/Dave J/Matt  Ben Jeff/Control Room  Glenn/Dave/Matt SC/Control Room			
2.0 Water Quality						
Water Quality Performance		Update and review of all sites via LIMS, identify any potential trends	WQ Team			
Sampling		To continue as normal at present, ALS to be notified of any access issues by WQ Team as they come up and a review at the end of the day of issues and plan for next 24 hours	WQ Team			
Security Contract		Updates from Security Contractor on sites unable to be checked and updates at the beginning of working day. Site issues to be communicated to Phil Ingeri. Info to be provided to all SLA and contract staff on site access.	Phil Ingeri			
At risk storages		Review LIMS and increase sampling frequency	WQ team			
3.0 Networks						
Storage		Increase system storage levels to approx 380 ML, currently at 350ML	Jeff			
Comms		Comms team to run backups and any system diagnostics, any issues to be passed	Jeff			



	Action No.	Details	Persons Responsible			
		immediately to relevant SLA contractor				
Planned Capex and Alliance Works		To be postponed until system review	Jeff			
OCA		All access has been checked and is visible, updates on these actions will be circulated via templates.	Mike H and Comms team			
Control Room back ups		Sby generator to be checked for control room support	Mike/Jeff			
Chemical orders		Bring forward chemical requirements, identify sites and communicate to SC when delivery will be made.	Glenn/Jeff			
Control Room Resource		<ul style="list-style-type: none"> <li>Review shift rosta to check staff availability in areas where flooding likely.</li> <li>Prepare mitigation plans to fill rosta, swapping shifts, provision of vehicles etc</li> <li>Make pool cars available for Ops staff only.</li> <li>Compile list of critical staff and fatigue management plans</li> <li>Identify any requirements for accommodation of key staff.</li> </ul>	Keff/Steve/Mike			
Assets at Risk		Identification of all assets that may be at risk, mitigation measures, contingency plans to be drafted for each asset.	Steve/Mike			
Off line assets		To be checked to ensure cannot operate remotely	Steve			

LinkWater Severe Weather Operating Plan Jan 2011  
Update 11/01/2011-15.00

	Action No.	Details	Persons Responsible			
1. Service Contract and Resource		<ul style="list-style-type: none"> <li>Service Contract team have confirmed resources and split by discipline</li> <li>The locations and contact details of these teams have been applied to Google Earth in the incident room</li> <li>Service Contractor has confirmed work schedules and are at approx 70% in terms of completion of planned works</li> <li>Identification of priority inspections and maintenance, currently being completed, areas and frequency with Steve and Dave J</li> <li>Identification of areas under threat and cross checked against urgent maintenance.-As above</li> <li>Sub contractor resources for remedial and emergency works to be compiled. Christopher Contracting and Centrogen available for support to carry out inspections as the high risk plan dictates</li> <li>Comdain availability to be checked.</li> <li>All previously identified erosion points to be checked (weather permitting) as per the high risk plans</li> <li>Service Reservoir inspections to be brought forward for end of week/weekend.-in progress</li> <li>On site generation recently tested, brought forward again for this week. TT confirmed all in place and being worked through, no issues</li> </ul>				
2.0 Water Quality						
Water Quality Performance		Update and review of all sites via LIMS, identify any potential trends-All ok, minor problem with comms at Heinemen Road. Mark P chasing	WQ Team			
Sampling		To continue as normal at present, ALS to be notified of any access issues by WQ Team as they come up and a review at the end of the day of issues and plan for next 24 hours-update Samplers sent home at lunch time will return tomorrow	WQ Team			



	Action No.	Details	Persons Responsible			
Security Contract		Updates from Security Contractor on sites unable to be checked and updates at the beginning of working day. Site issues to be communicated to Phil Ingeri. Info to be provided to all SLA and contract staff on site access.-Phil has been briefed and will act as focal point and will maintain register of access issues for all personnel	Phil Ingeri			
At risk storages		Review LIMS and increase sampling frequency-Update, daily sampling for Kimberley Park and Sparkes Hill organised by Mark P	WQ team			
3.0 Networks						
Storage		<p>Increase system storage levels to approx 380 ML, currently at 350ML-Update dropped to 340 due to Mount Crosby, Desal increases to 66 MLD to bring more up SRWP.</p> <ul style="list-style-type: none"> <li>Eastbank has 2.5 days of Chemical availability based on current flows</li> <li>Plan to use up Eastbank then turn on Westbank which has a further 3.5 days of chemicals.</li> <li>Shortfall of 75 MLD-Make up with SRWP and North Pine</li> <li>North Pine 2.8 days of Chemicals left, may reduce further to support Landers Shute which has 24 hours of chemicals left.</li> <li>Ewan Maddock-off line, plans being made to bring back, though will take a few days</li> </ul>	Jeff			
Comms		Comms team to run backups and any system diagnostics, any issues to be passed immediately to relevant SLA contractor -Hanny has confirmed no issue will review again Wednesday	Jeff			
Planned Capex and Alliance Works		To be postponed until system review	Jeff			
OCA		All access has been checked and is visible, updates on these actions will be circulated via templates.	Mike H and Comms team			
Control Room back ups		Sby generator to be checked for control room support	Mike/Jeff			
Chemical orders		Bring forward chemical requirements, identify sites and communicate to SC when delivery will be made.-Delivery Friday	Glenn/Jeff			
Control Room Resource		<ul style="list-style-type: none"> <li>Review shift rosta to check staff availability in areas where flooding likely.-4 rooms required.</li> <li>Prepare mitigation plans to fill rosta, swapping shifts, provision of vehicles etc</li> <li>Make pool cars available for Ops staff only.</li> <li>Compile list of critical staff and fatigue management plans</li> <li>Identify any requirements for accommodation of key staff.</li> </ul>				
Assets at Risk		Identification of all assets that may be at risk, mitigation measures, contingency plans to be drafted for each asset.-being compiled for risk and frequency. 5000	Steve/Mike			

	Action No.	Details	Persons Responsible			
		sand bags filled and ready for deployment				
Off line assets		To be checked to ensure cannot operate remotely	Steve			



LinkWater Severe Weather Operating Plan Jan 2011  
Update 12/01/2011

PSC

	Action No.	Details	Persons Responsible			
1. Service Contract and Resource		<ul style="list-style-type: none"> <li>Service Contract team have confirmed resources and split by discipline</li> <li>The locations and contact details of these teams have been applied to Google Earth in the incident room. Although some issues with staff availability, currently have no issues and are working through priority list.</li> <li>Identification of priority inspections and maintenance, currently being completed, update expected at 3pm on progress and risks. Bundamba has had flooding and we are revisiting this pm.</li> <li>Service Reservoir inspections to be brought forward for end of week/weekend.-in progress</li> <li>On site generation recently tested, brought forward again for this week. TT confirmed all in place and being worked through, no issues</li> <li>Byrnes Rd Compressor being commissioned to assist North Pine in Northerly Flow-update this pm</li> </ul>	Glenn/Steve			
2.0 Water Quality						
Water Quality Performance		Update and review of all sites via LIMS, identify any potential trends-All ok, Heinemann Road back on line	WQ Team			
Sampling		Currently no sampling being undertaken, ALS preparing plan to recommence tomorrow and to overcome backlog.	WQ Team			
Security Contract		Updates from Security Contractor on sites unable to be checked and updates at the beginning of working day. Site issues to be communicated to Phil Ingeri. Info to be provided to all SLA and contract staff on site access.-List being compiled to be reviewed this PM	Phil Ingeri			
At risk storages		Review LIMS and increase sampling frequency-WQ team reviewing storage and quality via on line systems.	WQ team			
3.0 Networks						
Storage		<ul style="list-style-type: none"> <li>Currently storage is at 270ML.</li> <li>North Pine on reduced flow</li> <li>Mt Crosby off-restart by 1.30pm</li> <li>SRWP Northern Section Off, comms issues, Mt Crosby staff assisting</li> </ul>	Jeff			

	Action No.	Details	Persons Responsible			
		<ul style="list-style-type: none"> <li>• Allconnex Logan contacted to prepare plans to use Logan River WPS</li> <li>• Allconnex may use water from SRWP offtake at Teviot Rd</li> <li>• QUU rating back and managing storages</li> <li>• Lists of current levels being compiled</li> </ul>				
Comms		Comms team to run backups and any system diagnostics, any issues to be passed immediately to relevant SLA contractor –Hanny working on Bundamba problem	Jeff			
Planned Capex and Alliance Works		To be postponed until system review	Jeff			
OCA		All access has been checked and is visible, updates on these actions will be circulated via templates.	Mike H and Comms team			
Control Room back ups		Sby generator checked and working, more fuel ordered as a precaution	Mike/Jeff			
Chemical orders		<p>Bring forward chemical requirements, identify sites and communicate to SC when delivery will be made.-Delivery Friday confirm with providers.</p> <p>Currently six days supply at Chambers flat</p>	Glenn/Jeff			
Control Room Resource		<ul style="list-style-type: none"> <li>• No issues at present staff rotating as per plan.</li> <li>• Fatigue management plan to be drafted</li> </ul>				
Assets at Risk		Identification of all assets that may be at risk, mitigation measures, contingency plans to be drafted for each asset.-being compiled for risk and frequency. 5000 sand bags filled and ready for deployment	Steve			
Off line assets		To be checked to ensure cannot operate remotely	Steve			



LinkWater Severe Weather Operating Plan Jan 2011  
Update 12/01/2011

*pm*

	Action No.	Details	Persons Responsible			
1. Service Contract and Resource		<ul style="list-style-type: none"> <li>Service Contract team have confirmed resources and split by discipline</li> <li>The locations and contact details of these teams have been applied to Google Earth in the incident room. Although some issues with staff availability, currently have no issues and are working through priority list.</li> <li>Identification of priority inspections and maintenance, currently being completed, update expected at 3pm on progress and risks. Bundamba has had flooding and we are revisiting this pm.</li> <li>Service Reservoir inspections to be brought forward for end of week/weekend.-in progress</li> <li>On site generation recently tested, brought forward again for this week. TT confirmed all in place and being worked through, no issues</li> <li>Byrnes Rd Compressor being commissioned to assist North Pine in Northerly Flow-update this pm</li> </ul>	Glenn/Steve			
2.0 Water Quality						
Water Quality Performance		Update and review of all sites via LIMS, identify any potential trends-All ok, Heinemann Road back on line	WQ Team			
Sampling		Currently no sampling being undertaken, ALS preparing plan to recommence tomorrow and to overcome backlog.	WQ Team			
Security Contract		Updates from Security Contractor on sites unable to be checked and updates at the beginning of working day. Site issues to be communicated to Phil Ingeri. Info to be provided to all SLA and contract staff on site access.-List being compiled to be reviewed this PM	Phil Ingeri			
At risk storages		Review LIMS and increase sampling frequency-WQ team reviewing storage and quality via on line systems.	WQ team			
3.0 Networks						
Storage		<ul style="list-style-type: none"> <li>Currently storage is at 240ML</li> <li>North Pine restarted at 3.30pm</li> <li>Mt Crosby off -restarted</li> <li>SRWP Northern Section back on</li> </ul>	Jeff			

	Action No.	Details	Persons Responsible			
		<ul style="list-style-type: none"> <li>• Allconnex Logan contacted to prepare plans to use Logan River WPS</li> <li>• Allconnex may use water from SRWP offtake at Teviot Rd</li> <li>• QUU rating back and managing storages</li> <li>• Lists of current levels being compiled</li> </ul>				
Comms		Comms team to run backups and any system diagnostics, any issues to be passed immediately to relevant SLA contractor –Hanny working on Bundamba problem	Jeff			
Planned Capex and Alliance Works		To be postponed until system review	Jeff			
OCA		All access has been checked and is visible, updates on these actions will be circulated via templates.	Mike H and Comms team			
Control Room back ups		Sby generator checked and working, more fuel ordered as a precaution	Mike/Jeff			
Chemical orders		<p>Bring forward chemical requirements, identify sites and communicate to SC when delivery will be made.-Delivery Friday confirm with providers.</p> <p>Currently six days supply at Chambers flat</p>	Glenn/Jeff			
Control Room Resource		<ul style="list-style-type: none"> <li>• No issues at present staff rotating as per plan.</li> <li>• Fatigue management plan to be drafted</li> </ul>				
Assets at Risk		Identification of all assets that may be at risk, mitigation measures, contingency plans to be drafted for each asset.-being compiled for risk and frequency. 5000 sand bags filled and ready for deployment	Steve			
Off line assets		To be checked to ensure cannot operate remotely	Steve			



LinkWater Severe Weather Operating Plan Jan 2011  
Update 13/01/2011

DM

	Action No.	Details	Persons Responsible			
1. Service Contract and Resource		<ul style="list-style-type: none"> <li>◦ <u>Service Contract availability</u></li> <li>◦ Operators 75%-remainder still flooded in</li> <li>◦ Electricians 100%</li> <li>◦ Fitters 100%</li> <li>◦ Critical inspection list completed and issues reported at Bundamba WPS, and Mudgereeba Creek Crossing (debris build up over pipeline) a revised frequency to be built into next weeks maintenance plans.</li> <li>◦ Bundamba WPS isolated from Power supply, inspection of asset this PM, site specific risk assessment being drafted to cover and additional risks such as contamination, infections and enhanced trips and slips.</li> <li>◦ New Byrnes Rd Compressor commissioned 12/01-this will enable us to send water North via the NPI if required.</li> <li>◦ Gen Set inspections completed all operational and fuel stocks are ok.</li> <li>◦ Sub Contractors, Centrogen and Christophers engaged via Service Contractor. Comdain to be contacted to confirm priority</li> <li>◦ Revised schedules for week ahead maintenance and inspection programme being compiled and reviewed concentrating on WQF,SRV's and pumping stations. info from Glen to be reviewed by incident team.</li> <li>◦ Corrective work orders being created-info from Glen to be reviewed by incident team.</li> <li>◦ Hypo leak at Chambers Flat currently being repaired by SC staff.</li> <li>◦ SC reviewing spares for Bundamba-Glen to update</li> <li>◦ Bundamaba recovery plan, assessment project managed by Steve O Brien. (separate meeting required to ascertain impact, risks, timescales and costs)-prepare a report to submit to Asset Management.</li> </ul>	Glenn/Craig			
			Steve			

	Action No.	Details	Persons Responsible			
2.0 Water Quality						
Water Quality Performance		High free chlorine at Daisy Hill and into Logan-Wade talking to Allconnex regarding their ammonia dosing. Update at 15.30 Nerangba, low chlorine issue, Jeff/Steve and Wade to discuss and update at 14.30 Elevated turbidity at Caloundra St, currently ok, Wade and Jeff to monitor.	Wade			
Sampling		Schedule to be reviewed by WQ team to check sites against sites of elevated monitoring. Daily samples being taken from identified sites, results being forwarded to WQ team at the end of working day.	Wade			
Security Contract		Update required	Phil Ingeri			
At risk storages		Wade reviewing chlorine performance at Sparkes Hill using on line monitors, slight drop need to maintain monitoring	WQ team			
3.0 Networks						
Storage and supply at 12pm		<ul style="list-style-type: none"> <li>176ML in total storage</li> <li>Mt Crosby at 138MLD</li> <li>North Pine 100MLD</li> <li>SRWP-90MLD</li> <li>NPI-34MLD</li> </ul>	Jeff			
Comms		Crosby communication issue, Hanny to discuss with SeqWater Bundamba entry in accordance with safe systems of work. New server being built, emergency Citec licence to be procured and dispatched overnight. IT working rotating shifts	Jeff			
Planned Capex and Alliance Works		To be postponed until 20 <sup>th</sup> January, some works will be auctioned on a priority basis	Jeff			
OCA		All access has been checked and is visible, updates on these actions will be circulated via templates.	Mike H and Comms team			
Control Room back ups		Sby generator checked and working, refuelled to 100% and arrangements made with supplier to restock if required.	Mike/Jeff			
Chemical orders		Chemicals delivered to Chambers Flat, Wade to produce list of other requirements by site and chase orders with control room	Wade			



	Action No.	Details	Persons Responsible			
Control Room Resource		<ul style="list-style-type: none"> <li>No issues at present staff rotating as per plan.</li> <li>Shift working plan to be completed following review at 15.30</li> <li>Recovery plan will include potential shift working during recovery period( inc weekends)</li> </ul>				
Recovery Plans		Steve O'Brien and James Moffat providing input into system recovery plans by supply area. QUU supplying information on requirements. Plan to be agreed and discussed Friday 14 <sup>th</sup> Jan.	Steve/James			
Summary		No immediate issues, storage still in critical condition, however holding and expect to see increases in capacity through afternoon and evening, however these are reliant on asset performance.				

LinkWater Severe Weather Operating Plan Jan 2011  
Update 13/01/2011-15.30

	Action No.	Details	Persons Responsible			
1. Service Contract and Resource		<ul style="list-style-type: none"> <li>◦ <u>Service Contract availability</u></li> <li>◦ Operators 75%-remainder still flooded in</li> <li>◦ Electricians 100%</li> <li>◦ Fitters 100%</li> <li>◦ Critical inspection list completed and issues reported at Bundamba WPS, and Mudgereeba Creek Crossing (debris build up over pipeline) a revised frequency to be built into next weeks maintenance plans.</li> <li>◦ Bundamba WPS isolated from Power supply, inspection of asset this PM, site specific risk assessment being drafted to cover and additional risks such as contamination, infections and enhanced trips and slips. – update visit organised tomorrow, protective clothing has been sourced.</li> <li>◦ New Byrnes Rd Compressor commissioned 12/01-this will enable us to send water North via the NPI if required.</li> <li>◦ Gen Set inspections completed all operational and fuel stocks are ok.</li> <li>◦ Sub Contractors, Centrogen and Christophers engaged via Service Contractor. Comdain to be contacted to confirm priority</li> <li>◦ Revised schedules for week ahead maintenance and inspection programme being compiled and reviewed concentrating on WQF,SRV's and pumping stations. info from Glen to be reviewed by incident team.</li> <li>◦ Corrective work orders being created-info from Glen to be reviewed by incident team.-update all corrective work orders to be allocated to internal costs centres for review for cost recovery.</li> <li>◦ Hypo leak at Chambers Flat currently being repaired by SC staff .Isolated, no risk to supply, repair next week in accordance with repair schedule</li> <li>◦ SC reviewing spares for Bundamba-Glen to update</li> <li>◦ Bundamaba recovery plan, assessment project managed by Steve O Brien. (separate meeting required to ascertain impact, risks, timescales and costs)-prepare a report to submit to Asset Management.</li> </ul>	Glenn/Craig			
			Steve			



	Action No.	Details	Persons Responsible			
2.0 Water Quality						
Water Quality Performance		<p>High free chlorine at Daisy Hill and into Logan-Wade talking to Allconnex regarding their ammonia dosing. Supply had been off from Logan River due to Allconnex plant failure. Now back on. Wade arranging review of dosing with Allconnex, review levels of free chlorine Friday.</p> <p>Nerangba, low chlorine issue, Unity water have been asked to check valving, report back to us tomorrow. Chlorines being monitored by on line monitoring, review Friday.</p> <p>Elevated turbidity at Caloundra St, due to 3<sup>rd</sup> part works to restore supplies from Ewan Maddoc. Plans being drafted to mitigate impact on LinkWater Supplies</p>	<p>Wade</p> <p>Steve</p>			
Sampling		<p>Schedule to be reviewed by WQ team to check sites against sites of elevated monitoring.</p> <p>Daily samples being taken from identified sites, results being forwarded to WQ team at the end of working day. Update sample results in for yesterday 12/01-no bacto or chemical exceedances, review today's sample results Friday am</p>	Wade			
Security Contract		Update required	Phil Ingeri			
At risk storages		Wade reviewing chlorine performance at Sparkes Hill using on line monitors, slight drop need to maintain monitoring-update chlorines have increased, slight increase in turbidity, control room instructed to manage flows from SH to maintain limits	WQ team			
3.0 Networks						
Storage and supply at 12pm		<ul style="list-style-type: none"> <li>160ML in total storage</li> <li>Mt Crosby at 150-180-comms issue</li> <li>North Pine 100MLD</li> <li>SRWP-90MLD</li> <li>NPI-34MLD</li> </ul>	Jeff			
Comms		<p>Crosby communication issue, Hanny to discuss with SeqWater Bundamba entry in accordance with safe systems of work.</p> <p>New server being built, emergency Citec licence to be procured and dispatched overnight.</p> <p>IT working rotating shifts and support for Hanny overnight has been auctioned using IT team</p> <p>Mt Crosby/Camerons Hill issue, site visit Friday am to repair using SeqWater</p>	Jeff			

	Action No.	Details	Persons Responsible			
		helicopter.				
Planned Capex and Alliance Works		To be postponed until 20 <sup>th</sup> January, some works will be auctioned on a priority basis	Jeff			
OCA		All access has been checked and is visible, updates on these actions will be circulated via templates.	Mike H and Comms team			
Control Room back ups		Sby generator checked and working, refuelled to 100% and arrangements made with supplier to restock if required.	Mike/Jeff			
Chemical orders		Chemicals delivered to Chambers Flat, Wade to produce list of other requirements by site and chase orders with control room-update, chemicals reviewed and supplies increased of hypo and ammonia at all sites, deliveries organised for Tomorrow and Monday. No issues based on current flows.	Wade			
Control Room Resource		<ul style="list-style-type: none"> <li>No issues at present staff rotating as per plan.</li> <li>Shift working plan to be completed following review at 15.30</li> <li>Recovery plan will include potential shift working during recovery period( inc weekends)</li> </ul>				
Recovery Plans		Steve O'Brien and James Moffat providing input into system recovery plans by supply area. QUU supplying information on requirements. Plan to be agreed and discussed Friday 14 <sup>th</sup> Jan.	Steve/James			
Summary		No immediate issues, storage still in critical condition, however holding and expect to see increases in capacity through afternoon and evening, however these are reliant on asset performance.				



LinkWater Severe Weather Operating Plan Jan 2011  
Update 14.01.2011-10.00am

	Action No.	Details	Persons Responsible			
1. Service Contract and Resource		<ul style="list-style-type: none"> <li>◦ <u>Service Contract availability</u></li> <li>◦ Operators 75%-remainder still flooded in</li> <li>◦ Electricians 100%</li> <li>◦ Fitters 100%</li> <li>◦ Critical inspection list completed and issues reported at Bundamba WPS, and Mudgereeba Creek Crossing (debris build up over pipeline) a revised frequency to be built into next weeks maintenance plans.</li> <li>◦ Bundamba WPS isolated from Power supply, inspection of asset this PM, site specific risk assessment being drafted to cover and additional risks such as contamination, infections and enhanced trips and slips. – update visit organised tomorrow, protective clothing has been sourced. Mark Davanzo coordinating with Energex to ensure site safely de-energised. David Johnson coordinating site clean-up efforts (site manager to be appointed by O&amp;MJV). Any visitors require up-to-date Hepatitis B shots/booster</li> <li>◦ New Byrnes Rd Compressor commissioned 12/01-this will enable us to send water North via the NPI if required.</li> <li>◦ Gen Set inspections completed all operational and fuel stocks are ok.</li> <li>◦ Sub Contractors, Centrogen and Christophers engaged via Service Contractor. Comdain to be contacted to confirm priority</li> <li>◦ Revised schedules for week ahead maintenance and inspection programme being compiled and reviewed concentrating on WQF,SRV's and pumping stations. Info from Glenn to be reviewed by incident team. O&amp;MJV to provide feedback to LinkWater this morning</li> <li>◦ Corrective work orders being created-info from Glen to be reviewed by incident team.-update all corrective work orders to be allocated to internal costs centres for review for cost recovery.</li> <li>◦ Hypo leak at Chambers Flat currently being repaired by SC staff. Isolated, no risk to supply, repair next week in accordance with repair schedule</li> <li>◦ SC reviewing spares for Bundamba-Glenn to update</li> </ul>	Glenn/Craig			
			Steve			





	Action No.	Details	Persons Responsible			
		<ul style="list-style-type: none"> <li>SRWP-105MLD</li> <li>NPI-38MLD</li> </ul>				
Comms		<p>Crosby communication issue, Hanny to discuss with SeqWater Bundamba entry in accordance with safe systems of work.</p> <p>New server being built, emergency Citec licence to be procured and dispatched overnight.</p> <p>IT working rotating shifts and support for Hanny overnight has been auctioned using IT team</p> <p>Mt Crosby/Camerons Hill issue, site visit Friday am to repair using SeqWater helicopter. New Cybertec modem flown into Mt Crosby. To be installed following work on East Bank raw water pumps</p>	Jeff			
Planned Capex and Alliance Works		To be postponed until 20 <sup>th</sup> January, some works will be auctioned on a priority basis	Jeff			
OCA		All access has been checked and is visible, updates on these actions will be circulated via templates. Latest situation report sent through Fri AM	Mike H and Comms team			
Control Room back ups		Sby generator checked and working, refuelled to 100% and arrangements made with supplier to restock if required.	Mike/Jeff			
Chemical orders		Chemicals delivered to Chambers Flat, Wade to produce list of other requirements by site and chase orders with control room-update, chemicals reviewed and supplies increased of hypo and ammonia at all sites, deliveries organised for Tomorrow and Monday. No issues based on current flows.	Wade			
Control Room Resource		<ul style="list-style-type: none"> <li>No issues at present staff rotating as per plan.</li> <li>Shift working plan to be completed following review at 15.30</li> <li>Recovery plan will include potential shift working during recovery period( inc weekends)</li> </ul>				
Recovery Plans		Steve O'Brien and James Moffat providing input into system recovery plans by supply area. QUU supplying information on requirements. Plan to be agreed and discussed Friday 14 <sup>th</sup> Jan. James chasing current storage levels in QUU	Steve/James			
Summary		No immediate issues, storage still in critical condition, however holding and expect to see increases in capacity through afternoon and evening, however these are reliant on asset performance.				

LinkWater Severe Weather Operating Plan Jan 2011  
Update 14.01.2011-14.00

	Action No.	Details	Persons Responsible			
1. Service Contract and Resource		<ul style="list-style-type: none"> <li>• <u>Service Contract availability</u></li> <li>• Operators 75%-remainder still flooded in</li> <li>• Electricians 100%</li> <li>• Fitters 100%</li> <li>• Critical inspection list completed and issues reported at Bundamba WPS, and Mudgereeba Creek Crossing (debris build up over pipeline) a revised frequency to be built into next weeks maintenance plans.</li> <li>• Bundamba WPS isolated from Power supply, inspection of asset this PM, site specific risk assessment being drafted to cover and additional risks such as contamination, infections and enhanced trips and slips. – update visit organised tomorrow, protective clothing has been sourced. Mark Davanzo coordinating with Energex to ensure site safely de-energised. David Johnson coordinating site clean-up efforts (site manager to be appointed by O&amp;MJV). Any visitors require up-to-date Hepatitis B shots/booster</li> <li>• New Byrnes Rd Compressor commissioned 12/01-this will enable us to send water North via the NPI if required.</li> <li>• Gen Set inspections completed all operational and fuel stocks are ok.</li> <li>• Sub Contractors, Centrogen and Christophers engaged via Service Contractor. Comdain to be contacted to confirm priority</li> <li>• Revised schedules for week ahead maintenance and inspection programme being compiled and reviewed concentrating on WQF,SRV's and pumping stations. Info from Glenn to be reviewed by incident team. O&amp;MJV to provide feedback to LinkWater this morning</li> <li>• Corrective work orders being created-info from Glen to be reviewed by incident team.-update all corrective work orders to be allocated to internal costs centres for review for cost recovery.</li> <li>• Hypo leak at Chambers Flat currently being repaired by SC staff. Isolated, no risk to supply, repair next week in accordance with repair schedule</li> <li>• SC reviewing spares for Bundamba-Glenn to update</li> </ul>	Glenn/Craig			
			Steve			



	Action No.	Details	Persons Responsible			
		<ul style="list-style-type: none"> <li>Bundamaba recovery plan, assessment project managed by Steve O'Brien. (separate meeting required to ascertain impact, risks, timescales and costs)-prepare a report to submit to Asset Management. Darren has completed site specific risk assessment site visit this PM to assess damage.</li> </ul>				
2.0 Water Quality						
Water Quality Performance		<p>High free chlorine at Daisy Hill and into Logan- Wade talking to Allconnex regarding their ammonia dosing. Supply-back on line Wade to monitor ALS to sample for mono chlorine in area.</p> <p>Nerangba, low chlorine issue, Unity water have been asked to check valving, report back to us tomorrow. Chlorines being monitored by on line monitoring, review Friday. Narangba chlorine levels increased significantly. Current levels around 1.8mg/</p> <p>Elevated turbidity at Caloundra St, due to 3<sup>rd</sup> part works to restore supplies from Ewan Maddock. Plans being drafted to mitigate impact on LinkWater Supplies. Turbidity being managed through NPi and diverted to North Pine where it can be blended. Levels to be continually monitored</p>	<p>Wade</p> <p>Steve</p>			
Sampling		<p>Schedule to be reviewed by WQ team to check sites against sites of elevated monitoring.</p> <p>Daily samples being taken from identified sites, results being forwarded to WQ team at the end of working day. Update sample results in for yesterday 12/01-no bacto or chemical exceedances, review today's sample results Friday am.</p> <p>Direction to ALS is to prioritise sample points that would have been submerged and attempt samples at all Brisbane locations-review on Monday ALS working weekend to catch up. They have been advised to exercise due care and diligence in obtaining samples.</p>	Wade			
Security Contract		All sites are now accessible and Security Contractor has resumed patrols across network.	Phil Ingeri			
At risk storages		Sparkes Hill back on daily sampling programme as is Kimberley Park.	WQ team			
3.0 Networks						
Storage and supply at 12pm		<ul style="list-style-type: none"> <li>167ML in total storage</li> <li>Mt Crosby at 347</li> <li>North Pine 100MLD</li> <li>SRWP-105MLD</li> <li>NPI-60MLD</li> </ul>	Jeff			

	Action No.	Details	Persons Responsible			
Comms		Crosby communication issue, Hanny to discuss with SeqWater Bundamba entry in accordance with safe systems of work. New server being built, emergency Citec licence on way Mt Crosby/Camerons Hill issue, site visit Friday am to repair using SeqWater helicopter. Completed IT support over weekend in place contact Hanny and Jon Hart control room has roster GIS Jawad is available for GIS support mobile [REDACTED]	Jeff			
Planned Capex and Alliance Works		To be postponed until 20 <sup>th</sup> January, some works will be auctioned on a priority basis	Jeff			
OCA		All access has been checked and is visible, updates on these actions will be circulated via templates. Latest situation report sent through Fri PM	Mike H and Comms team			
Control Room back ups		Sby generator checked and working, refuelled to 100% and arrangements made with supplier to restock if required.	Mike/Jeff			
Chemical orders		Chemicals delivered to Chambers Flat, Wade to produce list of other requirements by site and chase orders with control room-update, chemicals reviewed and supplies increased of hypo and ammonia at all sites, deliveries organised for Tomorrow and Monday. No issues based on current flows.	Wade			
Control Room Resource		<ul style="list-style-type: none"> <li>No issues at present staff rotating as per plan.</li> <li>Shift working plan to be completed following review at 15.30</li> <li>Recovery plan will include potential shift working during recovery period( inc weekends)</li> </ul>				
Recovery Plans		Steve O'Brien and James Moffat providing input into system recovery plans by supply area. QUU supplying information on requirements. Plan circulated and agreed will be monitored by Control Room and Network manager over weekend. Shifts are in place to assist with fatigue management. Control room has been briefed on plans. Various scenarios based on demands and asset failure have been included in plan	Steve/James			
Summary		Supplies have improved over last few hours, storages have increased slightly, QUU taking water into priority reservoirs and the network status in terms of comms and water quality is otherwise healthy.				



## LinkWater Severe Weather Recovery Plan Jan 2011

10/1/2011

	Action No.	Details	Persons Responsible	By When	Comments	Complete
System Status/Networks Jeff Browne	1.1	Review of storage levels, ideally to be reduced to 350 ML max operating band.	Jeff Browne	21 <sup>st</sup> Jan	Reduce operational risk with WQ	
	1.2	Agree with Contract and Maintenance officer planned works for week ahead.	Jeff/Craig	20 <sup>th</sup> Jan	Ensure all corrective and breakdowns are identified	
	1.3	Carry out review of system performance	Jeff	21 <sup>st</sup> Jan	Check and identify any non operational assets	
	1.4	Liaise with SEQ Water on any planned works for remainder of period and consider storage and manpower requirements	Jeff	21 <sup>st</sup> Jan	To identify any upcoming emergent works which may require operator involvement and a storage impact.	
	1.5	Liaise and discuss with QUU and Allconnex similar activities which may require enhance LinkWater attention,	Jeff	21 <sup>st</sup> Jan		
	1.6	Review of transfer volumes on SRWP and NPI	Jeff/Steve	19 <sup>th</sup> Jan	Review and reduce as required	
	1.7	Update and discuss January Grid Instructions with Technical Systems manager	Jeff/Steve/James	20 <sup>th</sup> Jan	Identify and prioritise target areas	
	1.8	Discuss with QUU future storage levels by asset for remainder of Summer Period	Jeff/Steve	21 <sup>st</sup> Jan	Target specific sites and agree increases if required and communicate to control room.(s)	
2.0 Service Contract (Craig Menieke)						
Service Contract	2.1	List of all corrective and break downs relating to flood damage and any others that will have impact on supply. List to be supplied weekly showing actual complete against outstanding.	Craig	20 <sup>th</sup> Jan	An updated report showing corrective and breakdowns by asset type	
	2.2	Bundamba and Esk Recovery plans to be circulated and a project management plan is required.	Craig/Steve	21 <sup>st</sup> Jan	Actions required and costs to secure site in similar format as this plan. A condition report is also required	
	2.3	Additional Capex requirements as a result of incident to be submitted in project justification format.	Craig/Steve	21 <sup>st</sup> Jan	Jeffs requirements for capex to be submitted to Asset Management.	

	Action No.	Details	Persons Responsible	By When		
	2.4	Calibration of equipment such as meters and essential equipment to be brought forward into January plan	Craig	21 <sup>st</sup> Jan	Metering and analysers to be checked against operating regimes	
	2.5	Maintenance Review required based on annual maintenance plan, to check off any failures over period to review shortcomings	Craig/Glen	25 <sup>th</sup> Jan		
<b>3.0 SCADA</b>						
<b>SCADA Faults Central area</b>	3.1	The following sites have been reported as non operational and cannot be communicated with; 1. Illaweenaa St 2. Scarborough Hill 3. Bald Hills 4. Golf Links Rd (Prior to Floods) 5. Mt Crosby Rd 6. Wacol Station Rd	Hanny	21 <sup>st</sup> Jan	Logica attending	
<b>SCADA Faults Other areas</b>	3.2	On SRWP Pipeline, the following sites are offline with no visibility: 1. Bundamba Pump Station 2. Bundamba Offtake 3. Brisbane Connection Area (Including Flow Valve) 4. Camerons Hill Water Quality	Hanny	21 <sup>st</sup> Jan	Blackstone Offtake has come back online, its outage may have been a transient and not related to the floods. JPR and Hanny will be attending Bundamba 18 <sup>th</sup> Jan	
<b>SCADA</b>	3.3	System backups and diagnostic check of all scada systems required	Hanny	21 <sup>st</sup> Jan	Hanny to check for any issues with data	
<b>4.0 Capex and Alliance Works</b>						



	Action No.	Details	Persons Responsible	By When		
Capex requests	4.1	<p>Justification requests for the following are to be completed and submitted to Asset Management.</p> <p>Mt Crosby System</p> <ul style="list-style-type: none"> <li>o 450 valve is faulty &amp; must be replaced</li> <li>o 675 valve is in the same isolation &amp; having these 2 valves will provide an alternate supply via Westbank if we were to lose the 675 river crossing at the Mt Crosby weir.</li> </ul> <p>Upgrading of comms to the SRWP control valve at Mt Crosby. This is a critical valve which we lost control of when Bundamba PS was inundated. (Hany is investigating relocation of the PLC &amp; 3G back up options</p> <ul style="list-style-type: none"> <li>➤ Some mobile 3 phase gen sets. To enable valve control &amp; pump operation if required.</li> <li>➤ Investigate availability of portable and perm dosing equipment</li> </ul>	Jeff/Steve /Craig	21 <sup>st</sup> Jan	Compile project justification requests	
Capex Works	4.2	Meet with Project Services to revisit programme and re-prioritise	Jeff/Steve	21 <sup>st</sup> Jan	Capex programme is a priority, planned works to be reviewed to check system availability and resource. Steve to meet with PS to reprioritise programme.	
Capex Resource	4.3	Review SC recruitment for additional staff to assist	Craig	21 <sup>st</sup> Jan	Timescales and progress required.	
5.0 Asset Condition						
Damaged Assets	4.4	<p>Damage to following assets;</p> <ul style="list-style-type: none"> <li>o Bundamba</li> <li>o Bundamba off take</li> <li>o Esk.</li> </ul> <p>Steve O'Brien, project managing, collating damage reports and estimates.</p>	Steve	25 <sup>th</sup> Jan	Focus on restabilising comms , prepare report on damage and cost estimates submit report and justification to Asset Management and Andrew Cambell	
Pipeline Inspections	4.5	Sub Contract pipeline crews to investigate pipeline condition in affected areas and carry out leakage tests-Start 19 <sup>th</sup> Jan	Steve/Craig		Teams to start 19 <sup>th</sup> Jan. Craig and Steve to complete scope.	

	Action No.	Details	Persons Responsible	By When																										
Pipeline Maintenance	4.6	Work orders created for identified works, Rocklea, Mudgereeba etc, Craig to follow up	Craig	21 <sup>st</sup> Jan																										
Mass Balance	4.7	Verification required of mass water balances across system to ascertain areas of concern/loss/meter accuracy.	James M	21 <sup>st</sup> Jan	James to run model, areas of interest to be passed to Steve/Jeff																									
5.0 Water Quality																														
Sampling regime	5.1	To remain as per the Summer plan, review in March. LIMS analysis on performance to be completed weekly and report to be submitted to Network Team	Mark	21 <sup>st</sup> Jan	Summary report required																									
Sampling Points	5.2	<div><div>A number of sampling points have been identified that cannot be accessed due to debris and damage.</div><table><tr><td>Golf Links Rd 1530</td><td>LW-BTA01-TM021</td></tr><tr><td>Golf Links Rd 1220</td><td>LW-BTA01-TM022</td></tr><tr><td>Golf Links Rd 910</td><td>LW-BTA01-TM023</td></tr><tr><td>Moggil Rd</td><td>LW-BTA01-TM001</td></tr><tr><td>Moggil Rd</td><td>LW-BTA01-TM002</td></tr><tr><td>Moggil Rd</td><td>LW-BTA01-TM003</td></tr><tr><td>Chandler Park Indoorcplily</td><td>LW-BTA01-TM062</td></tr><tr><td>Dudley Street, Sherwood</td><td>LW-BTA01-TM060</td></tr><tr><td>Ducie Street, Darra</td><td>LW-BTA01-TM059</td></tr><tr><td>Stevens Street, Yeronga</td><td>LW-BTA01-TM063</td></tr><tr><td>Freney Street, Rocklea</td><td>LW-BTA01-TM064</td></tr><tr><td>Boundary Road, Oxley</td><td>LW-BTA01-TM065</td></tr></table><div>Areas to be cleaned and disinfected with Hypo.</div><div>List provided to SC, updates required on progress daily</div></div>	Golf Links Rd 1530	LW-BTA01-TM021	Golf Links Rd 1220	LW-BTA01-TM022	Golf Links Rd 910	LW-BTA01-TM023	Moggil Rd	LW-BTA01-TM001	Moggil Rd	LW-BTA01-TM002	Moggil Rd	LW-BTA01-TM003	Chandler Park Indoorcplily	LW-BTA01-TM062	Dudley Street, Sherwood	LW-BTA01-TM060	Ducie Street, Darra	LW-BTA01-TM059	Stevens Street, Yeronga	LW-BTA01-TM063	Freney Street, Rocklea	LW-BTA01-TM064	Boundary Road, Oxley	LW-BTA01-TM065	Manny/Craig	25 <sup>th</sup> Jan	Sample points to be cleared by end of week	
Golf Links Rd 1530	LW-BTA01-TM021																													
Golf Links Rd 1220	LW-BTA01-TM022																													
Golf Links Rd 910	LW-BTA01-TM023																													
Moggil Rd	LW-BTA01-TM001																													
Moggil Rd	LW-BTA01-TM002																													
Moggil Rd	LW-BTA01-TM003																													
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Freney Street, Rocklea	LW-BTA01-TM064																													
Boundary Road, Oxley	LW-BTA01-TM065																													



	Action No.	Details	Persons Responsible	By When		
Water Quality Reporting	5.3	A summary report required and comparison on WQ performance from Dec 09-Jan 17 <sup>th</sup> 10 and the same period this year	Wade/Mark	21 <sup>st</sup> Jan	As discussed in review Monday 17 <sup>th</sup>	
6.0 Health and Safety						
Risk Assessments	6.1	Darren Blackwell to update generic risk assessments for SD team access and verify the SC has considered updated risks and communicated accordingly, in particular, flooded sites, pipeline crossings in flood water and unstable ground	Darren	21 <sup>st</sup> Jan		
Vaccinations	6.2	Prepare list of people requiring vaccinations such as Hep A and B. List and schedule to corporate services, update training records	Darren/Julia	21 <sup>st</sup> Jan		
Areas	6.3	List required for circulation of affected areas and assets such as Pumping stations and SRV's that are in these areas for communication to all LinkWater staff	Darren/Julia	21 <sup>st</sup> Jan		
Incidents/Near Misses	6.4	All reported incidents/injuries to be reported to WH&S team and Manager Service Delivery immediately	Darren/Julia	21 <sup>st</sup> Jan	Communicate to SC	
7.0 Cost Recovery						
Internal Order	7.1	Finance to establish order number for all costs to be charged to including time, contractors and materials.	Chris	20 <sup>th</sup> Jan	Obtain Number and circulate to team	
Reporting	7.2	A weekly report on costs and activity	Craig	21 <sup>st</sup> Jan		

## LinkWater Severe Weather Recovery Plan Jan 2011

1<sup>st</sup> Review 19th January 2011 15.30

	Action No.	Details	Persons Responsible	By When	Comments	Complete
System Status/Networks Jeff Browne	1.1	Review of storage levels, ideally to be reduced to 350 ML max operating band. Update problems at Crosby increase max storage to 400ML	Jeff Browne	21 <sup>st</sup> Jan	Turnover between 300-400ML. Sludge capacity storage at Mt Crosby,	
	1.2	Agree with Contract and Maintenance officer planned works for week ahead.	Jeff/Craig	20 <sup>th</sup> Jan	Completed, review for next week at Thursday Meeting	
	1.3	Carry out review of system performance	Jeff	21 <sup>st</sup> Jan	Ongoing, no issues at present	
	1.4	Liaise with SEQ Water on any planned works for remainder of period and consider storage and manpower requirements	Jeff	21 <sup>st</sup> Jan	To identify any upcoming emergent works which may require operator involvement and a storage impact?	
	1.5	Liaise and discuss with QUU and Allconnex similar activities which may require enhance LinkWater attention,	Jeff	21 <sup>st</sup> Jan	Allconnex reviewing QUU require re-commissioning of Eildon Hill. Jeff discussing timing.	
	1.6	Review of transfer volumes on SRWP and NPI	Jeff/Steve	19 <sup>th</sup> Jan	SRWP and NPI reduced action complete	
	1.7	Update and discuss January Grid Instructions with Technical Systems manager	Jeff/Steve/James	20 <sup>th</sup> Jan	Complete, discussed with WGM amended, JM agreeing metering volumes	
	1.8	Discuss with QUU future storage levels by asset for remainder of Summer Period	Jeff/Steve	21 <sup>st</sup> Jan	Target specific sites and agree increases if required and communicate to control room.(s)	
2.0 Service Contract (Craig Menieke)						
Service Contract	2.1	List of all corrective and break downs relating to flood damage and any others that will have impact on supply. List to be supplied weekly showing actual complete against outstanding.	Craig	21 <sup>st</sup> Jan	40 jobs reported so far, 40% completed as of today. Review 21st	
	2.2	Bundamba and Esk Recovery plans to be circulated and a project management plan is required. Update site has now been cleaned. Power	Craig/Steve	21 <sup>st</sup> Jan	Actions required and costs to secure site in similar format as this	



	Action No.	Details	Persons Responsible	By When		
		supply isolated, JPR contractors compiling damage report. Estimated time before recommissioning 3-4 weeks			plan. A condition report is also required Ongoing	
	2.3	Additional Capex requirements as a result of incident to be submitted in project justification format.	Craig/Steve	21 <sup>st</sup> Jan	Complete submitted to AM	
	2.4	Calibration of equipment such as meters and essential equipment to be brought forward into January plan	Craig	21 <sup>st</sup> Jan	Metering and analysers to be checked against operating regimes	
	2.5	Maintenance Review required based on annual maintenance plan, to check off any failures over period to review shortcomings	Craig/Glen	25 <sup>th</sup> Jan		
<b>3.0 SCADA</b>						
<b>SCADA Faults Central area</b>	3.1	The following sites have been reported as non operational and cannot be communicated with; 1. Illaweena St-Complete on line 2. Scarborough Hill -back on line 3. Bald Hills-back on line 4. Golf Links Rd (Prior to Floods)-still underwater 5. Mt Crosby Rd-back on line 6. Wacol Station Rd-back on line 7. Sparkes Hill off as a result of power issues is now back on line	Hanny	21 <sup>st</sup> Jan	Logica attending	
<b>SCADA Faults Other areas</b>	3.2	On SRWP Pipeline, the following sites are offline with no visibility: 1. Bundamba Pump Station-awaiting report 2. Bundamba Offtake-awaiting report 3. Brisbane Connection Area (Including Flow Valve)back on line 4. Camerons Hill Water Quality back on line	Hanny	21 <sup>st</sup> Jan	Awaiting JPR report	
<b>SCADA</b>	3.3	System backups and diagnostic check of all scada systems required	Hanny	21 <sup>st</sup> Jan	Hanny to check for any issues with data	

	Action No.	Details	Persons Responsible	By When		
4.0 Capex and Alliance Works						
Capex requests	4.1	<p>Justification requests for the following are to be completed and submitted to Asset Management.-completed</p> <p>Mt Crosby System</p> <ul style="list-style-type: none"> <li>o 450 valve is faulty &amp; must be replaced-complete</li> <li>o 675 valve is in the same isolation &amp; having these 2 valves will provide an alternate supply via Westbank if we were to lose the 675 river crossing at the Mt Crosby weir.-complete</li> </ul> <p>Upgrading of comms to the SRWP control valve at Mt Crosby. This is a critical valve which we lost control of when Bundamba PS was inundated. (Hany is investigating relocation of the PLC &amp; 3G back up options-complete</p> <ul style="list-style-type: none"> <li>➤ Some mobile 3 phase gen sets. To enable valve control &amp; pump operation if required.-complete</li> <li>➤ Investigate availability of portable and perm dosing equipment -submitted</li> </ul>	Jeff/Steve /Craig	21 <sup>st</sup> Jan	Compile project justification requests	
Capex Works	4.2	<p>Meet with Project Services to revisit programme and re-prioritise.</p> <ul style="list-style-type: none"> <li>o Awaiting confirmation from NNA for acceptance of proposed new dates for works at Morayfield – Paul Tanner to reply by the end of the week</li> <li>o Barrel union job at Learoyd Road has been re-schedules for mid Feb – Sent permit request to QUU. Martin Murray accepted proposed new date</li> <li>o Toowoomba walk-trough and pump removal works on hold – Gary Patterson to advise</li> <li>o Green Hill work suspended due to ongoing supply issues – Re-evaluate once incoming water quality settles down. Possibly to be done in parallel with Aspley works</li> <li>o Byrnes Road compressor test – brought forward and completed as part of mitigation for loss of NPi / North</li> </ul>	Jeff/Steve	21 <sup>st</sup> Jan	Discussions have started, more info required on GreenHill and Aspley upgrades to agree dates.	



	Action No.	Details	Persons Responsible	By When						
		Pine during flood event <ul style="list-style-type: none"><li>North Pine pump tests (4A and 4B) re-scheduled for late January</li></ul>								
Capex Resource	4.3	Review SC recruitment for additional staff to assist	Craig	21 <sup>st</sup> Jan	Timescales and progress required.					
5.0 Asset Condition										
Damaged Assets	4.4	Damage to following assets; <ul style="list-style-type: none"><li>Bundamba</li><li>Bundamba off take</li><li>Esk.-being handled by Project Services and TPA</li></ul> Steve O Brien, project managing, collating damage reports and estimates.	Steve	25 <sup>th</sup> Jan	Focus on restabilising comms , Complete.Prepare report on damage and cost estimates submit report and justification to Asset Management and Andrew Cambell					
Pipeline Inspections	4.5	Sub Contract pipeline crews to investigate pipeline condition in affected areas and carry out leakage tests-Start 19 <sup>th</sup> Jan Plans issued highlighting river crossings, valve chambers and routes for leakage assessments.-update on progress weekly. Early balance assessments indicate some losses on SRWP and NPI. Team to focus on these areas	Steve/Craig		Teams to start 19 <sup>th</sup> Jan. Craig and Steve to complete scope.					
Pipeline Maintenance	4.6	Work orders created for identified works, Rocklea, Mudgereeba etc, Craig to follow up	Craig	21 <sup>st</sup> Jan	Complete, Rocklea gas cylinders removed					
Mass Balance	4.7	Verification required of mass water balances across system to ascertain areas of concern/loss/meter accuracy. Model and balance has been reviewed SRWP and NPI potential unaccounted for water-further review required by James	James M	21 <sup>st</sup> Jan	James to check timing of meter outputs and reduce scale to check if loss or meter error.					
5.0 Water Quality										
Sampling regime	5.1	To remain as per the Summer plan, review in March. LIMS analysis on performance to be completed weekly and report to be submitted to Network Team	Mark	21 <sup>st</sup> Jan	Summary report required					
Sampling Points	5.2	A number of sampling points have been identified that cannot be accessed due to debris and damage, <table><tr><td>Golf Links Rd 1580</td><td>LW-BTA01-TM021</td></tr><tr><td>Golf Links Rd 1220</td><td>LW-BTA01-TM022</td></tr></table>	Golf Links Rd 1580	LW-BTA01-TM021	Golf Links Rd 1220	LW-BTA01-TM022				
Golf Links Rd 1580	LW-BTA01-TM021									
Golf Links Rd 1220	LW-BTA01-TM022									

	Action No.	Details	Persons Responsible	By When	
Water Quality Reporting	5.3	Golf Links Rd 810 LW-BTA01-TM023	Manny/Craig	25 <sup>th</sup> Jan	Sample points to be cleared by end of week
		Mocoll Rd LW-BTA01-TM001			
		Mocoll Rd LW-BTA01-TM002			
		Mocoll Rd LW-BTA01-TM003			
		Chandler Park Indecorodilly LW-BTA01-TM082			
		Dudley Street, Sherwood LW-BTA01-TM060			
		Duple Street, Darra LW-BTA01-TM069			
		Stevens Street, Yeronga LW-BTA01-TM063			
		Fraser Street, Rocklea LW-BTA01-TM064			
		Boundary Road, Oxley LW-BTA01-TM065			
		Areas to be cleaned and disinfected with Hypo.-Complete			
		List provided to SC, updates required on progress daily			
		A summary report required and comparison on WQ performance from Dec 09-Jan 17 <sup>th</sup> 10 and the same period this year-Complete	Wade/Mark	21 <sup>st</sup> Jan	As discussed in review Monday 17th



	Action No.	Details	Persons Responsible	By When		
6.0 Health and Safety						
Risk Assessments	6.1	Darren Blackwell to update generic risk assessments for SD team access and verify the SC has considered updated risks and communicated accordingly, in particular, flooded sites, pipeline crossings in flood water and unstable ground	Darren	21 <sup>st</sup> Jan	Complete-	
Vaccinations	6.2	Prepare list of people requiring vaccinations such as Hep A and B. List and schedule to corporate services, update training records	Darren/Julia	21 <sup>st</sup> Jan	Availability has been circulated, people who visit sites are encouraged to attend GP for advice	
Areas	6.3	List required for circulation of affected areas and assets such as Pumping stations and SRV's that are in these areas for communication to all LinkWater staff	Darren/Julia	21 <sup>st</sup> Jan	Completed	
Incidents/Near Misses	6.4	All reported incidents/injuries to be reported to WH&S team and Manager Service Delivery immediately	Darren/Julia	21 <sup>st</sup> Jan	Communicate to SC-Issue at Sparkes Hill today Darren investigating. Investigation into Chemical spill has begun.	
7.0 Cost Recovery						
Internal Order	7.1	Finance to establish order number for all costs to be charged to including time, contractors and materials.	Chris	20 <sup>th</sup> Jan	Obtain Number and circulate to team-Steve Griffin to update on process	
Reporting	7.2	A weekly report on costs and activity	Craig	21 <sup>st</sup> Jan		



Priority	Asset	Site Name	Geographic location		Last Inspection		Was Inspected by		Comments	Comments
					Date	Time				
1	P-02121	Gramrow Rd P/Stn	South				Aaron Maxwell	accessible	2500 Sand bags available 500 sand bags are being filled at the moment	
2	W-02122	Gramrow Rd WQF	South					accessible	Waiting for response	
3	W-00542	Chambers Flat WQF	South		12.01.2011	828	Craig Gilvarry	accessible	Site is secure with no flood damage	
4	P-00541	Chambers Flats Pump Station	South		12.01.2011		Craig Gilvarry	accessible	Site is secure with no flood damage	
5	W-01512	Caloundra St WQF	North		12.01.2011		Mark Griffiths	accessible		
6	R-00551	Stapylton Balance Tank	South		12.01.2011		Dominic Marinucci	accessible	Site is secure with no flood damage	
7	T-00132	Bundamba Offtake	South		11.01.2011		Colin Organ	Inaccessible		
8	W-00101	Camerons Hill WQF	North					Inaccessible	No Access available	No Access available
9	P-00561	Coomera Pump Station	South				Dominic Marinucci	accessible	Waiting for response	
10	W-00068	Heinemann Rd Res. #2&3 WQF	South		12.01.2011		Woody	accessible	Low Level water across road	
11	W-00067	Heinemann Rd Reservoir #1 WQF	South		12.01.2011		Woody	accessible	Low Level water across road	
12	R-00531	North Beaudesert Balance Tank 1	South		12.01.2011		Craig Gilvarry	accessible	Site is secure with no flood damage	
13	R-00532	North Beaudesert Balance Tank 2	South		12.01.2011		Craig Gilvarry	accessible	Site is secure with no flood damage	
14	R-00002	Green Hill Reservoir 1	North				Tim Medham	accessible	Waiting for response	
15	R-00037	Green Hill Reservoir 2	North				Tim Medham	accessible	Waiting for response	
16	R-00062	Heinemann Rd Reservoir 2	South		12.01.2011		Woody	accessible	Low Level water across road	
17	R-00063	Heinemann Rd Reservoir 3	South		12.01.2011		Woody	accessible	Low Level water across road	
18	P-00581	Molendinar Pump Station	South				Dominic Marinucci	accessible	Waiting for response	
19	W-01101	Morayfield Reservoir WQF	North				Tim Medham	accessible	Waiting for response	
20	R-07050	Robina Mixing Reservoir	South				Dominic Marinucci	accessible	Waiting for response	
21	R-00038	Sparkes Hill Reservoir 2	North		12.01.2011		Michael McLoughlan	Inaccessible	Site is secure with no flood damage	
22	T-00174	Springfield LLZ Offtake	South					Inaccessible		
23	P-07100	Tarrant Dve Pump Station	South				Dominic Marinucci	accessible	Tarrant drive air conditioner failed - Air Management called Dom to allow access to site	
	R-00003	Wellers Hill Reservoir 1	South		12.01.2011		Michael McLoughlan	accessible	Site is secure with no flood damage	
	R-00004	Wellers Hill Reservoir 2	South		12.01.2011		Michael McLoughlan	accessible	Site is secure with no flood damage	
26	W-00552	Stapylton WQF	South		12.01.2011		Dominic Marinucci	accessible	Site is secure with no flood damage	
27	W-00531	North Beaudesert Balance Tank WQF	South		12.01.2011		Craig Gilvarry	accessible	Site is secure with no flood damage	
28	W-01052	North Pine WQF	North				Tim Medham	accessible	Waiting for response	
29	T-00380	Helensvale Offtake	South				Dominic Marinucci	accessible	Waiting for response	
30	P-00008	Kimberley Park Pump Station	South				Tony Smith	accessible	Waiting for response	
31	R-00006	Kimberley Pk Reservoir	South				Tony Smith	accessible	Waiting for response	
32	P-00031	Learoyd Road Pump Station	South				Tony Smith	accessible	Waiting for response	
33	P-00007	Lloyd Street Pump Station	South		12.01.2011		Michael McLoughlan	accessible	Site is secure with no flood damage	
34	T-00429	Logan Offtake	South		11.01.2011	Late	Craig Gilvarry	accessible	Site is secure with no flood damage	
35	R-00081	Narangba Reservoir 1	North				Tim Medham	Inaccessible	Waiting for response	
36	R-00082	Narangba Reservoir 2	North				Tim Medham	Inaccessible	Waiting for response	
37	R-00083	Narangba Reservoir 3	North				Tim Medham	Inaccessible	Waiting for response	
38	T-00340	Ormeau Offtake	South				Dominic Marinucci	accessible	Waiting for response	
39	T-00354	Pimpama Offtake	South				Dominic Marinucci	accessible	Waiting for response	
40	P-00015	Trinder Park Pump Station	South				Tony Smith	accessible	Waiting for response	
41	P-00017	Wellers Hill Pump Station	South		12.01.2011		Michael McLoughlan	accessible	Site is secure with no flood damage	
42	P-00023	Daisy Hill Pump Station	South				Tony Smith	accessible	Waiting for response	
43	R-00016	Kimberley Pk BOH Tank	South				Tony Smith	accessible	Waiting for response	
44	P-00040	Alexander Hills Pump Station	South		12.01.2011		Woody	accessible	Site is secure with no flood damage	
45	P-00021	Aspley Pump Station	North		12.01.2011	7:30	Andrew Brimson	Inaccessible		
46	R-00027	Aspley Reservoir	North		12.01.2011	7:30	Andrew Brimson	Inaccessible		
47	P-00501	Bundamba Pump Station	South		11.01.2011		Colin Organ	Inaccessible	Air valves to be inspected in and around Bremer River.	Power may need to be cut, Flow meter pit High level alarmed
48	P-00080	Byrnes Road Pump Station	North				Tim Medham	accessible	Waiting for response	
	R-00005	Clover Hill Reservoir	South				Dominic Marinucci	accessible	Waiting for response	
	P-00050	Eprapah Pump Station	South				Aaron Maxwell	accessible	Waiting for response	
51	R-00071	Mt Cotton Reservoir 2	South				Aaron Maxwell	accessible	Waiting for response	
52	W-01186	Caloundra Main Connection WQF	North					accessible		
53	P-00013	Mudgeeraba Pump Station	South		11.01.2011		Dominic Marinucci	accessible	Waiting for response	Tony Surma Horres
54	P-00018	Stones Road Pump Station	South				Michael McLoughlan	accessible	Waiting for response	
55	R-00009	Sparkes Hill Reservoir 1	North					Inaccessible	Not currently in use	Not currently in use
56	T-00414	Beaudesert Offtake	South		11.01.2011	Late	Craig Gilvarry	accessible	Site is secure with no flood damage	Not currently in use
57	T-00143	Blackstone Offtake	South					Inaccessible	Not currently in use	Not currently in use
58	P-00014	Camerons Hill Pump Station	North					Inaccessible	Not currently in use	Not currently in use
59	T-01101	MORAYFIELD OFFTAKE	North					Inaccessible	Not currently in use	Not currently in use
60	T-00165	REDBANK PLAINS OFFTAKE	South					Inaccessible	Not currently in use	Not currently in use
61	T-00183	SPRINGFIELD HLZ OFFTAKE	South					Inaccessible	Not currently in use	Not currently in use
62	T-00160	SWANBANK OFFTAKE	South					Inaccessible	Not currently in use	Not currently in use
63	P-00511	SWANBANK PUMP STATION	South					Inaccessible	Not currently in use	Not currently in use
		Kuraby Reservoir	South					accessible		
		Nobles Rd Off take	North					Inaccessible		
		Ellimbah Off take	North					Inaccessible		

Bald Hill Flats

Mark Davanzo

Poly tank against main



# Incident Management Register



Incident Overview:	Incident Number/ID	Incident Description				Incident Level	Time Declared:	Declared by:	
		Floods SEQ					4pm 11/1/11	CEO	
Time/Date	Incident Number/ID	From		To	Log Details	Action Required	Priority	Complete	Comments
7.15am 12-1-11									IT required to set up accounts for 25 people.
7.30 am/12 Jan 2011									
	</								

11:00 am		LinkWater EMT meeting	Peter McManamon; Sally Fraser, Mike Hertz, Kelvin Tytherleigh; Andrew Moir				Security was discussed. This issue was not resolved and will be discussed at the next EMT meeting. Staff schedule to be developed. Visiting staff from WGM are not to wedge open doors in stairwells Stacey Renouf to advise WGM staff. Stacey to advise WGM staff they are to work at Level 6 only. Stacey to confirm 24/7 roster with WGM and advise Peter. Security cards are allocated against names and can be voided if they're not handed in. All cards are 24/7. Kelvin to liaise with IT and confirm security cameras are operational.	Stacey Renouf				
12:00		Seek					Advised there was no issue with their infrastructure or our data.					
4:00pm		LinkWater EMT afternoon meeting	Peter McManamon, Sally Fraser, Ron Adneron, Mike Hertz, Stacey Renouf, Kelvin Tytherleigh, Fran Rozsberg				Peter tabled an operating plan update and an inspection sheet for Bundamba.					
							Hospitality. A list of open food outlets has been provided to WGM. WGM staff are to organise their own meals.					
							LW resources. No staff (beyond Control Room staff and admin/security staff) are required to be at work 24/7. On call staff are available at 30 mins notice if needed. Peter endorsed on call roster for LW. Fran to distribute to all on roster. General managers are to determine who are key staff, contact them by COB today (12 Jan) and advise them to be at work if they can safely travel to and from work. Key staff who use public transport and cannot due to services down will be reimbursed parking (not travel expenses). Others (not key staff) who can get in should try to get in to work. WGM predicts they'll be back in their office Monday. Some desks are being occupied by others. Stacey to prepare a comms email to staff to speak to their managers about finding another desk space.	GMs,				
							EMT - Andrew Moir is the Incident EMT on call rep. Mike Hertz is back up. EMT Crisis Management Team to meet until Wed next week.					



[illegible]

						OCA disclaimer - all OCA users to include it re accuracy of info. AM to liaise with James to remind him.					
						GMs - to finalise rosters from now until Wednesday next week (including weekend work)					
						NNA - needs help coordinating their insurance. Ron to liaise with Will H to supply resources.					
						Will to update Peter re Board paper status. GMs have not finished board papers. GMs to focus on it today. Get them to Will H who will send them to Andrew. BPRs - Ron waiting on exec summaries from GMs. BPRs must be finalised by tomorrow.					
						Confirmation of rosters going forward- see attachments for reception and IT	Kelvin to finalise rosters				
						Operations update- WGM will make call tomorrow afternoon about whether to stay based at LinkWater until Wednesday. They will make call on Monday. We will run incident until Wednesday earliest. We may look at staff pairing arrangements with the WGM to prevent fatigue and to promote training etc. This offer was made by the CEO	Barry D. Will get back to Peter M. Re this				
						Rosters for reception, ops etc- See attachments for Reception and IT requirements	Sally and Kelvin to check gate on Level 1 and general security issues in the event of a power outage				
						Need for management to be visible to visitors at all times.	Kelvin to work with GMs on a roster. Stacey Renouf available as well.				
						Staff availability- some staff have been given work to work at home (legal) /all of finance in tomorrow. Most staff expected back on Monday.					
						OCA- revise instructions cards and get to GMs.	Stacey Renouf				
						Operational Report-					
						24 hr access cards - Sally to contact exiting personnel for immediate return of access cards	Sally Frazer				
						Emergency management roles - stacey to draft a communication to staff. Peter to approve. A new schedule (see folder) has been distributed and approved. Peter has commenced at 9am. Sally proposed a CEO-level 'approver' role needs to be implemented for LinkWater. Sally to ask Peter. Keith to shadow Dan today. Peter to take Saturday as ERP manager. Peter to also manage response to supply side (Mt Crosby issue).					
						Staff communication for 14 Jan - to include 'business as usual' message. And Peter's emergency response manager role, buses are free.					
						hospitality - none from now on except for Control Room. Other people to arrange their own lunches. Stacey to arrange subway for control room.					



[illegible]

[illegible]



[illegible]

[illegible]



388707

## E-mail Message

From:

To:

Cc:

Sent:

Received:

Subject:

12/01/2011 at 10:08 AM

12/01/2011 at 10:08 AM

Message from Emergency Manager

This message is being sent on Dan Spiller's behalf:

All,

The flood and impacts on water supply has been declared a Level 4 incident under the Emergency Management Plan.

The purpose of this email is to formalise the arrangements that been implemented to manage the proposed management response.

The Emergency Executive Team is:

Emergency Manager: Daniel Spiller [REDACTED]

Communications Manager: Michael Lyons [REDACTED]

Coordination Executive: Scott Denner [REDACTED]

I require each entity to nominate an executive level manager to sit on the Emergency Management Team. Notification should be to [REDACTED]

The Emergency Management Team will have twice daily teleconferences at 0730 and 1600 and at other times as required. At this stage, the EMT will be physically based in the Linkwater offices at Level 6, 200 Creek Street. I request that Linkwater and Seqwater representatives be based in the room for the two teleconferences.

Michael Lyons has formally establish a communications team. This team will also be based at Level 6, in an adjacent room.

Because of the scope and complexity of issues being addressed, I am establishing separate Technical Coordination Teams, as discussed at the teleconference this morning. The teams and Chair organisations are:

- Stand-alone towns (Seqwater)
- Chemical supply management (Seqwater)
- Water quality (Linkwater)
- Coordination of staff resources (Chris Evans, Linkwater)
- Water balance (Jeff Brown, Linkwater)
- Demand management (Michael Lyons, WGM).

I require each organisation to nominate appropriate representatives and Chairs by 1030.

The Chairs of these groups report to the EMT at the scheduled teleconferences and at other times as required.

The Chairs are to immediately convene groups, as discussed at the teleconference this morning.

Given the number of issues that may arise, I am anxious to fully utilise OCA. Each time they meet, we require the notes and outcomes of the meetings to be logged and tasks assigned through OCA (including by emailing  
[REDACTED]).

Other agencies will nominate appropriate representatives, including for water quality.

The emergency phone number is [REDACTED]

I appreciate your support. Please advise if you have any queries or require any further information.



Regards,

Dan

SEQ Water Grid Manager

Mob 

388710

## E-mail Message

**From:** Peter McManamon [EX:/O=LINKWATER/OU=FIRST ADMINISTRATIVE GROUP/CN=RECIPIENTS/CN=PMCMANAMON]  
**To:** [REDACTED]  
**Cc:** Andrew Moir [EX:/O=LINKWATER/OU=First administrative group/cn=Recipients/cn=Andrew.Moir]  
**Sent:** 12/01/2011 at 11:00 AM  
**Received:** 12/01/2011 at 11:00 AM  
**Subject:** EMT appointments

Dan

I refer to your earlier email

I will nominate and then confirm appointments after 1100 LinkWater EMT meeting.

I nominate Andrew Moir (General Manager Operations) to be on the EMT

The following nominations for the sub committees are in bold.

- Stand-alone towns (Seqwater)
- Chemical supply management (Seqwater)
- Water quality (LinkWater) Mark Crabtree
- Coordination of staff resources (Chris Evans, Linkwater) Chris Evans
- Water balance (Jeff Browne, LinkWater) Jeff Browne
- Demand management (Michael Lyons, WGM).

If LinkWater nominations for the other committees are required, I can provide those nominations after 1100.

Peter

Peter McManamon  
Chief Executive Officer

P [REDACTED]  
 Level 5, 200 Creek Street | PO Box 1045 | Spring Hill Qld 4004  
 e [REDACTED] | w www.linkwater.com.au

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 One ream of paper = 225 litres water & 20kg greenhouse gases & 3kg coal & chemicals & 0.05 fully grown trees



**From:** Dan Spiller [REDACTED]  
**Sent:** Friday, 14 January 2011 8:11 AM  
**To:** Dan Spiller; Peter McManamon; 'Peter Borrows'; [REDACTED]  
**Cc:** Barry Dennien; 'Best Debbie'; 'Bradley John'  
**Subject:** RE: Proposed changes to emergency management roles

All,

Thanks for agreement to the proposed changes.

Peter Mc is dedicated to scenario and response planning today, in the event that additional treatment capacity does not become available.

Keith will shadow me today, as part of a handover.

I will send out an email to all entities advising of the change.

Regards,

Dan

---

**From:** Dan Spiller  
**Sent:** Friday, January 14, 2011 12:41 AM  
**To:** [REDACTED] 'Peter Borrows'; [REDACTED]  
**Cc:** Barry Dennien; 'Best Debbie'; 'Bradley John'  
**Subject:** Proposed changes to emergency management roles

All,

The flood response is likely to require ongoing high level involvement by the Water Grid entities over at least a week.

Across all roles, I am anxious that we implement measures to manage staff exhaustion.

As part of this, Barry and I recommend changes to the lead emergency management roles. In particular, we propose that a schedule be implemented with two executives on schedule at all times. These executive would be responsible for:

- Government liaison and media spokesperson

- Emergency manager, as defined in the ERP.

We propose that the liaison and spokesperson role be rotated between Barry and myself and the emergency manager role rotated between Peter Mc and Keith. This rotation would enable Peter B to continue to focus on operational issues.

Below is a draft timetable for your review and comment. I have listed myself as the emergency manager tomorrow, but could transfer responsibility to Peter Mc this morning, should he be available and willing (noting the late notice).

**I seek your comments and advice about this approach.**

I will also speak to key people tomorrow about options to reduce the number of meetings that are required and to focus those that remain.

Thank you for your ongoing support. Please speak to me if you have any queries or require any further information.

Regards,

Daniel Spiller

		Friday	Sat	Sun	Mon	Tues
Exec 1 (media/gov)	AM	Barry	Dan	Barry	Dan	Barry
	PM	Barry	Dan	Barry	Dan	Barry
Exec 2 (emergency)	AM	Dan	Keith	Peter M	Keith	Peter M
	PM	Dan	Keith	Peter M	Keith	Peter M

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395040

## E-mail Message

**From:** Peter McManamon [EX:/O=LINKWATER/OU=FIRST ADMINISTRATIVE GROUP/CN=RECIPIENTS/CN=PMCMANAMON]  
**To:** Water Grid Emergency Manager [REDACTED]  
**Cc:** Barry Dennien [SMTP: [REDACTED] Dan Spiller [REDACTED]  
[SMTP: [REDACTED] Keith Davies [REDACTED]  
[SMTP: [REDACTED]  
**Sent:** 18/01/2011 at 10:33 AM  
**Received:** 18/01/2011 at 10:34 AM  
**Subject:** Emergency Mnaagement Team

After discussions with Barry Dennien relating to business traffic and status of the recovery phase for all entities, I advise that I am formally standing down from the Team and that ongoing management of the incident passes to Scott Denner of WGM.

Peter

Peter McManamon  
 Chief Executive Officer

p (07) [REDACTED]  
 Level 5, 200 Creek Street | PO Box 1045 | Spring Hill Qld 4004  
 e peter.mcmanamon@linkwater.com.au | w www.linkwater.com.au

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## Kelvin Chin Fat

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**From:** Peter McManamon  
**Sent:** Tuesday, 11 January 2011 5:45 PM  
**To:** Steve Roberts; Graham Thomsen; John Orange (Home)  
[REDACTED]; ross.landsberg [REDACTED]; Catherine Sinclair  
**Subject:** LinkWater Severe Weather Update  
**Attachments:** LinkWater Severe Weather Update.docx

Hello All

It's been a big day.  
So far all systems are functioning and no real operational issues.

We are sand bagging our lower lying installations as a precaution and have marshalled necessary resources.  
We are running a 24 hr control room service and this is backed up by a dedicated operational team.  
We have accommodation booked overnight at Novatel for emergency purposes.  
We have offered assistance to other entities and are cooperating within the Grid.

g day will be Thursday and prediction is worse than 1974.  
All emergency systems have been tested.  
Our major risk is on flood drooping and aboveground structures being hit with trees etc  
We have a surveillance program in place and will accelerate this as safety dictates.

All non-essential staff sent home early today.  
We are keeping our fingers crossed on this one but have done all reasonably practical to be in the best possible position.  
Attached log sheet will give you an idea of operational contacts.

Peter



## Kelvin Chin Fat

---

**From:** Peter McManamon  
**Sent:** Wednesday, 12 January 2011 6:48 PM  
**To:** Steve Roberts; Catherine Sinclair; Ross Landsberg; Graham Thomsen; John Orange  
**Attachments:** 20110112182456173.pdf; 110112\_Briefing Note\_Flood Update\_v02.docx; 20110112182414803.pdf

Hello all

As you may have gathered we have been hosting both the WGM (about 25) and Seqwater (about 10) teams here today.

Both organisations had to evacuate and had major communications failures.

We have been supplying IT and laptops to the WGM emergency people as they did not have their own portable equipment.

The relocation was undertaken within an hour and all emergency management functions have been operating continuously.

We are in 24 hour mode and will be for the foreseeable future.

Water is being transferred normally but the turbidity of the raw water (>1000) is causing difficulties with the WTPs and the expected volumes for cleanup will swamp the delivery capability of those WTPs.

LinkWater is working with all groups and are running the water quality issues as well as logistics.

We are expecting the initial flood peak tomorrow morning at about 4am coinciding with the high tide with others to follow at 4pm etc.

As I have said previously our test will come from tomorrow but we have been planning for that.

The EMT has already begun the Crisis Recovery program and communications for this.

Our contractors and staff are ready to increase surveillance as the water drops and safety permits.

I have attached some summaries of activities today for your interest.

Thank you for your kind words and support expressed today.

I have passed this on to our staff.

I will have more information tomorrow for you.

Peter



**Peter McManamon**  
Chief Executive Officer

p [REDACTED]  
Level 5, 200 Creek Street | PO Box 1045 | Spring Hill Qld 4004  
e [REDACTED] | w [www.linkwater.com.au](http://www.linkwater.com.au)

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389038

## E-mail Message

From: Peter McManamon [EX:/O=LINKWATER/OU=FIRST ADMINISTRATIVE GROUP/CN=RECIPIENTS/CN=PMCMANAMON]  
 To: Steve Roberts [REDACTED], Catherine Sinclair [REDACTED], Ross Landsberg [REDACTED], Graham Thomsen [REDACTED], John Orange [REDACTED]  
 Cc:  
 Sent: 13/01/2011 at 6:49 PM  
 Received: 13/01/2011 at 6:49 PM  
 Subject: Untitled Message

---

Attachments: Sitrep 011.docx  
 2Teleconference-2010113-1600.docx  
 Severe Weather 13.01.2011-15.30.docx

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Hello All

In addition to the earlier material I have sent today please find attached some Sit Rep updates and our Operational condition report.

The usual minor comms failures at sites have been occurring as UPS supplies drain.

All affected sites have no external power as yet but are being reconnected.

We have been visiting available sites and re-energising comms links.

Only major comms loss is to Mt Crosby which has been down for about 4 hours.

We have work-arounds and will rectify formal system at first light tomorrow.

None of these issues has caused us any transport issues and we are still providing maximum service.

To date we do not have any service limiting infrastructure issues.

Minor equipment failures are not affecting transport and will be addressed on a priority basis.

A looming problem, however, is the wash down loads from retailers as people start recovering their properties.

Mt Crosby is currently restricting production due to turbidity conditions but after negotiations these restrictions are being progressively removed.

Whether we can make up for lost production opportunities over the last 24 hours will determine if we can maintain required supplies from tomorrow afternoon.

We are working with all parties to up-rate the WTP tonight and if we can do this we should be able to supply retailer needs from tomorrow.



If not we will have problems.

From today we are now also hosting Queensland Health Water Quality team and also the crisis team from DERM including Debbie Best.

We have rostered our technical and support staff on 8 hour shift basis each day until mid next week.

24 hour operations will continue until then.

Our Servicer contractor is performing well as are our support contractors.

Additional resources are on standby as the next few days will be critical for us.

I think the benefit of our new operational structure is showing.

Morale is still high and returning staff are helping with spreading the load.

I will pass more information as it comes to hand.

Peter

Peter McManamon  
Chief Executive Officer

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PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING THIS EMAIL - LinkWater Green  
Office Program  
One ream of paper = 225 litres water & 20kg greenhouse gases & 3kg coal &  
chemicals & 0.05 fully grown trees

## Kelvin Chin Fat

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**From:** Peter McManamon  
**Sent:** Friday, 14 January 2011 6:24 PM  
**To:** Steve Roberts; Catherine Sinclair; Ross Landsberg; Graham Thomsen; John Orange  
**Attachments:** Severe Weather 14 01 2011-14.00.docx; Water quantity management.docx; RE Proposed changes to emergency management roles.htm

Hello All

As you will gather I have been 'promoted' to the Emergency Management Team leader (with Keith Davies). See note from Dan Spiller for details.

Everything going ok now despite the problem of non operation of Crosby last night coming to reality. We had ramp up SRWP beyond its normal capacity and maximise production until East bank could be started. All LinkWater assets performing well and all comms restored as foreseen. We have amended rosters and will be 24/7 for foreseeable future (i.e. until end of next week)

I am on duty tonight and tomorrow but looks like we are making ground on storage so we can supply wash down water required by Councils.

All this is providing we don't lose any assets.

Also believe we are now on top of town supplies in the Lockyer, so that is a relief.

So in summary all going ok, our staff have been magnificent and we continue to host the grid entities, Health Department DERM and WGM.

More in due course

Peter

Ps I hope you are all doing ok with your own properties and thank you for all the kind words.

It means a lot to staff.



**Peter McManamon**  
Chief Executive Officer

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## **IMPORTANT INFORMATION - WORKING AT LINKWATER DURING THE CRISIS**

Dear guests,

We are pleased to accommodate Water Grid Manager and Seqwater staff during this crisis.

In order to provide you with the resources you need while working from the LinkWater office (while also maintaining our own limited staff), and to ensure security, please be aware of the following important information:

### **Building, lift and floor access**

- There are only a limited number of full access cards that will allow afterhours access to the building and levels 4, 5 and 6. These are labelled 'full access'.
- Limited access cards will only allow access to Level 4 or 5 and you must swipe the card when you get in the lift. You will need to use the staircases to get up to level 6.
- Visitors are reminded to carry their access cards with them at all times as you can get stuck in the stairwells without them. Please take your mobile phones with them at all times in case this happens.
- If you have any access issues, please call
- Please ensure that all access cards are returned to reception if you do not intend on working after hours.

### **IT and Equipment**

If you have any issues, please phone [REDACTED] and our IT team will assist you.

### **Provisions**

There are very limited provisions in and around the city. All visitors are advised to bring food with them as LinkWater also has limited staff and will not be able to organise provisions. There is a full staff room with a snack vending machine on Level 5 and a soft drink machine on Level 4. All floors have kitchen areas where visitors can help themselves to glasses and water. Please place all dishes in the dishwashers after use.

The following locations nearby may be open but you will need to phone first:

Cilantro's at the Novotel next door -Breakfast and dinner only, takeaway from room service menu

Halo's- cnr. Leichardt and Wharf St Spring Hill [REDACTED]

<http://www.stpaulstavern.com.au/halos>

Cafe Amadeus- 149 Wickham Tce [REDACTED]

<http://www.cafeamadeus.com.au/index.html>

Subway- 485 Boundary St Spring Hill [REDACTED]