

In the matter of the  
Commissions Of Inquiry Act 1950

Commission of Inquiry Order (No. 1) 2011

QUEENSLAND FLOODS COMMISSION OF INQUIRY

CLAYTON UTZ-(IPSWICH CITY COUNCIL  
STATEMENT OF CARL WULFF)  
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Volume 1 of 1 ORIGINAL

Witness Statement of Carl Christian Wulff

Chief Executive Officer

Ipswich City Council

QFCI

Date:

19/10/11

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## WITNESS STATEMENT OF CARL CHRISTIAN WULFF

This written statement is provided in response to a Requirement, dated 10 August 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, Carl Christian Wulff, Chief Executive Officer of the Ipswich City Council (variously described throughout this statement as "ICC" or "Council"), 45 Roderiek Street, Ipswich in the State of Queensland, state on oath as follows:

### Introduction and Qualifications

1. Ipswich is Queensland's oldest provincial City, located approximately 40 kilometres south-west of the Brisbane CBD and adjoining the Brisbane, Lockyer and Fassifern Valleys. Ipswich has a range of smaller townships within the western and rural areas of the City. The Bremer River and its tributaries flow through much of the City and surrounding region. The junction of the Brisbane and Bremer Rivers falls within the City boundary, at Riverview/Karalee to the north-east of the City.
2. The City has a population of approximately 175,000 and covers an area of 1,090 square kilometres. The Ipswich region is administered locally by the Ipswich City Council. The Council operates within the local government framework established by the Queensland Government through the *Local Government Act 2009* (Qld) and comprises a Mayor and 10 Divisional Councillors. The Council manages a net asset base in excess of \$2 billion.
3. On 4 July 2006 I commenced in the role as Chief Executive Officer of the Council.
4. As Chief Executive Officer I have various responsibilities under the *Local Government Act 2009 (Qld)*<sup>1</sup>, including oversight of the Council's operations, and the Chief Operating Officers of the Council's 6 functional Departments<sup>2</sup> report to me. I in turn report to and am accountable to the Council. Council has delegated powers to me (and I have in turn delegated powers to

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<sup>1</sup> Section 13(3) of the *Local Government Act 2009 (Qld)*

<sup>2</sup> The current Council Departments are Infrastructure Services, Works, Parks & Recreation, Community & Cultural Services, Planning & Development, Finance & Corporate Services and Health, Security & Regulatory Services. The Executive Secretariat, including the Office of Economic Development, Office of the Mayor and Internal Audit Branch are accountable to and report through me.

other Council officers) to make decisions on various matters within the scope of those delegations.

5. I have management responsibility for approximately 1300 employees and an annual budget of around \$500 million.
6. I am also a Director of a number of Council related entities: Ipswich City Enterprises, Ipswich City Enterprises Investments and Ipswich City Properties.
7. I hold the following qualifications:
  - Diploma of Engineering (Civil) - NSW Institute of Technology;
  - Bachelor of Engineering (Civil) - NSW Institute of Technology; and
  - Master of Business Administration - University of Wollongong.
8. I am also a member of a number of professional bodies and associations including the following:
  - Fellow of the Institute of Municipal Management.
  - Fellow of the Institute of Engineers Australia;
  - Fellow of the Institute of Public Works Engineering Australia;
  - Graduate of the Australian Institute of Company Directors; and
  - Member of the CEO Institute of Australia.
9. I have approximately 35 years experience, primarily in the public sector, initially as an Engineer, and, over the past 20 years, in public administration. Prior to my appointment as CEO of Ipswich City Council in 2006 my previous employment included:
  - 1976-1980: Senior Engineer, Fairfield City Council, NSW;
  - 1980-1981: Contracts Manager, Ackroyd Pty Ltd, NSW;
  - 1981-1983: Director, BRW Constructions Pty Ltd, NSW;
  - 1983-1985: District Engineer, Eurobodalla Shire Council, NSW;
  - 1985-1989: Division Engineer Wollongong City Council, NSW;

- 1989-1992: Manager Environmental Engineering, Wollongong City Council, NSW;
- 1992-1993: Manager Works, Wollongong City Council, NSW;
- 1993-2000: Deputy Chief Executive Officer, Wollongong City Council, NSW;
- 2000-2004: Group Manager City Services, City of Greater Dandenong, Victoria;  
and
- 2004-2006: Chief Executive Officer, City of Greater Dandenong, Victoria.

**Commission of Inquiry Requirement Notices dated 10 August 2011**

10. The Commission of Inquiry has issued 3 Requirements dated 10 August 2011 to myself and to the Ipswich City Council Head of Planning & Development, Mr John Adams, to provide written statements. There is:
- (a) some overlap in the content of the Requirements issued to myself and Mr Adams;
  - (b) some matters raised in the Requirement directed to me (for example information regarding changes to Council's land planning processes in response to the flood event) which are better addressed by Mr Adams; and
  - (c) some matters raised in the Requirements directed to Mr Adams (for example details of Council infrastructure affected by flooding) which are better addressed by me.
11. Where there is overlap in the Requirements, to avoid duplication, the most appropriate person as between myself and Mr Adams will respond to the Requirement. Also, in the interests of efficiency and avoiding duplication I will, where appropriate, cross-reference my statement to the statement of Mr Adams. I will also, where appropriate, cross-reference my statement to earlier submissions made by Ipswich City Council to the Commission of Inquiry without repeating the detailed information contained in those earlier submissions.
12. A key area which I will address in this statement is the impact of the 2011 flood event on ICC's infrastructure. However, before addressing that matter, I will comment briefly on two matters being:
- (a) my role during the January 2011 event; and
  - (b) the status of Council's response to the recommendations contained in the Commission of Inquiry's Report issued on 1 August 2011.

### **My role during the January 2011 flood event**

13. I was present in Ipswich throughout the duration of the January 2011 flood event. The Ipswich LDMG under the leadership of Mr Tony Trace as Local Disaster Coordinator was responsible for disaster management. I attended all LDMG meetings so that I was abreast of developments.
14. The immediate post event recovery was overseen by a local recovery task force lead by the Chief Operating Officer of the Health, Parks and Recreation Department [REDACTED]. Throughout the recovery operation I was kept updated by Mr [REDACTED].
15. The situation was very dynamic and I allowed the LDMG, the recovery task force and other Council officers to get on and perform their roles. My time was primarily spent in the field assessing first hand the impact of the event across the City and overseeing the logistical response. I kept in close contact with my Council team and intervened where it was appropriate to do so. I was also the primary interface between the executive and management teams and the Mayor and Councillors.

### **Queensland Floods Commission of Inquiry - Interim Report - ICC Response to Recommendations**

16. Following the release of the Commission of Inquiry's Interim Report and flood preparedness recommendations on 1 August 2011, I instructed the Ipswich City Solicitor to identify the recommendations relevant to Council and to the City, and to convert these recommendations into an operational document so that Council can monitor progress against implementation of the recommendations before the next wet season.
17. Council has identified that 72 of the 175 recommendations contained in the Interim Report are of immediate relevance to Council:
  - (a) Chapter 2 - Dams - 2 recommendations;
  - (b) Chapter 3 - Disaster Framework, preparation and planning - 5 recommendations;
  - (c) Chapter 4 - Forecast, warnings and information - 18 recommendations;
  - (d) Chapter 5 - Emergency Response - 46 recommendations; and
  - (e) Chapter 6 - Emergency Services - 1 recommendation.
18. These relevant recommendations have been reproduced in an operational matrix or spreadsheet which identifies, for each recommendation, the relevant ICC action, the ICC Department Head with responsibility for the action, the current status, the date of the last status update and the

date of completion (or implementation) of the recommendation. Attached to my statement and marked CCW-1 is a copy of the operational spreadsheet.

19. These recommendations are being implemented in conjunction with the work being undertaken the by the Ipswich City Local Flood Recovery Group (LFRG) and related recovery sub-groups, and the implementation of the ICC Community Recovery Plan. The role of and work being undertaken by the Ipswich City LFRG is detailed in the supplementary Ipswich Local Recovery Group and Disaster Preparedness Actions Plans submission provided to the Commission of Inquiry on 6 June 2011.
20. The ICC Department Heads responsible for implementing the respective actions detailed in the operational spreadsheet are also responsible for updating the status of the actions relevant to their areas of interest on a regular (fortnightly) basis.
21. The updated spreadsheets will be tabled fortnightly at a meeting of the executive and monthly through the LFRG (which includes Councillors as part of its composition). This will ensure that the implementation of the Commission's recommendations is appropriately monitored, progressed and resourced.
22. I expect that the significant majority of these recommendations will have either been implemented or substantially progressed by the time of commencement of the 2011/12 wet season. Some of the recommendations, either because of cost considerations, or because the implementation involves a whole of Government or multi-local government response may not be fully implemented by that time.
23. In around late October/early November 2011 I will provide the Commission with an update on the status of the implementation by Council of the Interim Report recommendations.
24. Recommendation 4.13 of the Commission of Inquiry's Interim Report provides that:

*"Councils should ensure that residents and businesses can clearly understand the impact of predicted flood levels on their property..."*
25. Recommendation 4.13 goes on to identify a number of methods by which this may be achieved.
26. ICC is currently considering implementing recommendation 4.13 through having a free of charge on-line flood mapping service publicly available on the Council's website. The objective of the service will be to provide information which will assist property owners, residents and business in understanding the impact of predicted flood levels on their property and in making informed decisions in the case of a future flood event. This service is a work in

progress that is currently under development. I expect to be in a position to provide the Commission with a supplementary statement setting out details of this service prior to the Commission's sittings in Ipswich on 18/19 October 2011.

### **Commission Requirement Notices - Flood Impact on Council Infrastructure**

27. I turn now to address the issues raised by the Commission Requirement Notices. The Requirement directed to me dated 10 August 2011 asks that I provide a written statement as to a number of matters relating to Council infrastructure including:
- (a) the extent to which Council's infrastructure (for example sewers, roads and stormwater) was affected by flooding during the period 1 December 2010-31 January 2011 [Requirement 4];
  - (b) details of the reconstruction of this infrastructure including costs and programs [Requirement 5]; and
  - (c) funding arrangements for repairs to damaged Council infrastructure [Requirement 6].
28. The Commission Requirements directed to Mr Adams include similar requests, being details of Council infrastructure (sewers, roads, stormwater etc) that was affected by flooding during the period 1 December 2010 to 31 January 2011 [first Adams notice, Requirement 8 and second Adams notice Requirement 1].
29. I will address these Council infrastructure issues in this next section of my statement.

### **Flood Impact on ICC Infrastructure - Overview**

30. The 2011 flood event was the most costly natural disaster in the City's history.
31. The floods caused approximately \$120 million damage to City infrastructure comprising:
- (a) repair and reinstatement costs - \$113 million (approx);
  - (b) counter-disaster costs - \$4 million (approx);
  - (c) emergent costs - \$3 million (approx).
32. Counter-disaster costs are the direct costs incurred during and immediately following the flood event, for example running evacuation centres, closing and re-opening roads, cleaning up following the event, removing debris and the such like.

33. Emergent costs relate to the work undertaken in the month or two following the event to effect temporary repairs, make safe, and to return assets (for example roads and parks) to a functional state, albeit on a temporary basis, pending final repair and reinstatement.
34. The repair and reinstatement costs of \$113 million fall into two streams:
- (a) roads, bridges and drains: approximately \$68 million; and
  - (b) open space and built environment: approximately \$45 million.
35. These costs do not include the losses sustained to businesses and individual properties throughout the Ipswich region.
36. The Council is committed to carrying out all flood related repair and reinstatement work at the earliest opportunity and intends to lodge progressive submissions and claims with the Queensland Reconstruction Authority applying for NDRRA (Natural Disaster Relief and Recovery Arrangements) funding for the costs of repair and reinstatement of all damaged assets, counter-disaster costs and emergent works costs. Some such claims have already been lodged. It is the responsibility of the Queensland Reconstruction Authority to assess claims for eligibility and to administer funding on behalf of the NDRRA.
37. The Council's reconstruction program is to some extent predicated on how quickly claims to the Queensland Reconstruction Authority are processed and paid, and delays in that process have at least the potential to slow down the program of works.
38. However, Council also recognises that some reinstatement works may not be eligible for NDRRA funding and has included a contingency fund in its 2011/12 capital works program to fund any works that are not eligible for NDRRA funding. Should that contingency fund be insufficient it may become necessary for Council to re-prioritise the "business as usual" capital works program to ensure that all reinstatement works are completed, as Council is committed to carrying out all flood related repair and reinstatement works in a timely fashion.
39. On 22 February 2011 the Council provided a preliminary NDRRA submission as at 15 February 2011 to the State Department of Local Government and Planning. A copy of the 15 February 2011 NDRRA submission was attached as Schedule 8 to the ICC's 23 March 2011 submission to the Commission of Inquiry (refer also to paragraph 4.8 of the ICC submission). An initial high level overview of the impact of the flood event within the ICC area including the impact on ICC infrastructure, is set out at paragraph 4.7 of that submission.
40. The 15 February 2011 NDRRA submission was not a formal submission for funding, but rather an initial assessment of the extent and type of damage sustained to ICC infrastructure,

and an indicative assessment of the likely repair costs. That initial assessment has been refined as the extent of damage and cost of rectification has become clearer, with some repair costs increasing, some costs decreasing, and for some of the damaged infrastructure, the scope of works has changed.

41. In February 2011 ICC received an advance of \$20.7 million from the NDRRA against the flood damage repair costs. However, to date, ICC has self-funded much of the cost and to the end of August 2011 has spent \$30.1 million and committed an additional \$14.3 million on flood related repairs and reinstatement with a resultant funding gap of \$9.4 million against money spent and a gap of \$23.7 million against money spent/committed.
42. The ICC 2011/12 budget documents, issued in June 2011, refer to Council having borrowed an additional \$28 million specifically to fund the carrying out of flood repair work. Council has not raised a flood levy and has covered the cost of this financing within the general rate.
43. In his 2011/12 budget speech delivered on 27 June 2011, the Ipswich City Mayor, Councillor Pisasale announced an average increase in the differential rate for category 1 residential owner occupiers for 2011/2012 of 3.52% (71 cents per week) of which flood recovery work accounted for a little over half (1.88% or 38 cents per week) of the increase.
44. The Mayor said that the additional 38 cents per week allowed Council to meet the costs associated with the borrowing of \$28 million specifically for flood repair work.
45. Council anticipates that a considerable amount of the flood related repair and reinstatement work to Council infrastructure will have been carried out by the end of 2011 and that most of the work will have been completed by mid-2012. The largest repair cost relates to the Colleges Crossing Recreation Reserve, with a cost of approximately \$12.5 million. It is expected that the last item of repair work to be completed will be the Colleges Crossing Recreation Reserve. This work is estimated to be completed by the end of 2012.
46. In the next section of my statement, I will address in more detail the extent of Council infrastructure affected by the flooding and provide details of the reconstruction of this infrastructure, including costs and programs.
47. The repair and reinstatement of all Council assets is being oversighted by a project control group. The project control group is serviced by Coffey Projects as a consultant. The Council officers on the project control group comprise myself, the Chief Financial Officer, the Chief Operating Officer for Works, Parks & Recreation and the Chief Operating Officer for Infrastructure Services.



## Repairs and reinstatement of Roads, Bridges and Drains

48. The Council submission of 23 March 2011 (paragraph 4.7(d)) noted that approximately 760 roads and 20 bridges within the ICC area sustained some level of damage in the flood event. With the work that has been undertaken since March 2011, those figures can now be updated:
- (a) gravel roads: 220
  - (b) Inundated roads: 201
  - (c) non-inundated roads: 499 (total roads - in excess of 1,000)
  - (d) bridges: 19
  - (e) drainage assets: 202
49. Attached to my statement and marked **CCW-2** is a colour copy of the Ipswich Flood Disaster Recovery Master Schedule (version no. 14 dated 27 July 2011) for the Roads, Drainage and Bridges procurement package. AECOM is providing project management support to ICC in relation to the roads, drainage and bridges repairs and reinstatement work. As noted earlier in my statement the total cost of this work, including project management costs, is approximately \$68 million and the current projected completion dates are:
- (a) inundated roads - December 2011;
  - (b) non-inundated roads - September 2012;
  - (c) drainage - June 2012; and
  - (d) bridges - September 2012.
50. The Master Schedule identifies the works being divided into four procurement packages for roads, drainage, bridges and project management and technical support respectively.
51. The Master Schedule also identifies, as at the date of the Schedule, the work packages that are:
- (a) at the pre-tender stage (highlighted in red);
  - (b) currently out to tender or tenders closed (highlighted in blue);
  - (c) currently under construction (highlighted in orange); and
  - (d) works completed (highlighted in green).

52. For example, repair work in relation to gravel roads has been undertaken at 140 sites and has been completed at a cost of \$880,000. Asphalt pavement restoration, which is a major component of the repair work, is currently under construction. As at the date of the schedule, tenders for major drainage work and bridge restoration work had not closed, although the tender for major drainage restoration work has since closed.
53. This Master Schedule provides the status of these works packages as at the date of the schedule. It also includes details of the cost of the works that have been completed or are under construction, and the projected costs for the works that are still at the tender stage. If it is of assistance to the Commission I will update the position as to progress with these works at the time of the Ipswich sittings on 18/19 October 2011.
54. I have also annexed to my statement and marked **CCW-3** a detailed breakdown of the repair and reinstatement work in relation to roads, drainage and bridges, showing in gantt chart format as at 19 August 2011 the location and status of each element of the works, identifying actual work completed and remaining work to be completed, the budgeted cost (where known) and the expected duration of the works. For those works that are still at the pre-tender or tender stage (for example major drainage and bridges) a zero cost is shown. This will then be upgraded as tenders are accepted and construction contracts are let.

#### **Repairs and Reinstatement of Open Space and Built Environment**

55. Annexed to my statement and marked **CCW-4** is a schedule detailing the forecast total cost (exclusive of project management expenses) for the repair and reinstatement of flood damaged Council open space and built environment. These costs total \$39.6 million (approximately \$45 million inclusive of project management) comprising:
- (a) flood affected buildings and major open space infrastructure - \$36.5 million;
  - (b) flood affected parks - restoration work - \$1.6 million;
  - (c) flood affected mechanical and electrical components - \$1.3 million; and
  - (d) streetscape - \$200,000.
56. The repairs and reinstatement works comprise 2 stages. Immediately following the flood event in January 2011 emergent works had to be undertaken to make safe, clean up and where possible, have facilities operational or partly operational. These works were internally project managed by ICC and the cost of these works is largely included in items such as electrical and streetscape, and some initial works undertaken at facilities such as the Riverview Depot, the

Ipswich Pound, and at leisure facilities such as the Bundamba Swimming Centre, the Goodna Pool and various other sporting complexes.

57. In the second stage the more substantive repair and reinstatement works will be undertaken. Many of these works have been bundled into packages for tendering and project management purposes.
58. Annexed to my statement and marked **CCW-5** is a colour copy of the Ipswich Flood Disaster Recovery - Open Space and Built Environment Master Schedule (version no. 18 dated 24 August 2011).
59. Council is being assisted in the project management of the repair and reinstatement of the open space and built environment assets by Coffey Projects. However, some elements of the work are being internally project managed by Council. On the Master Schedule (Exhibit CCW-5), the works being managed by Coffey Projects as Project Superintendent are those identified to the left hand side of the schedule, with a white background. The projects being 100% project managed by Council are those to the right hand side of the schedule, with a grey background.
60. The open space and built environment works program has been developed by the ICC Infrastructure Services team, in conjunction with Coffey Projects. The Infrastructure Services team meets weekly to overview and update the works program as required, and reports to the Project Management Office which comprises representatives of Coffey and the ICC Head of Infrastructure Delivery [REDACTED]
61. As with the roads, drainage and bridges master schedule, the open space and built environment master schedules identify, as at the date of the schedule, the works packages that are:
  - (a) in the pre-tender or design stage (highlighted in red and purple);
  - (b) currently out to tender (highlighted in blue);
  - (c) currently under construction (highlighted in orange); and
  - (d) project delivery completed (highlighted in green).
62. Many of the works packages have been and will be let to contractors pursuant to the Council's usual procurement procedures. However, some of the works are also being delivered under the Council's Community Jobs Program (CJP). For example the Pan Pacific Peace Gardens, a large Council park comprising board walks, pathways and gardens, and a number of the smaller parks are being repaired and reinstated by CJP teams. In these instances the repair cost is limited to the cost of materials.

63. Many of the open space facilities are parks and sporting facilities located in low lying areas. These facilities sustained very substantial damage in the flood event. In many cases support facilities such as kiosks, wet areas, change rooms, offices, sheds and the such like were destroyed and need to be demolished and replaced. However, because of the nature of the facility it has been possible through carrying out some initial emergent works to have the facility at least partly operational pending the completion of the more extensive reconstruction work.
64. It has been important to Council, as part of the community recovery, to have facilities such as swimming centres, tennis courts, netball courts, football fields, parks, BBQ facilities, playgrounds and the such like reinstated as soon as possible, even if in some cases this has been only on a partly operational basis.
65. However, in the case of the Ipswich Knights Sports Club, Goodna Bowling Club, Kippen Park Sports Club and the Goodna Cultural & Arts Centre (other than a gymnasium area) the facilities were destroyed and require a complete rebuild, and are not currently operational.
66. Annexed to my statement and marked CCW-6 is a breakdown of the Master Program for the Open Space and Built Environment repair and reinstatement work in gantt chart format as at 25 August 2011 detailing the various works packages and other Council managed works, the current projected commencement and completion dates, and the expected duration for the works.
67. On the basis of current works schedules most of the work is expected to be completed by mid 2012, with the reinstatement and rebuilding of the Colleges Crossing Recreational Reserve, by far the largest individual project, presently scheduled for a December 2012 completion date.
68. If it is of assistance to the Commission I will be able to update the position as to progress with these works at the time of the Ipswich sittings on 18/19 October 2011.

#### **Commission Requirement Notices - Flood Mitigation Infrastructure and Capacity Issues**

69. The first Requirement notice directed to Mr Adams dated 10 August 2011 requires that Mr Adams provide a written statement as to a description of the measures used by Council to protect Council infrastructure (sewers, roads, stormwater etc) and to ensure such infrastructure functions during a defined flood event [Requirement 9].
70. The second Requirement notice directed to Mr Adams dated 10 August 2011 requires that Mr Adams provide a written statement as to:

- (a) details of any flood mitigation infrastructure (for example flood detention basins, stormwater culverts, backflow devices) in the Council's area including a description of the maintenance programs for such infrastructure [Requirement 2]; and
- (b) details of the stormwater design capacity and urban run-off capacity, sewerage design capacity and the most recent review of these capacities including details of any plans to upgrade [Requirement 3].

Although addressed to Mr Adams, these are essentially engineering rather than planning related enquiries and are best addressed by me. I do so in the following paragraphs of my statement.

**A description of measures to protect Council infrastructure during a defined flood event [Mr Adams Requirement 9]**

- 71. The Commission has asked that ICC comment on measures used by Council to protect Council infrastructure (sewers, roads, stormwater etc) and to ensure that such infrastructure functions during a flood event.
- 72. Sewers are now within the jurisdiction of Queensland Urban Utilities, and I exclude the protection of sewers from my comments.
- 73. In relation to Council infrastructure more generally, the issue of specific steps taken to protect infrastructure in the lead up to the January 2011 flood event has previously been addressed:
  - (a) at paragraphs 9.46-9.54 of Council's submission to the Commission dated 23 March 2011; and
  - (b) by Mr Tony Trace at paragraphs 79-81 of his statement to the Commission dated 6 April 2011.

I do not repeat those matters in this statement.

- 74. Council has in place proactive and regular inspection and maintenance programs for all Council infrastructure. Regular condition assessments of Council assets are conducted through the Works, Parks and Recreation Department and a proactive maintenance program is conducted through the City Maintenance division under the direction of the City Maintenance Manager.
- 75. City maintenance extends to maintenance activities in relation to roads, drainage and built infrastructure, parks, sports and vegetation, natural areas and urban forest.

76. Routine inspections and condition assessments are undertaken of infrastructure such as bridges, road pavement and drainage and where issues are identified, this can lead to maintenance activity, or, in some cases, remedial projects being included in rehabilitation budgets.
77. As discussed later in this statement in response to [Mr Adams - Requirement 2] some assets, for example the smaller detention basins, are not subject to a regular maintenance program other than regular mowing where appropriate. However these assets, like all Council infrastructure, are subject to a regular inspection regime and remedial work can and does arise out of such inspections.
78. In terms of more systemic measures to protect Council infrastructure during a defined flood event, it must be noted that a significant amount of Council's assets are historic in nature and are located within the defined flood zone. A large number of these assets are roads and footpaths and have been built some 30 - 40 years ago, or even longer in some cases. The most appropriate way to protect these assets is to ensure that stormwater systems are clear and clean. As I have noted, this is achieved through a regular maintenance program.
79. In the event of smaller rainfall events, the effect on these assets is minimised. However, in major events such as the January 2011 event, when these assets become totally inundated, Council's ability to protect the assets is limited by the fact that their age and style of construction make them vulnerable to the effects of inundation.
80. Cognisant of these factors, Council's approach to the restoration of these assets is to reconstruct them from materials which will enhance the resilience of the assets to withstand the effects of inundation in future events. For example, road pavements are being reconstructed out of full depth asphalt pavement rather than a granular base, which is subject to deterioration from inundation.
81. In the same way, Council's approach to constructing or reconstructing future assets located within an inundation zone will be to construct these from more resilient road materials which will better withstand the impact of future inundation.
82. There are, however, some assets which because of their location and the nature of their use will remain within the flood zone. These include parks and some sporting facilities, and buildings constructed within those parks and facilities. In the reconstruction and future construction of these types of buildings, and related facilities, the objective will be to maximise the use of materials which will be resilient to inundation so that the facilities can be

brought back into use as quickly as possible and at as low a cost as possible following a major event.

83. Council has demonstrated in the past an understanding of this concept in that two of the key buildings at Colleges Crossing (being the caretaker's residence and the kiosk) were designed and built in a way that they could be quickly dismantled and removed from the site, as occurred in advance of the January 2011 event. Council's approach to other buildings in parks wherever feasible and possible is to build them in the manner and style which may allow their relocation during a flood event.
84. In essence, the key intentions and objectives of Council in relation to protecting Council infrastructure during a defined flood event will be:
- (a) to build infrastructure that is relocatable;
  - (b) to build infrastructure from materials which are resilient to inundation and can be brought back into service quickly; and
  - (c) where the option exists, to build infrastructure so that it is located outside of or above the flood zone.
85. As to this last option, any new Council buildings have, since 2004, been subject to the requirements of the 2004 and 2006 Ipswich Planning Schemes respectively and, since April 2011, the provisions of the Temporary Local Planning Instrument 01/2011 Flooding Regulation.
86. The Ipswich City Planning Scheme also includes a level of requirements in areas such as engineering and building standards that must be adhered to. These standards apply to Council infrastructure.
87. Council is also actively involved in interaction with State and Federal authorities as to the impact that State and Federally funded and managed projects may have on Council infrastructure. That interaction is generally cooperative.
88. By way of illustration, in relation to the current Ipswich Motorway upgrade, a combined Federal and State government initiative, works were proposed to be carried out to a certain level as part of the planned design. However, in collaboration with Council officers, the design was enhanced to include provision of a pipe system from the motorway to the Brisbane River to assist in local up-stream flood mitigation. As beneficiary of the enhanced flood mitigation solution, Council was prepared to commit some funding to the cost of the enhanced solution.

89. Council is engaged in regular representation to and collaboration with State and Federal authorities with respect to infrastructure being developed as part of a State or Federal initiative so as to minimise the impact of that initiative on Council's infrastructure, and, wherever possible, to achieve an enhanced outcome for Council infrastructure.
90. I have discussed in paragraph 78 and following some systemic measures in relation to infrastructure protection during a defined flood event. Finally, in terms of this subject, there are examples of specific measures that have previously been taken by Council in relation to specific infrastructure. I have previously referred to the design of the kiosk and residential infrastructure at Colleges Crossing that enabled that infrastructure to be quickly deconstructed and relocated in advance of the flood event.
91. Another example concerns the collapsible fences at the Riverheart Parklands which can be dropped during a flood event to better protect the fence and to prevent rubbish and debris being caught up in the fence.

**Details of flood mitigation infrastructure and maintenance programs [Mr Adams Requirement 2]  
Detention Basins**

92. There are currently 2 major detention basins within the Council area, located at Rosewood and Marburg. These detention basins perform a major flood mitigation role at their respective locations. Each is managed in accordance with the relevant operating manual, and is subject to a strict and regular maintenance and inspection regime and regular audit.
93. As each basin has also been assessed as a referable dam (Rosewood - category 1 and Marburg - category 2) they are also subject to the requirements of the *Water Act 2000* (Qld).
94. The Rosewood detention basin, located at Matthew Street, Rosewood near the Karrabin-Rosewood Road is intended to reduce the potential for flooding in the Rosewood town centre. An embankment approximately 10m high catches run-off from the steep local catchment of 1.4 km<sup>2</sup> below Perrys Knob. The basin is proportioned to pass the 100 year Average Recurrence Interval (ARI) flood without the spillway discharging.
95. The spillway consists of a rockfilled, concrete covered, gabion and mattress channel and cascade built over the embankment. The spillway crest is constructed about 200mm higher than the level to which the basin storage would rise during a 100 year ARI flood event, and 1.8m below the dam crest level. As designed, the dam crest flood was the probable maximum flood.
96. The Marburg detention basin on Black Snake Creek above the outskirts of the Marburg township is intended to reduce the potential for flooding properties in the Marburg town



centre. An embankment approximately 10m high intercepts run-off from the creek catchment of about 17 km<sup>2</sup> to the south. The basin is proportioned to pass the 100 year ARI flood without the spillway discharging.

97. The spillway consists of a rockfilled, concrete covered gabion and mattress channel and cascade built over the embankment. Its crest is nominally 2.5m below the embankment crest. The dam crest flood, which rises above the spillway crest to just reach but not overtop the embankment crest, is the 50,000 year ARI event.
98. Having regard to the summer 2010/2011 weather forecasts, in the period from around October 2010 ICC was engaged in close monitoring of the Rosewood and Marburg detention basins to ensure that there were no obstructions in the pipework. During the January 2011 flood event neither detention basin discharged its spillway. If the Commission requires additional information in relation to the Rosewood or Marburg detention basins, this can be provided.
99. In addition to these 2 major detention basins there are 97 other detention basins throughout the Council area which function as local flood mitigation devices within minor sub-catchments. Annexed to my statement and marked **CCW-7** is a schedule detailing the location of these detention basins.
100. These detention basins are an asset which only come into operation during an event. They are generally in the nature of depressions in public land which serve to retain, manage and control the run-off and overland flow of water through an area in a flood event. They are managed through a routine inspection regime. Maintenance work emanates from the inspection program as these are assets that do not typically require a specific maintenance regime, other than some fencing and mowing.
101. There are also a further 71 minor basins across the Ipswich area which serve a predominantly water quality role as bio-retention areas, rather than a flood mitigation role.

#### **Levees**

102. There are currently no levees within the ICC local government area. Following on from the January 2011 flood event Council has commissioned a high level study by Parsons Brinckerhoff to examine the feasibility of constructing levees to better protect critical locations across the City, including the Ipswich CBD. An initial report is expected by the end of this year. The purpose of the Parsons Brinckerhoff study is to assist Council in developing a clear direction on the potential of levees. Either they have no value as a flood protection strategy for the Ipswich area or they are worthy of further investigation in general or for specific locations.

If the PB report indicates a potential benefit in the construction of levees, it is likely that a more detailed investigation will be commissioned.

### **Stormwater culverts/stormwater run-off systems**

103. My comments in relation to stormwater culverts and run-off are also relevant to the topic addressed below regarding details of stormwater design and urban run-off capacity.
104. Within the developed urban areas there are generally few if any stormwater culverts. Rather, these areas, depending on their age, are developed with an underground drainage system. I discuss these systems further below. Stormwater culverts tend to exist in more rural settings, for example areas of relatively flat land such as Rosewood, Grandchester and Walloon, and are used to convey water emanating in creeks and gullies from one side of the road to the other via a culvert under the roadway.
105. The adjacent road can be designed as a causeway or floodway, so that if the culvert is unable to meet capacity in a major event, excess water is discharged across the road rather than backing up and causing an upstream backwater effect.
106. Most stormwater systems are designed to a 1:5 year or 1:10 year flood event capacity. It is very unusual to design a stormwater system to a 1:100 year capacity as it is simply not economically feasible to do so.
107. Stormwater is typically catered for throughout the Ipswich urban area by underground drainage systems. In some cases the stormwater pipes have been in the ground for many decades. These drainage systems have a known capacity and are subject to a regular cleaning and maintenance program. In addition, where particular circumstances require, as was the case with the weather forecasts in the lead up to the 2010/2011 wet season, ICC's drainage maintenance crews had a particular focus on the maintenance of the stormwater systems and gross pollutant traps to ensure that these were clear of debris and obstructions, and functioning effectively.
108. The capacity of the stormwater system is "static" unless some action is taken to change the capacity. I address in more detail in paragraphs 114-126 below studies currently being undertaken by ICC in this regard.
109. As urban development occurs, the issues of stormwater capacity and urban run-off are addressed on an ongoing basis as part of the development approval process, so as to ensure capacity is at least maintained and, where feasible to do so, is enhanced.

110. In terms of more modern design, underground drainage systems are complemented by kerb and channel design which enables the road system itself to operate as an overland flow path in extreme weather events. Under modern design, as applied across the City of Ipswich, excess water in a major flood event which cannot be accommodated by the stormwater system is dispersed through use of the road system as an overland flow path.
111. However, Ipswich is an old city and some of the road systems were designed and laid out without regard to modern run-off and overland flow path practices, with the result that in some of the City's older areas excess stormwater in a major event flows through private property.
112. These stormwater system design shortcomings cannot be effectively "retrofitted" and the solution in Ipswich has been for the Council to acquire properties where it is feasible to do so and create an overland flow path. Whether or not to do so involves a cost-benefit assessment of the particular circumstances.

**Review of stormwater design and urban run-off capacities [Mr Adams Requirement 3]**

113. In relation to the issue of sewerage design capacity, this is now the responsibility of Queensland Urban Utilities and I am not in a position to address enquiries as to the sewerage design capacity or any recent review of those capacities.
114. In relation to stormwater design capacity and urban run-off capacity, as I have already noted, the system capacity is static and does not change unless some step is taken to effect that change. The issue of capacity, and potential changes to capacity, are typically addressed through a drainage or flood study. Such studies can be used to identify:
- (a) the existing system capacity;
  - (b) the required system capacity;
  - (c) the "gap" between current and required capacity;
  - (d) the options to address the capacity gap; and
  - (e) the costs to address the capacity gap.
115. ICC, through its Works, Parks & Recreation Department has and continues to invest a significant amount of funds in undertaking drainage and flood studies across the City. There are currently 27 such studies at various stages of progress. Most of these studies had commenced prior to the 2011 flood event as part of Council's ongoing program, and not in response to that event.

116. In some cases Council has obtained NDRRA funding for the study, but in many instances the studies are funded by Council. The studies are being undertaken by a range of professional consultants.
117. The current drainage and flood studies can be broken down into two categories:
- (a) Catchment studies; and
  - (b) Sub-catchment studies.
118. The results of these studies will provide Council with a range of measures that may be adopted or undertaken to assist with future stormwater and run-off design and flood mitigation. The potential mitigation measures generally fall into 2 categories:
- (a) "hard" measures, which involve enhancement to existing infrastructure; and
  - (b) "soft" measures, which can be reflected in planning outcomes.
119. Catchment studies span an entire creek system and/or suburb or locality. There are 10 catchment studies currently being undertaken. They are at various stages of progress. These are studies in relation to:
- Walloon
  - Thagoona
  - Rosewood
  - Marburg
  - Bundamba Creek
  - Deebing Creek
  - Six Mile Creek
  - Goodna Creek
  - Woogaroo Creek
  - Sandy Creek.
120. Recommendations arising from the catchment studies may require substantial amounts of capital investment to implement, and may take some years to be included in future capital

works programs. Flood models arising from these studies will be used to inform development control lines for the purposes of the Ipswich Planning Scheme and for development assessment purposes.

121. Annexure **CCW-8** to my statement is a coloured map identifying the location of the 10 catchment studies.
122. Annexure **CCW-9** to my statement is a report briefly summarising the current status of each catchment study.
123. Sub-catchment studies are smaller studies conducted over an area forming part of a larger catchment, usually a gully or overland flow path. The study areas typically represent historical drainage problem areas. There are 17 sub-catchment studies currently being undertaken. Once again these studies are at various stages of progress. The studies are in relation to:

#### **Central Suburbs**

- Edwards Street, Ipswich/Raceview
- Booval
- Kendall Street, Newtown/East Ipswich
- City East (Newtown, Ipswich Central, Woodend)
- Bourke Street, Brassall
- Rowan Drive, Brassall
- Pioneer Drive, Raceview
- Raceview East
- Jones Street, Blackstone
- Kerners Road, Yamanto
- Tristania Street, Yamanto

#### **Eastern Suburbs**

- Cashmere Drive, Redbank Plains
- Wilkie Avenue, Redbank Plains

- Duncan Street, Redbank Plains
- Highbury Drive, Redbank Plains
- Albert Street, Goodna
- Church Street, Goodna.

124. Recommendations arising from the sub-catchment studies may be relatively inexpensive to implement (involving the taking of easements and pipe and related infrastructure costs) and able to be included in short term capital works programs.
125. Annexure CCW-10 to my statement is 2 coloured maps identifying the location of the 17 sub-catchment studies, 11 being conducted in the Central Suburbs and 6 in the Eastern Suburbs.
126. Annexure CCW-11 to my statement is a report briefly summarising the current status of each sub-catchment study.
127. All catchment studies and some sub-catchment studies are assisted by a study advisory group (SAG) who provide technical input and local knowledge into the development and outcomes of the study. The SAG is a requirement of NDRRA funded studies, and ICC has extended this concept into the more complex non-NDRRA funded studies. The SAG typically comprises Council officers, the Chairperson of the City Works Committee, Divisional Councillors (representing the community) and representatives of external organisations such as DERM, EMQ and SES.
128. In addition to these 27 catchment and sub-catchment related studies, the Council has four other flood and drainage mitigation related studies in progress. Three of these ((a) - (c) below) are not flood or drainage studies, but studies for the purpose of informing Council policy and policy development. The four studies relate to:
- (a) Citywide policy development, that is, integrating all of the catchment studies, and overlaying this with the development of a related investment strategy and policy direction;
  - (b) flood risk management briefing paper;
  - (c) flood damage curves; and
  - (d) Springfield flood impact assessment.

**Commission Requirement notices - planning issues**

129. The Requirement directed to me dated 10 August 2011 requires that I provide a statement as to:

- (a) the details of any draft flood studies obtained or made available to the Council since March 2011 [Requirement 1];
- (b) any changes to the Council's draft planning processes, policies or other statutory instruments in response to the flood event [Requirement 2];
- (c) how information about flood risk for specific properties is made available and any processes for obtaining this information applicable to members of the public, insurance companies and potential developers and their representatives [Requirement 3]; and
- (d) any policies or other documents which require property owners to have an evacuation plan and/or route in the case of flooding [Requirement 7].

**Draft flood studies obtained or made available to Council since March 2011 [Requirement 1]**

130. Council has received the following 13 draft or interim reports since March 2011 in relation to the drainage and flood studies I have described in paragraphs 119-128 above:

- (a) Springfield Impact Statement - July 2011;
- (b) Rosewood Draft Catchment Study - July 2011 ;
- (c) Walloon - July 2011;
- (d) Six Mile Creek - August 2011;
- (e) Goodna Creek - August 2011;
- (f) Rowani Drive - August 2011;
- (g) Tristana Street - August 2011;
- (h) Kerners Road - July 2011;
- (i) Edward Street - July 2011;
- (j) Wilkie Avenue - June 2011;

- (k) Duncan Street - May 2011;
- (l) Highberry Drive - July 2011; and
- (m) Thagoona - May 2011.

**How information about flood risk for specific properties is made available [Requirement 3]**

131. With regard to Requirement 3, I have mentioned in paragraph 26 that Council has under consideration and development a proposed new on-line flood mapping system designed to assist residents and businesses in understanding the impact of predicted flood levels on their property.
132. Aside from this prospective on-line search capability, information about flood risk for specific properties was available to members of the public, insurance companies, prospective developers and their representatives at the time of the January 2011 flood event, and continues to be available today. Council provides information on flood risk through the following publicly available searches.
133. Firstly, a property inquiry can be made through PD Online on the Council webpage. An address or real property description can be used to identify the property the subject of the search for which information is required. The property inquiry provides information on zoning under the Planning Scheme, whether or not any applications have been recorded for that property, and development constraints, including whether or not the property is affected by the flood lines on map OV5 in the Planning Scheme. The information can be printed and viewed on a map. This is a free search that was available to be undertaken in January 2011.
134. This search continues to be available, and has been upgraded to also include the flood regulation line from the Temporary Local Planning Instrument 1/2011 - Flood Regulation.
135. Another search that can be undertaken at no cost on PD Online is a map identifying the 1 in 20 development line and the 1 in 100 flood line. This information is accessed by undertaking a map search on the Council website. This search was available in January 2011 and continues to be available. This information has also now been updated to include mapped flood regulation lines under the Temporary Local Planning Instrument.
136. A search of urban stormwater flow path areas is also available free of charge to the public through PD Online. This search was available in January 2011.
137. Information is also available to the public by ordering a Council flood search and paying the requisite fee. These flood searches have been available to the public since at least 2004. The



search application form is online on the Council website on the Property and Rates search page. This flood search can be combined with other types of search including planning and development property searches.

138. In terms of the flood search, there are two searches that can be undertaken. The first is a development control line flood search, which provides information on whether the property concerned is affected by the 1:20 development line or the 1:100 flood line. The search includes a map.

139. The second search is a 1974 flood search which provides information as to whether the property was affected by the 1974 flood and includes details of the 1974 flood levels if available. This is a flood levels search not a flood lines search, and does not include a map.

140. In terms of future searching for information about flood risk, in addition to the free online service to go live shortly, Council is progressing work to produce a consolidated single map which identifies each of the 1974 flood line, 2011 flood line, 1:20 development line (where applicable) and 1:100 flood line. I expect this "4 maps in 1" search to be available to the public by the end of this year. It will be able to be ordered online or over the counter and available to members of the public upon the payment of a search fee.

**Commission Requirements 2 (changes to the Council's draft planning processes) and 7 (policies or other documents regarding evacuation plans)**

141. Requirements 2 and 7 are largely planning related matters and are better addressed by the Council's head of the department of Planning and Development, Mr Adams.

142. Mr Adams has addressed these matters in Topics 14 and 8 respectively of his statement to the Commission. I have read what Mr Adams has set out in his statement as to these matters and agree with his comments.

*Affirmed*

SWORN this 2nd day of September 2011 at Ipswich in the State of Queensland in the presence of:

.....  
Carl Christian Wain (Deponent)

.....  
(Solicitor)

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
<b>Chapter 2</b>						
2.1	Seqwater should act immediately to establish: 1. a steering committee to oversee the long term review of the Wivenhoe manual including senior representatives of at least DERM, Seqwater, the Water Commission, the Water Grid Manager, Brisbane City Council, Ipswich City Council and Somerset Regional Council 2. a technical review committee comprised of independent experts in at least hydrology, meteorology and dam operations to examine all technical work completed as part of the review.	NB: PD will need to be involved in any suggested land use planning and flood plain management outcomes.	CEO	CEO is a member of the Steering Committee. First meeting is being held on 25 August with meetings to be held fortnightly thereafter.	23-Aug-11	
2.14	The Commission recommends that a review be conducted of the number and distribution of ALERT gauges within the Wivenhoe and Somerset catchments. This review should include an assessment of the usefulness and cost effectiveness of installing more gauges, particularly at high elevations in the catchment. Such an assessment would appropriately involve the Bureau of Meteorology, DERM and Seqwater, and the					
<b>Chapter 3 Disaster frameworks, preparation and planning</b>						
3.4	Every local government susceptible to flooding should ensure that, before the next wet season, its local disaster management plan: • is consistent with the Disaster Management Act 2003 • addresses local risks and circumstances • can be used easily in the event of a disaster					
3.5	Every person who is required to work under a local disaster management plan should be familiar with the plan before next wet season					
3.6	Every local government should publish its disaster management plan (and relevant sub-plans) on its website					
3.13	Before the next wet season, local governments susceptible to flooding should conduct community education programs which provide local information about (at least) the following topics: • the measures households should take to prepare for flooding • the roles and functions of the SES and details of how to contact and join it • whom to contact if assistance is needed during a flood • contact details for emergency services in the area • the types of warnings that are used in the area, what they mean and what to do in the event of a warning • where and how to obtain information before, during and after a disaster • what is likely to happen during a disaster (for example, power outages and road closures) • evacuation					
3.14	To ensure consistency, the Queensland Government should assist local governments to develop and deliver the community education programs.					
<b>Chapter 4 Forecasts, warnings and information</b>						

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
4.1	In issuing warnings for a district or region, local and state authorities should use a range of different warning mechanisms effective for the particular district or region, including methods which do not rely on electricity.					
4.2	Councils should prepare SMS alert templates covering a range of different flood scenarios before the wet season.					

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
4.3	SMS alerts should direct recipients to websites or contact numbers providing more detailed information about flood locations and predictions, the location of evacuation centres and evacuation routes.					
4.4	Councils and Emergency Management Queensland should work together to ensure the approval process does not cause delays in delivering SMS alerts.		█			

No	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
4.5	Wherever possible, Emergency Management Queensland should consult with local disaster management groups before sending emergency alerts to residents. Emergency Management Queensland should inform the local disaster management group, as soon as it can, about any message already sent to residents in that local disaster management group's area.					
4.6	Individuals and businesses should be encouraged to acquire battery operated radios for use in emergencies.					

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
4.7	Councils should ensure that residents are aware of the frequency of the radio station or stations in their local area that will disseminate flood warnings and other information during disasters.		██████████			
4.8	Councils that have not already done so should consider how social media may be used effectively to provide accurate information about flood levels and local conditions to residents during a flood event.		██████████			

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
4.9	A siren may be appropriate in smaller towns or rural communities susceptible to flash flooding. If councils rely on sirens to warn residents, they should ensure that the community understands the meaning of the siren.					
4.11	Councils, with the assistance of the Bureau of Meteorology, should examine the feasibility of and priorities for installing additional river height and rainfall gauges in areas of identified need.					
4.11	Councils, with the assistance of the Bureau of Meteorology, should consider the susceptibility of their regions to flash flooding, and whether it is feasible and necessary to acquire and operate an automated local evaluation in real time system (ALERT system) for particular waterways.					

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
4.13	Councils should ensure that residents and businesses can clearly understand the impact of predicted flood levels on their property. This may include one or more of the following methods: <ul style="list-style-type: none"> <li>• information on rates notices about flooding at individual properties</li> <li>• geospatial mapping, available to the public, that depicts inundation at certain river heights</li> <li>• flood markers</li> <li>• flood flag maps and floodwise property reports</li> <li>• colour coded maps</li> <li>• information that relates gauge heights with the level of flooding to be expected at a property.</li> </ul>	PD should also be involved in geospatial mapping and associated property reports.	CFO			
4.14	In the course of flood events, warnings referring to gauge heights should include information about the location of the gauge.					
4.15	Each local disaster management group should include in its meetings a representative of the operator of any dam upstream of its region which contributes water to flooding.					
4.24	The operator of any referable dam and the local disaster management group should develop a common understanding as to their respective roles in a flood event and the type and frequency of information the dam operator will provide to it and local residents.					
4.3	Councils should continue to take responsibility for issuing flash flooding warnings. However, where the Bureau of Meteorology becomes aware of weather conditions likely to cause flash flooding that is likely to endanger life or property in a particular council's region, it should, performing its functions in the public interest, directly communicate that information to the relevant council					
4.31	Councils should advise the Bureau of Meteorology of any information they possess about flash flooding (or the immediate prospect of it) likely to endanger life or property in their region, and of any warnings they issue about such flash flooding. The Bureau of Meteorology should consider in each case whether any such warning should be re-published (whether as a warning emanating from the Bureau itself or as attributed to the relevant council) on the Bureau's website, or whether it should provide a link to any council warning or other information regarding flash flooding provided by councils or disaster management agencies.					
4.33	The Bureau of Meteorology should do its best to develop working relationships with all councils, particularly for the purpose of exchanging information in severe weather and flood events.					
<b>Chapter 5 Emergency Response</b>						
5.1	When a local government cannot effectively manage its response to a disaster, disaster management personnel from local governments in a position to assist should be deployed to help the local disaster					
5.2	Local governments should consider adopting uniform disaster management software, to enable inter-council assistance to be given more easily and effectively.					



No	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.3	To ensure effective co-ordination in larger-scale disasters, deployment of personnel (and other resources) between local governments should be facilitated through the Council to Council (C2C) program.					
5.6	As part of their planning before the next wet season, local disaster management groups should identify communities which, because of distance, the potential for isolation by disaster, or any other reason, may require specific disaster management arrangements, and take steps to establish them. Such arrangements may include forming disaster management sub-groups in those communities					
5.7	Whatever form arrangements take, they should seek to ensure that, in the event that flooding causes isolation: <ul style="list-style-type: none"> <li>• there are lines of communication between the local disaster management group and the community</li> <li>• the community has the basic resources it needs to cope with its situation</li> <li>• the local disaster management group is aware of what supplies the community may need in prolonged disaster, and can respond to requests for assistance in a timely way</li> </ul>					
5.8	Where a local government forms a sub-group of its disaster management group: <ul style="list-style-type: none"> <li>• the responsibilities of the sub-group must be clearly defined within the local disaster management arrangements</li> <li>• each member of the sub-group must clearly understand his or her role.</li> </ul> <p>The Commission recommends that sub-groups and local disaster management groups set out their respective roles and responsibilities in writing.</p>					
5.9	Until the All Hazards Information Management System is in place and allows the status of requests for assistance to be tracked, other means should be used to keep local disaster management groups informed of the progress of requests for assistance.					
5.1	A clear protocol should be developed for managing the participation of local and district disaster management groups in the state level teleconferences, to govern and make more efficient participation in the teleconferences.					
5.32	Before the next wet season, councils, SES controllers and Emergency Management Queensland should work together to identify and address deficiencies in the ability of the SES to respond effectively to flooding. At the very least, suitable flood boats and flood boat training should be provided to SES units which require them					
5.4	Each council should develop an evacuation sub-plan in accordance with the Emergency Management Queensland guidelines. This includes involving local groups and people in the planning process.					

No	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.41	Councils with existing evacuation sub-plans should review them to ensure they address the issues identified from the 2010/2011 floods.					
5.42	Where flooding is governed by a particular watercourse, the evacuation sub-plan should identify triggers in the form of those water level heights at which it is known that preparation for evacuation will be necessary.					

No	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.43	<p>It is a matter for councils whether or not they choose to publicise the location of evacuation centres before a disaster but there is a good deal to be said for doing so, particularly in smaller communities where the options are limited. Whether or not councils publicise the location of evacuation centres before a disaster, they should include in their disaster education programs information on evacuation procedures, and how to ascertain evacuation centre locations and safe evacuation routes.</p>					
5.44	<p>During floods, councils should as quickly as possible provide people in the relevant areas with advice as to the location of and routes to evacuation centres.</p>					

No	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.45	That advice should be given using as many mechanisms as appropriate, including text message, radio and door knocking.		Media? SQ? and			
5.46	Councils should identify a range of evacuation centres as part of their disaster preparation and planning.					
5.47	Councils should audit identified evacuation centres to ensure the facilities and location are appropriate, preferably in consultation with the Australian Red Cross and the Department of Communities.					

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.48	Councils should be aware of what facilities are available at each evacuation centre, at particular times of the year.					
5.49	Councils should identify areas that are susceptible to isolation, including locations in which community groups established informal evacuation centres during the 2010/2011 floods, with a view to incorporating evacuation centres at those locations into their evacuation sub-plans.					
5.5	Councils should identify community groups who may take responsibility for establishing and operating evacuation centres in the future.					

No	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.51	The identified groups and councils should, before the next wet season, establish cooperative arrangements as to how the centres should operate, and to ensure the centres have appropriate facilities.					
5.52	Councils should recognise that community groups may establish makeshift evacuation centres during a disaster. When this occurs, councils need to identify and establish communications with the centres as soon as possible.					

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.53	Councils should develop plans for the effective and timely re-supply of makeshift centres.					
5.54	The Queensland Government should investigate the possibility of providing indemnity or obtaining insurance for makeshift evacuation centres established in good faith, and in the absence of official alternatives, to meet community needs.					

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.55	All councils should consider entering a memorandum of understanding for evacuation centres with the Australian Red Cross which clearly sets out the roles and responsibilities of the parties in planning and responding to evacuation requirements in a disaster.					
5.56	Each council with a memorandum of understanding with the Australian Red Cross should consider undertaking practice exercises with the Australian Red Cross to ensure both parties understand their respective roles and responsibilities.					



No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.57	Local disaster management groups and district disaster management groups of which the Australian Red Cross is not currently a member should include the Australian Red Cross in disaster preparation and planning as well as response, whether as a member or otherwise (see					
5.58	Local and district disaster management groups should notify the Australian Red Cross of their evacuation needs as soon as possible in a disaster.					
5.59	Disaster response agencies should use the National Registration Inquiry System.					
5.6	During a disaster, councils and the Queensland Police Service should encourage individuals to self-register with the National Registration Inquiry System.					

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.61	Councils should include information about the National Registration Inquiry System as part of their community education.					
5.62	In areas susceptible to flooding, councils should identify facilities housing people who may require assistance to evacuate. Councils should work with the operators of these facilities to ensure they have appropriate evacuation plans and that they are aware of the council's disaster management arrangements.					

No.	Recommendation	ICC Action	ICC Responsibility - Dept Head	Status	Date of Status	Date Completed
5.63	Councils should identify the specific evacuation needs of these facilities, such as increased timeframes for withdrawal or transport by ambulance.					
5.64	Councils should include the location, contact details, and specific evacuation needs of these facilities in their evacuation sub-plans.					

No.	Recommendation	ICC Action	ICC Responsibility - Dept Head	Status	Date of Status	Date Completed
5.65	Councils should identify organisations (for example, Meals on Wheels and Bluecare) that provide services to people in the community who may be unable to evacuate without assistance. Councils should include the contact details of these organisations in their evacuation sub-plans.					
5.66	Councils should work with these service providers to identify: the number of people who may require assisted evacuation; the general nature of their needs, including any necessary medical supplies and equipment; warning message formats and dissemination; increased timeframes needed for evacuation; transportation requirements; and shelter requirements. Councils should include this information in their evacuation sub-plans.					

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.67	Facilities housing people who may be unable to evacuate without assistance should develop evacuation plans to ensure residents are provided with appropriate transportation, emergency accommodation, trained carers and medical support if necessary. Where possible, residents of those facilities should be relocated to other similar facilities or accommodation other than evacuation centres. These plans should be developed in consultation with councils and relevant agencies such as Queensland Health.					
5.68	Facilities housing people who may be unable to evacuate without assistance should prepare disaster recovery plans, particularly for the provision of back up power and emergency supplies, including medical oxygen and common medications, to minimise the need for evacuation where there is no direct threat from natural disaster.					

No.	Recommendation	ICC Action	ICC Responsibility - Dept Head	Status	Date of Status	Date Completed
5.69	The Queensland Government and councils should ensure information about emergency preparedness, warnings and evacuation is available in the different languages of ethnic groups in the community and in Auslan.					
5.7	As part of their community education strategy, councils should ensure tourists are made aware of evacuation procedures, how to ascertain evacuation centre locations and safe evacuation routes. That may be done through tourism boards, operators and accommodation providers.					

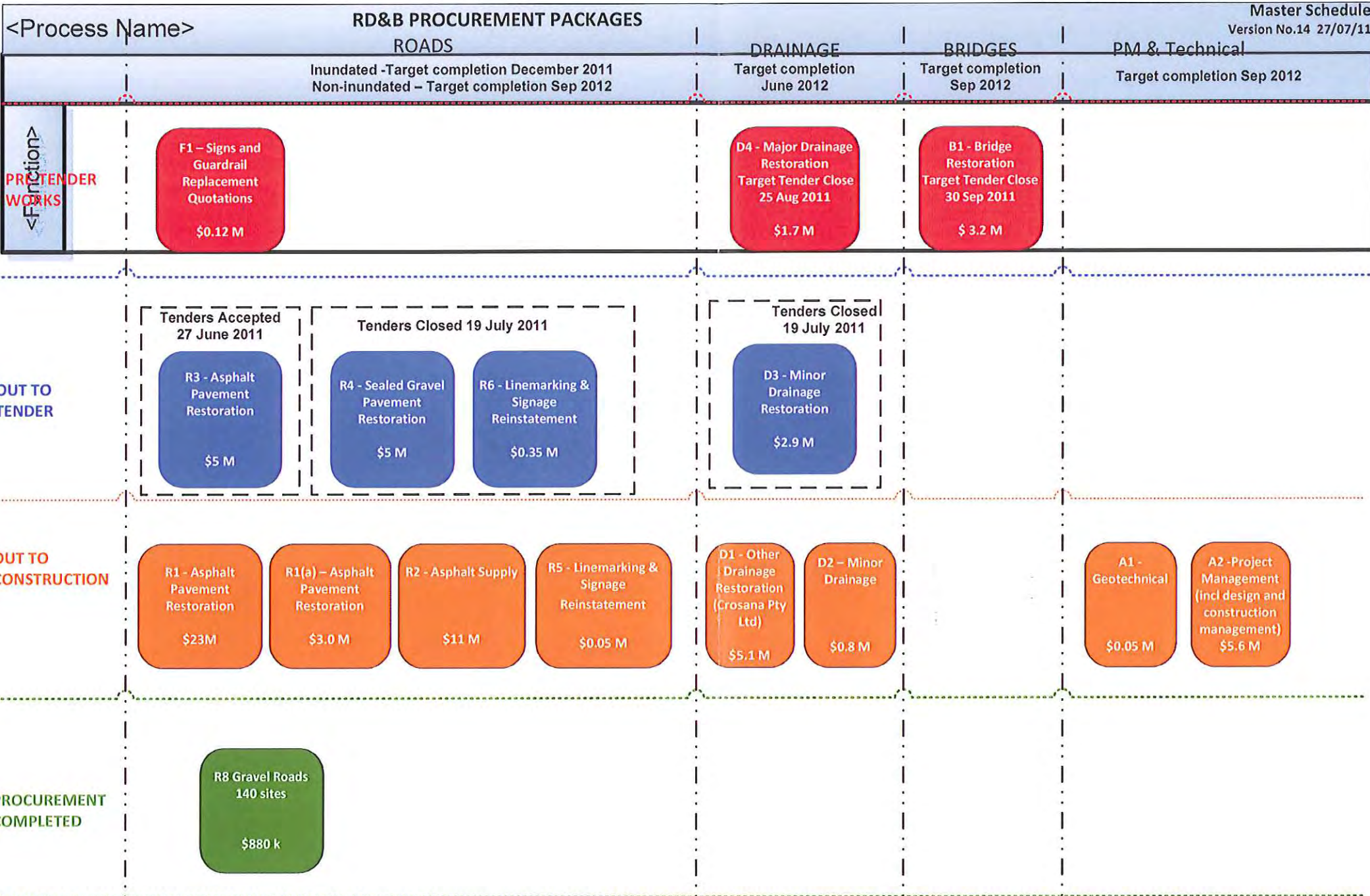
No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.71	Councils, as part of their community education program for disaster preparation, should encourage pet owners to consider what they will do with their pets if they need to evacuate.					
5.72	Councils should work with the RSPCA to develop plans about transporting and sheltering pets should they need to be evacuated with their owners.					

No.	Recommendation	ICC Action	ICC Responsibility Dept Head	Status	Date of Status	Date Completed
5.73	Animal shelters, zoos, stables, and similar facilities should develop plans for evacuating or arranging for the care of animals in consultation with their local council. Local disaster co-ordinators should be aware of what plans exist.					
5.75	Before the 2011/2012 wet season, all local and district disaster management groups should formally adopt the Queensland Re-supply Guidelines and have arrangements in place for the prompt re-supply of towns, properties and residents isolated by floodwaters.					
5.78	Local governments should investigate the feasibility of permitting local landowners to carry out temporary repairs on flood-damaged public roads to allow access to their properties.					
5.79	Local governments and the Queensland Government should work with their New South Wales counterparts to set up procedures for co-ordinating emergency responses in the region of the Queensland/New South Wales border.	Although this applies to local governments, in practice this shouldn't impact on ICC.				
<b>Chapter 6 Essential Services</b>						
6.1	Local, district and state disaster management groups should include essential services providers in their disaster planning and preparation and in their meetings at an early stage during disasters.					



IPSWICH FLOOD DISASTER RECOVERY

Master Schedule  
Version No.14 27/07/11





Activity Name	Suburb	Divisions	Original Duration	Start	Finish	Budgeted Total Cost	2011												2012											
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug				
<b>Flood Recovery Program</b>			502	17-Jan-11 A	16-Jan-13	A\$56,385,550.00	▼																							
<b>Program Management</b>			223	07-Feb-11 A	14-Dec-11	A\$9,775,091.00	▼ 14-Dec-11, Program Management																							
<b>Stage 1</b>			1	19-Aug-11	19-Aug-11	A\$753,541.00	▼ 19-Aug-11, Stage 1																							
Program Setup & Verification			1	19-Aug-11	19-Aug-11	A\$753,541.00	▼ Program Setup & Verification																							
<b>Stage 2</b>			208	17-Feb-11 A	05-Dec-11	A\$5,021,550.00	▼ 05-Dec-11, Stage 2																							
Project Management			61	17-Feb-11 A	12-May-11 A	A\$2,278,950.00	■ Project Management																							
Construction Management			61	17-Feb-11 A	12-May-11 A	A\$2,067,750.00	■ Construction Management																							
Road Design Services			3	17-Feb-11 A	21-Feb-11 A	A\$111,200.00	■ Road Design Services																							
Stormwater Design Services			59	19-Aug-11	09-Nov-11	A\$133,780.00	■ Stormwater Design Services																							
Bridge Design Services			77	19-Aug-11	05-Dec-11	A\$331,950.00	■ Bridge Design Services																							
Geotechnical Design Services			5	19-Aug-11	25-Aug-11	A\$97,920.00	■ Geotechnical Design Services																							
<b>Phase One Submission</b>			145	07-Feb-11 A	12-May-11 A	A\$4,000,000.00	▼ 12-May-11 A, Phase One Submission																							
Program Management			121	07-Feb-11 A	12-May-11 A	A\$3,500,000.00	■ Program Management																							
Compile Emergent Works			5	07-Feb-11 A	21-Feb-11 A	A\$50,000.00	■ Compile Emergent Works																							
Identify & Markup Necessary Works			40	14-Feb-11 A	11-Apr-11 A	A\$400,000.00	■ Identify & Markup Necessary Works																							
Submit Application			5	11-Apr-11 A	18-Apr-11 A	A\$50,000.00	■ Submit Application																							
<b>Phase Two Submission</b>			163	02-May-11 A	14-Dec-11	A\$0.00	▼ 14-Dec-11, Phase Two Submission																							
<b>Sealed Granular Roads</b>			23	19-Aug-11	20-Sep-11	A\$0.00	▼ 20-Sep-11, Sealed Granular Roads																							
Inundated			21	19-Aug-11*	16-Sep-11	A\$0.00	■ Inundated																							
Non_Inundated			23	19-Aug-11*	20-Sep-11	A\$0.00	■ Non_Inundated																							
<b>Asphalt Roads</b>			102	02-May-11 A	20-Sep-11	A\$0.00	▼ 20-Sep-11, Asphalt Roads																							
Inundated			5	02-May-11 A	14-Jul-11 A	A\$0.00	■ Inundated																							
Non-Inundated			21	19-Aug-11*	16-Sep-11	A\$0.00	■ Non-Inundated																							
Complex Sites			23	19-Aug-11*	20-Sep-11	A\$0.00	■ Complex Sites																							
<b>Gravel Roads</b>			68	15-Jun-11 A	16-Sep-11	A\$0.00	▼ 16-Sep-11, Gravel Roads																							
Formed Roads			23	15-Jun-11 A	02-Sep-11	A\$0.00	■ Formed Roads																							
Unformed Roads			21	19-Aug-11*	16-Sep-11	A\$0.00	■ Unformed Roads																							
<b>Drainage</b>			84	19-Aug-11	14-Dec-11	A\$0.00	▼ 14-Dec-11, Drainage																							
Minor Drainage			43	19-Aug-11*	18-Oct-11	A\$0.00	■ Minor Drainage																							
Major Drainage - Crossana			65	15-Sep-11*	14-Dec-11	A\$0.00	■ Major Drainage - Crossana																							
Major Drainage			65	15-Sep-11*	14-Dec-11	A\$0.00	■ Major Drainage																							
<b>Roads, Stormwater Drainage, Bridges, ...</b>			502	17-Jan-11 A	16-Jan-13	A\$46,541,759.00	▼																							
<b>Roads</b>			410	17-Jan-11 A	05-Sep-12	A\$44,143,232.00	▼																							
<b>Gravel Roads</b>			410	17-Jan-11 A	05-Sep-12	A\$2,041,203.00	▼																							
<b>Inundated</b>			410	17-Jan-11 A	05-Sep-12	A\$2,041,203.00	▼																							
<b>Formed</b>			420	17-Jan-11 A	05-Sep-12	A\$2,041,203.00	▼																							
Huth	Ironbar	10	1	17-Jan-11 A	17-Jan-11 A	A\$3,576.00	Huth																							
Neumann	Calvert	10	1	18-Jan-11 A	18-Jan-11 A	A\$3,576.00	Neumann																							
Long Gully Rd	Grandch	10	1	20-Jan-11 A	20-Jan-11 A	A\$4,023.00	Long Gully Rd																							
Elm Rd	Walloon	10	0	21-Jan-11 A	21-Jan-11 A	A\$2,384.00	Elm Rd																							
Hoopers Rd	Mt Marr	10	1	21-Jan-11 A	21-Jan-11 A	A\$4,768.00	Hoopers Rd																							
F Holts Rd	Pine Mt	10	0	24-Jan-11 A	24-Jan-11 A	A\$2,384.00	F Holts Rd																							
Paddy Smith Rd	Pine Mt	10	0	24-Jan-11 A	24-Jan-11 A	A\$2,384.00	Paddy Smith Rd																							
Shepard Rd	Pine Mt	10	0	24-Jan-11 A	24-Jan-11 A	A\$1,192.00	Shepard Rd																							
Wilson Street	Calvert	10	0	25-Jan-11 A	25-Jan-11 A	A\$8,000.00	Wilson Street																							
Newcastle St	Calvert	10	0	25-Jan-11 A	25-Jan-11 A	A\$8,000.00	Newcastle St																							
Murrimo Rd	Mt Forb	10	1	25-Jan-11 A	25-Jan-11 A	A\$3,576.00	Murrimo Rd																							
Piepers Rd	Marburg	10	1	25-Jan-11 A	25-Jan-11 A	A\$3,576.00	Piepers Rd																							
Tallegalla Two Tree Hill Rd	Tallega	10	2	26-Jan-11 A	27-Jan-11 A	A\$11,324.00	Tallegalla Two Tree Hill Rd																							
Borallon Station Rd	Pine Mt	10	0	01-Feb-11 A	01-Feb-11 A	A\$894.00	Borallon Station Rd																							
Collingwood Dr	Redbk P	3	1	01-Feb-11 A	02-Feb-11 A	A\$7,152.00	Collingwood Dr																							
Greys Plains RD	Mt Mort	10	1	02-Feb-11 A	02-Feb-11 A	A\$4,768.00	Greys Plains RD																							
Freeman	Ashwell	10	1	11-Feb-11 A	11-Feb-11 A	A\$8,344.00	Freeman																							

■ Remaining Level of Effort   
 ■ Actual Work   
 ▼ Summary  
■ Actual Level of Effort   
 ■ Remaining Work































































Activity Name	Suburb	Divisions	Original Duration	Start	Finish	Budgeted Total Cost	2011												2012																	
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug										
edmond street	Marburg	10	3	01-Sep-11*	05-Sep-11	A\$75,600.00											edmond street																			
owens street	Marburg	10	4	01-Sep-11*	06-Sep-11	A\$22,550.00											owens street																			
queen street	Marburg	10	5	01-Sep-11*	07-Sep-11	A\$72,050.00											queen street																			
Sherlocks Road (DESIGN)	MuirLe	10	2	01-Sep-11*	02-Sep-11	A\$75,300.00											Sherlocks Road (DESIGN)																			
Riverside Drive	MuirLe	10	3	01-Sep-11*	05-Sep-11	A\$134,700.00											Riverside Drive																			
bill morrow road	Peak X	10	4	01-Sep-11*	06-Sep-11	A\$12,100.00											bill morrow road																			
james road	Pine Mt	10	5	05-Sep-11*	09-Sep-11	A\$14,850.00											james road																			
russells road	Pine Mt	10	1	05-Sep-11*	05-Sep-11	A\$87,450.00											russells road																			
Old Toowoomba Road	OneMile	10	3	05-Sep-11*	07-Sep-11	A\$0.00											Old Toowoomba Road																			
Harwoods Road	Karrabi	10	5	05-Sep-11*	09-Sep-11	A\$41,250.00											Harwoods Road																			
Banbury Court	Willowb	10	5	05-Sep-11*	09-Sep-11	A\$38,500.00											Banbury Court																			
ruthven court	Yamant	10	5	12-Sep-11*	16-Sep-11	A\$30,800.00											ruthven court																			
Middle road (DESIGN)	Purga	10	4	13-Sep-11*	16-Sep-11	A\$60,600.00											Middle road (DESIGN)																			
purga school road	Purga	10	5	15-Sep-11*	21-Sep-11	A\$26,950.00											purga school road																			
bassett lane	Rosewoo	10	5	20-Sep-11*	26-Sep-11	A\$10,450.00											bassett lane																			
bassetts road	Rosewoo	10	2	21-Sep-11*	22-Sep-11	A\$10,450.00											bassetts road																			
rosewood-thagoona road	Rosewoo	10	1	10-Oct-11*	10-Oct-11	A\$50,600.00											rosewood-thagoona road																			
keates road (DESIGN)	Tallega	10	3	14-Oct-11*	18-Oct-11	A\$78,300.00											keates road (DESIGN)																			
minden post office road	Tallega	10	4	18-Oct-11*	21-Oct-11	A\$16,500.00											minden post office road																			
two tree hill road	Tallega	10	5	20-Oct-11*	26-Oct-11	A\$65,100.00											two tree hill road																			
Adelong Ave - PAVER	Thagoon	10	3	28-Oct-11*	01-Nov-11	A\$260,400.00											Adelong Ave - PAVER																			
Thagoona Hagslea Rd	Thagoon	10	4	04-Nov-11*	09-Nov-11	A\$26,950.00											Thagoona Hagslea Rd																			
farrell drive (DESIGN)	Walloon	10	5	08-Nov-11*	14-Nov-11	A\$63,250.00											farrell drive (DESIGN)																			
jacaranda drive (DESIGN)	Yamant	10	1	10-Nov-11*	10-Nov-11	A\$217,800.00											jacaranda drive (DESIGN)																			
rose street	Yamant	10	2	18-Nov-11*	21-Nov-11	A\$33,550.00											rose street																			
hall street	Yamant	10	4	24-Nov-11*	29-Nov-11	A\$8,800.00											hall street																			
beechwood drive	Yamant	8	5	25-Nov-11*	01-Dec-11	A\$9,350.00											beechwood drive																			
deebing creek road	Yamant	8	1	25-Nov-11*	25-Nov-11	A\$9,350.00											deebing creek road																			
olbern crescent	Yamant	8	2	25-Nov-11*	28-Nov-11	A\$9,350.00											olbern crescent																			
o'neils road	Amberle	10	2	28-Nov-11*	29-Nov-11	A\$34,100.00											o'neils road																			
southern amberely road	Amberle	10	3	30-Nov-11*	02-Dec-11	A\$34,650.00											southern amberely road																			
lobb street	Churchi	8	2	12-Dec-11*	13-Dec-11	A\$15,950.00											lobb street																			
meyers street	Churchi	8	1	15-Dec-11*	15-Dec-11	A\$150,300.00											meyers street																			
balook street	Colling	9	5	11-Jan-12*	17-Jan-12	A\$54,450.00											balook street																			
elmhurst crescent	Flin Vw	9	4	16-Jan-12*	19-Jan-12	A\$12,650.00											elmhurst crescent																			
eileen street	Flin Vw	9	2	16-Jan-12*	17-Jan-12	A\$24,200.00											eileen street																			
lance drive	Flin Vw	9	3	19-Jan-12*	23-Jan-12	A\$20,900.00											lance drive																			
merritt street	Flin Vw	9	1	24-Jan-12*	24-Jan-12	A\$8,800.00											merritt street																			
teak street	Racevie	8	2	27-Jan-12*	30-Jan-12	A\$20,350.00											teak street																			
reif street	Racevie	9	2	27-Jan-12*	30-Jan-12	A\$105,050.00											reif street																			
willaroo close	Racevie	9	2	06-Feb-12*	07-Feb-12	A\$12,650.00											willaroo close																			
edwards street	Racevie	9	3	09-Feb-12*	13-Feb-12	A\$22,550.00											edwards street																			
llewelyn street	Racevie	9	4	14-Feb-12*	17-Feb-12	A\$39,050.00											llewelyn street																			
raceview street	Racevie	9	5	17-Feb-12*	23-Feb-12	A\$8,800.00											raceview street																			
whitehill road	Racevie	9	7	22-Feb-12*	01-Mar-12	A\$69,850.00											whitehill road																			
Alawoona street	Redbk P	9	2	27-Feb-12*	28-Feb-12	A\$29,700.00											Alawoona street																			
chetwynd street	Redbk P	9	3	01-Mar-12*	05-Mar-12	A\$21,450.00											chetwynd street																			
lemana street	Redbk P	9	4	06-Mar-12*	09-Mar-12	A\$62,100.00											lemana street																			
urara street	Redbk P	9	5	09-Mar-12*	15-Mar-12	A\$95,400.00											urara street																			
walden street	Redbk P	9	1	14-Mar-12*	14-Mar-12	A\$23,650.00											walden street																			
<b>Contractor 2 - Downer EDI (Rehabilitation)</b>			<b>303</b>	<b>18-Apr-11 A</b>	<b>13-Jun-12</b>	<b>A\$5,515,850.00</b>	13-Jun-12, Contra																													
brisbane terrace	Goodna	2	5	18-Apr-11 A	18-Apr-11 A	A\$9,900.00											brisbane terrace																			
Keating Court	Goodna	2	1	26-May-11 A	26-May-11 A	A\$110,000.00											Keating Court																			

█ Remaining Level of Effort   
 █ Actual Work   
  Summary  
█ Actual Level of Effort   
 █ Remaining Work















Activity Name	Suburb	Divisions	Original Duration	Start	Finish	Budgeted Total Cost	2011												2012																
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug									
Amanda Court	Tivoli	6	5	12-Sep-11*	16-Sep-11	A\$69,850.00											<input type="checkbox"/> Amanda Court																		
cook street	Ipswich	5	5	12-Sep-11*	16-Sep-11	A\$20,350.00											<input type="checkbox"/> cook street																		
welsby street	Nth Boo	5	5	12-Sep-11*	16-Sep-11	A\$18,150.00											<input type="checkbox"/> welsby street																		
Addison Road	Camira	1	5	12-Sep-11*	16-Sep-11	A\$35,200.00											<input type="checkbox"/> Addison Road																		
coronation street	East Ip	5	5	19-Sep-11*	23-Sep-11	A\$18,150.00											<input type="checkbox"/> coronation street																		
jacaranda street	East Ip	5	4	19-Sep-11*	22-Sep-11	A\$73,150.00											<input type="checkbox"/> jacaranda street																		
first avenue	Karalee	5	1	19-Sep-11*	19-Sep-11	A\$24,750.00											<input type="checkbox"/> first avenue																		
junction road	Karalee	5	3	19-Sep-11*	21-Sep-11	A\$84,300.00											<input type="checkbox"/> junction road																		
ashfield street	Nth Ip	5	5	19-Sep-11*	23-Sep-11	A\$20,350.00											<input type="checkbox"/> ashfield street																		
dennis street	Camira	1	2	22-Sep-11*	23-Sep-11	A\$65,100.00											<input type="checkbox"/> dennis street																		
hayes avenue	Camira	1	1	22-Sep-11*	22-Sep-11	A\$78,650.00											<input type="checkbox"/> hayes avenue																		
ishmael road	Camira	1	2	22-Sep-11*	23-Sep-11	A\$23,650.00											<input type="checkbox"/> ishmael road																		
kertes road	Camira	1	3	22-Sep-11*	26-Sep-11	A\$73,150.00											<input type="checkbox"/> kertes road																		
megan street	Camira	1	4	03-Oct-11*	06-Oct-11	A\$68,400.00											<input type="checkbox"/> megan street																		
merle street	Camira	1	5	07-Oct-11	13-Oct-11	A\$78,100.00											<input type="checkbox"/> merle street																		
mikkelsen road	Camira	1	1	14-Oct-11	14-Oct-11	A\$90,200.00											<input type="checkbox"/> mikkelsen road																		
moss road	Camira	1	2	17-Oct-11	18-Oct-11	A\$9,350.00											<input type="checkbox"/> moss road																		
polonia street	Camira	1	3	19-Oct-11	21-Oct-11	A\$42,900.00											<input type="checkbox"/> polonia street																		
stella street	Camira	1	4	24-Oct-11	27-Oct-11	A\$77,400.00											<input type="checkbox"/> stella street																		
argon street	CaroIPk	1	2	28-Oct-11	31-Oct-11	A\$48,400.00											<input type="checkbox"/> argon street																		
emery street	CaroIPk	1	3	01-Nov-11	03-Nov-11	A\$94,050.00											<input type="checkbox"/> emery street																		
mica street	CaroIPk	1	1	04-Nov-11	04-Nov-11	A\$51,150.00											<input type="checkbox"/> mica street																		
boyce street	Bundamb	4	2	07-Nov-11	08-Nov-11	A\$8,250.00											<input type="checkbox"/> boyce street																		
law street	Bundamb	4	3	09-Nov-11	11-Nov-11	A\$26,950.00											<input type="checkbox"/> law street																		
thompson street	Bundamb	4	2	14-Nov-11	15-Nov-11	A\$80,300.00											<input type="checkbox"/> thompson street																		
perrett street	Bundamb	4	3	16-Nov-11	18-Nov-11	A\$8,250.00											<input type="checkbox"/> perrett street																		
vale street	Bundamb	4	4	21-Nov-11	24-Nov-11	A\$37,400.00											<input type="checkbox"/> vale street																		
wade street	Bundamb	4	2	25-Nov-11	28-Nov-11	A\$23,100.00											<input type="checkbox"/> wade street																		
robert street	EbbwV	4	1	29-Nov-11	29-Nov-11	A\$28,050.00											<input type="checkbox"/> robert street																		
endeavour road	Rivervi	4	3	30-Nov-11	02-Dec-11	A\$8,800.00											<input type="checkbox"/> endeavour road																		
mcewan street	Rivervi	4	4	05-Dec-11	08-Dec-11	A\$26,400.00											<input type="checkbox"/> mcewan street																		
riverview road	Rivervi	4	5	09-Dec-11	15-Dec-11	A\$86,400.00											<input type="checkbox"/> riverview road																		
dudleigh street	Booval	4	1	16-Dec-11	16-Dec-11	A\$42,350.00											<input type="checkbox"/> dudleigh street																		
hamilton street	Booval	4	2	19-Dec-11	20-Dec-11	A\$8,800.00											<input type="checkbox"/> hamilton street																		
edward street	Blaksto	4	4	21-Dec-11	26-Dec-11	A\$44,550.00											<input type="checkbox"/> edward street																		
alice street	Silksto	4	1	27-Dec-11	27-Dec-11	A\$8,800.00											<input type="checkbox"/> alice street																		
cole street	Silksto	4	1	28-Dec-11	28-Dec-11	A\$78,650.00											<input type="checkbox"/> cole street																		
<b>Contractor 6 - Ash Industries 2 (Rehabilitation)</b>			<b>9</b>	<b>31-Aug-11</b>	<b>12-Sep-11</b>	<b>A\$585,200.00</b>											<input checked="" type="checkbox"/> 12-Sep-11, Contractor 6 - Ash Industries 2 (Rehabilitation)																		
parcell street	Brassal	6	1	31-Aug-11*	31-Aug-11	A\$35,750.00											<input type="checkbox"/> parcell street																		
downs street	Nth Ip	6	3	01-Sep-11*	05-Sep-11	A\$15,950.00											<input type="checkbox"/> downs street																		
lawrence street	Nth Ip	6	5	01-Sep-11*	07-Sep-11	A\$91,850.00											<input type="checkbox"/> lawrence street																		
Aspinall Street	Leichha	6	1	01-Sep-11*	01-Sep-11	A\$79,200.00											<input type="checkbox"/> Aspinall Street																		
Chuwar Street	Leichha	6	1	02-Sep-11*	02-Sep-11	A\$79,200.00											<input type="checkbox"/> Chuwar Street																		
haig street	Brassal	6	1	02-Sep-11*	02-Sep-11	A\$76,450.00											<input type="checkbox"/> haig street																		
charles street	Brassal	6	4	05-Sep-11*	08-Sep-11	A\$28,600.00											<input type="checkbox"/> charles street																		
kerton street	Brassal	6	2	05-Sep-11*	06-Sep-11	A\$24,750.00											<input type="checkbox"/> kerton street																		
north high street	Brassal	6	4	06-Sep-11*	09-Sep-11	A\$11,550.00											<input type="checkbox"/> north high street																		
loynes street	Brassal	6	3	07-Sep-11*	09-Sep-11	A\$24,750.00											<input type="checkbox"/> loynes street																		
maher street	Nth Ip	6	2	08-Sep-11*	09-Sep-11	A\$66,000.00											<input type="checkbox"/> maher street																		
willard street	Tivoli	6	1	12-Sep-11*	12-Sep-11	A\$25,300.00											<input type="checkbox"/> willard street																		
richards street	Nth Ip	6	1	12-Sep-11*	12-Sep-11	A\$8,800.00											<input type="checkbox"/> richards street																		
ware street	Nth Ip	6	1	12-Sep-11*	12-Sep-11	A\$17,050.00											<input type="checkbox"/> ware street																		
<b>Sealed Gravel Roads</b>			<b>0</b>			<b>A\$0.00</b>																													



Activity Name	Suburb	Divisions	Original Duration	Start	Finish	Budgeted Total Cost	2011												2012											
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug				
<b>Stormwater Drainage</b>			474	02-Mar-11 A	16-Jan-13	A\$11,527.00	[Summary bar]																							
<b>Inundated</b>			488	02-Mar-11 A	16-Jan-13	A\$11,527.00	[Summary bar]																							
<b>Minor Drainage Works</b>			380	02-Mar-11 A	20-Aug-12	A\$11,527.00	[Summary bar]																							
<b>Package 1 - Contractor BCW (Minor Works)</b>			28	02-Mar-11 A	19-Aug-11	A\$0.00	[Summary bar]																							
Hanlon Street - n# 5	Bundamb	4	1	02-Mar-11 A	03-Mar-11 A	A\$0.00	[Actual Work bar]																							
Hanlon Street - n# 42	Bundamb	4	1	03-Mar-11 A	03-Mar-11 A	A\$0.00	[Actual Work bar]																							
Hanlon Street - n# 58	Bundamb	4	1	03-Mar-11 A	04-Mar-11 A	A\$0.00	[Actual Work bar]																							
Andrew Street	Bundamb	4	1	04-Mar-11 A	07-Mar-11 A	A\$0.00	[Actual Work bar]																							
Bognuda Street	Bundamb	4	2	07-Mar-11 A	09-Mar-11 A	A\$0.00	[Actual Work bar]																							
Cornish Street	Bundamb	4	2	09-Mar-11 A	11-Mar-11 A	A\$0.00	[Actual Work bar]																							
River Road	Bundamb	4	2	11-Mar-11 A	14-Mar-11 A	A\$0.00	[Actual Work bar]																							
White Street	Bundamb	4	2	14-Mar-11 A	16-Mar-11 A	A\$0.00	[Actual Work bar]																							
Keith Street	Bundamb	4	1	16-Mar-11 A	17-Mar-11 A	A\$0.00	[Actual Work bar]																							
Egerton Street	Bundamb	4	1	18-Mar-11 A	19-Aug-11	A\$0.00	[Actual Work bar]																							
Hart Street	Bundamb	4	3	22-Mar-11 A	25-Mar-11 A	A\$0.00	[Actual Work bar]																							
<b>Package 3a</b>			5	24-Jun-11 A	30-Jun-11 A	A\$0.00	[Summary bar]																							
Flood Alert Stations (Replace x3)		5	5	24-Jun-11 A	30-Jun-11 A	A\$0.00	[Actual Work bar]																							
<b>Package 2 - Contractor BCW (Minor Works)</b>			15	18-Apr-11 A	06-May-11 A	A\$0.00	[Summary bar]																							
Riverside Avenue (Opp 65-71)	Bare Pt	5	2	18-Apr-11 A	19-Apr-11 A	A\$0.00	[Actual Work bar]																							
Burke & Tasman Streets	Bare Pt	5	5	18-Apr-11 A	25-Apr-11 A	A\$0.00	[Actual Work bar]																							
Junction Road (Cnr Northy Stre	Bare Pt	5	2	20-Apr-11 A	21-Apr-11 A	A\$0.00	[Actual Work bar]																							
Fifth Avenue (Cnr Riverside Ave	Bare Pt	5	1	21-Apr-11 A	22-Apr-11 A	A\$0.00	[Actual Work bar]																							
Riverside Avenue (No 118-120)	Bare Pt	5	1	22-Apr-11 A	25-Apr-11 A	A\$0.00	[Actual Work bar]																							
Fawkner Crescent (No 23-25)	Bare Pt	5	1	25-Apr-11 A	26-Apr-11 A	A\$0.00	[Actual Work bar]																							
Riverside Court (No 3)	Bare Pt	5	1	26-Apr-11 A	26-Apr-11 A	A\$0.00	[Actual Work bar]																							
Bremer Parade	Bas Poc	5	2	27-Apr-11 A	28-Apr-11 A	A\$0.00	[Actual Work bar]																							
Bremer Parade (No 4-22)	Bas Poc	5	2	27-Apr-11 A	28-Apr-11 A	A\$0.00	[Actual Work bar]																							
Bremer Parade (No 28-40)	Bas Poc	5	1	28-Apr-11 A	29-Apr-11 A	A\$0.00	[Actual Work bar]																							
Roundabout Mt Crosby Brodzig	Chuwar	5	2	29-Apr-11 A	03-May-11 A	A\$0.00	[Actual Work bar]																							
Tarcoola Street	East Ip	5	2	03-May-11 A	05-May-11 A	A\$0.00	[Actual Work bar]																							
Jacaranda Street	East Ip	5	1	05-May-11 A	06-May-11 A	A\$0.00	[Actual Work bar]																							
<b>Package 3 - Contractor BCW (Minor Works)</b>			25	06-Jun-11 A	08-Jul-11 A	A\$0.00	[Summary bar]																							
Brisbane Tce, Goodna (Near Lc	Goodna	2	2	06-Jun-11 A	07-Jun-11 A	A\$0.00	[Actual Work bar]																							
Brisbane Tce, Goodna (Near Lc	Goodna	2	2	06-Jun-11 A	07-Jun-11 A	A\$0.00	[Actual Work bar]																							
Lower Albert St, Goodna	Goodna	2	2	07-Jun-11 A	08-Jun-11 A	A\$0.00	[Actual Work bar]																							
Parker St, Goodna	Goodna	2	2	08-Jun-11 A	09-Jun-11 A	A\$0.00	[Actual Work bar]																							
Newman St, Gailes	Gailes	2	5	08-Jun-11 A	15-Jun-11 A	A\$0.00	[Actual Work bar]																							
Montgomery St, Redbank	Redbank	2	1	08-Jul-11 A	08-Jul-11 A	A\$0.00	[Actual Work bar]																							
<b>Package 4 - Contractor BCW (Minor Works)</b>			2	14-Jun-11 A	01-Jul-11 A	A\$11,527.00	[Summary bar]																							
Collingwood Drive, Collingwood	Colling	3	2	14-Jun-11 A	15-Jun-11 A	A\$0.00	[Actual Work bar]																							
Nimmo Street (No. 23), Booval	Booval	4	2	01-Jul-11 A	01-Jul-11 A	A\$5,137.00	[Actual Work bar]																							
Nimmo Street (No. 35), North B	Nth Boo	4	2	01-Jul-11 A	01-Jul-11 A	A\$6,390.00	[Actual Work bar]																							
Knight Avenue, Silkstone	Silksto	4	2	01-Jul-11 A	01-Jul-11 A	A\$0.00	[Actual Work bar]																							
Brisbane Road, Bundamba No.	Bundamb	4	2	01-Jul-11 A	01-Jul-11 A	A\$0.00	[Actual Work bar]																							
<b>Package 5 - Contractor BCW (Minor Works)</b>			51	14-Jun-11 A	23-Aug-11	A\$0.00	[Summary bar]																							
Archer Street, Bundamba	Bundamb	4	4	14-Jun-11 A	17-Jun-11 A	A\$0.00	[Actual Work bar]																							
Thomas Street, Blackstone	Blaksto	4	2	21-Jun-11 A	23-Jun-11 A	A\$0.00	[Actual Work bar]																							
Sealy St, Silkstone (No.23-25)	Silksto	4	1	24-Jun-11 A	24-Jun-11 A	A\$0.00	[Actual Work bar]																							
Sealy St, Silkstone (No.23-25)	Silksto	4	1	24-Jun-11 A	24-Jun-11 A	A\$0.00	[Actual Work bar]																							
Helen St, Nth Booval	Nth Boo	4	1	24-Jun-11 A	24-Jun-11 A	A\$0.00	[Actual Work bar]																							
MacArtney Street, Booval	Booval	4	2	19-Aug-11*	22-Aug-11	A\$0.00	[Actual Work bar]																							
Ross Llewellyn Drive, Booval	Booval	4	3	19-Aug-11*	23-Aug-11	A\$0.00	[Actual Work bar]																							
<b>Package 6 - Contractor BCW (Minor Works)</b>			5	24-Jun-11 A	30-Jun-11 A	A\$0.00	[Summary bar]																							
Riverview Road, Riverview	Rivervi	4	3	24-Jun-11 A	29-Jun-11 A	A\$0.00	[Actual Work bar]																							

█ Remaining Level of Effort   
 █ Actual Work   
 █ Summary  
█ Actual Level of Effort   
 █ Remaining Work

























	Forecast Total Cost (Based on latest Forecast)
<b>Open Space and Built Environment</b>	
<b>FLOOD AFFECTED BUILDINGS AND MAJOR OPEN SPACE INFRASTRUCTURE 2011</b>	
<b>PACKAGE 1</b>	
Bundamba Swimming Centre	\$ 1,628,623
Industrial Sheds Turley Street	\$ 298,007
<b>PACKAGE 2</b>	
Goodna Cultural & Arts Centre (Just Fitness)	\$ 1,294,095
Goodna Pool	\$ 583,163
Redbank Collingwood Park Sports Complex	\$ 1,063,855
Kippen Park	\$ 431,220
<b>PACKAGE 3</b>	
Marsden Parade (Incl 3A & 3B)	\$ 524,376
<b>PACKAGE 4</b>	
Evan Marginson Park (Little Athletics)	\$ 54,173
Evan Marginson Park (Netball Courts & Canteen)	\$ 48,720
<b>PACKAGE 5</b>	
Riverheart Flood Reconstruction Works	\$ 1,466,101
Richardson Park	\$ 3,170,007
<b>PACKAGE 6</b>	
Ipswich Knights	\$ 2,793,492
Goodna Bowling Club	\$ 1,461,055
<b>PACKAGE 7</b>	
Evan Marginson Park (Demountable)	\$ 87,342
Evan Marginson Park (Rugby Union)	\$ 1,012,658
Riverview Depot (Depot Works + Lunchroom)	\$ 539,501
<b>PACKAGE 8</b>	
Colleges Crossing Recreation Reserve	\$ 12,576,375
<b>PACKAGE 9 (Refer Parks Section Below)</b>	
Joseph Brady Park	\$ 3,202,501
Riverside Park	\$ 2,370,689
<b>PACKAGE 10 Rosewood SES</b>	
Rosewood SES	\$ 340,783
<b>INTERNALLY MANAGED PROJECTS</b>	
Pan Pacific Peace Gardens	\$ 191,949
Evan Marginson Park (Sports Field)	\$ 59,111
Cribb Park (Pontoon work only)	\$ 45,562
Tivoli Sporting Complex (Musketeers Sports Club) (No PDP - Scope Review?)	\$ 7,080
Kholo Gardens Depot (Office)	\$ 101,561
Ipswich Pound	\$ 329,501
George Alder Tennis Centre	\$ 525,619
George & Eileen Hastings Sports Centre (No PDP - included in Parks?)	\$ 51,097
Jim Finimore Park	\$ 244,627
<b>Total - Infrastructure</b>	<b>\$ 36,502,840</b>

<b>Open Space and Built Environment</b>	Forecast Total Cost (Based on latest Forecast)

Open Space and Built Environment	Forecast Total Cost (Based on latest Forecast)
<b>FLOOD AFFECTED PARKS 2011 - RESTORATION WORKS</b>	
Gladstone Road Reserve (A)	\$ 13,315
Thomas Welsby Park	\$ 7,667
Battye Park	\$ 14,542
Catalina Park	\$ 4,840
Roseberry Parade Reserve	\$ 41,316
Vi Jordan Park	\$ 42,090
Smith Park	\$ -
Suttons Park	\$ -
Bob Gamble Park (Bremer Street)	\$ 60,206
Wallaby Ware Park	\$ 9,745
Springdale Park	\$ 62,093
Woodend Nature Centre	\$ 75,372
Shapcott Park	\$ 85,706
Blue Gum Reserve	\$ 43,239
Warren Park	\$ -
City Centre Parkland	\$ -
Nathan Street Park	\$ 2,244
Conway Street Park	\$ 522
Goodna Off Leash Dog Area	\$ -
Goodna Off Leash Dog Park (Leased)	\$ -
Thomas Purnell Park	\$ 6,141
Alf Harris Park	\$ -
Noble Park	\$ 7,308
Rotary Park (Bundamba)	\$ 13,552
Bundamba Memorial Park	\$ 9,290
Small Family Park	\$ 14,969
Banjo Paterson Park	\$ 11,962
Fred Ferguson Park	\$ 5,454
Jack Barkley Park	\$ 1,723
Jack Perrett Park	\$ 8,720
Fail Park	\$ 29,213
McLeod Street Park	\$ 23,269
Martin Coogan Park	\$ 1,076
Rossner - Gibney Park	\$ 10,533
MJ Kinnane Park	\$ 12,847
Permaculture Park (Tarcoola Street)	\$ 37,911
Knoblanche Park	\$ 51,263
Jamboree Park	\$ -
Tite Family Park	\$ 47,726
Freeman Street Park	\$ -
Leslie Park (A)	\$ 12,296
Goupong Park	\$ 30,119
Evan Marginson Park	\$ 18,988
Richardson Park	\$ 261,930
Christine & Ian Addison Park	\$ -
Ipswich General Cemetery	\$ -
David W Coultas Park	\$ 2,398
Armstrong	\$ 17,925
ANZAC	\$ -
Wilcox Park	\$ 2,205
Worley Park	\$ 13,161
Palma Rosa Drive Park	\$ 8,051



<b>Open Space and Built Environment</b>	<b>Forecast Total Cost (Based on latest Forecast)</b>
Baxter Oval (Oval No. 5)	\$ -
Leichhardt Park	\$ 19,038
Marburg Oval	\$ 5,188
Ivor Marsden Memorial Sports Centre	\$ 10,905
Deebing Creek Nature Reserve	\$ 862
Katherine Court Reserve	\$ 36,304
Marburg Community (New)	\$ -
Kholo Gardens (New)	\$ 268,195
Bremer Parade Reserve (New)	\$ 6,448
Len Clause Park	\$ 14,269
Kholo Enviroplan Reserve (Camerons Scrub)	\$ 404
Kholo Bridge Reserve (New)	\$ 10,264
Johnston Park (New)	\$ 7,135
Henry Lawson Park (New)	\$ 17,440
Grace Street Reserve (New)	\$ 13,686
Tony Merrell Park (New)	\$ 901
The Terrace Reserve (New)	\$ 2,332
Riverbank Reserve (New)	\$ 2,128
Mi Hi Junction (New)	\$ 2,751
Cribb Park (Non Pontoon work)	\$ 28,674
<b>Total - Parks</b>	<b>\$ 1,569,851</b>

<b>Open Space and Built Environment</b>	Forecast Total Cost (Based on latest Forecast)
<b>FLOOD AFFECTED MECHANICAL COMPONENTS 2011</b>	
Mechanical	\$ 237,450
<b>FLOOD AFFECTED ELECTRICAL COMPONENTS 2011</b>	
Electrical	\$ 1,031,013
<b>FLOOD AFFECTED STREETScape</b>	
Brisbane Terrace - Bowls Club	\$ 774
Queen Street - Roundabout	\$ -
Woogaroo St	\$ 2,565
Layard St - Roundabout	\$ 3,880
Cnr Parker & Alice Street	\$ 13,603
Church Street	\$ 6,945
Brisbane Terrace - Aquatic Centre	\$ 4,905
Old Ipswich Road	\$ 35,970
Bundamba Pool Car Park	\$ 784
Bergins Hill Road - Car Park	\$ 2,463
Ellenborough Street	\$ 3,021
King Edward Parade	\$ 29,190
Old Toowoomba Road - 3 Mile Creek	\$ 7,520
One Mile Bridge	\$ 112,725
Queen Street - Entry Sign	\$ 2,671
Rosewood - Laidley Road & Rosewood - Warrill View Road - entry signage	\$ 1,962
Rosewood Laidley Road - entry signage & Grandchester Mt Mort Road - Tree Planting	\$ 10,440
Ipswich Motorway	\$ -
<b>Total - Streetscape</b>	<b>\$ 239,419</b>
<b>Total - Open Spaces and Built Environment</b>	<b>\$ 39,580,573</b>



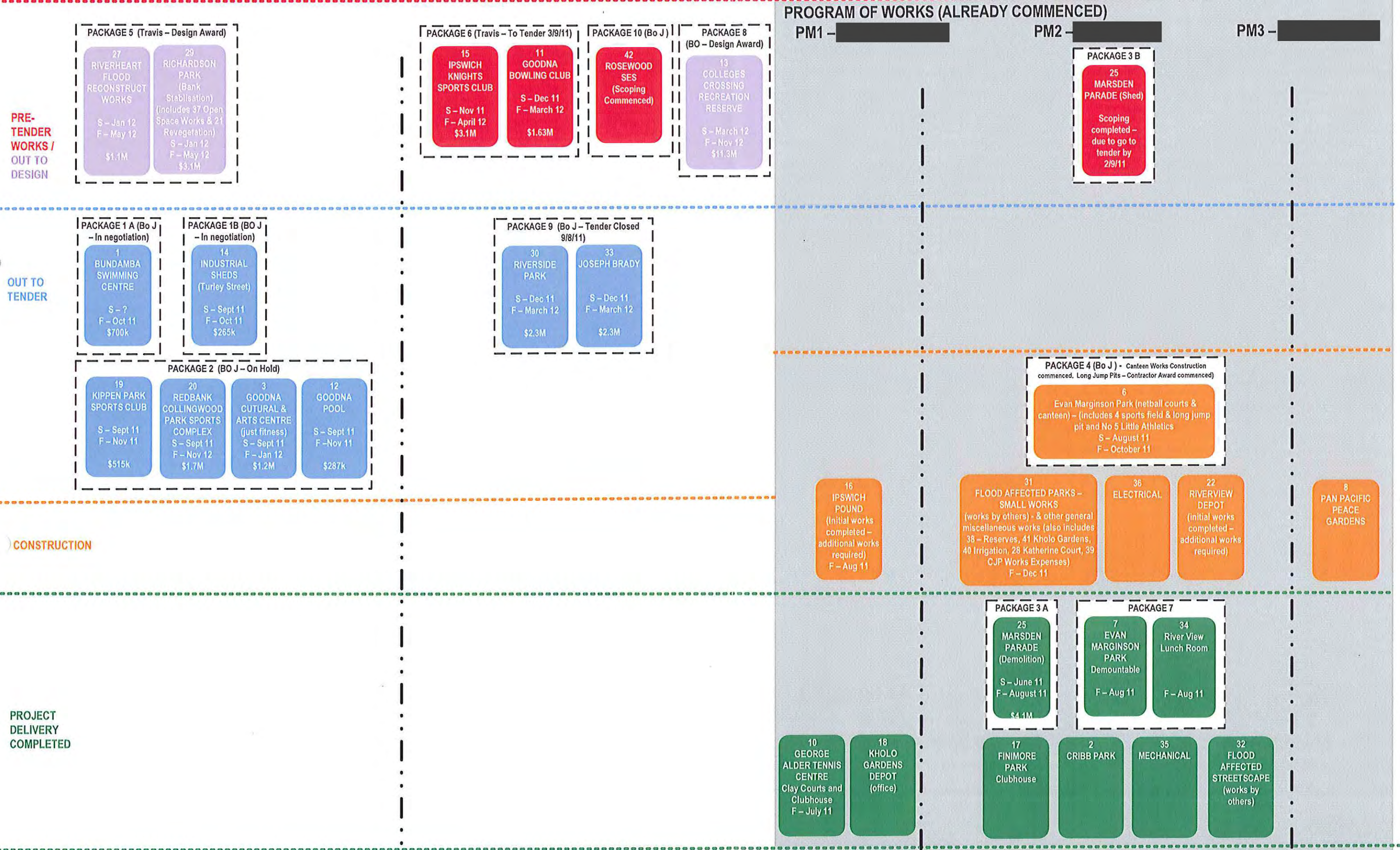
# IPSWICH FLOOD DISASTER RECOVERY - OPEN SPACE & BUILT ENVIRONMENT

## Master Schedule

Version No. 18 24/08/11

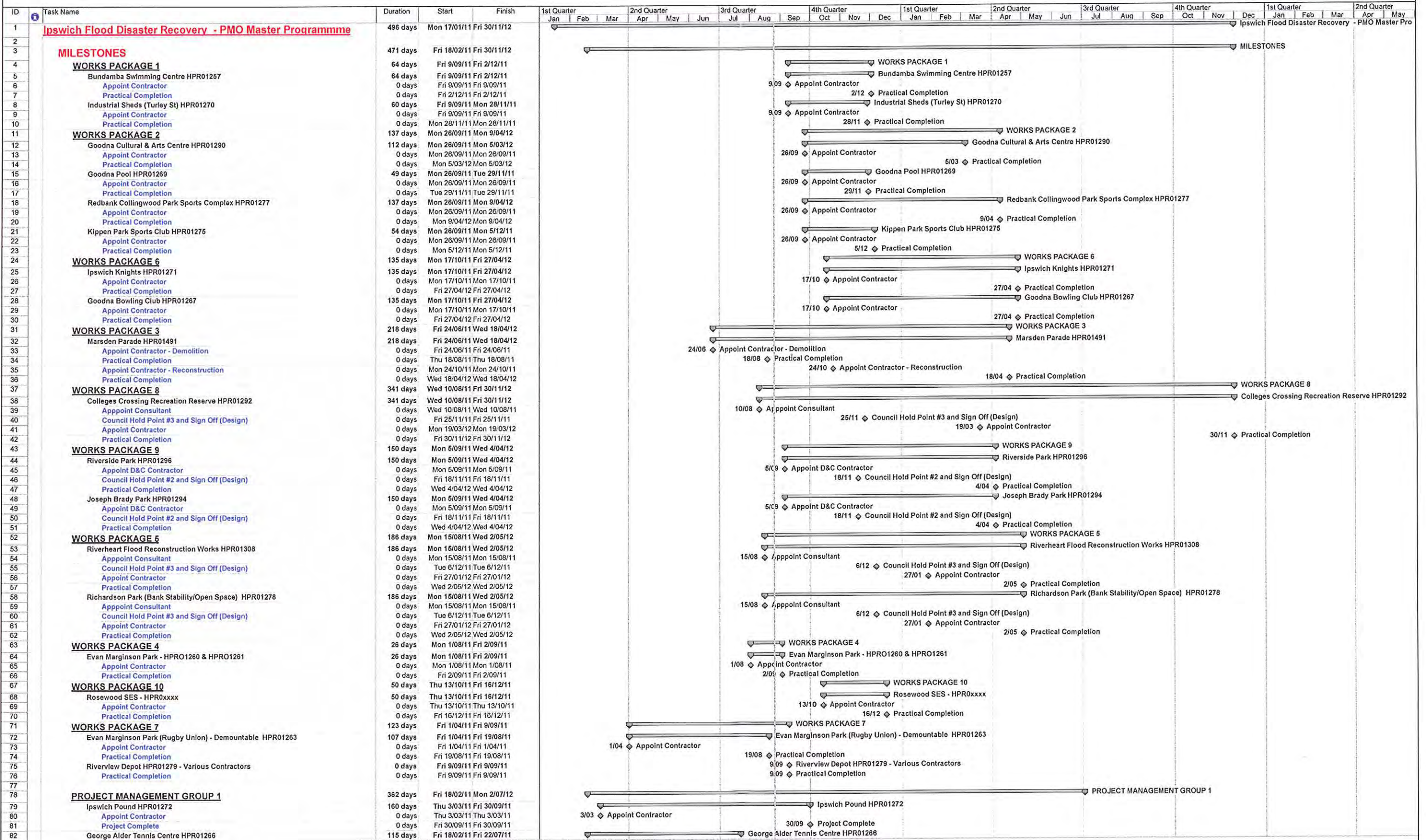
CLIENT REPRESENTATIVE 1

CLIENT REPRESENTATIVE 2



Note: S = Start, F = Finish - Dates relate to reconstruction activity only











WATER METER ID NUMBER	ADDRESS	TERRITORY	DIVISION
249979	Santa Monica Drive	Augustine Heights	1
249911	Buttler Street	Bellbird Park	2
855100	Eagle Street	Bellbird Park	2
906630	Fernvale Road	Brassall	6
249948	Holt Street	Brassall	6
249906	North High Street	Brassall	6
249941	Workshops Street	Brassall	6
249931	Workshops Street	Brassall	6
249942	Ann Street	Bundamba	4
249940	Ashburn Road	Bundamba	4
865697	Bundamba Creek	Bundamba	4
897701	Habben Court	Bundamba	4
249947	Krypton Court	Carole Park	1
249926	Mica Street	Carole Park	1
249927	Mica Street	Carole Park	1
249928	Mica Street	Carole Park	1
249929	Mica Street	Carole Park	1
249930	Mica Street	Carole Park	1
249944	Horton Drive	Chuwar	5
895286	Lucinda Close	Chuwar	5
249934	Collins Street	Collingwood Park	3
249921	Deebing Creek Connection Road	Deebing Heights	9
249945	Piccadilly Court	Deebing Heights	9
249937	Ash Street	Flinders View	9
249920	Ash Street	Flinders View	9
249907	Challenger Avenue	Flinders View	9
249908	Cowley Drive	Flinders View	9
249910	Fairview Avenue	Flinders View	9
862041	Hazelwood Court	Flinders View	8
249946	Willey Street	Flinders View	9
249973	Broadleaf Parade	Goodna	2
249974	Broadleaf Parade	Goodna	2
249975	Broadleaf Parade	Goodna	2
249914	Clements Drive	Goodna	2
861885	Whitmore Crescent	Goodna	2
249980	Hercules Row	Karalee	5
863649	Junction Road	Karalee	5
249935	Riverpark Drive	Karalee	5
891529	Waterfront Drive	Karalee	5
914282	Bishop Street	Leichhardt	6
249923	Marburg Quarry Road	Marburg	10
895005	Nixon Street	North Booval	4
249949	Ivory Close	Peak Crossing	10
249925	Banksia Drive	Raceview	9
249932	Whitehill Road	Raceview	9
249933	General Macarthur Place	Redbank	2
918779	Henderson Street	Redbank	3
918781	Henderson Street	Redbank	3
249922	Colane Street	Redbank Plains	1
899238	Greenwood Village Road	Redbank Plains	9

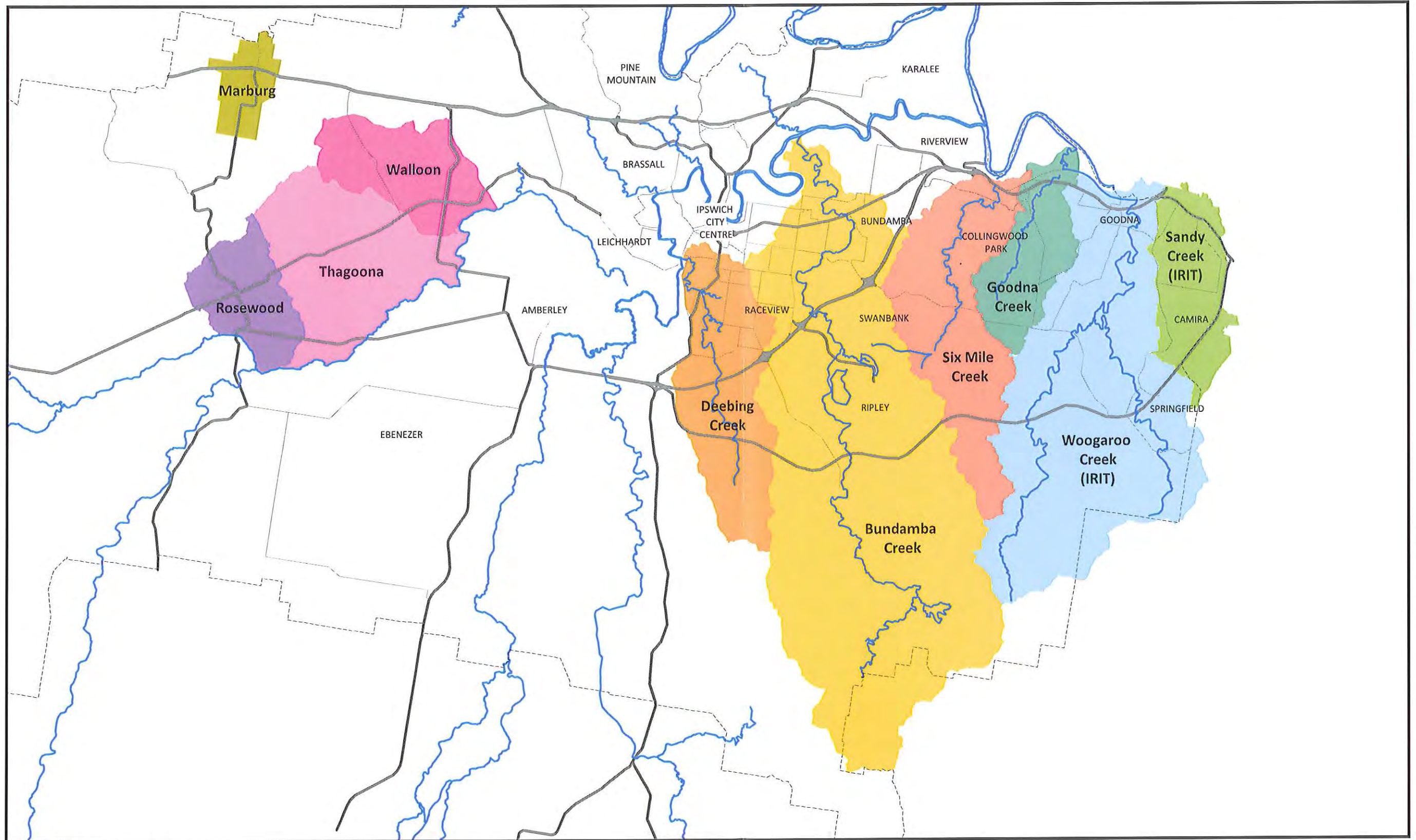
Referable dam

249943	Pathway	Redbank Plains	3	
249939	Redbank Plains Road	Redbank Plains	1	
249916	Bennett Street	Rosewood	10	
249977	Birru Place	Rosewood	10	
249976	Kunkala Court	Rosewood	10	
249919	Matthew Street	Rosewood	10	Referable dam
249918	William Street	Rosewood	10	
249938	Carnation Close	Springfield	1	
249912	Mur Boulevard	Springfield	1	
249913	Mur Boulevard	Springfield	1	
249924	Sharpless Road	Springfield	1	
249915	Springfield Parkway	Springfield	1	
249953	Amarillo Place	Springfield Lakes	1	
249958	Amarillo Place	Springfield Lakes	1	
249969	Amarillo Place	Springfield Lakes	1	
249954	Bellevue Place	Springfield Lakes	1	
249965	Bellevue Place	Springfield Lakes	1	
249957	Burlington Terrace	Springfield Lakes	1	
249960	Burlington Terrace	Springfield Lakes	1	
249961	Burlington Terrace	Springfield Lakes	1	
249962	Burlington Terrace	Springfield Lakes	1	
249966	Burlington Terrace	Springfield Lakes	1	
249972	Burlington Terrace	Springfield Lakes	1	
249959	Centenary Highway	Springfield Lakes	1	
249964	Grand South Circuit	Springfield Lakes	1	
249970	James Josey Avenue	Springfield Lakes	1	
249971	James Josey Avenue	Springfield Lakes	1	
249950	Lakeside Avenue	Springfield Lakes	1	
249951	Lakeside Avenue	Springfield Lakes	1	
249955	Lavender Street	Springfield Lakes	1	
932140	Opossum Creek	Springfield Lakes	9	
932141	Opossum Creek	Springfield Lakes	9	
249981	Springfield Greenbank Arterial	Springfield Lakes	1	
852059	Springfield Greenbank Arterial	Springfield Lakes	9	
932139	Springfield Lakes Boulevard	Springfield Lakes	9	
249952	Summit Drive	Springfield Lakes	1	
249956	Summit Drive	Springfield Lakes	1	
249963	Viewpoint Drive	Springfield Lakes	1	
249967	Viewpoint Drive	Springfield Lakes	1	
249968	Viewpoint Drive	Springfield Lakes	1	
249936	Glencoe Place	Thagoona	10	
921659	R Faulkners Road	Thagoona	10	
833986	Burswood Close	Wulkuraka	6	
249909	Ash Street	Yamanto	8	
898281	Benjamin Court	Yamanto	10	
898282	Benjamin Court	Yamanto	10	
898283	Benjamin Court	Yamanto	10	
249917	Oak Court	Yamanto	8	
919244	Sarah Drive	Yamanto	10	





# FLOOD CATCHMENT STUDIES 2011



## CATCHMENT STUDIES

### CATCHMENT STUDY STATUS

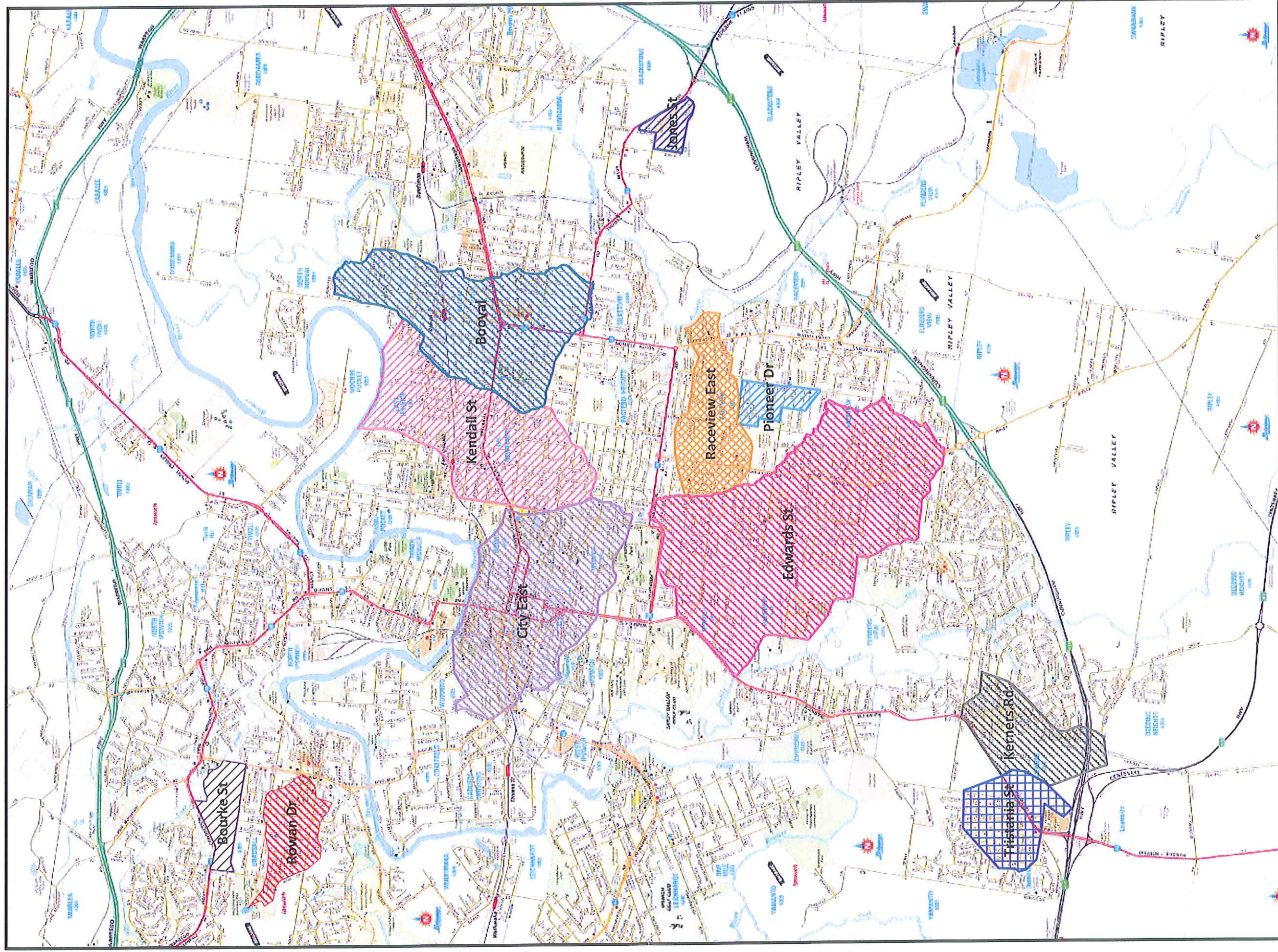
STUDY NAME	STATUS	SAG
Walloon	<ul style="list-style-type: none"> <li>» Study is well advanced (70%) with a flood model established.</li> <li>» Awaiting input from major developer in the area (Benchmark Group) for their preferred solution.</li> </ul>	✓
Thagoona	<ul style="list-style-type: none"> <li>» Study is well advanced (70%) with flood model established.</li> <li>» Issues arise with the railway line impounding water flows.</li> <li>» NDRP funded</li> <li>» Mitigation strategy:                             <ul style="list-style-type: none"> <li>- maximise flows along the alignment of O'Sheas Gully</li> <li>- provision of drainage along the railway to assist flood flows; and</li> <li>- addressing the problems of access to properties under the railway.</li> </ul> </li> </ul>	✓
Rosewood	<ul style="list-style-type: none"> <li>» Study is well advanced (70%)</li> <li>» Issues with the capacity of Masons Gully and town drain with flood waters flowing down John Street and railway line</li> <li>» NDRP funded</li> <li>» Mitigation strategy: reconstruction of Masons Gully and town drain</li> </ul>	✓
Marburg	<ul style="list-style-type: none"> <li>» Study has not yet commenced</li> <li>» NDRP funded in 2011/2012</li> </ul>	
Bundamba Creek	<ul style="list-style-type: none"> <li>» Study well advanced (70%) with flood model established</li> <li>» Model provided to the ULDA for Ripley development assessment</li> <li>» Work progressing to identify affected properties</li> <li>» Study will establish "nodes" at several locations within the catchment setting criteria to be achieved during development.</li> </ul>	✓
Deebling Creek	<ul style="list-style-type: none"> <li>» Study well advanced with flood model established (50%)</li> <li>» Model provided to the ULDA for Ripley development assessment</li> <li>» Work progressing to identify affected properties</li> <li>» Study will establish "nodes" at several locations within the catchment setting criteria to be achieved during development.</li> </ul>	✓
Six Mile Creek	<ul style="list-style-type: none"> <li>» Study well advanced with flood model established</li> <li>» Affected properties identified</li> <li>» Study will establish "nodes" at several locations within the catchment setting criteria to be achieved during development.</li> <li>» Model provided to developers to ascertain controls in development study area.</li> </ul>	✓
Goodna Creek	<ul style="list-style-type: none"> <li>» Study well advanced with flood model established</li> <li>» Affected properties identified</li> <li>» Study will establish "nodes" at several locations within the catchment setting criteria to be achieved during development.</li> <li>» A site at Collingwood Drive is being investigated at P&amp;D request.</li> </ul>	✓
Woogaroo Creek	<ul style="list-style-type: none"> <li>» Study funded, procured and coordinated by IRIT</li> <li>» Study currently out to tender to procure preferred consultant</li> </ul>	
Sandy Creek	<ul style="list-style-type: none"> <li>» Study funded, procured and coordinated by IRIT</li> <li>» Study currently out to tender to procure preferred consultant</li> </ul>	





2011

# FLOOD SUB-CATCHMENT STUDIES (Central Suburbs)

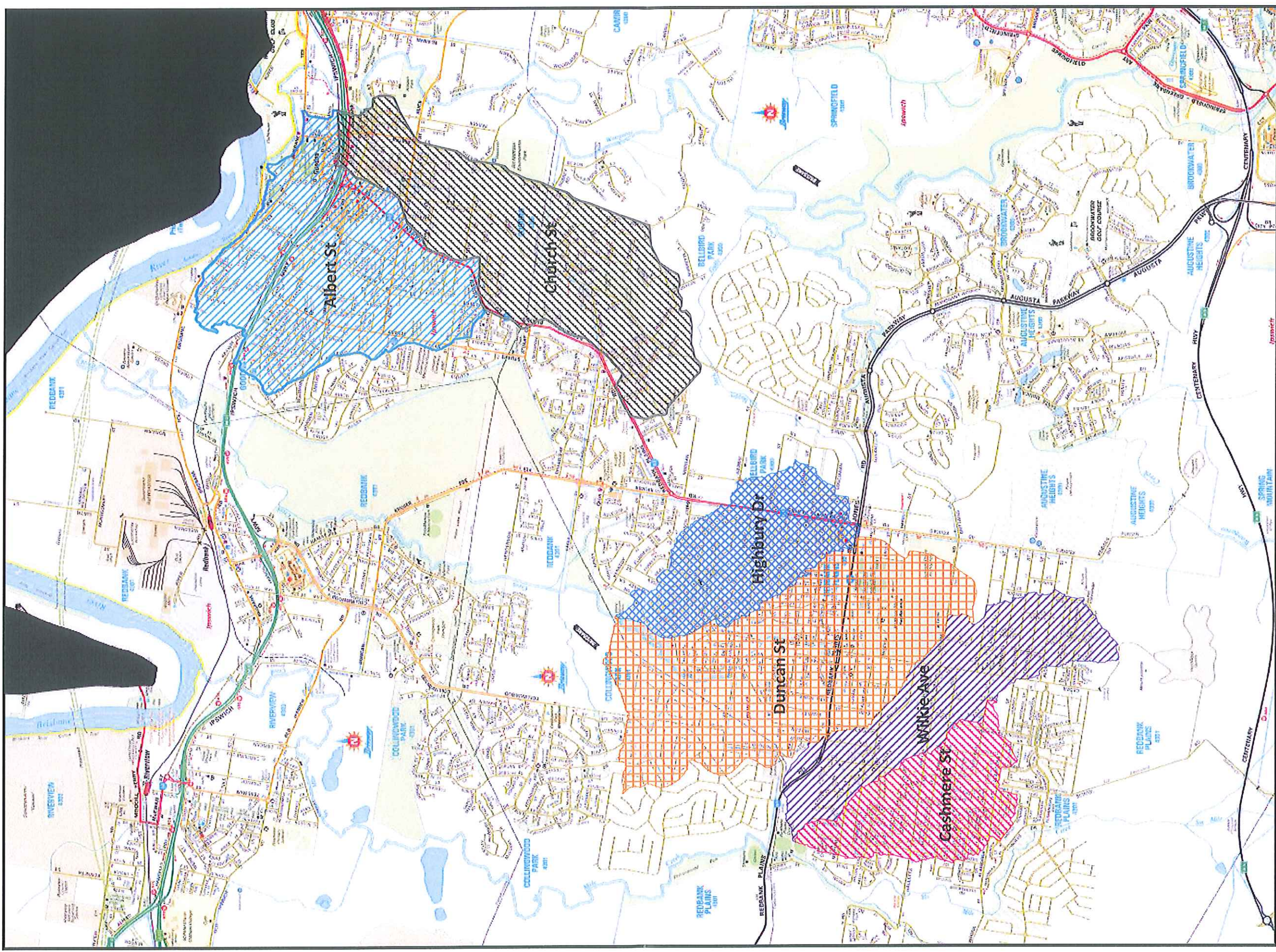






2011

# FLOOD SUB-CATCHMENT STUDIES (Eastern Suburbs)





## SUB-CATCHMENT STUDIES

### SUB-CATCHMENT STUDY STATUS Central Suburbs

STUDY NAME	STATUS	SAG
Edwards Street	<ul style="list-style-type: none"> <li>» Study in final phases (90%) with model established</li> <li>» Some minor remodelling required to incorporate development approvals processed since setting up the model .</li> <li>» Existing detention basins provided by developers have functions limitations</li> <li>» Rockwell Drive has high hazard flood in all events.</li> <li>» Mitigation strategy:                             <ul style="list-style-type: none"> <li>- Whitehill Road culvert upgrade</li> <li>- new detention basins to be designed and built on development site south of Edwards St</li> </ul> </li> </ul>	
Booval	<ul style="list-style-type: none"> <li>» Study well advanced (70%) with model established</li> <li>» Flooding extents identified.</li> <li>» A number of additional areas being investigated at P&amp;D request.</li> <li>» Mitigation options under investigation.</li> </ul>	✓
Kendall Street, Newtown / East Ipswich	<ul style="list-style-type: none"> <li>» Flood model prepared in-house by Council</li> <li>» Extent of flooding identified</li> <li>» Funds allocated in 2011/2012 to peer review model (not commenced)</li> <li>» Mitigation measured yet to be investigated and identified</li> </ul>	
City East (Newtown, Ipswich Central, Woodend)	<ul style="list-style-type: none"> <li>» Flood model prepared in-house by Council</li> <li>» Extent of flooding identified</li> <li>» Funds allocated in 2011/2012 to peer review model (not commenced)</li> <li>» Mitigation measured yet to be investigated and identified</li> </ul>	
Bourke Street, Brassall	Study funded in 2011/2012 (not yet commenced) to identify solutions to drainage problems experience by residents at the lower end of the sub-catchment.	
Rowan Drive, Brassall	<ul style="list-style-type: none"> <li>» Study commenced (30% completed) to investigate and recommend a solution/s to the flooding of Hunter Street adjacent to the open drainage channel near Rowan Drive.</li> <li>» Four solutions identified. Each solution is being modelled for benefits</li> </ul>	
Pioneer Drive, Raceview	<ul style="list-style-type: none"> <li>» Study undertaken to identify solutions to drainage problems in Pioneer Drive and Explorer Street, Raceview</li> <li>» Report completed with works programmed in 2011/2012 budget.</li> </ul>	
Raceview East	Study funded in 2011/2012 (not yet commenced) to identify solutions to drainage problems experienced by residents in the sub-catchment.	
Jones Street, Blackstone	Study commenced (30% completed) to investigate and recommend a solution to the problems associated with the hydraulic performance of the detention basin located at the corner of High and William Streets to manage the flooding impacts of the development on residential properties downstream of the basin.	
Kerners Road, Yamanto	Study commenced (30% completed) to investigate flooding problems in the Kerners Road and recommend a short term treatment of stormwater down Kerners Road.	
Tristania Street, Yamanto	<ul style="list-style-type: none"> <li>» Study well advanced (90%) to investigate flooding, safety and maintenance problems in the Tristania Street sub-catchment.</li> <li>» Draft report submitted by consultant</li> </ul>	

**SUB-CATCHMENT STUDY STATUS**  
Eastern Suburbs

STUDY NAME	STATUS	SAG
Cashmere Drive, Redbank Plains	<ul style="list-style-type: none"> <li>» Sub-catchment within the Six Mile Creek Catchment</li> <li>» Study well advance (70%) with flood model established</li> <li>» Draft report received form consultant.</li> </ul>	✓
Wilkie Avenue, Redbank Plains	<ul style="list-style-type: none"> <li>» Sub-catchment within the Six Mile Creek catchment</li> <li>» Study well advance (70%) with flood model established</li> <li>» Draft report received form consultant.</li> </ul>	✓
Duncan Street, Redbank Plains	<ul style="list-style-type: none"> <li>» Sub-catchment within the Goodna Creek catchment</li> <li>» Study well advance (70%) with flood model established</li> <li>» Draft report received form consultant.</li> </ul>	✓
Highbury Drive, Redbank Plains	<ul style="list-style-type: none"> <li>» Sub-catchment within the Goodna Creek catchment</li> <li>» Study well advance (70%) with flood model established</li> <li>» Draft report received form consultant.</li> </ul>	✓
Albert Street, Goodna	<ul style="list-style-type: none"> <li>» Study well advance (70%) with flood model established</li> <li>» Extensive work undertaken with respect to options to improve local drainage through Lower James Street and used for negotiations with IMU (DTMR/Origin).</li> <li>» Mitigation options upstream of IMU under investigation.</li> </ul>	✓
Church Street, Goodna	<ul style="list-style-type: none"> <li>» Study well advance (60%) with flood model established</li> <li>» Mitigation options under investigation.</li> </ul>	✓



No.	Recommendation	ICC Action	ICC Responsibility - Dept Head	Status	Date of Status	Date Completed
<b>Chapter 2 Dams</b>						
2.1	Seqwater should act immediately to establish: 1. a steering committee to oversee the long term review of the Wivenhoe manual including senior representatives of at least DERM, Seqwater, the Water Commission, the Water Grid Manager, Brisbane City Council, Ipswich City Council and Somerset Regional Council 2. a technical review committee comprised of independent experts in at least hydrology, meteorology and dam operations to examine all technical work completed as part of the review.	NB: PD will need to be involved in any suggested land use planning and flood plain management outcomes.	CEO	CEO is a member of the Steering Committee. First meeting was held on 25 August 2011 with further meetings held on 15 September and 13 October 2011. Next meeting is scheduled for 10 November 2011.	18.10.11	
2.14	The Commission recommends that a review be conducted of the number and distribution of ALERT gauges within the Wivenhoe and Somerset catchments. This review should include an assessment of the usefulness and cost effectiveness of installing more gauges, particularly at high elevations in the catchment. Such an assessment would appropriately involve the Bureau of Meteorology, DERM and Seqwater, and the relevant local councils.	Prior to the January 2011 event, Ipswich commenced a review of the Alert Gauge network within the Ipswich Local government area. This review, in conjunction with BOM and Seqwater, identified the following activities; 1. Rectification of Identified ICC ALERT Flood Warning Monitoring System Gaps 2. maintenance and Upgrading of existing sites. The project also includes a provision for raising of community awareness of flood issues in the locality and in Ipswich generally, and for building of local volunteer capacity.  <del>In addition to this, ICC participated in an initial consultative workshop with BOM, Seqwater, EMQ, QPS and other local governments to discuss a "whole of catchment" approach to the Lockyer, Brisbane and Bremer Catchments. This approach includes;</del> <del>- Knowledge &amp; Information Management sharing (ie: Models, studies, etc)</del> <del>- Management of Alert gauge network</del> <del>- Communication protocols.</del>	COO WP&R	Not applicable to ICC as not in the catchments referred to	12.10.11	Completed
<b>Chapter 3 Disaster frameworks, preparation and planning</b>						
3.4	Every local government susceptible to flooding should ensure that, before the next wet season, its local disaster management plan: • is consistent with the Disaster Management Act 2003 • addresses local risks and circumstances • can be used easily in the event of a disaster	Plan is currently being reviewed with sign off by November. Additional update now required to be consistent with EMQ recently released templates but may not meet a November deadline	COO WP&R	Submission for approval by end November 2011	12.10.11	
3.5	Every person who is required to work under a local disaster management plan should be familiar with the plan before next wet season	In conjunction with EMQ, a Training competency framework has been developed. [see attachment 1]	COO WP&R	LDC training as first stage completed 31.08.11	12.10.11	
3.6	Every local government should publish its disaster management plan (and relevant sub-plans) on its website	Plan to be published once review is complete and Ipswich City Council and the LDMG have approved.	COO WP&R	Support from Marketing and EBSB. December 2011 aimed for approval. Update from EBSB: EBSB are poised to assist with publishing the document once it is available	09.09.11 10.10.11	
3.13	Before the next wet season, local governments susceptible to flooding should conduct community education programs which provide local information about (at least) the following topics: • the measures households should take to prepare for flooding • the roles and functions of the SES and details of how to contact and join it • whom to contact if assistance is needed during a flood • contact details for emergency services in the area • the types of warnings that are used in the area, what they mean and what to do in the event of a warning • where and how to obtain information before, during and after a disaster • what is likely to happen during a disaster (for example, power outages and road closures) • evacuation • measures available for groups who require particular assistance (for example, the elderly, ill and people with a disability).	Development of a "Community Awareness Framework" [attachment 2] has commenced targeting schools, impacted communities, high risk sections of the community as well as a pre-season program. This development is being done in conjunction with LDMG members.  The roll out of this program forms part of the activities of Council's Community Development Officers".  Finalisation of this Framework will be undertaken by Council's Emergency Management Officer. [TT]	COO C&CS	Support from Marketing and LDC/EMO. Commence post recruitment of EMO	09.09.11	

3.14	To ensure consistency, the Queensland Government should assist local governments to develop and deliver the community education programs.	<p>Stage 1 - Current Project Brief to Develop Major Historic Flooding information, ground levels and eave height levels available to public online for free. Stage 2 - Will involve geospatial mapping to depict impacts at certain levels. PD should also be involved.</p> <p>Development of a "Community Awareness Framework" has commenced to target schools, impacted communities, high risk sections of the community as well as a pre-season program. This development is being done in conjunction with LDMG members.[TT]</p>	COO C&CS	<p>For update on stage 1 - see item 4.13 below.</p> <p>██████████ Mapping Project &amp; Annette Schoone - ensure consistency in delivery of education programs.</p> <p>Marketing Branch has prepared a communications plan for flood mapping. A web-based flood map search facility has been created. Estimated date to set live is 30 September 2011 (pending Council approval)</p> <p>Marketing Branch has prepared an insert for the October 17 rates release which provides details of Council's online flood map search functionality. Marketing Branch commenced weekly insert into Info Page Notice (print media) commencing first week in October on Being Prepared and the link to Council's website for further Emergency Mgmt Information. This notice will continue until late Feb 2012.</p>	09.09.11  27.09.11 06.10.11	
<b>Chapter 4 Forecasts, warnings and information</b>						
4.1	In issuing warnings for a district or region, local and state authorities should use a range of different warning mechanisms effective for the particular district or region, including methods which do not rely on electricity.	<p>As part of the review of the Communications and Warning sub-plan of the LDMP, identification of alternate warning systems and investigation into capabilities against event scenarios will be undertaken.[TT]</p> <p>This review needs to be lead by the LDC and nominated LDCC Communication Officer(s).[TT]</p>	COO C&CS	<p>Marketing Branch is investigating SMS Broadcast and Alert Systems (digital exchange national enquiry system)</p> <p>██████████ to progress Support from LDMG/Tony Trace</p> <p>Meeting has taken place with EBSB (██████████ Enterprise Architect) to discuss internal Message Manager system. Awaiting advice from ██████████ regarding capabilities.</p> <p>Discussion held with ██████████ who is also looking at LGAQ options.</p> <p>06.10.11 Briefing by two SMS providers in October. Recommendation to be made on options to implement.</p>	09.09.11  28.09.11 06.10.11	
4.2	Councils should prepare SMS alert templates covering a range of different flood scenarios before the wet season.	<p>As part of the review of the Communications and Warning sub-plan of the LDMP, the guidelines for usage of the SEWS need to be incorporated, including the development of individual catchment templates[TT]</p> <p>This review needs to be lead by the LDC and nominated LDCC Communication Officer(s).[TT]</p>	COO C&CS	<p>Marketing Branch has set meeting with Tony Trace (13 Sept 2011) to ascertain what is already available</p> <p>██████████ to progress . Follow</p> <p>up with Disaster Management Officer (DMO) and ██████████</p> <p>██████████ gathering template documents. Draft required by 5 Oct 11.</p> <p>SMS templates written</p> <p>Update from EBSB: Options paper provided regarding potential delivery mechanisms.</p>	09.09.11 09.21.11 28.09.11 10.10.11	Completed 10.10.2011
4.3	SMS alerts should direct recipients to websites or contact numbers providing more detailed information about flood locations and predictions, the location of evacuation centres and evacuation routes.	<p>As part of the review of the Communications and Warning sub-plan of the LDMP, the guidelines for usage of the SEWS need to be incorporated, including inclusion action statements.[TT]</p> <p>This review needs to be lead by the LDC and nominated LDCC Communication Officer(s).[TT]</p>	COO C&CS	<p>Marketing Branch to discuss with Tony Trace and ██████████ Emergency Management web page has been created</p> <p>██████████ to progress Support from Tony Trace</p> <p>*Marketing Branch has made substantial updates to the Emergency Management page of www.ipswich.qld.gov.au and relocated this page under the Residents tab on the home page. A tile has also been placed on the home page which links directly to the Emergency Management page. SMS templates written based on EMQ templates</p>	09.09.11  10.10.11	Completed 10.10.11
4.4	Councils and Emergency Management Queensland should work together to ensure the approval process does not cause delays in delivering SMS alerts.	<p>MOU with EMQ to provide agreed sign off process.</p> <p>As part of the review of the Communications and Warning sub-plan of the LDMP, the guidelines for usage of the SEWS need to be incorporated, including approval mechanisms and processes.[TT]</p> <p>This review needs to be lead by the LDC and nominated LDCC Communication Officer(s).[TT]</p>	COO WP&R	MOU in draft form with second draft being reviewed	02.09.11 10.10.11	



4.6	Individuals and businesses should be encouraged to acquire battery operated radios for use in emergencies.	Development of a "Community Awareness Framework" has commenced targeting schools, impacted communities, high risk sections of the community as well as a pre-season program. This development is being done in conjunction with LDMG members.  The roll out of this program forms part of the activities of Council's Community Development Officers".  Finalisation of this Framework will be undertaken by Council's Emergency Management Officer. [TT]	COO C&CS	██████████ included in material currently being developed by CDO *Commence post recruitment of EMO ██████████ to review Emergency Management area of www.ipswich.qld.gov.au. Emergency Management area updated on Council website. Fridge Magnet for community education has been drafted. Once finalised will be distributed to each household in addition to distributing at events, community centre, libraries, divisional offices etc. Fact Sheets for distribution to community currently being compiled. Will be distributed to most vulnerable areas with document wallet. Fridge magnet completed. Will be distributed to every household across the Ipswich Region by mid November.	09.09.11 14.09.11 21.09.11 28.09.11 17.10.11	
4.7	Councils should ensure that residents are aware of the frequency of the radio station or stations in their local area that will disseminate flood warnings and other information during disasters.	Development of a "Community Awareness Framework" has commenced targeting schools, impacted communities, high risk sections of the community as well as a pre-season program. This development is being done in conjunction with LDMG members.  The roll out of this program forms part of the activities of Council's Community Development Officers".  Finalisation of this Framework will be undertaken by Council's Emergency Management Officer. [TT]	COO C&CS	██████████ included in material currently being developed by CDO *Commence post recruitment of EMO *Marketing Branch will ensure that this information is available in the appropriate area of www.ipswich.qld.gov.au Emergency Management & Community Recovery area updated on ICC website under "Residents". ICC is participating in a state-wide web portal www.hardenup.org regarding emergency management. Harden Up aims to be a scalable platform for online engagement during severe weather with community, government, media, business and research. www.hardenup.org will be live across Queensland mid-October 2011. A community message advising preparedness for the summer storm season with call to action to www.ipswich.qld.gov.au will be included in all ICC Update advertisements commencing 5 October 2011 until end of February 2012. Meeting to be coordinated by ██████████ and Management of River 94.9 and ABC 612 re Emergency Management.	09.09.11 14.09.11 21.09.11 28.09.11 06.10.11	
4.8	Councils that have not already done so should consider how social media may be used effectively to provide accurate information about flood levels and local conditions to residents during a flood event.	Report has been prepared - EMT directed required.	COO C&CS	Facebook and Twitter accounts have been created. A report has been prepared by ██████████ ██████████ has provided a presentation to 3rd level Managers. ██████████ & ██████████ to progress. ██████████ and ██████████ in consultation with ██████████ to review when social media use would be most effective and how this will be implemented and will also arrange for in-house Facebook training for ██████████ and other relevant Council staff. ██████████ and ██████████ in consultation with other Departments will draft a social media coordination plan in the event of an emergency.	09.09.11 14.09.11 28.09.11	Completed. Available and ready for use 06.10.11
4.9	A siren may be appropriate in smaller towns or rural communities susceptible to flash flooding. If councils rely on sirens to warn residents, they should ensure that the community understands the meaning of the siren.	As part of the review of the Communications and Warning sub-plan of the LDMP, identification of alternate warning systems and investigation into capabilities against event scenarios will be undertaken.[TT]  This review needs to be lead by the LDC and nominated LDCC Communication Officer(s).[TT]	COO WP&R	Currently reviewing applicability as concerns re conflicts and confusion with local emergency sirens (volunteer and Sate)	12.10.11	
4.10	Councils, with the assistance of the Bureau of Meteorology, should examine the feasibility of and priorities for installing additional river height and rainfall gauges in areas of identified need.	Additional gauges have been identified and will be installed prior to the wet season.  Prior to the January 2011 event, Ipswich commenced a review of the Alert Gauge network within the Ipswich Local government area. This review, in conjunction with BOM and SEQwater, identified the following activities; 1. Rectification of Identified ICC ALERT Flood Warning Monitoring System Gaps 2. maintenance and Upgrading of existing sites.[TT]	COO WP&R	Additional sites indentified and procurement and installation to commence late Novemeber2011	12.10.11	Completed

4.11	Councils, with the assistance of the Bureau of Meteorology, should consider the susceptibility of their regions to flash flooding, and whether it is feasible and necessary to acquire and operate an automated local evaluation in real time system (ALERT system) for particular waterways.	Additional ALERT gauges sites have been identified and will be installed prior to the wet season.  Prior to the January 2011 event, Ipswich commenced a review of the Alert Gauge network within the Ipswich Local government area. This review, in conjunction with BOM and SEQwater, identified the following activities; 1. Rectification of Identified ICC ALERT Flood Warning Monitoring System Gaps 2. maintenance and Upgrading of existing sites.[TT]	COO WP&R	Reviews conducted through BOM and Resilience Funding pathways. Procurement phase carried out and projects now in the co-ordination and delivery phase. Majority of new gauges in the 'six hours or less' category which addresses primarily flash flooding.	7.09.11	
4.13	Councils should ensure that residents and businesses can clearly understand the impact of predicted flood levels on their property. This may include one or more of the following methods: • information on rates notices about flooding at individual properties • geospatial mapping, available to the public, that depicts inundation at certain river heights • flood markers • flood flag maps and floodwise property reports • colour coded maps • information that relates gauge heights with the level of flooding to be expected at a property.	Stage 1 - Current Project Brief to Develop Major Historic (1974 and 2011) Flooding information, ground levels and eave height levels available to public online for free. Estimate 10,000 properties affected by 1974 and/or 2011 event  Stage 2 (if required) - Will involve geospatial mapping to depict impacts at certain levels. PD should also be involved in geospatial mapping and associated property reports.  As part of the review of the Communications and Warning sub-plan of the LDMP, identification of alternate warning systems and investigation into capabilities against event scenarios will be undertaken.[TT]  This review needs to be lead by the LDC and nominated LDCC Communication Officer(s).[TT]	CFO/City Planner	Stage 1 on target for completion by 1 October. City Solicitor reported to CMF Board on 13 Sep - board approved the deliverable in principle. User Acceptance Testing to be finalised by 30 Sep - final data load (10000 pdf reports ) takes 7-8 days .  UAT complete. CMF approved system to go live. Soft launch 13 October, media launch 18 Oct ( includes fliers in rates notices). Comms to be released Internally within Council on 11 Oct	21.09.11  10.10.11	
4.14	In the course of flood events, warnings referring to gauge heights should include information about the location of the gauge.	As part of the review of the Communications and Warning sub-plan of the LDMP, identification of alternate warning systems and investigation into capabilities against event scenarios will be undertaken.[TT]  This review needs to be lead by the LDC and nominated LDCC Communication Officer(s).[TT]  The determined types of warnings need to be included in the "Community Awareness Framework" and associated education programs. [TT]	COO C&CS	Advice from hydrology area of ICC ██████████ to progress. ██████████ to determine where gauges are via BOM. Request to ██████████ to provide update by 5 Oct 11. ██████████ still determining location and relevance of gauge. The river gauge is located on the north bank of the Bremer River, just downstream of the David Trumpy Bridge. This information will be included on the Council website and in generic flood messages provided to the community. Information provided will be relevant to the community and will include level above or below 2011 flood event.	09.09.11 21.09.11 28.09.11 06.10.11 12.10.11  17.10.11	
4.15	Each local disaster management group should include in its meetings a representative of the operator of any dam upstream of its region which contributes water to flooding.	Invitation to be extended to SEQ Water by LDC.	COO WP&R	Invitation to be sent for the next LDMG	12.10.11	
4.24	The operator of any referable dam and the local disaster management group should develop a common understanding as to their respective roles in a flood event and the type and frequency of information the dam operator will provide to it and local residents.	COO WPR is both referable dam operator and LDC • Rosewood and Marburg Detention Basin • Wivenhoe	COO WP&R	Completed		Completed 02.09.11
4.3	Councils should continue to take responsibility for issuing flash flooding warnings. However, where the Bureau of Meteorology becomes aware of weather conditions likely to cause flash flooding that is likely to endanger life or property in a particular council's region, it should, performing its functions in the public interest, directly communicate that information to the relevant council	Flood information group to develop procedure for flash flood warnings including if needed a communication protocol.  +C39	COO C&CS	██████████ to progress Council accepts to agrees to perform its functions. Media systems established and ready to activate.	09.09.11 06.10.11 17.10.11	Completed 17.10.11
4.31	Councils should advise the Bureau of Meteorology of any information they possess about flash flooding (or the immediate prospect of it) likely to endanger life or property in their region, and of any warnings they issue about such flash flooding. The Bureau of Meteorology should consider in each case whether any such warning should be re-published (whether as a warning emanating from the Bureau itself or as attributed to the relevant council) on the Bureau's website, or whether it should provide a link to any council warning or other information regarding flash flooding provided by councils or disaster management agencies.	As part of the review of the Communications and Warning sub-plan of the LDMG, development of communication protocols with supporting agencies will be undertaken.	COO WP&R	Communications sub plan under preparation	12.10.11	



4.33	The Bureau of Meteorology should do its best to develop working relationships with all councils, particularly for the purpose of exchanging information in severe weather and flood events.	BOM Responsibility  ICC participated in an initial consultative workshop with BOM, SEQwater, EMQ, QPS and other local governments to discuss a "whole of catchment" approach to the Lockyer, Brisbane and Bremer Catchments. This approach includes; - Knowledge & Information Management sharing (ie: Models, studies etc) - Management of Alert gauge network - Communication protocols.[TT]	COO WP&R	Existing liaison interface in place and will be reviewed for enhancements	12.10.11	
<b>Chapter 5 Emergency Response</b>						
5.1	When a local government cannot effectively manage its response to a disaster, disaster management personnel from local governments in a position to assist should be deployed to help the local disaster management group.	Method of seeking assistance may require a LGAQ or CoM consideration.  This is covered in the "Council to Council (C2C) " support guidelines which were in place and worked well during the January 2011 event. As with other RFAs, these requests need to be approved thru the LDC/LDMG. [TT]	COO WP&R	Advise point of contact to other councils if assistance is required.	12.10.11	
5.2	Local governments should consider adopting uniform disaster management software, to enable inter-council assistance to be given more easily and effectively.	WPR to work with EBSB to develop Project brief for implementation of software.  Review of Coordination Centre Information and tasking solution commenced, with presentation of the Guardian solution received. Business requirements identification and investigation of internal options underway via BIO process. This BIO includes investigation as to how the All Hazards Information Management System (AHIMS) will provide a state wide integrated communication and information solution for disaster management and integrate with LDCC solutions. [TT]	CFO	All SEQ local Govt councils have been working with DCS since 8th July to ensure that the All Hazards Information Management software (AHIMS) referred to at item 5.9 below is designed and built to provide a single point of truth for QLD that all councils, LDMG, DDMG etc can access and use for data collection, decision making and reporting. It should also allow for cross-communication between councils. It should not just be a one-way communication tool, fed from a myriad of individual council systems/data repositories via interfaces. BIO 328 has been approved by POG and work is being scheduled. Next meeting with external parties 13 October.  13 Oct meeting to be hosted at ICC. Attendees will be all SEQ Council CIOs and DM co-ordinators plus reps from DCS.	21.09.11  10.10.11	
5.3	To ensure effective co-ordination in larger-scale disasters, deployment of personnel (and other resources) between local governments should be facilitated through the Council to Council (C2C) program.	Method of seeking assistance may require a LGAQ or CoM consideration.  This is covered in the "Council to Council (C2C) " support guidelines which were in place and worked well during the January 2011 event. As with other RFAs, these requests need to be approved thru the LDC/LDMG. [TT]				
5.6	As part of their planning before the next wet season, local disaster management groups should identify communities which, because of distance, the potential for isolation by disaster, or any other reason, may require specific disaster management arrangements, and take steps to establish them. Such arrangements may include forming disaster management sub-groups in those communities.	Karalee, Rosewood Local Plans required  Forms part of the assessment of resourcing/logistics required to operate the currently identified evacuation centres (especially in the initial 6-12 hours). Initial discussions have been undertaken with the communities of Rosewood and Marburg, with a draft Local Area Plan being tabled. The LAP aims to outline the; - required roles and associated responsibilities that need to be covered from within the local community - key contacts - local resources Example of LAP - see attachment 3.[TT]  Initial discussions have been had with Red Cross around the training of such community groups, to manage evacuation centres. This support will form part of the MOU with Red Cross. [TT]+CS1	COO WP&R	Sub plans for Disaster Management Plan i.e. Rosewood, Karalee are in draft form and aim to be completed by December 2011	12.10.11	

5.7	Whatever form arrangements take, they should seek to ensure that, in the event that flooding causes isolation: <ul style="list-style-type: none"> <li>• there are lines of communication between the local disaster management group and the community</li> <li>• the community has the basic resources it needs to cope with its situation</li> <li>• the local disaster management group is aware of what supplies the community may need in prolonged disaster, and can respond to requests for assistance in a timely way</li> <li>• potential evacuation routes and centres are known</li> </ul>	As per 5.6	COO WP&R	Sub plans for Disaster Management Plan i.e. Rosewood, Karalee are in draft form and aim to be completed by December 2011	12.10.11	
5.8	Where a local government forms a sub-group of its disaster management group: <ul style="list-style-type: none"> <li>• the responsibilities of the sub-group must be clearly defined within the local disaster management arrangements</li> <li>• each member of the sub-group must clearly understand his or her role.</li> </ul> <p>The Commission recommends that sub-groups and local disaster management groups set out their respective roles and responsibilities in writing.</p>	Suggest that this not be pursued with all responsibilities remaining under the LDCC	COO WP&R	This will not be pursued as all responsibilities will sit with the Ipswich LDMG	12.10.11	Completed
5.9	Until the All Hazards Information Management System is in place and allows the status of requests for assistance to be tracked, other means should be used to keep local disaster management groups informed of the progress of requests for assistance.	EMQ role Review of Coordination Centre information and tasking solution commenced, with presentation of the Guardian solution received. Business requirements identification and investigation of internal options underway via BIO process. This BIO includes investigation as to how the All Hazards Information Management System (AHIMS) will provide a state wide integrated communication and information solution for disaster management and integrate with LDCC solutions. [TT]	COO WP&R	LDC/EMO to advise. Update from EBSB: Engaging with WPR to determine if EBSB can assist	10.10.11	
5.1	A clear protocol should be developed for managing the participation of local and district disaster management groups in the state level teleconferences, to govern and make more efficient participation in the teleconferences.	EMQ Role ICC participated in an initial consultative workshop with BOM, SEQwater, EMQ, QPS and other local governments to discuss a "whole of catchment" approach to the Lockyer, Brisbane and Bremer Catchments. This approach includes; - Knowledge & Information Management sharing (ie: Models, studies etc) - Management of Alert gauge network - Communication protocols. [TT]	COO WP&R	EMQ role so no direct ICC follow up required	12.10.11	
5.32	Before the next wet season, councils, SES controllers and Emergency Management Queensland should work together to identify and address deficiencies in the ability of the SES to respond effectively to flooding. At the very least, suitable flood boats and flood boat training should be provided to SES units which require them.	Renegotiate MOU with EMQ and SES. Council is currently drafting an MOU with the Dept of Community Safety to reaffirm ICC's financial and resourcing support for the SES, as well as operational protocols. - attachment 4.[TT]	COO WP&R	Initial draft prepared and second draft completed. The Local SES has 2 flood boats, 2 more to be delivered in November and 1 for delivery in February. Further Council has 2 additional boats. As such there will be 5 flood boats with 2 reserve boats by early 2012 with current numbers at 2 and 2 and will be 4 and 2 by November. Further there are currently 13 trained SES operators with an additional 2 operators to be trained this week end.	02.09.11 12.10.11	
5.4	Each council should develop an evacuation sub-plan in accordance with the Emergency Management Queensland guidelines. This includes involving local groups and people in the planning process.	Forms part of the review of the LDMP and particularly the following sub-plans; - "Flood / Severe Weather" Sub-plan - Evacuation Sub-plan - Communication / Warnings Sub-plan.[TT]	COO WP&R	Part of overall disaster management plan to be ready for submission for approval by end November 2011	12.10.11	
5.41	Councils with existing evacuation sub-plans should review them to ensure they address the issues identified from the 2010/2011 floods.	Forms part of the review of the LDMP and particularly the following sub-plans; - "Flood / Severe Weather" Sub-plan - Evacuation Sub-plan - Communication / Warnings Sub-plan.[TT]	COO WP&R	Underway and due for completion by December 2011	12.10.11	



5.42	Where flooding is governed by a particular watercourse, the evacuation sub-plan should identify triggers in the form of those water level heights at which it is known that preparation for evacuation will be necessary.	Forms part of the review of the LDMP and particularly the following sub-plans; - "Flood / Severe Weather" Sub-plan - Evacuation Sub-plan - Communication / Warnings Sub-plan.[TT]	COO WP&R	Under review as to local applicability and relevance to overall disaster response	12.10.11	
5.43	It is a matter for councils whether or not they choose to publicise the location of evacuation centres before a disaster but there is a good deal to be said for doing so, particularly in smaller communities where the options are limited. Whether or not councils publicise the location of evacuation centres before a disaster, they should include in their disaster education programs information on evacuation procedures, and how to ascertain evacuation centre locations and safe evacuation routes.	To be considered in evacuation sub-plan  Forms part of the review of the LDMP and particularly the following sub-plans; - "Flood / Severe Weather" Sub-plan - Evacuation Sub-plan - Communication / Warnings Sub-plan.[TT]	COO WP&R	Considered more appropriate to advertise before an event as each event is dynamic and the need for actions and locations will be event specific.	12.10.11	
5.44	During floods, councils should as quickly as possible provide people in the relevant areas with advice as to the location of and routes to evacuation centres.	This will be picked up by communication staff of the LDCC  Forms part of the review of the LDMP and particularly the following sub-plans; - "Flood / Severe Weather" Sub-plan - Evacuation Sub-plan - Communication / Warnings Sub-plan.[TT]	COO C&CS	Marketing Branch Media Manager to disseminate information through SMS messages, Council Website and Social Media. * [redacted] to progress Advice from [redacted]/Tony Trace - access routes Evacuation centre and routes identified relevant to specific event, and media systems have been established to disseminate required information including SMS, Social Media, Website and Local Broadcast Media.	09.09.11 06.10.11 17.10.11	Completed 17.10.11
5.45	That advice should be given using as many mechanisms as appropriate, including text message, radio and door knocking.	As per 5.44  As part of the review of the Communications and Warning sub-plan of the LDMP, identification of alternate warning systems and investigation into capabilities against event scenarios will be undertaken.[TT]	COO C&CS	Marketing and Media Branches can implement test messaging and radio. *Alan Roebuck to progress	09.09.11	Completed Refer to S.44
5.46	Councils should identify a range of evacuation centres as part of their disaster preparation and planning.	List has been identified and inspection will progress week beginning 5 September 2011  Review of the Evacuation centres currently identified under the LDMP has commenced, with the annual survey currently being distributed [5th September 2011. In conjunction with Red Cross and EMQ, this initial activity will be followed with a Evacuation Centre audit planned to commence prior to the end of September. Consideration needs to be given to including the Local Area support groups.[TT]	COO WP&R	Identification completed and audit to determine capacity and support required at each location underway and due for completion December 2012.	12.10.11	
5.47	Councils should audit identified evacuation centres to ensure the facilities and location are appropriate, preferably in consultation with the Australian Red Cross and the Department of Communities.	As per 5.46	COO WP&R	Identification and audit underway and due for completion December 2012.	12.10.11	
5.48	Councils should be aware of what facilities are available at each evacuation centre, at particular times of the year.	As per 5.46	COO WP&R	Identification and audit underway and due for completion December 2012.	12.10.11	
5.49	Councils should identify areas that are susceptible to isolation, including locations in which community groups established informal evacuation centres during the 2010/2011 floods, with a view to incorporating evacuation centres at those locations into their evacuation sub-plans.	Should form part of local sub-plan  Forms part of the review of the LDMP and particularly the following sub-plans; - "Flood / Severe Weather" Sub-plan - Evacuation Sub-plan - Communication / Warnings Sub-plan.[TT]	COO WP&R	To be part of local sub plans to be completed by December 2012	12.10.11	
5.5	Councils should identify community groups who may take responsibility for establishing and operating evacuation centres in the future.	Initial discussions have been undertaken with the communities of Rosewood and Marburg, with a draft Local Area Plan being tabled. The LAP aims to outline the; - required roles and associated responsibilities that need to be covered from within the local community - key contacts - local resources Example of LAP - see attachment 3.[TT]	COO C&CS	[redacted] to advise. Planning day held with key agencies on 3.10.11 to review Welfare Sub Plan. Welfare Sub Plan reviewed and amendments currently under review by agencies. Evacuation Centre planning currently being coordinated by Council's DM supported by Community Development.	28.09.11 06.10.11	

5.51	The identified groups and councils should, before the next wet season, establish cooperative arrangements as to how the centres should operate, and to ensure the centres have appropriate facilities.	To be identified as part of the sub-plan process  Initial discussions have been undertaken with the communities of Rosewood and Marburg, with a draft Local Ara Plan being tabled. The LAP aims to outline the; - required roles and associated responsibilities that need to be covered from within the local community - key contacts - local resources Example of LAP - see attachment 3.[TT]	COO C&S	██████████ and LDC/EMO to advise.  Meeting held 5 Oct 11 with Disaster Manager (██████████) to discuss community management of evacuation centres. A forum is being coordinated for 22 November with key community groups/organisations identified as a key role in management of local evacuation centres.	28.09.11  17.10.11	
5.52	Councils should recognise that community groups may establish makeshift evacuation centres during a disaster. When this occurs, councils need to identify and establish communications with the centres as soon as possible.	LDCC function  Forms part of the review of the LDMP and particularly the following sub-plans; - Evacuation Centre Management sub-plan. - Evacuation Sub-plan - Communication / Warnings Sub-plan.[TT]	COO WP&R	Agreed and will be part of communication sub plan to identify previous centres and primary contacts.	12.10.11	
5.53	Councils should develop plans for the effective and timely re-supply of makeshift centres.	Supply planning needs to be undertaken as part of local sub-plan  Forms part of the review of the LDMP and particularly the following sub-plans; - Evacuation Centre Management sub-plan. - Evacuation Sub-plan - Communication / Warnings Sub-plan. This needs to take into account the recently released "Resupply guidelines".[TT]	COO WP&R	Agreed and will be part of sub plans to establish how the previous centres are accessed and demand determined. Acknowledges that each makeshift centre will arrive organically and have differing supply needs	12.10.11	
5.54	The Queensland Government should investigate the possibility of providing indemnity or obtaining insurance for makeshift evacuation centres established in good faith, and in the absence of official alternatives, to meet community needs.	Consider ICC implications of insurance claims arising from the use of makeshift evacuation centres.	Integrated Risk Management Co-ordinator	Whilst the recommendation is directed at the State Government, I have considered the implications for Council in the event of an insurance claim arising from an alleged negligent act by Council staff whilst we are assisting at a makeshift evacuation centre. I have confirmed that should damage occur that can be traced to a failure by Council (eg failure to enforce no-smoking in bed leading to a fire) at an evacuation centre that Council staff were in-charge of, our public liability insurance would cover us for the costs arising from our negligence. However, as in any claim, the circumstances will dictate which entity's insurance will meet the costs of any claim.	11.10.11	11-Oct-11
5.55	All councils should consider entering a memorandum of understanding for evacuation centres with the Australian Red Cross which clearly sets out the roles and responsibilities of the parties in planning and responding to evacuation requirements in a disaster.	MOU is currently being drafted  Initial draft of the MOU has been developed for consideration by Council and the LDMP and preliminary discussions held around issues. see attachment 5. Note: LGAQ is looking at establishing a state-wide MOU.	COO WP&R	MOU currently under second review	12.10.11	
5.56	Each council with a memorandum of understanding with the Australian Red Cross should consider undertaking practice exercises with the Australian Red Cross to ensure both parties understand their respective roles and responsibilities.	Considered once MOU is completed and EMO recruited.  Regional exercise 29th November - 1st DECEMBER 2011 provides a opportunity to satisfy this recommendation.[TT]	COO WP&R	To be discussed re value of exercise and acknowledged that Operation Nugent's will occur November/December	12.10.11	
5.57	Local disaster management groups and district disaster management groups of which the Australian Red Cross is not currently a member should include the Australian Red Cross in disaster preparation and planning as well as response, whether as a member or otherwise (see also recommendation 3.1).	Red Cross was inducted onto the LDMP as a full member on the 23rd August 2011.	COO WP&R			Completed 28.09.11
5.58	Local and district disaster management groups should notify the Australian Red Cross of their evacuation needs as soon as possible in a disaster.	LDCC role  Forms part of the review of the LDMP and particularly the following sub-plans; - Evacuation Centre Management sub-plan. - Evacuation Sub-plan [TT]	COO WP&R			Completed 28.09.11



5.59	Disaster response agencies should use the National Registration Inquiry System.	Need to investigate access and logistics  Forms part of the review of the LDMP and particularly the following sub-plans; - Evacuation Centre Management sub-plan. - Evacuation Sub-plan - Communication / Warnings Sub-plan.[TT]	COO WP&R	LDC to note. Information on using the National Registration Inquiry System has been included on Council's Emergency Mgmt Webpage, Community Ed Fridge Magnet, Council Document Holder and will be included on Community Education Fact Sheets.	28.09.11	
5.6	During a disaster, councils and the Queensland Police Service should encourage individuals to self-register with the National Registration Inquiry System.	Forms part of the "Community Awareness Framework" which development of has commenced targeting schools, impacted communities, high risk sections of the community as well as a pre-season program. This development is being done in conjunction with LDMG members.  The roll out of this program forms part of the activities of Council's Community Development Officers".	COO C&CS	Marketing and Community Development Branches to investigate National Registration Inquiry System To be included in Community Education package by CDOs. Information on using the National Registration Inquiry System has been included on Council's Emergency Mgmt Webpage, Community Ed Fridge Magnet, Council Document Holder and will be included on Community Education Fact Sheets.	09.09.11 28.09.11	Completed 06.10.11
5.61	Councils should include information about the National Registration Inquiry System as part of their community education.		COO C&CS	As Above To be included in Community Education package by CDOs *These details are now included on the Emergency Management page (under the Residents tab) on www.ipswich.qld.gov.au	09.09.11 28.09.11	Completed 06.10.11
5.62	In areas susceptible to flooding, councils should identify facilities housing people who may require assistance to evacuate. Councils should work with the operators of these facilities to ensure they have appropriate evacuation plans and that they are aware of the council's disaster management arrangements.	Need to identify at risk locations and then negotiate protocol with operators  Forms part of the review of the LDMP and particularly the following sub-plans; - "Flood / Severe Weather" Sub-plan - Evacuation Sub-plan - Communication / Warnings Sub-plan.[TT]  as well as Community Awareness Framework/Programs.	COO C&CS	██████████ to advise. To be discussed further with WP&R and Disaster Management Officer. Currently being coordinated by DM supported by Community Development. Proposed workshop being developed for 22 November 2011.	21.09.11 06.10.11 17.10.11	
5.63	Councils should identify the specific evacuation needs of these facilities, such as increased timeframes for withdrawal or transport by ambulance.	As per 5.62	COO C&CS	██████████ to advise. To be discussed further with WP&R and Disaster Management Officer. Meeting organised with Disaster Manager ██████████ 5 October to discuss and progress. Refer 5.62	21.09.11 28.09.11 06.10.11	
5.64	Councils should include the location, contact details, and specific evacuation needs of these facilities in their evacuation sub-plans.	As per 5.62	COO WP&R	LDC to include in evacuation plans. Refer 5.62	06.10.11	
5.65	Councils should identify organisations (for example, Meals on Wheels and Blue care) that provide services to people in the community who may be unable to evacuate without assistance. Councils should include the contact details of these organisations in their evacuation sub-plans.	As per 5.62	COO C&CS	██████████ to advise. To be discussed further with WP&R and Disaster Management Officer. To be included in review of Welfare Sub Plan. Meeting held with Disaster Manager (Greg Eustace) 5 October to discuss and progress in addition to meeting with external stakeholders to review Community Support Sub Plan as part of Council's Emergency Mgmt Plan. Meeting held 03.10.11 with key stakeholders to review Community Welfare Sub Plan.	21.09.11 28.09.11 06.10.11	
5.66	Councils should work with these service providers to identify: the number of people who may require assisted evacuation; the general nature of their needs, including any necessary medical supplies and equipment; warning message formats and dissemination; increased timeframes needed for evacuation; transportation requirements; and shelter requirements. Councils should include this information in their evacuation sub-plans.	As per 5.62	COO C&CS	██████████ to advise. To be discussed further with WP&R and Disaster Management Officer. To be included in review of Welfare Sub Plan. Meeting held 3 October with key external stakeholders to review Community Support Plan as part of Council's Emergency Mgmt Plan. Refer 5.65.	21.09.11 28.09.11 06.10.11	

5.67	Facilities housing people who may be unable to evacuate without assistance should develop evacuation plans to ensure residents are provided with appropriate transportation, emergency accommodation, trained carers and medical support if necessary. Where possible, residents of those facilities should be relocated to other similar facilities or accommodation other than evacuation centres. These plans should be developed in consultation with councils and relevant agencies such as Queensland Health.	Individual centre obligation  Forms part of Community Awareness Framework/Programs to highlight the need for these agencies to undertake this planning and preparation activities.[TT]	COO C&CS	██████████ to advise. To be discussed further with WP&R and Disaster Management Officer. To be included in review of Welfare Sub Plan.  Meeting held 3 October with key external stakeholders to review Community Support Plan as part of Council's Emergency Mgmt Plan. Refer 5.62/5.65.	21.09.11  28.09.11 06.10.11	
5.68	Facilities housing people who may be unable to evacuate without assistance should prepare disaster recovery plans, particularly for the provision of back up power and emergency supplies, including medical oxygen and common medications, to minimise the need for evacuation where there is no direct threat from natural disaster.	Individual centre obligation  Forms part of Community Awareness Framework/Programs to highlight the need for these agencies to undertake this planning and preparation activities.[TT]	COO C&CS	██████████ to advise. To be discussed further with WP&R and Disaster Management Officer. To be included in review of Welfare Sub Plan.  Meeting held 3 October with key external stakeholders to review Community Support Plan as part of Council's Emergency Mgmt Plan. Refer 5.62/5.65.	21.09.11  28.09.11 06.10.11	
5.69	The Queensland Government and councils should ensure information about emergency preparedness, warnings and evacuation is available in the different languages of ethnic groups in the community and in Auslan.	Forms part of Community Awareness Framework/Programs to highlight the need for these agencies to undertake this planning and preparation activities.	COO C&CS	██████████ to progress. Initial contact with Access Services have provided advice on languages to include Samoan, Vietnamese, Spanish and Arabic.  Information on emergency management in a range of languages is available on EMQ's website.  Council's website will provide this advice and direct community to access EMQ material. Feedback from Adam Saunders provided 06.10.11.	09.09.11 21.09.11 28.09.11  06.10.11	
5.7	As part of their community education strategy, councils should ensure tourists are made aware of evacuation procedures, how to ascertain evacuation centre locations and safe evacuation routes. That may be done through tourism boards, operators and accommodation providers.	Development of a "Community Awareness Framework" [attachment 2] has commenced targeting schools, impacted communities, high risk sections of the community as well as a pre-season program. This development is being done in conjunction with LDMG members.  The roll out of this program forms part of the activities of Council's Community Development Officers".  Finalisation of this Framework will be undertaken by Council's Emergency Management Officer. [TT]	COO C&CS	██████████ to progress  Commence post recruitment of EMO  *Tourism Development Manager's recommended process for communicating to visitors is the following: 1. VIC receives internal communication via Info@discoveripswich.com.au; 2. Information is then forwarded to all accommodation providers in Ipswich; 3. Accommodation providers followed by telephone and SMS to database of mobile phones. 4. Post information on Discover Ipswich Facebook. 5. Also advise Brisbane Marketing, Tourism QLD and surrounding LGAs. Process to be discussed at the next Ipswich Tourism Operators Network (ITON) meeting scheduled for October 5 2011.  Briefing 05.10.11 by Tourism Manager at Ipswich Tourism Operators Network. Systems put in place.	09.09.11  23.09.11  06.10.11	Completed 06.10.11
5.71	Councils, as part of their community education program for disaster preparation, should encourage pet owners to consider what they will do with their pets if they need to evacuate.	Development of a "Community Awareness Framework" [attachment 2] has commenced targeting schools, impacted communities, high risk sections of the community as well as a pre-season program. This development is being done in conjunction with LDMG members.  The roll out of this program forms part of the activities of Council's Community Development Officers".  Finalisation of this Framework will be undertaken by Council's Emergency Management Officer. [TT]	COO HSR5	A range of initiatives are being planned on an ongoing basis to ensure that information is disseminated to pet owners to assist them in planning for an emergency. Some communication channels to pet owners are currently known and utilised (eg registered animals), however, as many other animals do not require registration, broader communication methods are required.  Specific initiatives to address the issue include: <ul style="list-style-type: none"> <li>• The provision of information in annual registration renewal notices in relation to emergency evacuation planning for pets (approximately 25 000 families currently able to be accessed through this process)</li> <li>• Inclusion of relevant information in rates notices</li> <li>• Inclusion of relevant information in Councillors' newsletters</li> <li>• Press releases at times entering high risk periods identifying the issue</li> <li>• Inclusion of material on Council's (and advocacy for inclusion on other relevant websites) in relation to the issue</li> <li>• Marketing material placed at relevant customer contact points around Council (eg customer service centres, libraries and the pound)</li> </ul>	07.09.2011	



5.72	Councils should work with the RSPCA to develop plans about transporting and sheltering pets should they need to be evacuated with their owners.		COO HSRS	Currently a Memorandum of Understanding is being negotiated with the Ipswich Show Society in relation to the housing of animals in emergent situation. The showground site was used for this purpose in the 2011 floods and arrangements have since been formalised to provide that facility and co-operation on an ongoing basis. Other agencies involved include the RSPCA and AWL, and the network of animal carers that they have in place throughout the city. As these agencies focus on animal welfare, mutually beneficial arrangements are being transacted to ensure transport and shelter is provided in emergent situations. Mutual arrangements have been agreed and will undergo formal documentation. Informal arrangements have already been put into place to ensure that in emergent situations the SEQ Councils will assist each other in transporting and sheltering animals. This process is currently utilised for highly sensitive legal issues involving animals and works well as agencies have a mutual understanding of the issues involved.	07.09.11	
5.73	Animal shelters, zoos, stables, and similar facilities should develop plans for evacuating or arranging for the care of animals in consultation with their local council. Local disaster co-ordinators should be aware of what plans exist.	Individual operator obligation  Forms part of Community Awareness Framework/Programs to highlight the need for these agencies to undertake this planning and preparation activities.[TT]	COO HSRS	Officers are raising the issue with licensees to raise their awareness of the issue and inform their planning for emergencies. Where plans exist or will be developed they are being asked to communicate them to Council to assist in emergency planning. The inclusion of relevant information with annual renewal notices is also being considered, however that process could not occur until renewal notices are issued in 2012. Actions identified in relation to 5.71 above are also being utilised to address this issue: <ul style="list-style-type: none"> <li>• Inclusion of relevant information in rates notices</li> <li>• Inclusion of relevant information in Councillors' newsletters</li> <li>• Press releases at times entering high risk periods identifying the issue</li> <li>• Inclusion of material on Council's (and advocacy for inclusion on other relevant websites) in relation to the issue</li> <li>• Marketing material placed at relevant customer contact points around Council (eg customer service centres, libraries and the pound)</li> </ul>	07.09.11	
5.75	Before the 2011/2012 wet season, all local and district disaster management groups should formally adopt the Queensland Re-supply Guidelines and have arrangements in place for the prompt re-supply of towns, properties and residents isolated by floodwaters.	Forms part of Community Awareness Framework/Programs to highlight the need for these agencies to undertake this planning and preparation activities.[TT]	COO WP&R	LDC and LDMG members to attend EMQ training by end of October	12.10.11	
5.78	Local governments should investigate the feasibility of permitting local landowners to carry out temporary repairs on flood-damaged public roads to allow access to their properties.	Consider operational and legal issues both immediate and ongoing	CFO	██████████ has discussed this recommendation with ██████████ to determine relevance of this situation to ICC. ██████████ advises that he has no knowledge of property owners even having to consider undertaking emergency road repairs in order to gain access to their properties. In the semi-rural and rural areas ICC has always been able to ensure that access to properties is available once the water levels have receded. Allowing such work to take place raises a number of legal and risk concerns, viz: to what extent would a property owner be allowed to undertake repairs; how would the property owner know what standards to apply to the repairs; location of underground services - if damaged who would be liable; the determination of reimbursement of costs could result in some serious debate. Owing to the absence of a need, plus the concerns raised above, ICC should not contemplate this recommendation.	28.09.11	28.09.11
<b>Chapter 6 Essential Services</b>						
6.1	Local, district and state disaster management groups should include essential services providers in their disaster planning and preparation and in their meetings at an early stage during disasters.	Energex and QUU were formally inducted onto the Ipswich City LDMG on the 23rd August 2011.  Telstra to be followed up.[TT]	COO WP&R	Energex and QUU now attendees to LDMG	12.10.11	

