Name of Witness	Thomas Paul FISCHER
Date of Birth	[redacted]
Address and contact details	[redacted]
Occupation	Travel Agent
Officer taking statement	Det/Sgt Anthony VLISMAS
Date taken	7 September 2011

Tom FISCHER states:-

1. I am a [redacted] year old male person and reside with my wife at [redacted].

2. We purchased our home on the 18th April 2002. At the time of purchasing our solicitors performed checks regarding flood levels and based on these we believed our house was above the expected level of any floodwaters.

3. Our house is described on the rates notice as being Lot [redacted] Plan [redacted] Parish Oxley and Size 663 sq mts.

4. At the time of purchasing our home we conducted checks through The Brisbane City council regarding flooding to area.

5. We were provided with a paperwork indicating that the 1974 flood level in the area is elevation 14.9mts.

6. It is estimated that the Wivenhoe Dam has reduced a Q100 river flood at our location to elevation 11.8metres.

7. Our land varies in from 11 metres to 14.9 metres.

8. Given this the information received in this documents we believed that we would be safe from flooding due to the Wivenhoe Dam mitigation effects.

   I am able to produce a copy of that document headed Brisbane City Council Flood Enquiry dated 19/4/2002. Tendered Exhibit No…

9. At the time we insured our house through the Queensland Police Credit Union with CGU Insurance. QPCU changed their preferred Insurance provider in June/July 2007 and changed our policies to QBE Insurance to cover house and contents. At some time in this process we were provided with a policy and disclosure statements.

10. Whilst we were provided with all the relevant documents we were not advised that flooding would not be covered. I feel that QBE or their agent should go through the policy details and answer any questions at the time of taking out the policy so as customers can be fully informed before purchasing the policy.

[redacted]

Witness Signature…….. Signature of officer ……

400 George Street Brisbane
GPO Box 1738 Brisbane
Queensland 4001 Australia
Telephone **1300 309 634**
Facsimile **+61 7 3405 9750**
www.floodcommission.qld.gov.au
ABN 65 959 415 158

I am able to produce a copy of the Insurance Disclosure Statement and Policy Wording.
Tendered and Marked Exhibit No....

11. On Tuesday the 11th January 2011 my wife Jan and I were due to fly to Melbourne. My wife decided not to go due to weather warnings and media reports.

12. My wife got back to the house at about 4pm and it was still raining.

13. The back boundary of our home backs onto the McLeod Gold Course Mt Ommaney. She could see storm water entering the golf course to the east of our house.

14. There is a creek in the golf course to the north of our house which flows out to the Brisbane River which is also north of our home.

15. On Wednesday 12th January 2011 it was not raining and the water entered our home from the eastern side first to a depth of about 40cm throughout the house causing damage to walls, floor coverings, doors and kitchen cupboards. Outdoors there was damage to pool and water tank pumps and a split system air conditioner as well as some fencing and timber retaining walls.

16. I was in Melbourne until late on that evening and my wife with aid of friends and neighbours managed to get all furniture, whitegoods and cars to higher ground, however some other contents including gear stored in the garage were damaged.

17. Our home had not been built at the time of the 1974 flood. However there has been regular flooding of the golf course about 150 metres to the east and west of our house where major stormwater outlets are channelled onto the golf course property.

18. We returned to our home at about 6.30am on the 13th January 2011 and the water had receeded out of the house and into the back yard. We lodged a claim with our insurance company QBE Insurance.

19. On the 19/1/2011 an assessor from the insurance company attended our premises and inspected the damage, taking note of the contents affected.

20. On the 8/2/2011 we received a letter from QBE, no name with a copy of the assessor's report stating that the damage was probably caused by flood and waiting for general hydrology report.

I am able to produce and copy of the above documents:- QBE Letter dated 8/2/2011 & Assessors Report. Tendered and marked Exhibit No...

21. Between 8/2/2011 and the 18/4/2011 Peter ANDREW National Business Improvement Manager for QBE called me and explained the heavy workload that QBE was experiencing and discussed elements of our claim.

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22. This gave me a feeling of relief that our claim was being processed as best could be expected under the circumstances.

23. On the 18/4/2011 David COX from the Water Technology attended site for an inspection. Despite requests to accurately establish the height of the habitable floor level of our house no measurements were taken.

24. On 27/4/2011 Letter was received from QBE no name advising that they had appointed a hydrologist for a site specific report on or property and that the results would be available early to mid May.

    I am able to produce a copy of this letter dated 27/4/2011 from QBE Tendered and Marked exhibit no....

25. On the 6/6/2011 we received another letter from QBE no name which had the hydrology report enclosed advising the reasons the claim had been denied on the grounds of the damage being caused by flood by their definition. The 30 odd page hydrology report consisted mainly of figures, maps and graphs not specific to our site.

    I am able to produce covering letter from QBE and hydrology report Tendered and marked exhibit no...

26. On the 14/6/2011 I telephoned Peter ANDREW of QBE to advise of the rejection of letter and find out whom to contact at QBE to discuss the situation. He replied and organised for me to contact a Christina ELLER in the Dispute Resolution Department.

27. I emailed ELLER on the 15/6/2011 with our reasons for disputing their finding along with supporting evidence for our claims.

28. On the 15/7/2011 I emailed Christina ELLER to say that as the 15 business day period for a reply to my letter had lapsed and as I did not have a reply I would send all the correspondence to the Financial Ombudsman.

29. On the 18/7/2011 I received an email from ELLER stating that a colleague Juliette EDEN had been allocated our file but had not completed the review was absent form work and would contact me. I later received an email from EDEN requesting further information.

30. I sent an email to EDEN on the next day, 19/7/11 with answers to all her questions and a copy of the Brisbane City Council Flood Map showing that only the bottom corner of our garden would have been affected by floodwaters.

    I am able to produce copies of those emails.
    Tendered and marked exhibit no...

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31. On the 25/7/11 I received an email from EDEN advising that a further site specific hydrology report had been commissioned and we would be contacted by the hydrologist.

32. On the 18/8/11 I emailed EDEN advising her that we would now be contacting the Financial Ombudsman as again no contact had been made for another period of over 15 business days.

33. On the 22/8/2011 I received an email from Richard FELD of QBE saying that our claim dispute had been transferred to him and that he had asked the hydrologist to contact us to make an appointment.

34. I later received a phone call from David COX and he arranged an appointment for Wednesday the 24//8/2011.

35. On the 23rd of August I lodged a complaint with the Financial Ombudsman.

36. On 24/8/2011 COX and his team leader Chris attended our house and proceeded to justify their initial findings and stated they did not agree with the hydrology report we had tendered for a neighbouring property at Fairway Views Townhouse Complex [redacted] Bilga St Middle Park.

37. This report had been accepted by the other properties insurers as being correct and they paid the claim on the basis that the inundation was caused by stormwater not riverine flooding.

    I am able to produce a copy of that hydrology I gave to the QBE Insurance Tendered and marked No...

38. David and Chris had no intention of taking any measurements at our property or making any further inspections although I finally convinced them to view the stormwater outlet 100 metres to the east of the property which Chris concede could be taken as a stormwater culvert.

39. During this meeting Chris made a statement saying that they had done hundred's of these inspection/reports and they are all flooding.

40. On the 25th August I received an email stating it would take another 15 business days to make a decision. There has been no further contact from QBE or their representatives.

    I am also able to produce a CD of photographs taken during the period in question.
    Tendered and marked exhibit no....

[redacted]

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41. I later made a submission to the Flood Commission of Inquiry and supplied this statement.

[redacted]

T P FISHER

Justices Act 1886

I acknowledge by virtue of section 110A(5)(c)(ii) of the Justices Act 1886 that:

(1) This written statement by me dated 7/9/2011 and contained in the pages numbered 1 to is true to the best of my knowledge and belief; and

(2) I make this statement knowing that, if it were admitted as evidence, I may be liable to prosecution for stating in it anything that I know is false.

[redacted]

.....Signature

Signed at ....Brisbane....this.....7TH September.....2011

[redacted]

Witness Signature..... Signature of officer .....

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BRISBANE CITY COUNCIL
FLOOD ENQUIRY

Account Code
WODE18 990 949

Applicant's Name and Address

ABN : 72002765795

#176801

$14.00

Please cross applicable box [X]

Application Fee ~~$~~ (as from 1/7/92)

Location of Property

Real Property Description of Land (NOT B.U.P. or G.T.P. i.e. Building Unit Plan No. or Group Titles Plan No.)

Original Portion No.	Parish	Area

☐ To be collected ☐ Mail to Applicant
☐ Return to S.C.C. /□ & P

Signature of Applicant

/ /

Report from Works Design Office

According to the information available the level of this land varies from approximately

Elevation 11.0m to Elevation 14.1m

River Flooding

The estimated 1974 flood level in this area is Elevation 14.9m

It is estimated that the Wivenhoe Dam has reduced a C.100 river flood at this location to

Elevation 11.8m

Without the dam, this flood would be higher than the actual 1974 flood.

Creek Flooding

It is estimated that the flood level in this area from ..... reached

Elevation	Year

It is anticipated that the flood mitigation works for the above creek will reduce the creek flood similar to that of the ..... flood to approximately Elevation .....

All levels given above are based on Australian Height Datum (Metres)

~~There are no records of river or creek flooding on this property available in the Office.~~

☐ Enclosure

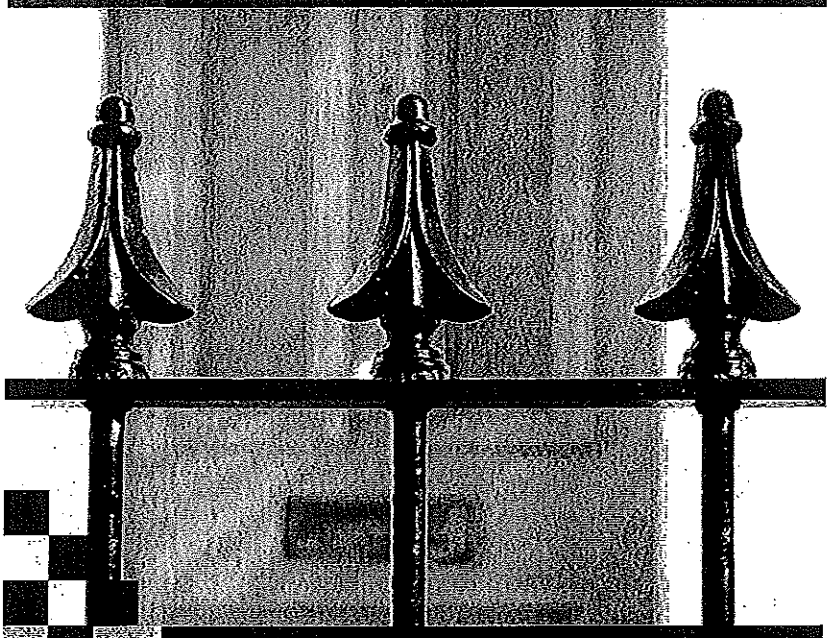
Enquiries ~~[redacted]~~ 3403059G

Manager, Department of Works
Per [redacted] 19/4/2

The above information is offered subject to the Warning and Information Notes on the reverse side of this form.

CCC127a (7/92)

Home Cover Prestige



Insurance Product Disclosure Statement
and Policy Wording

QUEENSLAND POLICE
CREDIT UNION LIMITED
You're In Safe Hands

www.qpcu.com.au 131 468

(g) temporary accommodation up to the highest of $10,000, or 10% of the sum insured for your home or 10% of the sum insured for contents where the home is so damaged by the insured event that it cannot be lived in

(h) contents being conveyed to your new residence, where your contents are insured. We insure your contents damaged directly by theft from the conveying vehicle involving the use of violent force, fire on the conveying vehicle, collision and/or overturning of the conveying vehicle while your contents are in transit by road to your new, principal place of residence in Australia up to a total of $5,000

(i) monitored alarm attendance after theft, where your contents are insured. We will pay up to $1,250 for the reasonable costs actually incurred by you for the security firm that monitors your burglar alarm to attend your home during or immediately after an actual or attempted theft from your home

(k) we insure you against any claims for compensation or expenses which you or any member of your family become legally liable to pay arising out of the use of a vehicle which is not paid for by any statutory compulsory third party scheme.

The Policy does not cover certain things

Claims may be refused in certain circumstances. Please refer to the Home and Contents Accidental Damage Policy Terms and Conditions which follows this PDS for full details of the terms and conditions of cover and exclusions.

The Policy will not cover loss or damage:

(a) intentionally caused by you or a member of your family or a person acting with your consent or the consent of a member of your family

(b) resulting from or caused by:

- inherent defects, structural defects, faulty workmanship, faulty design or any gradual process
- wear, tear, rust, corrosion, depreciation or gradual deterioration, mildew, mould or algae
- any consequential loss other than that specifically provided by this Policy
- storm or wind damage to fences gates or retaining walls if they not made of steel, brick, concrete, masonry or stone (except in Queensland and Western Australia)

- water entering the home through an opening made for the purpose of alterations, additions, renovations or repair
- erosion, subsidence, landslide or earth movement other than as a direct result of some specified events
- flood
  'flood' means the inundation of normally dry land by water from any watercourse, lake, canal, dam or reservoir
- the action of the sea, high water.

The cover under this Policy will be limited to lightning, thunderbolt and earthquake for any period in excess of 90 consecutive days during which the home has been left unoccupied and you have not obtained our written agreement.

The Policy will not insure you or your family against liabilities arising from:

(a) any agreement, unless liability would have attached to you or your family if that agreement did not exist

(b) death or bodily injury to you or to any person who normally lives with you

(c) damage to property belonging to you or any person who normally lives with you or to your or their employees

(d) the ownership, custody, or use of any lift, aerial device or aircraft (except model aircraft or toy kites), aircraft landing area, boat exceeding 4 meters in length (except canoes, surfboards, surf skis or sailboards) or motorised water craft in excess of 10 horsepower

(e) the conduct of any activity carried on by you or your family for reward except letting the home for domestic purposes or babysitting on a casual basis

(f) directly or indirectly, out of or in connection with the actual or alleged use or presence of Asbestos

(g) building work, construction or demolition of a building, including the home if the value of the work exceeds $50,000

(h) the ownership or use of any motor vehicle other than the cover given by the additional benefit – Motor Vehicle Liability.

The Policy will not insure you or your family against fines, penalties, or punitive, aggravated, multiple or exemplary damages.

Additional exclusions applying to this Policy

These additional exclusions apply to cover for your home, contents, additional benefits and valuables (if you have chosen that option).

This Policy does not cover:

(a) loss or damage intentionally caused by you or a member of your family or a person acting with your consent or the consent of any member of your family

(b) loss or damage resulting from or caused by:

- the lawful seizure, confiscation, nationalisation or requisition of the property insured
- destruction of or damage to property by any government or public or local authority
- storm, rainwater or wind, to:
  - retaining walls,
  - free standing walls,
  - fences or
  - gates

  not constructed of steel, brick, concrete, masonry or stone. (This exclusion does not apply in Queensland or Western Australia)
- flood

  'flood' means the inundation of normally dry land by water from any watercourse, lake, canal, dam or reservoir
- erosion, subsidence, landslide or earth movement other than as a direct result of:
  - storm
  - earthquake
  - explosion
  - escaping liquid

  and occurring no more than 72 hours after the event
- the action of the sea, high water, tidal wave, tsunami

  'tsunami' means a sea wave caused by a disturbance of the ocean floor or by seismic movement
- water seeping through a wall or floor
- water entering the home through an opening made for the purpose of alterations, additions, renovations or repair

QBE Insurance (Australia) Limited
ABN 78 003 191 035
GPO Box 705
Brisbane QLD 4001
Telephone: 07 3031 8560
Facsimile: 07 3031 8490
Email: qld.claims@qbe.com

8 February 2011

Mr T & Mrs J Fischer
[redacted]
[redacted] QLD [redacted]

Dear Mr T & Mrs J Fischer

Re: Claim No - [redacted]
Date of Loss - 12/1/2011
Nature of Incident - Damage to your Residence

This letter is to provide you with an update about your recent claim.

As you know, an assessor from Crawford & Co has attended your premises and has provided us with a report of the information gathered. It seems probable from this preliminary information that the damage at your premises was due to flood.

You may already be aware that your Home Cover policy excludes damage caused by "flood" which the policy defines as being "*the inundation of normally dry land by water from any watercourse, lake, canal, dam or reservoir*".

To assist us to understand what occurred in your area, we have joined with the Insurance Council of Australia to appoint an independent panel of hydrologists. Hydrologists are specialist engineers who scientifically determine the source and flow of water. They will provide detailed reports about the nature of the recent floods and these reports will allow us to assess whether your claim is covered by your policy.

Unfortunately, we do not expect the hydrology reports until the end of February or early March. Once we receive the reports, your claim will be reviewed and we will advise whether you are covered by the policy and the next steps to take.

We apologise for this period of uncertainty but undertake to advise you of the results of the review as soon as possible after the hydrology reports are received. In the meantime, we recommend that you take steps to protect and care for your property as if there was no insurance in place.

If you wish to discuss any aspect of this letter, please make contact with the Crawford & Co assessor who visited your property.

Yours faithfully

QBE Insurance Australia

Circumstances:

In early January 2011, an active monsoonal trough combined with upper level low pressure system and generated a severe weather event which brought widespread rain to South East Queensland. This was on the back of a prolonged period of heavy rainfall in late December over river catchments.

During the period 11 January to 15 January 2011, several river systems in South East Queensland, including the Bremer and Brisbane Rivers broke their banks resulting in widespread flooding in Ipswich and Brisbane. This claim arises from that event.

The Insured advised following the above weather events water levels initially began to rise in the golf course bordering the rear of the property.

The Insured left the insured property on Wednesday 12 January, in the afternoon. Upon returning late Wednesday evening, the water had peaked. By Thursday 13 January, at 6am the water had receded.

No fast flowing water inundated the insured premises.

FLOOD INFORMATION

We detail for your consideration, specific information relating to the inundation of your insured's property:

Type of House
Double
House Foundations
Slab

Height of Habitable floor level above surrounding ground
10cm

Is Ground Level of house higher than street level? No

Date & Time of heaviest rainfall.
Tuesday 11 January

What time did heaviest rainfall stop approximately?
Thursday 13 January, 2011, time not known

What date did property get inundated?
Wednesday 12 January, 2011

What time did inundation of property (yard) commence?
Wednesday 12 January, evening, time not known due to insured evacuating
Tuesday 11 January

What time did water come into house, garage & shed etc.
Not known.

What date & time did water level in property peak?
Wednesday 12th January, 2011, evening.

At its peak, how deep was water inside house, shed etc?
40cm

At its peak, how deep was the water in yard? Approximately 60cm

Which direction did water come into property?
From the rear of the property

19 January 2011

FIRST REPORT – FLOOD DAMAGE CLAIM

To:	QBE	**Your Ref:**	[redacted]
Attention:	Craig Williams	**Our Ref:**	
Email:	[redacted]	**Adjuster:**	Cameron Stuart
Date/Time of Contact:	19-Jan-2011 11:50	**Date of Attendance**	19-Jan-2011

CLAIM DETAILS

Insured:	Thomas and Janet Fischer		
Postal Address:	[redacted]		
Situation of Loss:	Same as above		
Date of Loss:	12 January 2011		
GST Registered:	Yes		
ABN:	47409548224	**ITC on Premium**	Nil

POLICY DETAILS

Policy Type:	Domestic - Specified Events
Policy No:	[redacted]
Excess:	$0

	SUMS INSURED	RESERVE (This is inclusive of GST)
Building:	$371,000	$15,000
Contents:	$0	$0
Valuables:		Nil

RISK DETAILS

Premises - Construction & Use:	Double storey brick home timber frame, on a concrete slab with tiled roof, approximately 210m2. Separate double garage. Private residence, owner occupied.
Premises - Age & Condition:	Approximately 1990. Very good condition.
Insured Adequacy:	Building - Adequate Contents – N/A

LOSS/DAMAGE DETAILS

Type of Claim: Flood Damage

Was water inundating the property 'clean or dirty' ? Dirty

EXTENT OF LOSS / DAMAGE:

The insured property has been submerged in water, up to 40cm, for a period of 12 to 24 hours

Buildings

A summary of works required to restore the insured premises would include:

Sanitising and drying throughout.
Restoration of wall linings and skirting boards in affected areas.
Replacement of exterior air conditioning compressor, pool pump, hot water cylinder.
Electrical – Replace affected GPO's
Repair two external doors and one internal swollen at base, bottom of bar and kitchen joinery.
Replace dishwasher and oven.
Approximately 4 metres of paling fence collapsed, 1800 high.
Several areas of paving and a section of timber retaining wall appear to have subsided in the rear yard, which may be flood related.

POLICY LIABILITY

We suggest the policy may not respond in this instance as the damage that has occurred as a result of flooding from the Brisbane River.

ICA CATEGORIES

The property inspected was determined to fall into the following category:

C Liveable during repairs.

RECOVERY/SALVAGE

No

ACTIONS DUE:

Insured:	Awaiting response from insurer confirming whether claim denied.
Adjuster:	Nil.
Insurer:	Accept or deny liability.

ATTACHMENT LIST

Photographic Schedule

QBE Insurance (Australia) Limited
ABN 78 003 191 035
GPO Box 705
Brisbane QLD 4001
Telephone: 07 3031 8488
Facsimile: 07 3031 8490
Email: qld.claims@qbe.com

27 April 2011

Mr T & Mrs J Fischer
[redacted], QLD, [redacted]

Dear Mr & Ms Fischer

Re: Claim No – [redacted]
Date of Loss – 12/01/2011
Nature of Incident – Damage to Your Property

I refer to our letter to you dated 09th February 2011. This letter is to provide you with an update on your claim.

To assist us understand what occurred at your property, QBE have appointed Water Technology to provide us with a site specific hydrology report. Unfortunately we do not expect the site specific hydrology report until early to mid May. Once we receive the report, your claim will be reviewed and we will advise whether you are covered by the policy and the next steps to take.

We apologise for the period of uncertainty but undertake to advise you of the results of the review as soon as possible after the site specific hydrology report is received.

If you wish to discuss any aspect of this letter, please call us on (07) 3031 8488.

Yours faithfully

QBE Insurance

QBE Insurance (Australia) Limited
ABN 78 003 191 035
GPO Box 705
Brisbane QLD 4001
Telephone: 07 3031 8560
Facsimile: 07 3031 8589
Email: qld.claims@qbe.com

6 June 2011

Mr T & Mrs J Fischer
[redacted] Qld [redacted]

Dear Mr & Mrs Fischer

Re: Claim No – [redacted]
Date of Loss – 12/1/2011
Nature of Incident – Damage to Your Property
Risk Address – [redacted] Middle Park Qld 4074

We refer to your above claim and our previous letter to you dated 9 February 2011.

Thank you for your patience whilst we have been gathering all the information about the cause of this devastating event. Be assured that the delays have been encountered whilst we have gone to great lengths to satisfy ourselves as to the cause of loss.

Your QBE policy

Your policy is a QBE Home Cover Prestige Policy [redacted]

The policy provides cover for loss or damage to your Home and Contents for specific Insured Events as detailed in the policy. Extracts of the relevant sections of your policy are attached for your reference. This policy does not cover damage caused by flood.

Our Assessment

Based on all of the information we have been able to gather relating to your claim, including independent site specific hydrology analysis and a loss assessor's site inspection, we believe that the inundation of your premises was due to flood. As flood is specifically excluded, we regret that we are unable to pay your claim in this instance.

We enclose a copy of the adjuster's report and the full site specific hydrology report which we have reviewed with specific reference to your property.

To view the full ICA hydrology report you can download it from our website at http://www.qbe.com.au/Australia/News-Communications/News/XPRODCT006128
If you are not able to access the internet, please contact us on 07 3031 8560 to arrange a copy of the report.

Additional Information

As part of the overall claims assessment we have also referred to information available online from the Qld Reconstruction Authority and we attach a map of the peak flooding extent of your location. This information has supported our decision.

You can view this information by entering your property address at http://qldreconstruction.org.au/your-community-reconstruction-updates/interactive-map.

What does this mean?

In light of all available facts, we have no alternative other than to decline your claim as your policy does not include cover for flood damage.

However, if you have any other information that you consider we should review then please call our Claims team on 07 3031 8560 or email to qld.claims@qbe.com .

QBE stands willing to consider any new information that may assist us in reconsideration of your claim.

Next Steps

Should you disagree with our decision you can request the matter be reviewed through our Internal Disputes Resolution Process. The attached brochure sets out this process.

If you wish to dispute this finding, you should contact our Complaints and Disputes Resolution team on either email complaints@qbe.com or call 1300 650 503.

Yours faithfully

QBE Insurance

WATER TECHNOLOGY
WATER, COASTAL & ENVIRONMENTAL CONSULTANTS

ABN: 60 093 377 283
ACN: 093 377 283

INDIVIDUAL SITE FLOOD ASSESSMENT REPORT

Client:	Ms Sally Finch		**Date Issued:** 3 June 2011
Client Organisation:	QBE Insurance Australia Ltd		**Client Ref:** Refer Claim No.
Insurer:	QBE Insurance Australia Ltd	**Claim No:**	[redacted]
Insured:	Mr T & Mrs J Fischer	**Property Details:**	[redacted] Middle Park

Job No. [redacted]	**Doc. No:** [redacted]	**Engineer:** DCC	**Rev/App by:** CLC

1 INTRODUCTION AND SCOPE OF THE REPORT

This report describes the rainfall event and subsequent inundation of the above property in the suburb of Middle Park, Brisbane which commenced on Wednesday 12 January 2011. This report draws upon rainfall and stream flow data recorded within the vicinity of the subject site and references observations made during site inspections. The report includes anecdotal comments gathered during discussions and interviews undertaken during the course of the site investigations. In particular, this report is based on:

- A desktop review of rainfall and river gauge data relating to the flood event of January 2011.
- A site inspection on 18 April 2011
- Discussion with the owners of inundated properties in the area.
- A review of available news and gathered internet footage and photos.

Water Technology has been commissioned to inspect the property and undertake a study of the area to determine the source and cause of the inundation and specifically to provide an opinion on whether the inundation would be classified as Stormwater or Flooding.

Quality System
Quality Endorsed Company

2 SITE DESCRIPTION

2.1 Site Location

The site is a residential house located at [redacted], Middle Park, approximately 1km southwest of the Brisbane River as shown on Figure 2-1. Mt Ommaney Creek is located approximately 155 m north. [redacted]

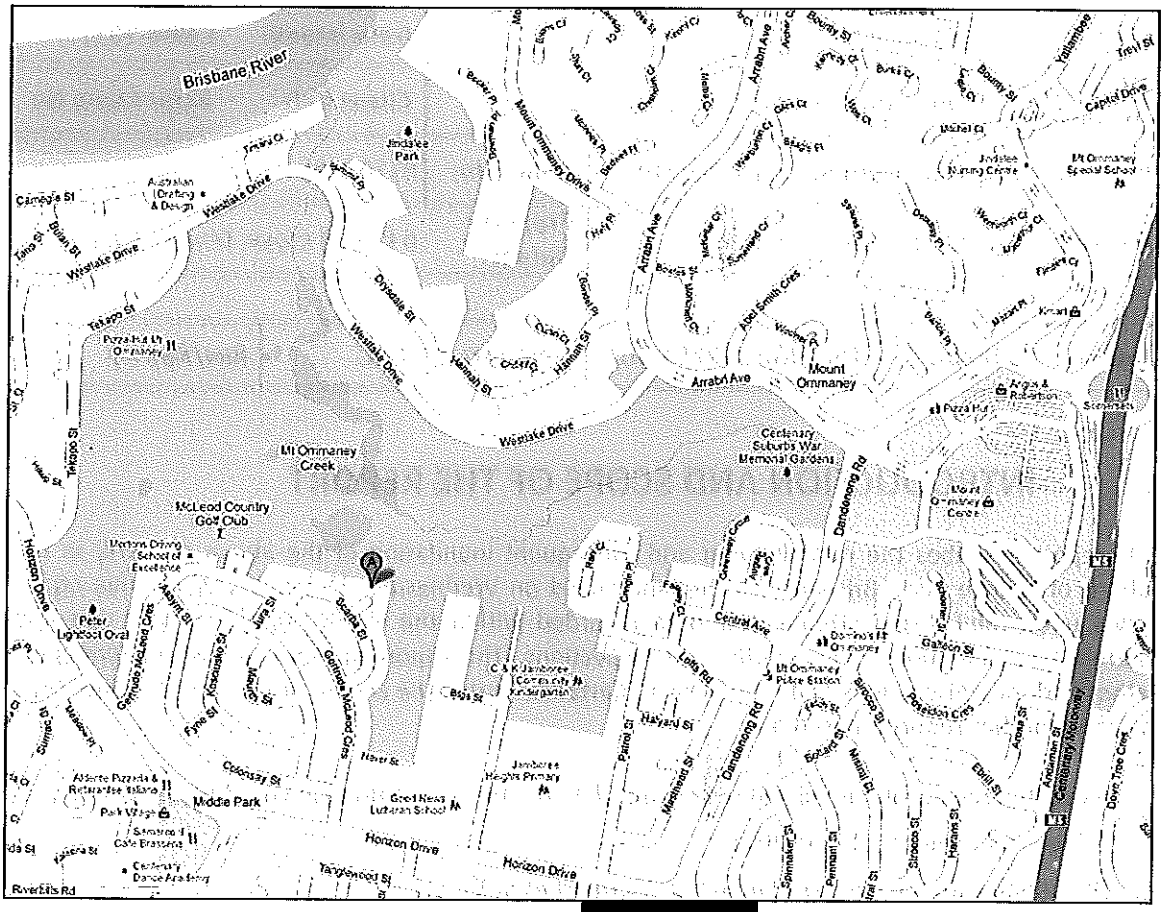


Figure 2-1 Locality Map, [redacted] Middle Park
(Google Maps 2011)

3 SITE INSPECTION

A site inspection was undertaken on 18 April 2011. Figure 3-1 and Figure 3-2 show a view of the property from Eriboll Close. The property is indicated by the red star. Two stormwater pits are located in the cul-de-sac to the east of the property on [redacted] The property driveway slopes down approximately 0.5m to the front door. The house is situated on a concrete slab approximately 200mm above the ground level. An easement to the golf course runs between neighbouring properties to the east.

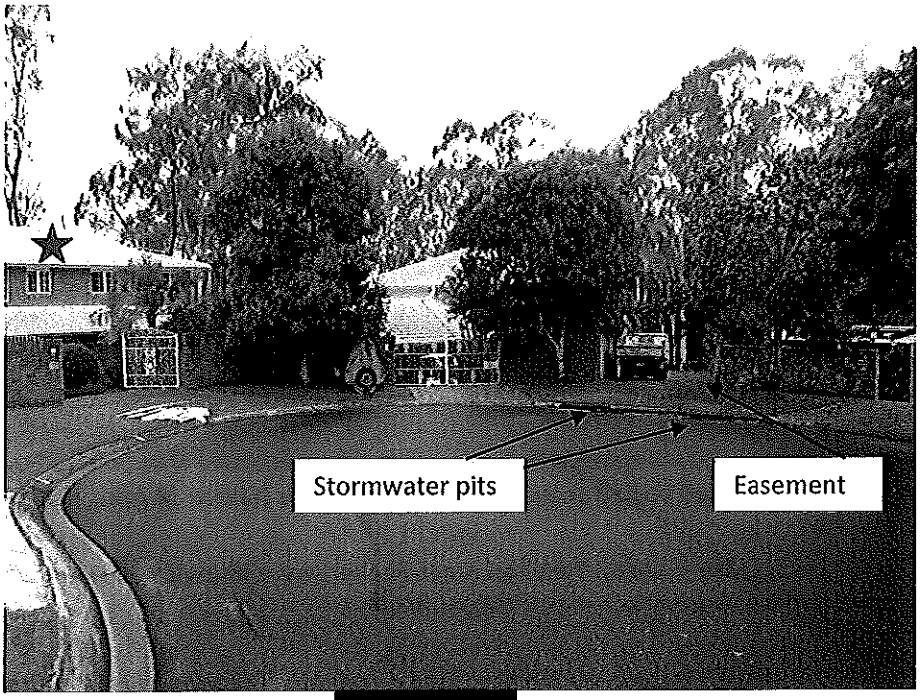


Figure 3-1 [redacted] taken: 18 April 2011)

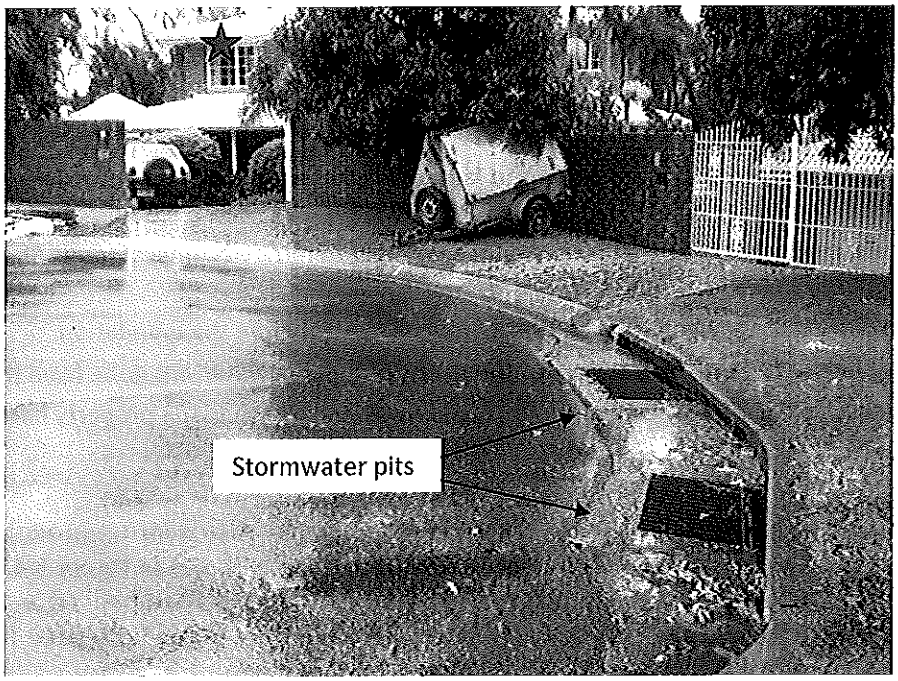


Figure 3-2 [redacted] stormwater pits (taken: 18 April 2011)

Figure 3-3 Golf course at the back of the property (taken: 18 April 2011)

During the site inspection the owners, Tom and Janet Fischer, were interviewed. Janet was present during the events and below is her account of the inundation.

- Janet was on her way to Melbourne but she came returned to the property because she thought there was a chance of flood. She started moving items upstairs at around 4:00pm on Tuesday 11 January.
- On Wednesday they moved white goods upstairs and there was no water yet in the property.
- On Wednesday afternoon, water came down from the east along the golf course. There was gurgling noises in the bathroom.
- Water first appeared in the bathroom and laundry. Around this time Janet evacuated the premises (Wednesday night).
- Janet returned to the house later on Wednesday night to retrieve contact lenses. She observed around 0.5m of water in the house.
- She is unsure if it was raining at the time of inundation or before the inundation.
- She returned to the property at 6am on Thursday, and all the water was gone from the house.
- They have lived in the property since 2002, and this is the first time the property has been inundated.

Below are photographs supplied by Mr Fischer and photographs that were taken during the site inspection. Inundation in the golf course late Tuesday afternoon is shown in Figure 3-4. Figure 3-5 shows an indicative flood depth at the rear of the house on Thursday afternoon. Figure 3-6 shows the golf course is still inundated late Thursday afternoon and Figure 3-7 indicates the flood depth reached at the rear of the property.

Figure 3-4 **Inundation on Golf course at the rear of the property (taken by owner: 4:47pm on Tuesday 11 January 2011)**

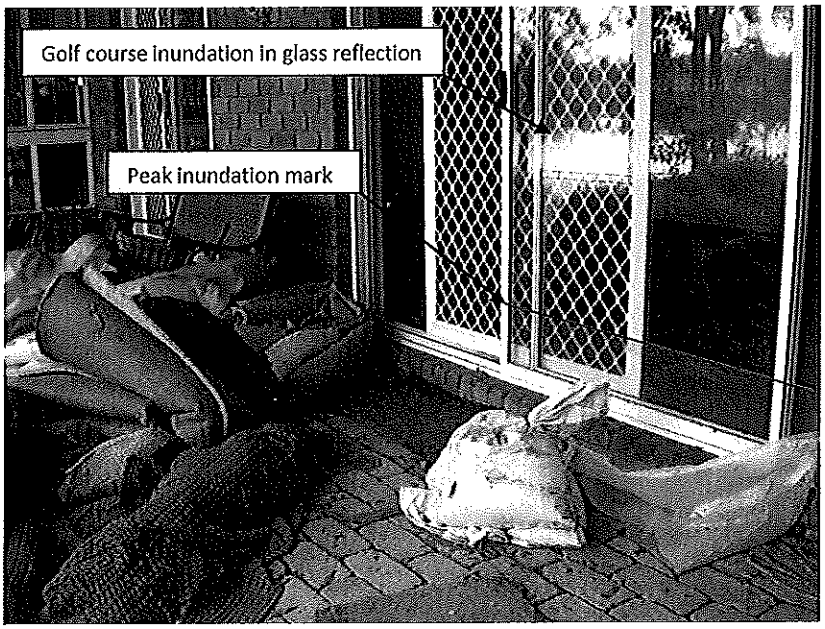


Figure 3-5 **Rear of house (taken by owner: 1:55pm on Thursday 13 January 2011)**

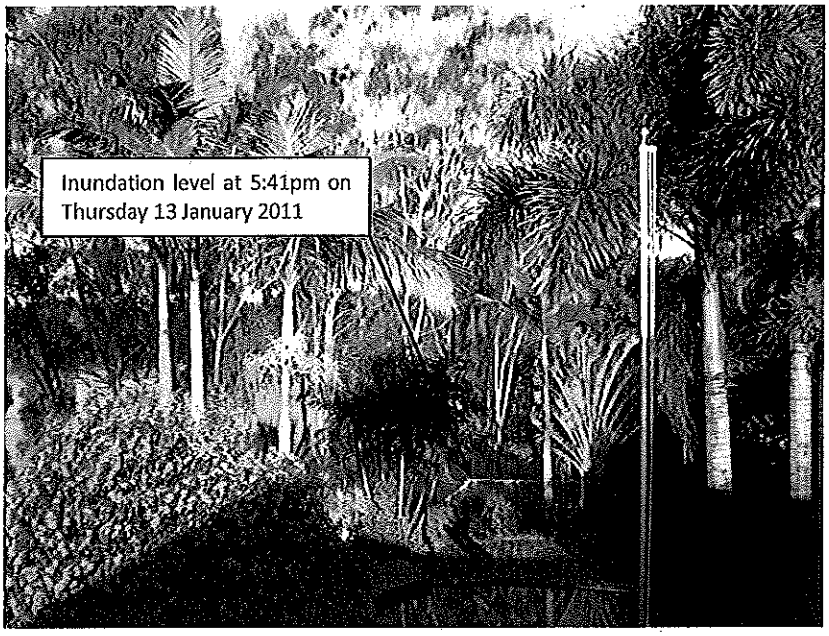


Figure 3-6 Inundation on Golf course at the rear of the property (taken by owner: 5:41pm on Thursday 13 January 2011)

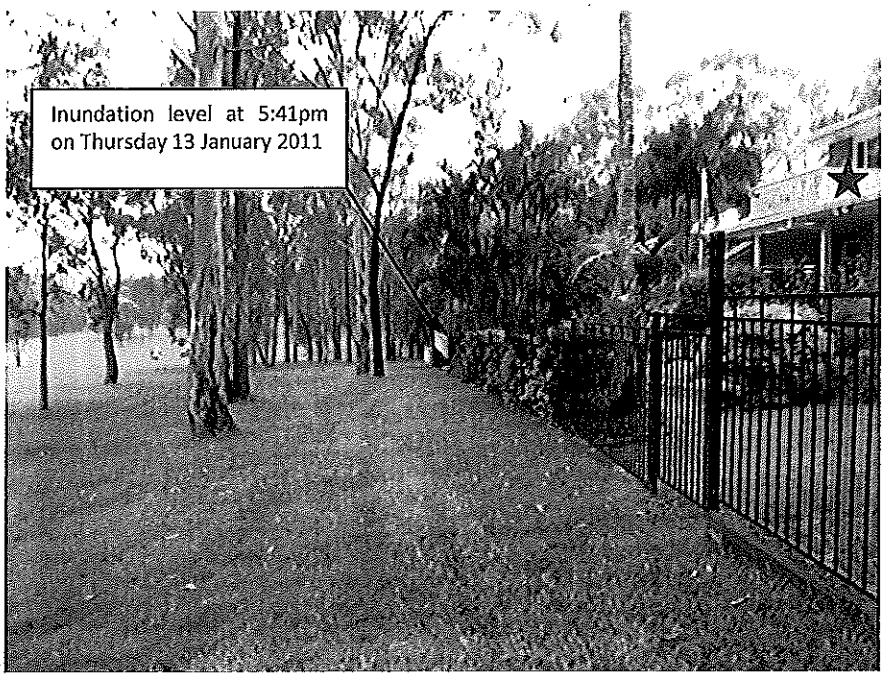


Figure 3-7 Indicative inundation level at the rear of the property (taken 18 April 2011)

Mr Fischer also provided photographs of water ponding in the golf course during a 2008 rainfall event.

During the site inspection Mr Fischer pointed to a spot where he believed the peak water level was. This was measured to be approximately 300mm above the slab floor level and matches well with Figure 3-5 provided by Mr Fischer. It was noted that the highest point on the property is at the south-western corner near the driveway. The driveway was estimated to be 100mm lower than this

highest point. The driveway was estimated to be approximately 0.5m higher than the slab floor level of the house.. The concrete slab floor level was measured to be approximately 200 mm higher than the pavement at the north-eastern rear of the property. The pool in the backyard was measured to be approximately 1.4 m lower than the slab level of the house.

On 18 April 2010 Mr Fischer emailed a copy of a report by Drapper Environmental Consultants [redacted] Middle Park) for Fairway Views Townhouse Complex at [redacted] Middle Park. This townhouse complex is located approximately 200m east of the property. This report has been reviewed as part of this investigation.

4 BRISBANE RIVER CATCHMENT AND FLOOD WARNING SYSTEM

The Bureau of Meteorology (BoM) operates a Flood Warning System which includes a network of rainfall and river height gauges located throughout catchments in Australia.

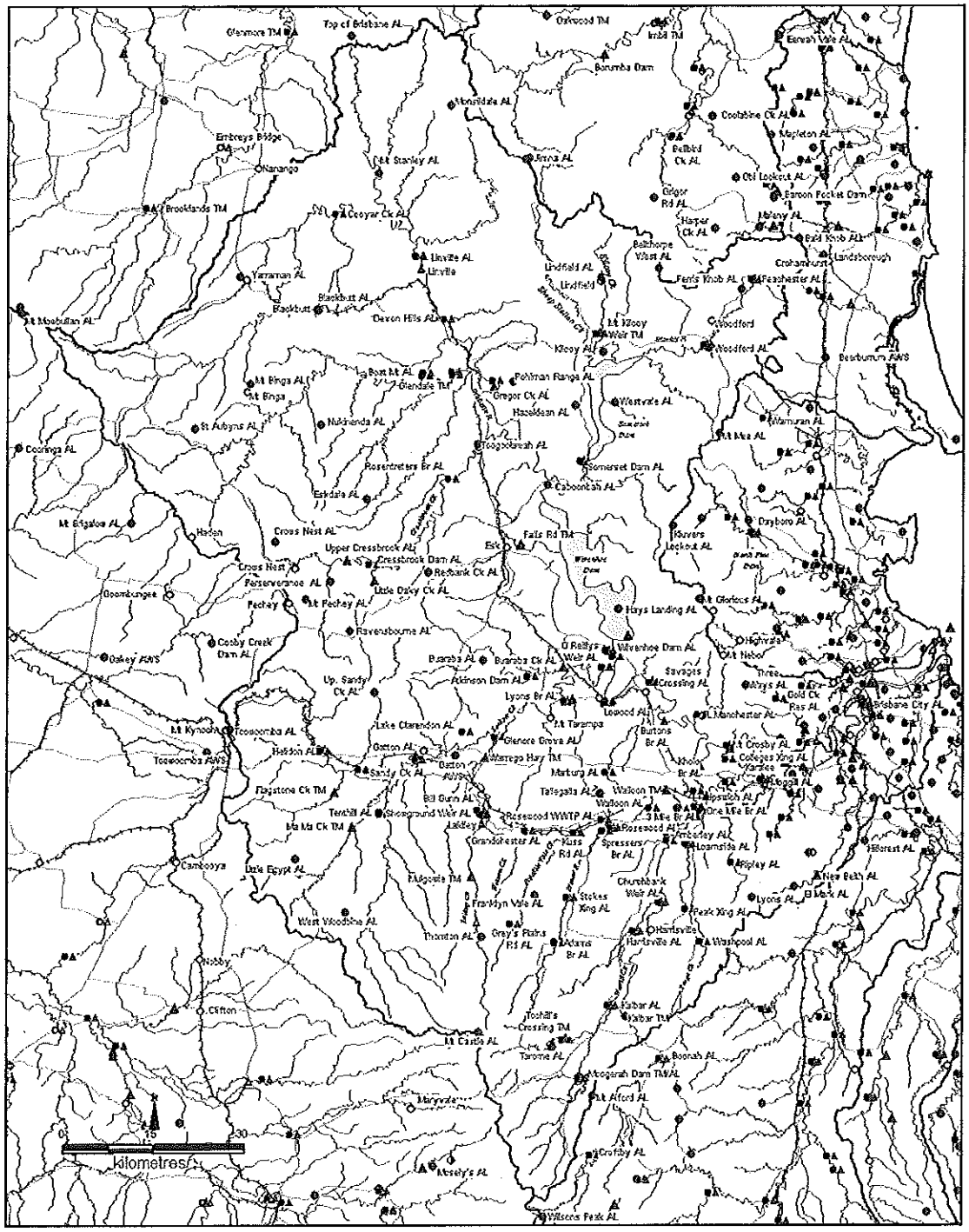
Figure 4-1 below presents the flood warning system for the overall Brisbane River Catchment, whilst Figure 4-2 presents the flood warning system for the lower Brisbane River and Figure 4-3 shows the Brisbane River catchment and the location of selected river height and rainfall gauging stations used to obtain data for this report.

Flooding within Brisbane can be generated through a range of mechanisms. BoM's "Flood Warning System for the Brisbane River Below Wivenhoe Dam to Brisbane city" states:

> *The Brisbane River catchment covers an area of approximately 15,000 km^2 of which about half is below Wivenhoe Dam. The Lockyer-Laidley Valley drains into the Brisbane River just downstream of Wivenhoe Dam near Lowood... Although Wivenhoe Dam significantly reduces the frequency of flooding in Brisbane City, major flooding can still occur.*
>
> *Flooding in the Brisbane City area can also be caused by local creeks including Oxley and Bulimba Creeks on the southside and Kedron Brook, Moggill and Enoggera Creeks in the northern and western suburbs. During intense rainfalls, the suburban creeks rise very quickly and can cause significant flooding of streets and houses.*

Australian Government
Bureau of Meteorology

MAP 143.1



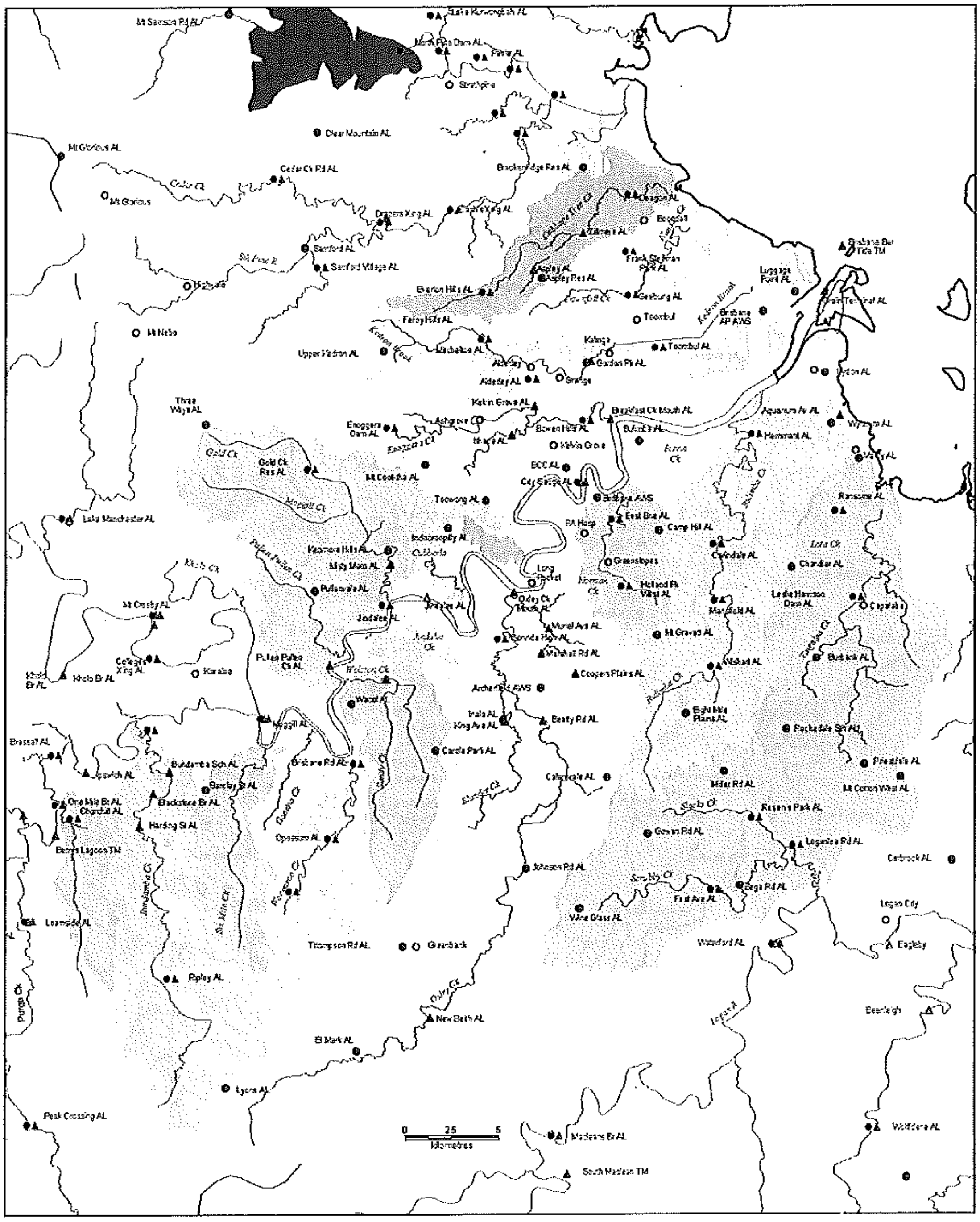
Manual Heavy Rainfall Station Daily Reporting Rainfall Station Manual River Station Telemetry Rainfall Station Telemetry River Station	**BRISBANE, BREMER & STANLEY RIVERS FLOOD WARNING NETWORK**	Major Roads Railway *Revised. April 2010*

r:/pub/maps/map03/map143_1.wor

Figure 4-1 Brisbane, Bremer and Stanley Rivers Flood Warning Network (BOM, 2011)

MAP 143.5

Australian Government
Bureau of Meteorology



o Daily Reporting Rainfall Station Δ Manual River Station ● Telemetry Rainfall Station ▲ Telemetry River Station	**LOWER BRISBANE RIVER** FLOOD WARNING NETWORK	Major Roads +++++ Railway *Revised: Nov 2009*

r:/pub/maps/map03/map143_5.wor

Figure 4-2 Lower Brisbane River Flood Warning Network (BOM, 2011)

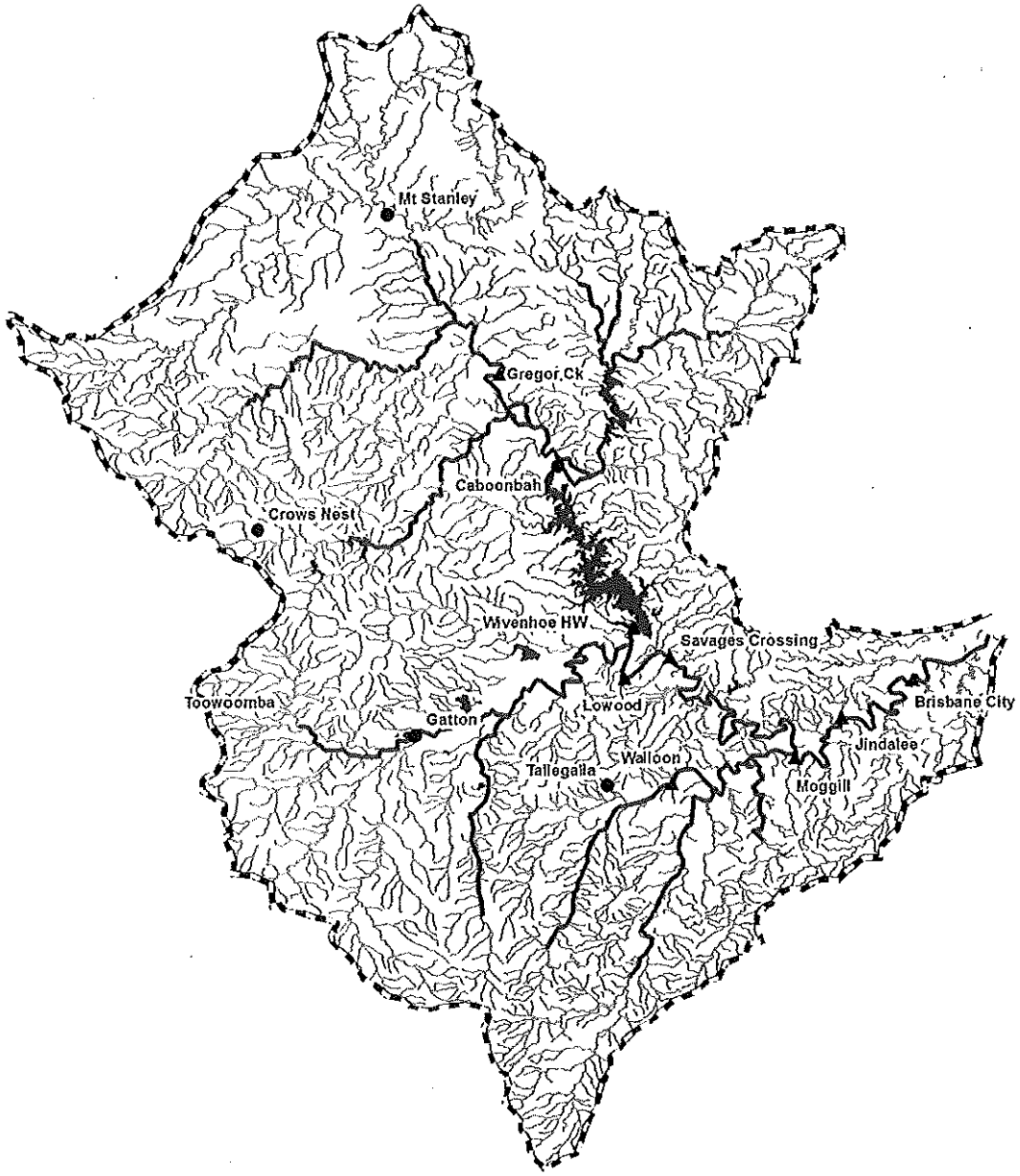


Figure 4-3 **Brisbane River Catchment and Selected Brisbane River Gauging Stations**

5 HISTORIC FLOODING

There is a relatively long record of flood documentation within the City of Brisbane and the Bureau of Meteorology provides some background information on the frequency and height of flood levels over the last 160 years. BoM's "Flood Warning System for the Brisbane River Below Wivenhoe Dam to Brisbane city" states:

> *Flood records for Brisbane extend back as far as the 1840's and indicate that the city has a long history of flooding. The largest flood of the 20th century occurred in January 1974, rising to a height of 5.45 metres on the Brisbane city Gauge at the river end of Edward Street. The flood caused widespread damage in Brisbane, affecting at least 8,000 properties.*

Figure 5-1 presents a history of flood peaks at the Brisbane River City Gauge (located at the southern end of Edward Street) and Table 5-1 provides historic heights within the Brisbane Catchment over various flood events.

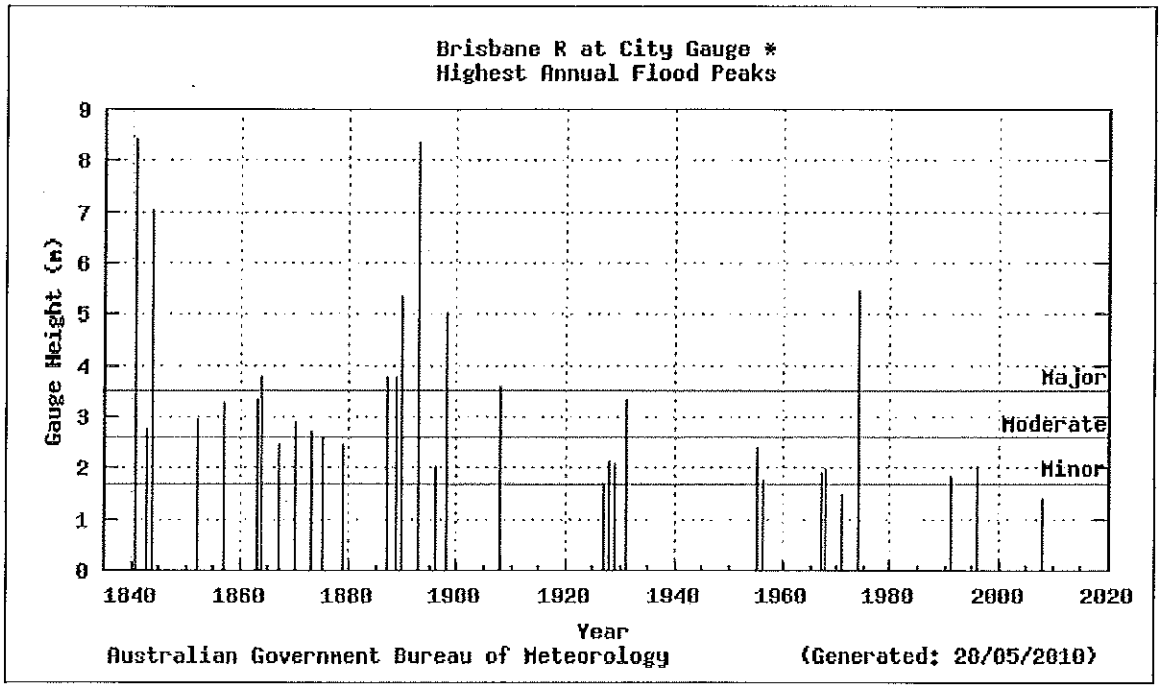


Figure 5-1 Lower Brisbane River Flood Warning Network (BOM, 2011)

Table 5-1 – Historic Flood Heights Within The Brisbane Catchment (BoM, 2011)

River Height Station	Feb 1893	Feb 1931	Mar 1955	Jan 1974	May 1996	Feb 1999	Feb 2001	Nov 2008
Gatton	16.33	9.14	9.14	14.63	11.4	8.5	9.55	7.6
Laidley	-	-	-	-	8.5	-	8.5	6.1
Lyons Bridge	-	-	17.46	16.54	16.41	12.55	13.26	13.12
Lowood	26.39	18.49	18.14	22.02	12.38*	10.87*	10.45*	-
Mt Crosby	32	21.78	20.72	26.74	14.1	-	8.55	8.29
Ipswich	24.5	15.47	13.82	20.7	11.31	6.85	6.28	10
Moggill	24.5	15.4	13.7	19.95	7.1	3.58	-	4.37
Jindalee	17.9	9.6	7.3	14.1	4.55	2.25	-	-
Brisbane City	8.35	3.32	2.36	5.45	2.1	1.41	-	-

All heights are in metres on flood gauges.
[*] Height is from the Lowood automatic station. Please note that some of the above heights have been estimated.

6 INUNDATION EVENT, JANUARY 2011

6.1 General

The National Climate Centre's Special Climate Statement 24 (BoM, 25 January, 2011) provides an overview of the meteorological event that caused inundation at the subject site. Several extracts of this report are quoted below:

> ***Major Rain Events of the Period***
>
> ...
>
> *10 to 12 January. An upper-level low combined with a humid easterly flow to bring very heavy rain to southeast Queensland and northeast New South Wales. The heaviest falls were in the areas north and west of Brisbane. ... Three-day totals exceeded 200 mm over most of the area bounded by Brisbane, Gympie and Toowoomba, including the majority of the Brisbane River Catchment. Further south, totals exceeding 100 mm extended to the coast and adjacent ranges of New South Wales north of Coffs Harbour, locally approaching 200 mm on parts of the Northern Tablelands, and also extended into inland southern Queensland as far west as Dalby. The heavy rain covered a smaller area than was the case in the late December event. The highest daily totals observed in the Bureau's regular network were 298.0 mm at Peachester and 282.6 mm at Maleny on 10 January, while the highest three-day totals were 648.4 mm at Mount Glorious and 617.5 mm at Peachester. Intense short-period falls also occurred during the event, with one-hour falls in excess of 60 mm occurring on both 10 and 11 January at numerous stations in various locations north and west of Brisbane. It is possible that higher short-period falls occurred in areas between observing sites.*
>
> ...
>
> ***Extreme Daily Rainfall Totals for the Period***
>
> ...
>
> *Peak rainfalls from the 1974 event were substantially heavier than those in 2011. Many stations in the 1974 event experienced daily totals which exceeded 400 mm; the highest were 563.2 mm at Mount Tamborine and 561.5 mm at Wundurra, in the Gold Coast hinterland, while in the Brisbane area 475.8 mm fell on 26 January at Enoggera Reservoir.. 1974 also saw much heavier rainfall in metropolitan Brisbane than 2011, with Brisbane's three-day and peak one-day totals of 600.4 mm and 314.0 mm in 1974 comparing with 166.2 mm and 110.8 mm in 2011. However, in 1974 the heaviest rains were close to the coast, whereas in 2011 heavy falls spread further inland, and on the western fringe of the Brisbane River catchment and on the Great Dividing Range 2011 was the wetter of the two events (Figure 5 ...). The weeks prior to the 1974 event, whilst wetter than normal, were also less wet than the equivalent weeks prior to the 2011 event.*

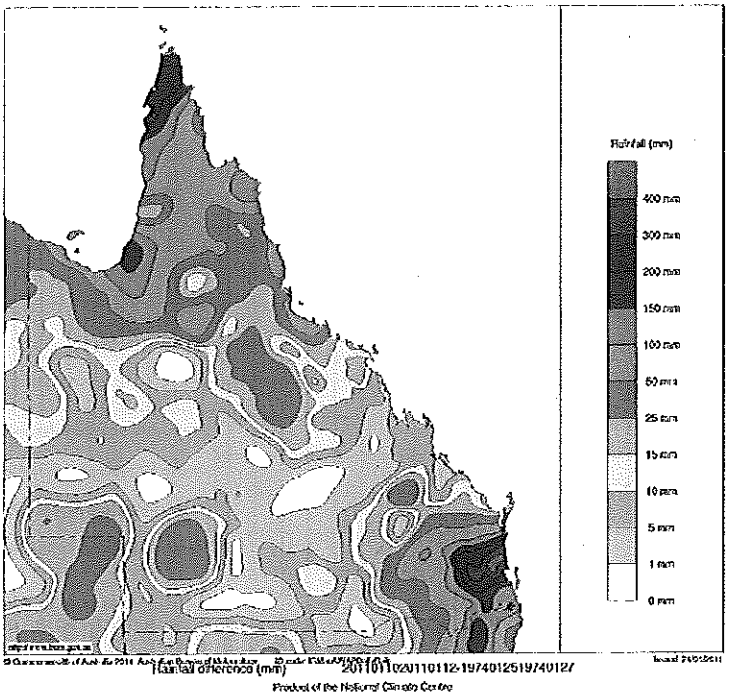


Figure 6-1 Three day rainfalls for 10 to 12 January 2011 (extract from Figure 5 - BOM, 2011a)

Floods resulting from the rainfall

The most destructive floods during the period occurred during the second week of January in the southeast corner of Queensland and adjacent border areas of New South Wales. There was major flooding through most of the Brisbane River catchment, most severely in the Lockyer and Bremer catchments where numerous flood height records were set ..., along with the Toowoomba area just outside the Brisbane catchment. In Brisbane it was the second-highest flood of the last 100 years, after January 1974. The flooding caused substantial loss of life, and thousands of properties were inundated in metropolitan Brisbane and elsewhere. Major flooding with inundation of properties also extended inland to the upper Condamine-Balonne catchment, with Chinchilla and Dalby being severely affected for the second time in less than a month. ...

6.2 Brisbane River Catchment Data Above Wivenhoe

Figure 6-2 presents the Brisbane River inflows to Wivenhoe Dam at Gregor Creek gauging station (540193) (located on the Brisbane River upstream of Wivenhoe Dam) as well as the cumulative 3 day rainfall at three rainfall stations in the catchment above Wivenhoe Dam.

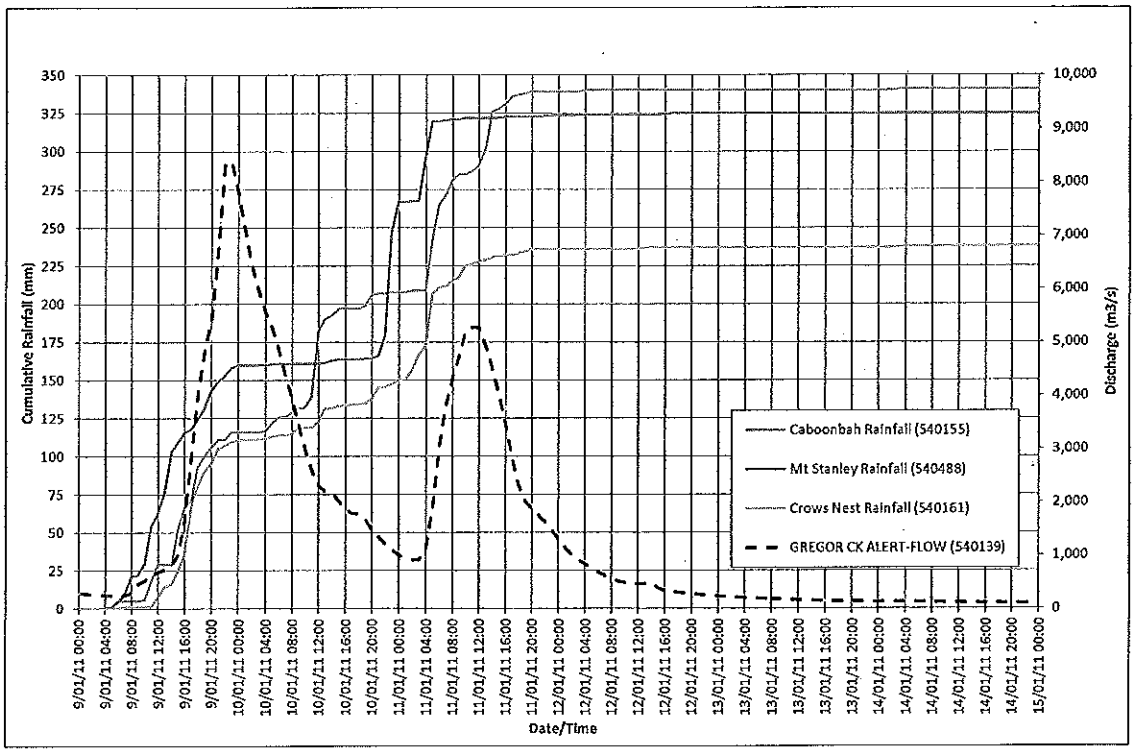


Figure 6-2 Cumulative Rainfall Records totals and Brisbane River (Gregor Ck) inflows to Wivenhoe Dam (9 to 15 January, 2011)

Figure 6-3 presents similar information on the cumulative rainfall totals against the resultant Wivenhoe Dam level.

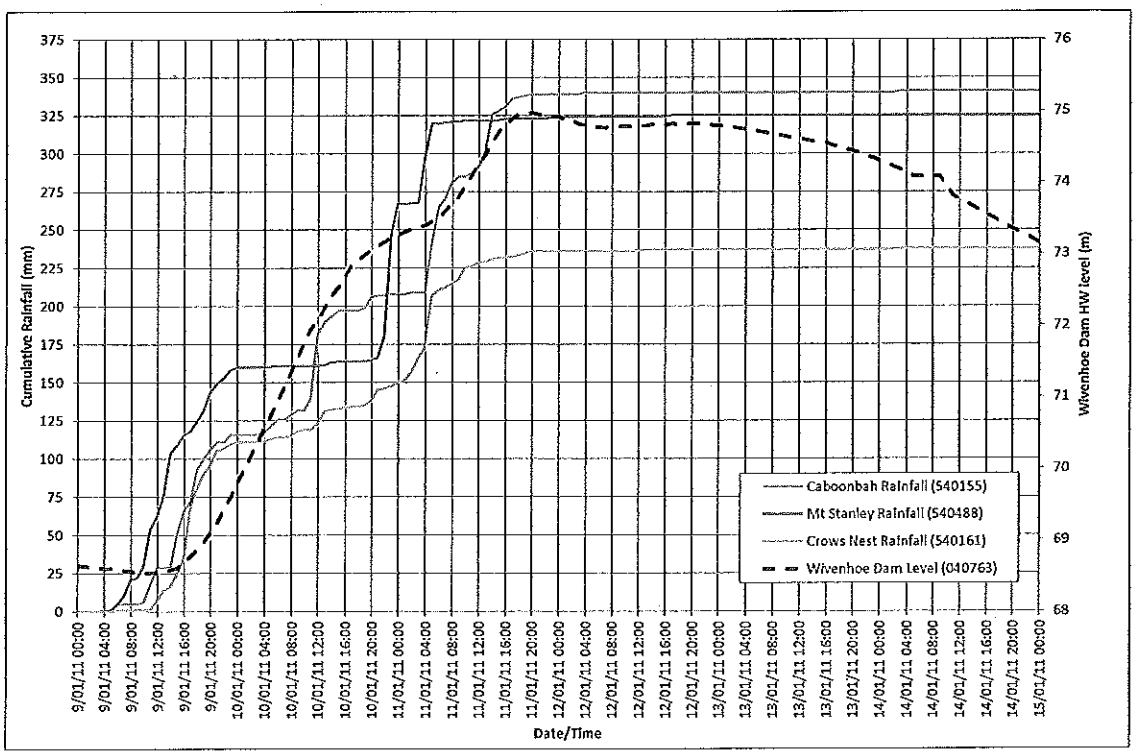


Figure 6-3 Cumulative Rainfall Records (selected) in the catchment above Wivenhoe Dam

From these gauge observations, and general understanding of events, the following comments are made:

- There was significant rainfall that fell in the upper catchments which commenced at approximately 06:00 on 9 January and this rainfall continued generally until Tuesday afternoon, 11 January, 2011.
- This rainfall caused significant inflows to the dam during the same period. It is noted that Wivenhoe Dam has a full supply level at 67 m AHD, giving it 1.15 Million Megalitres of Storage for town water supply, which is considered at 100% capacity. Above this 67 m level the Dam can hold back a further 1.45 Million Megalitres for flood mitigation.
- Releases were being made from the Dam following the wide catchment rainfall in December and early January and due to flow coming in releases made from Somerset Dam. However the inflow from rainfall events commencing on 9 January required increases in the flow rate from the dam to start occurring to keep the dam level at 100%. These releases were controlled to take into account the effect on downstream flooding.
- With the intense rainfall in the Lockyer Valley and upper catchment areas on 10 and 11 January, the release rate was progressively increased and it is understood releases where increased significantly Tuesday morning. The Dam reached a peak level of approximately 75 m on Tuesday afternoon which is understood to be around 191% of capacity.

6.3 Brisbane River Catchment Data Below Wivenhoe

Figure 6-4 presents the water level records for the Brisbane River at various locations downstream of Wivenhoe Dam and Figure 6-5 presents 1 hour rainfall pluviograph information for several stations around Brisbane.

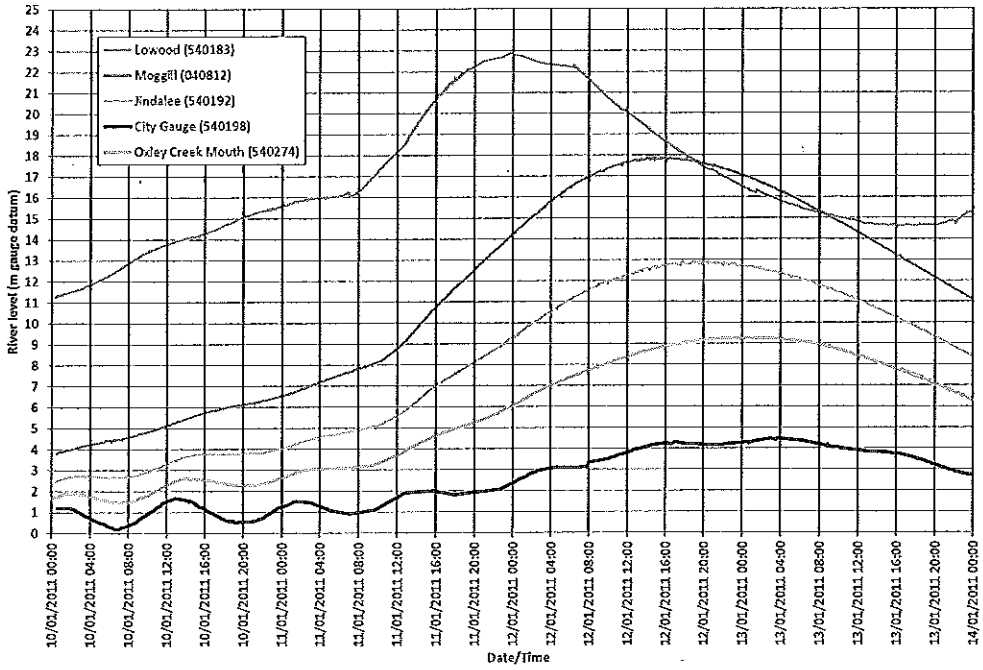


Figure 6-4 Recorded Brisbane River Levels at Gauges below Wivenhoe

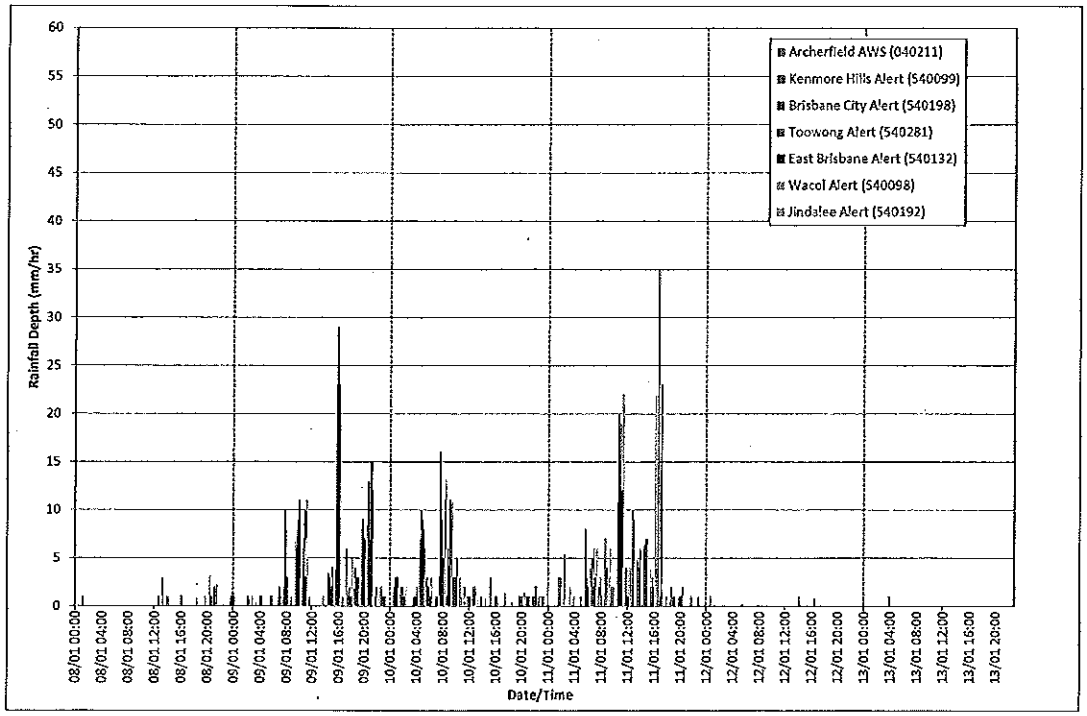


Figure 6-5 1 hour Selected Pluviograph (Rainfall) Records in the Catchment below Wivenhoe Dam

Figure 6-6 presents rainfall Intensity Frequency Duration (IFD) analysis for several selected rainfall stations in Brisbane. The Jindalee gauges provide the closest estimate of rainfall occurring in the Middle Park area and Figure 6-6 indicates that the intensity of rainfall in the days leading up to inundation was very low and less than a 1 year ARI event.

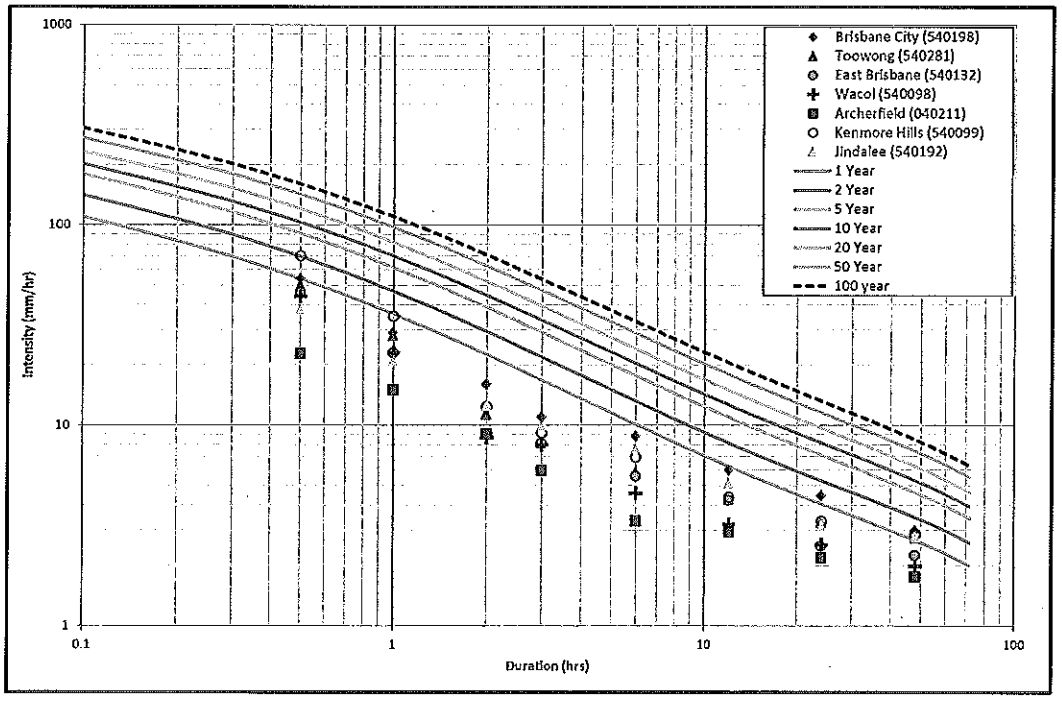


Figure 6-6 Rainfall Intensity Frequency Duration Analysis for Selected Rainfall Stations in Brisbane

6.4 Additional information on the Site

Figure 6-7 is an aerial photo from the Nearmap website taken on Thursday 13 January 2011 after the peak inundation level had occurred. The remains of dirty water are seen in the pool. The cul-de-sac, grassed footpath beside the property driveway and the area immediately next to the stormwater pits do not show signs of inundation. Figure 6-8 is the Nearmap image with Insurance Council of Australia (ICA) supplied inundation extent overlayed. This shows the property was within the inundation extent provided by the ICA.

Figure 6-7 Aerial Image of Inundation showing Site on 13/1/2011 (Nearmap 2011)

Figure 6-8 Nearmap image of site (13/1/2011) with ICA inundation extent overlay

7 DISCUSSION ON CAUSE OF INUNDATION

7.1 Lower Brisbane Region

Following are relevant points when considering inundation generally within the lower Brisbane Regions.

- There are several major catchments enter the Brisbane River below Wivenhoe Dam. These include the Lockyer Creek and the Bremer River catchments, amongst others and these can also cause or contribute to flooding in areas of Ipswich and Brisbane.
- The Lowood gauging station includes both flow from Wivenhoe Dam, and Lockyer Creek, which enters the Brisbane River downstream of Wivenhoe Dam.
- At the time of compilation of this report, the Wivenhoe Dam discharge records were unavailable hence the Lowood gauge water level has been used to provide a reasonable indication of the timing of the peak discharge from Wivenhoe Dam, which indicates the peak outflow from Wivenhoe occurred at approximately 00:00 on Wednesday, 12 January, 2011 (around midnight Tuesday night).
- Flow from the Bremer River enters the Brisbane River between the Lowood and the Moggill Gauge.
- The peak level at the Jindalee Gauge occurred at approximately 17:50 on Wednesday 12 January at a gauge level of 12.9 meters.
- The peak level at the Oxley Creek Mouth gauge occurred at approximately midnight on Wednesday 12 January 2011 with a level of 9.27 m AHD.
- At the Brisbane City Gauge there were two peaks due to tidal influences on the rising limb of the flood wave. The initial peak on the rising limb of the floodwave occurred at approximately 17:00 on 12 January, 2011 at a level of 4.3 m AHD. The level then dropped to approximately 4.16 m AHD and the second larger peak occurred at approximately 03:00 to 04:00 on 13 January, 2011 at a level of 4.46 m AHD, which was over 24 hours after the recorded peak at the Lowood gauge.

7.2 The Site

The following additional points are relevant when considering inundation at the Site.

- There were no surveyed levels available for the site. We estimate the ground level of the property at [redacted] to be between 10.8 and 13.9 m AHD based on Brisbane City Council's Floodwise Website. Based on the floodwise reports, observations of the site and course contour data, we estimate the concrete slab floor level of the property at 13.1m AHD. These levels are estimates only and would require confirmation from survey but are suitable for the purposes of estimating the timing and depths of inundation. The site is located approximately 3km upstream of the Jindalee Alert gauge (#540192) and 16km downstream from the Moggill Alert gauge (#540200). Using these levels we can plot an interpolation of Brisbane River levels against levels of the property and approximate estimated slab floor level as shown in Figure 7-1.

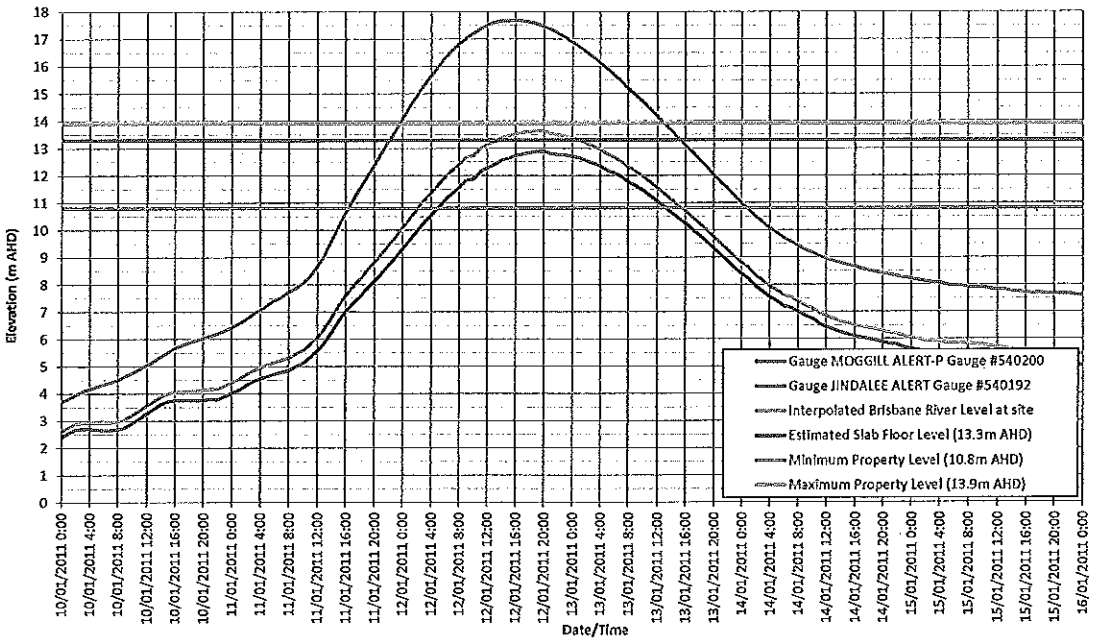


Figure 7-1 Interpolated Brisbane River levels and timing for 6 Eriboll Close, Middle Park

- Figure 7-1 shows the inundation at the property would have commenced at approximately 2:00am on Wednesday 12 January and inundated the slab floor level at approximately 1:00pm on Wednesday 12 January before peaking at a maximum level of approximately 13.6m AHD at around 7pm on Wednesday 12 January and receded below the slab floor level at approximately 2:00am on Thursday 13 January 2011. This agrees well with observed peak inundation depths in the house and correlates well with the owner's recollection of water starting to inundate the bathroom and laundry at lunchtime/afternoon on Wednesday, and no inundation in the house at 6:00am Thursday 13 January.
- There was no rainfall recorded at the closest rain gauge Jindalee Alert (#540192) after 8:00pm on Tuesday 11 January 2011. The rainfall recorded before this time was well below a 1 year ARI event. Therefore it is highly unlike stormwater was the cause of inundation at the property.

8 CONCLUSION

Based upon the observations during the inspection, discussions with the owner at the site as well as the data analysed and discussed in this report, the cause of the water inundation on the site at [redacted] Middle Park, commencing on Wednesday 12 January is, in our opinion, a flood event as described in Section 9.

We have arrived at this opinion because we believe the inundation to be caused by backwater from the Brisbane River and not from any localised rainfall event that could cause stormwater type inundation.

9 GUIDELINES AND TERMINOLOGY

This report uses generally accepted engineering industry standard definitions for stormwater and flooding terminology as provided in Table 9-1 below. This terminology is based on the glossaries of following documents, with additional information and examples provided by Water Technology to further clarify the use in this report:

- "Floodplain Management in Australia: Best Practice Principles and Guidelines – SCARM Report 73", 2000, CSIRO.
- "Queensland Urban Drainage Manual", Second Edition, 2008, Queensland Government Natural Resources and Water.
- "Mitigating the Adverse Impacts of Flood, Bushfire and Landslide - State Planning Policy Guideline SPP1/03", June 2003, Queensland Government.
- "Australian Rainfall and Runoff – Volume 1 – A Guide to Flood Estimation", 1998, Institution of Engineers Australia.
- Bureau of Meteorology (2011b) definitions and terminology as listed on their webpage http://www.bom.gov.au/hydro/flood/flooding.shtml#definitions_terminology

Table 9-1 Terminology

Term	Definition
Annual Exceedance Probability (AEP)	The probability of exceedance of a given discharge within a period of one year. Can be expressed as a percentage (e.g. 1% change in any one year) or 1 in Y [years] (e.g. a probability of 1 in 100). This report will generally use ARI terminology.
Average Recurrence Interval (ARI)	The average or expected period between exceedances of a given discharge expressed in years. This is a another method of expressing the magnitude of a particular event in probabilistic terms (e.g. a "100 year ARI flood" can also be described as a flood with an AEP of "1%" or "1 in 100"). The ARI of a flood event is a statistical estimate that gives no indication of when a flood of that size or larger will occur next.
Backwater	No definition in documents listed above. We define as a body or area of water where there is little or no current that is connected to a drainage system or receiving water either above or below ground (pipe drainage). The water level of the backwater area is governed by the adjacent drainage system or receiving water.
Breakout	No definition in the documents listed above. Breakout flows occur when flow in a river system reaches a level high enough to engage a wider or an alternate flow path other than the normally defined channel.
Catchment	The area of land contributing stormwater runoff to a particular site or point under consideration. It always relates to a particular location and includes the catchments of tributary streams as well as the main stream.
Critical Storm Duration	The duration of the storm event that produces the largest flood discharge at the location of interest. Critical storm duration depends on the catchment size, topography (slope, drainage path, presence of storages or basins), magnitude of storm, land use of the catchment (e.g. urban, rural or forest). In general terms the critical storm duration provides an indication of how long a catchment takes to deliver peak flow to a particular point of interest following rainfall commencement. When the rainfall is not at a constant intensity the timing of the peak flood will depend on the temporal pattern of rainfall.

Drainage System	A system of gully [street or field] inlets, pipes, overland flow paths, open channels, culverts and detention basins used to convey runoff to its receiving waters.
Flood	The temporary inundation of land by expanses of water that overtop [i.e. have exceeded the capacity of] the natural or artificial banks of a watercourse, including a drainage channel, stream, creek, river, estuary, lake or dam, or any associated water holding structure. A flood can be caused by excessive rainfall, storm surge, dambreak or a tsunami.
Local Runoff	Refer to "Runoff" and "Stormwater Flooding".
Minor flood level	Defined by the BoM as a flood level that causes inconvenience. Low-lying areas next to watercourses are inundated which may require the removal of stock and equipment. Minor roads may be closed and low-level bridges submerged.
Moderate flood level	In addition to the above for minor flooding, defined by the BoM as when the evacuation of some houses may be required. Main traffic routes may be covered with flood waters. The area of inundation is substantial in rural areas requiring the removal of stock.
Major flood level	In addition to the above for minor and moderate flooding, defined by the BoM as when extensive rural areas and/or urban areas are inundated. Properties and towns are likely to be isolated and major traffic routes likely to be closed. Evacuation of people from flood affected areas may be required.
Rainfall Intensity	The rate at which rain falls, typically measured in mm/hour. Rainfall intensity varies throughout a storm. This variation is called a temporal pattern.
Receiving Waters	A body of water (normally sea, river, creek or larger drainage system) that receives flow from a generally smaller (tributary) drainage system.
Runoff	That part of rainfall which is not lost to infiltration, evaporation, transpiration or depressions in the ground. We add that for the purposes of investigating or studying a flood it is the amount of rainfall that drains along the surface and into the "drainage system" or directly into receiving waters. Local runoff is that which occurs locally to a point in question (i.e. within a backyard) and has not yet reached a drainage system.
Stormwater Flooding	Inundation by local runoff caused by heavier than usual rainfall. Stormwater flooding is caused by local runoff exceeding the capacity of an urban stormwater drainage system. The capacity can be lessened by the backwater effects of mainstream flooding or by obstructions. We add that inundation caused by backwater surcharging out of a stormwater drainage system would not necessarily be classed as stormwater flooding as the source of water and/or the level reached may not be caused by local runoff and could have been caused by flooding of an adjacent or downstream watercourse. In a rural setting and within large rural allotments, we define stormwater flooding as sheet flow caused by local runoff before it has concentrated into a watercourse, including a drainage channel, stream, creek, river, estuary, lake or dam, or any associated water holding structure.
Surface Water or Inundation	Any water collecting on the ground or in an open drainage system or receiving water body. In this report we use these terms to discuss water before it is categorised into flood, stormwater or other.

10 REFERENCES

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http://flood.brisbane.qld.gov.au/floodwise_property_report/

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Drapper Environmental Consultants, 27 February 2011, "Fairway Views Townhouse Complex 45 Bilga St, Middle Park, Consultancy Report" prepared for Fairway Views Body Corporate Committee

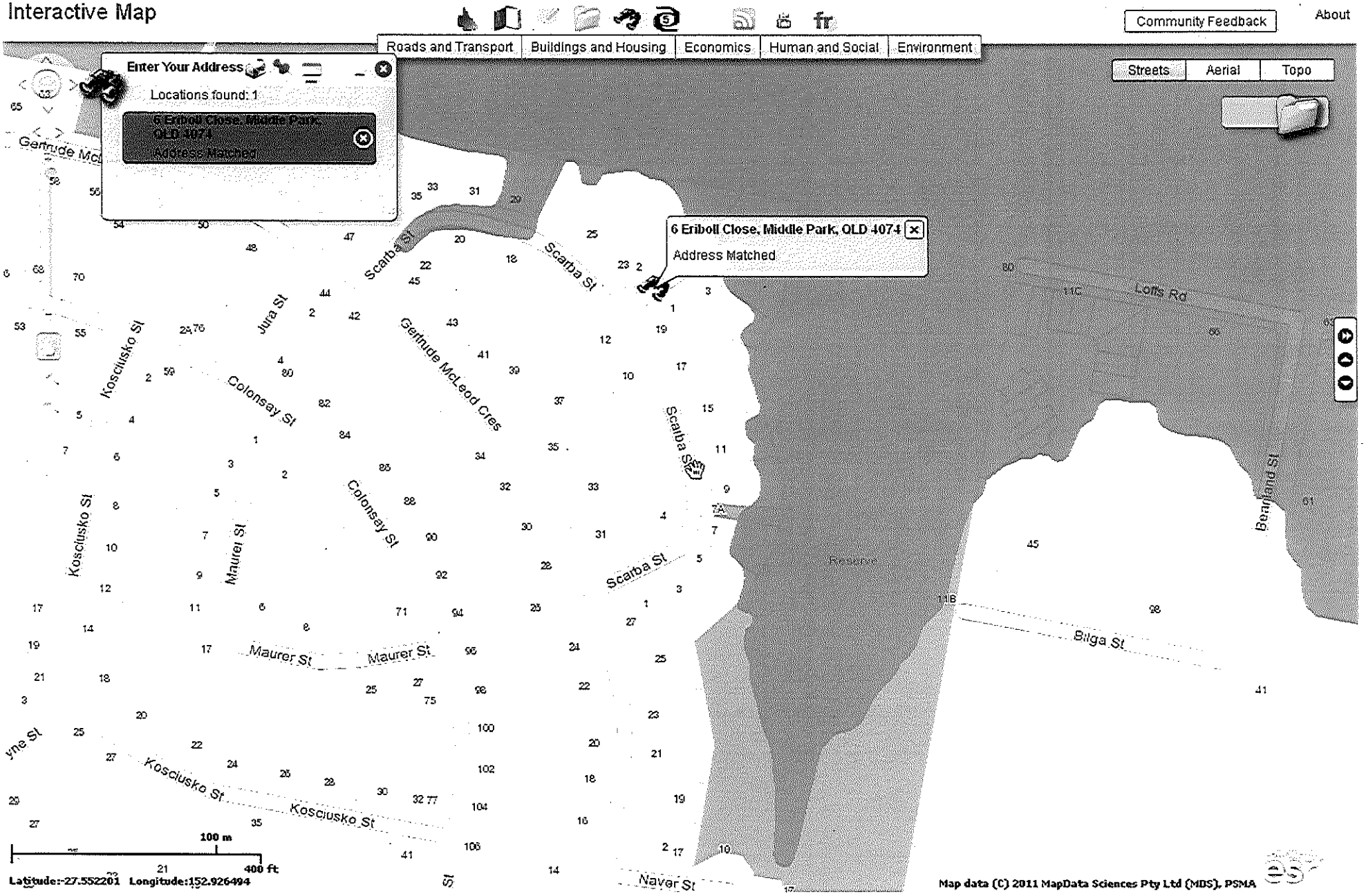
11 DISCLAIMERS

The information contained in this report is subject to the following disclaimers and definitions:

- The area referred to in this report as the development "site" or "property" is the land that Water Technology believes most closely represents the location identified by the client. The identification has been done in good faith and in accordance with information given to Water Technology by the client.
- No warranty is made as to the accuracy or liability of any studies, estimates, calculations, opinions, conclusions, recommendations (which may change without notice) or other information contained in this report, and to the maximum extent permitted by law, Water Technology disclaims all liability and responsibility for any direct or indirect loss or damage which may be suffered by any recipient or other persons relying on anything contained in or omitted from this report.
- This report has been prepared for the sole use by the Client stated on page 1 and no responsibility is accepted by Water Technology with regard to any third party use of the whole, or of any part of the contents of this report. Neither the whole or any part of this report or any reference there to may be included in any document, circular or statement without Water Technology's written approval for the form and context in which it would appear.
- The information provided represents the best estimates based on currently available information as described; this information and any opinions may be subject to change if new information becomes available and/or further studies are carried out.
- We have not investigated the timing of any flood to determine if it would meet flash flood criteria.
- This is a technical report that uses generally accepted engineering industry standard definitions for stormwater and flooding terminology and does not rely on the definitions any insurance companies use to determine whether an insurance claim is within or outside of their policy coverage. The decision of whether or not to pay a claim rests solely and entirely with the insurance company.

B12004488

Interactive Map



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Tom Fischer - HWT @ QPCU

From: Peter Andrew [redacted]
Sent: Tuesday, 14 June 2011 3:06 PM
To: [redacted]
Cc: Colin Ahern; Christina Eller
Subject: QLD Flood Claim

Tom
I am sorry to hear that our claims denial letter does not have any details of our IDR team. If feasible, can you fax me a copy of the front page.

Complaints / IDR requests for the Queensland floods are being handled by our Sydney based IDR team. Contact details are:

Christina Eller
[redacted]

Christina is expecting your contact.

Sincere regards

Peter Andrew
National Manager, Business Improvement
Corporate Partners & Direct - Business Partners
QBE Australia

Phone: [redacted]
Email: [redacted]
Visit us on the web at www.qbe.com.au

Time with QBE is time well spent

Tom Fischer
[redacted] QLD [redacted]
Telephone:
Mobile [redacted]

15th June 2011

Ms. Christina Eller
Dispute Resolutions
QBE

Re Claim No. [redacted]

Dear Christina

I contacted Peter Andrew because your dispute resolution process states I should contact the person handling my file and he was the only one from your organisation who has contacted me other than signed letters with no name on them.

The last letter dated 6th June sets out your reasons for rejecting my claim and has with it voluminous paperwork purporting to represent accurate facts and figures. I would like to set out some of the reasons they are incorrect and not reliable.

Starting with the independent hydrology report, it is true that David Cox from Water Technology Pty. Ltd. attended our house on 18th April. In his report he quotes many measured and estimated levels but I can assure you that he took no measurements at our property despite my repeated request to determine an accurate level for the habitable floor space. These requests were dismissed with "we know the levels at the bottom and top of your property and the slab is about half way up so we can guess the level".

I have attached a copy of the Brisbane City Council Flood Report on the property done at the time of purchase which states the highest level is 14.1m. In pages 6 and 7 of the hydrologist's report he states that the slab floor level is 0.5m below the top of the driveway which is 100mm below the highest point on the property. This therefore, by his own calculations puts the slab height at 13.5m. not the 13.1m. estimated on page 21 of the report. It may not seem a big difference but 40cm is in fact about the level of inundation which was more accurately measured and reported by the loss adjuster. It is also above the reported floodwater level for the area.

Another major irregularity in this report is the overlay of the ICA inundation extent over the Nearmap image in Figure 6-8. Both the Interactive map provided by your adjuster and the Brisbane City Council Flood Map of Middle Park which is attached to my email with our property roughly circled shows that floodwaters at worst only entered the bottom corner and not the dwelling. The attached map also shows with yellow highlighter all the major stormwater outlets that are channelled onto the golf course near our property.

David Cox mentions in a short paragraph on page 7 that a provided report by a highly qualified Engineer who specialises in stormwater and environment was reviewed but I assume none of his findings were made available to you. I have also attached some of the relevant information from this 99 page report to my email and the most important things to note are:-

1. Many of the units particularly No. 13 surveyed have lower habitable floor levels than our property
2. The stormwater run off waterway described is halfway between the property and our property.
3. The insurers of the Fairway Views property in this report have agreed that it was inundated by stormwater run off and settled the claim.

I took David Cox on a site inspection of this part of the golf course including the units, the stormwater outlet between us and another one 100m to the West of our property.

Much of the other information provided in the report by your hydrologist is not site specific and one important disclaimer is "We have not investigated the timing of any flood to determine if it would meet flash flood criteria". This to me means that the information in the report that I have provided is a far more accurate representation of events and makes David Cox's estimations irrelevant.

There are also some anomalies in the adjusters report and some of these may be due to my wife Jan's still distressed state on the 19th of January after the events of the flood. Perhaps at this stage a background of the events may be helpful. Jan & I were to fly to Melbourne on Tuesday 11th January to look after my aged mother while my sister took a well earned break. On the way to picking me up from the office to go to the airport Jan experienced unprecedented traffic and after listening to reports on the radio took the decision to stay behind. She went back to the house and spent all day and without sleep through the night moved whatever she could manage to our upper level. On Wednesday morning neighbours and friends assisted her to move all whitegoods, furniture, cars and our golf buggy to properties on higher ground thus avoiding major loss to contents. The loss adjuster's report states that she vacated the premises on Tuesday 13th January when in fact she did not leave until late on Wednesday when the inundation began but this was probably her best recollection at the time of the interview.

Because of this there is one thing that Jan is sure of and that is that the water first entered from the Eastern side of the property where the abovementioned stormwater run off is and not the direction that the river is in at the rear of the property as shown in the adjuster's report. I was present when she clearly and correctly described this to him.

One of the items we would dispute in the adjuster's is report is the assertion that the water was "Dirty". This is corroborated in the report on the Fairway Views units. Only some of the photos provided have been supplied with your letter but others showed clear water on the concrete slab in the lounge room after the carpet had been removed and the carpet itself clear of any staining. Others show the brickwork paving after the water had receded and it is also relatively clean of sludge. Some photos showed leaves and small twigs on interior walls up to the level of inundation but we contend these were washed form the golf course and surrounding areas by stormwater run off rather than rising river levels.

Lastly on the adjuster's report it states that the property was submerged for 12-24 hours which is clearly not the case and again may have been caused by misinformation from Jan. I returned to Brisbane late on Wednesday night and we went to the property at about 7.00am at which time the water level had receded way below our floor level.

We have had some of the damages listed by the adjuster repaired and I have personally rectified others within our means however there is a concern that we are living in a time bomb as none of the internal walls have been removed and there is probably mould which could endanger our health.

It has taken you six months to prepare your final letter and reports whilst I have only had a week to compile some basic facts as to why we find your assessment to be incorrect and based on erroneous information. I am sure that given time to study what you have provided and what is available elsewhere there will be other factors that come into consideration.

Given this I ask that you reassess our claims using your dispute resolution process and reply to me within the 15 day period shown in you PDS.

Sincerely,

[redacted]

Tom Fischer

Tom Fischer - HWT @ QPCU

From: Peter Andrew [redacted]
Sent: Wednesday, 22 June 2011 10:15 AM
To: Tom Fischer - HWT @ QPCU
Cc: Pat West; Colin Ahern
Subject: RE: QLD Flood Claim

Tom
I have had a look into the reason why we have not been including claims officer's names and personal numbers on the footer of our letters as it initially seemed unusual to me too.

From my enquires, I have been told that there were several reasons which now make much more sense. These include:

- multiple claims officers were working concurrently on files at any given time, with staff given specialty areas to focus on, one dealing with assessors, another with hydrologists etc.
- to maximise service quality, we also rotated staff onto processing, email response and telephone enquiry queues on a daily basis.

By using a group telephone number and group email address, the latest correspondence and file notes from phone calls could be held on a central system and able to be viewed by all staff and management at any given time. Our managers also had a concern that if a staff member was on leave, incoming phone calls or email may have been delayed by sitting in personal inboxes and therefore were not visible to the rest of the team.

As I acknowledged to you on the phone, we had never experienced an event of the severity or broad geographic spread that occurred early this year with several events in QLD, NSW and Victoria in a short space of time.

I hope this goes some way to explaining the absence of personal claims officer details on our letters. We have learned a great deal from these catastrophes and I can assure you that we are constantly updating our catastrophe management arrangements so we are able to respond better in the future.

Sincere regards

Peter Andrew

Peter Andrew
National Manager, Business Improvement
Corporate Partners & Direct - Business Partners
QBE Australia

Phone: [redacted]
Email: [redacted]
Visit us on the web at www.qbe.com.au

Time with QBE is time well spent

Tom Fischer - HWT @ QPCU

From: Christina Eller [redacted]
Sent: Friday, 15 July 2011 2:33 PM
To: Tom Fischer - HWT @ QPCU
Subject: Re: Claims [redacted]

Good Afternoon

Your claim was allocated to my colleague, Juliette Eden, to review.

Juliette is absent from work today however she can normally be reached on telephone 02 9375 4865 or [redacted]

I understand that she has began your review however it is not complete.

I have left a message for her to contact you on Monday.

If you are not happy with the status of the matter, you are able to contact the Financial Ombudsman Service, as set out in our brochure.

Regards

Christina Eller
Dispute Resolution Specialist
Actuarial, Risk & Governance
QBE Australia

Phone: [redacted]
Email: [redacted]
Visit us on the web at www.qbe.com.au

Time with QBE is time well spent

From: "Tom Fischer - HWT @ QPCU" [redacted]
To: "'Christina Eller'" [redacted]
Cc: "'Peter Andrew'" [redacted], "'Colin Ahern'" [redacted]
Date: 15/07/2011 12:57 PM
Subject: Claims [redacted]

Dear Christina,

The 15 business day period described in your dispute resolution process has passed and I have not received a response to my email and attachments dated 15th June outlining the reasons that we dispute your decision not to honour our claims.

Tom Fischer - HWT @ QPCU

From: Juliette Eden [redacted]
Sent: Monday, 18 July 2011 4:45 PM
To: [redacted]
Subject: Claim numbers [redacted] and [redacted]

Dear Tom,

Insured: Tom Fischer
Policy numbers: [redacted] **and** [redacted]
Claim numbers: [redacted] **and** [redacted]
Risk address: [redacted]
Date of loss: 12 January 2011

I write further to your email correspondence with my colleagues Christina Eller and Colin Ahern regarding the above claims.

Firstly, I must apologise for not contacting you sooner to advise you of the longer timescale in investigating your claim. I acknowledge that I should have kept you aware of the progress of the investigation, and I will do so in future.

I have looked at your file and the first thing is to set out as detailed a chronology as possible. This is because the timings of the inundation event(s) will be critical in determining whether the cause was stormwater runoff, river flood or a combination of the two. To this end, I have summarised the information in your letter to Christina and I set this out below. I have deliberately ignored the information in the loss assessor's report and the hydrology report, as you have indicated that they contain some inaccuracies (due in part to your wife's understandable distress when recounting the order of events). I would be grateful if you could review my summary and answer the questions in bold (where this information is known) and also add any other information you feel is relevant as to what happened and when.

Tuesday 11 January:

- In the morning, Jan returns to the house rather than proceed to the airport as planned. **Roughly what time did she return to the house? Was it raining when she got home?**
- Jan then spends all day and night moving belongings to the upper level of the house. **Did she see any storm water or river flood waters during this time? If so, where? Also, did it continue to rain during this time? When did it stop raining?**

Wednesday 12 January:

- In the morning, neighbours and friends help Jan to move other belongings (e.g. car and golf buggy) to higher ground. **Was it raining? Did she see any storm water or river flood waters during this time? If so, where?**
- Later that day, Jan leaves the house. At the time when she left, the inundation of the property was just beginning. The water had come from the east of the property, not from the rear. **Roughly what time did she leave the house? Where had the water got to? e.g. had it entered the yard only, or had it started to enter the house?**

Thursday 13 January:

- Tom and Jan return to the house at about 7am. The water had receded to way below floor level. **Where was the water at this time? e.g. out of the house but still in the yard.**

When we have a chronology that you can agree, I can go back to the hydrologist and ask him to amend the report using this information. I can also ask him to answer specific questions and to clarify the conclusion.

Thank you for your assistance,

Juliette

Juliette Eden
Dispute Resolution Specialist
Actuarial, Risk and Governance
Direct: [redacted]
Email: [redacted]
Visit us on the web at www.qbe.com

Tom Fischer - HWT @ QPCU

From: Tom Fischer - HWT @ QPCU [redacted]
Sent: Tuesday, 19 July 2011 8:46 AM
To: 'Juliette Eden'
Subject: RE: Claim numbers [redacted] and [redacted]

Good Morning Juliette,

Thank you again for contacting me yesterday and for progressing our dispute resolution.

Following are the answers to the questions you sent:-

Tuesday 11 January:

- In the morning, Jan returns to the house rather than proceed to the airport as planned.

  Roughly what time did she return to the house? 4.00PM

  Was it raining when she got home? Yes

- Jan then spends all day and night moving belongings to the upper level of the house.

  Did she see any storm water or river flood waters during this time? Yes

  If so, where? On parts of the Golf Course particularly the low area to the east of our property where the stormwater flows to the creek.

  Also, did it continue to rain during this time? Yes

  When did it stop raining? Late afternoon

Wednesday 12 January:

- In the morning, neighbours and friends help Jan to move other belongings (e.g. car and golf buggy) to higher ground.

  Was it raining? No

  Did she see any storm water or river flood waters during this time? Yes

  If so, where? On parts of the Golf Course particularly the low area to the east of our property where the stormwater flows to the creek.

- Later that day, Jan leaves the house. At the time when she left, the inundation of the property was just beginning. The water had come from the east of the property, not from the rear.

  Roughly what time did she leave the house? 2.30PM

  Where had the water got to? Covering pavers around house

  e.g. had it entered the yard only, or had it started to enter the house? Had not entered house at 2.30pm. Jan returned to the house at 6.30pm to get her contact lenses and at that time the water was in the laundry and bathroom up to about 20cm.

Thursday 13 January:

- Tom and Jan return to the house at about 7am. The water had receded to way below floor level.

Where was the water at this time? e.g. out of the house but still in the yard. It was closer to 6.30am when we returned and the water was well out of the house but still in the yard. A neighbour who was up at 5.30am said that the water had receded before then.

Please let me know if you need any other information or documentation to assist you with your deliberations.

Regards,

Tom Fischer

Harvey World Travel at QPCU
231 North Quay, Brisbane Q 4003
PO Box 13003 George Street, Brisbane Q 4003
Phone: [redacted]
Fax:
Email: [redacted]

Tom Fischer - HWT @ QPCU

From: Juliette Eden [redacted]
Sent: Monday, 25 July 2011 12:03 PM
To: [redacted]
Subject: [redacted]
Importance: High

Dear Tom,

I can confirm that I have now instructed the hydrology to prepare a supplementary report regarding the inundation of your property. I have asked him to comment on a number of specific issues, including the issues you raised in your letter of 15 June and the report by Drapper Environmental Consultants. I have asked him to contact you directly to arrange a mutually convenient appointment.

Once the report is available, I will endeavour to conclude my investigations and provide a full response within a further 15 business days.

I should also remind you that you are entitled to take your dispute to the Financial Ombudsman Service (FOS). FOS provides a free and independent dispute resolution service for consumers who have general insurance disputes that are covered by its Terms of Reference. You can contact FOS at:

Financial Ombudsman Service
GPO Box 3
Melbourne, VIC 3001
Tel: 1300 780 808
Fax: (03) 9613 6399
Email: info@fos.org.au
Web: www.fos.org.au

If you have any further queries, please do not hesitate to contact me.

Regards,

Juliette

Juliette Eden
Dispute Resolution Specialist
Actuarial, Risk and Governance
Direct: +61 2 9375 4865
Email [redacted]
Visit us on the web at www.qbe.com

Tom Fischer - HWT @ QPCU

From: Richard Feld [redacted]
Sent: Monday, 22 August 2011 11:28 AM
To: [redacted]
Subject: Tom Fischer - [redacted] -Claim No [redacted] & [redacted]

Dear Tom

I refer to your email 19 August 2011 to our Juliette Eden.

I confirm that this matter has now been transferred from Juliette to myself and that I will be conducting the internal dispute resolution process for you.

I have had a telephone conversation earlier today with our hydrologist, David Cox from Water Technology. Mr Cox confirmed with me that he will attempt to make contact with you by telephone, within the next 48 hours, to arrange a second site visit with you to assist in the preparation of his supplementary report.

Please feel free to contact me at any time should you have any questions. I will keep you updated as to the progress of the supplementary report, and once received I will attempt to complete my investigations and provide a full response to you within 15 business days thereafter.

Regards

Richard Feld
Dispute Resolution Specialist
Actuarial, Risk & Governance
QBE Australia
Direct: [redacted]

Email: [redacted]
Visit us on the web at www.qbe.com.au

Time with QBE is time well spent

Fairway Views Body Corporate

Fairway Views Townhouse Complex

[redacted]

Consultancy Report

Issue No. 1
27 February 2011

FINAL

Prepared by:
Drapper Environmental Consultants
13/45 Bilga St
Middle Park, QLD, 4074
Ph. 07 3715 5940
Email: dwdrapper1@optusnet.com.au

Drapper Environmental Consultants
DOCUMENT CONTROL

Report Details:

Title:	Fairway Views Townhouse Complex [redacted] Consultancy Report
Author(s):	Dr D.Drapper (CPEng 1087603, RPEQ 9829) [redacted]
Status:	*Issue 1-Final*
Client:	Fairway Views Body Corporate Committee
Client Contact:	Bev Lancaster
Summary:	This Consultancy Report is an evaluation of the inundation of units 1 to 13 following the storm events on 10th, 11th and 12th January 2011.

Revision History:

Issue No	Date	Checked By & Date		Issued By & Date		Distributed to:	No. of Copies
1	27/2/11	DWD	27/2/11	DD	27/2/11	Fairway Views Body Corporate Drapper Environmental Consultants	1 1

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Where site inspections, testing or fieldwork have taken place, the report is based on the information made available by the client or their nominees during the visit, visual observations and any subsequent discussions with regulatory authorities. The validity and comprehensiveness of supplied information has not been independently verified and, for the purposes of this report, it is assumed that the information provided to DEC is both complete and accurate.

Table of Contents

1 Introduction

1.1 Background

a) Drapper Environmental Consultants were commissioned to prepare a Consultancy Report evaluating the inundation of Units [redacted] to [redacted] following a significant storm event from 10th January to 12th January 2011 that resulted in water entering the buildings around 6am on the 12th. This report is presented as information for the Fairway Views Body Corporate Committee, to support any insurance claims.

b) I have a Bachelor of Environmental Engineering (Honours) and a Doctor of Philosophy (Environmental Engineering) and have been working in the stormwater, water quantity and quality fields for over 14 years. My qualifications and experience are summarised in the Curriculum Vitae presented in Appendix A.

c) I have made all the enquiries I believe are desirable and appropriate. Where information has not been available, it has been noted in this report. I have not been instructed to adopt or reject any particular opinion in the preparation of this report. Hydraulic and hydrologic modelling has not been undertaken for this report.

d) I am a tenant of the Fairway Views complex.

1.2 Scope & Methodology

The Fairway Views Body Corporate Committee have requested a review of the events surrounding the rainfall events occurring on 10th to 12th January 2011. This report will investigate the rainfalls, evaluate photographs and evidence of the inundation, neighbouring flowpaths, review the information provided and present a summary and opinion regarding potential factors contributing to the inundation.

1.3 Description of Subject Site

The Fairway Views Townhouse Complex is located at [redacted] Brisbane. [redacted] forms the southern boundary of the complex, the northern boundary is shared with the MacLeod Golf Course and the other boundaries are shared with council parkland. A total of 24 townhouse units are present, and share communal clothes line, single tennis court and swimming pool facilities. The units surround a central access road with units 1 to 12 being located on the northern half of the site, and units 13 to 24 on the southern half. The units are both single-storey and two-storey constructions formed of brick veneer and tile roof. They were constructed in 1988.

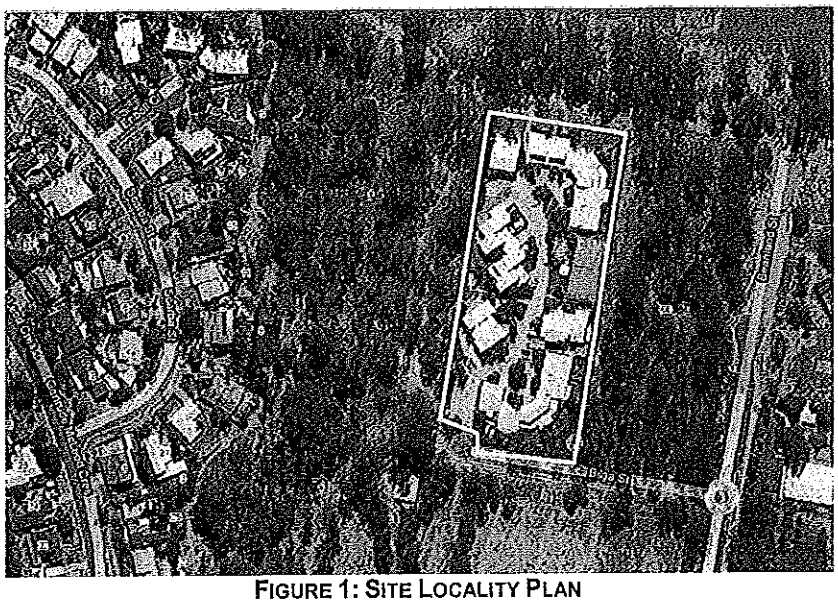


FIGURE 1: SITE LOCALITY PLAN
Reproduced with permission (Telstra Corporation Limited – Whereis.com, 2011)

2 Documentation

The following reports, documents and images have been provided and reviewed as part of this report;

a) Property Search Report, Unit 13, Bain Gasteen Lawyers, 2008
b) Brisbane City Council, Floodwise Property Report, Unit 5, 45 Bilga St, Middle Park
c) Special Climate Statement 24, updated 25th January 2011, National Climate Centre, Bureau of Meteorology
d) Daily Rainfall Report, Archerfield Airport, Station 040211, January 2011, Bureau of Meteorology
e) Daily Rainfall Report, Carole Park Alert, Station 040785, January 2011, Bureau of Meteorology
f) Brisbane City Council Flood Maps, 2009
g) Residents' photographs of parkland on 11th , 12th and 13th January.
h) Bureau of Meteorology River Station Records
i) Residential Property Insurance, Product Disclosure Statement, Suncorp, active 21 August 2006

3 Review

Our review of the documentation is detailed below.

3.1 Special Climate Statement 24

a) The BOM report highlights an upper-level low combined with a humid easterly flow to bring very heavy rain to southeast Queensland. It states that three-day total exceeded 200mm over most of the area including Brisbane, Toowoomba and Gympie.

b) The report also acknowledges that intense short-period falls also occurred during the overall event with some one-hour totals exceeding 60mm.

c) Floods are identified to have occurred during the second week of January with most of the Brisbane River Catchment affected. The Lockyer and Bremer catchments set height records but in Brisbane it was identified as the second highest after the 1974 event. This implies that the Defined Flood Level (DFL) was not exceeded in Brisbane.

3.2 Rainfall Station Data

a) Rainfall Station data does not exist for Bilga Street as there are no BOM stations in the immediate vicinity. There are two stations relatively close-by at the Archerfield Airport (040211) and Carole Park (040785).

b) The Rainfall record for the Carole Park Station shows falls of 74mm on 10th January, 28mm on 11th January and 41mm on 12th January.

c) The Rainfall record for the Archerfield Airport Station shows falls of 61mm on 10th January, 28.4mm on 11th January and 30.8mm on 12th January.

3.3 Brisbane City Council Flood Map (2009)

a) The revised flood maps released by Brisbane City Council in 2009 identify those areas potentially influenced by creek, river or tidal flooding in light blue.

b) The north-western corner of the site is covered by the light blue shading, suggesting that Units 1-5 may be subject to creek, river or tidal flooding.

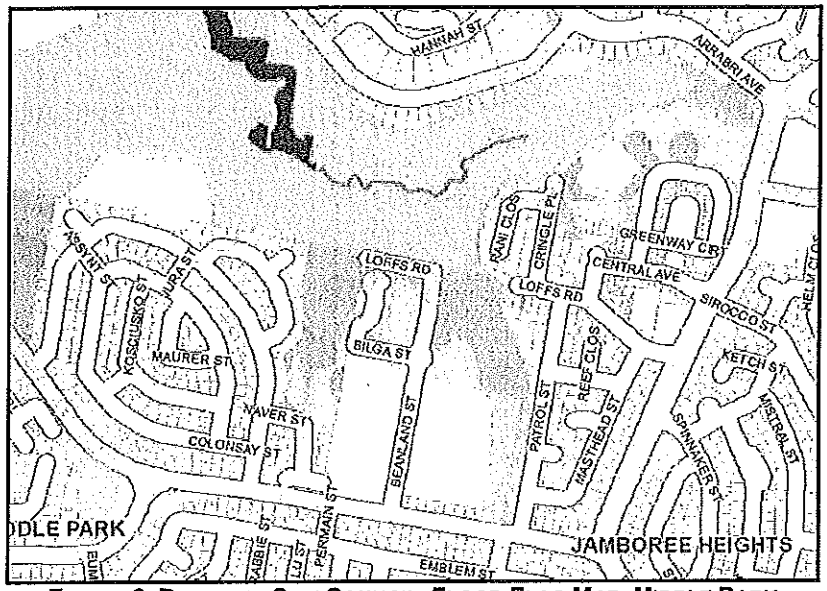


FIGURE 2. BRISBANE CITY COUNCIL, FLOOD FLAG MAP, MIDDLE PARK

3.4 *Property Search report – Unit 13*

a) The Flood search report prepared for Due Diligence on the purchase of Unit 13 identifies the Defined Flood Level (DFL) at the property at 11.9m AHD.

b) The report identifies the Finished Surface Level (FSL) at 12.5m AHD, 600mm higher than the DFL in accordance with Council requirements.

c) Based on the slab thickness of approximately 250mm, this places the floor level at roughly 12.75m AHD at its lowest point.

3.5 *Floodwise Property report – Unit 5 (10/2010)*

a) The Floodwise Property report prepared for the owners of Unit 5 identifies the Defined Flood Level (DFL) at the property at 11.9m AHD.

b) The report identifies the Minimum Habitable Floor Level (FFL) at 12.4m AHD, 500mm higher than the DFL in accordance with Council requirements.

3.6 *Bureau of Meteorology, Brisbane Port Office Station Records*

a) The BOM confirmed that the Brisbane River peaked at 4.46m AHD, 0.99m below the 5.45m AHD peak of 1974 (DFL), around 5am, January 13, 2011.

3.7 *Bureau of Meteorology, Jindalee Alert Station Records*

b) The BOM confirmed that the Brisbane River peaked at 12.9m AHD, 1m above the DFL, around 8pm 12th January 2011.

3.8 *Photographic records & anecdotal evidence*

a) Unit 13 had approximately 330mm of water through the ground floor at the highest point at approximately 10pm January 12th. This would place the water level at approximately 13.1m AHD in this area at that time.

b) Unit 5 had approximately 700mm of water through the ground floor, at the highest point at approximately 10pm January 12th. Confirming water level at 13.1m AHD. Water started entering units 1 to 5 around 6am January 12th, 2011.

c) Photographs taken at the site on January 13th suggest the water levels receding from a January 12th peak, though BOM advised that the Brisbane River was yet to peak. This peak information was confirmed in the image published by the Courier Mail (13th January 2011) shown below.

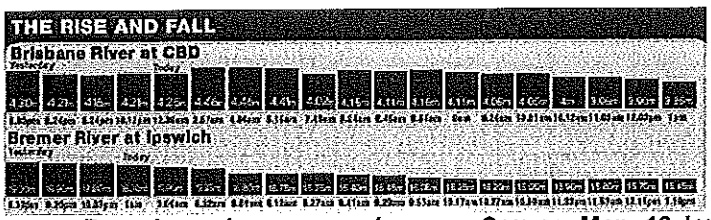


FIGURE 3. BRISBANE RIVER LEVEL INFORMATION (SOURCE: COURIER MAIL, 13 JANUARY 2011)

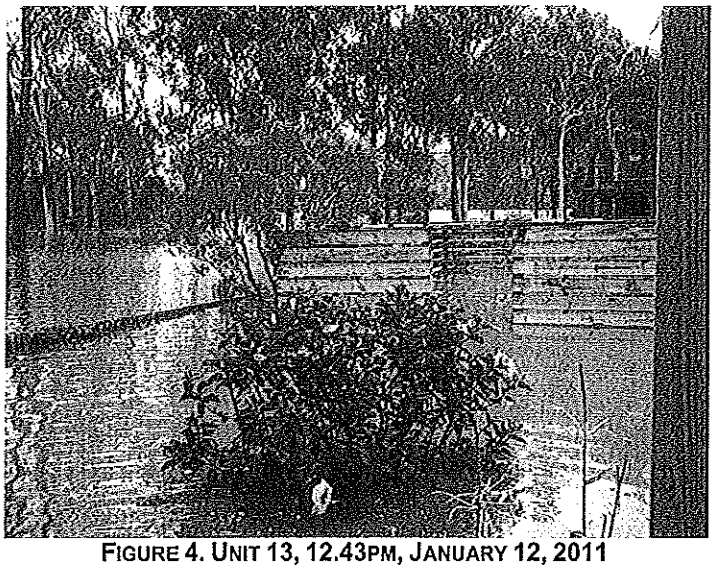


FIGURE 4. UNIT 13, 12.43PM, JANUARY 12, 2011

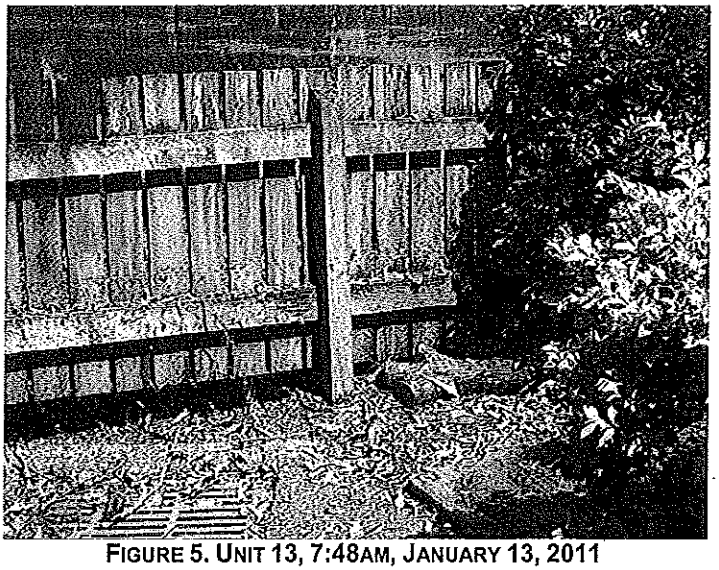


FIGURE 5. UNIT 13, 7:48AM, JANUARY 13, 2011

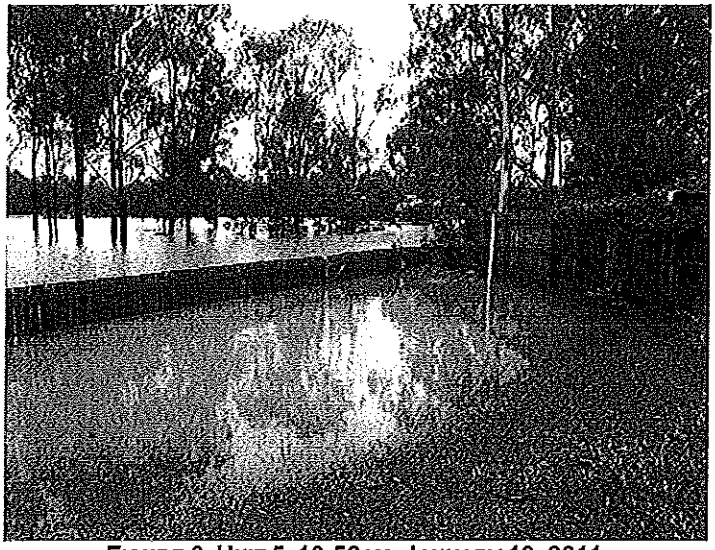


FIGURE 6. UNIT 5, 10:56AM, JANUARY 13, 2011

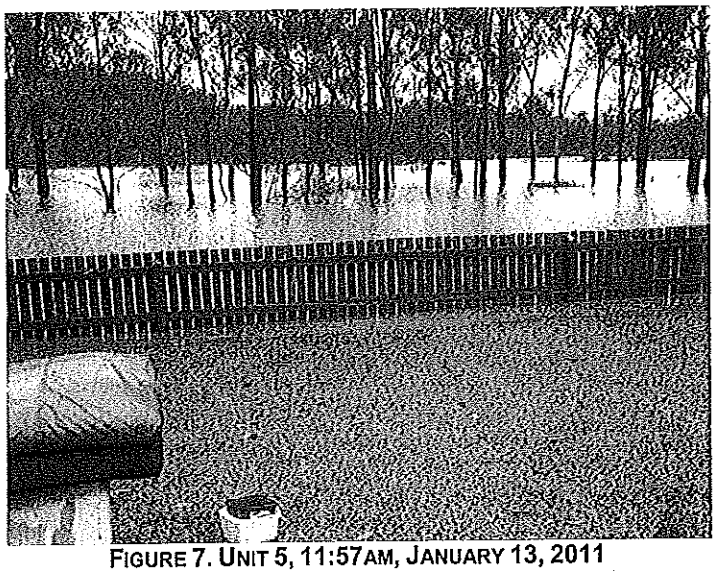


FIGURE 7. UNIT 5, 11:57AM, JANUARY 13, 2011

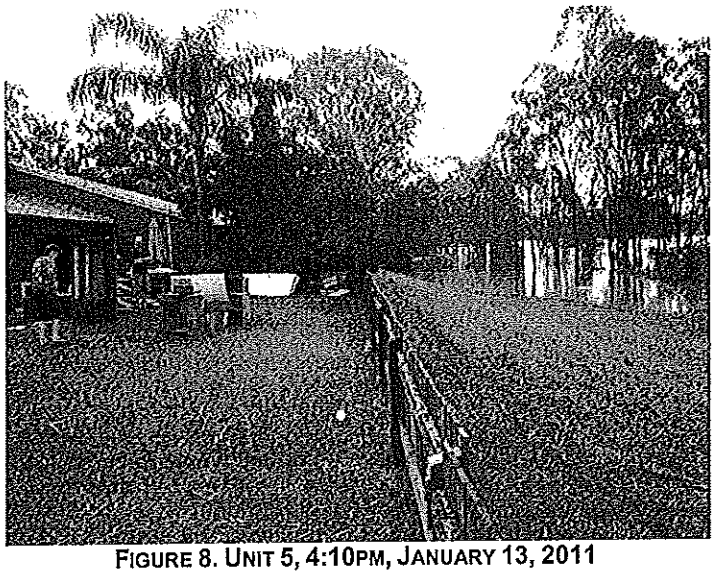
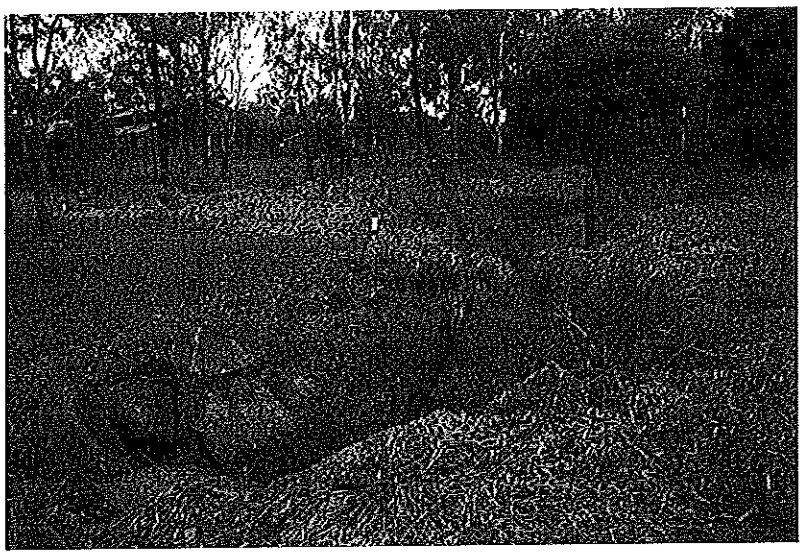


FIGURE 8. UNIT 5, 4:10PM, JANUARY 13, 2011

FIGURE 8. RECEDING WATERS, MIDDLE PARK AERIAL PHOTOGRAPH, JANUARY 13, 2011 (SOURCE: NEARMAP)

d) An inspection of the drainage system in the waterway along the western site boundary conducted by a DEC representative at 1:30pm on 11th January 2011 confirmed flows were continuing to be received down the drainage network from the upper Middle Park catchment. These flows were occurring in both the drainage pipes and overland flowpaths. This flow was engulfed by the tailwater conditions present in the MacLeod Golf Course. A photograph of the waterway after the water had receded is below, showing the vegetation has been compressed in the direction of flow downstream.



e) Visual inspection of the affected units, undertaken by a DEC representative, did not identify significant amounts of silt inside the properties, suggesting flood waters may have been diluted by flows down the western waterway.

3.9 *Residential Property Insurance, Product Disclosure Statement, Suncorp*

a) The PDS definition of "flash flood" is flood or a combination of flood mixed with rainwater runoff, caused by rain falling within 24 hours immediately before the Building or Common Contents are damaged by the flash flood. It does not mean water from the sea.

b) The PDS definition of "flood" is the covering of normally dry land by water escaping, overflowing or being released from the normal confines of a:
- river, creek or any other natural watercourse whether or not it has been altered or modified
- canal or channel
- lake or
- reservoir or dam.

A flood is not water from:
- the sea
- tsunami
- a burst or leaking water main or fire hydrant or
- a burst or leaking pipe or water container at the building

c) The PDS definition of "rainwater runoff" is water pooling or flowing across normally dry land caused by rain falling in your local area without any mixing, contribution or involvement of water from flood. Rainwater run-off does not mean water from the sea.

4 Summary

a) On 10th, 11th and 12th January 2011 significant rainfall events occurred in the Middle Park area and across the Brisbane, Bremer and Lockyer Catchments of over 200mm in the three days and greater than 70mm in a single 24 hour period.

b) Large areas of the Brisbane, Bremer and Lockyer catchments were inundated as a result of these waterways breaking their banks.

c) This report focuses on the Fairway Views complex and the immediate surrounds.

d) Detailed Hydrologic modelling has not been undertaken for this report and only limited information has been provided by Brisbane City Council and Bureau of Meteorology at the time of preparing this report.

e) The properties at Fairway Views were constructed above the DFL (11.9m AHD) yet experienced water through Units 1-13 peaking at ~13.2m AHD on 12th January and receding on 13th January 2011.

f) The BOM river height station data for Jindalee Alert indicates the peak occurred at 12.9m AHD, 0.3m lower than the water level observed in the inundated units.

g) The BOM and BCC confirmed that the event on 13th January 2011 did not exceed the DFL (1974) at the Brisbane Port Office station.

h) Based on the review of the information available, and the definition of flash flooding detailed in the Suncorp PDS, it is reasonable to conclude that 300mm of the damage to the Fairway Views properties was a result of rainwater runoff

within 24 hours of the rainfall events, combining with tailwater conditions in the MacLeod Golf Course to the north, as a result of the 12.9m AHD river level.

5 Statement

I, Dr Darren Drapper, confirm the following:

a) The matters stated in this report are, as far as I know, true; and
b) I have made all enquiries considered appropriate; and
c) The opinions stated in this report are genuinely held by me; and
d) The report contains reference to all matters that I consider significant.

[redacted]

Darren Drapper
20 February 2011

6 Appendices

- Dr Darren Drapper, Curriculum Vitae
- Bureau of Meteorology Special Climate Statement 24, 25th January 2011
- Bureau of Meteorology, Carole Park Alert Rainfall Station, 040785
- Bureau of Meteorology, Archerfield Airport Rainfall Station, 040211
- Brisbane City Council, Floodwise Report, Unit 5, Fairway Views, Middle Park
- Bureau of Meteorology, Jindalee Alert Station, River Height Data.

Curriculum Vitae - Dr Darren Drapper

Name

Dr Darren Drapper

Qualifications

Doctor of Philosophy (Environmental Engineering)
Griffith University, Brisbane, 2002

Bachelor of Engineering in Environmental Engineering
Honours, Griffith University, Brisbane, 1996

Master of Business Administration
Chifley Business School, commenced 2010

CPEng, (1087603), NPER, MIEAust., RPEQ (9829)

Professional Training

2009	HOLCIM/CEMEX Trade Practices Act Training
2008	Queensland Urban Drainage Manual 2nd Ed. Training
2007	CEMEX Trade Practices Act Training
2001	AS1547:2000 Onsite Sewage Disposal Training
2001	Pollutant Export Modelling Training (AQUALM XP)
2000	Urban Drainage Planning and Design using Ecologically Sensitive Solutions Seminar
2000	Sedimentation Basin Design Seminar
1999	Flexible Learning Techniques Seminar
1998	Introductory Course on Statistics Package for Social Sciences

Achievements & Professional Affiliations

- Reviewer for Water Science and Technology Journal (2009-)
- Article published in the ASCE Journal of Environmental Engineering, April 2000.
- Presentation and Publication of conference papers:
  - Water Down Under 2008, 15th – 17th April 2008, Adelaide.
  - AWA Regional Conference 2005, 18 & 19 November 2005, Sofitel, Gold Coast
  - 4th Queensland Environmental Conference, 29 & 30 May 2002, Brisbane Convention & Exhibition Centre.
  - 3rd Queensland Environmental Conference, 25 & 26 May 2000, Sheraton Hotel, Brisbane.
  - 8th International Conference on Urban Storm Drainage, 30 August – 3 September 1999, Hilton Hotel, Sydney.
  - 2nd Queensland Environmental Conference, 28-29 May 1998, Brisbane.
  - Environment '98, Environmental Strategies for the 21st Century, 8-10 April 1998, Pan Pacific Hotel, Singapore.
  - Stormwater and Soil Erosion 1997, 9-12 September 1997, Sheraton Hotel, Brisbane.
- Postgraduate representative on the School of Environmental Engineering Board 1998 - 2000.
- Member – Institution of Engineers Australia.
- Member – Stormwater Industry Association of Australia, Queensland Chapter.
- Member – Environmental Engineering Society (Queensland Chapter).

Fields of Special Competence

- Business Development and Marketing
- Environmental Training and Mentoring
- Water Sensitive Urban Design
- Environmental Monitoring, Licensing and Auditing
- Integrated Urban Water Management
- Stormwater Management
- MUSIC, Hydrologic & Hydraulic modelling

Professional Experience

August 2007 - Present

Principal Environmental Engineer
Drapper Environmental Consultants

Drapper Environmental Consultants is an environmental engineering consultancy providing specialist services in the area of stormwater management, hydrology, hydraulics and WSUD.

Areas of experience:
Integrated Urban Water Management, Water and Sediment quality, Stormwater Quality Improvement Devices (SQIDs), Water Sensitive Urban Design (WSUD), Business Development & Management, Training and Marketing

Skills utilised:
MUSIC Water Quality modelling, Stormwater Management Plans, AutoCAD, detailed design, Time management, Client Relationship Management, Business development, Project management.

April 2007 - Present

National Water Solutions Manager - Principal Environmental Engineer
Humes

Humes® Water Solutions is a portfolio of **Humes®**, a concrete precast manufacturer, providing stormwater quality treatment, harvesting and detention solutions for the civil construction industry to achieve WSUD outcomes.

Areas of experience:
Integrated Urban Water Management, Water and Sediment quality, Stormwater Quality Improvement Devices (SQIDs), Water Sensitive Urban Design (WSUD), Business Development & Management, Training, Marketing, Patent Applications, Product Research & Development, International Licensing, Business/Strategic Planning, Budget Management

Skills utilised:
Team Management, Financial Reporting, Team Training & Development, Time management, AutoCAD drafting, Communication, Conflict Resolution, Project management, Supervision & Mentoring.

January 2003 – April 2007

Senior Environmental Engineer
Belleng VDM Pty Ltd – Water and Environmental Scientists & Engineers

Belleng VDM Pty Ltd is an environmental engineering consultancy, part of the VDM Group, a publicly listed company. It provides services to private and public clients in the areas of air, noise, water, stormwater, wastewater, ecology and planning.

Areas of experience:
Integrated Urban Water Management, Water and Sediment quality, Stormwater Quality Improvement Devices (SQIDs), Constructed wetlands design & construction, Water Sensitive Urban Design (WSUD), Acid Sulphate Soils, Effluent Treatment & Disposal.

Skills utilised:
MUSIC, XP-Storm, AQUALM & MEDLI modelling, time management, AutoCAD, detailed design, teamwork, critical review, communication, profit driven, training, business development, project management, supervision & mentoring.

Key Projects:
Genesis Residential Development, Coomera – Water Sensitive Urban Design
Natadola Intercontinental Resort, Fiji – Stormwater & Effluent Management
Walloon-Thagoona Infrastructure Partnership – IUWM
Horizon Shores Marina, Jacob's Well – Water Sensitive Urban Design & Water Cycle Management

March 2001 - January 2003

Environmental Engineer
Project Services – Department of Public Works, Queensland

Project Services is a specialist, commercialised, planning and construction consultancy arm of the Department of Public Works with both public and private clients.

Recent projects included:
Risk Assessment, Safety Management Plans, Stormwater water quality monitoring, Erosion control, On-site sewage treatment & disposal, Constructed wetlands, Environmental licensing, Management Plans, Environmental Audits, Contamination Investigation, Environmental Chemistry, Project Management, Environmental Assessment, Training Seminars, Native Title.

Skills utilised:
MEDLI modelling, time management, AutoCAD, detailed design, teamwork, critical review, communication, profit driven, specification preparation, training, business development.

March 2001

Casual - Consulting Environmental Engineer
PPK Environment and Infrastructure – Port Motorway Alliance

PPK Environment and Infrastructure is a private consulting firm of planners, engineers, environmental professionals and surveyors.

Accountabilities:
Preparation of the road runoff water quality management strategy and design for the Port of Brisbane Motorway including Acid Sulfate Soils management, Environmental Chemistry, Constructed wetlands, Stormwater management.

Skills utilised:
Teamwork, communication, time management, detailed design.

April 2000 - March 2001

Research Assistant, Urban Stormwater Program
Cooperative Research Centre for Catchment Hydrology

The CRC for Catchment Hydrology is a national research body formed to further knowledge and understanding catchments and their effective management. The Urban Stormwater program focussed on the quality of urban stormwater and evaluation of effective management technologies.

Areas of experience:
Water and Sediment quality, Environmental Chemistry, Stormwater Quality Improvement Devices (SQIDs), infiltration devices, constructed wetlands, GIS, tidal flow patterns, Water Sensitive Urban Design (WSUD).

Skills utilised:
Time management, communication, experimental design, analytical chemistry, critical review, legislation and policy, teamwork, modelling.

March 1997 - January 2001

Postgraduate Research Scholar
School of Environmental Engineering, Griffith University

Area of research:
Road runoff water quality, Environmental Chemistry, impacts and "Best Practice" environmental management options.

Skills utilised:
Project management, time management, financial efficiency, experimental design, equipment design, construction and commissioning, report preparation, communication, teamwork, consultation, analytical chemistry, engineering design, critical review.

October 1999 - June 2000 **Sessional Lecturer**
School of Environmental Engineering, Griffith University

Teaching areas:
Fluid Mechanics, environmental physics, environmental engineering design.

Skills utilised:
Communication, teamwork, time management, financial management, presentation, public speaking, dispute resolution, lateral thinking, leadership.

February 1999 - April 1999 **Consulting Environmental Engineer**
School of Environmental Engineering, Griffith University

Responsibility:
Water and Sediment Quality Assessment of dredging operations in Toondah Harbour, Cleveland.
Skills utilised:
Environmental chemistry, experimental design, report preparation, communication, time management, initiative.

April 1998 - October 1998 **Consulting Environmental Engineer**
School of Environmental Engineering, Griffith University

Responsibility:
Provision of technical expertise for Fluid Mechanics Flexible Delivery Module for the Masters Bridging Course.
Skills utilised:
Manual preparation, communication, teamwork, time management, presentation.

December 1995 - December 1996 **Consulting Environmental Engineer - Gold Coast City Council**

Areas of experience:
Integrated Catchment Management, water quality, sediment quality, environmental chemistry, planning.