

In the matter of the  
Commissions Of Inquiry Act 1950

Commission of Inquiry Order (No. 1) 2011

QUEENSLAND FLOODS COMMISSION OF INQUIRY

CLAYTON UTZ--(Ipswich City Council)  
2<sup>nd</sup> Statements of Gary Ellis  
#1763240 & Attach GE-1 #1763251  
File 539764/1  
Volume 1 of 2 ORIGINAL

Second Witness Statement of Gary Ellis

Engineering and Environment Manager  
Ipswich City Council

Volume 1 of 2

QFCI

Date: 28/10/11 Jm

Exhibit Number: 907

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**Commissions Of Inquiry Act 1950**

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**Second Witness Statement of Gary Ellis**

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	Description	Date
<b>GE-1</b>	Development Application (3262/10)	19 May 2010
<b>GE-2</b>	Development Application (6291/2009)	8 October 2009
<b>GE-3</b>	Letter regarding lapsing of 6291/09	31 May 2010
<b>GE-4</b>	Decision Notice for 3262/10	15 July 2010
<b>GE-5</b>	Figure 1 Proposed within Lots 51-55	Undated
<b>GE-6</b>	Riverlinks Central – Flood Study, Job Number 3502/84-2	23 July 2008
<b>GE-7</b>	Riverlinks Central – Flood Study, Job Number 3503/70	August 2009
<b>GE-8</b>	Riverlinks Central – Flood Study, Job Number 3503/70	7 October 2009
<b>GE-9</b>	Council letter to DERM concerning the third party advice	26 May 2010
<b>GE-10</b>	Letter to ICC from Mr White	22 October 2010
<b>GE-11</b>	Cardno response to Mr. White's letter of 22 October 2010	12 November 2010
<b>GE-12</b>	Letter from GeoEnvironmental Consultants	6 January 2011
<b>GE-13</b>	Letter from VDM Consulting to the Council	25 January 2011

I, Gary Stephen Ellis, of [REDACTED] Sheppey Place, Yamanto, Ipswich, in the State of Queensland swear as follows:

## **INTRODUCTION AND QUALIFICATIONS**

1. My qualifications are set out at paragraphs 1 to 4 of my statement dated 13 October 2011.
2. The sources of information for the matters set out in this statement are:
  - (a) my personal knowledge and recollection of relevant events; and
  - (b) my review of the relevant Ipswich City Council (**ICC** or **Council**) development application files.
3. I provide this statement in response to the statement of Mr. Nicholas White, dated 11 October 2011, with regards to operational works application 6291/2009 and operational works application 3262/2010.
4. The further statement of Brett Davey, provides a response to the statement of Mr. White with regards to material change of use application 6293/2009 and material change of use application 2727/2010.

## **APPLICATION 6291/2009 AND 3262/2010**

5. Application 3262/10 and 6291/2009 involved bulk earthworks and remediation works for Lots 51-55 on SP222487. Copies of the application documents are included at attachments **GE-1** and **GE-2**, respectively.
6. Application 6291/09 lapsed. A copy of the letter from Council to the Applicant regarding the lapsing of Application 6291/09 is included as attachment **GE-3**.
7. Application 3262/10 was received by Council on 19 May 2010 as a subsequent application following on from the lapsed application 6291/09. Application 3262/10 was approved by Council on 13 July 2010. A copy of the decision notice is included at attachment **GE-4**. Application 3262/10 did not undergo public notification, as it was code assessable under the Ipswich Planning Scheme.
8. The works proposed by Application 3262/10 includes a combination of remediation works for contamination and the excavation and placement of fill within Lots 51-55 (refer Figure 1 at attachment **GE-5**). The application does not include the southern lower portion of Lot 54.

[REDACTED]  
[REDACTED]  
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9. Application 3262/10 is an Operational Works application for earthworks not associated with a material change of use (MCU) and is code assessable in accordance with Ipswich Planning Scheme.
10. Application 3262/10 was supported by a series of inter-related flood investigations prepared by Cardno, concerning the proposed earthworks and development, including:
  - (a) "Riverlinks Central – Flood Study, dated 23 July 2008", Job Number 3502/84-2 (attachment **GE-6**); and
  - (b) "Riverlinks Central – Flood Study, dated August 2009", Job Number 3503/70 (attachment **GE-7**); and
  - (c) "Riverlinks Central – Flood Study, dated 7 October 2009", Job Number 3503/70. This report investigates any hydraulic impact the proposed development (Application 6293/09 – MCU) may have on the local and regional flooding and includes the analysis of the August 2009 report (attachment **GE-8**).
11. Council issued a letter to the Contaminated Land Unit of DERM as a third party advice agency dated 26 May 2010 seeking comments on the application to be forwarded to Council by 11 June 2010. A copy of the letter to DERM is included at **GE-9**. There is no evidence on Council's corporate system of a response from DERM.
12. Application 3262/10 was approved by Council on 13 July 2010 and imposed conditions, including the following (refer to **GE-4**):
  - (a) Condition 6 - Engineering Certification
  - (b) Condition 8 - Earth works
  - (c) Condition 8 - Stormwater and Drainage
  - (d) Condition 11 - Internal Works
13. The approval also included concurrence agency responses from DTMR and an advice Agency response from Energex.
14. After the approval of Application 3262/10, Mr. White queried aspects of the flood study presented in support of the application with Council. A copy of Mr. White's letter is attached at **GE-10**.
15. Council requested that the author's of the flood study, Cardno provide a response concerning Mr White's submission and the Cardno response was provided in a letter dated 12 November

2010 and provided to Mr White. A copy of that letter is included at attachment GE-11. That letter states that:

*“The impact of the development on peak velocities for a minor flood events (10 year ARI event) was shown to be from -0.08 to 0.09 m/s in the area of the development, with negligible impact upstream or downstream. This change in velocity is not considered sufficient to result in changes to the natural bank erosion and deposition behaviour. The proposed development will widen the flow width in the northern part of the development which will result in reduced velocities in this area.”*

## **RESPONSE TO STATEMENT OF MR. WHITE**

Paragraphs noted below are references to the paragraph numbers in Mr White's statement

### *Paragraph 3*

16. Mr White's reference to him becoming aware in January 2010 of an operational works application is likely to have concerned application 6291/09 which was lodged 12 October 2009 but subsequently lapsed in May 2010. These application documents were available on Council's website through its PD Online application search (refer to paragraph 37 below for more detail). Application 3262/10 was subsequently lodged in 21 May 2010.

### *Paragraphs 4, 8 and 18*

17. Paragraphs 4 and 8 of Mr White's statement raises a number of concerns about the proposed development located on Lot 55 including: *“increased flooding towards our property; toxic contamination; erosion to properties on the opposite bank; increased dust and a flawed vegetation management plan”*.
18. Also Mr White statement identifies claimed deficiencies in the 2008 Cardno study, including *“...failure to include 100 year flood scenarios; modelling based on data that does not include post 1974 flood impact; the instability of the proposed site area as result of the planned 19.5m platform; failure to study likely flood scenarios and erosion of properties on the west bank”*.
19. Mr White has concerns *“relating to the inappropriate re-profiling of the riverbank, which I believe will increase flood risk and flood flows...”*.

I responds to these paragraphs as follows:

20. The flood investigations set out in paragraph 10 addressed the increased potential for runoff produced by the proposed development (Material Change of Use applications 6293/09 and 2727/10) and proposed earthworks in the open space and other zoned areas.

  
Solicitor

21. The study dated 7 October 2009 (GE-8), concluded that the proposed works will have no discernable adverse impact on flood levels in the Bremer River. Further, in some instances the predicted afflux had decreased. In terms of proposed Bremer River frontage earthworks, Cardno Report dated July 2008 (GE-6) states:

*“MIKE11 Modelling has shown that the proposed development, due to compensatory excavation, does not increase flood levels for neighbouring properties. The proposed development does produce slight increases to the peak velocities. However, these increases are constrained to the area of development and are only observed for major flood events, so the impact is considered to be minor.”*

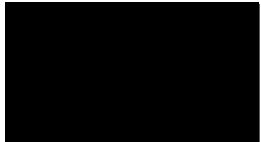
22. In terms of the external local catchment conveyance and flooding, the predicted results of the Cardno flooding assessment indicate that the proposed development on Lot 55 (both in terms of the impact of the development upon hydrology and changes to ground levels) will not adversely impact the flood levels upstream of the proposed development. The identified impacts are all contained within the subject site and will not significantly impact any adjacent properties. Moreover results of a sensitivity analysis indicate that regional flood levels, and therefore existing property flood immunity, are not changed for tailwater variations and coincident Bremer River flooding.

23. The flood studies set out in paragraph 10 were reviewed by myself in consultation with Principal Development Engineer [REDACTED] (formerly Works Department – Senior Hydraulics Engineer). Additionally, past flood investigations concerning Riverlink Shopping Centre were reviewed by Council’s Works Department, including the then Works Department Manager [REDACTED].

24. The determination of the subject application was reliant upon the satisfactory outcomes of the respective flood study reports.

25. The flood study was undertaken and conducted by a reputable engineering consultancy Cardno who possess suitably qualified and experienced staff concerning hydrological and hydraulic investigations. These subject investigations were internally reviewed and approved by Cardno personnel [REDACTED] who is presently a Registered Professional Engineer of Queensland (RPEQ) for the “civil” area of engineering.

26. The Cardno developed model was based on the MIKE11 hydraulic model established for Ipswich Rivers Flood Study by consultants Sinclair Knight and Merz (SKM) in 2000. The model is one dimensional in nature, *“as the site is located on a relatively straight stretch of the Bremer River it is considered that eddy flows will be minimal and do not need to be modelled in this case”* (Cardno letter to ICC dated 12 November 2010). Each respective study examined



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both the Bremer River 18 hour (using the 100 ARI for SKM 2000) and Brisbane River 30 hour flood (using the Q100 under the Ipswich Planning Scheme).

27. These studies provided ICC with the necessary assurance concerning Cardno model accuracy, relevancy and validity to model and simulate the impacts, if any, of the proposed planned filling, cut and profiling within the Riverlink Development and adjacent to the Bremer River.
28. An Environmental Management Plan (EMP), which includes a site Remediation Plan had been prepared for the site by VDM Consulting. The EMP addresses sediment and erosion control. Condition 8 of the Development Approval requires earthworks to be undertaken in accordance with the EMP.
29. Management of contamination and remediation of that contamination on the land is a matter that is within the jurisdiction of DERM rather than Council. [REDACTED] (of WSP Environmental Pty Ltd) has been appointed Third Party Reviewer (TPR) for the subject site and concluded that *“the final Remediation Plan, prepared by GeoEnvironmental, adequately addresses DERM guidelines for the remediation and validation of the portion of the Ipswich Riverlink site in question (Lots 53-55)”*. Further the TPR acknowledges and approves the final Remediation Plan dated 9 February 2010 with conditions and that the Site Management Plan (SMP) will be reviewed upon completion of the remedial work. The submitted Remediation Plan is dated 9 February 2010. The works are required to be supervised by a suitably qualified person in accordance with Section 381 of the Environmental Protection Act 1994 with oversight by the appointed Third Party Reviewer to ensure that any suspected or unforeseen contamination issues are appropriately addressed.
30. The proposed Bremer River frontage earthworks include both placement of fill and re-profiling of existing general fill and in-situ natural material. Specifically the re-profiling involves excavation of these areas in order to stabilise existing fill which is in limited stability equilibrium and provide the necessary compensatory earthworks to ensure that the development did not impact on peak flood levels for neighbouring properties. All proposed earthworks are subject to supervision and certification by RPEQ (Geotechnical) and in accordance with condition as follows:  
  
*Any allotment or other filling creating a soil depth of 500mm or more must be conducted in accordance with Australian Standard 3798. Test results as required by Australian Standard 3798 at Responsibility Level 1, and a certificate of quality and uniformity of fill must be provided by a RPEQ.*
31. Dust control is an operational matter and is governed by the approved EMP which specifically addresses issues surrounding air pollutants within Appendix E – Comprehensive Health & Safety Plan.

32. In response to Mr White's comments on a "flawed vegetation management plan", there is no approved Vegetation Management Plan (VMP) associated with the operational works application 3262/10 approval, as this is more usually required when the application for MCU is made. The site will require future planning applications which will require the dedication of open space. That open space will be required to be fit for purpose, including for weed management and rehabilitation of the riparian corridor to minimise erosion and sedimentation risks. Riparian corridor widths and extent for open space is determined in accordance with the Ipswich Planning Scheme, which predates the Healthy Waterways Strategy 2008. Landscaping will usually be required in accordance with an approved Landscaping Plan. All relevant vegetation applications are assessed against the Ipswich Planning Scheme and the Riparian Corridor Revegetation Guideline where applicable.

*Paragraph 5*

33. Paragraph 5 of the White statement refers to "*further concerns of toxic fill and subterranean fires at the site*".
34. Matters regarding contamination are dealt with at paragraphs 29. Fire management is addressed in the EMP for the site prepared by VDM Consulting. Condition 8 of the Development Approval requires earthworks to be undertaken in accordance with the EMP.

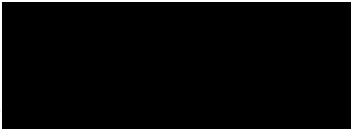
*Paragraph 17*

35. Paragraph 17 of the White statement exhibits correspondence of Mr. White and his partner Ms. Tilbrook which state that there has been "*...extensive sediment and contaminant loss from the site into the river system...*" following the 2011 flood event.
36. Site inspections have been undertaken by qualified experts post the January flood event:
- (a) GeoEnvironmental Consultants attended the site on 5 January 2011 and prepared a letter to the applicants dated 6 January 2011. A copy is attached at attachment GE-12. The letter states that "*Overall, installed control measures appear to have effectively handled stormwater and sediment runoff*" and "*there was no evidence of scouring or removal of large quantities of contaminated soil from the flood affected area*".
  - (b) VDM Consulting attended the site on 21 January 2011 and prepared a letter to the Council dated 25 January 2011. A copy is attached at attachment GE-13. The letter states that "*Overall the site inspection confirmed that the areas not inundated generally performed as intended without loss of contaminated material into the Bremer River from the two land slips, where the material has been contained within the site*".

*Paragraph 18*

37. Mr White states at paragraph 18 that "*...attaining of applications and other supporting documents was difficult...*" All applications when lodged are publicly accessible on PD Online. This includes any supporting material lodged in respect of the applications including flood studies. This process is also discussed in the further Statement of Brett Davey.

SWORN this 25<sup>th</sup> day of October 2011 at Ipswich in the State of Queensland in the presence of:

.....  
  
Gary Stephen Ellis (Deponent)

.....  
  
(Solicitor)