# IN THE MATTER OF THE QUEENSLAND FLOODS COMMISSION OF INQUIRY

# A COMMISSION OF INQUIRY UNDER THE COMMISSIONS OF INQUIRY ACT 1950

# AND PURSUANT TO COMMISSIONS OF INQUIRY ORDER (NO.1) 2011

#### ELEVENTH STATEMENT OF JOHN VICTOR TIBALDI

On the 1<sup>st</sup> day of February 2012, I John Victor Tibaldi, of c/o- 240 Margaret Street, Brisbane in the State of Queensland, state on oath:

- 1. I am currently employed by the Queensland Bulk Water Supply Authority trading as Seqwater (Seqwater) as Principal Engineer, Dam Safety.
- 2. I make this statement in response to a Requirement dated 25 January 2012 issued by Justice Catherine E Holmes, Commissioner of Inquiry, pursuant to section 5(1)(d) of the Commissions of Inquiry Act 1950 (Qld).

#### **General Overview**

- 3. I was heavily involved in the preparation of the Flood Event Report dated 2 March 2011, in consultation with the other engineers in the Flood Operations Centre. The report was prepared within a strict time limit in accordance with regulatory requirements.
- 4. I refer to the Commission's Requirement to provide a statement dated 25 January 2012, concerning four identified Parts. I wrote the original drafts of each of those Parts, namely:
  - a. Executive Summary
  - b. Part 2 Flood Event Summary
  - c. Part 10 Flood Management Strategies and Manual Compliance
  - d. Part 19 Report Conclusions
- 5. When I sat down to write the report, I recall having little clear recollection of the sequence of events over the 13 days of the flood and thinking about the many documents, model runs and numerical data files that I would need to examine. I had been on duty for less than one third of the event and only one fifth of the time from the event commencement to when Strategy W4 was applied.
- 6. The two experiences that still stand out to me and were clear in my mind at that time was my shock at seeing the Toowoomba and Grantham flooding on the television late on 10 January

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Signed	Witness

and the decision to transition to Strategy W4 on 11 January and understanding the consequences as dam releases were increased from that point. As of today, I can recall very little else with clarity of the events of that part of the flood event in which I had direct involvements at the time, and would need to refer to records to inform myself what occurred.

- 7. I undertook the initial drafting of these four Parts of the Flood Event Report referred to over a period of some days. There came a time when I thought the draft was suitable for distribution to others. Initially this occurred with the distribution to the three other engineers. As part of this process, I can recall that I would receive oral comments from particular engineers in the Flood Operations Centre, some of which resulted in amendments to the draft. I have some recollection that I also received written comments, some of which may also have resulted in amendments to the draft
- 8. This process did not occur as a single occasion. Mr Malone and I were generally in the Flood Operations Centre all day whilst the report was being drafted. However, Mr Ruffini and Mr Ayre would visit the Flood Operations Centre only occasionally. They were busy with other commitments to their employers, being Sunwater and DERM respectively. When Mr Ayre and Mr Ruffini visited the room, I would take the opportunity to have them read draft material, if I thought it was in a suitable state to review.
- 9. I recall at a later stage there being two or three meetings where hard copies of the draft report were circulated to approximately 12 to 20 people. At these meetings, people made comments and suggestions in relation to the draft report. People at these meetings included:
  - a. General Manager of Water Delivery, Jim Pruss, who is a member of the Seqwater Executive;
  - b. Seqwater's lawyers; and
  - c. representatives from Rowland Consulting;

Rowland Consulting is an organisation which provides assistance on things like grammar. Arising out of matters raised in these meetings, I recall that there were some changes made to the draft report.

### Drafts of any part of the Flood Event Report listed that were written by me

- 10. In the early stages of drafting, I produced many working drafts for my personal review. I was in the habit of emailing these from the Flood Operations Centre email account to my Seqwater email account as a means of ensuring the drafts were not lost.
- 11. Annexure 1 to this statement includes 21 such drafts of sections of the Flood Event Report which I emailed to myself in this fashion. I obtained these drafts by searching my Seqwater email account. The drafts were prepared on or about the dates set out in the index to Annexure 1 to this statement. I obtained copies of these drafts on Monday of this week by sending the attachments from my Seqwater account to my home email address. At that time I did not obtain copies of the covering emails which showed the dates on which I had originally sent those attachments to my Seqwater email account. This afternoon, I requested Ms Brooke Foxover, who works at Seqwater, to send the covering emails to my solicitors. They were received this afternoon and in Annexure 1, I have placed each covering email in front of its corresponding attachment. I did this so that it is apparent when the original attachments were sent to my Seqwater account.



- 12. In preparing those Parts of the Flood Event Report that I drafted, I looked at various source data available to me in the Flood Operations Centre.
- 13. Seqwater's employee, Ms Chloe Cross, gathered records available in the Flood Operations Centre so that I could examine them and so they could be inserted as appendices to the Flood Event Report. I recall Ms Cross being present in the room for much of this time.
- 14. Other persons were present in the room from time to time including Mr Warren Shallcross, a SunWater employee.
- 15. Mr Malone was also generally present in the Flood Operations Centre at this time. Mr Malone provided me with numerical data for the purposes of my drafting process. In the early drafting process, Mr Malone provided the numerical data to me progressively.
- 16. In writing the report I looked at much of the data referred to above for the first time, as I was on annual leave for the first 60 hours of the flood event. I was in the Flood Operations Centre on official duty for only 96 hours of the total event time of 324 hours, and for only 24 hours of the 120 hour period from event commencement to the time that Strategy W4 was applied.
- 17. I completed the draft suitable for distribution primarily using the flood event data. However, I would expect that I would also have had some conversations with the other engineers at some stages. In carrying out this initial drafting process I do not now recall specific conversations I had with the other engineers.
- 18. Because a report on a flood event of this magnitude at Wivenhoe Dam had never previously been drafted, I also developed the format for the presentation of information for the Flood Event Summary.
- 19. In working through the drafting process, I wrote down initial thoughts and considerations to accept or reject as I examined and tested these matters against the available information. This process may well be reflected in the early working drafts. Overall, my aim was to make the final summary as factual as possible.

#### **Executive Summary**

- 20. In the 21 drafts in Annexure 1, I do not see a drafted Executive Summary. I believe that is because I did not commence drafting the Executive Summary until a later stage.
- 21. I can recall that the other three flood engineers read drafts of the Executive Summary on a number of occasions and made numerous suggestions relating to format and presentation. I discussed and considered these and I recall I made changes.
- 22. As set out in the General Overview section above, I attended meetings where a number of people were present and discussions took place about the draft. This included the Executive Summary. It may be the case that some amendment resulted to the Executive Summary as part of this process.

### Flood Event Summary

23. The majority of the 21 documents in Annexure 1 to this statement represent the evolving draft of what became the Flood Event Summary. There is also at least one early draft of what became the Part on Flood Management Strategies and Manual Compliance, and I will refer to that particular document under this heading.



- 24. I refer to Annexure 1 document A. This is the earliest draft of the Flood Event Summary that I retained. The headings were not from any pro forma document, but rather what I created. The time periods in the first column were periods I chose. As the drafting progressed, I made changes to dates and times referred to as I gathered more data and formed a view of matters that appeared relevant. At page 4, there is a heading in the second column "transition from strategy W1E to strategy W2 Wivenhoe Directives #1 #4 Somerset Directives #1 #3". In the fourth column of the same page there is a heading "Strategy W2 (Lake Level greater than 68.50, maximum release 3500 cumecs)".
- 25. I believe I used Strategy W2 as a starting point in these early drafts because the flowchart on page 23 of the Manual of Operational Procedures for Flood Mitigation at Wivenhoe Dam and Somerset Dam (the Manual) requires transition from Strategy W1 to Strategy W2 in circumstances where the maximum flow at Lowood is likely to be less than 3500 m³/s and the maximum flow at Moggill was likely to be less than 4000 m³/s. This flowchart does not provide for transition directly from Strategy W1 to Strategy W3 in these circumstances.
- 26. Because of this flowchart, in the early stages of drafting an issue arose in relation to Strategy W2. The flowchart directs the use of Strategy W2 once the lake level exceeds EL 68.5 metres provided both the maximum flow at Lowood is likely to be less than 3500m³/s and the maximum flow at Moggill is likely to be less that 4000m³/s. Both of those conditions were satisfied during the January 2011 Flood Event when the lake level first exceeded EL 68.5 metres. Despite this, it appeared to me that Strategy W2 had not been implemented since the flow of water being released from the dam exceeded the maximum flow allowed by Strategy W2. It appeared to me that a transition had occurred from Strategy W1 directly to Strategy W3.
- 27. To illustrate this point, the Manual at page 27 provides as follows:

LOCATION	TARGET MAXIMUM FLOW IN THE BRISBANE RIVER	
Lowood	The lesser of:  • the natural peak flow at Lowood excluding Wivenhoe Dam releases, and;  • 3,500m³/s.	
Moggill	The lesser of:  • the natural peak flow at Moggill excluding Wivenhoe Dam releases, and;  • 4,000m³/s.	

28. Based on the requirements for Strategy W2 set out above, the following table can be produced for the January 2011 Flood Event. The periods I use in the table commence at 8:00am on 8 January 2011 and then match the Flood Event Summary Section of the Flood Report.



PERIOD DURING JANUARY 2011 FLOOD EVENT	RANGE OF ACTUAL RELEASES FROM WIVENHOE DAM DURING THE PERIOD (m³/s) #	CALCULATED PEAK FLOW AT LOWOOD EXCLUDING WIVENHOE DAM RELEASES (m³/s)+	CALCULATED PEAK FLOW AT MOGGILL EXCLUDING WIVENHOE DAM RELEASES (m³/s)+	RANGE OF ESTIMATED MAXIMUM ALLOWABLE RELEASES FROM WIVENHOE DAM DURING THE PERIOD IF OPERATING UNDER STRATEGY W2 (m³/s)+
Saturday 08 Jan 2011 at 08:00 to Saturday 08 Jan 2011 at 14:00	927 to 1239	530	660	80 to 153
Saturday 08 Jan 2011 at 14:00 to Sunday 09 Jan 2011 at 01:00	1239 to 1240	530	770	186 to 261
Sunday 09 Jan 2011 at 01:00 to Sunday 09 Jan 2011at 08:00	1240 to 1334	530	770	260 to 311
Sunday 09 Jan 2011 at 08:00 to Sunday 09 Jan 2011 at 14:00	1334 to 1386	530	770	311 to 348
Sunday 09 Jan 2011 at 14:00 to Sunday 09 Jan 2011 at 19:00	1386 to 1411	530	770	306 to 314
Sunday 09 Jan 2011 at 19:00 to Monday 10 Jan 2011at 01:00	1411 to 1473	620	770	78 to 159
Monday 10 Jan 2011 at 01:00 to Monday 10 Jan 2011 at 09:00	1473 to 2015	630	820	0 to 58



PERIOD DURING JANUARY 2011 FLOOD EVENT	RANGE OF ACTUAL RELEASES FROM WIVENHOE DAM DURING THE PERIOD (m³/s) #	CALCULATED PEAK FLOW AT LOWOOD EXCLUDING WIVENHOE DAM RELEASES (m³/s)+	CALCULATED PEAK FLOW AT MOGGILL EXCLUDING WIVENHOE DAM RELEASES (m³/s)+	RANGE OF ESTIMATED MAXIMUM ALLOWABLE RELEASES FROM WIVENHOE DAM DURING THE PERIOD IF OPERATING UNDER STRATEGY W2 (m³/s)+
Monday 10 Jan 2011 at 09:00 to Monday 10 Jan 2011 at 15:00	2015 to 2087	780	1,090	14 to 55
Monday 10 Jan 2011 at 15:00 to Monday 10 Jan 2011 at 20:00	2087 to 2695	780	1,500	74 to 201
Monday 10 Jan 2011 at 20:00 To Tuesday 11 Jan 2011 at 04:00	2695 to 2726	780	1,500	0 to 74
Tuesday 11 Jan 2011 at 04:00 to Tuesday 11 Jan 2011 at 08:00	2726 to 2753	1750	1,500	45 to 88

# Derived from Section 10 of the Flood Event Report.

- 29. Based on this table I believe that it is clear that Wivenhoe Dam was <u>not</u> being operated under Strategy W2 during these periods as the actual release rates from Wivenhoe Dam were well above the maximum allowable release rate for Strategy W2.
- 30. If Strategy W2 had been applied after 8:00am on 8 January 2011, then the Manual would have required that the outflow from Wivenhoe Dam would need to be reduced from 927 cumecs to around 100 cumecs. This did not occur.
- 31. At this time I was troubled by the fact that the flowchart in the Manual had not been followed. I felt this may have been a non-compliance with the Manual. Ultimately I decided it was not



<sup>+</sup> Derived from Appendix A of the Flood Event Report.

a non-compliance with the intent of the Manual, because it would not have been sensible to adopt Strategy W2 at that time, as it would have significantly reduced the outflow from the Dam. I felt strongly that the Flood Event Report should be accurate. Accordingly, I made it clear in the draft Flood Event Summary what I believed the data indicated — that is, that a transition had occurred directly from Strategy W1 to Strategy W3 when the lake level first exceeded EL 68.5 metres. I believe that if I had left the reference in the Flood Event Report that there had been a transition from Strategy W1 to Strategy W2, this would have been incorrect.

- 32. I later referred the inconsistency associated with the flowchart on page 23 of the Manual to the Flood Commission of Inquiry in my statement dated 1 April 2011.
- 33. The only person I can now recall discussing this issue with was the Queensland Dam Safety Regulator, Mr Peter Allen. When discussing the issue, I can recall Mr Allen said words to the effect "just give us the facts John, and this is what you will be judged on".
- 34. Email records show that between the time I changed the draft of the Flood Event Summary from showing a transition from Strategy W1 to Strategy W2 to showing a transition from Strategy W1 to Strategy W3, I wrote the first draft of what became Section 10 of the Flood Event Report which was the Compliance Summary. This draft contains my developing thoughts on the issue.
- 35. I refer to Annexure 1 documents O and P attached to emails dated 31 January 2011. Document O represents the early draft of flood management strategies and compliance Part, while document P represents an evolving draft flood event summary Part.
- 36. Going first to Annexure 1 document O, page 12, again I created the columns in this document and on the left hand side there are dates and times. On this page, on the left hand side, the date identified is 8 January 2011 and the time is 8:00am. There is reference in the second column to W2 and W3 and the statements contained in there represented the view I had formed based on the records I had reviewed. In forming this view I wish to point out that I was not present in the Flood Operations Centre at 8:00am on 8 January 2011 as I still was on annual leave. I certainly formed this view based on records, I do not now recall whether I also spoke specifically to Mr Ayre (who was on duty at 8:00am on 8 January 2011) about this matter.
- 37. I now refer to Annexure 1 document P. This document was emailed one minute after I had emailed Annexure 1 document O. I note that I also emailed a different document at 4:18pm. While I do not now specifically recall the matter, the timing of the emails indicate to me that I was working on a number of documents during that day. It is apparent in looking at these documents that I had not amended Annexure 1 document P in its entirety to accord with what was contained in Annexure 1 document O. In later drafts in Annexure 1, it can be seen that I continued that drafting process on this issue.
- 38. As I identified under the General Overview heading of this statement, once the draft was in what I regarded as a form suitable for review by the other engineers, I made it available to them for their review and comment. I believe that the draft provided for review would have contained my developed view on the transition from Strategy W1 to Strategy W3 on 8:00am on 8 January 2011.
- 39. I do not have a recollection of any of the other engineers disagreeing with my developed version of events on this issue.



40. I refer back to the General Overview section of this statement. I have set out the general process which was then engaged in as to further review and comments. It is likely that some amendments were made as part of this process.

#### Flood Management Strategies and General Compliance

- 41. I refer to Annexure 1. There only appears to be one early draft of this Part and that is at document O. I have discussed this document above.
- 42. Again, I showed a draft to the other engineers once I was satisfied the draft was in a form that could be distributed for review and comment. As with the Flood Event Summary, I believe that a draft of this Part given to the engineers would have had my developed view on the transition from Strategy W1 to Strategy W3 at 8:00am on 8 January 2011. I do not have a recollection that any of the other engineers disagreed with any aspect of this Part.
- 43. Also, the description under the heading General Observations as to how the draft was then sent to other people also applies to this Part. I do not have any recollections as to changes that may have been made.

### **Report Conclusions**

- 44. I recall that I drafted this Part towards the end of the compilation period of the report.
- 45. As set out in the General Overview section above, I attended meetings where a number of people were present and discussions took place about the draft. This included the Report Conclusions. I recall that some amendment resulted as part of this process.

#### Preparation of this Statement

46. I have prepared this statement in a very short time amidst heavy work commitments. It may be that upon further reflection, there are other matters which I wish to address. In these circumstances, I may seek to deliver a supplementary statement to the extent that time permits.

SWORN by JOHN VICTOR TIBALDI on 1 February 2012 at Brisbane in the presence of:



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### ELEVENTH STATEMENT OF JOHN TIBALDI

## INDEX TO ANNEXURES

Annexure No.		Description
JT-1	Bundle of emails from John Tibaldi attaching draft sections of the January 2011 Flood Event Report	
	Α.	Email titled 'Decision Review 02' created 24 January 2011 at 2.17pm, together with attachment;
	В.	Email titled 'Decision Review 03' created 24 January 2011 at 4.35pm, together with attachment;
	C.	Further email titled 'Decision Review 03' created 25 January 2011 at 10.29am, together with attachment;
	D.	Email titled 'Decision Review 04' created 25 January 2011 at 1.02pm, together with attachment;
	E.	Email titled 'Decision Review 05' created 25 January 2011 at 4.37pm, together with attachment;
	F.	Email titled 'Decision Review 06' created 27 January 2011 at 8.42am, together with attachment;
	G.	Email titled 'JANUARY 2011 FLOOD EVENT REPORT – Draft Table of contents' created 27 January 2011 at 11.31am;
	H.	Email titled 'Report Introduction 01' created 27 January 2011 at 1.12pm, together with attachment;
	I.	Report titled 'Flood Event Summary 01' created 27 January 2011 at 1.14pm, together with attachment;
	J.	Report titled 'Flood Event Summary 02' created 27 January 2011 at 4.24pm, together with attachment;
	K.	Further report titled 'Flood Event Summary 02' created 28 January 2011 at 8.29am, together with attachment;
	L.	Email titled 'Event Mobilisation and Staffing 02' created 28 January 2011 at 12.17pm, together with attachment;
	M.	Email titled 'Flood Event Summary 03' created 28 January

	2011 at 3.41pm, together with attachment;
N.	Email titled 'Event Communication 01' created 31 January 2011 at 4.18pm, together with attachment;
О.	Email titled 'Flood MGt Strategies and Manual Compliance 01' created 31 January 2011 at 4.21pm, together with attachment;
P.	Email titled 'Flood Event Summary 05' created 31 January 2011 at 4.22pm, together with attachment;
Q.	Further email titled 'Flood Event Summary 05' created 1 February 2011 at 4.31pm, together with attachment;
R.	Email titled 'Flood Event Summary 06' created 2 February 2011 at 12.47pm, together with attachment;
S.	Email titled 'Flood Event Summary 07' created 2 February 2011 at 4.05pm, together with attachment;
T.	Further email titled 'Flood Event Summary 07' created 3 February 2011 at 10.12am, together with attachment;
U.	Untitled email created 5 February 2011, together with attachment.

Dated: 1st February 2012

