

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

Commissions of Inquiry Order (No.1) 2011

Queensland Floods Commission of Inquiry

Second Witness Statement of Peter Baddiley

Annexure "PB2-3"

Email

18 April 2011

Justice C E Holmes
Commissioner
Queensland Floods
Commission of Inquiry
400 George Street
BRISBANE QLD 4001

Our ref 12415/80116890

Dear Commissioner

Queensland Flood Commission of Inquiry - Request by Ipswich City Council (ICC) for Supplementary Statement from Witness, Mr Baddiley (Bureau of Meteorology (BoM))

We refer to the evidence of Mr Davidson (BoM). In responding to a number of questions from Senior Counsel for ICC in relation to aspects of BoM modelling for predicting flood peaks in the Bremer River, Mr Davidson stated that such questions should be directed to Mr Baddiley. Please find set out below a number of issues which ICC has identified which Mr Baddiley may be able to assist with:

1. According to Schedule 1A to the Statement of Robert Ayre (exhibit 17A tendered before the Commission of Inquiry) on 11 January 2011 between 8.00 am and 4.00 pm the Flood Operation Centre (FOC) issued 9 directives in relation to releases from the Wivenhoe Dam whereby the volume of water being released increased as follows:

Release Time	Release Directive No.	Release Volume
8.00 am	WD 12	2,753 m ³ per sec
9.00 am	WD 13	2,991 m ³ per sec
12.00 pm	WD 14	3,667 m ³ per sec
1.00 pm	WD 15 and WD 16	4,250 m ³ per sec
2.00 pm	WD 17 and WD 18	4,562 m ³ per sec
3.00 pm	WD 19 and WD 20	5,167 m ³ per sec
4.00 pm	WD 21 and WD 22	5,786 m ³ per sec

Were these actual releases:

- (a) communicated by FOC to BoM?
 - (b) taken into account by BoM in predicting the flood peak for the Bremer River at Ipswich?
 - (c) if yes, how were these actual releases taken into account in the BoM modelling?
2. Was BoM requested by FOC on 11 January 2011 to model the impact on Brisbane and Ipswich of the following releases from Wivenhoe Dam:

- (a) 6,750 m³ per sec;
 - (b) 4,000 m³ per sec;
 - (c) 9,000 m³ per sec;
 - (d) 10,000 m³ per sec?
3. If yes to any part of 2 above, who from FOC made the request and who from BoM received the request?
 4. Did Mr Baddiley undertake the modelling requested by FOC?
 5. If yes to 4, what was the result of this modelling?
 6. Did Mr Baddiley participate in a telephone conference with the 4 dam engineers from FOC at 3.49 pm on 11 January 2011 in respect of this modelling?
 7. If yes to 6, did Mr Baddiley (or another person from BoM) inform the FOC engineers that a possible maximum release scenario of 10,000 m³ per second would be of a similar magnitude to the 1893 flood event?
 8. As to BoM's flood warning issued at 9.29 am on 11 January 2011, how was the 16m flood peak of the Bremer River modelled?
 9. Were the Wivenhoe releases factored into this modelling?
 10. How does the BoM modelling deal with the impact of the Moggill peak on the Bremer River and its tributaries, that is, in the sense of any backflow effect from the Brisbane River?
 11. Please note that the BoM flood warning issued at 9.29 am on 11 January 2011 predicted that the peak of 16m would be reached "during Wednesday". Can you please explain what is meant by the expression "during Wednesday" - is this intended to refer to any particular time period during Wednesday and, if so, what time period or is it intended to mean any time after midnight on Tuesday?
 12. If you assume that the Bremer River height at the Ipswich gauge reached 16m at approximately 9 pm on Tuesday 11 January 2011, can you express any opinion on what might have been the reason for the difference in timing between the BoM predicted timing for the 16m height and the actual timing that the Bremer River height reached 16m and, particularly, can you express an opinion on whether the timing was affected by the releases from the Wivenhoe Dam?
 13. As to BoM's flood warnings issued at 3.24 pm predicting a flood peak of the Bremer River at Ipswich of 22 metres, how was this peak modelled eg was it a purely Bremer River event; were the releases from Wivenhoe factored into the modelling; was any backflow effect from the Brisbane River factored into the modelling?
 14. If BoM knew that the FOC were increasing the volume of releases from the Wivenhoe Dam on 4 occasions (from 2,991 m³ per sec to 5,167 m³ per sec) since the BoM 9.29 am warning, was any consideration given to issuing an earlier warning than that issued at 3.24 pm?

15. From the modelling conducted by BoM, what were the major factors that led to the Bremer River flood peak being revised over a period of 7.5 hours from 12.7 metres to 22 metres?
16. Was one of those factors the increases in the volume of releases from the Wivenhoe Dam on 11 January 2011?

We note the advice of Counsel Assisting, Mr Callaghan SC, that Mr Baddiley will be called to give evidence. We are content for these issues to be addressed either in examination of Mr Baddiley or, at least initially, by way of a supplementary statement.

Please advise if we can assist or clarify further any of the above matters.

Yours faithfully



Mark Waller, Partner

