

MJ O'Brien

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10 December 2011

Ref BRI-LET-004

Queensland Floods Commission of Inquiry
Level 30, 400 George St
Brisbane
QLD 4000

By email Kyla.hayden

Attention: Kyla Hayden

Review of Hydraulic Modelling

It is submitted that Mr Babister's dismissal of release strategy Option F in the letter Ref L111118a_111024 18 November 2011 from WMAwater to the Queensland Flood Commission of Inquiry (**Addendum to WMAwater letter**) is inappropriate.

In addition to the comments already submitted in relation to the letter Ref L111118_111024 18 November 2011 (**WMAwater letter**) the following address the Addendum to WMAwater letter. Again it includes reference to my submission entitled: -

Brisbane Flooding January 2011, An Avoidable Disaster – Submission in response to Hydraulic Modelling Reports dated 31 August 2011 (MJ O'Brien submission)

Again where appropriate each relevant section below includes the paragraph number used in the WMAwater letter or the Addendum.

Option F

In making the comments below it should be recognised that Option F suggested in the MJ O'Brien submission was developed by Mr Ian Chalmers the Supervising Engineer for Wivenhoe Dam.

1. Further Consideration Warranted

Addendum to WMAwater letter paragraph 28

Further consideration of Option F, and variants, is clearly justified solely on the basis that it demonstrably achieves a significant reduction in the flooding in Brisbane. Further it is the only Option that achieves this outcome without a pre-release which may compromise water security.

2. Full Hindsight Strategy

Addendum to WMAwater letter paragraph 25

The suggestion by Mr Babister in paragraph 25 that Option F is "*an example of a "full hindsight" strategy, in that it relies on complete foreknowledge of the dam inflows in its formulation*" is demonstrably incorrect.

Option F, and variants developed by Mr Ian Chalmers, are the only proposed strategies that do not require the Operator to make any forecast of future dam levels or to make preemptive

releases. The basis of these strategies is that they should solely depend on knowledge of the level in the dam at the particular time.

3. Compliance with Manual

Addendum to WMAwater letter paragraph 27

There was never a suggestion that Option F met, or was intended to meet, the requirements of the Operational Manual. It was proffered as an example of why the Operational Manual may not be appropriate.

4. Recognised Downsides

Addendum to WMAwater letter paragraph 28

It is recognised that Option F does suffer from downsides.

- It is not likely that a prudent Operator would stay with the fixed gate openings when the dam level fell below FSL at around 01:00 January 8th under Option F.
- It is also possible that it may result in inferior outcomes during the more minor floods.

However rather than simply making this last assertion as has Mr Babister, it is incumbent on the Commission to ensure the proper assessment necessary to demonstrate that the overall outcome over both minor and major floods is indeed inferior. Without access to the modelling it is difficult for this to be examined independently.

5. Conclusion

It is relatively simply to adopt slight variations to Option F such that a prudent Operator would not be required to let the dam fall below FSL during the event. Option F and its variants may have significant potential benefits as there is no requirement for the Operator to make any forecasts of future rainfall or dam levels. It simply relies on knowledge of the existing dam level. Mr Ian Chalmers has previously submitted to the Commission the attached variant which appears to retain all the benefits without requiring the dam to fall below FSL during the event. It does not appear to have received sufficient consideration.

It is submitted that Mr Babister's simple dismissal of Option F and its variants is not appropriate given the demonstrated reduction in flood levels and the other potential significant benefits.

Yours Sincerely

A solid black rectangular box redacting the signature of Mick O'Brien.

Mick O'Brien