

**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**

NINTH STATEMENT OF JOHN TIBALDI

On the 22nd day of December 2011 I, John Tibaldi, of C/- 240 Margaret Street, Brisbane, state on oath:

1. I am currently employed by Queensland Bulk Water Supply Authority (*Seqwater*) as Principal Engineer, Dam Safety.
2. This statement is made in response to the requirement to provide statement issued by the Queensland Floods Commission of Inquiry on 14 December 2011 (*Requirement*).

North Pine Dam flood capacity

3. Since receiving the preliminary estimate of North Pine Dam's flood capacity, provided by URS on 22 August 2011, Seqwater has not engaged any further external consultants to provide any further estimate.
4. However, Seqwater has, internally, determined that the best estimate of North Pine Dam's flood capacity is approximately 65% of the Acceptable Flood Capacity of the Dam. I was directly involved in the development of that estimate. The estimate has been discussed with URS and URS agrees with Seqwater's assessment.
5. I have arranged for the hydrologic model results and gate operation spreadsheet results derived by Seqwater in making the determination referred to above to be provided to the Commission separately.

Filed on behalf of: Queensland Bulk Water Supply Authority trading as Seqwater

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6. As a result of the work which has been undertaken, as described above, Seqwater has finalised its assessment of North Pine Dam's flood capacity. However, Seqwater is still in the process of preparing a final report to reflect this finalised assessment. Seqwater presently expects to have the final report complete in January 2012. I understand that URS are also aiming to provide a final report in January 2012.
7. The Commission has asked for Seqwater's current understanding of "the characteristics of the flood that is 55% of the probable maximum flood".
8. Seqwater's current understanding of the largest 36 hour duration (critical duration) design flood that North Pine Dam can safely pass if either four radial gates or five radial gates are fully operational is shown in the following table. The results assume:
- the initial water level is the current dam full supply level of EL 39.6 metres;
 - the catchment is fully saturated (that is, there is no initial loss);
 - Revision 6 of the Manual is in use; and
 - the radial gate ratings used are those used by URS (which provides the most conservative result).

Critical duration (36 h) design flood	Annual Exceedance Probability	Flood Volume (% of January 2011)	Peak Inflow (% of January 2011)	Peak Lake Level	Catchment Average Rainfall (% of January 2011)*
Four Radial Gates Operational	1 in 200,000	440,000 ML (214%)	5,300 m ³ /s (152%)	EL 43.2 metres	1,293 mm 36 hours (232%)* (144 hours)*
Five Radial Gates Operational	1 in 800,000	500,000 ML (214%)	6,300 m ³ /s (181%)	EL 43.3 metres	1476 mm 36 hours (282%)* (144 hours)*

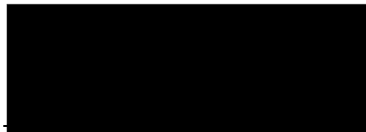
* Comparison is relatively meaningless because the rainfall durations are markedly different.

9. The details of this analysis are shown in the documents I am arranging to be provided to the Commission separately.
10. I note that Seqwater's preliminary estimate of the magnitude of the January 2011 flood event is set out in Seqwater's report titled "January 2011 Flood Event – Report on the Operation of North Pine dam (11 March 2011)".

SWORN by **JOHN TIBALDI** on the 22nd day of December 2011 at Brisbane in the presence of:



Deponent



Solicitor