

Would the Brisbane Flood Inquiry members please answer the following 3 questions (highlighted in the discussion below). Would they also give the two assurances to the public also highlighted below.

Confusion between Port Office Gauge and Brisbane City Gauge

The Brisbane Lord Mayor in a radio broadcast a few days before the peak Brisbane flood referred to the 'Port Office Gauge' readings and later referred to the 'Brisbane City Gauge' readings. No indication was given of the possible differences between the two gauges that is, a possible difference in reference point and a possible difference in location. The current Bureau of Meteorology (BOM) official internet site indicates that the readings at the Brisbane City gauge are AHD that is, above mean sea level, and gives the peak height of the 1974 flood as approximately 5.4m. However, another official BOM publication, (Reference 1: Report by Director of Meteorology Brisbane Floods January 1974) has the peak height of the 1974 floods as approximately 6.6m at the Port Office Gauge. Can the Brisbane Flood Inquiry (BFI) establish the reason for the difference (1.2m) between the 1974 flood readings at the two gauges and whether the differences were due to a change in reference point (zero) or simply due to a difference in location (**Question 1**). Could the BFI also ensure that future media releases of flood information refers to all flood levels referenced (or estimated) back to a common Gauge reading so that the public will not make wrong deductions of flood danger based on different gauges in the City area (**Assurance 1**)

Confusion between Floodwise 1 in 100 year levels, Brisbane City Gauge levels and eyewitness reported levels in 1974 and 2011

Now the public were told that the official peak height of the 2011 flood reached approximately 4.4m at the Brisbane City gauge that is, about 1m below the 1974 official BOM peak level. Old Mineral House is at the river end of Edward Street and the FloodWise Property report (Reference 2) has the 1 in 100yr flood reaching 3.9m AHD. How is this figure reconciled with the 1974 flood level of 5.4m AHD at the Brisbane City Gauge. Is the difference of 1.5m due to a difference in location between the Brisbane City gauge and Old Mineral House or a difference in probability between the 1 in 100 year flood and the 1974 flood. (**Question 2**)

In Alice street (Albert Street corner) at the Park Royal Hotel (now called Royal on Park) the FloodWise Property report (Reference 3) has the 1 in 100yr flood reaching 3.9m AHD the same as Old Mineral House. This is expected as these two locations appear to be approximately at the same level AHD and close to the river, and each other. Hotel staff reported that the 2011 flood did not enter the foyer. However, in 1974 the peak flood mark in the foyer was recorded on a post approximately 1.8m above foyer level. This indicates that the 2011 flood peak height was approximately 1.8m below the 1974 flood peak height at the Park royal. How is this difference of 1.8m reconciled with the difference of reported levels at the Brisbane City gauge of only 1m for the 1974 and 2011 floods. (**Question 3**)

The above observations have confused me and many others. Could a large number of flood level posts be erected around Brisbane giving the heights of the 1974 and 2011 flood levels reached at various points. If desired the estimated Wivenhoe mitigation level could also be marked for the 1974 flood but the public should be made aware that this mitigation cannot be relied upon. The public should also be made aware that levels at Brisbane River gauges do not accurately reflect estimated flood incursions due to differences in run-offs, rainfall intensity and velocity of water flowing down the river. (**Assurance 2**)

References

1. Extract from Page 35 of the Report by Director of Meteorology Brisbane Floods January 1974

'The behaviour of the Brisbane River at the Port Office from Thursday 24 January to Thursday 31 January is shown in Fig 11. In the city reaches of the river the imminence of a major flood, higher than any recorded since 1893 was not apparent during the daylight hours of Saturday 26 January. A minor flood height of 3.56 m occurred at the Port Office gauge on the high tide at about midday 26 January, to which the main contributions were local Brisbane creek run-off and a storm surge caused by the persistent strong winds in Moreton Bay. However, with the enormous flood contribution from the Bremer and the continued periods of intense rainfall in the middle Brisbane and in the metropolitan area, the river continued to rise and the previous highest flood level this century (1931) was exceeded by about 9 am Sunday 27 January when the level at the Port Office reached 4.50 m. It was the heavy rain which fell over most of the Brisbane Valley principally during the period between 3 pm Saturday and 3 pm Sunday which was responsible for converting a minor river flood in Brisbane into one of major proportions.

The river rose steadily during Sunday 27 January and attained a *peak* height of **6.60 m on the high tide at 2.15 am on Tuesday 29 January**. After this the floods slowly receded but the Port Office reading did not fall to below 3.0 m until Thursday 31 January. It can be seen from Fig 11 that the tidal effect at the Port Office was still slightly evident at the peak. This effect was more pronounced towards the mouth of the river but was completely damped out at the peak upstream from St Lucia. The approximate extent of the inundation in the Brisbane metropolitan area during the January 1974 flood is shown in Fig 12. A more detailed representation is given on the Queensland Survey Office's Flood Map of Brisbane and Suburbs, which is available for sale to the public.'

2. Brisbane City Council : FloodWise Property report
Address: U1 Old Mineral House 2 Edward St Brisbane City
Lot Details L.1/BUP.106744

3. Brisbane City Council : FloodWise Property report
Address: 146 Alice St. Brisbane City
Lot Details L.12/SP.231766