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Submission to the Queensland Floods Commission of Inquiry
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Summary:
I submit that the public presentation of flooding risk by altered from

- the current usage (eg 1 in 100 year flood) to
- a presentation of risk in the same form as popular sporting odds are presented, namely 100 to 1.

Background:

Both the official and public presentation of flooding risk has typically been presented as 1 in x years. For example Brisbane City Council Floodwise reports available for any Brisbane property present flooding risk as peak flood levels for intervals of 5 years, 20 years, 50 years and 100 years. The flooding experience during the 1974 floods in Brisbane is presented in the official literature as a 1 in 100 year flood.

There may well be some argument over the accuracy of the calculation of the risk of a flood of size of 1974 or higher. For example the published plot of major floods in Brisbane river (>3.5m), indicates two in 1840, one in 1865, five in the 1890s, one in 1900s, one in 1974, and one in 2011. This can be averaged out at 11 in 180 years, or 1 in 18 years.

However for the purpose of this submission I am taking the commonly accepted figure of 1 in 100 as the risk of a major flood in Brisbane in any one year.

The way in which this risk is presented and understood by the general public is highly significant, since it has an effect on major decisions such as purchase of property, insurance , etc. This public perception of risk is influenced mainly by the presentation of the risk in official literature, such as the BCC Floodwise Property Reports.

My concern with the current presentation was sparked by two different conversations with friends whose homes were flooded during the recent Brisbane floods. In both cases they each said that "*now that we have been flooded, it won't happen again in our lifetime*." On discussion , it was evident that they have taken the presentation of the risk, namely 1 in 100 years, as a statement that the flood will only occur once every hundred years. In other words they have mistaken a presentation of risk for a description of frequency. This is clearly incorrect, since there is a 1/100 chance that a similar sized flood will occur any year. I suggest that their perception is fuelled by the presentation of "1 in 100 years" as a description of the frequency of flooding, rather than a probability of flooding.

Conclusions:

I suggest that flooding risk is presented in official literature in such a way that

- There is no perception of a predetermined frequency of flooding, but rather an ever-present risk of flooding at a certain level of probability
- The presentation of this risk is such that it is easily understood by the general public.

I submit that use of probability as it is generally used in sports, such as football, racing etc is one very common usage, namely sporting odds. The presentation of a risk of 1 in 100 years flood in this form would be odds of 100 to 1 that a flood will occur any one year.