

Environ 9-11/11
16/8/11

Submission to the Queensland Flood Enquiry

Richard and Evelyn Robins

West End 4101

Introduction

We live at the above address. The house is a ground level two story townhouse style residence that looks directly over Riverside Drive to the Brisbane River. The complex we are in is linked to the unit complex known as 'The Flow'

On January 13th 2011, floodwater from the Brisbane River entered the first floor living space our house to a depth of approximately 43 cm (approximately 6.4 metres AHD). Water completely flooded the garage space immediately below.

Issues

We wish to draw to the Enquiries attention to the following.

Prior to buying the residence in 2009, we undertook a search of the Brisbane City Councils FloodWatch website to determine the position of the residence with respect to potential future floods. In that site it indicated that the minimum habitable floor height should be 5.9 metres. Subsequent surveys have established that this is the height of the lower habitable floor of our residence. It also stated that the Q100 height was 5.4m and that the Q50 was 4.4m (Attachment 1). In other words, the floor height of our residence was above the Q100. However, the 2011 flood height at our residence was higher than the Q100, although the 2011 flood is not regarded as a Q100 flood and was less than that of the 1974 flood. However, at our residence the flood height was greater than that of the 1974 flood by approximately one metre.

The explanation for this discrepancy could be that since the 1974 flood, the construction of bridges, walkways, buildings and the growth of mangroves along the river has contributed to a restriction of the flow of flood waters, thus causing a bottleneck for floodwaters and an increase in flood heights in particular areas. Attached photographs show a massive build-up of sands and mud in the mangroves along the edge of Riverside Drive. In places these deposits extend out some 15 metres into the river. The deposition of these sediments is indicative of an impediment reducing the velocity of the flood flow at that point resulting in the dropping of the rivers sediment load. Such impediments (and mangroves are only an example), could have had a damming effect resulting in localised increases in flood heights.

Recommendations.

- 1) That future planning restricts development of infrastructure in public spaces or by government agencies within the flood zone. A precautionary principle should

apply to all such development whereby it should be demonstrated that such development will *not* impede future flood waters. This principle should apply to all floodplain developments on public land from bridge construction and public walkways to playground equipment.

- 2) That the concept of the Q100 flood be abandoned or at least significantly modified as a planning tool, as it is clearly inaccurate. It is important now that the heights of the 2011 flood be accurately measured in as many places as possible. This should be done not just from aerial photography (particularly as the flood peak was at night), but by ground truthing and mapping, and from anecdotal sources. Not only would a more accurate map provide for better planning, but also contribute to an understanding of flood behaviour. The existing map published by the Brisbane City Council is too inaccurate to be used as a planning tool and is now out of date.
- 3) That the concept of referring flood heights from a single point in the city (the Port Office) be supplemented with more local reference points. With every flood behaving differently due to the circumstances of the amount and source of inflow tides and changes to the floodplain, it is essential to establish a simple system for determining the progress of floods, so that people are able to make their own decisions about their property and lives. Measurements taken at the Port Office have no bearing on heights 3km upstream, as in our case. While the Port Office establishes an important historical reference point, it should be supplemented by other reference points throughout the flood areas. Post placed in prominent places with heights marked in 50 cm increments with reference to AHD and to previous flood heights, would be most helpful in assisting residents planning in the face of floods. Flood markers indicating heights of previous floods are a poor basis for making decisions. Even if I knew that the 1974 flood was 5.45 m, it was useless information as I had no reference points with which to compare it. All my decisions (stay or go, move furniture, save possessions etc) were based on a combination of guesswork and a historical knowledge of the floods. This is particularly important issue given the confusion over flood heights. For example the height of the 1974 flood is often cited as 5.45m. However, in the report of the Director of Meteorology on the 1974 floods, he states that '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 (Bureau of Meteorology, 1974 Floods. P35). In another example, while watching the flood rise I heard comments from a local resident stating that she had been told that the 1974 flood rose halfway up Harriet St, on the eastern side of Montague Road. In hindsight this would have put the flood higher than the 1893 flood at that point. But at the time there were no official reference points and this 'truth' could not be assessed. It caused a lot of unnecessary concern among local residences. The lack of local information also denied police the ability to make informed decisions, and for the most part they were often as ignorant as the residents on the progress of the floods, whereas if they had a better local knowledge, they may have played a more significant role in contributing to the management of people during the flood.

Attachment 1 (overpage)



Brisbane City Council
FloodWise Property Report

Report Reference
1449301
 11/02/2011 13:38:04

Dedicated to a better Brisbane

The FloodWise Property Report is a free report to inform Brisbane residents and professionals about flood risks for a specific lot or property so they may better prepare for flooding and to plan and build in accordance with Council requirements.

To find out more about how the contents of this report may affect your ability to build or renovate, as well as Council advice on how to protect your property and family by being FloodWise, visit: www.brisbane.qld.gov.au, a Customer Service Centre or call (07) 3403 8888.

PROPERTY DETAILS:

Address: [REDACTED] WEST END QLD 4101
 Lot Details: [REDACTED]

FLOOD LEVEL INFORMATION

Return Period (Years ARI)	Flood Level (Metres)
5	~0.5
20	3.0
50	4.4
100	5.4
min height	5.1
max height	6.7
Minimum Habitable Floor Level	5.9

Flood Levels
 The blue bars in the graph above show the height of flooding estimated to occur on average once every 5, 20, 50 and 100 years at this address or lot.

Ground Levels (Min - Max)
 The line above shows this property's lowest and highest ground levels. Confirm with a surveyor.

Minimum Habitable Floor Level
 The dotted line in the graph above depicts the minimum height above sea level that habitable areas of development must be constructed to, i.e. lounge, kitchen or bedroom.

For a detailed summary of anticipated flood levels and flags see technical summary over page.

HIGHEST SOURCE OF FLOODING

RIVER The highest source of flooding affecting this property originates from a river. For more information about flooding in your area you can view and download Council's Flood Flag Maps by visiting www.brisbane.qld.gov.au/floodmap

Technical Summary

Use this summary to supply information about this property to surveyors, builders, certifiers, architects and engineers who may request this FloodWise Property Report. This summary has been designed to be easily read if scanned or faxed.

Property Details

Address: [REDACTED] WEST END QLD 4101
Lot Details: L.2/SP.188551

Flooding Information

Minimum Ground Level (AHD)	5.1 m
Maximum Ground Level (AHD)	6.7 m
Highest Defined Flood Level (DFL)	5.4 m
Highest Flooding Source	RIVER
Minimum Habitable Floor Level (AHD)	5.9 m

Predicted Peak Flooding Levels (ARI)

Years	Level (AHD)	Source
5	N/A	
20	3.0 m	RIVER
50	4.4 m	RIVER
100 or DFL	5.4 m	RIVER

Disclaimer

- 1 Defined flood levels are determined from the information available to Council at the date of issue. The defined flood level for a particular property may change if more detailed information becomes available, or changes are made in the method of calculating flood levels.
- 2 For these reasons, Council makes no warranty or representation regarding the accuracy or completeness of a FloodWise Property Report. Council disclaims any responsibility or liability in relation to the use or reliance by any person on a FloodWise Property Report.

Attachment 2



Figure 1: Mud and sand deposited amongst mangroves, Riverside Drive, West End



Figure 2: Mud and sand deposited amongst mangroves, Riverside Drive, West End