

**Submission to
Queensland Floods Commission of Enquiry**

Flood Mitigation in Mandalay Estate, Fig Tree Pocket, Qld 4069

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based on ideas advanced by Rod Viney

The area in question is shown in the figure. During the January 2011 flood, we estimate that the river level reached approximately 12 metres. We estimate that about 85 homes were inundated. Approximately 15 of these are around Botticelli St and River Park Place and would gain no protection from these proposals. From investigations involving contour maps ("My Neighbourhood") and other sources we believe that water entered the region of Kenny, Donnatello and Goya Streets in the following ways, at places marked in yellow. A useful resource is the Nearmaps image for 13 January 2011

- As the flood exceeded 6 metres water would have started to enter by reverse flow in the pipe which normally drains the pond in Biambi Yumba Park.
- As the flood exceeded 8.5 metres water would have started to cross Mandalay Street near its NW end (at about the mid-point of the yellow line) and started to flow down towards the streets in question.
- As the flood exceeded 10.5 metres water could also enter from the West side of Mandalay adjacent to the dog "off-leash" area.

Thus, we believe the following facilities could be helpful in future floods:

A gate valve or non-return valve on the pond drain pipe. Depending on the configuration of any storm-water drains which feed into the main drain, it may be best to locate the valve at the river end of the drain rather than the pond end. In a prolonged flood up to 8.5 metres, this may save around 35 houses from inundation.

A bund or levee along the river bank parallel to Mandalay Street and into the Lone Pine Sanctuary as shown in the illustration. This could be constructed to about 11 metres above sea level. Its maximum height, at about half way along its length, would be 2 metres. For a few houses on Donatello Street, this would block the river views from the ground floor. In a prolonged 11m flood, this may save around 55 homes from inundation.

Increasing the proposed levee height by 1 metre and adding a short 1m levee near the "off-leash" area. In a prolonged 12m flood, this may save all 70 homes in question

Notes

In floods higher than 12 metres, water could also enter from the River Park area.

If a flood peak passes quickly, more homes may be saved than the numbers indicated.

Thank you for your consideration of these matters,

Chris Wood and Rod Viney

