



L11304699\_4\_12BucklandSt.docx

26 April 2016

**Attention: Alan Cadogan**

Dear Alan,

**Re: Flood Assessment for 4-12 Buckland St Development**

Thank you for contacting WMAwater in regard to a flood assessment for the development at the above referenced address. WMAwater has recently completed the Blackwattle Bay Floodplain Risk Management Study (2015), within which area the property is located. The description of results supplied herein is based on detailed modelling carried out for the Floodplain Risk Management Study (FRMS).

**Council Policy**

The City of Sydney *Interim Floodplain Management Policy* was adopted by Council in May 2014. Section 5 of Policy states:

*A Flood Planning Level refers to the permissible minimum building floor levels. For below-ground parking or other forms of below-ground development, the Flood Planning Level refers to the minimum level at each access point. Where more than one flood planning level is applicable the higher of the applicable Flood Planning Levels shall prevail.*

**WMAwater Pty Ltd (Formerly Webb McKeown and Associates)**

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Table 1: Flood Planning Levels

Development		Type of flooding	Flood Planning Level
Industrial or Commercial	Business	Mainstream or local drainage	Merits approach presented by the applicant with a minimum of the 1% AEP flood level
	Schools and child care facilities	Mainstream or local drainage	Merits approach presented by the applicant with a minimum of the 1% AEP flood level + 0.5m
Below-ground garage/car park	All other below-ground car parks	Mainstream or local drainage	1% AEP flood level plus 0.5m or the PMF (whichever is the higher). See Note 1

Note 1: This level applies to all possible ingress points to the car park such as car park entrances and exits, ventilation ducts, windows, light wells, lift shaft openings, risers and stairwells.

### Flood Behaviour and Levels

Based on modelling results it was found that flooding occurs on both Buckland St and Blackfriars St, which serve as access roads to the property and on the northern and western sides of the property in the 1% AEP design flood event. Figures 1 and 2 show the existing flood behaviour in the vicinity of the property for the 1% AEP event and the PMF event respectively.

The peak flood level from mainstream flooding was located on the southern boundary and was found to be 9.25m AHD in the 1% AEP event and 10.05m AHD in the PMF event. Inundation depths of up to 0.6 m and 1.7 m can be expected on Blackfriars St and Buckland St for the 1% AEP event.

### Flood Planning Level Requirements

To comply with City of Sydney's (Council) requirements, the Flood Planning Levels for the proposed New UTS Building development are as follows

- Business/schools and child care facilities: 9.67 mAHD (minimum 1% AEP level + 0.5m)
- Below-ground garage/car park : 10.08 mAHD (1% AEP level + 0.5 m or PMF)

Although the New UTS Building will not have a below-ground car park, it is likely that the proposed habitable basement will require the ground floor to be above the PMF level of 10.08 mAHD (as per Note 1 of Table 1 above).

Child Care Building A is approved with a ground floor level of 10.4 mAHD which is above both the PMF level and the 1% AEP event + 0.5m. The existing Child Care Building B is also above the flood level of the PMF event and the 1% AEP event + 0.5m. Both child care buildings will meet the City of Sydney's (Council) requirements for Flood Planning Levels.

Yours Sincerely,  
**WMAwater**



**Steve Gray**  
Director

FIGURE 01  
 4 - 12 BUCKLAND ST  
 1% AEP PEAK FLOOD LEVEL & DEPTH



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— Peak Water Level (m AHD)  
 ■ 4-12 Buckland St Development

**Depth (m)**

- 0.1 - 0.25
- 0.25 - 0.5
- 0.5 - 0.75
- 0.75 - 1
- > 1

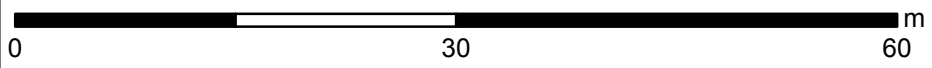


FIGURE 02  
4 - 12 BUCKLAND ST  
PMF PEAK FLOOD LEVEL & DEPTH



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— Peak Water Level (m AHD)  
— 4-12 Buckland St Development

**Depth (m)**

- 0.1 - 0.25
- 0.25 - 0.5
- 0.5 - 0.75
- 0.75 - 1
- > 1

