



Jack Hodgson Consultants Pty Limited

CONSULTING CIVIL, GEOTECHNICAL AND STRUCTURAL ENGINEERS

ABN: 94 053 405 011

MV 26967.

10th March, 2016.

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The General Manager
Warringah Council
Civic Centre
Pittwater Road
DEE WHY NSW 2099

Dear Sir,

79A RYAN PLACE, BEACON HILL.

We have examined the architectural plans for the proposed extension & upgrade to existing cabin for use as secondary dwelling at the subject address as per Council's flood planning level.

As Council's flood planning maps show, the 100 Year ARI flood just touches the southern property boundary (at around RL 15m AHD) and hence will have no relevance for the proposed building improvements. It is also evident that the PMF flood level would be well below the proposed FFL (RL 20.90) of the granny flat extension.

A steep natural water course crosses the south east corner of the property leading to an 1.07m ID RCP (reinforced concrete pipe) with an invert level at RL 10.09m AHD.

From SIX Maps of the NSW Land & Property Information (LPI) website, the drainage area above the RCP is conservatively estimated at around 10 Ha. The resulting peak 100 Year ARI discharge would be 6 m³/s for the 25 min duration storm.

Assuming a 50 m pipe length and a full velocity head-loss at the pipe entrance, the discharge capacity of the pipe would match the 100 Year ARI peak discharge of 6 m³/s when the surcharge above the pipe reaches about RL 16 m AHD, some 4 m below the FFL of the cabin extensions.

In our opinion the proposed building modifications will be unaffected by wide-area or localised flooding.

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