



05 December 2012

Will Dwyer
Goodman International
Level 10, 60 Castlereagh St
Sydney NSW 2000

Our ref: 21/21981
Your ref: 185232

Dear Will,

**Bungarribee Industrial Estate
Eastern Creek Flood Study Review in Relation to the Proposed Estate Infrastructure
Modifications and the Proposed Toll IPEC Facility**

GHD have reviewed the Bewsher Consulting Pty Ltd flood report (*responses to Blacktown City Council issues dated 21st April 2008*) with respect to:

- The impacts of the Eastern Creek 100 year ARI flood event upon the proposed Toll IPEC development;
- Impact of increased rainfall intensities with respect to 100 year flood levels; and
- The proposed Estate Infrastructure modifications that are the subject of a s75W application.

Blacktown City Council Engineering Guide for Development (2005) requires the floor level of any habitable building to be equal to or greater than the 100 year ARI flood plus a freeboard 500 mm.

The 100 year ARI flood levels vary along the Toll IPEC site extents from RL 40.18m AHD to RL 42.45m AHD. The proposed floor level of the Toll IPEC facility is 48.40m AHD, which provides freeboard well in excess of the Blacktown City Council requirements.

We note that the PMF levels vary across the site from 41.96m AHD to 43.84m AHD. The PMF levels are well below the proposed floor level of the Toll IPEC facility (48.40m AHD) including provision of adequate freeboard. Modelling of an increased rainfall intensity 100 year event will result in a flood level between the previously modelled 100 year event and the PMF event. Therefore, the resultant 100 year flood levels from an increased rainfall intensity would still be well below the proposed finished floor level including provision of adequate freeboard.

The proposed Estate Infrastructure modification works are outside the 100-yr flood extents of Eastern Creek and hence they will not impact on the 100-yr flood levels. The 100-yr flood levels have been appropriately considered with regards to the proposed Estate Infrastructure modifications in terms of site drainage system receiving water levels.

Sincerely
GHD Pty Ltd

A handwritten signature in dark ink, appearing to read 'Chris McDougall', written in a cursive style.

Chris McDougall
Civil Engineer
2 8898 8858