

14 May 2019

NL151661

Huntlee Pty Ltd
Glenn Swan
PO Box 199
Branxton NSW 2335

Dear Glenn,

Re: Huntlee residential subdivision – Stage 1 MOD 9 (MP 10_0137)

Northrop Consulting Engineers have prepared the following letter in response to the comments made in review of the Huntlee Residential Subdivision Stage 1 MOD 9 Application (MP 10_0137). This letter intends to provide the additional information requested in relation to the stormwater and flooding concerns raised and should be read in conjunction with the attached Tributary 1 and 2 Flood Inundation and Stormwater Strategy Plans.

NSW Planning and Environment

In their submission dated 18/04/2019 the NSW Department of Planning and Environment have raised the following items in relation to stormwater and flooding for further consideration:

1.2 – Please overlay all environmental constraints, such as flooding and bushfire risks on a plan, particularly in relation to any new or reconfigured lots.

The updated flooding extents for both tributaries within the Stage 1 project area for both the 1% Annual Exceedance Probability (AEP) and Probable Maximum Flood (PMF) storm events have been provided for review. Refer attached Tributary 1 and 2 Flood Extent sketches for further detail.

1.3 – The stormwater concept and open space plans should indicate the riparian corridor width required by the Department of Industry – Office of Water for both Tributaries.

The Stormwater Strategies for both Tributaries 1 and 2 have been updated to reflect the adopted riparian corridor widths. Within the Stage 1 project area 1st, 2nd and 3rd order creeks have been identified. In accordance with the Department of Industry – Office of Water 20m, 40m and 60m corridor widths respectively have been adopted as a minimum.

3.4 (Precinct 16) – Please provide an updated flood assessment to show the extent of flood risk to all new lots, and submit a plan showing the levels and demonstrate there would be no significant changes in levels or benching required to establish the new lots.

Northrop have developed a two-dimensional hydraulic model using ARR2016 of the Tributary 2 catchment as part of a preliminary flood assessment based on the approved strategy proposed by the 2012 Worley Parsons application.

		Date
Prepared by	BH	14/05/2019
Checked by	BC	14/05/2019
Admin	HB	14/05/2019

Detailed design of the online regional detention facility within this precinct is currently underway. As previously discussed with Council, finalisation of the detailed design will show consideration to the full range of design flood events, from the more frequent 50% AEP event up to and including the PMF event. The two-dimensional hydraulic model currently shows that ample detention capacity has been provided within the preliminary design. Updated flooding extents for the 1% AEP and PMF events will be prepared to support the detailed Tributary 2 Basin submission, which once completed will be provided to Council and other interested agencies.

Future development of lots within Huntlee are to be assessed under independent development applications. All flood affected lots are expected to take the flood inundation extents into consideration in order to establish minimum habitable floor levels or appropriate land uses. To aid in assessment of the proposed new lots preliminary flood inundation extents for both the 1% AEP and PMF storm events have been provided – please refer attached Tributary 2 Flood Extent Plan.

As illustrated in the attached, the 1% AEP storm event is not anticipated to have any impact upon the proposed lot within Precinct 16, with only a minor encroachment anticipated during the PMF storm event. No significant changes in levels or benching would therefore be considered necessary to establish the lots.

Cessnock City Council – Flood Information

In their submission dated 25/03/2019 Cessnock City Council requested the following information be provided:

Updated flood information (100 Year Flood Extent and PMF) relating to the Huntlee estate should be provided with every modification to the subdivision layout and should take into account any additional stormwater infrastructure, such as detention basins. Council requires this information to assess the impact of flooding on individual allotments within the estate and for emergency planning and management.

Further to that outlined above for Tributary 2, the anticipated flood extents for the PMF for Tributary 1 has now been provided in addition to the 1% AEP storm event.

The one-dimensional model prepared for the 2015 study 'Catchment Analysis for Online Detention Basin' prepared by Northrop has been updated to include the PMF event. Again, as illustrated the 1% AEP storm event is not anticipated to have any impact upon the proposed new lots with only minor encroachments anticipated during the PMF storm event. No significant changes in level or benching would therefore be considered necessary to establish habitable dwellings within these new lots.

We trust this meets with your requirements however should you have any questions or require further information, please don't hesitate to contact the undersigned on (02) 4943 1777.

Yours sincerely,

Prepared by:



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Ben Clark

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