

Our Reference: NSW210629

22 December 2021

Erilyan P/L  
1/27 Hotham Parade  
ARTARMON NSW 2064

Attention: Mr Mike Ryan

Dear Mike

**Re: Northside West Clinic – Clarification of DPIE Comments**

This statement is prepared in response to the below comments by DPIE and provided to us on 15<sup>th</sup> December 2021.

*The SEARs requirement of ensuring the flood study has regard to the potential effects of climate change, sea level rise and an increase in rainfall intensity has not been addressed. It is noted that the ESD report makes mention of potential flooding increases as a result of climate change.*

We carried out flood analyses and can confirm the proposed development will not be impacted by the effects of climate change, sea level rise and increase in rainfall intensity. Below are the outcomes of the analyses.

**Climate Change and Increase in rainfall intensity**

The proposed development site is not located on the major floodways or flowpaths within the catchment. Our base case 1% AEP flood model event has demonstrated that the site only receives minor overland floodwaters from the adjoining driveway entries. The overland flow entering from its southern driveway entry (labelled as PO\_1 in Table 3 of the original report) is 0.21 m3/s and the one entering from the neighbouring site at 11 Lytton Street (labelled as PO\_3 in Table 3 of the original report) is 0.27 m3/s, with the flood depths less than 250 mm throughout the site.

The NSW Government requires an analysis of sensitivity test with the peak rainfall increment of 10% as one of the measures of climate change (DECC, 2007).

We have applied 10% increase in the rainfall peaks to our base case hydrological and hydraulic models. The model shows no increase in flood discharge value at locations PO\_1 and PO\_3. Consequently, flood level increments were not noticed within the immediate vicinity of the site.

It shows climate change and increase in rainfall intensity have no affect on the proposed development.

Please find the differential depths flood impact map for the climate change scenario attached as Addendum A to this letter.

## Sea Level Rise

The development site at 23-27 Lytton Street, Wentworthville lies within Finlaysons Creek which is a tributary of Toongabbie Creek and Toongabbie Creek is a tributary to the Parramatta River. There are two sets of high-level weir along the Parramatta River downstream of Toongabbie Creek; one located near Marsden Street in Parramatta and another located next to the Parramatta Wharf. The Marsden Street weir, located at RL 4.00 m AHD tentatively, is approximately 2 m in height and acts as a barrier to attenuate flooding from the upstream end and tidal waves from the downstream end.

The NSW sea level rise policy statement requires an adoption of sea level rise by 40 cm by 2050 and 90 cm by 2100 relative to 1990 mean sea levels.

Therefore, we are of the opinion that the affect of such sea level rise to the upstream of Marsden Street weir, including the development site, will be none.

We trust you find the above clarification acceptable.

Should you have any questions or queries in the meantime, please do not hesitate to contact the undersigned.

Yours faithfully,

**ACOR Consultants Pty Ltd**



Kundan Pokharel  
Senior Civil Engineer

Addendum A – Differential depths map for 10% increase in rainfall intensity

