

8 August 2019

Samuel Tucker  
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Dear Sam

**Re: RFI DA0315-2019 – Flood Study Report**

The following responds to the request for information in relation to item no. 3 – Flood Study Report – Planning horizon – E16.0 Invermay/Inveresk Flood Inundation Area Code; E16.7.2 Flood Impact P3.

*Page 7 of the building 3 flood study report states:*

*“A 30-year planning horizon is generally considered an appropriate timescale to foresee likely planning, development and uses within the Launceston region. Therefore, the consideration must be given to the use of likely changes to flood levels and flood behaviour over time, particularly if a proposed development is intended to operate over an extended period.”*

*The ongoing impacts from climate change are well understood from a flood perspective with regard to the changing nature of flood risk on this site, these are well documented in the Building 3 flood study report. However, there is little justification as to the reasoning for the selection of a 30-year planning horizon and therefore selection of a 2050 climate change scenario for consideration.*

Further clarification is sought as to why this design flood event and scenario was chosen and not the more conservative 2090 scenario for considerations at the site.

The 1% AEP flood is commonly used in Australia as the design flood event for managing development within floodplains. It represents an appropriate level of protection for most developments whilst allowing for development such that a reasonable level of residual risk can be accepted

Best practice floodplain management must consider how the flood regime changes over time as it influences flood risk and behaviour. in relation to intended uses. It is prudent for the University to consider how flood risk and flood behaviour changes over time.

We understand the City of Launceston considers development in terms of a 30-year planning horizon. It has also adopted the 1% AEP design flood event as its development criteria. Accordingly, the campus should consider the 1% AEP, 2050 climate change scenario as its minimum criteria. It provides a risk-averse approach to land use planning rather than adopting a current day scenario.

For events of greater magnitude, UTAS are aware of and understand the residual risk.

As presented in Table 1, page 7 of the flood study report, there are many annual exceedance probabilities (AEPs) and climate change scenarios presented. Any of these may be selected as the flood event to set minimum floor

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levels. To select a frequent flood event would expose the intended use to frequent flooding and would not be acceptable. Conversely, to adopt a rarer flood event can restrict uses and sterilise land that may be able to accept the residual risk.

A balance should be adopted where an appropriate level of flood protection is provided, such that the intended use is able to accept the residual risk.

Furthermore, freeboard (500mm) is also applied to the design flood event, requiring floor levels to be at least 500mm above the 1% AEP, 2050 climate change scenario.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Haydn Betts', with a horizontal line extending to the right.

Haydn Betts  
Senior Principal Engineer - Hydraulics