

28th June 2018

Drew Bewsher
Director
Bewsher Consulting
PO Box 352
Epping NSW 1710

Re: DA/1281/2016

Dear Mr Bewsher,

Thank you for your time in meeting with us regarding the planned development at 12 Station Rd, Toongabbie. I understand that you have been contracted to provide an independent review of the flooding issues associated with the aforementioned development. As per our meeting, the NSW SES remains opposed to the development on grounds that will be outlined herein, and this correspondence is largely in response to a letter from Molino Stewart regarding our initial review of the development.

The question was asked of us "Would you have the same objections if the proposed facility was to be located elsewhere in Girraween, between Pendle and Girraween Creeks?" This area will also experience isolation due to flooding, and could also face prolonged loss of power in the event of a major flood. These points are well made within the Molino Stewart comments and the SES does not disagree with the statement that evacuation to this area *"would not change the risks of isolation for the evacuees nor necessarily take them into an area with less risk of loss of power supply."* The concerns in the original SES response regarding the lack of capability for self-sufficiency during extended isolation have not been addressed, particularly:

- Backup power (8hrs) insufficient for prolonged isolation caused by multi-peak flood events (historical floods having ;
- Inability for fire, medical and rescue services to access the site during larger flood events.

These considerations make the site unsuitable for shelter-in-place and late evacuation, reinforcing the position that the site is not suitable for the housing of a vulnerable population. The same considerations apply to the area noted, which is effectively isolated by the two creeks to the east, north and west, and by the M4 Motorway to the south. As such, the NSW SES would have the same objections to a development to house a vulnerable population within that area. An able-bodied population would be able to evacuate on foot as a last resort and would not, as a cohort, face the issues associated with the non-ambulatory

residents of the proposed development. In addition to these issues, NSW Health have advised that they would order the evacuation of a nursing home to which sewerage or water supplies were likely to be cut. The potential for this to occur needs to be investigated with the relevant utility providers.

The Molino Stewart comments note that due to the nature of the Parramatta River catchment, with its extensive network of tributaries, *“large parts of the Upper Parramatta River Catchment could be characterised in this way and therefore arguably would warrant the same emergency response.”* It is agreed that available modelling indicates that there are many areas that would face limitations on evacuation, but each must be considered on its own merits. For example, a very similar situation occurs between the confluences of Coopers and Finlaysons Creeks with Toongabbie Creek, forming an area of isolation that is only able to be evacuated on foot over a railway overpass. The response to a similar proposal in this area would include considerations that are very similar in nature to this case. Other areas within the catchment have varying degrees of freedom in terms of emergency service access, and evacuation potential however, this application does not seek to place a vulnerable population in those areas. The issues faced at the proposed site are not alleviated by conditions experienced at other locations.

The vulnerable nature of the residents is not disputed by either party. Within the Molino Stewart response, reference is made that *“the residents are used to being isolated within the facility and, unlike occupants of other developments, they have no imperative, motivation or ability to independently leave the premises during a flood.”* This does not negate the responsibility of emergency services to effect rescue, or provide medical or fire protection services should such be required. It also does not remove the social and political expectation that a population of elderly residents should not remain trapped within a building surrounded by floodwaters. The statement in the Molino Stewart response that *“The issue is only being raised at this site because it is being filled to create a high flood island rather than it being a naturally occurring high flood island”* is factually incorrect. The issue of the vulnerable nature of the residents is being raised for a range of reasons, as follows:

- it creates an inherent inability for those residents to get to safety without assistance, increasing the likelihood of emergency services to be called upon to effect a rescue;
- it creates a higher probability of advanced medical intervention being required, compared to the general population;

it results in an isolated population that is relatively unable to mount an adequate response to any secondary risks that arise including, but not limited to, fire and medical emergency.

Neither party has disputed the multi-peak nature of previous floods that negate the reliance on a risk assessment of a flood event being limited to the duration of a single hydrograph. The Molino Stewart response notes that neither the 1986 nor the 1988 flood events would have caused isolation of the site. It must be noted that neither of these events reached the 1% AEP level and cannot be taken as the worst-case scenario for flooding on Girraween Creek.

The issue of post-event access cannot be dismissed as being the same as *“any flood free land in Girraween and probably on flood free land in several surrounding suburbs.”* It is agreed that there will be access issues across large areas of Sydney following a significant flood event. It must also be acknowledged that areas within the actual flood extent will face higher levels of damage and debris, and a heavier silt load, compared to areas outside the flood extent that may have experienced overland flooding.

The comments regarding the degree of difficulty of rescue operations refer to the similarity of access to the site, compared to neighbouring flood free areas of Girraween. This is acknowledged, but access is only one stage of any rescue that needs to be considered. After access has been achieved, extrication and transport of casualties are required. In the event that road access is unavailable, there is a significant increase in difficulty and complexity involved with moving a non-ambulant casualty overland to the nearest accessible road access. Furthermore, casualties that are bound to life support equipment will exacerbate rescue requirements, and casualties that require constant care or monitoring (such as those suffering dementia) will consume more rescue resources, or deplete resources remaining at the facility. In addition, NSW Health have identified that all dementia patients must be evacuated to a secure care unit.

The Molino Stewart comments note *“It is self-evident that shelter-in-place is not an evacuation strategy”*. Unless some form of exemption has been granted in the intervening time, the Certificate of Site Compatibility requires the applicant to demonstrate how people dependent on care can be evacuated in case of emergency. The proposal does not demonstrate compliance with the requirement for evacuation to occur.

It is noted from Molino Stewart comments that additional modelling has confirmed that there will be no significant displacement of floodwaters onto neighbouring properties. The NSW SES has not been provided a copy of this data but is confident that the additional modelling will meet the needs of this review, in determining that this is no longer an issue for consideration.

While some of the NSW SES concerns have been addressed, on balance, the NSW SES does not support the proposed development on the grounds that

- it places a vulnerable population within an area not amenable to either shelter-in-place nor evacuation;
- it cannot provide reasonable assurance of self-sufficiency for the potential duration of isolation, raising the potential for a mass rescue of high-dependency casualties from the facility;
- it creates an additional and avoidable burden and risk to rescuers and emergency services.

I trust that the issues above have been covered in sufficient detail. If you require further information, please contact George Jeffreys on 8811 7700 or george.jeffreys@swd.ses.nsw.gov.au

Yours Sincerely

A handwritten signature in black ink, appearing to read 'P. Cinque', is written above the typed name.

Peter Cinque ESM OAM
Sydney Western Region Controller
New South Wales State Emergency Service