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Stephen Dobbs
Department of Planning, Housing & Infrastructure
Locked Bag 5022
Parramatta NSW 2124

Via Major Portal

email: stephen.dobbs@dpie.nsw.gov.au
CC: Amanda.pollock@ses.nsw.gov.au

Dear Stephen,

Environmental Impact Assessment for Seniors Housing IRT Woonona Redevelopment

Thank you for the opportunity to provide comment on the Environmental Impact Assessment (EIS) for Seniors Housing IRT Woonona Redevelopment, 4-6 Popes Road Woonona. It is understood that the proposed re development consists of:

- Five apartment buildings containing Independent Living Units, consisting of 98 dwellings
- Adaptive reuse of an existing church, to provide a café and staff amenities
- Alterations/additions to the existing residential care facility
- Wellness hub
- New basement level and at-grade parking for 182 car spaces

The NSW State Emergency Service (NSW SES) is the agency responsible for dealing with floods, storms and tsunami in NSW. This role includes, planning for, responding to and coordinating the initial recovery from floods. As such, the NSW SES has an interest in the public safety aspects of the development of flood prone land, particularly the potential for changes to land use to either exacerbate existing flood risk or create new flood risk for communities in NSW.

The NSW SES recommends that consideration of flooding issues is undertaken in accordance with the requirements of NSW Government's Flood Prone Land Policy as set out in the [Flood Risk Management Manual](#) 2023 (the Manual) and supporting guidelines, including the [Support for Emergency Management Planning](#) and relevant planning directions and circulars relating to the *Environmental Planning and Assessment Act, 1979*. Some of the issues which are of concern to the NSW SES are detailed in Attachment A.

In summary, NSW SES:

- **Note** that the site is known to be at risk of isolation by high hazard flooding in relatively frequent flash flood events.

- **Note** that all openings to the basement (ramp, vents, etc) and floor levels are proposed to be above the Probable Maximum Flood (PMF).
- **Recommend** updating the Flood Risk Assessment to include:
 - more frequent flooding to understand how frequently the site becomes isolated
 - longer duration modelling of the PMF
 - the flood afflux up to and including the PMF
 - the duration of flooding under various scenarios.
 - maps for the post developed scenario that show the flooding across the site, as currently the maps are zoomed in to exclude the highest flood risk area to the south of the site.¹
- **Recommend** adopting flood resilient site design and supporting infrastructure for the proposed development.
- **Recommend** developing a testing, monitoring and review schedule for the flood emergency plan. FERPs should be regularly exercised, similar to building fire evacuation drills and updated at regular intervals and whenever additional flood information is available or highlighted during the drills or flood events, noting that this is difficult to enforce post-consent.
- **Highlight** that NSW SES does not have the authority to endorse and/or approve Flood Emergency Response Plans.
- **Recommend** ensuring the principles in the [Shelter in Place Guideline](#) (DPHI, 2024) have been addressed. Acknowledging that the site is an existing facility, we emphasise that the '*shelter in place*' strategy, also known as '*vertical evacuation*', is not an endorsed flood management strategy by the NSW SES for *future development*.

You may also find the following Guidelines available on the NSW SES website useful:

- [Reducing Vulnerability of Buildings to Flood Damage](#)
- [Designing Safer Subdivisions](#)
- [Managing Flood Risk Through Planning Opportunities](#)

Please feel free to contact Gillian Webber via email at rra@ses.nsw.gov.au should you wish to discuss any of the matters raised in this correspondence. The NSW SES would also be interested in receiving future correspondence regarding the outcome of this referral via this email address.

Yours sincerely,



Elspeth O'Shannessy
Manager Emergency Risk Assessment
NSW State Emergency Service

¹ Accor. 2025. Flood Report: IRT Woonona – 4-6 Popes Road, Woonona Appendix C

ATTACHMENT A: Principles Outlined in the Support for Emergency Management Planning Guideline²

Principle 1 Any proposed Emergency Management strategy should be compatible with any existing community Emergency Management strategy.

Any proposed Emergency Management strategy for an area should be compatible with the strategies identified in the NSW State Flood Plan³ and the Illawarra Flood Emergency Sub Plan⁴ where evacuation is the preferred emergency management strategy for people impacted by flooding.

In summary, 'shelter in place' strategy is not an endorsed flood management strategy by the NSW SES for *future* development. Such an approach is only considered suitable for existing dwellings where the risk of staying is lower than the risk of evacuating, without increasing the number of people subject to such risk/s.

A basic principle of emergency management is to separate people from hazards. Given that it is rare to be able to move the hazard, the most widely accepted method of doing so is to implement evacuation. When the option for evacuation is denied and the hazard cannot be moved then a dangerous situation remains that requires the highest level of monitoring and intervention. This will be at a time when resources are in abnormally high demand.

There is no known safe period of isolation, however, the longer the period of isolation, the more chance there is for mishap requiring external intervention. Even relatively brief periods of isolation, in the order of a few hours, can lead to personal medical emergencies that have to be responded to. During flooding it is likely that there will be a reduced capacity for the relevant emergency service agency to respond in these times.

Acknowledging the site is an existing development, the flash flood risk, the occupants' vulnerability and that under the Wollongong DCP 2009 flood refuges are permitted in the Collins Creek floodplain we recommend ensuring consistency with the NSW Government Shelter in Place Guidelines.

Emergency services are also exposed to greater risks than if flood-free access was available. This unnecessarily exposes emergency service personnel to flood situations which may lead to injury or death. In recognition of this possibility, emergency services are under an increasing demand to consider the safety of personnel. Each circumstance must be subject to an individual risk assessment at the time. If, after conducting a risk assessment of an incident, a Commander or team leader is unsatisfied with the level of risk involved, the response will be delayed until the risk can be reduced or is no longer present.

² NSW Government. 2023. Principles Outlined in the Support for Emergency Management Planning Guideline

³ NSW Government. 2024. NSW State Flood Plan. Section 5.1.7, page 34.

⁴ NSW SES. 2022. Illawarra Flood Emergency Sub Plan

Principle 2 Decisions should be informed by understanding the full range of risks to the community.

Decisions relating to future development should be risk-based and ensure Emergency Management risks to the community of the full range of floods are effectively understood and managed, up to and including the probable maximum flood (PMF). The Flood Impact Assessment includes consideration of the flood risk from both the stormwater drainage to the north of the site, and Collins Creek to the south of the site. Climate change considerations have been included for the 1% AEP scenario⁵.

It is noted that the site itself is partially prone to flooding from the stormwater channel to the north and Collins Creek to the south, in both the pre and post development conditions. In a 1% AEP flood, the hydraulic hazard reaches H5 and H6 in sections of the site. This is unsafe for people, vehicles and buildings may be subject to structural damage. The site loses access from all roads from around the 20% AEP, becoming isolated by high hazard flood waters^{6 7}. Isolation can occur for 2 hours, however we recommend ensuring longer duration flood events are also considered to confirm consistency with the NSW Government Shelter in Place Guidelines. Historical events often have longer time of isolation than design events due to them often being caused by east coast lows that can be more prolonged.

The proposed development has been identified to broadly decrease the flood risk with an increase flooding on an adjacent boundary in a 1% AEP by 40mm and an increase in the drainage channel, however the afflux in rarer floods has not been included. We recommend including:

- more frequent flood events to understand the frequency of driveway flooding and potentially investigate design solutions to manage the risks
- the flood afflux up to and including the PMF
- the duration of flooding under various scenarios, including longer duration flood events
- maps for the post developed scenario that show the flooding across the site, as currently the maps are zoomed in to exclude the highest flood risk area to the south of the site.⁸

⁵ Accor. 2025. Flood Report: IRT Woonona – 4-6 Popes Road, Woonona

⁶ Water Technology. 2025. Evacuation Capability Assessment: Woonona Retirement Village

⁷ Accor. 2025. Flood Report: IRT Woonona – 4-6 Popes Road, Woonona

⁸ Accor. 2025. Flood Report: IRT Woonona – 4-6 Popes Road, Woonona Appendix C

Evacuation of hospitals and aged care can be complex and is known to be associated with an increased rate of mortality in patients and nursing facility residents.^{9 10 11} To minimise disruption to essential services, and to reduce the risks associated with evacuation of aged care facilities, the NSW 2022 Flood Inquiry recommends essential services infrastructure is situated as much as possible above the flood planning level and the PMF. We understand that the Flood Planning Level (FPL) is equivalent to the PMF plus 0.5 metres freeboard, which is the minimum floor level required for proposed buildings part of an aged care facility. In addition, we note that all buildings will be entirely beyond the extent of the PMF, with the exception of the western boundary of “Building A”.¹² We understand and support that the basement car parking will be passively protected above the PMF level¹³.

Principle 3 Development of the floodplain does not impact on the ability of the existing community to safely and effectively respond to a flood.

Principle 4 Decisions on development within the floodplain does not increase risk to life from flooding.

Managing risks associated with High Flood Islands requires careful consideration of development type, likely users, and their ability respond to minimise their risks. This includes consideration of:

- Isolation – There is no known safe period of isolation in a flood, the longer the period of isolation the greater the risk to occupants who are isolated.
- Secondary risks – This includes fire and medical emergencies that can impact on the safety of people isolated by floodwater. The potential risk to occupants needs to be considered and managed in decision-making.
- Consideration of human behaviour – The behaviour of individuals such as choosing not to remain isolated from their family or social network in a building on a floor above the PMF for an extended flood duration or attempting to return to a building during a flood, needs to be considered.

Principle 5 Risks faced by the itinerant population need to be managed.

Any Emergency Management strategy needs to consider people visiting the area or using a development, including visitors and staff. Under the proposed development there could be up to 386 people on site at any given time, including residents, staff and visitors.¹⁴ Therefore

⁹ Terui, T., Kunii, Y., Hoshino, H., Kakamu, T., Hikada, T., Fukushima, T., Anzai, N., Gotoh, D., Miura, I., Yabe, H. 2021. Long-term observation of mortality among inpatients evacuated from psychiatric hospitals in Fukushima prefecture following the Fukushima nuclear disaster. *Science Reports* 11, 14651.

¹⁰ Rojek A, Little M. 2013. Review article: evacuating hospitals in Australia: what lessons can we learn from the world literature? *Emergency Medicine Australasia*. DOI: [10.1111/1742-6723.12160](https://doi.org/10.1111/1742-6723.12160)

¹¹ NSW Government. 2016. Evacuation Decision Guidelines for Private Health and Residential Care Facilities.

¹² Accor. 2025. Flood Report: IRT Woonona – 4-6 Popes Road, Woonona

¹³ Water Technology. 2025. Evacuation Capability Assessment: Woonona Retirement Village

¹⁴ Water Technology. 2025. Evacuation Capability Assessment: Woonona Retirement Village

any refuge should ensure adequate space and resources are available for all persons on-site, consistent with the NSW Government Shelter in Place Guidelines.

Principle 6 Recognise the need for effective flood warning and associated limitations.

As the site is subject to flash flooding, there is little to no opportunity for the community to respond to a flood threat in an appropriate and timely manner. Isolation can occur as quickly as within 15 minutes from the start of rainfall, and therefore there is insufficient time available to safely evacuate. Severe Weather Warnings are likely to be the most relevant warnings for the area prior to the onset of any flooding, however these are not quantitative with regards to timing and depth of flooding.

NSW SES utilises the Australian Warning System which is a nationally consistent, three-tiered approach to issue clear warnings and lead people to take action ahead of severe weather events. The three warning tiers consist of Advice, Watch and Act and Emergency Warning. These warnings can be viewed on the SES website and the HazardWatch website and app.

Principle 7 Ongoing community awareness of flooding is critical to assist effective emergency response.

Development in a floodplain will increase the need for NSW SES to undertake continuous community awareness, preparedness, and response operations.

The flood risk at the site and actions taken to reduce risk to life should be communicated to all site users (includes increasing risk awareness, community connections, preparedness actions, appropriate signage and emergency drills) during and after the construction phase. However, it is important to note that the NSW SES is opposed to the imposition of development consent conditions requiring private flood evacuation plans rather than the application of sound land use planning and flood risk management.

We suggest investigating mechanisms to improve the process of relying on visually inspecting the driveway and Princess Highway every 20 minutes, particularly given the rate of rise may see the site isolated within 15 minutes.¹⁵ However, we emphasise that NSW SES does not have authority to endorse or approve FERPs.

¹⁵ Water Technology. 2025. Flood Emergency Response Plan: Woonona Retirement Village