

Our Ref: ID 3060
Your Ref: SSD-45576956

2 June 2025

Patrick Nash
Department of Planning, Housing & Infrastructure
Locked Bag 5022
Parramatta NSW 2124

Via Major Portal

email: patrick.nash@planning.nsw.gov.au
CC: helen.slater@ses.nsw.gov.au

Dear Patrick,

**State Significant Development Application for CMRI Gene Technologies Building
Westmead**

Thank you for the opportunity to provide comment on the State Significant Development Application for CMRI Gene Technologies Building Westmead, 214 Hawkesbury Road, Westmead. It is understood that the proposed development seeks approval for:

- Demolition of the existing 1992 CMRI building.
- Construction of an 8-storey building including one subterranean basement level for dry workspace and wet laboratories (known as phase 2A building).
- Construction of a 10-storey building plus one subterranean basement level for wet laboratories, dry workspace, logistics and stores, communal space, discovery centre and end of trip facilities (known as phase 2B building).
- Retention and upgrading of the overhead pedestrian link connecting CMRI to the Kids Research Building at level 3.
- A basement carpark to accommodate approximately 47 vehicles.
- Vehicular access routes via Research Lane (servicing and car park access) and CHW forecourt (shared zone and emergency access).
- Associated earthworks and remediation.
- Tree removal.
- Landscaping including replacement tree planting.

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 under the *Environmental Planning and Assessment Act, 1979*. Some of the key considerations relating to emergency management are further detailed in Appendix A.

In summary, we:

- **Note** the site is affected by flooding along the north-western and north-eastern boundaries of the site as frequently as the 20% Annual Exceedance Probability (AEP) event.¹ During the Probable Maximum Flood (PMF) the site becomes a High Flood Island, with *"the area near the north-western site boundary are as deep as 1.6m"*.²
- **Recommend** seeking further information regarding the *"flood mitigation measures (have been) proposed (i.e. in the form of flood barriers or flood doors) on openings around the perimeter of the proposed building"*.³
- **Recommend** seeking further information regarding the duration of inundation for the site and surrounding streets to ensure the proposal is compatible with the Shelter-In-Place guidelines for Flash Flooding referenced in section 6 of the Flood Assessment Report.
- **Recommend** ensuring that all openings to the basement (ramp, vents, etc) are situated above the Probable Maximum Flood (PMF), or reconsidering basement carparking if this is not feasible to reduce risk to life and property.
- **Recommend** pursuing, where relevant, site design and stormwater management that minimises any risk to the community. Any improvements that can be made to reduce flood risk will benefit the current and future community.
- **Recommend** considering the impacts of climate change. It is estimated that the actual probability of a 1 in 100 AEP for the Parramatta River is approximately a 1 in 55 AEP event for the current 2024 scenario.⁴ For the proposed development site, this could result in more frequent inundation and/or isolation than what is currently expected based on previous modelling.

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](#)

¹ Stantec, 2024, Parramatta River Flood Study, Figure F2.23 Flood Depth 20% AEP, Part 3 Appendix F, Page 26

² TTW, 2025, Flood Assessment Report, PMF Event, Page 33

³ TTW, 2025, Flood Assessment Report, PMF Event, Page 33

⁴ WMAwater. 2024. Climate Change Calculator. Retrieved 28 May 2025 from <https://ccc.wmawater.com.au/>

Please feel free to contact Kate Dawes 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,



Peter Cinque
Senior Manager, Emergency Risk Management
NSW State Emergency Service

ATTACHMENT A: Principles Outlined in the Support for Emergency Management Planning Guideline⁵

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 evacuation strategies identified in the NSW State Flood Plan⁶ and the Parramatta LGA Flood Emergency Sub Plan, where evacuation is the preferred emergency management strategy for people impacted by flooding.⁷

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.

Further, risk assessment should consider the full range of flooding, including events up to the Probable Maximum Flood (PMF) and not focus only on the 1% AEP flood. Climate change should also be considered. It is noted that the site itself is prone to be affected by flooding along the north-western and north-eastern boundaries of the site as frequently as the 20% Annual Exceedance Probability (AEP) event.⁸ During the Probable Maximum Flood (PMF) the site becomes a High Flood Island, with *“the area near the north-western site boundary are as deep as 1.6m”*⁹, and reach Hazard Level 5 (H5) in isolated areas.¹⁰ This level of hazard is unsafe for all people and vehicles with buildings requiring special engineering construction and design.

Section 6 of the Flood Assessment Report outlines a proposed Shelter-In-Place strategy in alignment with the Shelter-In-Place for Flash Flooding Guidelines, however sufficient information to determine the suitability of this approach has not been determined. We recommend pursuing further information regarding the level of hazard and duration of inundation for the site and ensuring consistency with the NSW Government Shelter in Place Guideline¹¹.

⁵ NSW Government. 2023. Principles Outlined in the Support for Emergency Management Planning Guideline

⁶ NSW Government. 2024. NSW State Flood Plan. Section 5.1.7, page 34

⁷ NSW SES, Parramatta LGA Flood Emergency Sub Plan, Endorsed December 2023, Section 5.8

⁸ Stantec, 2024, Parramatta River Flood Study, Figure F2.23 Flood Depth 20% AEP, Part 3 Appendix F, Page 26

⁹ TTW, 2025, Flood Assessment Report, PMF Event, Page 33

¹⁰ TTW, 2025, Flood Assessment Report, Figure 39 PMF Hazards – Post Development Conditions, Page 35

¹¹ Department of Planning, Housing and Infrastructure, 2025, Shelter in place guideline for flash flooding.

We also request further information regarding the *“flood mitigation measures (have been) proposed (i.e. in the form of flood barriers or flood doors) on openings around the perimeter of the proposed building”*.¹² While the Flood Assessment Report refers to *“TTW’s civil design drawings attached within TTW’s SSDA Civil Engineering Report Revision B (Appendix B)”*¹³ these plans appear to contain only the proposed locations of these mitigation measures, with no information provided regarding the level of protection these are proposed to provide or their operation. Consideration should also be given to the impact on the development of failure of these features, particularly in the case of flood doors relying on human behaviour to ensure correct operation during flood events.

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

The ability of the existing community to effectively respond (including self-evacuating) within the available timeframe on available infrastructure is to be maintained. It is not to be impacted on by the cumulative impact of new development.

Risk assessment should have regard to flood warning and evacuation demand on existing and future access/egress routes. Consideration should also be given to the impacts of localised flooding on evacuation routes. Evacuation must not require people to drive or walk through flood water.

Development strategies relying on an assumption that mass rescue may be possible where evacuation either fails or is not implemented are not acceptable to the NSW SES.

Basements have inherent risks to life and property¹⁴ and can often restrict safe evacuation of the occupants. This can be managed through building design, such as crest levels above a certain level (e.g. the PMF) to prevent water ingress and flooding. While it is noted the *“Levels are raised providing a crest to the basement entry ramp to ensure no overland flow from Research Lane enters the basement”*¹⁵ we recommend this is extended to all openings including vents.

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

Managing flood 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:

¹² TTW, 2025, Flood Assessment Report, PMF Event, Page 33

¹³ TTW, 2025, Flood Assessment Report, PMF Event, Page 33

¹⁴ Collier, L. Phillips, B., and Griffin, M. 2017. Basement Development in the Floodplain. Floodplain Management Australia Conference. Newcastle, 2017

¹⁵ TTW, 2025, Flood Assessment Report, Car Parking and Driveway Access, Page 44

- 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.

During flooding it is likely that there will be a reduced capacity for the relevant emergency service agency to respond in these times. 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. The intensification of population in areas which become isolated due to roadway flooding risks increasing the reliance on emergency services for rescue and resupply during significant flood events.

Current evidence suggests that flood events will become more frequent due to climate change. A Climate Change Calculator has been developed to address the updated ARR climate change guidelines (Wasko et al, 2024), recommending the adjustment of the BoM 2016 IFDs to account for the warming that has occurred since the mid-point of the data used for their development (1961-1990). This results in a significant increase in existing conditions flood levels.¹⁶

The change in flood probabilities with climate change for the Parramatta River results in the new probability of the 1 in 100 AEP to be approximately 1 in 55 AEP event for the current 2024 scenario, becoming even more frequent in the future.¹⁷ For the proposed development site, this could result in more frequent inundation and/or isolation than what is currently expected based on previous modelling.

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.

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

An effective flood warning strategy with clear and concise messaging understood by the community is key to providing the community an opportunity to respond to a flood threat in an appropriate and timely manner.

¹⁶ Babister et al. 2024. Climate Change Calculator: Estimating Changes to Flood Probability Under Different Climate Change Scenarios, page 1

¹⁷ WMAwater. 2024. Climate Change Calculator. Retrieved 28 May 2025 from <https://ccc.wmawater.com.au/>

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.

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.

Development in a floodplain will increase the need for NSW SES to undertake continuous community awareness, preparedness, and response requirements. Residents and users of the proposed development should be made aware of their flood risk, the [Hazards Near Me](#) app (a tool to receive flood warnings as part of the Australian Warning System) and the [NSW SES website](#) which contains comprehensive information for the general community about what to do before, during and after floods as well as in-language resources and HazardWatch (NSW SES interactive information and warnings site).