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Your Ref: SSD-60316710

1 May 2024

Thomas Dales
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Locked Bag 5022
Parramatta NSW 2124

Via Major Portal

email: thomas.dales@dpie.nsw.gov.au
CC: lisa.ignatavicius1@ses.nsw.gov.au

Dear Thomas,

Environmental Impact Assessment for Lingard Private Hospital Expansion

Thank you for the opportunity to provide comment on the Environmental Impact Assessment (EIS) for Lingard Private Hospital Expansion at 23 Merewether Street and 19-27 Hopkins Street, Merewether. It is understood that the proposed development will result in site area of 16,332m² with 213 total beds and includes the following:

General Works Between Hopkins and Lingard Precincts

- Construction of an internal service road connecting Tye Road to Merewether Street;
- Two link bridges over Tye Road to connect the two new first floor wards;
- General landscaping, stormwater, and services upgrades.

Hopkins Precinct

- Demolition of the existing residential buildings;
- Construction of the two-storey Hopkins Street building including:
 - Lower ground car park (42 spaces), bike storage area, water tanks, and services rooms;
 - Ground floor including medical clinic floor area, car park area (87 spaces), and oxygen and gas enclosures;
 - 1st floor ward area; and
 - Rooftop lift overrun and stair lid for rooftop access.

Lingard Precinct

- Demolition works in the northeast portion of the existing hospital;
- Alterations and additions to the existing hospital, including a new Level 2 ward, 4 new ground floor operating theatres; new biomed workshop and bulk store; new first floor ward and new upper level second ward.

STATE HEADQUARTERS

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Kingsland Precinct

- Construction of an additional floor atop the existing Kingsland day surgery building.

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, acknowledging the site is an existing hospital, **we recommend:**

- **Careful consideration** of the flood risks at the site, including risk to life, property and the construction and operation of the three precincts up to and including the Probable Maximum Flood (PMF) and including under climate change conditions.
- **Ensuring** there is a robust flood emergency management plan (FERP) to address all aspects of a flood emergency, noting NSW SES does not have the authority to approve such a plan.
- **Pursuing** flood resilient site design and supporting infrastructure.

You may also find the following Guidelines, originally developed for the Hawkesbury Nepean Valley and available on the NSW SES website useful:

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

Please feel free to contact Suede Stanton-Drudy 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,

A handwritten signature in black ink, appearing to read 'Elspeth O'Shannessy'.

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

ATTACHMENT A: Principles Outlined in the Support for Emergency Management Planning Guideline¹

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 relevant local or state flood plan or by the NSW SES. According to the NSW State Flood Plan² and the City of Newcastle Flood Emergency Sub Plan 2022, evacuation is the primary emergency management strategy for people impacted by flooding in this area. However, we note evacuation of hospitals can be complex and is known to be associated with an increased rate of mortality in patients³.

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 considerations should also be included.

The site is located on a Low Flood Island. Low Flood Islands represent a significant risk factor that would be best avoided for development due to the difficulties in carrying out large scale evacuation operations, resulting a large risk of mass rescue.

Parts of the site are inundated during a 1% AEP⁴, with the surrounding roads impacted in very frequent flood events (for example the 50% AEP)⁵. During a PMF event the entire site becomes inundated, and sections of the site including surrounding roads can become flooded up to 2 metres⁶. The area has flooded multiple times in the past. The site is also in a tsunami evacuation zone.

The flood certificates show that the highest possible hazard at the site is H3 - Unsafe for vehicles, children and the elderly⁷. The certificates show the lower eastern corner of the Lingard precinct is a flood storage area, together with Merewether and Lingard Streets. It is noted that the location of the driveway entrance and exit to the hospital on Merewether

¹ NSW Government. 2023. Principles Outlined in the Support for Emergency Management Planning Guideline

² NSW Government. 2021. NSW State Flood Plan. Section 1.6 – Key Principles. 1.6.2, page 5.

³ NSW Government. 2016. Evacuation Decision Guidelines for Private Health and Residential Care Facilities.

⁴ Draft Throsby, Styx & Cottage Creek Flood Study 2022, Figure 7-7 and Throsby, Styx & Cottage Creek Flood Study 2008, Figure 6-80

⁵ Draft Throsby, Styx & Cottage Creek Flood Study 2022, map G320c

⁶ Draft Throsby, Styx & Cottage Creek Flood Study 2022, Map G308c and Throsby, Styx & Cottage Creek Flood Study 2008, Figure 6-100

⁷ Australian Institute for Disaster Resilience, *Australian Disaster Resilience Guideline 7-3: Flood hazard*, 2017 p.11

Street is flood storage area, as is the proposed Tye Road extension which connects with Merewether Street.

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.

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

Managing risks associated with flooding at this site 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.

We note the proposal for basement car parking at Hopkins Precinct providing a total of 42 car park spaces and a bike storage area, with the crest level to be set at the 1% AEP plus 300mm freeboard in line with the previous approvals. Basement car parks have inherent risks to life and property⁸ 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. Building designs which put cars or other property under the refuge area may encourage people to take risks to save these items, and therefore is not preferred for future development.

⁸ Collier, L. Phillips, B., and Griffin, M. 2017. Basement Development in the Floodplain. Floodplain Management Australia Conference. Newcastle, 2017.

Particular attention should be paid to the Newcastle Local Environmental Plan 2012 which has adopted the Part 5.22 Special Flood Considerations applicable to hospitals⁹.

The NSW 2022 Flood Inquiry (the Inquiry) Recommendation 28 highlights that sensitive uses are known to have a higher risk to life and warrant the consideration of the impacts of even rarer flood events than the 1% AEP flood extent. This includes the impacts of essential services infrastructure disruption on the proposed development. The Inquiry recommends sensitive uses are situated on land outside the probable maximum flood (PMF) extent and essential services infrastructure is situated above the flood planning level to minimise disruption.

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, noting that the roadways are frequently flooded impacting on safe access and egress during flood events.

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

As the site is subject to flash flooding, there is little opportunity for the community to respond to a flood threat in an appropriate and timely manner.

NSW SES provides the following additional site-specific recommendations that need to be considered to minimise the increase in risk to life due to development in flash flood environments:

Commercial development (including retail):

All ground floor businesses and retail floors must be above the 1% AEP flood levels and access to the basement must be above PMF. There must also be the provision of sufficient readily accessible habitable areas above the PMF to cater for the safety of potential occupants, clients and visitors in commercial development.

Sensitive development:

Any sensitive facilities must be located with floor levels above the PMF level. At a minimum there should be access to adequate space above the PMF for patients, school students, staff and visitors where the facility is not intended to be evacuated outside the floodplain.

Making buildings as safe as possible to occupy during flood events:

To ensure buildings are as safe as possible to occupy during flood events, buildings must be designed for potential flood and debris loadings of the PMF so that structural failure is avoided during a flood.

Limiting exposure of people to floodwaters:

This can be aided by providing sufficient readily accessible areas above the PMF to cater for potential occupants, clients and visitors. Building security and access should ensure accessibility to habitable areas within the building above the PMF.

⁹ Newcastle Local Environmental Plan 2012, Part 5, clause 5.22

Car parking:

Any additional parking should be above ground level to facilitate safe and effective vehicular evacuation and have pedestrian access to a podium level above the PMF to increase human safety. Pedestrian evacuation and shelter in place are not appropriate primary flood risk management strategies.

Provision of publicly accessible space for the itinerant population in areas surrounding intensive development:

Provision of publicly accessible space above the PMF, with adequate infrastructure to enable the physically impaired to access such space, that is easily accessible 24 hours a day for seven days a week which is clearly identified for this purpose with associated directional signage.

Reducing human behaviour risks:

Undertaking regular exercising of a building flood emergency response plan similar to a building fire evacuation drill with the provision to allow people from lower floors and off the street to access refuge areas above PMF. This may also include emergency warning notification (or PA) system to reduce the risks to the itinerant population as well as any occupants moving in and out of the building.

Providing adequate services so people are less likely to enter floodwaters:

This includes access to ablutions, water, power and basic first aid equipment. Consideration must be given to the availability of on-site systems to provide for power, water and sewage services for the likely flood duration of surrounding areas (up to 12 hours) plus a further 48 hours to provide allowance for restoration of external services.

Addressing secondary risks of fire and medical emergencies during floods:

To minimise the increased risk of fire and to reduce both the potential for adverse outcomes in the case of a medical emergency and the risks to those who may aid the patient, Council, DPE, NSW SES, Ambulance NSW and the relevant Health Functional area and fire agency servicing the area, should be consulted to determine appropriate risk management strategies during flooding.

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.

Acknowledging the site is an existing location, whether or not the works are approved, we recommend updating any existing emergency management plan to consider the flood risk up to and including the PMF. NSW SES does not have legislated authority to approve such plans.

However, the plan should be robust, thorough and detailed enough to address all aspects of a flood emergency including responsibilities, transportation, medical emergency, vulnerabilities, flood forecasting and warning, flood emergency response triggers, evacuation and shelter in place procedures and capability assessments, and plan dissemination and review. This list is not exhaustive. The FEMP should advise the ill or vulnerable who have specific support requirements with respect to mobility, special needs, medications and management to ensure they continue to receive appropriate care and information. Any plan should include a review mechanism for updating the plan at regular intervals and whenever additional flood information is available or highlighted during a flood events.

Additional 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).