

Our Ref: ID2754

Your Ref: PP-2022-2790

26 November 2024

Renee Ezzy Department of Planning, Housing & Infrastructure Locked Bag 5022 Parramatta NSW 2124

email: renee.ezzy@dpie.nsw.gov.au CC: shelly.stingmore@ses.nsw.gov.au

Dear Renee,

Planning Proposal for 67-75 Lords Road, Leichhardt

Thank you for the opportunity to provide comment on the Planning Proposal for 67-75 Lords Road, Leichhardt. It is understood that the planning proposal seeks to rezone the following:

- 75 Lords Road, from E4 General Industrial to RE1 Public Recreation
- 67-73 Lords Road, E4 General Industrial to R3 Medium Density, with
 - 30m maximum height of buildings
 - o 2.4:1 maximum FSR.
 - Residential flat buildings to be included as an additional permitted use.

We also note the proposed design accompanying the Planning Proposal includes¹:

- Four buildings, ranging from 6 to 8 storeys, including approx. 210 dwellings
- Street wall up to 4 storeys along the eastern boundary
- Approx 1400sqm private communal open space for residents
- Approx 1700sqm non-residential floor space
- One basement level, including²
 - 163 vehicle parking spaces
 - 1200m³ compensatory flood storage
 - o Plant room
 - Loading and bin room

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.

² Tooker + Associates, 2024, Lords Rd Leichhardt FIRA Report, Figure 5, page 19



STATE HEADQUARTERS

¹ SJB Urban, Jan 2024, 67-75 Lords Road Masterplan – Urban Design Report, page 10



The consent authority will need to ensure that the planning proposal is considered against the relevant Section 9.1 Ministerial Directions, including 4.1 – Flooding and is consistent with the NSW Flood Prone Land Policy as set out in the <u>Flood Risk Management Manual</u> 2023 (the Manual) and supporting guidelines, including the <u>Support for Emergency Management Planning</u>. Key considerations relating to emergency management are outlined in Attachment A.

In summary, we:

- **Note** the site becomes impacted by floodwater and isolated by road during a 1% Annual Exceedance Probability (AEP) flood.³
- Note the planning proposal states it will rely on "compensatory flood storage" 4 to "overcome any adverse impacts on flood levels outside the site" 5 6, and therefore recommend seeking advice from the Department of Climate Change, Energy, the Environment and Water.
- Request the full Water Technology report is provided⁷ or the Flood Risk Impact Assessment is updated, in accordance with the NSW Government Guidelines, to include:
 - o depth, velocity and hydraulic hazard of any flooding for the full range of flood extents up to the PMF.
 - o an assessment of the flood risk on site and surrounding access/egress routes
 - o climate change considerations
 - o time to onset, duration of inundation
- **Recommend** several considerations regarding the proposed design for the site, see Principle 2 in Attachment A for further details.

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
- Designing Safer Subdivisions
- Managing Flood Risk Through Planning Opportunities

Please feel free to contact Claire Flashman 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

³ WMA Water, 2020, Dobroyd Canal and Hawthorne Canal Floodplain Risk Management Study and Plan

⁴ Tooker + Associates, 2024, 67-75 Lords Road Leichhardt Planning Proposal Flood Risk Assessment, page 12

⁵ Tooker + Associates, 2024, *67-75 Lords Road Leichhardt Planning Proposal Flood Risk Assessment*, page 12

⁶ Tooker + Associates, 2024, 67-75 Lords Road Leichhardt Planning Proposal Flood Risk Assessment, Figure 1, page 15

⁷ Tooker + Associates, 2024, *67-75 Lords Road Leichhardt Planning Proposal Flood Risk Assessment*, Section 7 Planning and Policy Framework – Flood Risk Management, Page 5



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



ATTACHMENT A: Principles Outlined in the Support for Emergency Management Planning Guideline⁸

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 relevant local or state flood plan or by the NSW SES.

According to the NSW State Flood Plan⁹ and the Inner West Council Flood Emergency Sub Plan,¹⁰ evacuation is the primary emergency management strategy for people impacted by flooding.

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. Climate change considerations should also be included, in line with NSW Government Guidelines. It is noted that the site itself is prone to flooding in a 1% AEP flood event, with flood depths of greater than 2m on the western portion of the site during a PMF. 11

NSW SES has previously provided advice to Inner West Council regarding the flood risk for the Taverners Hill precinct, and note the precinct currently becomes isolated by flood waters as frequently as a 50% Annual Exceedance Probability (AEP) event¹² and impacted by depths in excess of 4 metres during a Probable Maximum Flood (PMF) event.¹³ These depths are not safe for people or vehicles and all buildings exposed to these hazards are considered vulnerable to failure.

The Flood Risk Impact Assessment as provided includes mapping only for afflux¹⁴ and should be updated to include the depth, velocity and hydraulic hazard of any flooding for the full range of flood extents up to the PMF, an assessment of the flood risk on site and surrounding access/egress routes, climate change considerations and time to onset, duration of inundation. This will provide a better understanding of the risks to life and property associated with residential development at this location. While the Flood Risk Impact report states "Flood modelling has been undertaken specifically for the subject site by Water Technology so that

⁸ NSW Government. 2023. Principles Outlined in the Support for Emergency Management Planning Guideline

⁹ NSW Government. 2021. NSW State Flood Plan. Section 1.6 - Key Principles. 1.6.2, page 5.

¹⁰ NSW SES, 2023, *Inner West Council Flood Emergency Sub Plan*, Section 5.8 Evacuation, page 17

¹¹ WMS, Nov 2023, Appendix 5 – Flood Impact Risk Assessment, Appendix C-10

¹² Hawthorne Canal Flood Study 2015

¹³ WMS, Nov 2023, *Parramatta Road Corridor Appendix 5 – Flood Impact Risk Assessment,* Section 3.3, page 16

¹⁴ Tooker and Associates, 2024, Flood Risk and Impact Assessment, Figures, Page 14-19



there is a detailed understanding of the flood behaviour and constraints for the full range of floods from the 20-year ARI to the PMF flood^{15"} these figures have not been included in the Flood Risk Impact Assessment from Tooker and Associates and the full Water Technologies report has not been provided as part of this proposal, therefore, cannot be reviewed by NSW SES.

Regarding the proposed design, we also recommend the following:

- Ensure 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.
- Relocate the waste storage to be above the PMF, to reduce risks of exposing persons onsite or downstream to polluted floodwater.
- Relocating of plant rooms from the basement to be above the Probable Maximum Flood (PMF), to minimise disruption to essential services.
- Consider safety features for any proposed lifts, to ensure that floodwater does not enter the lift and ensure people do not exit into flooded areas.
- Any proposed refuge location should be above the height of the PMF, and aligns with the Red Cross Preferred Sheltering Practices for Emergency Sheltering in Australia², including water supply, waste management, sanitation, food, and shelter and space management.
- Consider the resilience of facilities likely to become flooded, for example by installing
 washable finishes or removable infrastructure which would otherwise be likely to be
 damaged or contaminated by flood water, and locating power outlets above the
 Probable Maximum Flood (PMF) level.

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.

 $^{^{\}rm 15}$ Tooker and Associates, 2024, Flood Risk and Impact Assessment, Section 7.2 Flood Risk Management Manual June 2023, Page 6



Basement car parks have inherent risks to life and property¹⁶ 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 the proposal states "The driveway entry to the basement carpark is above the PMF flood level"¹⁷, this level should also be applied to all other entry points, including vents to prevent water ingress.

The proposal states the site "will have a detailed Flood Emergency Response Plan to manage any flood evacuation required for the site" 18. 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.

While The NSW SES does not have the statutory authority to endorse private evacuation plans, nor does it have the resources to review and comment on private plans written at the level of individual dwellings, businesses or small subdivisions, section A2.4 of the Support for Emergency Management Planning notes site-specific flood response plans as a development consent condition are not an effective measure for addressing continuing risk nor suitable for addressing the impacts of the development on emergency management risks to the existing community. This is particularly problematic where consent conditions are used to overcome a flood risk that would otherwise be considered unacceptable in the context of the proposed development.

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

Managing flood risks 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 current industrial and commercial uses on the site accommodates 19 tenancies, noting "Currently 11 occupancies are tenanted employing an estimated 79.5 full time

¹⁶ Collier, L. Phillips, B., and Griffin, M. 2017. Basement Development in the Floodplain. Floodplain Management Australia Conference. Newcastle, 2017

 $^{^{\}rm 17}$ Tooker + Associates, 2024, 67-75 Lords Road Leichhardt Planning Proposal Flood Risk Assessment, page 7

¹⁸ Tooker + Associates, 2024, 67-75 Lords Road Leichhardt Planning Proposal Flood Risk Assessment, page 10



equivalent employees."¹⁹. The proposed development seeks to increase the population on site by adding approximately 210 dwellings ²⁰. The proposed change from industrial and commercial use to include residential development also means people will be present on the site 24 hours a day, increasing the risk exposure in this location.

Development strategies relying on deliberate isolation or sheltering in buildings surrounded by flood water are not equivalent, in risk management terms, to evacuation.

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.

The proposal states "The FERP has two main flood evacuation strategies which consists of shelter in place and evacuation on foot and in vehicles. The primary evacuation will be shelter in place but if for some reason evacuation is needed, then a pedestrian and vehicular evacuation will be implemented²¹." It is the preference of NSW SES that evacuation is the primary emergency management strategy in line with the Australian Fire and Emergency Services Authorities Council (AFAC) 'Emergency Planning and Response to Protect Life in Flash Flood Events' ('AFAC guideline'), which are national best practice guidelines, notes the inherent risks of seeking 'refuge' or 'sheltering-in-place'. Page 3 of the guideline states, '...remaining in buildings likely to be affected by flash flooding is not low risk and should never be a default strategy...even if the buildings are considered likely to withstand the impact of flash flooding. Where the available warning time and resources permit, evacuation should be the primary response strategy'²².

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.

¹⁹ FPD Planning, Oct 2024, Planning Proposal 67-75 Lords Road, Leichhardt, Section 2, page 17

²⁰ SJB Urban, Jan 2024, 67-75 Lords Road Masterplan – Urban Design Report, page 11

²¹ Tooker+Associates, 2024, Flood Risk Impact Assessment Report, Page 7

²² National Council for Australian Fire and Emergency Services (AFAC). 2018. Emergency Planning and Response to Protect Life in Flash Flood Events.



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.

As the site is affected by flash flooding, and "The duration of flooding on the site will be less than 2.5 hours²³", Severe Weather Warnings and Severe Thunderstorm Warnings from the Bureau of Meteorology are the only warnings currently available for this area. While additional warnings, such as those proposed in the Flood Risk Impact Assessment which suggests "automatic alarms, both visual and audio, which would be activated when flood levels reached RL 3.8m AHD on site"²⁴ can be helpful, there is a risk they may not be reliable and may require ongoing updates and maintenance.

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.

Residents and users of the proposed development should be made aware of their flood risk, the <u>Hazards Near Me</u> app (a tool to receive flood warnings as part of the Australian Warning System) and the <u>NSW SES website</u> 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).

²³ Tooker+Associates, 2024, Flood Risk Impact Assessment Report, Page 7

 $^{^{24}}$ Tooker+Associates, 2024, Flood Risk Impact Assessment Report, Page 7 $\,$



Your ref: PP-2022-2790 Our ref: DOC24/887816

Mr Murray Jay Manager, Planning Proposal Authority Team Department of Planning, Housing and Infrastructure

By email: murray.jay@planning.nsw.gov.au

Dear Mr Jay

Subject: Public Authority Consultation – Planning Proposal (PP-2022-2790) 67 and 75 Lords Road, Leichardt

I refer to your letter received 29 October 2024 seeking Gateway consultation with the Biodiversity, Conservation and Science Group (BCS) of the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on the above Planning Proposal pursuant to section 3.34(2)(d) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

On 20 January 2025, BCS became the Conservation Programs, Heritage and Regulation Group (CPHR).

CPHR understands that the purpose of the Planning Proposal is to amend the Inner West Local Environmental Plan 2022 to enable mixed use development of the site including affordable housing, office and business premises, light and creative industry, industrial retail outlets, cafes/restaurants and recreation facilities.

CPHR has reviewed the Planning Proposal and supporting studies and provides advice in relation to flooding at Attachment A.

If you have any further questions about this issue, please contact Dana Alderson, Senior Project Officer Planning at dana.alderson@environment.nsw.gov.au.

Yours sincerely

Susan Harrison

S. Harrison

Senior Team Leader Planning Greater Sydney Regional Delivery Conservation Programs, Heritage and Regulation

24/02/2025

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CPHR flooding advice on Gateway Consultation for Planning Proposal (PP-2022-2790) 67 and 75 Lords Road, Leichardt

BCS has reviewed the:

- Gateway determination Planning proposal (Department Ref: PP-2022-2970) (DPHI, 2 September 2024)
- Planning Proposal 67 and 75 Lords Road, Leichhardt (FPD Planning, 22 October 2024)
- 67-75 Lords Road Leichhardt Planning Proposal Flood Risk Management Report (Tooker and Associates, October 2024)
- RFQ 24-23: Parramatta Road Corridor, Stage 1 Planning Proposal Flood Impact Assessment (WMS, September 2023).

Hazards and risks

The modelling results for the Traverners Hill Precinct indicate that the western edge of the site along Hawthorne Canal is subject to flood affectation. The floodwater depth at the western edge under an 1% Average Exceedance Probability (AEP) event is 0.3 m to 0.5 m and the depth 1.5 m to 2 m under the Probable Maximum Flood (PMF) event. This location would be subject to H3 hazard under an 1% AEP event and H5 hazard under the PMF event. Most of the Planning Proposal site would be impacted by flooding in the PMF, and the floodwater depth would decrease from the west to the east across the site. The south-eastern portion of the site, adjacent to Lords Road, would not be flood affected under the PMF event. The critical duration of the PMF event would be around two hours.

Change in flood affectation

The Planning Proposal and supporting documents include limited analytical work and modelling results in relation to flooding. The modelling outputs are related to flood depth under the post-development scenario for an 1% AEP and the PMF events, and the changes in flood levels from baseline conditions. No assessment (or flood maps) is included for flood hazard, risk or function at the site under baseline conditions and the post-development scenario. The Flood Risk Management Report (Tooker and Associates, October 2024) indicates that Water Technology prepared a Flood Impact and Risk Assessment (FIRA) report for the site, which may contain the relevant flood maps and modelling results.

CPHR recommends that the Planning Proposal:

• be supported by a FIRA comprising a detailed flood assessment and relevant maps on flooding conditions and impacts to justify the flood compatibility of future development.

Compensatory storage

The Planning Proposal indicates that an underground storage structure with inlet and outlet arrangements to provide compensatory storage of 1,200m³ is proposed at the basement of the north-western part of the site.

CPHR recommends that the Planning Proposal:

 explores the provision of distributed storage facilities across the site (such as bioretention systems). These facilities would provide stormwater treatment benefits along with detention of floodwater. The life cycle maintenance requirements for these stormwater treatment and flood detention measures would be less than an underground on-site detention facility at the basement of the proposed developments.

Emergency

The south-eastern location of the site along Lords Road appears not to be flood affected under the PMF event and as such provides an opportunity for 24/7 access to the development. However, 11 dwellings on the site would be impacted under the PMF event.

The Planning Proposal indicates that a Flood Emergency and Response Plan (FERP) would be prepared along with the installation of flood alarm systems. As the site is impacted by flash flooding conditions, this would limit the effectiveness of a FERP due to inadequate warning time.

CPHR recommends that the Planning Proposal:

- explores alternative options for managing risks under major flooding events. Provisions for passive controls (such as elevated platforms at flood affected dwellings) would be a more effective approach for managing risks under flash flooding conditions
- investigates non-residential uses for the part of the site which is impacted in the PMF event to reduce flood risk to occupants.

END OF SUBMISSION