Our Ref: ID 2847
Your Ref: 5.2024.183.1

16 January 2025

Craig Bradridge
Lismore City Council
PO Box 23A
Lismore NSW 2480
(Via email)

email: sdadministration@lismore.nsw.gov.au
CC: michael.stubbs@one.ses.nsw.gov.au

Dear Craig,

Development Application for 69 Woodlark Street, Lismore

Thank you for the opportunity to provide comment on the Development Application for 65 & 69 Woodlark Street, 21 & 29 Larkin Lane and 7, 15 (A, B) & 17 Eggins Lane, Lismore. It is understood that the development proposal is for *the adaptive re-use of a flood damaged building*[1] for the establishment of a school to cater to a total number of 200 students (Years 5 – 8) and 20 staff, incorporating:

- Change of Site use to enable an Educational Establishment (School);
- Building works (alterations & additions);
- Landscaping and greenspace works;
- Business identification signage;
- Ancillary civil works.

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 relevant issues which are of concern to the NSW SES are detailed in Attachment A.

[1] Newton Denny Chapelle. 2024. Statement of Environmental Effects, page 15

It is understood that the building *has been inundated three times in the past several years including 2017 and twice in 2022*,[2] being severely impacted and damaged by floodwaters during the 2022 flood events.[3]

In addition, we would like to emphasise that the NSW SES has responded to multiple flood related requests, including along Woodlark Street and surrounding area, including flood rescues of people trapped by floodwaters in the broader Lismore area during recent events in 2017 and 2022, as well as sandbagging requests for property protection and cleanup requests for multiple properties damaged by floodwaters.

We recommend **careful consideration of the risks** associated with placing sensitive development[4] within the floodplain at this location and **reconsidering** the development proposal for the adaptive re-use of a flood damaged building which changes the site use to enable development for a school. The 2022 Flood Inquiry[5] advocates for a planned retreat from areas at most risk on the floodplain. The proposal to intensify development in this area by introducing vulnerable people and increasing the number of people at this site is essentially an advance into the floodplain. This will increase vulnerability by introducing school children in a high flood risk area[6]. **We do not support intensifying development on land below the Flood Planning Level, particularly where there are existing evacuation constraints** and **we strongly advise** that, at a minimum, any emergency management constraints *must be addressed before consent is granted.*

In addition, we:

- **Recommend** the application of sound land use planning and flood risk management. However, we acknowledge that the land has already been zoned and therefore recommend ensuring robust Development Control Plans to enable careful consideration of the proposed development against the flood and isolation risks for the residents and community, and the resultant burden on emergency services.
- **Recommend** considering the impact and risk of flooding on access/egress routes for the entire school community and the risk of isolation and inundation at the site. This should be for floods up to and including the Probable Maximum Flood (PMF) event, noting the site is a Low Flood Island with access to the site cut by floodwaters as frequently as 10% AEP events and the site becomes completely inundated in a 5% AEP event. Consideration must also be given to flash flooding and/or stormwater flooding impacts in the area, in addition to riverine flooding, along with climate change considerations.
- **Recommend** an evacuation capability assessment is undertaken to support any proposed evacuation strategy for the proposed school. Evacuation triggers should be clearly articulated in an updated Flood Emergency Response Plan (FERP), specific to the school, reasonable to implement and clearly communicated to all site users,

[2] BMT. 2024. Flood Assessment, Living School 65-69 Woodlark Steet, Lismore NSW, page 11
[3] Lismore City Council. 2024. Referral Letter to NSW SES
[4] BMT. 2024. Flood Assessment, Living School 65-69 Woodlark Steet, Lismore NSW, page 15
[5] NSW Government. 2022. 2022 Flood Inquiry. Volume 1 & 2
[6] Engeny. 2024. Lismore Floodplain Risk Management Plan. Figure 2.6 – Flood Risk Precincts

including parents and carers. However, please 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**.

- **Recommend** seeking advice from the NSW Reconstruction Authority in relation to risk reduction, mitigation and adaptation measures for the Lismore area, as they are developing the Northern Rivers Disaster Adaptation Plan.
- **Recommend ensuring,** should the development be pursued**,** that the school is closed prior to the start of the school day if there is a risk of flooding, for example when there is a Flood Warning. Evacuation considerations should include the movement of parents in collecting children and the consideration the school catchment may extend further into flood affected areas of Lismore.
- **Recommend,** should the development be pursued, that building design considers the potential flood and debris loadings of the PMF so that structural failure is avoided during a flood event.
- **Recommend** seeking advice from the NSW Department of Climate Change, Energy, the Environment and Water regarding the impacts of the development on flood behaviour at the site and for adjacent and downstream areas.
- **Recommend** referring to the Lismore City Flood Emergency Sub Plan (2023) for updated flood emergency management arrangements for Lismore, noting the Flood Assessment makes reference to the 2018 Local Flood Plan.[7]
- **Request** removing all references to *evacuation orders* from the Flood Assessment, as these warning products and terminology are no longer in use. NSW SES utilises the Australian Warning System (AWS) which is a nationally consistent, three-tiered approach to issue clear warnings and lead people to take action ahead of severe weather events.

You may 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 Ana Chitu 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

KWaine

Kirra Waine
A/Senior Manager Emergency Risk Management
NSW State Emergency Service

[7] BMT. 2024. Flood Assessment, Living School 65-69 Woodlark Steet, Lismore NSW, page 9

ATTACHMENT A: Principles Outlined in the Support for Emergency Management Planning Guideline[8]

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 Plan[9] and the Lismore City Flood Emergency Sub Plan,[10] evacuation is the preferred emergency management strategy for people impacted by flooding.

If the proposed development is being pursued, we **strongly recommend** ensuring the school is closed prior to the start of the school day if there is a risk of flooding, for example when there is a Flood Warning. Evacuation considerations should include the movement of parents in collecting children and the consideration the school catchment may extend further into flood affected areas of Lismore.

The triggers for evacuation should be clearly articulated in an updated Flood Emergency Response Plan (FERP) specific to the school, reasonable to implement and clearly communicated to all site users, including parents and carers. However, **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**. A FERP is not an appropriate way to manage an underlying flood risk and should not be used to justify changing the site uses and introduce vulnerable school children at the site.

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% Annual Exceedance Probability (AEP) flood. Climate change should also be considered in line with NSW Government guidelines.

It is understood that following the 2022 floods, Lismore City Council considers "*site-specific rezoning or utilising the 'additional permitted use' provisions within the LEP to facilitate the relocation of significant industries or critical infrastructure from out of the floodplain",* including schools.

Flood Risk

[8] NSW Government. 2023. Principles Outlined in the Support for Emergency Management Planning Guideline
[9] NSW Government. 2024. NSW State Flood Plan. Section 5.1.7, page 34
[10] NSW SES. 2023. Lismore City Flood Emergency Sub Plan. Section 5.8, page 16

We would like to emphasise that the NSW SES has responded to multiple flood related requests, including along Woodlark Street and surrounding area, including flood rescues of people trapped by floodwaters in the broader Lismore area during recent events in 2017 and 2022, as well as sandbagging requests for property protection and cleanup requests for multiple properties damaged by floodwaters.

The site is located within a High flood risk precint,[11] and the site itself is a Low Flood Island, being partially impacted by shallow flooding as frequently as 10% AEP events[12] and with the access roads inundated by H2 – H3 flooding in these frequent events,[13] before becoming completely inundated in the 5% AEP event, with flood depths in excess of 1 metre[14] and H3 – H4 flooding across the site.[15] In a 1% AEP event, the flood hazard level across the majority of the site is H5 – with flood depths in excess of 2 metres[16], and the flood hazard on the surrounding road network H5 – H6.[17] In a PMF event, flood depths at the site reach between 5 – 7.5 metres[18] and H6 hazard level across the entire site and the broader area.[19]

The "CBD Development Exemption Area" precinct has been applied to the CBD and surrounding areas, including the site location, that are noted as high risk due to the limited protection the levee provides, noting there is *"significant risk to life and property damage due to Browns Creek conveyance once CBD levee is overtopped."*[20] The levee provides extended time for evacuation and the area has potential for evacuation to the east via rising roads,[21] however, "(..) *full evacuation of the CBD should be actioned prior to the levee overtopping, as flows through the CBD have significant velocity causing risk to persons and vehicle stability."*[22]

The levee was originally constructed to offer protection up to events of approximately the magnitude of a 10% AEP, however overtopping has previously occurred at heights lower than the current 10% AEP peak height of 10.97mAHD. In modelled events, overtopping is first observed at the Browns Creek spillway with a height corresponding to 10.6-10.7mAHD, or in

[11] Engeny. 2024. Lismore Floodplain Risk Management Plan. Figure 2.6 – Flood Risk Precincts
[12] Engeny. 2021. (Rous City Council) Lismore Floodplain Risk Management Study. Appendix A – Design Event Flood Mapping, A1
[13] Engeny. 2023. Lismore Floodplain Risk Management Plan - Land Use Planning and Development Control. Appendix B - Design Event Flood Hazard – 10% AEP
[14] Engeny. 2021. (Rous City Council) Lismore Floodplain Risk Management Study. Appendix A – Design Event Flood Mapping, A2
[15] Engeny. 2023. Lismore Floodplain Risk Management Plan - Land Use Planning and Development Control. Appendix B - Design Event Flood Hazard – 5% AEP
[16] Engeny. 2021. (Rous City Council) Lismore Floodplain Risk Management Study. Appendix A – Design Event Flood Mapping, A3
[17] Engeny. 2021. (Rous City Council) Lismore Floodplain Risk Management Study. Figure 5.4, page 74
[18] Engeny. 2021. (Rous City Council) Lismore Floodplain Risk Management Study. Appendix A – Design Event Flood Mapping, A5
[19] Engeny. 2023. Lismore Floodplain Risk Management Plan - Land Use Planning and Development Control. Appendix B - Design Event Flood Hazard – PMF
[20] Engeny. 2023. Lismore Floodplain Risk Management Plan - Land Use Planning and Development Control, page 27
[21] Engeny. 2024. Lismore Floodplain Risk Management Plan, page 9
[22] Engeny. 2024. Lismore Floodplain Risk Management Plan, page 13

some rarer instances as low as 10.3-10.4mAHD, at the Lismore (Rowing Club) Gauge.[23] Once the Lismore CBD Levee spillways begin to overtop key evacuation routes from Central Lismore begin to be cut.[24] Further, flash flooding and/or stormwater flooding due to localised heavy rainfall can also affect the local road network and potentially hinder evacuation efforts. Flash flooding of the CBD Basin area may also occur with locally heavy rainfall events independent of riverine rises.[25]

Potential isolation of the area can last for a number of days,[26] with inundation of the site and surrounding area modelled for the 1% AEP event to last between 30 hours to over 90 hours, while in the February 2022 flood event was between 45 to over 135 hours.[27]

Proposed development

It is understood that the ground floor levels for the proposed development will range between approximately 10m AHD to 11m AHD and the proposed first floor levels will be located to achieve at least 14m AHD.[28] The ground floor includes a study/games area, multipurpose space, offices, auditorium, PDHPE classroom[29] and a workshop learning space, amongst others, with the majority of the classrooms proposed to be on the first floor.[30]

Further, it is understood that, according to development controls applicable to the site, "*Educational establishment and early education and care facilities must not have floors below the FPL*"[31] – which in this instance is 13.58m AHD.[32]

NSW SES recommend that any sensitive development such as any childcare facilities and schools must be located with floor levels above the PMF level.

We recommend **careful consideration** of the risks associated with placing sensitive development[33] within the floodplain at this location and reconsidering changing the site uses to enable development for a school. The 2022 Flood Inquiry[34] advocates for a planned retreat from areas at most risk on the floodplain. The proposal to intensify development in this area by introducing vulnerable people and increasing the number of people at this site is essentially an advance into the floodplain. This will increase vulnerability by introducing school children

[23] NSW SES. 2023. Lismore City Flood Emergency Sub Plan. Volume 2 - Hazard and Risk in Lismore City, page 21
[24] NSW SES. 2023. Lismore City Flood Emergency Sub Plan. Volume 2 - Hazard and Risk in Lismore City, page 25
[25] NSW SES. 2023. Lismore City Flood Emergency Sub Plan. Volume 3, Chapter 2 – Response Arrangements for Lismore City, page 5 - 7
[26] NSW SES. 2023. Lismore City Flood Emergency Sub Plan. Volume 3, Chapter 2 – Response Arrangements for Lismore City, page 5
[27] Engeny. 2023. Lismore Floodplain Risk Management Plan - Land Use Planning and Development Control. Appendix D, Mapping to support road evacuation analysis - Drg Ref M92000_007
[28] Newton Denny Chapelle. 2024. Statement of Environmental Effects, page 41
[29] Cave Urban. 2024. Architectural Plans. Drawing 5
[30] Newton Denny Chapelle. 2024. Statement of Environmental Effects, page 13-14
[31] BMT. 2024. Flood Assessment, Living School 65-69 Woodlark Steet, Lismore NSW, page 6
[32] Newton Denny Chapelle. 2024. Statement of Environmental Effects, page 41
[33] BMT. 2024. Flood Assessment, Living School 65-69 Woodlark Steet, Lismore NSW, page 15
[34] NSW Government. 2022. 2022 Flood Inquiry. Volume 1 & 2

in a high flood risk area[35]. We **do not support** intensifying development on land below the Flood Planning Level, particularly where there are existing evacuation constraints and we strongly advise that, at a minimum, any emergency management constraints *must be addressed before consent is granted.*

We recommend consulting with the NSW Reconstruction Authority in relation to risk reduction, mitigation and adaptation measures for the Lismore area, as they are developing the Northern Rivers Disaster Adaptation Plan.

If this development is pursued, we recommend that building design considers the potential flood and debris loadings of the PMF so that structural failure is avoided during a flood event.

We further recommend seeking advice from the NSW Department of Climate Change, Energy, the Environment and Water regarding the impacts of the development on flood behaviour at the site and for adjacent and downstream areas.

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.**

For any new primary and secondary school facilities located in areas of the floodplain, they must be readily evacuated within the available time and resources. Assessment should be supported by an evacuation capability assessment, where identified by the consent authority or NSW SES. NSW SES recommends an evacuation capability assessment is undertaken to support any proposed evacuation strategy for this proposal.

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 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

[35] Engeny. 2024. Lismore Floodplain Risk Management Plan. Figure 2.6 – Flood Risk Precincts

for an extended flood duration or attempting to return to a building during a flood, needs to be considered.

We recommend referring to the Lismore City Flood Emergency Sub Plan (2023) for updated flood emergency management arrangements for Lismore, noting the Flood Assessment makes reference to the 2018 Local Flood Plan.[36]

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.

As the proposed development site is situated adjacent the local evacuation routes, consideration must be given to the impacts of this development on the evacuation capacity for the broader area, including the ability of the future site users to evacuate in a flood event using the available infrastructure.

The Bureau of Meteorology (BoM) provides flood warnings for this area based on the readings at the Lismore (Rowing Club) forecast gauge, with 10 hours target warning lead time for water levels exceeding 10 metres at the gauge.[37]

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.

Therefore, we request that all references to 'evacuation orders' are removed from the Flood Assessment, as these warning products and terminology are no longer in use.

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 requirements. Should this proposal be pursued, 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) for the life-span of the development.

[36] BMT. 2024. Flood Assessment, Living School 65-69 Woodlark Steet, Lismore NSW, page 9
[37] Bureau of Meteorology. 2024. Service Level Specification for Flood Forecasting and Warning Services for New South Wales and the Australian Capital Territory – Version 3.15, page 19