

Our Ref: ID2296

Your Ref:

8 March 2024

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Milton QLD 4064

email: mgiles@wep.com.au

CC: michael.stubbs@one.ses.nsw.gov.au

Dear Martin,

Flood Emergency Plan for The Village at James Creek

Thank you for the opportunity to provide comment on the Flood Emergency Plan (FEP) for the proposed development at Lot 104 of DP751388 on James Creek Road known as The Village at James Creek. We understand that the proposed development consists of a total of 280 residential lots and commercial areas comprising:

- 206 Residential R1 Zone lots;
- 74 Residential R3 Zone lots;
- 1 Childcare Centre; and
- 1 Commercial Centre.

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.

It is the preference of NSW SES that all development follows the application of sound land use planning and flood risk management in accordance with the Flood Prone Land Policy, the Flood Risk Management Manual 2023 (the Manual) and supporting guidelines. This includes site design and stormwater management measures that minimise any risk to the community.

The NSW SES has reviewed the proposed FEP and the flood risk information (e.g. Clarence Valley Local Flood Plan, Lower Clarence Flood Model Update 2022 etc.) available to the NSW SES and provide advice in Attachment A. In summary, we:

- **Emphasise** that the NSW SES does not have statutory authority to endorse or approve flood emergency response plans. In addition, 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 as outlined in the Support for Emergency Management Planning.
- **Note** the proposed development becomes a high flood island in a 5% flood extent due to James Creek Road becoming inundated to the north and Gardners Road to the south¹ with a flood hazard level defined as H5 which is unsafe for vehicles and people². We note the proposed consideration to improve Gardners Road which may be raised to above the 1% AEP level and may provide access to additional services and/or facilities, but the current advice has assessed existing conditions.
- **Do not support** the plan to shelter in place during a PMF given the difficulty accessing the flood-free location, anticipated duration of isolation, likely lack of power, water and hygiene facilities.
- **Recommend** that clarification is required on the flood modelling. Modelling between the 1%AEP and PMF would be useful to understand at which level the site becomes impacted. The PMF modelling should also include climate change. This data is not clear from the extent of inundation of the developed site in the FEP.
- **Recommend** further work is undertaken to understand the evacuation capacity constraints and time required for evacuation and proposed location and facilities. If residents do not evacuate prior to losing all access and egress routes, they are likely to require resupply and potentially require rescue increasing risk to life and adding strain to limited NSW SES resources.
- **Recommend** ensuring that the development complies with Ministerial Directions relating to evacuation ability of sensitive development in a PMF flood.
- **Recommend** referring this proposal to the Biodiversity and Conservation Division of the Department of Climate Change, Energy, Environment and Water (DCCEEW), particularly regarding the lots that are impacted in the PMF, given the extent of planned infill.
- **Recommend** the development of robust, thorough, and detailed flood emergency management plans to satisfy the need for ongoing community awareness and the importance of early evacuation when the development is completed.

Further useful information can be found:

- NSW SES website <https://www.ses.nsw.gov.au/disaster-tabs-header/flood/>
- Emergency Business Continuity Plan (<http://www.sesemergencyplan.com.au/business/>)
- The Department of Climate Change, Energy, the Environment and Water website

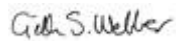
¹ Clarence Valley Council, *Intramaps – FloodStudy2022 1 in 20yr* accessed on 29.02.23

² Ibid Flood hazard map accessed on 29.02.23

<https://www.environment.nsw.gov.au/research-and-publications/publications-search/floodplain-development-manual>

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 dark ink, appearing to read 'Gillian S. Webber'.

Gillian Webber

Coordinator Emergency Risk Management - Regional

NSW State Emergency Service

ATTACHMENT A: Principles Outlined in the Support for Emergency Management Planning Guideline³

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. Direction 4.1 issued by the Minister for Planning under section 9.1(2) of the *Environmental Planning and Assessment Act 1979* states a planning proposal must not permit development for childcare facilities where occupants cannot effectively evacuate. It is noted that during a PMF flood event the road and carpark to the childcare centre becomes inundated, preventing evacuation.

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. Therefore, the NSW SES recommends an evacuation assessment is undertaken to understand evacuation capacity constraints, where the residents are to be relocated, and time required for evacuation. Risk assessment should have regard to flood warning and evacuation demand on existing and future access/egress routes.

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. The site is flood free up to the 1%AEP including climate change⁴. Before the PMF parts of the east edge and the south-west corner of the site become inundated, including the only road out of the development, up to hazard level H5⁵. We note the intention for residents to evacuate during flooding up to and including 1% AEP, based on the assumption that Gardners Road will be raised to allow such evacuation. In the absence of this, and during a flood greater than 1% AEP residents are expected to shelter in place.

Development strategies relying on deliberate isolation or sheltering in buildings surrounded by flood water are not equivalent, in risk management terms, to evacuation. Sheltering in a building within the flood extent is not safe, as proposed in the plan, and may result in isolating people including children for days potentially without power, food or water. Isolation also increases the risk of fire or medical emergencies. Evacuation must not require people to drive or walk through flood water. Ideally the access/egress routes should provide rising road access and/or be passable up to at least a 0.2% AEP local flooding.

³ NSW Government. 2023. Principles Outlined in the Support for Emergency Management Planning Guideline

⁴ Water Engineering Plus (2023) - The Village at James Creek Flood Emergency Plan page 4

⁵ Ibid

It is noted that the development has the potential to become isolated for a duration of up to five days and more than this in extreme flooding⁶. Occasionally there may be two or more separate rain events a few days apart, causing floods with multiple peaks on the Clarence River⁷. Early evacuation is the flood emergency management option recommended by the NSW SES.

The FEP must consider the impacts of localised flooding on evacuation routes and the likely demands that other sections in the community may be placing on public and private transport resources. The NSW SES is aware of a number of significant development proposal for the Yamba area which would add additional stress to both the road network and the SES response capability in the event of significant flooding in the area.

While the development is largely above the PMF, it may be useful to refer to the Biodiversity and Conservation Division of the Department of Climate Change, Energy, Environment and Water (DCCEEW), particularly regarding the lots that are impacted in the PMF, given the extent of planned infill.

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. The proposal is situated on a high-risk floodplain as identified in the NSW 2022 Independent Flood Inquiry. Recommendation 22 and 15 of the NSW 2022 Flood Inquiry advocates for a planned retreat from areas at most risk on the floodplain. The proposed development is essentially an advance into the floodplain. The flood risks of the Northern Rivers region are so significant that any further development increases the burden on current and future communities and emergency services.

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

The preferred Emergency Management approach is evacuation, where evacuation capacity and capability has been demonstrated as the most effective strategy to manage Emergency Management risks (i.e. a strategy that enables the users of development to self-evacuate to an area outside the floodplain that has adequate services to sustain the community in an orderly planned outcome). This includes consideration of flood warning and evacuation demand on existing and future access/egress routes considering potential impacts of localised flooding. Where this is not possible any decision involving redevelopment, and in particular increasing population at risk, needs to consider the safety of the community. This may include provisions such as effective flood warning, a practical safe refuge for the full range and behaviour of flooding (i.e. above the PMF and designed to withstand the associated forces of flooding), and provisions to be able to safely self-sustain for short duration flooding. Managing

⁶ NSW SES, *Clarence Valley Local Flood Plan 2017* Volume 2 section 2.9.6c.

⁷ NSW SES, *Clarence Valley Local Flood Plan 2017* Volume 2 p.13

these 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. The suggestion that the proposed commercial unit will have the resources to supply up to 500 people with food and water for up to 5 days, particularly given the likelihood of power disruption, should be reviewed.
- **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. It is our understanding that during times of flood, the council drinking water supply can become contaminated. It is recommended that residents listen to local radio and SES/rescue personnel for update on the drinking water status to prevent any outbreak of sickness or disease while sheltering in place.
- **Consideration of human behaviour** – The behaviour of individuals such as choosing not to remain isolated from their family or social network for an extended flood duration or attempting to return to a building during a flood, needs to be considered when adopting any Emergency Management strategy. The FEP should address this, including for example the high likelihood that parents and carers will consider driving through flood waters to reach the children at the childcare centre. A private evacuation plan is not a fail-safe measure to manage risk to life, and therefore we encourage consideration of additional flood risk management measures to ensure that there is not considerable risk to life if the FEP is ignored.

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. Yamba has four peak seasons with a potential population increase of more than 100%⁸. This needs to be considered in evacuation planning as timing of traffic movement will be affected.

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

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

The NSW SES recommends the creation of a flood emergency management plan which is robust, thorough and detailed enough to address all aspects of a flood emergency including

⁸ NSW SES, *Clarence Valley Local Flood Plan 2017* Volume 2 p.74

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 FEP 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, as well as a mechanism for alerting future residents of the risk and the need to evacuate and when, and for vulnerable people (including children) to evacuate early.

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

In terms of the current proposal, the flood risk at the site and actions that should be undertaken to reduce the potential risk to life should be clearly communicated to all site users, for example through signage and emergency drills, during and after the construction phase. Development in a floodplain will increase the need for NSW SES to undertake continuous community awareness, preparedness, and response requirements. At first glance it may seem that if people live in an area where frequent low-level floods occur, they would be more flood aware. Unfortunately, although they may be aware of flooding, they generally come to the view that they are not at risk because they think all floods are like the small ones they often see. This is not true and big floods will almost always catch people by surprise and exceed their capacity to deal with the situation unless they have considered this scenario in their planning and preparedness. In addition, residents will have lived in this community for a short period and may be unlikely to appreciate the local flood threat, may have difficulty understanding advice about flooding, and may need special attention in terms of education and communication of warnings and other information.