

22 February 2017



The Secretary
Department of Planning and Environment
GPO Box 39, Sydney NSW 2001

State Headquarters
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Attention: Mr George Koshy

Dear Mr Koshy

Draft Land Use and Infrastructure Strategy - Ingleside Precinct

Thank you for the opportunity to provide a submission on the *Draft Land Use and Infrastructure Strategy* ('Strategy') including the proposal to amend the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 to make Ingleside a Priority Growth Area.

The NSW State Emergency Service is the lead agency responsible for the emergency management of floods (including dam failure), storms (including coastal erosion and coastal inundation) and tsunamis. The NSW State Emergency Service has an interest in the public safety aspects of the development of land with reference to these hazards, in particular, the potential for changes to land use that either exacerbate existing risk or create new risk for communities.

The NSW State Emergency Service (NSW SES) suggests the principles within the National Strategy for Disaster Resilience (adopted by COAG) and Emergency Risk Management frameworks, as strategic drivers for better land use planning. The National Strategy for Disaster Resilience promotes the principle that the acceptability of risk in the context of land use planning and development design, requires consideration of loss of life, as well as social, economic and infrastructure loss.

Ingleside Precinct

The Strategy proposes that 40% of the Ingleside precinct will accommodate new development.¹ The Strategy proposes the precinct will provide approximately 3400 new homes to house approximately 9000 people.

The proposed precinct has a number of watercourses that traverse it. The water cycle management and flooding assessment (Cardno, May 2016) has considered flooding up to the probable maximum flood (PMF). The Strategy has seemingly relied on the flood assessment to identify areas in the precinct more suitable for development.

¹ Department of Planning, Ingleside: Draft Land Use and Infrastructure Strategy, November 2016, 5.

Issues with the Strategy – Ingleside Precinct

Although the Strategy and supporting Water Cycle Management and Flooding Assessment (Cardno, May 2016) have considered flooding up to the PMF and planned accordingly, there are statements within the flooding assessment report which are inconsistent with the NSW State Emergency Service position in regards to evacuation. These include that people living in the floodplain may adopt 'shelter in place' as an emergency response strategy.²

Generally, sheltering in buildings surrounded by flood water presents a greater risk than a well-conducted evacuation as people are not removed from the risks attributable to the hazard. 'Sheltering in place' should only be used where evacuation is not possible due to greater risks of evacuating, or where evacuation from an at-risk area has failed. Where evacuation is not possible, the risks of sheltering should be adequately assessed to determine the tolerability of isolation, before any strategy of sheltering in place can be considered.

Encouraging a strategy of isolation or 'shelter in place' must take into account risks such as the unpredictable nature of human behaviour during a flood including the desire to escape from a hazard when it is unsafe to do so. People may also have the desire to access isolated areas to reunite with loved ones or return to a home away from the impacted area. This may be especially relevant if the future population is commuting to work in Sydney or other areas and are away from their place of residence during a flood.

Other secondary emergencies such as fires and medical emergencies may occur in buildings isolated by floodwater. 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 requiring emergency response.

If there is access to adequate support services, which appears to be the case for the majority of people in the proposed precinct, the risk of remaining in situ or 'sheltering in place' during a flood is likely to be less and be more acceptable. However, in the event that a community is isolated and the egress roads are closed in a flood, such as what will happen to the proposed community that is isolated when Mullet Creek overtops and closes Powderworks Road,³ the tolerability of isolation needs to be assessed to determine if it is acceptable to the community and future occupants.

Having a shelter in place strategy for such a community, can mean there will be an increase in risk to emergency service personnel. Before attempting rescue, emergency service personnel will assess the risk to their own safety. There is therefore no guarantee that rescue will be available to residents who are effectively entrapped in a building during a flood. This will be the case if the risks are considered unacceptable for emergency service personnel to undertake such rescue.

² Cardno, Water Cycle Management and Flooding Assessment, May 2016, 28.

³ Ibid, 30-31.

Furthermore, where the flood risk is considered too high after mitigation strategies have been implemented or considered, it may be that the proposed development or zoning is not suitable for the location, given the flood risk to the community at the site. This should be a realistic alternative if the safety of the future occupants and emergency service personnel will be compromised by the flood risk at the site and no acceptable solution can be devised.

Recommendations

The NSW State Emergency Service recommends that there be careful consideration of the community bounded by Powderworks Rd, which may become isolated in a flood. To address this issue it may be necessary to determine the tolerability of isolation for the residents in the area. An alternate option would be to look at improvements to the road infrastructure to enable continual access for those residents during a flood up to and including the PMF.

Where the flood risk is considered too high after mitigation strategies have been implemented or considered, it may be that the proposed development or zoning is not suitable for the location, given the flood risk to the community at the site. This should be a realistic alternate if the safety of the future occupants and emergency service personnel will be compromised by the flood risk at the site and no acceptable solution can be devised.

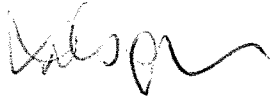
Concluding Remarks

Thank you for the opportunity to provide a submission on the *Draft Land Use and Infrastructure Strategy* ('Strategy') including the proposal to amend the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 to make Ingleside a Priority Growth Area.

The Strategy has, through the flood assessment, considered flood risk up to and including the PMF. This has supported the decision to steer development away from the higher risk flood areas within the precinct. However, where part of the precinct becomes isolated during floods, the tolerability of isolation of this future community needs to be assessed. Alternatively road infrastructure could be improved to mitigate the risk of isolation of this community. Where the flood risk is considered too high after mitigation strategies have been implemented or considered, it may be that the proposed development or zoning is not suitable for the location, given the flood risk to the community at the site.

Thank you for considering the NSW State Emergency Service submission. Please contact Marcus Morgan on (02) 4251 6665 if you wish to discuss any of the matters raised in this correspondence further.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Nicole Hogan', with a stylized flourish at the end.

Nicole Hogan

A/Director, Emergency Management
NSW State Emergency Service

Cc: A/Commissioner

Manager Emergency Risk Management;
Planning Coordinator