24 January 2019

Ms Anne-Maree Carruthers
Director, Sydney Region West
NSW Department of Planning and Environment
GPO Box 39 Sydney NSW 2001
Our ref: ID897
Attention: Ms Sarah Waterworth (e: Sarah.Waterworth@planning.nsw.gov.au)

Re: West Schofields Master Plan

Dear Ms Waterworth,

Thank you for the opportunity to comment on the draft West Schofields Master Plan (‘Master Plan’) and apologies for the late submission.

The NSW State Emergency Service (NSW SES) has the legislative responsibility for the protection of life and property during flood, storm and tsunami and has a strong interest in ensuring the safety of existing and future at risk communities. The NSW SES supports land use planning and development that adequately considers risks and results in development that is safe for the current and future populations. The NSW SES also takes into account the cumulative impact of development in areas that have significant flood risk and evacuation constraints, such as the Hawkesbury Nepean floodplain, to which the West Schofields precinct is located.

The NSW SES has previously worked with Infrastructure NSW, Office of Environment and Heritage, the Department of Planning and Environment (DPE) and relevant local government councils in addressing the evacuation constraints in the Hawkesbury Nepean floodplain. This has included establishing the dwelling cap for the West Schofields precinct of 2,000 dwellings between the 1:100 chance per year flood level but below the Probable Maximum Flood (PMF) level. It is from this background that the NSW SES provides the following comments on the Master Plan.

Master Plan

The Master Plan Exhibition Discussion Paper states that the proposed rezoning and associated planning controls will permit approximately 4,500 dwellings with a maximum of 2,000 dwellings to be permitted on land above the 1:100 chance per year flood level but below the Probable Maximum Flood (PMF) level (Exhibition Discussion Paper, p 7). The Exhibition Discussion Paper states the housing mix will encompass 5% larger lots, 30% medium lots, 54% smaller lots and 11% apartments (p 22). The proposed controls will ensure density is capped, with land to be zoned R2 low density...
residential with a maximum of 20 dwellings per hectare, on land above the 1 in 100 year flood and below the PMF. The Exhibition Discussion Paper suggests at full development West Schofields could accommodate an approximate population of 14,400 people (p 17).

Figure 5.9 from the related *Flooding, Water Cycle Management and Riparian Corridor Assessment* (Calibre, 13 June 2018) shown in Section 1 of the Addendum to this letter shows the proposed evacuation routes from the West Schofields precinct. Section 5.4 of that document describes the proposed evacuation routes from the precinct (refer to Section 1 of the Addendum to this letter). The Flood Evacuation Study (Stantec, July 2018) report also addresses the key considerations for evacuation from West Schofields and Marsden Park.

**NSW SES comments / concerns**

**Growth Centre SEPP and DCP controls**

The NSW SES has reviewed the Master Plan and the proposed controls in relation to flood evacuation and supports the Department of Planning and Environment’s (‘Department’) flood evacuation objectives and associated controls in the Growth Centre DCP to limit density in the precinct.

However, how this will be effected through the Growth Centres SEPP is not clear. The NSW SES recommends that amendments to the Growth Centres SEPP should identify the total cap on development in West Schofields Precinct to 2,000 properties on land above the 1 in 100 year flood level and the PMF either in Part 4 or Part 6 of the proposed amendments to the Growth Centres SEPP, due to the flood risk and evacuation constraints of this land.

If feasible, considering the owners of the land in West Schofields, a similar indicative residential density table that is presented in the Marsden Park North Precinct discussion paper, which shows the forecast maximum number of dwellings (Marsden Park North Precinct Exhibition Discussion Paper, Table 4, p 67) could be produced for the West Schofields Precinct.

This will help avoid a similar unintended situation that occurred in Marsden Park Precinct, where an additional 6,000 dwellings became permissible as a result of the recently made Low Risk Medium Density Housing Code. Most importantly it will aid in ensuring that post-development that there will be the ability for future occupants to
evacuate from an area that will be impacted in severe floods and that the existing evacuation capacity can be maintained.

**Assessing the cumulative impact of West Schofields precinct**

When considering that the nearby Marsden Park precinct has increased from 10,000 dwellings to 16,000 dwellings for the reasons mentioned above, this combined with full development of Marsden Park North and West Schofields leads to an increase of approximately 24,600 dwellings in an area impacted by Hawkesbury Nepean flooding. These areas require evacuation via the Richmond Road, thereby increasing the pressure on the existing regional evacuation route.

The West Schofields Exhibition Discussion Paper and the proposed DCP controls in Draft DCP Schedule 9 – West Schofields both state that the evacuation of the precinct will be to Richmond Road.

It is noted that the proposed evacuation route for West Schofields in the *Flooding, Water Cycle Management and Riparian Corridor Assessment* (Calibre, 13 June 2018) has been designed to not impact on the Richmond Road regional evacuation route (see **Section 1 of the Addendum**). However, to achieve evacuation to Richmond Road from West Schofields the primary local evacuation route could be along Alderton Drive to Richmond Road in the first instance (see **Section 2 of the Addendum**) and then on the proposed evacuation route or vice versa.

The NSW SES notes that the evacuation route along Alderton Drive (and potentially Townson Road if that is considered as an evacuation route) will need to be assessed for the impacts of local flooding from Bells Creek, but acknowledges that the alternate route proposed in the *Flooding, Water Cycle Management and Riparian Corridor Assessment* is likely to be accessible until it is cut at Stonecutters Drive during an 1 in 5,000 year flood event (see the low point (21.2m) highlighted in the map of **Section 2 of the Addendum**).

In addition, the maps in Section 2 of the Addendum shows a possible adjustment to the alternate route proposed in the *Flooding, Water Cycle Management and Riparian Corridor Assessment*. That is, the proposed route would follow Symonds Road down to Blacktown Road rather than deviating via Lyall Avenue. The controlling height for the alternate route is the relevant height in a 1 in 5,000 year flood event and Symonds Road is not inundated until after this level.

We note that some initial local and regional flood evacuation modelling was undertaken to assess the impact of future development in Marsden Park North and West Schofield and that it is recognised that further modelling of the effects of
localised flooding (i.e. impact of Eastern Creek and Bells Creek) on potential evacuation routes is necessary (North West Growth Area - Marsden Park North, West Schofields and Vineyard (Stage 1) Precincts Flood Evacuation Study, Stantec, 3 July 2018), p 12); however the cumulative impact of development in Marsden Park, Marsden Park North and West Schofield Precincts will require further evacuation modelling to be undertaken to determine the impact on the Hawkesbury-Nepean regional evacuation. This will also need to consider what additional infrastructure options may be necessary to increase evacuation capacity.

**Notation on planning certificates similar to Marden Park North**

The NSW SES supports the Department’s proposal in the Marsden Park North Master Plan for ensuring ‘notation of planning certificates for land within the precinct will identify land between the 1 in 100 chance per year flood level and the PMF’ and recommends that the Department also require this for the West Schofields precinct (see Section 3 of the Addendum). This will help provide increased awareness to future occupants about their flood risk and the need for residents to be aware of planning for evacuation in less probable but extreme floods.

The NSW SES looks forward to working with the Department of Planning and Environment in the future and is available to meet to discuss this matter further. Please contact Peter Cinque on (02) 8811 7700 or Marcus Morgan on (02) 4251 6665 if you wish to discuss any of the matters raised in this correspondence.

Yours sincerely,

*Peter Cinque ESM OAM*
Principal Advisor, Hawkesbury-Nepean Strategy
**NSW State Emergency Service**

Cc: George Jeffreys, Senior Manager Risk Reduction and Avoidance; Marcus Morgan, Planning Coordinator (future risk)
Addendum

1. West Schofields proposed evacuation route (Flooding, Water Cycle Management and Riparian Corridor Assessment, Calibre, 13 June 2018)

5.4 Flood Evacuation Planning
The road layout shown on the Indicative Layout Plan, discussed in Section 2.2, has been designed to allow movement of people and vehicles from lower lying areas on the western and eastern edges of the development area to higher ground located centrally with the precinct. The higher ground within the precinct is located above the Probable Maximum Flood level (shown on Figure 5.4), allowing safe refuge.

During periods of prolonged inundation, where refuge within the precinct may not be suitable, an evacuation route from the southern boundary of the precinct has been mapped, and is presented on Figure 5.9. This evacuation route relies on roads that are currently constructed.

These scenarios have been modelled as part of the precinct design and to allow mapping of a proposed of the evacuation of the precinct. This study has not been prepared for submission to the SES but has been prepared as a preliminary study to guide further investigations. The scenarios modelled are:

- 100 year local flows with 100 year tail water in the Hawkesbury River (Figure 5.2)
- 500 year local flows with 500 year tail water in the Hawkesbury River (Figure 5.3)
- PMF local flows with PMF tail water in the Hawkesbury River (Figure 5.4)

This evacuation route on Figure 5.9 has been mapped for the 500 year peak flood elevation, in accordance with requirements discussed between Infrastructure NSW and the Department of Planning and Environment. This preliminary evacuation plan avoids using any of the potential routes to the east and west of the precinct, in particular Richmond Road north of the M7 Motorway. This is to avoid using evacuation routes that are already oversubscribed by residents to the north, including Marsden Park, Bligh Park and the township of Richmond.

The evacuation route has been designed to be above the 500 year peak flood for the entire route. This route provides access to the M7 Motorway, through the Stonecutters Ridge development in the suburb of Colebee, through Dean Park and onto Richmond Road, to the M7, approaching from the south. This route avoids the congested section of Richmond Road.

The Department of Planning and Environment separately commissioned a North West Flood Evacuation Study prepared by Stantec. It was completed in consultation with Infrastructure NSW, the Roads and Maritime Services and the State Emergency Service. Please refer to this study for the current evacuation approach for the Precinct (p 31).
2. Evacuation routes from West Schofields Precinct
3. **Extracts from the draft Marsden Park North Master Plan**

The NSW SES suggests that the Department adopt similar planning controls and requirements for notation on Planning Certificates for West Schofields to those proposed for Marsden Park North. The Exhibition Discussion Paper for the Marsden Park North Master Plan specifies these requirements as:

‘Controls will be included to ensure flood risk and resilience are considered for development between the 1 in 100 chance per year flood level and the PMF, including evacuation capacities and routes, mitigation of property damages and appropriate dwelling densities. In addition, notation of planning certificates for land within the precinct will identify land between the 1 in 100 chance per year flood level and the PMF.’ (Exhibition Discussion Paper, p 7)

**End of submission**