

2 July 2020

Mr Jim Betts
Secretary
Department of Planning, Industry & Environment
Locked Bag 5022
PARRAMATTA NSW 2124

Flood Prone Land Policy Package

Dear Mr Betts

I write in relation to the Department of Planning, Industry and Environment's Draft Flood Prone Land Policy Package, placed on public exhibition until 25 June 2020. I would like to acknowledge and thank Deputy Secretary Alex O'Mara for allowing the Urban Taskforce an additional week for us to submit our formal submission.

I understand this package provides advice to councils on considering flooding in land use planning and consists of a proposed amendment to schedule 4, section 71 of the *Environmental Planning and Assessment Regulation 2000*, a revised planning circular, revised local planning direction regarding flooding issued under section 9.1 of the *Environmental Planning and Assessment Act 1979*, revised Local Environmental Plan flood clauses and a new guideline: *Considering Flooding in Land use Planning* (2020). Please find our comments below for your consideration.

The Urban Taskforce does not support the use of the Probable Maximum Flood level as a suitable mechanism to inform land use planning

Flood risk mapping throughout NSW has been undertaken for some time using the '1:100 flood event' measurement. The flood prone land package introduces a new flood level measurement – the Probable Maximum Flood Level and requires councils to use this mechanism to inform future land use zoning and planning.

The definition of the 'Probable Maximum Flood' provided by the NSW State Emergency Service reads as follows:

The largest flood that could conceivably be expected to occur at a particular location, usually estimated from probable maximum precipitation. The PMF defines the maximum extent of flood prone land, that is, the floodplain. It is difficult to define a meaningful Annual Exceedance Probability for the PMF, but it is commonly assumed to be of the order of once in 10,000 to 10,000,000 years¹.

The introduction of the PMF has significant impacts upon the development potential of land within Sydney as well as throughout NSW, particularly land identified as being between the 1:100 flood level and the PMF.

The UTA supports the ongoing use of the 1:100 measurement and supports the existing flood plain management approach currently used in NSW. This measurement is considered a suitably accurate and appropriate measurement of flood risk, which has opened appropriate areas of land for

¹ NSW State Emergency Service, [New South Wales State Flood Plan Glossary](#), Supporting Document to the NSW State Flood Plan, February 2018

development without unnecessarily sterilising land which is not at risk of flooding, or at very minimal risk of flooding.

We note that the Department of Planning itself, in the Western Sydney Aerotropolis Plan, a document recently prepared by the Department, has opted to utilise flood risk mapping of the South Creek Precinct using the '1:100 flood event' mechanism, as opposed to the 'Probable Maximum Flood' mechanism which was used in the Stage 1 Aerotropolis LUIIP.

Better guidance is required

The *Guideline on Development Controls on Low Flood Risk Areas (2007)* needs to be replaced with better, clearer guidance consistent with the existing NSW Flood Prone Land Policy and Floodplain Development Manual.

The draft Package provides the opportunity to do this if amendments and modifications were made.

Additional material should be included to better assist councils and other consent authorities achieve an appropriate balance of the benefits and costs of developing in the 'Outer Floodplain'.

In its current version, it will be interpreted by many councils and consent authorities as promoting a more risk-adverse approach to development that will result in unnecessary sterilisation of floodplain land. Specifically, further guidance is needed to address low probability, high consequence regions of the floodplain.

This should include advice on:

- The use of the 'merit approach' espoused by the Manual and which balances social, economic, environmental and flood risk parameters to determine whether particular development or use of the Outer Floodplain is appropriate and sustainable
- The levels of risk accepted by society for other natural hazards
- The socio-economic consequences of inappropriate and unnecessary sterilisation of floodplain land, and
- The indemnity provided to councils when acting in accordance with the Manual (and accompanying legislated guidance material).

Economics impacts of the flood prone land package

The introduction of a new policy constraining future development of land is not in line with the NSW and Federal government's remit to streamline planning and support economic growth and recovery post-COVID-19. Adding additional, unnecessary red tape of questionable relevance will not assist in the state's economic recovery and will act as a hindrance to potential development and investment.

Our submission has been informed by Urban Taskforce member feedback and expert advice from Drew Bewsher of Bewsher Consulting.

Mr Bewsher has over 35 years' experience providing flood advice to councils and developers and has provided expert testimony in the NSW Land and Environment Court on over 100 occasions. He operates independently of the development industry and government.

His analysis of the draft Package is provided as an attachment to this letter and should be considered part of our submission.

The Urban Taskforce is always willing to work closely with the Government to provide a development industry perspective on these issues.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Tom Forrest', with a long horizontal flourish extending to the right.

Tom Forrest
Chief Executive Officer

Attached: Advice provided to Urban Taskforce Australia from flood expert, **Drew Bewsher** of Bewsher Consulting

1 July 2020
Ref: JNCPE_L1.docx

David Tanevski
Urban Taskforce Australia Ltd
Level 12, 32 Martin Place
Sydney NSW 2000

6/28 Langston Place
Epping NSW 2121
PO Box 352
Epping NSW 1710
T : 02 9868 1966
F : 02 9868 5759

www.bewsher.com.au

Bewsher Consulting Pty Ltd
ABN 24 312 540 210

By Email (only): David@kwc.com.au

Dear David

DRAFT FLOOD PRONE LAND PACKAGE

During our telephone call late last week you invited our firm to provide a response to DPIE's draft 'Flood Prone Land Package' (**draft Package**) which has recently been on exhibition.

Within this letter we provide a response from our perspective as flood risk practitioners who have over 35 years' experience of providing advice to NSW councils and to developers, including providing expert testimony in the NSW Land and Environment Court on over 100 occasions. We have also drafted the flood controls within DCPs for over 25 councils. We are independent of the development industry, and the local and state agencies responsible for land use planning and development approvals.

Whilst the current system for management of floodplain development in NSW has generally worked well, there are areas that need improvement. Therefore we welcome DPIE's initiative to make changes through the draft Package although amendments to the Package are required.

RESPONSE

1. Planning Circular PS07-003 and its associated documents (the **2007 Guideline**) arose at a time when our draft Blacktown FRMS&P was under consideration including draft planning controls for development in the 'low flood risk precinct' within the Blacktown LGA. Over the 13 years that have elapsed since 2007, there has been widespread condemnation of the Guideline as providing an inadequate response to the management of flood risks in the region of the floodplain between the typical residential FPL and the PMF level (i.e. the **Outer Floodplain**).
2. We support the replacement of the 2007 Guideline with clearer guidance provided it is consistent with the NSW Flood Prone Land Policy (**Policy**) and the Floodplain Development Manual (**Manual**). The draft Package goes some way to achieving this objective but it lacks some key aspects of guidance which are necessary. The remainder of our response addresses these aspects.
3. Flood risks in the Outer Floodplain are generally poorly understood and often inadequately managed in NSW. These usually involve the 'low probability / high consequence' events which are difficult for developers and consent authorities to understand. Focusing too much on either the low probability or the high consequence leads to biased and inappropriate outcomes.

4. Application of the Policy and Manual to land use planning within the Outer Floodplain requires “*balancing the relative costs and benefits of using the floodplain*”.¹ Whilst the flood hazards need to be recognised and avoided where significant, land use planning must also recognise that “*flood prone land is a valuable resource that should not be sterilised by unnecessarily precluding its development*”.²
5. In our experience, this ‘balancing’ is on occasions poorly achieved and the outcome is inconsistent with the Policy and the Manual. Many councils lack the skills and the guidance to achieve a suitable ‘balance’ and therefore adopt a risk-averse approach when considering development proposals in the Outer Floodplain.
6. Our main criticism of the draft Package is that it does not assist councils in achieving an appropriate balance. The current wording of the draft Package will likely be interpreted by many councils as encouraging consent authorities to take a more risk-averse approach to development in the Outer Floodplain.
7. The stated aim of the guideline which is to “*help NSW communities to be more resilient to flooding beyond the 1% Annual Exceedance Probability (AEP)*”³ will be interpreted to mean less development. Further there is nothing in the draft Package to help councils avoid unnecessary sterilisation of the floodplain due to inappropriate assessment of the true flood risks.
8. Councils need more guidance from DPIE on how to deal with the low probability / high consequence environment in the Outer Floodplain and to avoid unnecessary sterilisation of floodplain land. A PMF event is typically 1000 times less likely to occur than a 1% AEP event but many councils apply the same ‘one size fits all’ approach when formulating controls for the PMF.
9. Consent authorities also lack knowledge of the level of risks which society accepts when considering other natural hazards, particularly those hazards which involve direct risks to life. For example, the National Construction Code adopts between 1 in 1500 and 1 in 2000 year as appropriate standards when designing buildings against earthquakes and cyclonic winds, and Austroads uses 1 in 2000 year when designing major bridges. In the absence of a proper understanding of the level of risk which society accepts, consent authorities sometimes apply controls to the management of flood risks which are significantly more onerous than for the management of other natural hazards.

Summary

- (a) The 2007 Guideline needs to be replaced with better guidance consistent with the Policy and the Manual. The draft Package in a modified form provides an opportunity for this to occur.
- (b) The draft Package is not supported in its current form. It needs additional material and guidance included to better assist councils and other consent authorities achieve an appropriate balance of the benefits and costs of developing in the Outer Floodplain.

¹ Section B1 of the Floodplain Development Manual.

² Part of the primary objective of the NSW Flood Prone Land Policy as outlined in Section 1.1 of the Floodplain Development Manual.

³ Opening paragraph of draft document entitled ‘Considering flooding in land use planning guideline’.

- (c) In its current form it will be interpreted by many councils and consent authorities as promoting a more risk-averse approach to development that will result in unnecessary sterilisation of some floodplain land.
- (d) Further guidance is needed from DPIE to address low probability / high consequence regions of the floodplain. This should include advice on:
- the use of the merit approach espoused by the Manual and which balances social, economic, environmental and flood risk parameters to determine whether particular development or use of the Outer Floodplain is appropriate and sustainable;⁴
 - the levels of risk accepted by society for other natural hazards;
 - the socio-economic consequences of inappropriate and unnecessary sterilisation of floodplain land; and
 - the indemnity provided to councils when acting in accordance with the Manual (and accompanying legislated guidance material).

Yours sincerely



Drew Bewsher
Director

⁴ Refer Foreword to the NSW Floodplain development Manual.