

25<sup>th</sup> January 2017



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Attention: Ms Maria Plytarias

Dear Ms Plytarias

### **State Environmental Planning Policy (Coastal Management) 2016**

Thank you for the opportunity to provide a submission on the State Environmental Planning Policy (Coastal Management) and draft local planning direction. The NSW State Emergency Service (NSW SES) welcomes the government's coastal reforms to address the coastal risk to the NSW coast and community. This submission is in addition to the submission the Service provided on the proposed Coastal Management Bill 2015 last year (attached).

The NSW SES 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 SES 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 responsibilities of the NSW SES and supporting agencies in relation to emergencies in the coastal zone are contained in the relevant state emergency sub plan to the State Emergency Management Plan (EMPLAN). These include the:

- NSW State Storm Plan (September 2015) which details arrangements for coastal erosion emergencies.
- NSW State Flood Plan (March 2015) which details arrangements in relation to flood emergencies including coastal inundation caused by flooding and storm surge.
- NSW State Tsunami Plan (March 2015) which details the arrangements in relation to tsunamis impacting coastal areas in NSW.

The NSW SES has a particular interest in ensuring the risks in the coastal vulnerability area, identified in the *Coastal Management Act 2016* (NSW), *State Environmental Planning Policy (Coastal Management) 2016* and further detailed in the supporting Coastal Management Manual, are minimised.

It is within the coastal vulnerability area where the risk to life could be compromised by poor management and planning outcomes that do not adequately address the coastal hazards and associated risks. It is critical that the coastal vulnerability area adequately consider the full

range of risks that could impact this area. This includes consideration of the full range of flood risk, tsunami risk and risk attributable to coastal erosion. Without this consideration, the safety to people and protection of property and infrastructure within the coastal areas may be compromised.

Therefore it is important to ensure that when defining the coastal vulnerability area that the decision maker considers the full range of risk that applies to the coast. This is especially important to ensure safety of the current and future populations living in or near the defined coastal vulnerability area.

### ***State Environmental Planning Policy (Coastal Management) 2016***

The draft ***State Environmental Planning Policy (Coastal Management) 2016*** requires a consent authority of a proposed development in the coastal vulnerability area to ensure that the matters in the regulation are met (reg 13). These include that:

- (2) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the proposed development:
  - (a) ...
  - (b) *is not likely to cause increased risk of coastal hazards* on that land or other land, and
  - ...
  - (e) *incorporates appropriate measures to manage risk to life and public safety from coastal hazards.* (emphasis added) (reg 13)

The regulation does not define how a consent authority, such as a council, will determine that development 'will not likely increase risk of coastal hazards on that land or other land' or what would be considered 'appropriate measures to manage risk to life and public safety from coastal hazards'?

It is therefore pertinent that guidance be provided in the Coastal Management Manual so a Council knows how to determine if a development:

- 1) 'will not likely increase *risk of coastal hazards* on that land or other land'(emphasis added);

And what appropriate measure might fulfil the requirement:

- 2) 'incorporates *appropriate measures to manage risk to life and public safety from coastal hazards*' (emphasis added)

### ***'Risk of coastal hazards'***

The NSW SES recommends that the full range of risk (i.e. up to the either the worst case scenario or some other critical threshold based on consequences) be considered in any decision relating to the management of coastal land. This will ensure that the risk to the



coastal vulnerability area is understood and decisions can be made that have taken into consideration of such probability and consequences. Where the full range of risk is not considered, lives or safety of the community could be compromised at more severe events that the zone does not applies to. It is also especially important for any potential to increase or decrease the boundaries of the coastal vulnerability area.

***‘Appropriate measures to manage risk to life and public safety from coastal hazards’***

Additionally, the *Coastal Management Manual* should define what the ‘appropriate measures’ are, and ensure that they are consistent with the NSW SES strategies to manage risk to life during a flood (including storm surge), storm (including coastal erosion) and tsunami. This is especially important when considering strategies, such as evacuation, to ensure the safety of vulnerable occupants. Moreover, this should not allow decisions to approve development that are inconsistent with the floodplain development manual or the NSW SES position on evacuation. Sheltering in place or on-site refuges for new development are not strategies generally supported by NSW SES and should only be considered as options of last resort.

Regulation 17 of the SEPP (Coastal Management) states that consent cannot be granted to a development on land within the coastal zone (including the coastal vulnerability area) unless the consent authority has taken into account the coastal management program that applies to the land or the coastal zone management plan (until 31<sup>st</sup> December 2021). This includes meeting the management objectives for the coastal vulnerability area (Coastal Management Act 2016 (NSW), s 7) which include:

- *ensuring public safety and prevent risks to human life* (s 7(2)(a)); and
- mitigating current and future risk from coastal hazards taking into account coastal process and climate change (s 7(2)(a))... (refer also to Part B, Stage 1, 1.7)...

In defining and managing the coastal vulnerability area and to achieve the objective of ‘*ensuring public safety and prevent risks to human life*’, the full risk to life from the hazards such as flooding (including storm surge), storm (including coastal erosion) and tsunami should be considered. Furthermore, the ‘appropriate measures’ need to be consistent with the strategies to manage risk to life of the agencies that are responsible for managing risk to life in such events.

***Draft Local Planning Direction – Coastal Management (S 117(2) of the Environmental Planning and Assessment Act 1979)***

The draft local planning direction states that:

A planning proposal must not rezone land which would enable increased development or more intensive land-use on land:

(a) within a coastal vulnerability area identified by the State Environmental Planning Policy (Coastal Management) 2016

; or

(b) identified as land affected by a coastal hazard as per (1)(b) above

- (1)(b) (*Direction applies to land that:*  
(b) *has been identified as land affected by a current **or future coastal hazard** in a study or assessment undertaken:*
- (i) *by or on behalf of the relevant planning authority, or*
  - (ii) *by or on behalf of a public authority and provided to the relevant planning authority.*

Direction (6) states that a planning proposal can amend the coastal vulnerability (and other land) maps by *increasing or decreasing* land in this zone. (emphasis added)

The NSW SES is concerned how the coastal vulnerability area might be defined. Although the principles within the draft local planning direction are consistent with not increasing the risk to life and property in the coastal vulnerability zone, if in defining the coastal vulnerability zone the full range of risk is not considered, this could mean that the risk to life could be compromised in more severe scenarios than planning has allowed for. This would especially be the case when land is no longer considered to be in the coastal vulnerability area or if it is outside of this area.

Consideration of the full range of risk in any decision relating to the management of coastal land will ensure that the risk to people and property in the coastal vulnerability is understood and decisions can be made that have taken into consideration such risk. This is especially important for any potential to increase or decrease the boundaries of the coastal vulnerability area. Moreover, there would have to be strong evidence to show that there is no longer risk to life and property in the coastal vulnerability area for land to be assessed as no longer being in this zone.

### **Coastal Management Program/Coastal Management Manual**

The NSW SES has the following comments, concerns and recommendations for improving the *Coastal Management Manual*, the toolkit and the overall development of the Coastal Management Program (CMP) as it relates to the SEPP (Coastal Management). These include:

#### ***1) Recognising risk above the 1:100 yr planning level and plan accordingly***

The Coastal Management Manual states that

‘the CMP should be developed to consider very large, low probability events....at timeframes up to, and if appropriate, beyond 100 years’ (Part A, p 11 (14) )

It is the NSW SES position that a coastal management program should assess risks up to an extreme event such as the probable maximum flood.

This will ensure that the risk to the coastal vulnerability is understood and decisions can be made that have taken into consideration such risk. This is especially important for any potential to increase or decrease the coastal vulnerability area.



In the guidance that will be provided by the yet to be distributed *NSW Regional Coastal Hazard Mapping: Coastal Erosion Vulnerability Areas* report in the Coastal Management Toolkit, this should point to including recognition of all risk up to an extreme event such as the probable maximum flood or similar for coastal inundation and erosion.

## **2) Providing guidance on how to determine the tolerability or intolerability of a risk.**

The *Coastal Management Act 2016* (NSW) requires, in preparation of *Coastal Management Programs*, that councils follow a risk management process: *Coastal Management Act 2016* (NSW), ss 21(2) and 21(3)(b).

Part B, stage 2 of the *Coastal Management Manual* assists in guiding this process. More specifically (at page 3), it defines what an acceptable and tolerable risk is but does not provide guidance on how to determine whether a risk falls under these definitions.

It is important to provide guidance on how to determine whether a risk is tolerable or not. Such guidance will enable a council to be more confident in establishing tolerability limits, but most importantly will ensure safety of the public, property and related infrastructure.

## **3) Defining and determining 'risk to life'**

As part of the risk management process referred to in point 2 above, Part B, stage 2 in the *Coastal Management Manual* addresses how to undertake a risk assessment of the coastal risks.

The manual discusses how to assess risk to life (Part B, stage 2, 2.6.6, p 26). It states:

*'Risks to life may arise from cliff and bluff instability, inappropriately located access tracks, poor water quality, or from unsafe conditions created by erosion of beaches, including areas where significant beach erosion escarpments remain after a storm, and use of powered vehicles on beaches, foreshores and waterways'.*

However there is no mention of risk to life from coastal flooding, tidal inundation or tsunamis. This seems to be an oversight and the statement should be amended to include these additional risks to life.

The manual also suggests that the Australian Geomechanics Society Guidelines (2007) and the National Emergency Risk Assessment Guidelines (2015) (NERAG) should be used to determine risk to life. It states

*'These documents also identify appropriate scaling of consequences for risks to life, for various population sizes'*

It should be noted that NERAG only suggests a risk management framework to how risks are to be assessed. It does not address risk to life from coastal hazards *per se*, although does mention that emergency management is generally concerned with the objectives of protecting life (NERAG, p 16) and that consideration should be given to consequences to people of a risk in the risk analysis (p 55-8). The Landslide risk management guidelines are specific to landslide risk and should be used in that context.

The NSW SES recommends that the manual provide additional guidance on how to address 'risk to life' and include the risks mentioned above. There should also be further guidance included in the toolkit.

**4) Identify tsunami as one of the coastal hazards in the *Coastal Management Act 2016* (NSW)**

Tsunami is not included as a coastal hazard in the definitions of the *Coastal Management Act 2016* (NSW). This seems to be an oversight considering a tsunami will impact the NSW coast and the people and property, the extent to which is not yet fully understood, but to which has been recognised by recent scientific studies and the *NSW State Tsunami Plan*. However as data is made more available to understand tsunami risk councils need to consider such risk in their Coastal Management Program. To ensure the government is not liable for not considering a known risk in coastal management, tsunami should be included as a coastal hazard.

**5) Renaming 'Coastal Emergency Action sub Plan' to '(Council name) Coastal Emergency Action Plan' to avoid confusion with the emergency arrangements under the *SERM Act* and *EMPLAN***

The currently known 'Coastal Emergency Action sub Plan' has been somewhat confusing to those preparing and implementing the plan, especially with trying to determine roles and responsibilities and when the emergency management arrangements are triggered.

The current 'Coastal Emergency Action sub Plan' is not a sub plan to the local EMPLAN and sits outside of the emergency management arrangements guided by EMPLAN, the *State Emergency Rescue and Management Act 1989* and the *State Emergency Service Act 1989*. Considering the plan will eventually no longer be attached to the Coastal Zone Management Plan it is recommended that this renamed as the 'Coastal Emergency Action Plan.'

The guidance on how to prepare such a plan, which is currently not available in the toolkit, will need to ensure the arrangements within are consistent with the NSW State Storm Plan. Particularly there needs to be clear delineation of the roles of Council and SES during a coastal erosion emergency.



The NSW State Storm Plan (September, 2015) states that (@ Section 4.3, page 21):

- a) Coastal Erosion Emergency Action Sub Plans should comprise arrangements for the *undertaking of council functions only*, such as possible emergency engineering works or actions to reduce public safety risks on beaches, where they are deemed appropriate.
- b) Coastal Erosion Emergency Action Sub Plans should not replicate arrangements in NSW SES sub plans, though may make reference to arrangements in NSW SES sub plans
- c) Councils should consult with the NSW SES when developing emergency arrangements to be included in the Coastal Erosion Emergency Action Sub Plan to ensure compatibility with NSW SES Sub Plans
- d) Emergency response planning for storms is the responsibility of the NSW SES. Commonly NSW SES response arrangements for coastal erosion will include detail on:
  - a. The nature of the coastal erosion hazard in the specific council area;
  - b. Responsibilities of key agencies;
  - c. Arrangements for public education;
  - d. Arrangements for warning and evacuation; and
  - e. Arrangements for the protection of readily removable household and business contents (emphasis added)

The NSW SES recommends a guidance document that assists council prepare a coastal emergency action sub plan should be developed (or significantly amended from the previous guideline) in consultation with the NSW SES and other relevant agencies.

## Recommendations

In summary the NSW SES recommends:

1. **The *State Environmental Planning Policy (Coastal Management) 2016*, reg 13 define and provide adequate guidance on how to determine “will not likely increase risk of coastal hazards on that land or other land”; and what appropriate measure might fulfil the requirement: ‘incorporates appropriate measures to manage risk to life and public safety from coastal hazards.’**
2. **In assessing coastal risk, a decision maker should consider the full range of risk and not limit planning to the 1:100 year level.**
3. **Guidance on how to determine the tolerability or intolerability of a risk should be provided in the *Coastal Management Manual* or associated toolkit.**
4. **The *Coastal Management Manual* should be amended to provide adequate guidance on defining and determining ‘risk to life.’**

5. Tsunami should be identified as one of the coastal hazards in the *Coastal Management Act 2016* (NSW).
6. 'Coastal Emergency Action sub Plan' should now be renamed as '(Council name) Coastal Emergency Action Plan' to avoid confusion with the emergency arrangements under the SERM Act and EMPLAN.
7. A guidance document that assists council prepare a coastal emergency action sub plan should be developed in consultation with the NSW SES and other relevant agencies.

### **Concluding Remarks**

The NSW SES thanks the Department of Planning and Environment and the Office of Environment and Heritage for the opportunity to comment on the draft State Environmental Planning Policy (Coastal Management) 2016 and associated Coastal Management Program, Manual and toolkit. It is hoped that the Department considers the recommendations in this letter so that the coastal risk is fully assessed now and into the future, to ensure safety of the NSW community.

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. The NSW State Emergency Service is available to meet with the Department of Planning and Environment to further discuss this matter.

Yours sincerely,



Belinda Davies  
Manager Emergency Risk Management  
**NSW State Emergency Service**

Cc: A/Director, Emergency Management  
Planning Coordinator



**Attachment:**

1. NSW State Emergency Service submission on the Coastal Reform Package and Coastal Management Bill 2015 (29<sup>th</sup> February 2016)





## NSW SES Submission to the NSW Coastal Reforms Package

NSW SES thanks the NSW Office of Environment and Heritage for the opportunity to make submission to the development of the Coastal Management Reforms Package and the review of the Coastal Management Bill 2015.

Please find below our key recommendations.

- The NSW SES agrees that any coastal management program continue to be separate from matters dealt with the State Emergency and Rescue Management Act 1989. However the reforms package represents an opportunity to make explicit NSW SES' role related coastal storms, and/or determining trigger mechanisms for response to coastal erosion events (e.g coastal storm warnings). It should be made unambiguous that NSW SES has a minimal role in Coastal Zone Emergency Protection Works under the proposed legislation (for example placing large sand bag protection of coastal property from coastal erosion).
- The Coastal Management Bill 2015 does not explicitly include tsunami in the definition of coastal hazards. The tsunami risk in NSW, and indeed nationally, has traditionally and adequately been dealt with by emergency management sectorial arrangements. New research is increasing the understanding of tsunami risk in Australia, and emergency pre-planning for tsunami risk is advancing incrementally. The Coastal Reform Package presents the opportunity for tsunami risk to be considered in a Landuse Planning and Coastal Floodplain Risk Management context, in addition to existing preparedness by emergency management agencies such as the NSW SES. To this end the reforms package should include considerations consistent with current best practice in the Landuse Risk Management sector, including, for example state planning legislation, instruments, guidelines, strategies, and local government arrangements.
- NSW SES considers it necessary for inclusion of emergency management representation on the independent NSW Coastal Council, at least initially in the early phase of its Terms of Reference.
- The NSW SES recommends it is consulted early and on an ongoing basis throughout the development (and future review) of the new Coastal Management Manual, to ensure that the legislated roles and responsibilities of the NSW SES in emergency management of coastal storms and floods are accurately described. It is noted that the draft Manual Stage 2 P18-19, detail water level anomalies as a consequence of tsunami. NSW SES recommends that reference to the tsunami hazard be applied consistently throughout all appropriate chapters of the Coastal Manual.

For enquires related to this submission and any ongoing consultation, please contact Belinda Davies, Manager Emergency Risk Management, Emergency Management Directorate, NSW SES State Headquarters (02 4251 6111).

29 February 2016

