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10 September 2010

GW043-10

Executive Officer
Waters, Wetlands and Coast Division
DECCW
PO Box A290
Sydney South NSW 1232

Dear Executive Officer,

Re: SCCG Submission: Draft Minister's Requirements under the Coastal Protection Act 1979

INTRODUCTION

The Sydney Coastal Councils Group (SCCG) would like to take this opportunity to provide initial comment on the *Draft Minister's Requirements under the Coastal Protection Act 1979* posted on the Department of Climate Change and Water (DECCW) web site. We thank the Minister for the opportunity to comment on these guidelines prior to the re-introduction of the amendments to the Coastal Protection Act in the NSW Parliament and understand that such comment is requested by 10 September 2010. We further thank the Executive officer for agreeing to accept our slightly late submission.

We understand that the NSW Government intention is to gazette these guidelines following the "Coastal Protection and Other Legislation Amendment Bill 2010" passing the parliament. These will then provide the basis for emergency management works on NSW beaches, superseding the old emergency management plan requirements, as incorporated into the amendments to the Act and passed with bipartisan support from the Parliament in 2004.

In reviewing the Draft Ministers Requirements, we have had some difficulty in assessing how the overall process may work, given that key supporting guidelines are not finalised and available for our consideration (and some remain to be prepared as drafts). It is our continuing position that the proposed coastal reform package and legislative amendments, of which the guidelines and Minister's requirements form an integral part, would have been better presented for consultation and comment as a single package rather than in steps as is currently occurring.

In the preparation of this submission the SCCG has engaged an experienced coastal engineering expert and has also sought advice, comment and input from SCCG Member Councils. We are also currently finalising legal advice on the Draft Bill in partnership with the Local Government and Shires Associations and this will also be provided to the Department and the Minister as part of the overall submission process being developed by the SCCG.

Specific comments and recommendations have also been made by SCCG Member Councils in submissions to the Department of Environment and Climate Change and Water (DECCW). The SCCG supports the comments and recommendations made by Member Councils however these will not be specifically addressed in this submission.

We are also aware of the issues of concern raised at the presentation of the guideline(s) to the LGSA member Councils in Sydney on 19 July and those regional workshops undertaken by the LGSA. These have been reflected in the draft response to the legislation subsequently provided by the LGSA to DECCW. We support and reiterate those identified concerns.

SPECIFIC COMMENTS

Section 1.1

(a) While it is agreed that “beach erosion is imminent or likely to be imminent when the distance.....is less than 10 metres”, this is not the only measure of potential hazard as:

- Movements of the erosion escarpment of up to 25 metres in a single event are documented in the literature at locations along the NSW coast (based on measurements made by DECCW) and it is therefore possible that a dwelling located more than 10 metres from the escarpment could be lost during a single storm event without the opportunity to implement emergency protection measures.
- The measurement of the distance from the escarpment to the front wall of a dwelling is considered not appropriate. The critical building element is the foundation supporting the structure. It is possible (and quite common) to construct building elements (including the seaward wall) supported on a cantilevered support to foundations located many metres further landward.
- Damage to dwellings usually occurs as a result of foundation failure and the defined zone of reduced foundation capacity may extend tens of metres landward of the erosion escarpment (depending on local conditions and foundation design). Dwellings well beyond the proposed ten metre trigger may already be at risk or experiencing damage as a result of foundation failure.

The more realistic trigger would be a certificate provided by a suitably qualified engineer certifying that the dwelling could be at risk from the next storm event or series of storm events. Given the small number of homes that the Government believes to be affected and the restriction of the application to recognised “hotspots” (ie ~200 properties), it may be easier and more effective for the Government to simply identify those properties/areas to which the emergency management provisions apply.

The requirement to obtain an engineering certificate from a professional engineer that any existing works “*provide a lower degree of erosion protection than emergency coastal protection works*” is unrealistic. In most cases for illegal works (and in some cases legal works), no design drawings or records exist relating to their construction. They are usually buried and cannot be examined without extensive excavation/investigation. In many cases they would consist of rock, rubble or other durable materials, more likely to survive a storm event than the lightweight sand filled units currently proposed for protection works, and therefore (in most cases) a certificate could not be provided. For approved protection works, these would have been (in most cases) designed to an engineering standard to provide protection. Again, our advice is that such structures would provide significantly more protection than the temporary works proposed under this guideline. This requirement therefore presumably negates the applicability of the emergency works at most identified hotspot locations along the NSW coast.

The requirement that prior to the implementation of emergency measures during a period of erosion, approval must be obtained from both a senior police officer as to the safety of the site and certification by a professional engineer that the escarpment has a low likelihood of failure is in our opinion not workable. Our advice from our engineering consultant is that an erosion escarpment which is formed by wave erosion and is standing at an angle steeper than the natural angle of repose for the material, is inherently unstable, having a factor of safety less than one. It would not be prudent for an appropriately qualified and experienced engineer to provide such a certificate in most cases.

Therefore, further consideration is required to provide a more flexible approach to set the rangers of distances (as defined for immediate risk) and these be further considered and specifically defined in Councils' "Emergency Sub-Plan and any associated temporary works certificate(s)".

There is also clearly more consideration and consultation required regarding the roles and responsibilities of the NSW Police Service which may be at odds with the proposed requirements and also with other Crown Lands and Local Government Plans of Management and other land use controls and associated restrictions.

Section 1.2

Our engineering consultant advises that, while the materials specified in section 1.2 may be used to design works appropriate for coastal erosion protection, the conditions and limitations incorporated in the draft Ministerial Requirements will ensure that the emergency works proposed provide little or no protection to properties at risk from wave action, and in fact may result in damage to adjacent properties (including the beach) which Local Government, Land and Property Management Authority (LPMA) or DECCW (as Coastal Authorities) will then have to address.

While beach nourishment is a well-used and effective beach management option, it is not generally practical during an erosion event where placement by trucks and heavy earth moving equipment will be required.

Section 1.3

In general, the selection of sand for beach nourishment is based on the properties of the existing material. It is usual to specify similar colour and composition to the native sand, noting that colour may vary from pure white to orange and composition may vary from 100% quartz to almost 100% shell (e.g. north coast NSW beaches c.f. Sydney northern beaches). Similarly the grading is usually selected to match the existing grading or to be slightly coarser. The AS 2758 series is published in a number of parts and specifies aggregates, (including sand) for a range of construction purposes. Better specification as to which part of AS 2758 is to be used would assist.

The potential for contaminated sand to be used in either sand bagging or nourishment activities is not addressed in the Ministerial Requirements or Guidelines.

To rectify this it is recommended that:

- All materials used for sand bagging or nourishment be waste *Virgin Excavated Natural Material* (VENM) as identified in Schedule 1 of the Protection of the Environment and Operations Act 1997; and
- Suppliers of sand to residents or coastal authorities also be required to demonstrate a "chain of custody" that complies with an associated Australian Standard (similar to the Forestry Chain of Custody - AS 4707) that verifies the origin of the sand, its appropriateness for placement on a beach environment and its quality (ie not being contaminated).

Section 1.4

The safety requirements outlined would be difficult to meet if an erosion escarpment is actively eroding during the placement. Specifically, the issue of an engineering certificate in a situation where a 2 metre high escarpment has partially collapsed to the effect that "there is a low likelihood of failure of the escarpment" is problematic (see previous comment in section 1.1).

The construction requirements for the type 1, 2 and 3 works apparently do not follow sound engineering practice. In designing a structure to protect an erosion escarpment from wave attack it is common engineering practice in NSW to design for scour of the toe of the structure to at least -1m AHD and for wave run up at the crest of in excess of +6m AHD (depending on wave exposure). Our engineering consultant advises us that the protection works proposed at a maximum height of 1.5m using lightweight materials are designed to fail. They will be undercut and overtopped, the two most common causes of failure. The use of lightweight units also increases the likelihood of the units being dislodged and moved away from the initial placement location causing offsite impacts and nuisance to other areas along the beach and within the surf zone. We believe there is little value in allowing construction to proceed for a structure that has little or no chance of protecting a property against wave attack and that in all probability will result in construction material being distributed along the beach as the structure collapses, with Local Government required to organise its removal after the event. The SCCG also questions the logic of DECCW in giving an expectation to the community of asset protection when this is very unlikely to occur with the protection options being proposed.

While the sand nourishment option may provide some protection of the escarpment, the requirement for construction from the beach face makes use of this option during an emergency unlikely. Placement of the material would need to be undertaken before the erosion event and at low tide. No guidance is provided as to the amount of sand placement that would be appropriate. We are advised by our engineering consultant that a severe storm event is capable of eroding 250 cubic metres of sand per metre of beach above mean sea level.

Section 1.5

We note the constraints included that are designed to limit the use of and damage to public land. However, the situation remains that when the works are undertaken, Council is not required to be advised in advance but at the first possible opportunity. Any damage to public land or inappropriate placement/use of structures or materials/equipment may only be identified after the event. In that case it remains the responsibility of the Local Government Authority or another Coastal Authority to initiate measures to rectify the situation.

SCCG member councils have highlighted the use of public lands as one of the most concerning and problematic elements of the erosion reforms and have continuously reiterated that use of public lands for these purposes as inappropriate.

Of overarching concern to delegates is that the construction or placement of temporary protection works on public land could potentially expose councils to increased liability in the following areas:

- **Injury to members of the public:** Once the materials used for the temporary protection works are placed on public land councils have a duty of care to ensure members of the public using the public land for recreation are not injured in the vicinity of the works or by the tools used to construct the works.
- **Damage to other properties:** Once a council has consented to access onto or through public land for the purpose of construction of temporary protection works a council could be exposed to liability for any damage done to surrounding property as well as public assets and utilities as a result of the works.
- **Maintenance of temporary works:** As councils are responsible for ensuring compliance with the guidelines for the maintenance of temporary structures, councils could be exposed to liability if compliance with the guidelines was not enforced.

Additional to the increased exposure to liability, Member Councils also question the legality of councils allowing private use of public lands classified as “Community land”. Overall, it is felt that issues associated with increased exposure to liability of councils could be removed if all activities required for the construction and placement of temporary protection works were to be undertaken on private property via an appropriate compliance process.

Combined with an increased exposure to liability and the legality of using public land classified as Community land for private use a number of other issues arise from the use of public land for the construction or placement of temporary protection work. These are:

- **The need for multiple approvals and licences:** Within the coastal zone a number of public authorities are responsible for managing land as well as providing approvals and licences for access and use. Such agencies include but are not limited to councils, the National Parks and Wildlife Service, Marine Parks Authority, the NSW LPMA and in Sydney for example Sydney Water. Therefore a resident wishing to get access through or place temporary works on public land may potentially require licences or approvals from a number of authorities.
- **Damage to public infrastructure:** Residents or their agents driving trucks or heavy earth moving equipment through or onto public land are likely to cause damage to public infrastructure above or below the ground (including sewer and stormwater assets).
- **Potential impacts on Marine Parks, Aquatic Reserves and Intertidal Protected Areas:** The potential for temporary works to have an impact on the ecological function of Marine Parks, Aquatic Reserves and Intertidal Protected areas should be considered within the Ministerial Requirements and associated Guidelines.
- **Clearing of dune vegetation, endangered ecological communities and threatened species:** Additional to the licences required for access to public land the potential for clearing or damage to dune vegetation, endangered ecological communities and threatened species to occur is high.

Section 1.6

Again, we note the conditions that are proposed to limit the extent of the works and their impact to the subject property, or immediately seaward of it. However, again it becomes the responsibility of the Local Government Authority (or Coastal Authority) to initiate measures to rectify the situation should it arise. This is significantly problematic due to the existing resource constraints of Local Government and the lack of and inconsistent enforcement provisions contained in the current Draft Bill (further commentary on these enforcement issues will be provided with the SCCG / LGSA legal advice).

Section 2

The intent of this section is to ensure that the structures are adequately maintained and if damaged or posing a risk, are removed. Our advice is that the design and materials specified are unlikely to remain intact when exposed to wave attack, suffering either damage to the units and or their removal from the initial placement location. In each instance the responsibility again falls to the Local Government Authority to initiate measures to rectify the situation.

Section 3

We note the requirement that where removal is required in accordance with the Act, this includes all geotextile containers and sandbags. It is likely that when the structure fails, individual bags will bury themselves on the beach (down to the limit of scour) or will be moved along the beach and/or offshore. Complete removal of these containers and the fabric from which they were constructed is not likely to be achieved, particularly in the absence of any

excavation. Again the responsibility falls to the Local Government Authority to initiate measures to rectify the situation, which may extend well into the future as the containers are re-exposed. It is suggested that DECCW consider including pre existing site audits to ensure that pre existing environment and amenity conditions are defined so that affected areas can indeed be rehabilitated. The ability for Local Government to require rehabilitation bonds needs also to be considered.

Section 4

This section relates to the unlawful placement of emergency works providing for rehabilitation of the environment to its original condition within 30 days and is supported. Again the responsibility falls to the Local Governments to initiate measures to rectify these situations. In addition to comments in the above section, further consideration and requirement are needed to address the necessary maintenance provisions and any remediation works. Further consideration and details are also required regarding other site conditions as contained within Councils' Coastal Plans of Management, Community Lands Plans of Management and any other site specific restrictions or necessary Crown land licence considerations.

Section 5

This section extends the requirements in the Act for unlawful placement of material or structures to include inappropriate placement of emergency protection works and is supported.

Schedule 1

This schedule lists those areas regarded as "hotspots" where emergency works can be undertaken and includes three beaches within the Sydney Coastal Councils Group area, namely Basin Beach Mona Vale, Narrabeen/Collaroy Beach and Bilgola Beach. A total of twelve locations have been identified state-wide and advice from DECCW staff is that this may now apply to as few as six locations. We also note that the NSW Government may alter this list at any time by revising the schedule and re-gazetting the guideline. We seek clarification from DECCW regarding how Councils will be consulted on any changes to Schedule 1 including consideration of any site specific conditions and restrictions to these new sites.

ADDITIONAL ISSUES

- **The "Coastal Zone"**

The SCCG seeks clarity in regards to the area of applications for the various NSW definitions for the 'coastal zone' with the proposed amendments to the Coastal Protection Act, the Sea Level Rise Policy, the NSW Coastal Policy and also SEPP71.

This confusion is well articulated from issues raised by Hornsby Shire Council as noted below:

"It appears to be the 'intent' of State government to apply it where the Coastal Protection Act is applied but with priority given to hot spot areas. Whilst the hotspot areas are defined, Council planners advise there is still uncertainty as where the Coastal Protection Act applies. The uncertainty exists because of the use of the definitions of "Coastal Zone" in both Section 117 Direction 2.2 Coastal Protection and SEPP No. 71 and "coastal areas" in the Sea Level guideline. Hornsby Shire is not located in the Coastal Zone as declared by notice in the Government Gazette. Hornsby Shire is also not identified in the Schedule for which SEPP No. 71 applies. However, the "Coastal Zone - Greater Metropolitan Region" maps on the DOP website indicate that Dangar Island and Milson Island, both within Hornsby Shire, are within the Coastal Zone. Further, the Lower Hawkesbury River and its tributaries would be defined as a

"coastal area" under the Sea level rise guideline (August, 2010). Within the Sea level rise guideline (August, 2010) Coastal areas of NSW include " Sydney Harbour, Botany Bay, the Hawkesbury River and their tidal tributaries".

- **Communications**

The issue of communicating the existence and intent of the Ministerial Requirements and Guidelines to residents and business affected by coastal erosion is a major area of concern to our Member Councils. The potential for miss-information (shared between residents') and misunderstanding (residents' miss-interpreting the Requirements and Guidelines) are very high.

This could result in residents believing they were allowed to undertake a number of actions that did not comply with the Ministerial Requirements and Guidelines.

Such actions include:

- Undertaking emergency coastal protection works outside the approved locations, circumstances and triggers;
- Placing materials other than sand or geotextile bags on the beach;
- Taking sand off the beach for works; and
- Not maintaining the integrity of the works.

To address this, and prevent councils having to explain the Ministerial Requirements and Guidelines on a resident by resident basis, it is strongly recommended that the DECCW work with coastal councils on the production of the necessary standard and constituent educational materials to ensure that the Ministerial Requirements, the Guidelines and the numerous other reforms to coastal management in NSW is communicated consistently and appropriately.

Such materials would include:

- Fact sheets,
- Frequently asked questions and answers of staff on council inquiry counters,
- Consultancy briefs for design of emergency works,
- Materials of specific community forums and individual liaisons etc.

CONCLUSIONS

The Ministerial guidelines are designed to restrict emergency works to identified hotspot locations where they may be permitted, until such time as a coastal zone management plan is completed and gazetted. The conditions imposed are such that even at these locations the majority of the property owners may not be able to consider implementing emergency works (e.g. not within ten metres of existing escarpment or existing (including unapproved) works are in place etc.). For example at Narrabeen/Collaroy Beach, Warringah Shire Council advises that as few as two properties may currently have no form of existing protection. We are further advised that even if works can be undertaken, they are likely to be ineffective in protecting property. More probably the permitted emergency works would fail and Council would then be required to oversee and / or undertake their removal and then attempt to rehabilitate affected areas.

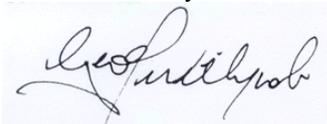
We do not see the advantage in putting forward a process where the outcome, at considerable effort and expense, is likely to be of little or no benefit either to individual property owners or the wider community. We recognise that the measures outlined are temporary measures that are only intended to be available until such time as a coastal zone management plan is developed and gazetted. We note the advice of DECCW to the NSW Coastal Conference in 2009 that they

would be giving Councils with identified hotspots a period of 12 months to develop and gazette coastal zone management plans for their hotspot areas. It is unfortunate that after 12 months we are still developing and reviewing the interim emergency provisions and it is the opinion of the SCCG that effort and resources would better be put towards developing and implementing the necessary strategic long term coastal zone management plans for the immediate areas of concern and then for the entire NSW coastal zone.

The SCCG remains committed to assisting ensure appropriate and workable outcomes of the DECCW reforms to coastal erosion and coastal management more generally for NSW. These proposed reforms must build on and improve the necessary strategic partnerships between local and state government and their communities to ensure the sustainable, equitable and strategic management of the NSW coastal zone.

If you wish to clarify any matter in this correspondence or require further information, please me directly on (02) 9246 7791 or geoff@sydneycoastalcouncils.com.au.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Geoff Withycombe', is placed on a light blue rectangular background.

Geoff Withycombe
Executive Officer