

10.5 Draft Coastal Erosion Emergency Action Subplan for Beaches in Warringah

EXECUTIVE SUMMARY

Purpose

To advise Council of amendments to the Draft Coastal Erosion Emergency Action Plan for Beaches in Warringah following its public exhibition, and to seek Council's approval to submit the Plan (now referred to as a Subplan) to the Minister for the Environment.

Summary

In May 2010, Council engaged a consulting engineering firm (Worley Parsons) to prepare a Coastal Erosion Emergency Action Plan for Warringah's Beaches and the Plan was received on 8 April 2011. Council considered a report titled 'Coastal Erosion Emergency Action Plan – Public Exhibition of Draft Plan' at its meeting held 24 May 2011, and resolved to place the Plan on public exhibition.

The public exhibition was held between 25 May – 27 June 2011 and 18 submissions were received. The submissions are summarised at Attachment 1, and responses or clarification statements have been incorporated in the Plan as appropriate. To comply with a Direction from the Minister for the Environment (the Minister administering the Coastal Protection Act 1979) Council must send a Draft Coastal Erosion Emergency Action Subplan (Attachment 2) to the Minister by 31 July 2011.

Financial Impact

Council has received a total of \$25,000 in grant assistance towards the preparation of the Plan from the NSW Government under its Coastal Management Program (\$20,000 in 2009/10 and \$5,000 in 2010/11). Costs associated with the preparation and public exhibition of the Plan were covered in Council's 2009/10 and 2010/11 budgets. Costs associated with finalising the Plan and implementation of its recommendations are included in Council's 2011/12 budget.

Policy Impact

The Coastal Erosion Emergency Action Subplan will form an important part of a Coastal Zone Management Plan which will be developed in 2012.

RECOMMENDATION OF ACTING DIRECTOR COMMUNITY AND ENVIRONMENTAL SERVICES

- A. That Council note the information included in this report, the Draft Coastal Erosion Emergency Action Subplan and supporting document entitled 'Management of Coastal Erosion Emergencies at Beaches in Warringah'.
 - B. That Council submit the Draft Coastal Erosion Emergency Action Subplan to the Minister for the Environment by 31 July 2011, in accordance with the Ministerial Direction received 31 January 2011, and request that the Minister refers the Subplan to relevant NSW Government Departments and the NSW Coastal Panel.
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- C. That Council develop and implement a communication strategy to inform members of the public (in particular beach-front land owners) about coastal hazards and risks.
 - D. That a further report be considered by Council when feedback on the Draft Coastal Erosion Emergency Action Subplan has been received from the Minister for the Environment and the NSW Coastal Panel.
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REPORT

Background

Coastal storms have caused damage to public and private property and assets in Warringah since the area was developed, particularly at Collaroy-Narrabeen Beach, Dee Why Beach, South Curl Curl Beach and Freshwater Beach. With current projections of sea level rise due to climate change, this situation is expected to deteriorate over time.

In May 2010, Council engaged a consulting engineering firm (Worley Parsons) to prepare a Coastal Erosion Emergency Action Plan for Warringah's Beaches and a Draft Plan was received on 8 April 2011.

Council considered a report titled 'Coastal Erosion Emergency Action Plan – Public Exhibition of Draft Plan' at its meeting held 24 May 2011, and resolved:

- A. That Council note the information included in the Draft Coastal Erosion Emergency Action Plan for Beaches in Warringah, and approve its public exhibition for a period of not less than 28 days.
- B. That any public submissions received during the exhibition period be considered and a further report to Council be provided to consider adoption of the final Coastal Erosion Emergency Action Plan for Beaches in Warringah.
- C. That all members of the Environmental Sustainability Strategic Reference Group (ES-SRG) and of the Warringah Coastal Community Committee (WC-CC) be personally invited to provide their feedback and recommendations – either individually or collectively - on the Draft Coastal Erosion Emergency Action Plan, and that the ES SRG and the WC-CC's recommendations and any amendments subsequently made to the Plan be included in the report to Council on the 26 July 2011.

This report details the work undertaken by Council staff and Council's consultant in implementing the above resolution, and the steps needed to finalise the Plan.

Public Exhibition

In accordance with the Council resolution (noted above), the Draft Coastal Erosion Emergency Action Plan was publicly exhibited during 25 May – 27 June 2011 (33 days in total). The Plan was made available for viewing by members of the public at the following locations:

- Warringah Council libraries
- Civic Centre (Customer Service Centre)
- Council's Website www.warringah.nsw.gov.au
- Narrabeen Tramshed Community Centre
- Coastal Environment Centre

Information also appeared in the 'Warringah Update' section of the Manly Daily during the exhibition period.



Community Forum

A community forum was held during the public exhibition period at the Long Reef Golf Club on Sunday 5 June 2011 (10am-12am). The forum provided interested members of the public the opportunity to learn more about the Plan, ask questions and provide comments. The forum was structured in a similar format to the first forum (held during the development of the Plan in August 2010) and consisted of three main parts:

1. Information presentations as follows:

Presentation 1: Daylan Cameron (Warringah Council) on why Council commissioned the Plan, and the process for publicly exhibiting and finalising the Plan

Presentation 2: Mark Darling (SES) on the SES role in coastal erosion emergencies

Presentation 3: Peter Horton (Worley Parsons) on the contents of the Plan

2. Panel discussion - The panel consisted of the above presenters and provided forum participants with an opportunity to ask questions from the floor.

3. One-on-one opportunity – Forum participants were invited to speak with the Plan’s authors and representatives of Council, to ask questions, provide information, or comments on the Plan. Forms were made available for forum participants to provide written comments, and information was provided on how to make a submission during the public exhibition period.

The event was attended by approximately 100 community members. Submissions received from forum participants were considered by Council staff and Council’s consultant, and incorporated into the amended Plan as appropriate.

Shortly after the Forum, a podcast of the presentations was uploaded to Council’s website at www.warringah.nsw.gov.au/environment/2011CEEAPForumPodcast.aspx, with links to the presentations at www.warringah.nsw.gov.au/environment/documents/Presentation-DaylanCameronCEEAPForum5June2011.pdf and www.warringah.nsw.gov.au/environment/documents/Presentation-PeterHortonCEEAPForum5June2011v2.pdf

Submissions and comments

A total of 18 written submissions were received in response to the public exhibition and the 5 June 2011 public forum. The submissions have been summarised at **Attachment 1**, and responses or clarification statements have been incorporated in the amended Draft Plan as appropriate. Section 13 of the Plan (titled ‘Consultation’) has been updated to include information on the submissions and the consultation undertaken during the Plan’s preparation.

It should be noted that Council and Worley Parsons staff also met with coastal management experts to discuss the Draft Plan and any potential improvements that could be made prior to submission to the Minister. This was particularly important in light of a number of critical guidelines that are still being developed by the State Government on this issue (including a guideline on actually preparing Coastal Erosion Emergency Action Subplans).

A presentation on the contents of the Draft Plan was also made to the Warringah Coastal Community Committee (WCCC) and interested members of the Environmental Sustainability Strategic Reference Group (ESSRG) on 30 June 2011. The WCCC was formally constituted by Warringah Council on 23 March 2010, and was established to consider and provide advice to Council on matters relevant to the management of Warringah’s coastline. In considering the Draft Plan, the meeting of 30 June 2011 recommended:

1. That Council recognises the primacy and protection of the beach over public and private assets.

2. That Council resolve that public monies not be used to protect private properties in an emergency.
3. That Council explore every option to refer the matter to the NSW Coastal Panel.
4. That the wider implications of coastal erosion emergency protection measures be communicated on a regular basis to property owners and the wider community.
5. That, in view of uncertainties and ongoing research, Council periodically reviews the plan as appropriate.

Amendments to the Plan in response to submissions

A number of changes have been made to the Draft Plan, since it was considered by Council at its 24 May 2011 meeting. One of the main changes is that the Draft Plan has been separated into two documents. The section of the Draft Plan that contained the emergency action components is now a single document entitled 'Coastal Erosion Emergency Action Subplan for Beaches in Warringah'. The remainder of the Draft Plan was renamed 'Management of Coastal Erosion Emergencies at Beaches in Warringah'. This structure is more appropriate for an emergency management document rather than including all the supporting reference material.

Other amendments made in response to submissions include:

- Provision of an Executive Summary, Conclusions, and Summary of Recommendations in the supporting document;
- Updates to section on Consultation in the supporting document to include information on the submissions and the consultation undertaken;
- Concerns regarding the possible ineffectiveness of Emergency Coastal Protection Works (ECPW) permitted under the *Coastal Protection Act 1979* have been highlighted further (e.g. in the Subplan, and in the Executive Summary, Conclusions and Summary of Recommendations of the supporting document);
- Inclusion of information in the Subplan and supporting document regarding the increased penalties and strengthened powers of authorised officers and order powers relating to illegal dumping on beaches;
- Inclusion of information in the supporting documents regarding the preparation of a Coastal Zone Management Plan (CZMP), which highlights that long term management measures would be considered as part of the preparation of such a plan;
- Arrangements relating to the role of the NSW Coastal Panel in the assessment and determination of Development Applications for seawalls (lodged by private landowners at Collaroy-Narrabeen Beach) are clarified in both the Subplan and the supporting document;
- Inclusion of information regarding the 'Bruun Rule' and why it was used are provided in the supporting document;
- Further information in the Subplan supporting document regarding properties in rocky areas possibly being at risk of damage due to combined coastal and geotechnical hazards, for example at Queenscliff Headland.



Additional matters for Council's consideration

While the above section of this report addresses the issues raised during the exhibition period, there are a number of general issues associated with Council's management of coastal erosion that warrant further discussion. These are set out below.

Effectiveness of Emergency Coastal Protection Works (ECPW)

A submission received during the public exhibition highlighted the likelihood that Emergency Coastal Protection Works (referred to in the Plan as "Part 4c sand/sandbags ECPW") would not provide an adequate level of protection from the beach erosion caused during some storms, and the perceived liability issues facing Council if it issued certificates for Emergency Coastal Protection Works. The submission suggested that Council may be liable should Emergency Coastal Protection Works not protect property, resulting in property damage.

It should be noted that the Draft Plan clearly acknowledged that "Part 4c sand/sandbags ECPW" are relatively ineffective forms of protection on the open coast, and that they are practically difficult for landowners to implement in non-storm times (and unlikely to be possible to implement at times of storms).

It should also be noted that the NSW Government's [Guide to the Statutory Requirements for Emergency Coastal Protection Works](#) (DECCW, 2011), which was produced to "help beachfront landowners and people acting on their behalf to better understand the statutory requirements for installing, maintaining and removing emergency coastal protection works", also acknowledges that ECPW cannot be guaranteed to provide protection to properties, in stating that:

"...these works are likely to provide protection from wave action during relatively small storms or swells which may also coincide with king tides. They may also provide a nominal or limited degree of protection from erosion during medium to large storms; however, they are also likely to be damaged during such storms. As a result, these works are not a long-term management option for coastal hazard threats."

Nevertheless, it is appropriate that the Subplan highlights further the fact that ECPW may only provide a limited degree of protection from erosion during medium to large storms, the likelihood of damage during such storms, and the requirements for maintenance after such storms. The amended Subplan incorporates these changes.

It is also appropriate that Council inserts wording (similar to the following) in any certificates issued under Part 4C of the *Coastal Protection Act 1979*:

'In granting this certificate under Part 4C of the Coastal Protection Act 1979, Council does not warrant that the ECPW will protect the owner's land from erosion, prevent damage to any building located on the owner's land or achieve the result (if any) specified in the Part 4C application. The ECPW could increase erosion resulting in property damage.'

Provision of information to the public

During forthcoming months it is important that Council continues to inform members of the public (in particular beach-front land owners and residents at Collaroy-Narrabeen Beach) on coastal hazards and risks, and what works can lawfully be undertaken, before, during and after coastal erosion emergency events, including the penalties that may apply for breaching the provisions of the *Coastal Protection Act 1979*.



State Government directions

During the preparation of the Plan, on 31 January 2011, the then NSW Minister for Climate Change and the Environment, The Hon Frank Sartor MP (and Minister administering the *Coastal Protection Act 1979*) issued the following directive:

“Under the provisions of section 55B of the Coastal Protection Act 1979 (the Act), I direct Warringah Council to submit a draft emergency action subplan, as defined in the Act, in accordance with the requirements under Part 4A of the Act for the coastline that is a beach from the Narrabeen Lagoon entrance south to the headland at north end of Beach Road, known as Collaroy-Narrabeen Beach, to the Minister administering the Act by 31 July 2011”.

It is considered that the requirements of this directive are met as part of Council’s preparation of the Subplan. In the cover letter attached to the directive (DOC11/5095), it was stated that “Coastal erosion emergency action sub-plans are relatively straightforward plans that should describe the actions Council intends to take to prepare for, respond to and recover from a coastal erosion emergency. The plan should also identify any requirements relating to landowner emergency coastal protection works”.

Following the NSW State election in March 2011, the relevant Minister (i.e. the Minister administering the *Coastal Protection Act 1979*) is now the Minister for the Environment, The Hon. Robyn Parker MP. While Council has not been given any indication that changes to the coastal planning legislation is proposed by the new government, correspondence has been received from Mr Mike Sharpin, Manager Urban and Coastal Water Strategy, Office of Environment and Heritage, Department of Premier and Cabinet (NSW) dated 28 May 2011, stating that

“...the Office of Environment and Heritage (OEH) recognises that managing coastal erosion risks is a challenging endeavour...OEH would welcome any specific suggestions Council may have on improving the policy and legislative framework for coastal protection.”

Council intends to take up this offer by providing the Subplan and requesting its referral to the NSW Coastal Panel for further review.

NSW Coastal Panel

The NSW Coastal Panel is a statutory authority under Part 2A of the *Coastal Protection Act 1979*, with membership comprising local government and public authority nominees. The Panel’s role is to provide expert advice to the Minister administering the Act and to local councils. The Minister may also refer draft coastal zone management plans to the Panel for review. The Coastal Panel is also the consent authority in relation to coastal protection works on the open coast where no coastal zone management plan exists.

Emeritus Professor Bruce Thom, as a member of the NSW Coastal Panel (one the three nominees of the Local Government and Shires Associations of NSW), has suggested that Council refer its Subplan to the Panel and inform the Panel of any difficulties Council envisages in implementing the Emergency Subplan in Warringah, and where the current legislation and regulations don’t really fit Warringah’s situation. It is hoped this will lead to further discussions with the State Government regarding how the legislation, regulations and guidelines could be improved to better reflect Warringah Council’s circumstances. In this regard, it is recommended that Council inform the NSW Coastal Panel of:

- Key issues raised in public submissions received during the public exhibition of the Draft Plan (as indicated in Attachment 1);
- Implications associated with trying to implement State Planning guidelines in coastal zones, particularly in light of the existing development on Collaroy-Narrabeen beachfront;

- The insurance implications for NSW Councils associated with the implementation of the Coastal Erosion Emergency Action Subplans and the development of the Coastal Zone Management Plans;
- Council's intention to include wording in any certificates it issues for ECPW highlighting that Council does not warrant that the ECPW will protect the owner's land from erosion, prevent damage to any building located on the owner's land or achieve the result (if any) specified in the Part 4C application;
- The importance of the State to continue to provide information to the public on coastal hazards and risks, coastal protective works that can lawfully be undertaken, and the penalties that may apply for breaching the provisions of the *Coastal Protection Act 1979*.

Coastal Zone Management Plan

The preparation of a Coastal Zone Management Plan has been directed by the Minister and a draft must be submitted by 31 December 2012. The development of the Coastal Zone Management Plan for Collaroy-Narrabeen beach will be a challenging undertaking for Council. It will require setting long-term planning objectives for the beach with consideration given to safety of property owners, public and private asset protection, and long-term preservation of beach amenity. This must consider the rapidly changing policy environment of the State and Federal governments with respect to climate change and coastal erosion, along with evolving engineering and scientific data.

Planning for the future of Collaroy-Narrabeen beach is essentially a matter of balancing available funding with desired outcomes. Serious consideration will need to be given to the financial, social and environmental risks associated with any particular outcome, and this should include making representations to further reform legislation and policy to better protect Councils and provide certainty to the community.

Additional risks

Council has sought to develop the Subplan and its proposed implementation so as to minimise risk and exposure to liability for Council, and also to meet requirements of Council's insurance cover. This will be particularly important during the implementation of Coastal Erosion Emergency Action Subplans and the development of Coastal Zone Management Plans throughout NSW during 2012, and it is important for such risks to be considered by the State Government and the NSW Coastal Panel.



Timing

Relevant dates are listed in the table below.

Date	Event
31 January 2011	Direction issued to Warringah Council by Minister for Climate Change and the Environment (Minister administering the <i>Coastal Protection Act 1979</i>) to submit a draft emergency action subplan for Collaroy-Narrabeen Beach by 31 July 2011
24 February 2011	Direction issued to Warringah Council by Minister for Climate Change and the Environment (Minister administering the <i>Coastal Protection Act 1979</i>) to submit a draft coastal zone management plan for Collaroy-Narrabeen Beach by 31 December 2012
24 May 2011	Council meeting to approve public exhibition of draft Coastal Erosion Emergency Action Plan for Beaches in Warringah
27 May – 27 June 2011	Public exhibition period of draft Coastal Erosion Emergency Action Plan for Beaches in Warringah
5 June 2011	Community Forum at Long Reef Golf Club (10am-12noon)
26 July 2011	Council report (including a summary of all submissions and comments received during the public exhibition period and any amendments subsequently made to the Draft Plan) considered by Council
31 July 2011	Draft Coastal Erosion Emergency Action Subplan to be sent to Minister (administering the <i>Coastal Protection Act 1979</i>) in accordance with Direction received from Minister for Climate Change and the Environment dated 31 January 2011
22 November 2011	Anticipated date for Council to consider adopting the Coastal Erosion Emergency Action Subplan for Beaches in Warringah
31 December 2012	Draft Coastal Zone Management Plan for Collaroy-Narrabeen Beach to be submitted to Minister (administering the <i>Coastal Protection Act 1979</i>) in accordance with Direction received from Minister for Climate Change and the Environment dated 24 February 2011

Financial Impact

Council has received a total of \$25,000 in grant assistance towards the preparation of the Plan from the NSW Government under its Coastal Management Program (\$20,000 in 2009/10 and \$5,000 in 2010/11). Costs associated with the preparation and public exhibition of the Plan were covered in Council's 2009/10 and 2010/11 budgets. Costs associated with finalising the Plan and implementation of its recommendations are included in Council's 2011/12 budget.

Policy Impact

The Coastal Erosion Emergency Action Subplan will form an important part of a Coastal Zone Management Plan which will be developed in 2012.

Manager Natural Environment

Attachment 1 - Attached to report
Attachment 2 - Attachment Booklet
Attachment 3 - Attachment CD

Summary of comments received during public exhibition

Comment	Response / clarification statement included in amended Plan
An expectation that the study should have also covered the Manly and Pittwater Council areas	Manly Council completed the "Manly Ocean Beach Emergency Action Plan For Coastal Erosion" in 2008, and Pittwater Council is currently completing a coastline hazard definition study and preparing an Emergency Action Subplan for its open coast beaches.
"informative and well organised" forum	Noted. No response / clarification statement needed.
"possibly a person with concerns representative of the community could have been invited to speak" at the forum	Noted. No response / clarification statement needed.
Agreement that residents must undertake their own forms of coastal protection works in compliance with legislation, but "Government should provide support";	Noted. No response / clarification statement needed.
"very informative", "good presentation" (in relation to forum);	Noted. No response / clarification statement needed.
Would like to have some information on hazards in rocky headland areas	As noted in Section 1, rocky areas are excluded from the study area for the investigation reported in the supporting documentation.
People wanting seawalls dominate in a piecemeal manner, rather than working at overall aspects and the complete picture	Noted. No response / clarification statement needed.
Creation of an offshore artificial reef should be considered and implemented if this will assist with emergency management measures	Long term coastline management measures that may reduce the risk of coastal erosion impacting on assets and beach amenity will be considered as part of the completion of a Coastal Zone Management Plan (CZMP). As noted in Section 8.2, Council is intending to prepare a CZMP for Collaroy-Narrabeen Beach by December 2012, and for the entire LGA by 2015.
Estimates for climate change etc need regular review as data is updated, and forums should be held periodically to update the community	Noted. No response / clarification statement needed.
"beach erosion and replenishment strategies are needed to protect valuable community assets";	Noted. No response / clarification statement needed.
"useful and enlightening" forum;	Noted. No response / clarification statement needed.
"such gatherings serve a useful purpose for our community and as our own information and knowledge gets better, such occasions do help ratepayers to keep informed";	Noted. No response / clarification statement needed.
"if 70% of [the Collaroy-Narrabeen seawall] is built on public land for desperate but unapproved property preservation reasons over the years, this is no excuse for Council not to take action progressively, but sensitively, to rectify the position, particularly if they buy back potential properties relevant to 2050 modelling"	<p>Based on Halliburton KBR Pty Ltd (2002), about 70% (710m) of the length Collaroy-Narrabeen Beach seawall between Jenkins Street and Devitt Street has at least some portion seaward of private property and thus on public beach. To clarify, this seawall is usually buried under sand, and a lower proportion (34%) of the area of seawall is on public land.</p> <p>It can be noted that a component of the seawall upgrading strategy adopted by Warringah Council (1997) involved localised landward shifts in the seawall where possible, that is locating the seawall as far landward as practicable.</p>

Summary of comments received during public exhibition

Comment	Response / clarification statement included in amended Plan
"the 2050 scenario was valuable for all of us to understand and I thank Council for the opportunity to be better informed"	Noted. No response / clarification statement needed.
"State and Council are being unrealistic if they believe residents can obtain a DA and pre-provide equipment and materials before an erosion event. The degree of the event cannot be accurately estimated and hence the reaction cannot be effectively pre-planned";	Noted. No response / clarification statement needed.
"Authorities must accept there will be a degree of ad hoc reaction...where one resident will do nothing the one next door may have a DA for extensive action. How will the border activities be controlled?";	Noted. No response / clarification statement needed.
"the interface between Council/State land needs to be established by survey...to ensure no overlap of authority"	Noted. No response / clarification statement needed.
"I congratulate you...on a well organised and presented public explanation...Good initiative and interactive, and constructive public input...a good report"	Noted. No response / clarification statement needed.
"it might be helpful...if it [the report] had 1-2 pages [on] the general geology of this coastal strip"	A section was added to Section 2.1 describing where rocky areas are located.
The report title is "Coastal Erosion Emergency Action Plan For Beaches In Warringah" but the actual action plan (termed a Subplan) is not reached until the last Appendix of the document	A specific "Coastal Erosion Emergency Action Subplan for Beaches in Warringah" (Worley Parsons, 2011) is now included under separate cover, and the investigation component of the Plan was renamed. Where possible, the terminology "Emergency Action Plan" has not been used.
Include an Executive Summary	This has been included.
"why is a disclaimer necessary?"	A report disclaimer is standard Worley Parsons company practice, reflecting that a report has been prepared based on a particular contractual arrangement with a client.
"the Bruun Rule should be retained until such time as a tested alternative is available"	Noted. No response / clarification statement needed.
"where climate change is discussed I think the May 2011 report and graphs produced by Will Steffen should be included and reference made to the Climate Commission's latest Report which received bipartisan adoption by the Federal Government"	Climate Commission Secretariat (2011) has now been referenced (see Section 6.8.1). Given that Will Steffen wrote the Preface to this report, and that he was the Climate Commissioner who issued it in May 2011, it is assumed that the "report and graphs produced by Will Steffen" are the same as the "Climate Commission's latest Report", namely Climate Commission Secretariat (2011).

Summary of comments received during public exhibition

Comment	Response / clarification statement included in amended Plan
<p>“Why is it prohibited to obtain sand for filling of sand bags from areas other than from the beach in front of properties? I can see no reason for this provided the sand is of the correct colour and size, e.g. why shouldn't sand sourced from the Narrabeen Lagoon entrance area be used on the Collaroy Narrabeen Beach strip as the sand originated in this embayment. I appreciate this is not the writers recommendation, however if he agrees with me that it is unreasonable then he should state this?”</p>	<p>It is not permitted under NSW Legislation that sand from Narrabeen Lagoon is used for “Part 4c sand/sandbags ECPW” only. There is no specific restriction under SEPP Infrastructure that would not allow sand from Narrabeen Lagoon to be considered as a source for other types of emergency or long term protective works undertaken by Council or landowners. Indeed, Council already periodically removes sand from Narrabeen Lagoon and places it on Collaroy-Narrabeen Beach (see Section 6.7.6), which does provide some benefit to landowners (and overall public beach amenity). However, to allow landowners to make their own arrangements for removal of sand out of Narrabeen Lagoon is generally not considered to be good practice in terms of consistent environmental management of the estuary, and is allowing a public asset (sand on the beach) to be used as a “free” resource for landowners to protect private properties (which if it is “locked up” in the form of sandbags is against Council's principle of not spending its public funds, or assets, to protect private property). That stated, under SEPP Infrastructure, each application would be assessed on its merits.</p>
<p>“In regard to Appendix I mention should be made that the Subplan has been adjusted to reflect changes in staff since 2000 i.e. I don't [think] Rik Hart was the GM in 2000”</p>	<p>The responsibility flowcharts in Appendix I (now Worley Parsons, 2011) are not meant to be reflective of arrangements in 2000, but present responsibilities.</p>
<p>“Part 4c sand/sandbags ECPW” are technically and legally impossible to implement on the open coast</p>	<p>It is recognised that “Part 4c sand/sandbags ECPW” are relatively ineffective forms of protection on the open coast, and that they are practically difficult for landowners to implement in non-storm times (and unlikely to be possible to implement at times of storms).</p>
<p>Residents need to be advised that they must have legal protection before an emergency arises</p>	<p>It has been clearly stated in the Plan that landowners must either obtain a certificate prior to undertaking “Part 4c sand/sandbags ECPW” (and carry out numerous other preparatory tasks, see Section 9.3.1 and Section 10.7), or carry out an environmental assessment and submit a DA (and obtain consent) before installing other types of protective works (see Section 9.3.2), and that penalties may apply if these procedures are not followed.</p>
<p>“the Office of Environment and Heritage recognises that managing coastal erosion risks is a challenging endeavour. While the NSW Government has not advised OEH of any immediate plans to pursue amendments to the <i>Coastal Protection Act 1979</i>, OEH would welcome any specific suggestions Council may have on improving the policy and legislative framework for coastal protection”</p>	<p>Noted. No response / clarification statement needed.</p>

Summary of comments received during public exhibition

Comment	Response / clarification statement included in amended Plan
<p>“report...is very comprehensive... however not particularly friendly to owners who just want to know what to do in emergency conditions, first line of contact, where to obtain supplies of sand/rock quickly from suppliers familiar with your needs, which engineers are familiar with your requirements and generally how to minimise time and red tape. Perhaps you could consider a concise leaflet with this information.”</p>	<p>Inclusion of an Executive Summary as has been provided, which may assist in summarising general advice to landowners. Specification of suppliers and consultants has not been undertaken given the wide variety of available materials and companies and additional scope of study that would be required in assessing their suitability and ensuring commercial transparency. At this point in time, landowners should make their own enquiries regarding specific suppliers and companies, although provision of a leaflet as suggested may be considered in the future.</p>
<p>Will Council offer a coastal protection service?</p>	<p>This issue is likely to be considered further as part of completion of a Coastal Zone Management Plan (CZMP). As noted in Section 8.2, Council is intending to prepare a CZMP for Collaroy-Narrabeen Beach by December 2012, and for the entire LGA by 2015.</p>
<p>“I note the preference for sandbags but also the reference in Appendix F which shows a preference for sandstone. Who will make that decision?”</p>	<p>For “Part 4c sand/sandbags ECPW” sand or sandbags must be used, as decided by the landowner. For other works, the advantages and disadvantages of various types of works have been considered in the supporting documentation, and for open coast areas such as Collaroy-Narrabeen Beach sandbags cannot be recommended as emergency works as they can not be expected to provide effective protection and are difficult to implement at times of storms. That stated, the decision as to what type of these other works to implement is that of the landowner, after appropriate environmental assessment has been undertaken and development consent has been obtained from either the NSW Coastal Panel or Council (as appropriate).</p>
<p>“overall a big step forward from the past which hopefully will provide benefits for all”;</p>	<p>Noted. No response / clarification statement needed.</p>
<p>“Surfrider [Foundation Northern Beaches] is in general agreement with the tenor of the...document as overall it recognises the pre-eminence of the public beach in emergency action situations...the community expects the beach and beach amenity to be protected...before the interests of private property and indeed other public lands. Surfrider recognises the difficulty beachfront owners may encounter during storms but insists that the greater good of the greater number be sacrosanct in protection of public beaches...Surfrider recognises that sandbagging is far from being a perfect solution [but] it is far preferable to the construction of [rock] seawalls...Surfrider looks forward to being involved in further discussions about emergency actions and indeed more long term efforts to protect against storm damage such as sand nourishment on a scale to be significant...”</p>	<p>Noted. No response / clarification statement needed.</p>

Summary of comments received during public exhibition

Comment	Response / clarification statement included in amended Plan
<p>“If property owners are to be financially responsible for defending their own land and property from...coastal erosion, in what way will Council ensure that the guidelines owners have to work within in order to obtain approval for such structures, will not be financially prohibitive and will not take longer than any other standard DA application to process? Additionally as houses are in the certain risk zones along the beach front, if particular studies are required in order to obtain DA's, how could the burden be shared more evenly and affordably by these homes, given that council have already paid for much of these background studies to be done?”</p>	<p>The guidelines that landowners operate under to undertake “Part 4c sand/sandbags ECPW” or other works are based on NSW Government legislation. Also, until a Coastal Zone Management Plan has been prepared in Warringah, the NSW Coastal Panel is specified under NSW legislation as having the authority to assess DA's for protective works (that are not “Part 4c sand/sandbags ECPW”), and not Council.</p>
<p>“If property owners are to be financially responsible for defending their own land and property from ...natural disasters arising from the sea, in what way does this differ from Australian families defending their land and property from disasters in bushfires zones and flood zones? Do these families also receive bills for helicopter water bombs and other emergency services, offered to protect their property in times of disaster? Please clarify as policy should not discriminate against families who choose to live by the sea, other than the bush or anywhere else”.</p>	<p>Noted. No response / clarification statement needed.</p>
<p>“The private homes built along the beachfront, effectively defend one of the main arterial roads (along with sewerage and possibly other utilities) on the Northern Beaches - Pittwater Rd. In what way would private properties be compensated (or assisted) for defending these public utilities from the effects of natural disasters given that if this property had not been sold to private owners, the council itself would be responsible for ensuring their protection? What are the reasons why the burden of defending the beach surrounds, used probably by every single inhabitant living on the Northern Beaches, will not be shared?”</p>	<p>Noted. These issues are important to consider in the Coastal Zone Management Plan to be developed in 2012.</p>
<p>“It is a common misconception that families who live by the beach are wealthy people... We do not expect that others should subsidise our lifestyle. We recognise that we have a level of responsibility to protect our own property. However we do not believe that it should be made difficult by following complex policy or be made financially ridiculous by the need to use private firms..., to achieve this. We also do not accept that given the full picture, families living in the beaches suburbs expect this small strip of homes to wear the burden of coastal erosion caused by the environment entirely on our own.”</p>	<p>Noted. No response / clarification statement needed.</p>

Summary of comments received during public exhibition

Comment	Response / clarification statement included in amended Plan
Consider probabilistic approaches to the Bruun Rule and recent developments such as Ranasinghe et al (2011)	Reference to the probabilistic approach of Cowell et al (2006), and Ranasinghe et al (2011), has been made (see Section 7.6.3).
It should be noted that some inappropriate materials were placed in the 1998 works at Collaroy-Narrabeen Beach, and that these works led to an inquiry that led to development of State Environmental Planning Policy No 71 – Coastal Protection and changes to the Coastal Protection Act 1979	It is recognised that legislative changes did take place in partial response to the works undertaken at Collaroy-Narrabeen Beach in 1998. However, based on Patterson Britton & Partners (2000) and evidence provided by Mr Mark Moratti of OEH, it appears that the rock works were mainly sourced from large “clean” rock and had appropriate engineering supervision, as described in Appendix F. That stated, it is acknowledged that the impact of rock placement on beach amenity must be considered in assessing the suitability of rock works.

