



THE ENTRANCE PENINSULA

COMMUNITY PRECINCT

ENCOMPASSING: THE ENTRANCE; THE ENTRANCE NORTH; LONG JETTY TOOWOON BAY; BLUE BAY; SHELLY BEACH & MAGENTA

P0 Box 349 The Entrance 2261

www.theentranceprecinct.org

22 August, 2011

Michael Whittaker
The General Manager,
Wyong Shire Council,
PO Box 20,
Wyong 2259

Subject: **SUBMISSION ON WYONG SHIRE'S DRAFT
COASTAL ZONE MANAGEMENT PLAN (CZMP).**

Dear Michael,

This submission is TEPCP's response to Wyong Shire's Draft Coastal Zone Management Plan (CZMP). Our response has been organised into two parts:

Part 1: Consultation with the community

Part 2: The plan's content, conclusions and recommendations.

PART 1: COMMUNITY CONSULTATION

The main document consists of 512 pages and the Appendix 581 pages. The average community member finds that it is extremely difficult to read and to It is full of contradictions and gaps in information. (Examples of this follow below.) That such a document has been foisted on the community is an indictment of Council and the consultants that produced it. It has no contiguous page numbering system and no index. The Table of Contents does not suffice for an Index, and in the case of the Appendices the titles make searching for them impossible. It is understood that this document must be submitted to the Minister for the Environment for certification. In its present state we believe that this document will reflect poorly on Wyong Shire Council.

There is also concern about how the document was not subject to sufficient scrutiny before going on display. The Tuggerah Lakes Estuary, Coastal and Floodplain Management Committee, on the 5th May, 2011, supported "*...the submission of the Coastal Zone Management Plan to Council, to be placed on exhibition for 3 months...*" The committee was provided with copies of the Coastal Zone Management Plan Snapshot, however, there was no opportunity for a rigorous examination of the full draft document before it went on exhibition. On 25 May 2011, Council resolved "*that Council exhibit the draft Wyong Shire Coastal Zone Management Plan from 6 June to 26 August 2011*".

It is our belief that Council has failed to prepare the CZMP documents in an acceptable format that allows the community to make sense of the plan.

1.1 DOCUMENT IMPLIES PLAN ALREADY ADOPTED

There is concern about the manner in which the document states options as if they were already Council policy. The Snapshot says,

"Managing coastal risks

In the longer term, Council's strategy is that of a planned retreat where affected assets, infrastructure and development are moved out of coastal hazard zones whilst allowing some interim protection of public and private assets, to give residents and businesses time to develop more adaptive measures. This will also reduce the risk of sterilising coastal land unnecessarily before hazards are realised. A strategy of increased protection is simply not financially or environmentally sustainable for the Shire."

TEPCP considers that matters like this are for the council to decide.

1.2 THE METHODS OF DISPLAYING THE CZMP

1. Few hard copies.

On 15th March, 2011, TEPCP wrote to council expressing concern over how Council is now relying more and more on the electronic media for documents going on public exhibition. This cost saving measure is causing concern for many in the community and the public exhibition of the Tuggerah Lakes Floodplain Risk Management Plan was cited as a case in point. A copy of that letter is attached and the points raised in it apply equally to the CZMP.

(See Attachment 1)

2. Web Site

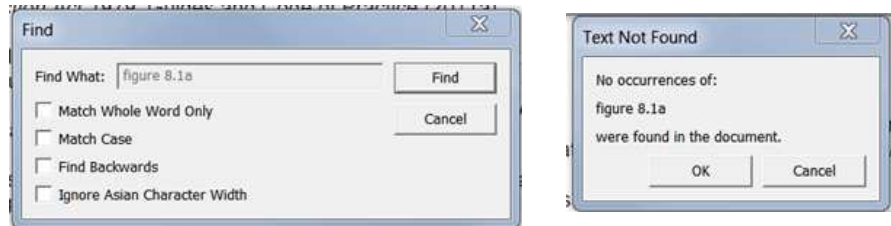
This site must be the ultimate example of providing data in a format that is impenetrable, though it hardly seems possible makes an already unreadable document worse. It seems to have been caused by the need to make the components small enough to download. In doing so Council has made the individual components of data independent and unrelated to each other. **(See Attachment 2)**

3. CD'S

An improvement on the web site but still extremely difficult to navigate.

- The documents still are without a contiguous page numbering system and index.
- There is no hyperlink facility that is normal practice in a document of this type.
- The only option left to the reader is the " find " function in the Acrobat Reader to track references or re-find parts of the document.

- When it comes to using the Acrobat Reader's " Find " function to locate figures the presentation has thwarted this option because their titles are all in an unsearchable graphic format.



- Because there is a lack of consistency in the presentation order of the figures, they are hard to find.
- There should have been only one document so that the items in the Appendices were locatable using a hyperlink.

1.3 UNDERSTANDING THE DOCUMENT

1.3.1 FIGURES

The biggest factor that makes the document so difficult to comprehend is the way the figures have been developed. The development of the study's geo-technical and coastal erosion hazards were obviously done by different teams by the consultant. There has been a major failure in the management of the preparation of this draft document by the consultant to combine the two parts successfully into a cohesive whole and this lies at the heart of the average reader's difficulty in following what the words are saying and relating them to the diagrams.

There has been no attempt to provide a consistent approach to presentation. The geotechnical hazards are presented on a cadastral map showing individual lots while the coastal erosion hazards have been presented on poor quality aerial photos that may have been deliberately degraded to help in the definition of the hazard lines on them.



It is considered that a more consistent presentation would have been achieved had the cadastral base been used for both the geotechnical and coastal erosion hazards presentations, allowing them to be shown together on the one plan. Aerial photos could have been reserved for showing erosion hazard management.

The figures in the document have failed to be integrated in a logical manner. They are a confused mixture, because not only have they been assembled in a random manner, but there are also gaps in the information.

The Figures in Section 9.3 Coastal Erosion and Recession Action Plan are an example of this lack of consistency in presentation that makes the document so hard to follow. The figures in this section are for "Infrastructure in Coastal Hazard Lines". The first figure, Figure 9.21a is Shelly Beach. It is followed by Figure 9.21b, Blue and Toowoan Bays. It is followed by Figure 9.21c, The North Entrance. Figure 9.21d is also labelled "The North Entrance" but is in fact Magenta. It is followed by Figure 9.21e, Soldiers Beach; Figure 9.21f and Figure 9.21g North of Lakes Beach. The maps in the figures do not adjoin. There are gaps with sections such as The Entrance Beach missing.

RECOMMENDATION

- The figures in the document should be revised so that they are presented on a consistent base, with consistent orientation, and that they adjoin and the join lines are clear and easy to follow.
- The figures should be presented in a logical order from north to south and contain no gaps.

1.3.2. TEXT

The setting out of the document fails to adopt consistent approach when describing the various sections of the coastline. It jumps from one area to the next in no logical order. For example:

"9.1.7.1 Soldiers Beach and Lakes Beach

9.1.7.2 Shelly Beach

9.1.7.3 Hargraves Beach

9.1.7.4 North Entrance Beach

9.1.7.5 Blue Bay and Toowoan Bay"

The lack of a rational approach in the text is what makes the document incomprehensible to the reader.

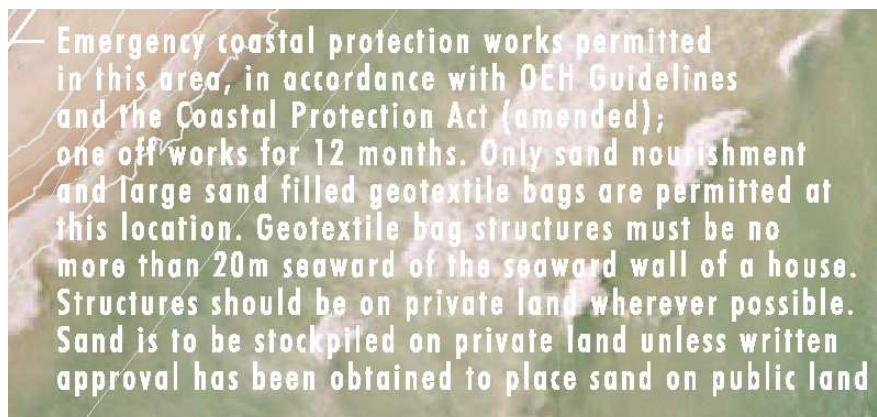
Then there is the disconnect between what is shown on the figures and what is written in the text. For example Figure 8.1b showing Emergency Protection Works at North Entrance (Private property) states:

"Only sand nourishment and large sand filled geo-textile bags are permitted in this location", while the text states,

"Council may permit construction (with consent and conditions) of a permanent, properly engineered rock sea wall to protect private property along Curtis Parade....¹ At this time Council will not consider the construction of rock sea walls

¹ CZMP 1869/R03/V7 June 2011 11

to protect residential property in the 2050 or 2100 coastal risk areas. Council will manage new development in these hazard zones using planning controls".²



How can anyone understand a document with so many contradictions? It has made commenting on the CZMP almost impossible.

1.3.3. APPENDICES

RECOMMENDATION

The status of Appendix 2, the Draft Coastal Emergency Management Plan needs to be defined. The Appendices have to be included in the contiguous page numbering and hyperlinked to the main document to allow easy reference.

An eighth appendix containing the current DCP 77 Coastal Hazard Zones is needed to complete the understanding between the existing hazard zones and the proposed hazard zones.

² CZMP 1869/R03/V7 June 2011 11

PART 2

ACTION PLANS FAIL TO PROVIDE PROACTIVE STRATEGIES TO PROTECT COASTLINE

Section 6 of Part B of the CZMP describes eight action plans for strategic coastline management for the next ten years to address high risk issues for the Wyong community. Unfortunately Part B does not number these Action Plans so the first Action Plan is in Section 7.³

The Action Plans are:

1. Coastal Knowledge and Community Involvement
2. Emergency Response
3. Adapting to Coastal Process Impacts and Climate Change
4. Lake and Sea Interactions
5. Geotechnical hazards
6. Biodiversity Resilience
7. Access, Recreation and Tourism
8. Protecting Cultural Landscapes

To further confuse the reader the 3rd Action Plan - "**Adapting to Coastal Process Impacts and Climate Change**" in Section 9 is described as "**9.0 Action Plan for coastal erosion, recession and inundation risk areas.**"

Most of the areas along the Wyong coastline that are expected to be affected by wave overtopping are in TEPCP. These include: southern end of Blue Bay; South Entrance swimming pool and Curtis Parade at North Entrance. TEPCP is concerned that the only options Council are prepared to consider are: retreat; conduct dune stabilisation and revegetation works to encourage sand accretion and stabilisation of frontal dunes; build temporary structural protection such as geo-textile bag structures; and only build and maintain sea walls to protect existing public assets that are vulnerable, such as the sea wall at The Entrance.

TEPCP is disappointed that Council has not put together some other options for the protection of properties from flooding and coastal erosion and failed to link flooding and coastal erosion. This failure to consider seawalls in the medium term (2050) to address coastal erosion and recession risks is hard to understand when the document claims that: "***In most cases, the risk associated with overtopping are considered to be relatively minor.***"⁴

The reason put forward that Wyong Shire is not financially able to fund structures should not be used as an argument for not investigating them. Council needs to develop the plans, do the costing and then look for the grants. There seems to have been no effort to prepare a costing or discuss funding options for the proposals. Funding options could include grants, a levy or insurance.

RECOMMENDATION

TEPCP recommends that Council numbers the Action Plans in Part B of the document and sets out the sections with numbers consistent with the Action Plans.

³ CZMP 1869/R03/V7 June 2011 Part B -7.1

⁴ CZMP 1869/R03/V7 June 2011 Part B -9.25

In each Action Plan, Council has identified coastal zone management actions with three levels of priority. The first is the **"Very high or urgent priority actions"** The document also states:

"At this time Council will not consider the construction of rock sea walls to protect residential property in the 2050 or 2100 coastal risk areas. Council will manage new development in these hazard zones using planning controls".⁵

Yet the Strategy says : **"Allow interim protection of assets (in accordance with legislation and guidelines) that are affected by hazards now, so that landholders can prepare for longer term change."⁶**



Curtis Parade North Entrance

Council has a duty of care to its residents and also must accept some responsibility for approving development in the coastal hazard zone. In the CZMP document it appears that Council has abrogated its responsibility to these residents whose houses are in immediate danger, such as in Curtis Parade. The Action Plan in the CZMP talks of an item having, **"Very high or Urgent Priority that should be commenced within the next two years."** Apart from telling the residents something that is already known, Council should be setting out some solutions. This is not the leadership that the community expects.

The year 2100 is a long way off and the document could have addressed the medium term (2050) strategies in more detail. i.e., the option of a sea wall⁷, suitable for the medium term, should have been investigated in some detail, including a plan showing the length of wall required, estimates of the cost for various materials, together with an indicative price of what each of the properties requiring a sea wall would be required to contribute to its construction.

Council at the end of June 2011 built a sea wall to protect a sewer pump station that is about 40 years old and will probably need replacing in the longer term, but the new wall is aesthetically

⁵ CZMP 1869/R03/V7 June 2011 11

⁶ CZMP 1869/R03/V7 June 2011 10

⁷CZMP 1869/R03/V7 June 2011 Part B -9.10

pleasing and should suffice nicely in the medium term. The main wall is about 27m long. The total work cost Council approximately \$44,000.00⁸ that is, approximately \$1000 per metre. At that per metre rate a 500 metre long wall at Curtis Parade would cost \$500,000.00. Given that there are 25 houses in immediate danger, a payment of \$20,000 per house may protect their homes in the medium term.



This may not be the solution to Curtis Parade, but TEPCP contends that Council needs to present more options to the residents of Curtis Parade and elsewhere.

RECOMMENDATION

TEPCP recommends that Council:

1. Considers the construction of rock sea walls to protect residential property in the 2050 or 2100 coastal risk areas.
2. Immediately negotiates with the residents in Curtis Parade who are in immediate danger from storm erosion, with a view to implementing an engineered solution that will postpone the need for them to abandon their houses in the medium term.

⁸ Councillor Business Updates 9th August, 2011 Seawall Restoration - The Entrance

CONCLUDING REMARKS

It is our opinion that Council has failed to prepare the CZMP documents in an acceptable format that allows the community to make sense of the plan. It is understood that this document must be submitted to the Minister for the Environment for certification. In its present state this document reflects poorly on Wyong Shire Council.

It is beyond the capacity of TEPCP to provide a detailed page by page proofing of the document and clearly this needs to be done by qualified personnel.

TEPCP notes that Council had major difficulties in contacting property owners impacted by the hazard lines. Our Precinct has a high number of absentee property owners. It appears that a lot of these owners did not receive letters and were not contacted in a timely manner when the CZMP was exhibited.

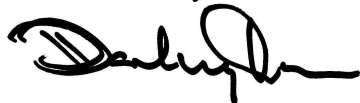
While the sea level rise was mandated by State Government legislation TEPCP has to report that there is a lot of community cynicism on the extent of the sea level rise and the resultant hazard lines. Many have addressed the issue of the previous government's guidelines with the Member for The Entrance, Chris Spence.

RECOMMENDATION

1. In order for the community to be properly briefed about this most important issue and in order to avoid likely confusion with Council's policies in this regard it is TEPCP's opinion that the document needs to be rewritten.
2. Revise the Action Plans so that they provide proactive strategies to protect the coastline.
3. Council officers address community cynicism regarding the hazard lines and work closely with residents and property owners in the critical zones.

Thanking you in anticipation.

Yours sincerely



Douglas Darlington

Secretary

The Entrance Community Precinct Committee

Phone/Fax: 4332 5593

Email: doug@darlington.id.au

Attachment 1 TEPCP letter dated 15th March, 2011.

Attachment 2 Wyong Shire Council's web site CZMP pages

Attachment 1

TEPCP letter dated 15th March, 2011.



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ENCOMPASSING: THE ENTRANCE; THE ENTRANCE NORTH; LONG JETTY TOOWOON BAY; BLUE BAY & SHELLY BEACH

P0 Box 349 The Entrance 2261
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15 March 2011

Michael Whittaker,
General Manager,
Wyong Shire Council,
PO Box 20,
Wyong NSW 2259

SUBJECT: PAPERS ON PUBLIC EXHIBITION

Dear Michael,

At TEPCP's General Meeting held on 15th February, 2011, it was resolved that we write to Council expressing concern over how Council is now relying more and more on the electronic media for documents going on public exhibition. This cost saving measure is causing concern for many in the community. The current public exhibition of the Tuggerah Lakes Floodplain Risk Management Study is a case in point.

TEPCP is well aware of the state of Council's finances and the need to drastically reduce the deficit. The current trend to offer CD's to those who want them is well and good for those in our community who own a computer. Many of our members are elderly and just because they choose not to own a computer does not mean that they are no longer interested in these studies and plans.

Council's strategy of putting hard copies of a study in a library to allow those without computers access to the papers goes some way to meeting this need but it is far from satisfactory. The information contained in the documents is large and complex. The meeting noted:

- ❖ It is too much to expect the community to spend hour after hour in the library trying to comprehend the data presented.
- ❖ Council libraries like The Entrance Library do not have any reading facility to allow quiet contemplation of documents.

We ask that Council consider the following suggestions for all papers going on public exhibition:

- ❖ Documents be exhibited for a minimum of eight weeks. TEPCP is aware of the difficulty Council has for exhibiting its Annual Plans for this length of time, however, it is felt that it could be programmed to work that way.
- ❖ Sufficient copies of papers be placed at libraries for loan to the community for a strict period of one week enabling them to be taken home and studied.

It would be appreciated if you could endorse our suggestions to improve community access to papers on public exhibition and recommend these suggestions to Council.

Yours Sincerely

Douglas Darlington
Secretary
The Entrance Community Precinct Committee
Phone/Fax: 4332 5593
Email: doug@darlington.id.au

Attachment 2

Wyong Shire Council's web site CZMP pages

On Public Exhibition

Draft Wyong Shire Coastal Zone Management Plan

Start Date: 6 Jun 2011

Exhibition Closure Date: 26 Aug 2011


















The Draft Wyong Shire Coastal Zone Management Plan aims to manage risks associated with coastal hazards, such as coastal erosion and landslip.

It has been prepared in accordance with the NSW Government's requirements, including its Coastal Zone Management Plan Guidelines, the Coastal Protection Act (1979), the NSW Coastal Policy (1997) and the NSW Coastal Zone Manual (1990).

Download a copy of the [Draft Wyong Shire Coastal Zone Management Plan snapshot \(1.35 MB\)](#) and the [CZMP Frequently Asked Questions \(250.90 KB\)](#). Submissions can be made by filling in the [online feedback form](#).

The Draft Coastal Zone Management Plan has been split into smaller sections for your convenience;

1. [Executive Summary, Table of Contents and Section 1.0 - Introduction - Scope and Purpose of the Wyong Coastline Management Plan \(626.43 KB\)](#)
 1. [Section 1.0 Figures 1.1 to 1.2 \(2.01 MB\)](#)
 2. [Section 1.0 Figures 1.3 to 1.6 \(706.20 KB\)](#)
2. [Section 2.0 - Project Spatial Focus \(1.23 MB\)](#)
3. [Section 3.0 - Preparing the CZMP and Section 4.0 - Overview of Key Issues for the Wyong Coastline \(808.25 KB\)](#)
4. [Section 5.0 - The Future of the Wyong Coastline, Section 6.0 - Eight Action Plans for Strategic Coastline Management and Section 7.0 - Coastal Knowledge Action Plan \(427.96 KB\)](#)
5. [Section 8.0 - Coastal Emergency Response Management Plan \(115.83 KB\)](#)
 1. [Section 8.0 Figures 8.1a to 8.2 \(1.71 MB\)](#)
 2. [Section 8.0 Figures 8.3 to 8.7 \(2.09 MB\)](#)
 3. [Section 8.0 Figures 8.8 to 8.11 \(1.29 MB\)](#)
6. [Section 9.0 - Action Plan for Coastal erosion, Recession and Inundation Risk Areas \(229.30 KB\)](#)
 1. [Section 9.0 Figures 9.1 to 9.3 \(1.54 MB\)](#)
 2. [Section 9.0 Figures 9.4 to 9.7 \(1.33 MB\)](#)
 3. [Section 9.0 Figures 9.8 to 9.11 \(1.56 MB\)](#)
 4. [Section 9.0 Figures 9.12 to 9.14 \(1.15 MB\)](#)
 5. [Section 9.0 Figures 9.15 to 9.17 \(1.50 MB\)](#)
 6. [Section 9.0 Figures 9.18 to 9.21a \(2.35 MB\)](#)
 7. [Section 9.0 Figures 9.21b to 9.21e \(1.57 MB\)](#)
 8. [Section 9.0 Figures 9.21f to 9.23 \(1.62 MB\)](#)
 9. [Section 9.0 Figures 9.24 to 9.27 \(1.41 MB\)](#)
 10. [Section 9.0 Figures 9.28 to 9.29 \(812.42 KB\)](#)

7.  [Section 10.0 - Lake and Sea Interactions Action Plan \(1.15 MB\)](#)
8.  [Section 11.0 - Geotechnical Hazards Action Plan \(90.21 KB\)](#)
 1.  [Section 11.0 Figures 11.1 to 11.2 \(1.94 MB\)](#)
 2.  [Section 11.0 Figures 11.3 and 11.4 \(1,016.38 KB\)](#)
 3.  [Section 11.0 Figures 11.5 to 11.7 \(1.72 MB\)](#)
 4.  [Section 11.0 Figures 11.8 to 11.10 \(1.94 MB\)](#)
 5.  [Section 11.0 Figures 11.11 to 11.14 \(1.61 MB\)](#)
 6.  [Section 11.0 Figures 11.15 to 11.19 \(1.77 MB\)](#)
9.  [Section 12.0 - Building Coastal Biodiversity Resilience Action Plan, Section 13.0 - Recreation and Tourism Action Plan and Section 14.0 - Cultural Landscapes Action Plan \(109.54 KB\)](#)
10.  [Section 15.0 - Existing Management Framework \(280.49 KB\)](#)
 1.  [Section 15.0 Figures 15.1a to 15.1g \(2.19 MB\)](#)
 2.  [Section 15.0 Figures 15.2a to 15.2g \(775.86 KB\)](#)
11.  [Section 16.0 - Coastal Landforms and Processes \(155.60 KB\)](#)
 1.  [Section 16.0 Figures 16.1 to 16.6 \(2.11 MB\)](#)
12.  [Section 17.0 - Baseline Condition and Status: Biodiversity, Settlement and Land Use \(129.06 KB\)](#)
 1.  [Section 17.0 Figures 17.1a to 17.1c \(1.44 MB\)](#)
 2.  [Section 17.0 Figures 17.2a to 17.2c \(1.41 MB\)](#)
13.  [Section 18.0 - Key Risks for the Wyong Coastline \(110.19 KB\)](#)
14.  [Section 19.0 - Response Options and Evaluation \(577.31 KB\)](#)
15.  [Section 20.0 - References \(90.25 KB\)](#)

[View the appendices.](#)

Hard copies of the draft plan and appendices are available at [Wyong's Customer Contact Centre](#).

For additional information please visit the [Coastal Management page](#), call Customer Contact on (02) 4350 5555 or by email coastalzone@wyong.nsw.gov.au.

Submissions must be made in writing by 5:00pm on the exhibition closure date. All correspondence is to be addressed to the General Manager. Address: PO Box 20, Wyong NSW 2259. Fax: (02) 4351 2098. Email: wsc@wyong.nsw.gov.au.

[Return to the On Public Exhibition page.](#)



CZMP Appendices

View the entire [Draft Coastal Zone Management Plan](#). Submissions can be made by filling in the [online feedback form](#).

Download a copy of the [Draft Wyong Shire Coastal Zone Management Plan snapshot \(1.35 MB\)](#) and the [CZMP Frequently Asked Questions \(250.90 KB\)](#).

- Appendix 1
 - [Appendix 1 - Committee Presentation \(1.33 MB\)](#)
 - [Appendix 1 - Community Briefing Flyers, Part 2 \(627.29 KB\)](#)
 - [Appendix 1 - Presentation 22 May 04, Part 3 \(2.39 MB\)](#)
 - [Appendix 1 - Presentation 22 May 04, Part 4 \(1.42 MB\)](#)
 - [Appendix 1 - Community Briefing day notes from discussion during site inspections 22 May 04, Part 5 \(106.49 KB\)](#)
 - [Appendix 1 - Coastal Hazards Community Briefing, Part 6 \(1.30 MB\)](#)
 - [Appendix 1 - Coastal Hazards Presentation by SMEC, Part 7 \(2.24 MB\)](#)
 - [Appendix 1 - CZMP Workshop, Part 8 \(1.02 MB\)](#)
- [Appendix 2 - Draft Coastal Emergency Management Plan \(2.42 MB\)](#)
- Appendix 3
 - [Appendix 3 - Coastal Hazard Assessment SMEC pgs 1 - 22 \(1.09 MB\)](#)
 - [Appendix 3 - Coastal Hazard Assessment SMEC pgs 23 - 41 \(1.46 MB\)](#)
 - [Appendix 3 - Coastal Hazard Assessment SMEC App A Storm Information \(387.06 KB\)](#)
 - [Appendix 3 - Coastal Hazard Assessment SMEC App B Photogrammetric Analysis \(549.76 KB\)](#)
 - [Appendix 3 - SMEC Figures 1 \(2.30 MB\)](#)
 - [Appendix 3 - SMEC Figures 2 \(2.12 MB\)](#)
 - [Appendix 3 - SMEC Figures 3 \(726.13 KB\)](#)
- Appendix 4
 - [Appendix 4 - Geotechnical Hazard Assessment - Cliffs & Bluffs \(SCE 2010\) Part 1 \(372.30 KB\)](#)
 - [Appendix 4 - Geotechnical Hazard Assessment - Cliffs & Bluffs \(SCE 2010\) Part 2 \(1.95 MB\)](#)
 - [Appendix 4 - Geotechnical Hazard Assessment - Cliffs & Bluffs \(SCE 2010\) Part 3 \(1.76 MB\)](#)
 - [Appendix 4 - Geotechnical Hazard Assessment - Cliffs & Bluffs \(SCE 2010\) Part 4 \(2.78 MB\)](#)
 - [Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 5 \(2.97 MB\)](#)
 - [Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 6 \(3.08 MB\)](#)
 - [Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 7 \(1.26 MB\)](#)

- [!\[\]\(7e19807c61da14f515588e95cd49886c_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 8 \(1.19 MB\)](#)
- [!\[\]\(8ff9e60a4b0560d7ec99179ef4779d9e_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 9 \(1.53 MB\)](#)
- [!\[\]\(ab9b69bf5753a01c76b30af859454360_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 10 \(2.43 MB\)](#)
- [!\[\]\(c5af66b13c724ca428497900cdbbc9b3_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 11 \(1.75 MB\)](#)
- [!\[\]\(1fde827780c8f912fd3ae9174d52d155_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 12 \(1.19 MB\)](#)
- [!\[\]\(49ab9fdb6ddb6816bcb8ccc012d5cebd_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 13 \(1.67 MB\)](#)
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- [!\[\]\(e8a826213cf8b53a8c13f5432344afc9_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 15 \(1.79 MB\)](#)
- [!\[\]\(7ffe3c6e7552aa3eb962276cd7a9a979_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 16 \(691.25 KB\)](#)
- [!\[\]\(28e94a65fe1d8cf887928bbaaa2c7303_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 17 \(2.31 MB\)](#)
- [!\[\]\(7db790dc622e1ac5f1c44afb7a5212a6_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 18 \(1.45 MB\)](#)
- [!\[\]\(86147531a4f05b1215989ff8ab43fe6d_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 19 \(1.60 MB\)](#)
- [!\[\]\(c3492017d65b370ec6b463430fff1ce7_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 20 \(1.21 MB\)](#)
- [!\[\]\(eadeaa5506f71c8d915378340dd044f1_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 21 \(1.28 MB\)](#)
- [!\[\]\(2e7c96d436a2266b49a49932113a1657_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 22 \(1.15 MB\)](#)
- [!\[\]\(6a8a243cf3443d7797a7e525dc6a1efc_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 23 \(873.17 KB\)](#)
- [!\[\]\(33e2662dd35315fbb8bde6de2141f6aa_img.jpg\) Appendix 4 - Geotechnical Hazard Assessment Cliffs & Bluffs \(SCE 2010\) Part 24 \(1.33 MB\)](#)
- [!\[\]\(56890bcfd6a4f9f79fd5acc5be8e52b2_img.jpg\) Appendix 5 - Existing Local State & National Policies & Programs \(80.60 KB\)](#)
- [!\[\]\(fd7e0a3996f31269d6928e9995a1b87e_img.jpg\) Appendix 6 - Sustainability Assessment of Management Options \(157.00 KB\)](#)
- Appendix 7
 - [!\[\]\(a1cf103b9c5f9b28e1bde5f1a6e89e23_img.jpg\) Appendix 7 - Entrance Dynamics & Beach Condition at The Entrance & North Entrance Beaches \(354.01 KB\)](#)
 - [!\[\]\(3376c19c9b30a763743ecfcb079fddcd_img.jpg\) Appendix 7 - Entrance Dynamics & Beach Condition at The Entrance & North Entrance Beaches. P1 Figures \(1.78 MB\)](#)
 - [!\[\]\(d09a86bc59f80cb7523dc82f971d2e57_img.jpg\) Appendix 7 - Entrance Dynamics & Beach Condition at The Entrance & North Entrance Beaches. P2 Figures \(2.48 MB\)](#)
 - [!\[\]\(df26f226b94da77f641ade2d1b2f5c50_img.jpg\) Appendix 7 - Entrance Dynamics & Beach Condition at The Entrance & North Entrance Beaches. P3 Figures \(1.74 MB\)](#)
 - [!\[\]\(cb8575ff682ca8aa5b833067765ddef1_img.jpg\) Appendix 7 - Entrance Dynamics & Beach Condition at The Entrance & North Entrance Beaches. App A SMEC Report \(721.68 KB\)](#)
 - [!\[\]\(1b79c0b496f3b8bcd939680eaf19bcab_img.jpg\) Appendix 7 - Entrance Dynamics & Beach Condition at The Entrance & North Entrance Beaches. App A Part 2 - Wave Climate Analysis \(1.97 MB\)](#)

-  [Appendix 7 - Entrance Dynamics & Beach Condition at the Entrance and North Entrance Beaches App A Part 3 - Longshore Sediment Transport \(1.49 MB\)](#)
-  [Appendix 7 - Entrance Dynamics & Beach Condition at The Entrance & North Entrance Beaches. App A Part 4 - Entrance Stability Analysis \(694.89 KB\)](#)

For additional information please visit the [Coastal Management page](#), call Customer Contact on (02) 4350 5555 or by email coastalzone@wyong.nsw.gov.au.