



APPENDIX 6

# **Submissions received Coastal Panel DA CP12-001**

Re-exhibition period  
8 February 2013 – 22 February 2013

Submissions accepted until 1 March 2013

**Disclaimer**

The views expressed within this document are not necessarily the views of the NSW Coastal Panel and do not represent NSW Government policy.

Submission 1 - Gaye and Gary Arndt

From: Gaye Arndt [REDACTED]  
Sent: Thursday, 21 February 2013 11:23 AM  
To: EHPP UCWR Branch Mailbox  
Subject: Development application CP 12-001

Dear Mr Rutherford,

Our names: Gaye and Gary Arndt [REDACTED]  
[REDACTED]

Our home address: [REDACTED]  
Name of Application: DA for Erosion Protection Works Old Bar  
Number: CP 12-001

Our interest in this proposal (our investment property)

The Meridian  
Unit [REDACTED] Lewis Street Old Bar NSW 2340

Our Comment:

We totally support the development application. The sooner the better.

Regards

Gaye and Gary Arndt

Submission 2 - Paul & Jean Burton

From: Meridian Resort [REDACTED]  
Sent: Thursday, 21 February 2013 11:37 AM  
To: EHPP UCWR Branch Mailbox  
Subject: CP 12-001

To the NSW Coastal Panel,

We totally support the Development Application CP 12-001. The sooner the better for this Sea Wall to be built. It has only taken 7 years to get to this point. I don't believe that anybody who does not live here realize how it is effecting the lives of people who do.

Regards,

Paul & Jean Burton  
[REDACTED] Lewis Street  
Old Bar 2430  
NSW

Supplementary email received

From: Meridian Resort [REDACTED]  
Sent: Sunday, 3 March 2013 11:01 PM  
To: EHPP UCWR Branch Mailbox  
Cc: Gibbs Jane  
Subject: Development Application 12-001

To whom this concerns,

My name is Paul Burton & I am the manager of the Meridian Resort Beachside. This is not a submission on the approval of the DA, but a plea to your sense of fairness to allow us to protect not only our homes, but also our lives. We, like many other people here in Lewis street have our whole life tied up here. Not only is my home here, but my business is here also. Just in case you don't realize, there are real families here who are relying on you to do the right thing & grant the approval of this DA. We are not asking anybody for money, we are just asking for permission to protect what we have worked all our lives for.

As I'm sure you are aware, there are many places in Queensland, New South Wales & Victoria where recently people have had there lives turned upside down by floods. Rightly so, they are getting support from all over the country. Here in Old Bar we are being flooded also, not by rivers but by the Sea. The cause of our problems is exactly the same as the cause of there problems. "Mother Nature." We suffer from the same storm cells that they do. It would be nice if somebody could support us also.

To many of you, we are just another job for you to discuss between yourselves, & then at the end of the day you go home to your families & loved ones. For us, we live this problem everyday of our lives, & the way things are going, very

soon we won't have a home to live in. We have just suffered another bad storm, again losing more property. It won't be long before it is all too late & we lose everything.

Please please please, we are begging you to come to a positive decision very quickly.

**Regards,**

**Jean & Paul**

**Meridian Resort**

Submission 3 - Allan and Keri Sweet

From: Keri Sweet [REDACTED]  
Sent: Friday, 22 February 2013 11:19 AM  
To: EHPP UCWR Branch Mailbox  
Cc: [REDACTED]  
Subject: Development Application CP-12-001

Attention: The Chair  
NSW Coastal Panel  
Office of Environment and Heritage  
PO Box A290  
Sydney South NSW 1232

From: Allan and Keri Sweet  
[REDACTED]

(Owners of Unit [REDACTED], The Meridian Resort, Lewis St, Old Bar NSW; Strata Plan 61034)

Dear Sir,

In relation to the Development Application CP-12-001 for the sandbag protection of The Meridian Resort, Old Bar, may we urge you in the strongest possible terms to grant this application.

Like most other owners in The Meridian, we bought our unit as an investment for our superannuation/retirement income needs. Over the years we have seen a decline in the income from this unit as the guests have seen the beachfront access become more and more difficult and not returned. This has resulted in a flow on loss of tourist income for the surrounding community. This is in addition to the obvious fear we all have that the resort will eventually disappear into the ocean, along with our investment and hopes of a financially secure retirement.

At the time of the granting of the building application for the resort there was no problem in council granting said application. We were never warned that this could be an area where our unit could be unsafe or indeed lost at the time of our purchase a couple of years later, although our solicitor did all the relevant searches. Should the application not be granted we would be eager to be part of a group action to seek compensation from the relevant parties. The emotional trauma of this ongoing problem is very real too, as you can imagine.

We find it difficult to understand why there would be any objection to the protection of property. Any inconvenience to other locals would be minor and shortlived. Again- please grant this application.

Yours sincerely,  
Allan and Keri Sweet

Submission 4 - Rikki Keys

Covering email:

-----Original Message-----

From: Rikki Keys [REDACTED]

Sent: Friday, 22 February 2013 11:57 AM

To: EHPP UCWR Branch Mailbox

Subject: Submission for CP 12-001 Erosion Protection Works, Old Bar

I would like to make a submission towards the application, which I have attached to this email.

Regards,

Rikki Keys

Letter:

Chair

NSW Coastal Panel

Office of Environment and Heritage

Development Name: Erosion Protection Works, Old Bar

Development Application: CP 12-001

I am the daughter of Ross Keys, owner of [REDACTED] Lewis Street, Old Bar. As I have been directly affected by the consequences of coastal erosion, I felt it necessary to enter a submission of my own, written from personal experiences relevant to reasons as to why this coastal protection application should be approved.

I lived with my father since the coastal erosion began in 2003 and felt the effects with him. I have seen the negative changes in my father ever since, which I wish I had never been witness to. The process of coastal erosion has destroyed my family and impacted greatly on our mental/physical health. I distinctly remember temporary emergency works being implemented by my father in 2004, providing us with relief. However, council ordered this to be removed, thus exposing our homes once again until in 2008 we were ordered to demolish our home and my family was torn apart. I believe if we had been allowed to implement a permanent solution, exactly as what is currently being applied for, I would still have my home, my family, and not be a sufferer of ongoing negative mental health.

In 2009 I sat my HSC after a year of living in a caravan, trying to study while listening to the consistent waves pound the bank of our property, eroding more and more each month. Seeing the effects of this on my father, whilst undertaking one of the most important and stressful years of my life, I regret that we had not been allowed a permanent protection measure at that time. I cannot and do not wish to imagine another child being subjected to what my brother and I were. We watched the stress of the situation change the way our parents and ourselves reacted to and handled situations. No child wants to see their father simply break down because they have lost everything they worked for. No child wants to see their mother walk out the door and leave them because the stress was too great. No child wants to see their sibling struggle with anger and social issues. Simply, this should never be allowed to happen to another family.

For seven years I was involved in volunteer lifesaving within the community of Old Bar. As a result, I understand that the public are entitled to voice an opinion on such an important application for the local area. However, it is also my understanding that this sea wall is set well within private property boundaries (seven metres) and will not significantly affect or inconvenience the public. The possibility that access in front of my father's property may be restricted during storm surges is a concern but one that is not his fault. I don't believe that refusal on these grounds is acceptable as various options in other areas have been used successfully i.e. construction of existing crown roads, compensation, buyback of land or alternative routes used.

I am aware that the approval of this application for permanent coastal protection would be setting a precedent for future applications across NSW, and thus I am in agreement the application should be of a high standard and meet peer review recommendations. After reviewing the proponents' response, I am certain that this protection application meets all recommendations of the peer review conducted by the University of NSW. I am also aware that the proposed structure is set completely within private property and the process of construction can and most likely will be conducted within the property boundaries of the applicants. As such, I do not perceive any feasible reasons as to why this application should not be approved, thus setting a precedent so this may never happen to another person within our state, as the circumstances my family and I have been placed under are devastating, long-lasting and should not have occurred.

Regards,

Rikki Keys  
■ Lewis Street  
Old Bar  
NSW  
■

Submission 5 - Kerry Howden

From: Kerry Howden [REDACTED]  
Sent: Friday, 22 February 2013 3:17 PM  
To: EHPP UCWR Branch Mailbox  
Subject: FW: Development Application CP 12-001 - Erosion Protection Works, Old Bar

To Whom it may Concern

Re Development Application CP 12-001 – Erosion Protection Works, Old Bar – submitted by the Owner's Corporation for Strata Plan 61034 (Meridian Resort)

I would like to submit my absolute support for the above project.

My name and address details are: Kerry Howden [REDACTED]

I am the owner of one of the units in the Meridian Resort complex. I purchased this unit as an investment property and it is being let by the Meridian for holiday rental purposes. This unit is a huge investment for me and should this development not proceed it will have a dramatic impact on my personal financial wellbeing, to the point of possibly seeing my invested capital going totally down the drain, (or in fact into the sea).

I am absolutely shocked to know that there is even any question at all regarding this application. This application does not just affect myself – there are many owners at the resort and along the coastline that will be financially ruined if this wall is not built. How can there be any question re the saving of people's property and livelihood, and ultimately their family life – we all know how often financial hardship results in total family breakdown.

I personally believe that should this wall not be allowed to proceed, hence placing the multi million dollar resort, and other surrounding properties, in jeopardy, it will have a far reaching impact on the local community of Old Bar. There will be many less visitors to the area (which I am sure help to financially support the locals through dining, shopping etc), due to lack of accommodation, there will be many less tourists to stroll and enjoy the beach, let alone locals, as they also move out directly due to the beach erosion, or through the financial impacts of loss to the community.

I do understand that there may be some disruption to locals, whilst the wall is being built, and I also understand that this could be annoying to some. However, this will be only a short term impact. Both the locals and the property owners, I believe, will have a much brighter future over the long term, should the development be allowed to proceed. Ultimately it will save many more than it will upset and also provide so much future opportunity and joy to those visitors still able to come and enjoy the lovely surroundings and atmosphere of Old Bar.

Please APPROVE this application.

Kerry Howden



Submission 6 - Allan & Gail Willan

From: Gail and Allan [REDACTED]  
Sent: Monday, 25 February 2013 12:00 PM  
To: EHPP UCWR Branch Mailbox; Gail and Allan  
Subject: Seawall application

Owners Corporation of Strata Plan 61034 (Meridian Resort)  
Development Application (CP12-001 Old Bar)

We have viewed the amended seawall plan CP12-001 for 32 Lewis Street, Old Bar and I totally support this plan as a temporary measure until a suitable permanent solution can be found.

This will help preserve what is left of the dunes and protect properties and buildings. There will be an enormous loss to owners if this is not attended to as soon as possible as Insurance companies do not cover loss of property by the sea. This property is a large tourist resort which brings dollars into our local area including Taree.

Allan & Gail Willan  
[REDACTED] Lewis Street  
Old Bar 2430  
NSW

Submission 7 – Lex Neilsen

From: Nielsen, Lex (Sydney) [REDACTED]  
Sent: Monday, 25 February 2013 9:58 AM  
To: EHPP UCWR Branch Mailbox  
Cc: [REDACTED]

Subject: Development Application number: CP 12-001; Description of development: development application for the construction of a sand-filled geotextile container seawall to protect five adjacent properties at Old Bar

Development Application number: CP 12-001

Location: Old Bar

Applicant: Owners Corporation of Strata Plan 61034 (Meridian Resort)

Description of development: development application for the construction of a sand-filled geotextile container seawall to protect five adjacent properties at Old Bar

Development Application (CP12\_001OldBarDA.pdf, 269KB)

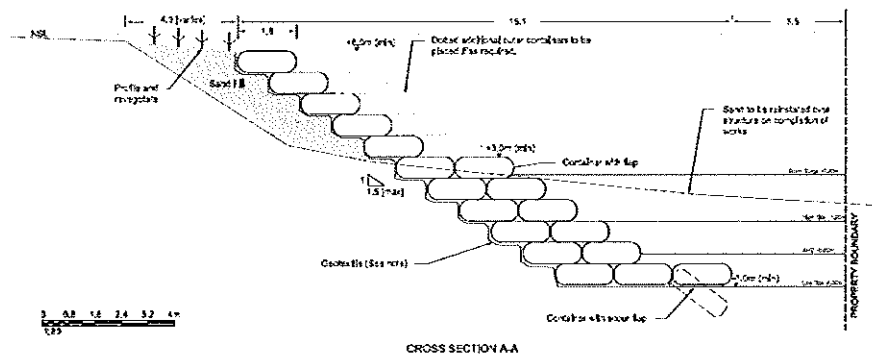
I object to this Development Application on two grounds:

1. Inadequate stability factor for the designed slope against global failure
2. Inadequate design for the geotechnical stability of the revetment armour units.

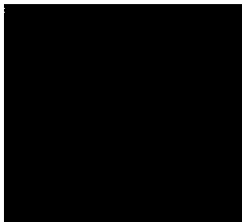
(1) The sandbag wall of this design does not appear to have considered the geotechnical global stability of the sand dune. The natural angle of repose of typical dune sand is around 33 degrees, or a slope of 1.5H:1V. Should the dune sands at Old Bar have an angle of internal friction of around 33 degrees, the design below would have a factor of safety against a geotechnical global stability failure of around 1.0. This is unacceptable for public spaces, for which such engineered slopes should have a FoS for global stability of round 1.5; that is, a slope of 2.3H:1.0V for an homogenous sand dune (irrespective of the type of armouring).

(2) Further, however, the friction angle between geotextile and sand is around 25 degrees and, for geotextile against geotextile it is around 18 degrees (see paper attached). The front face of this slope, therefore, would not have an acceptable FoS and is likely to unravel. A stable slope against global slip failure using geobags for revetment armouring would need to be flatter than 3H:1V, unless the structure was designed as a mass-gravity seawall. I am unaware of any geotechnical laboratory testing done for such designs.

Other issues not considered here relate to the integrity of such structures with respect to the threat of vandalism and their robustness in the harsh and exposed marine environment.



**For reasons of public safety I recommend that this design not be approved.**



**Lex Nielsen BE MEngSc FIEAust CPEng NPER RPEQ**  
Principal Consultant  
Ports and Marine Terminals, Coastal and Ocean Engineering  
WorleyParsons

(see Attachment to submission provided – Nielsen, A.F. and Mostyn, G. (2011) Considerations in Applying Geotextiles to Coastal Revetments.

# CONSIDERATIONS IN APPLYING GEOTEXTILES TO COASTAL REVETMENTS

A.F. Nielsen<sup>1</sup> and G. Mostyn<sup>2</sup>

<sup>1</sup>*WorleyParsons Services*

<sup>2</sup>*Pells Sullivan Meynink*

## ABSTRACT

The application of geotextile membranes in breakwater and revetment design raises the issue of the appropriate soil/geotextile and geotextile/geotextile friction angles that can be adopted for stability analysis. A considerable amount of data, much derived from the design of landfills, has been published on this subject. Other data are provided by geotextile manufacturers. Much of the data refer to a variety of woven fabrics, but data exist also for non-woven needle punched geotextiles that are used in coastal engineering structures. This paper reviews the local practice and literature and proposes appropriate values for soil/geotextile and geotextile/geotextile friction angles that may be considered for the preliminary design of coastal revetment structures.

## 1 INTRODUCTION

The development of modern geotextiles has led to the proliferation of their use in coastal protection revetments. Where embankments of sandy soil require erosion protection with a sloping rock revetment there can be some considerable cost saving in replacing the traditional graded stone filters with a geotextile. Recently, there has been a tendency to replace rock armouring altogether with geotextile sand bags (Figure 1), either as temporary or permanent structures, this being considered by some to be preferable to placing rock on beaches.



Figure 1 Rock and sandbag revetments on Stockton Beach, NSW

The assessment of the stability of a revetment subjected to wave and current action needs to address the stability of the revetment armour units under wave impact (armour stability), the stability of the armour layers on the slope (blanket stability) and the propensity of the entire revetment embankment to slump (global stability). The first is a coastal engineering consideration that, among other things, relates to the permeability of the structure, whereas the latter are geotechnical issues.

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The application of geotextiles in coastal revetments has raised issues regarding their permeability as well as the appropriate friction angles that can develop between geotextiles and soils, rock and other geotextiles that should be adopted for stability analysis. Little research has been published on the permeability of geotextiles to wave action. However, a considerable amount of research, derived from the design of landfills, has been published on soil/geotextile and geotextile/geotextile friction angles, the data referring to a variety of fabrics including the non-woven needle-punched (NWNP) geotextiles that are being used now in coastal protection structures.

This paper reviews armour stability and revetment design utilising geotextiles and the literature on soil/geotextile and geotextile/geotextile friction angles. Values for these friction angles considered appropriate for use in the design of coastal protection revetment structures are proposed.

### 2 TYPICAL COASTAL REVETMENT DESIGNS UTILISING GEOTEXTILES

Typical designs of coastal revetments on sandy soils utilising geotextiles are presented in Figure 2, for a rock revetment designed by the Department of Public Works NSW, and Figure 3 for a geotextile sand bag revetment designed by a geotextile supplier. Of particular note is that the revetment slopes in both cases are presented at 1.5H:1V.

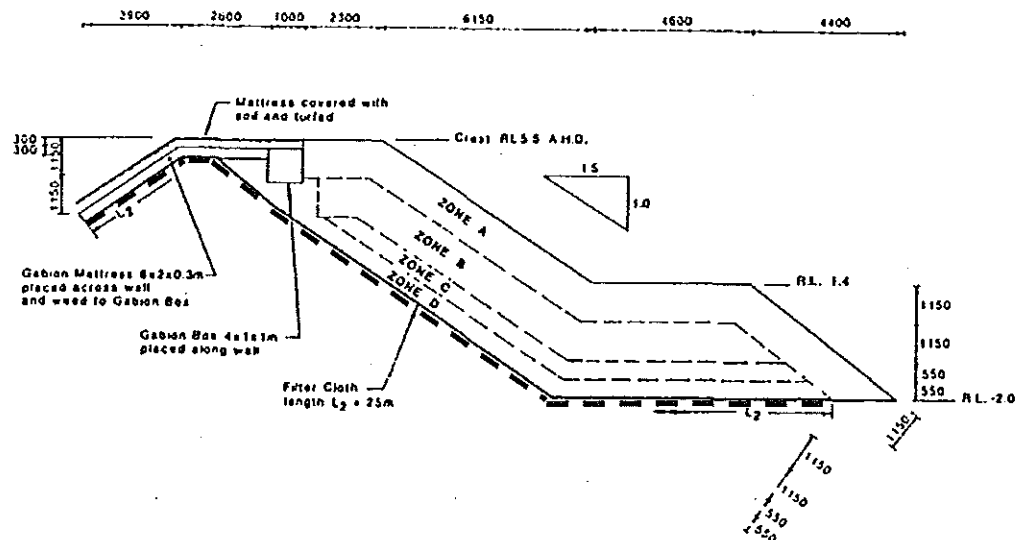


Figure 2 Stockton Seawall Design (source NSW Public Works Department)

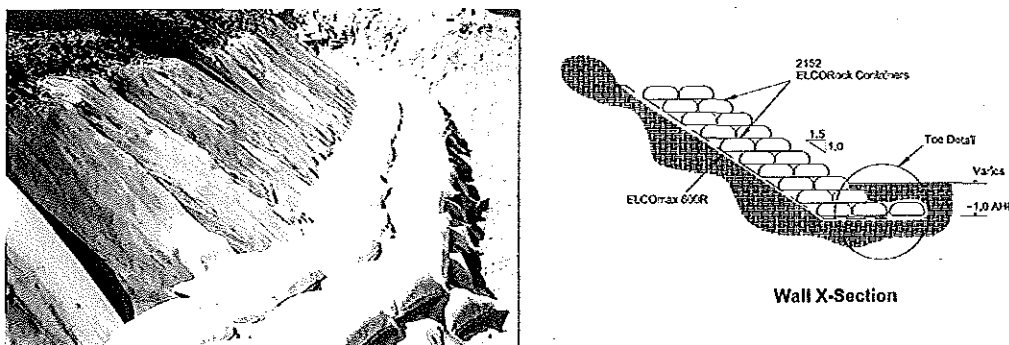


Figure 3 Left: Stockton Surf Club sand bag revetment under construction  
Right: Typical geotextile sand bag revetment cross-section  
(source Geofabrics Australasia ELCO Solutions)

### 3 GEOTEXTILE PROPERTIES

#### 3.1 PERMEABILITY

Geotextiles have been developed to provide a separating layer between the subsoil and rock armouring that prevents the egress of the soil, does not inhibit the flow of groundwater and is robust in construction. The NWNP geotextiles used in coastal revetments are manufactured using fibres that are bound to each other by mechanical needling. This optimises the balance between hydraulic and mechanical properties for:

- high permeability with fine filtration
- high puncture resistance with high strains to failure
- good cushioning ability and impact resistance
- high in-plane flow capacity.

In many instances it is recommended that armour be placed directly on top of the geotextile so there is no need for an intermediate bedding layer of stone.

The geotextile grade is selected, among other things, so that its permeability is at least one order of magnitude greater than the permeability of the subsoil. Typically, geotextiles have a coefficient of permeability in the order of 10 m/s. Pore size is in the order of 100  $\mu\text{m}$  and, under 100 mm head, flow rates are in the order of 100 l/m<sup>2</sup>/s.

#### 3.2 GEOTEXTILE/SOIL FRICTION

Research results presented on soil/geotextile friction properties are presented variously as friction angles ( $\phi_{sg}$ ) or as a Coefficient of Interaction,  $CI$ , where

$$CI = \tan \phi_{sg} / \tan \phi_s \quad (1)$$

where  $\phi_s$  is the soil friction angle.

The statistical approach adopted herein treats each datum point as though it represented the average of the shear strength for a site (i.e., site sand and geotextile) and, thus, the dispersion of the data represents situations on different unknown sites. It is considered that, for the data, this is approximately true and that the estimates so obtained can be applied to preliminary design on other sites where there are no site specific data.

Exxon (1992), a former manufacturer of NWNP geotextiles, recommended a  $CI$  value of 0.7–0.8. This value would result in  $\phi_{sg} = 24^\circ$ – $28^\circ$  for  $\phi_s = 32^\circ$ – $34^\circ$  (typical values for coastal sands).

Tencate Geosynthetics Asia ([www.tencate.com](http://www.tencate.com)) reported test results from a 500 mm  $\times$  500 mm direct shear box apparatus with their product Polyfelt®TS on sand with  $\phi_s = 40^\circ$  and  $41^\circ$  under confining stresses of 10 kPa to 60 kPa that yielded  $\phi_{sg} = 29^\circ$  and  $32^\circ$  respectively, giving  $CI$  values of 0.66 and 0.72. It is noted that the  $\phi_s$  values are high for coastal sands and probably more relevant to a manufactured sand (i.e., crushed rock).

Geofabrics Australasia (Hornsey/Nielsen personal communication) has reported the results of a single 300 mm  $\times$  300 mm direct shear box test carried out on their product Terrafix 1200R with sand by Naue Pasertechnik that yielded a result for the residual strength of  $\phi_{sg} = 30.9^\circ$ . No data were provided on the internal frictional strength of the sand used in the test.

Dixon et al. (2006) analysed a large dataset from laboratory tests on interfacial shear stress versus confining stress that was gleaned from the available published literature as well as their own unpublished research. For the peak strength data for NWNP geotextiles, a line of best fit gave a friction angle of  $\phi_{\text{mean}} = 35.0^\circ$  with an apparent cohesion of 3.6 kPa. The apparent cohesion is an artefact of the line of best fit procedure. If it is assumed that the material properties are frictional without cohesion and the line of best fit is forced through the origin of the data set,  $\phi_{\text{mean}} = 36.4^\circ$ . At a confining stress ( $\sigma_n$ ) of 50 kPa (as is appropriate for the shallow conditions pertaining to revetments), for the standard deviation (SD) of 0.155  $\sigma_n$  (as given in Dixon et al. 2006) and adopting a characteristic value being the mean minus 1.5 SD (ensuring about 90% of the data lie above the value) results in  $\phi_{sg} = 26.8^\circ$ .

The data for the residual shear strength of NWNP geotextile/sand friction angle under low confining stress are plotted in Figure 4. For the entire data set (not shown here), a line of best fit gave a friction angle of  $\phi_{\text{mean}} = 34.2^\circ$  with an apparent cohesion of 4.2 kPa. If the line of best fit is forced through the origin of the data set,  $\phi_{\text{mean}} = 35.8^\circ$ . For a standard deviation (SD) of 0.136  $\sigma_n$  at a confining stress of 50 kPa, adopting a characteristic value (being the mean minus 1.5 SD) results in

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$\phi_{sg} = 27.3^\circ$ . It is noted here that quite a few data points fall below the line of best fit, which probably led Dixon et al. (2006) to suggest adopting a characteristic value being the mean minus 3 SD where there is a paucity of data.

Koerner and Narejo (2005) reported a summary of collected and in-house data on interface shear strength for a number of interfaces including NWNP geotextiles to granular soils. The data were from a large number of projects and soils (290 individual tests for peak strength, 117 for residual strength) with a wide confining stress test range of 5 kPa to 660 kPa. Taking account of the low confining stress peak strength data reported in Koerner and Narejo (2005), as shown in Figure 5, to adopt a soil/geotextile friction angle for which most of the low confining stress data exceeded would result in a friction angle of  $\phi_{sg} = 23^\circ$ .

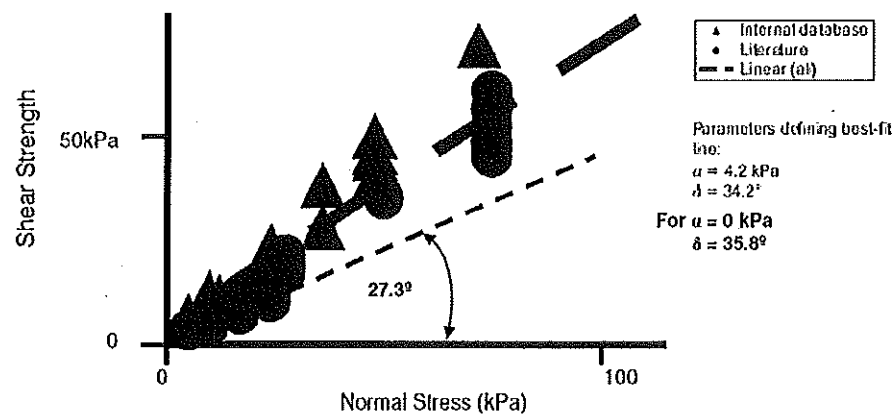


Figure 4 Residual Shear Strength versus Normal Stress for low confining stress data (modified after Dixon et al. 2006)

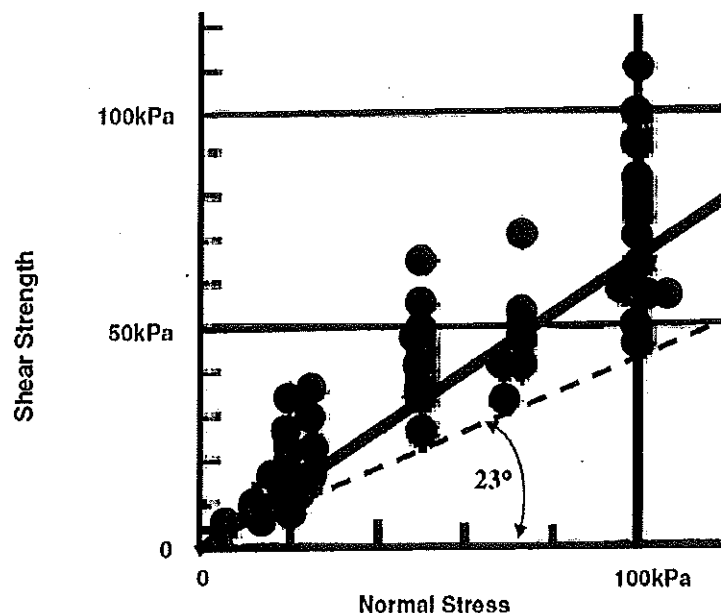


Figure 5 Peak interfacial shear strength versus normal stress for low confining stress data (modified from Koerner & Narejo 2005)

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Martin et al. (1984) presented one test result of interfacial friction angle undertaken on NWNP geotextile with Ottawa sand, being  $26^\circ$ , and two results for concrete sand, being  $26^\circ$ – $30^\circ$ . The sand friction angles given for these materials was  $28^\circ$  and  $30^\circ$  respectively, which result in high  $CI$  values of 0.9 to 1.0. These sand friction angles appear low when compared with  $38^\circ$  and  $36^\circ$  (respectively) as reported in Williams and Houlihan (1987). It is noted here that for Ottawa Sand, friction angles commonly reported in the literature range from  $28^\circ$  to  $35^\circ$  depending on relative density (Holtz and Kovacs, 1981).

Williams and Houlihan (1987) advocated the use of a large shear box ( $305 \text{ mm} \times 305 \text{ mm}$ ), for which the  $CI$  value taken from the published literature was reported to be around 0.9 for NWNP geotextiles with clean sands.

Tan et al. (1998) advocated the use of a large torsional ring shear apparatus to evaluate the residual shear strength of the soil-geotextile interface using NWNP geotextiles and uniform medium sand. The study results are summarised in Figure 6 and indicated that the friction angle for the residual shear strength was between  $24^\circ$  and  $27^\circ$ . The friction angle of the sand was not given but the material was described as medium sand at a relative density of around 0.55. Comparisons with direct shear tests indicated that the latter gave identical friction angles at small displacements (less than 3 mm) but higher friction angles than the ring shear apparatus at larger strains, which was attributed to a deficiency in the direct shear box apparatus to measure shear stress beyond displacements of 15 mm.

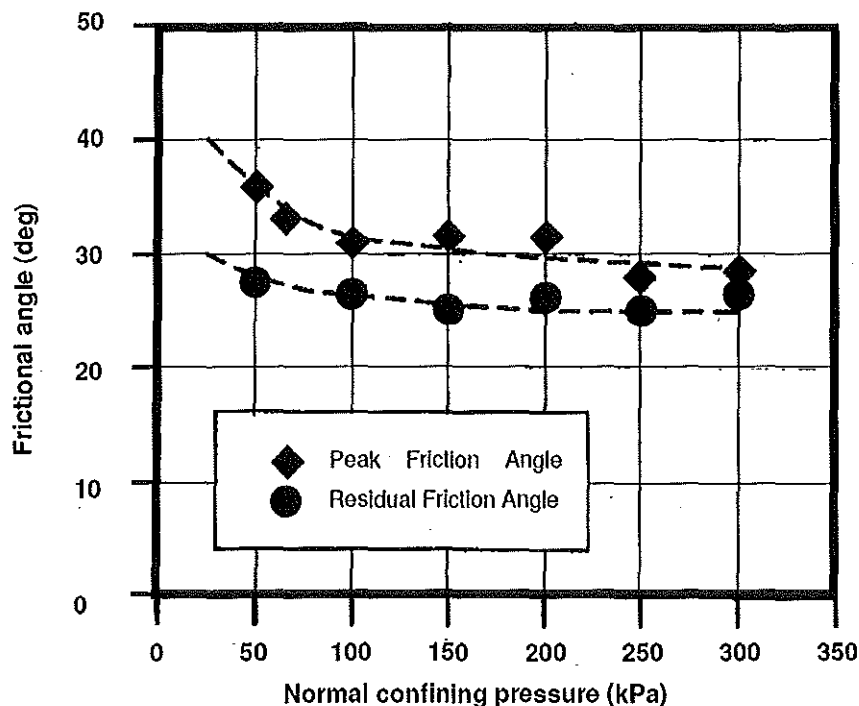


Figure 6 Apparent friction angle of sand-geotextile interface versus normal confining pressure (after Tan et al., 1998)

The results and interpretations from the literature review are summarised in Table 1 and indicated that, in the absence of site specific field data and given the interpretative comments, an interfacial friction angle between NWNP geotextiles and coarse sand of  $\phi_{sg} = 25^\circ$  would ensure appropriate conservatism in concept design (90% exceedance). Alternatively, if the friction angle of a coarse sand was known from testing, adopting a Coefficient of Interaction of  $CI = 0.7$  would ensure appropriate conservatism in concept design. Site specific data are likely to allow for adopting higher values.

Dixon et al. (2006) stated that “design based wholly on literature values should not be attempted” . . . and . . . “it is proposed that these summaries of test data can be used to supplement site specific test results in order to select appropriate mean and standard deviations for interface shear strength” . . . and . . . “In some cases, literature values are being used in lieu of site specific test results, and this is considered [to] be unacceptable and likely to lead to unreliable designs”. This was supported by Williams and Houlihan (1987) stating that “The friction analyses should be performed using the site soil, placed and compacted in a manner which simulates field conditions”. Thus the recommendations in the previous paragraphs are considered appropriate for concept or preliminary design purposes only.



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Table 1 Summary of results and interpretations for residual  $\phi_{sg}$  and  $CI$  from literature review

Source	$\phi_s$	$CI$	$\phi_{sg}$	Comment
Exxon (1992)	NA <sup>2</sup>	0.7–0.8	NA	Recommended in manual
Geofabrics Elco	NA	NA	31°	Single test $\phi_s$ not given
Tencate Polyfelt	40°–41°	0.7	29°–32°	High $\phi_s$
Dixon et al. (2006)	NA	NA	27° <sup>(1)</sup>	Large data set $\phi_{sg}$ calculated at 50 kPa confining stress. $\phi_{sg}$ calculated for shear stress minus 1.5 SD $\phi_s$ not given
Koerner and Narejo (2005)	NA	NA	23° <sup>(1)</sup>	Large data set $\phi_s$ not given
Martin et al. (1984)	28° Ottawa Sand <sup>(3)</sup>	0.9	26°	Comparatively low values for $\phi_s$ , at the low confining stress tested
	30° Concrete Sand <sup>(4)</sup>	0.8–1.0	26°–30°	
Williams and Houlihan (1987)	38° Ottawa Sand <sup>(5)</sup>	0.6–0.7	25° (0.8kPa) to 28° (1.4kPa)	Apparent cohesion in brackets
	36° Concrete Sand <sup>(6)</sup>	0.7–0.9	27° (0.8kPa) to 34° (1.2kPa)	$CI$ calculated at 50 kPa confining stress
Tan et al. (1998)	NA	NA	24°–27°	$\phi_s$ not given

(1) Values for which 90% of data exceed  $\phi_{sg}$

(2) NA – Not Available

(3)  $d_{10} = 0.42$  mm; Coefficient of Uniformity 1.9; rounded

(4)  $d_{10} = 0.20$  mm; Coefficient of Uniformity 2.6; angular

(5)  $d = 0.6$ – $0.8$  mm

(6) Limestone sand

## 3.3 GEOTEXTILE/GEOTEXTILE FRICTION

Tencate Geosynthetics Asia ([www.tencate.com](http://www.tencate.com)) reported test results from a 100 mm × 100 mm and a 500 mm × 500 mm direct shear box apparatus for geotextile/geotextile friction angle ( $\phi_{gg}$ ) with their NWNP product Polyfelt®TS that yielded  $\phi_{gg} = 20^\circ$  and  $18^\circ$  (respectively).

Geofabrics Australasia (Hornsey/Nielsen personal communication) has reported the results of a single 300 mm × 300 mm direct shear box test carried out on NWNP Terrafix 1200R (Elcomax®1200R) by Naue Fasertechnik that yielded a result for the residual strength of  $\phi_{gg} = 20^\circ$ .

Oumeraci and Recio (2010) gave a range of  $\phi_{gg} = 20^\circ$ – $26^\circ$  for NWNP geotextiles.

In lieu of site specific testing, adopting  $\phi_{gg} = 18^\circ$  would allow appropriate conservatism for concept design.

## 4 REVETMENT STABILITY

### 4.1 ARMOUR STABILITY

The stability of armouring varies considerably with the permeability of the core; that is, the permeability of the material below the armour and its underlayer. The less permeable the core the greater the amount of wave energy that is reflected off the structure and back onto the armouring. If a geotextile is used as a filter layer beneath the armour layers then the core is to be considered impermeable to wave action (CIRIA 2007, p 566). In such cases, for rock armour the mass of armourstone would need to be around four times larger than that required for a permeable core (CIRIA 2007, p 566). It is noted that all of Hudson's testing (Hudson, 1959) for rock armour was undertaken on models with permeable cores (CIRIA 2007, p 566) and the stability factors ( $K_D$ ) given for Hudson's equation (see CERC, 1984) need to be reduced significantly if a geotextile is to be placed beneath the armour layers (CIRIA 2007, p 566). If the van der Meer (1992) equations are to be used for structural design, then the requisite armourstone mass would be some 3 times greater than that required if geotextile was not used.

Other issues relating to utilising a geotextile immediately beneath rock armour layers are its durability under cyclic wave and tidal loading and its direct exposure to the elements through the interstices of the rock armouring. Oumeraci and Recio (2010) suggested a lifetime in the order of 20 to 25 years if vandalism and damage during construction can be avoided.

### 4.2 BLANKET STABILITY

Geotextiles may introduce a shear surface detrimental to the stability of the armour layer (Oumeraci & Recio 2010). The stability of the armour blanket against sliding on the face of the revetment relies on the interfacial friction between the armour layer and the retained soil. If a geotextile is to be used between the armour layers and the soil, consideration needs to be given to both the interfacial friction between the armouring and the geotextile as well as the interfacial friction between the geotextile and the retained soil.

Factors of safety (FoS) against blanket sliding failure of around 1.5 commonly are accepted for these cases. However, larger values may be considered, given the dynamic nature of the applied loadings.

If the retained soil embankment comprised sand, the internal friction angle for the sand of  $\phi_s = 35^\circ$  commonly is adopted although lower values are often encountered. For  $CI = 0.7$ , the interfacial friction angle between the sand and the geotextile would be  $\phi_{sg} = 26^\circ$ , a value around that found by independent researchers in the literature review. For a geotextile interface to be stable with a FoS = 1.5, the slope would need to be no steeper than 3H:1V (see Box 1) unless the design incorporated intentional waviness (large scale roughness elements) and construction paid particular attention to this.

If the armour units comprised geotextile sandbags, for an interface friction angle between the sandbags and the geotextile underlayer of  $\phi_{gg}$ , of around  $20^\circ$ , for a FoS of 1.5 against sliding the revetment slope would need to be flatter than 4H:1V (see Box 1).

### 4.3 GLOBAL STABILITY

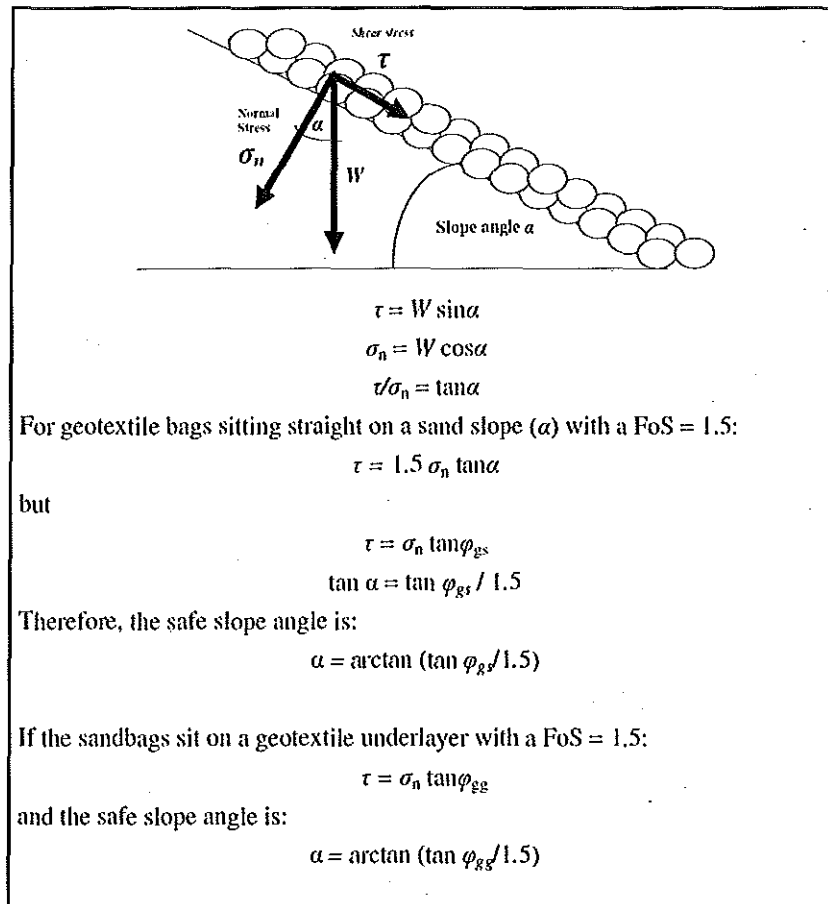
The use of sandbag type elements in revetment structures introduces many complications to stability analysis. Most limit equilibrium programs, such as SLOPE/W and SLIDE, can deal with these complications provided they are used properly. To illustrate some of the problems with the analysis and design of these structures, several typical cases have been analysed. These cases represent the situation that is likely to arise if there is no project specific testing undertaken on the retained sand and geotextile interfaces. The analysis has assumed:

- A batter of 1.5H:1V
- The retained sand is a typical cohesionless loose dune sand with  $\phi_s$  of  $32^\circ$  and a unit weight,  $\gamma$  of  $16 \text{ kN/m}^3$
- The bags have a geotextile/geotextile shear strength equivalent to a  $\phi_{gg}$  of  $18^\circ$  and an addition to the friction angle of  $5^\circ$  resulting from the large scale irregularities of the interfaces, resulting in  $\phi_{gg}$  of  $23^\circ$ , and a unit weight,  $\gamma$  of  $18 \text{ kN/m}^3$
- There is no geotextile layer as an interface between the sandbags and retained soil and that the sandbags are arranged such that shear on the interface is through sand (i.e., that the interface is very rough with the sandbags stepped)
- A target FoS of 1.5 with the water table assumed below the failure surface

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Box 1 Stability analysis of a sandbag revetment against sliding



For an armour layer 3 m thick (e.g., Figure 7), the following results were obtained:

- For an optimised non circular failure surface, the maximum height for the target FoS was 2.8 m.
- If the bed-courses are modelled with circular failure surfaces, restrained to be horizontal through the armour, the maximum height for the target FoS is 5 m. Such slip circle analyses are non-conservative and do not identify the critical failure surface, which is not circular for frictional materials but, in the authors' experience, are commonly adopted.
- If the sand is modelled with a curved failure envelope equivalent to  $\phi_s$  of 32° over a normal stress range of 30 to 250 kPa, the maximum height for the target FoS is 4 m. It is the authors' experience that often a slight curvature of the failure envelope can explain the stability of low height slopes without recourse to "apparent" cohesions in free-running sand.
- Tilting the bed-courses at 5 to 10° degrees into the slope makes only a minor difference to the computed FoS and maximum heights provided above.

For an armour layer 1.2 m thick, the maximum height for the target FoS (1.5) was less than 2 m, and approximately 2.5 m with the curved strength envelope for the retained sand.

It was noted that with the base case described above, the FoS for a 9 m high batter was approximately 1.0 for both the 3 m and 1.2 m thick sand bag armour layers. This indicated that, even though many such batters may have been constructed, it is not necessarily the case that each, or any, had an acceptable FoS.

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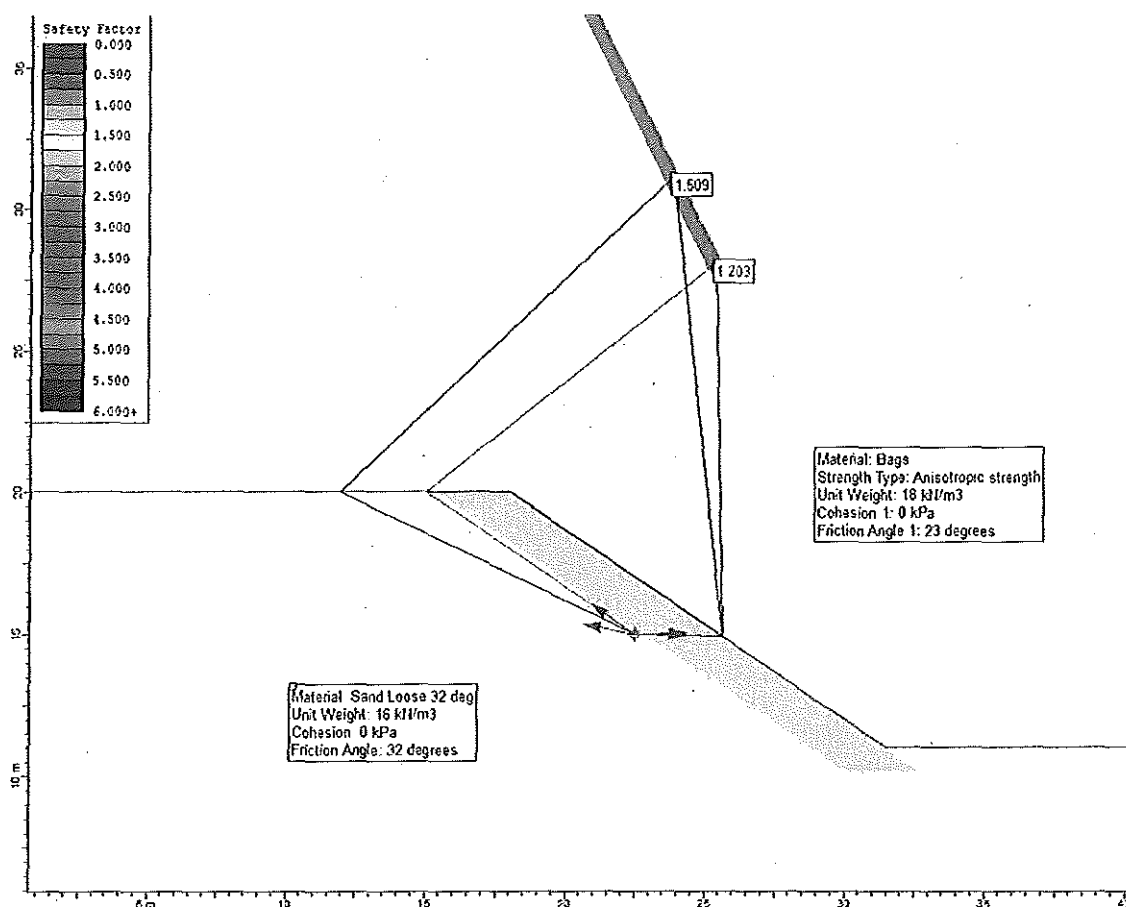


Figure 7 Results of a SLIDE analysis for a 3 m thick sandbag revetment with no geotextile underlayer

## 5 DISCUSSION

It is common to see revetment armouring on sandy soils constructed to slopes as steep as 1.5H:1V (e.g., Figures 2 & 3). Such steep slopes are likely to have a global FoS < 1.5 for any height above 3 m even with a thick armour layer. This could be unacceptable for a public space. Such designs are unlikely to have taken sufficient account of the global stability of the embankment they have been designed to protect. If such steep slopes are required then they would require site specific design parameters and detailed stability analysis and even then may not be feasible.

The Water Research Laboratory of the University of NSW has recommended that ELCOROCK® revetments, which comprise NWNP geotextile bags laid on a NWNP geotextile underlayer (Figure 3), be built to a 1.5H:1V structure slope with a double-layer “stretcher bond” arrangement (Coghlan et al., 2009). Such a design does not appear to have taken into consideration the global stability or the published information on interfacial shear strengths.

Oumeraci and Recio (2010) presented an example of sandbag armour units having unravelled on a dune revetment (Figure 8). A similar example can be found at Byron Bay, NSW (Figure 9). These failures may be attributed to a variety of causes, of which the low friction properties of the geotextile interfaces may be a contributor.

Oumeraci and Recio (2010) presented also examples of stable geotextile-reinforced revetments designed as gravity structures (Figure 10). With this design the low friction angle associated with geotextiles is recognised by the relatively large cross-shore width that has been designed for the potential failure planes. A gravity wall constructed with sandbags, as modelled in Section 4.3, has been analysed. The geometry of the wall is 1.2 m thick at the crest, a front batter of 1.5H:1V and a varying rear batter. Typical arrangement is shown on Figure 11. For a target FoS of 1.5, the maximum heights obtained are given in Table 2:

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Figure 8 Sandbag pull-out on a steep dune revetment (Oumeraci & Recio 2010)

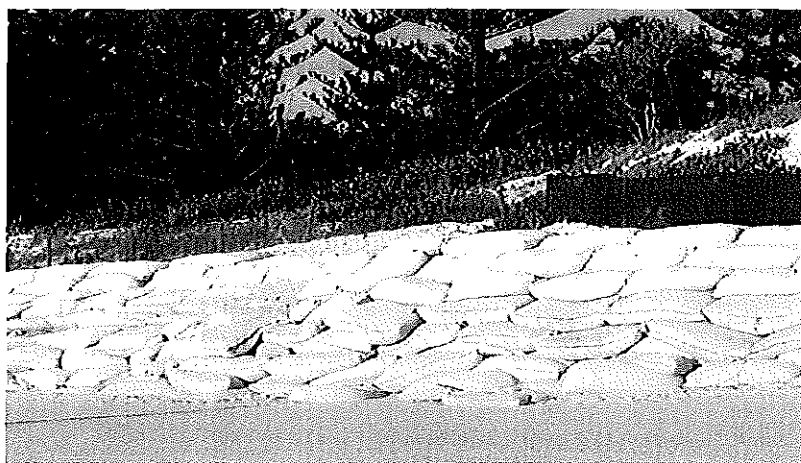


Figure 9 Sandbag revetment at Belongil Spit, Byron Bay, NSW 8<sup>th</sup> June 2011  
(photo courtesy Manly Hydraulics Laboratory)

Table 2. Maximum heights of gravity sandbag retaining walls with facing slope 1.5H:1V

Rear batter	1H:1V	0.75H:1V	0.5H:1V	0.25H:1V
Maximum height	<2 m	2.5 m	7 m	9 m

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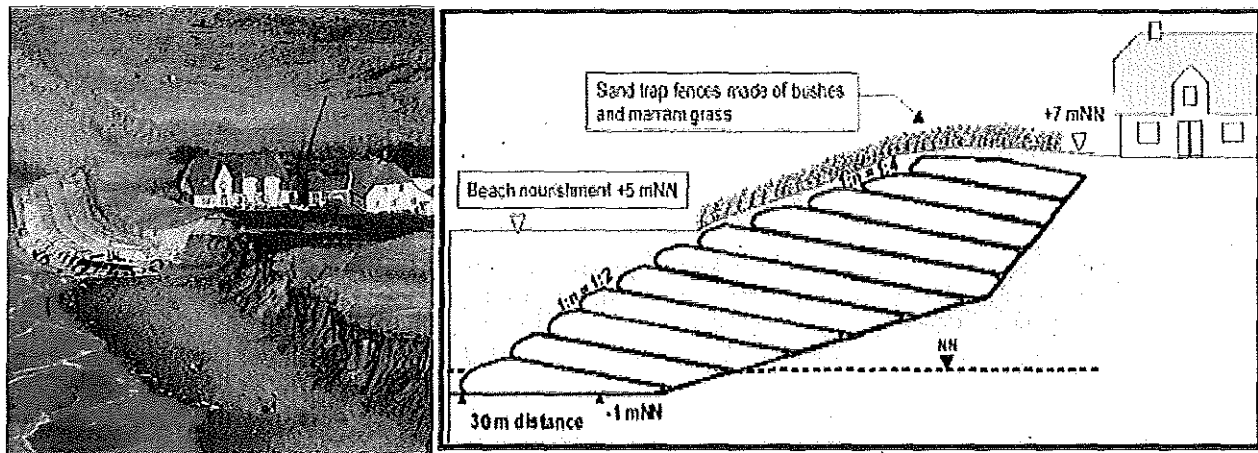


Figure 10 Geotextile-reinforced gravity revetment on the Island of Sylt, Germany (Oumeraci & Recio 2010)

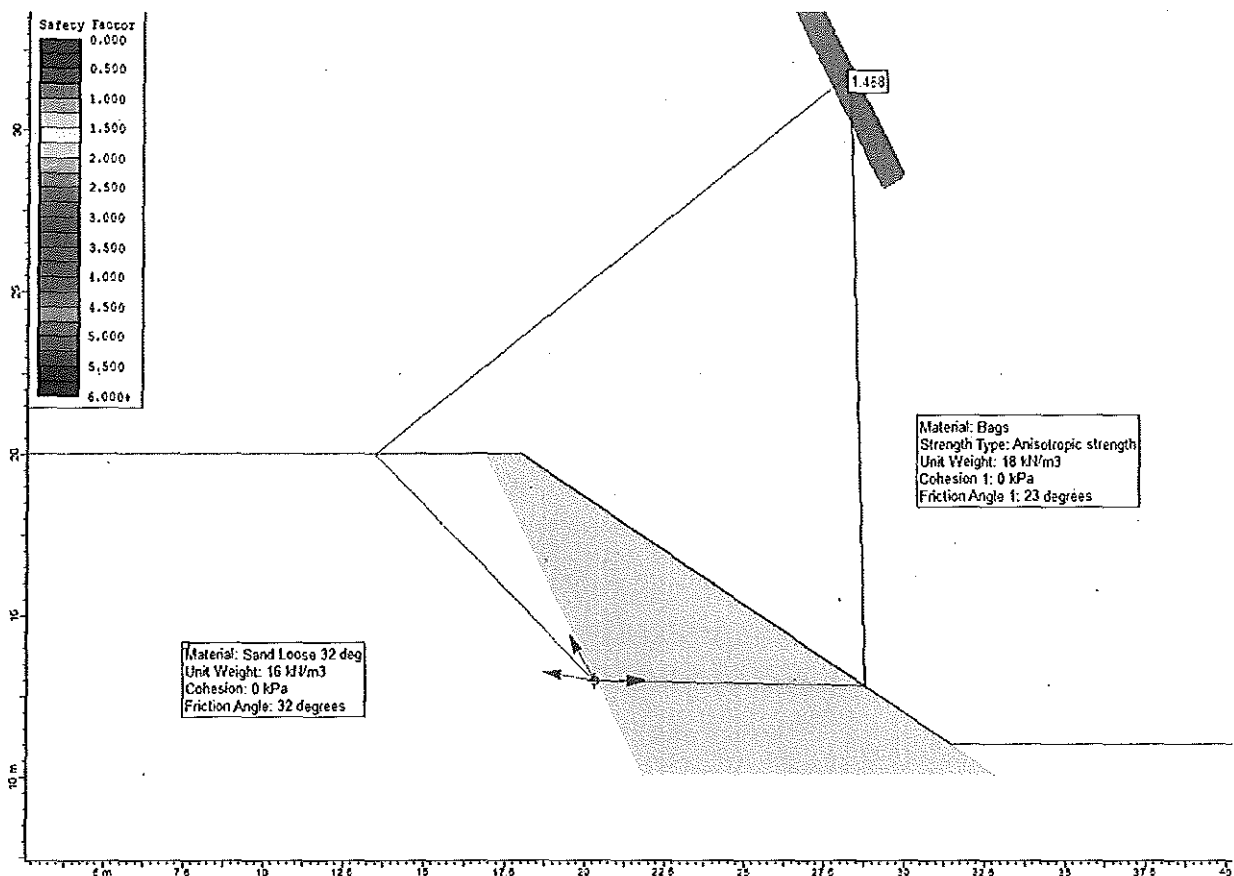


Figure 11 Results of a SLIDE analysis for an 8 m high sandbag gravity retaining wall

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### 6 CONCLUSIONS

A literature review has been undertaken to assess what may be the appropriate friction parameters to be adopted for utilising non-woven needle-punched geotextiles in coastal revetments. Generally, the literature appeared to be consistent and, for preliminary text-book designs of revetments using non-woven needle-punched geotextiles, the following parameters are recommended for sand/geotextile ( $\phi_{sg}$ ) and geotextile/geotextile ( $\phi_{gg}$ ) friction angles (respectively):

$$\begin{aligned}\phi_{sg} &= 25^\circ \\ \phi_{gg} &= 18^\circ\end{aligned}$$

A corresponding value of the Coefficient of Interaction ( $CI$ ) for  $\phi_{gg}$  would be 0.7. These values are considered to be conservative and are recommended for preliminary design only. It is possible that a larger scale roughness that may develop between sandbags might account for increased friction on the geotextile-geotextile interface ( $\phi_{gg}$ ) and an additional  $5^\circ$  has been assumed in the analyses undertaken herein ( $\phi_{gg} = 25^\circ$  between sandbags). On a sandbag-sand interface, friction up to the sand strength could be developed should the bags be stepped roughly. However, no research results on these aspects were found.

For utilising geotextile underneath a rock armoured revetment on a sandy soil slope, in lieu of any site specific data and notwithstanding the influence of any larger scale roughness elements, preliminary geotechnical analysis has indicated that geotextile/sand interface slopes would not have an adequate factor of safety ( $FoS = 1.5$ ) against slip unless they were flatter than 3H:1V. If geotextile is to be used as a separator underneath rock armouring, rock sizing must take into consideration the impermeability of the geotextile to hydrodynamic wave impact. In such cases the rock armour mass is likely to be some four times greater than that which otherwise would be used.

For utilising geotextile underneath a geotextile sand bag armoured revetment, the geotextile/geotextile interface slopes would not have an adequate factor of safety against slip unless they were flatter than 4H:1V. However, preliminary geotechnical analyses have indicated that geotextile-reinforced gravity structures could provide stable revetments in sand ( $FoS = 1.5$ ) at a facing slope of 1.5H:1V provided that the cross-shore width of the structure was of the same dimension as the retained height, notwithstanding any requirement for wave action.

It is reiterated that text book designs should not be attempted for anything else but concept design and it is recommended that final designs be based on site specific data and rigorous geotechnical analyses. Project specific testing, careful design, rigorous analysis and detailed construction methods and supervision may allow safe batters to be steeper than those indicated herein.

### 7 ACKNOWLEDGEMENTS

Valuable comments on drafts of this paper were provided by Angus Gordon and Peter Horton. The responsibility for the technical content lies solely with the authors.

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## CONSIDERATIONS IN APPLYING GEOTEXTILES TO COASTAL REVETMENTS

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Submission 8 - Nick Pellicciotti

Covering email:

From: Nick Pellicciotti [REDACTED]

To: [REDACTED]

Sent: Saturday, 23 February 2013 6:57 PM

Subject: Development Application CP 12-001

To Coastal Panel,

My name is Nick Pellicciotti i am the owner of unit [REDACTED] Lewis st, Old Bar. The Meridion Resort.

I am writing this letter in regards to an application that was put through for a sand bag wall to prevent the sand erosion at Old Bar. I have been informed that the application will be advertised for a second time.

I am quite disappointed to hear this news and am in favour with the application and request that the panel review this matter and approve the application. I am sure that if this matter was in danger to your property things would be different. There is a total of 40 odd units at the Meridion Resort and i am sure all of my neighbours will not appreciate knowing that we all may possibly loose our properties because of a silly decision made by the Coastal Panel.

We have put a lot of time and money into our properties and investments and do NOT want to lose what we have worked hard for.

Please revise our application and approve the Sea Wall to be constructed and save all of our homes, retirements and investments

Yours sincerely  
Nick Pellicciotti

Letter:

[REDACTED]  
24 February, 2012

To the Coastal Panel,

My name is Nick Pellicciotti and I am the owner of unit [REDACTED] Lewis Street, Old Bar, Meridian Resort. I am writing with regards to an application that was put through for a sand bag wall to prevent the sand erosion at Old Bar. I have been informed that the application will be advertised for a second time.

I am writing to ask that the panel reconsider their decision and approve the application for the sand bag wall. This is imperative to maintain the stability of the wall and prevent any further erosion from happening.

Myself, as well as other owners of the resort have put in a lot of time, effort and money to maintain the high standard of the Meridian Resort and it would be a shame

to not keep up the high standard. Not only that, my family as well as my friends and their families have made it a regular occurrence to stay at the Meridian Resort every year. This is our way of winding down and relaxing after working hard for the year. I have also decided that this will be where I would eventually like to retire.

If you do not approve the application to fix the sand bag wall at Meridian Resort all the hard work and effort of the owners will be for nothing and all the workers and staff will lose their jobs.

We have put a lot of time and money into our properties and investments and do not want to lose what we have worked hard for.

Please revise our application and approve the Sea Wall to be constructed and save all of our homes, retirements and investments.

I urge you to please reconsider your decision and approve the application for the sand bag wall to prevent the sand erosion at Old Bar.

Kind regards,

NICK PELLICCIOTTI

Submission 9 – Anne Handel

Mrs Anne Handel  
■ Lewis Street  
Old Bar, NSW 2430

RE: Readvertised Development Application – Erosion Protection Works, Old Bar  
Development Application – CP12-001

I, Anne Handel, wish to state that I fully support the approval of the above mentioned Development Application.

For purposes of convenience, I have attached below my previous email to you dated 25<sup>th</sup> February 2013.

Yours Sincerely,

Mrs Anne Handel.

P.S. Please forward all email correspondence to the following address –

From: Ivan Handel ■  
Sent: Monday, 25 February 2013 1:19 PM  
To: Gibbs Jane; EHPP UCWR Branch Mailbox  
Cc: ■  
Subject: RE: 26 Lewis Street Old Bar - DOC13/5162

Dear Jane,

RE: 26 Lewis Street Old Bar

I wish to place on record that I am the owner of the abovementioned property. Let me state that we, the Old Bar community have worked tirelessly to preserve our homes and at every turn the Taree Council and now yourselves have placed every obstruction possible known to man to halt the process of us saving our homes. Many of us have already lost our life savings and in fact our homes. This is evidenced by the 2 properties south of our property having lost their homes to the sea. This could have been avoided had we obtained permission to build the necessary wall to stop erosion.

I would enquire of the panel the following:

- Why at any point would you not want us to save our homes?
- We have undertaken all the necessary studies and hard work to find the correct solution to the problem.
- We have not requested any funding or financial contribution from either the Council or yourselves to cover the expense of building a sea wall and saving our homes.
- The beach directly affects our homes but also contributes to the general population of Old Bar.
- We have to find a solution and we are not going away until we do.

- Most Councils in other states take care to repair at their own expense any sea damage caused to the foreshore.
- It is necessary to have a decent beach which in turn will bring more visitors to the area and assist in the economic development of the businesses in the area. This in turn would bring more money to the coffers of the State and Council.
- Can you please reply urgently as we believe that there is an ulterior motive to allow the prices of Old Bar to deteriorate to the extent it has. In this regard, property values have decreased more than half – even our rates have gone down by more than 50%.
- I personally, together with other home owners have placed our superannuation into these properties in order to one day retire there.
- I am suggesting that an inquiry is called for as to why the Council and yourselves have such power as to affect us home owners so dramatically and cause us to lose our life savings without any care in the world for us individual retirees and tax payers.
- I would also enquire what your motivation was when you leaked such disinformation as you had to the newspapers in order to cause such a huge concern to the other members of the public, especially in respect of the supposed 500 trucks and all the other equipment that it was supposed to take to for us to fix the beach. This is absolute nonsense! This is what leads me to believe that there is some other sinister motivation which is certainly not in the interest of us the home owners.
- Furthermore, could you please supply me the name of the person in your department who gave this information to the press.
- Please advise who the panel is made up of and where they in turn live.
- Our lives have been placed on hold for the past 5 years whilst we have been forced to sit by and watch our homes and assets and our superannuation disappear whilst both the Council and yourselves have tried to bog us down in red tape and bureaucracy. In fact, I notice that there have been many other supposed priorities which have been lodged with the Council after ours and have in fact been approved.

I personally question these decisions and request each and every member of the NSW Coastal Panel who is involved in our DA to question their consciences' and make a decision using honesty and integrity and to take into account our dire financial positions. Your early and urgent response would be appreciated as I intend seeking and meeting with the NSW Premier, Mr Barry O'Farrell regarding this matter.

Yours Faithfully,

Anne Handel.

Submission 10 - Colin & Jenny Stevenson

From: colin.stevenson [REDACTED]  
Sent: Monday, 25 February 2013 2:41 PM  
To: EHPP UCWR Branch Mailbox  
Subject: Meridan Resort DA for Sea Wal Strata Plan 61034

We are writing to you regarding the Erosion Protection works between properties located 24 to 40 Lewis street Old Bar.

As a current owner of one of the units at the Meridian it would be detrimental to us financially if this development does not go ahead. We have already suffered due to the value of all properties in this area being devalued due to the erosion of the beach and basically has made the units unsaleable, because banks will not mortgage to future purchasers due to this problem, having already lost app 50 meters of land and we fear for the complex demise.

I believe it is in the Governments best interest to approve this development and let the works go ahead as it will be funded by owners of all the properties affected and the wall will guarantee that the Meridian resort will continue to attract tourists and their dollars to the area.

Yours Sincerely

Colin & Jenny Stevenson  
[REDACTED]

Submission 11 – Kenneth Pearce

Received by fax:

27 Feb 2013 13:14 P001/001

Doc 13/6997

25<sup>th</sup> February, 2013.

NSW Coast Panel  
P O Box A290  
SYDNEY SOUTH NSW 1232

Dear Sir,

Re: Lot 66 Meridian Resort, 32 Lewis Street, Old Bar

I refer to your recent letter in relation to readvertised development application CP12-001. As per your letter I advise the following:-

1. My name is Kenneth Pearce of [REDACTED] and I am the registered proprietor of Lot 66 in Strata Plan 61034, known as 28/32 Lewis Street, Old Bar (Meridian Resort).
2. Readvertised Development Application - Erosion Protection Works, Old Bar. Development Application CP12-001
3. I support the project, the subject of the Development Application mentioned above. I purchased the property several years ago as an investment for my retirement, comfortable in the fact that the development had been Council approved. The beach erosion has already impacted on me financially. My bank has devalued the property substantially because that part of the coast comes up on their internal warning system as risky due to the beach erosion. I have had to reduce my debt on the property in line with their reduced valuation. With future damage to the beachfront hanging over our heads there is no market for the property if I ever intended selling. The dune face left as is, is a tragedy waiting to happen. The resort attracts many families with young children and a land slide could result in a fatality. The people behind this DA have taken it on themselves, in both time and money, to try to remedy the situation and save our coastline and in saving our coastline, save the many beachfront properties. It can only benefit the town of Old Bar and wider community for their beaches to be preserved and commercial and residential properties to remain. It is now time for the government to step up.

Yours faithfully,

[REDACTED]

Kenneth Pearce

25/2/2013

Submission 12 – Brigitte Kennedy

From: Brigitte Kennedy [REDACTED]  
Sent: Wednesday, 27 February 2013 2:28 PM  
To: EHPP UCWR Branch Mailbox  
Subject: re Proposed development application CP 12-001 AT 24-40 Lewis st  
Meridian resort Old Bar.

To whom it may concern.

Dear Derek, We would greatly appreciate that you go ahead with the proposed development. Application CP 12-001

Kind regards

Hamilton John, and Brigitte Kennedy  
[REDACTED]

We have not donated any monies to any political party.

Submission 13 – Neil Brown

From: Neil Brown [REDACTED]  
Sent: Wednesday, 27 February 2013 7:58 PM  
To: EHPP UCWR Branch Mailbox  
Subject: Development Application CP 12-001

Neil J. Brown  
[REDACTED]

I would like to express my unreserved support for the application currently before the OEH panel to build a seawall/land protection works adjacent to Public land to protect houses along Lewis St Old Bar, but also being built to make this section of coast a lot safer for the general public. I have owned a unit in The Meridian Resort for over 10 years and have been part of the Executive Committee for the Owners corporation since its inception and so am aware of the depth of research that has been done prior to lodging this application. These include private studies @ our own expense, consultation with professors in environmental science and experienced coastal protection design engineers over an extended period (5 years +). Whilst the works will be wholly on private land it is interesting to note that the general public can perceive that the beach is always public space and so unknowingly trespass on private land and in this case in its current state possibly at their peril if there were a storm surge or the scarp were to collapse. Yes the works will protect property, much of which has helped to bring employment and significant support to local businesses, but it will also help to improve the safety of this stretch of beach and hopefully reduce the danger to human life as there is in its current state.

People have already lost their houses, families are now disjointed, peoples plans for their future have been put on hold for far too long. The Coastal Panel is now in a position to help change this and I hope that this application meets with their favorable consideration without further delay.

Sincerely  
Neil J. Brown  
Owner unit [REDACTED] Lewis St  
Current Chairperson EC @ The Meridian Resort



Submission 14 – Ross Keys

Covering email:

From: ross [REDACTED]  
Sent: Wednesday, 27 February 2013 8:45 PM  
To: EHPP UCWR Branch Mailbox  
Subject: old bar seawall

Please find attached submission in favour of the proposed seawall at Old Bar  
Your development number: CP12-001

Regards  
Ross Keys  
[REDACTED] Lewis St Old Bar  
[REDACTED]

Letter:

Chairperson  
NSW Coastal Panel  
Office of Environment and Heritage  
Development Application CP 12-001  
Development: Old Bar Erosion Protection Works  
Submission for approval

My name is Ross Keys, owner of [REDACTED] Lewis St Old Bar and one of the applicants for these protection works. It is my opinion this seawall must be allowed to proceed based on the following information and first hand experiences.

Having been forced to demolish my two homes in 2008 through the effects of coastal erosion I have lived with the inability of local, state and federal governments to not only implement strategies to protect private landowners property but also to provide assistance of any kind to those already affected. The way landowners have been hamstrung is ridiculous to say the least, especially when all anyone wants is the basic right to protect their property. With this application you have the opportunity to not only give those coastal landowners a clear and proper direction but to resolve an issue that has completely devastated my family.

What has happened in Old Bar should never be allowed to occur again. I tried to protect my property but was ordered to remove the protection. I was then forced to demolish my homes. Less than 6 months later state government advised temporary protection works could be used. It was a kick in the stomach. Losing my homes WAS avoidable. From that time on the lies, deceit, stalling and changes of rules to avoid liability were just a few of the realities of our government not being prepared. My life has effectively been put on hold for the past 5 years while decisions are made, then changed, then changed again and each time it costs us not only emotionally but financially. No-one should ever be put through what my family has had to endure. I feel like it will never end.

The new NSW Government amended legislation provides the opportunity for temporary protection works whilst applying for permanent solutions. I am able to undertake temporary works now as I have a building within 10metres of the escarpment. However, there are many questions that may have substantial implications depending on the outcome of this application that I would like you to consider: If this application is refused what would be the point of me utilising the

temporary works? How long would temporary be? What type of permanent protection could I then have, if any? What would refusal then mean to other NSW coastal owners in our position now or in the future who are considering proposals that don't have the luxury of constructing on 100% private property or who need to use public land for access? For them would it just be a futile exercise? The legislation would then be seen as a token gesture that does nothing to assist anyone if permanent approvals are not granted. Does this mean my property is then deemed useless? Who pays for that decision? When? These are all valid questions and ones that must be answered with finality not "recommendations or maybes". Leaving this application open ended will do nothing but continue the stress, emotional and financial suffering of the 46 owners involved for years to come.

The proposed geotextile wall has been well designed by expert engineers with experience in this field. It is positioned 100% within private property, is 100% funded by landowners, will be 100% maintained by landowners and can be constructed 100% from within our beachside boundaries if required. No access onto the public beach is necessary. We have made changes in line with the peer review recommendations from the University of NSW and so I believe it is a perfect opportunity for approval.

I can understand the public may be upset about possibly not being able to transverse the beach at certain times of the year but I don't believe this should enter into the decision of this application. As the wall is wholly within private property and not public land it should be for local and state government to propose options to provide the public with proper access, an alternative access, or for them to collaborate with us on. I personally have contacted council on many occasions since 2000 regarding this exact matter but they have chosen to ignore rather than resolve. The water on our oceanside boundary has at high tides and storm events forced the public onto our land for years. Council has been happy for the public to use our properties as access even though they were well aware of the illegalities or the prospect of liability for the landowners so I fail to see why this should now become solely our issue to resolve through this application.

This should not just be seen as an application to protect 46 homes but an application to help a whole town that has been forced to endure events that have been totally out of their control. No-one has done anything wrong nor did anyone expect for the consequences to be so long lasting. For the past 5 years Old Bar as a community has suffered from negative media which in turn has impacted heavily on tourism, businesses and the price of real estate. Uncertainty regarding what could be done to prevent further erosion and the demolition of 3 homes have caused long lasting damage to the towns reputation. If this application is approved it will finally bring stability and confidence back to our area. Old Bar can once again have an identity as a quaint and carefree coastal town and not be talked of as "a problem area to avoid".

We all know there are going to be downsides to any development and that not everyone will be happy with your decision. I firmly believe there is a far greater upside to approval in this instance and that it will set a high standard for others to follow.

Approval will also send a positive message to others in NSW that you are listening to residents genuine concerns and are prepared to act on those issues. This is not just political - it is our lives.

Regards

Ross Keys

█ Lewis St Old Bar

[REDACTED]

Submission 15 – Kylee Keys

Covering email:

From: Kylee Keys [REDACTED]

Sent: Thursday, 28 February 2013 8:56 AM

To: EHPP UCWR Branch Mailbox

Subject: Old Bar sea wall submission

Attached is a recommendation for approval.

Letter:

Chairperson

NSW Coastal panel

Office of environment and heritage

Submission for approval

My name is Kylee Keys and I was a resident at [REDACTED] Lewis Street and I would like to put forward my opinion for a submission of approval.

I believe that the owners, residents and community of old bar have suffered enough at the hands of incompetent government decisions. In the space of the last ten years homes and properties have been lost or rendered useless, families have been destroyed and we have a beautiful coastal town sitting a stand still.

.I believe an approval of this sea wall will have a lasting effect on the whole community not only will it stabilize a 3 meter sand bank that was caused by the erosion that is dangerous to the public, it will give the landowners some relief as to where their lives are heading, some can rebuild, some can add amenities to make their properties more appealing to tourism and some can just build a new home. The approval of this sea wall will also provide a closure to all involved. When we first relocated to old bar 13 yrs ago it was a lovely quaint little town, our children were enrolled in the local school and were members of the old bar surf club which they were very proud of, and the town was full of happy friendly people. I think the community of old bar needs to know where they stand, weather their town is going to stay stagnant or move on with the rest of the area.

Regards,

Kylee Keys

[REDACTED]

Submission 16 – Stuart Wilson

From: Stuart Wilson [REDACTED]  
Sent: Thursday, 28 February 2013 9:38 AM  
To: EHPP UCWR Branch Mailbox  
Subject: Development Application CP 12-001

To whom it may concern,

I am writing to express an interest in the above application for a seawall development.

I believe the structure is a necessity for this part of the coast as a minimum to help protect the properties from further erosion.  
If the Meridian was to cease operation it would be detrimental to the area of Old Bar and the Manning Valley.  
My business (Flow Espresso Bar) directly benefits from the guests at the Meridian plus all the tourists who rent holiday houses along this stretch of coast.

The fact that someone is prepared to make an effort to protect this property is encouraging as it seems politics is hindering any progress with other proposals.

Feel free to contact me with any questions or for further information regarding my position.

Regards  
Stu Wilson  
Manager/Owner  
Flow Espresso Bar  
&  
Namaste Beach House



[www.namastebeachhouse.com](http://www.namastebeachhouse.com)

Submission 17 – Scott Douglas

Covering email:

From: Scott Douglas [REDACTED]

Sent: Thursday, 28 February 2013 11:42 AM

To: Gibbs Jane; EHPP UCWR Branch Mailbox

Subject: NSW Coastal panel - Application CP 12-001. Your Ref DOC 13/5162.  
Support for Application.

I support this application.

Please find attached and read my issues surrounding not granting its approval.

A hard copy of this letter has also been sent in the mail to PO Box A290 South Sydney.

thanks Scott Douglas

Letter:

--

Scott Douglas

Fusion Brewing Australia  
[REDACTED]

NSW Coastal Panel

Development Application name – Erosion Protection works – OLD BAR

Development Application # CP 12-001

Your Ref# DOC 13/5162

To whom it may concern,

I support this application.

I purchased a unit in the Meridian resort over 10 years ago now. It's a great place to holiday and seemed like a great place to retire in 30 or so years time. With the resort being newly built at this stage I never envisaged any government "grey area" surrounding protection of my property in regards to having our own land being wiped out by coastal erosion.

If this was a potential issue then why would the government approve the resort then? If this wasn't then the government surely has no right to stand in the way when we try and protect it? Surely they must say the land owners have fair right to protect their land that we the NSW government only just recently approved to build on????

A bit more about me. 6 years ago I borrowed against my property in the meridian resort. Back then it was worth \$450,000 and I received a substantial equity loan. Now my property would struggle to achieve \$100,000 at an auction.

The GFC hurt me and almost all others in some way. This is my only property. 6 years and 4 maxed out credit cards later my life is a disaster. I have never had big money but I always used to have been able to get by without having to worry about it. As soon as you have to check your bank balance every day and work out which financial institution is chasing you the hardest every bloody moment to work out who to pay next on your average salary – then you are living in hell.

Can I ask you if you have ever received over 20 calls in one week by the NAB? I have. I would love to show you my missed calls.

But You see, its all easily fixed - if my unit in the Meridian was worth what it is supposed to be worth I could have sold it and paid of all my debts and lowered my blood pressure from as my doctor said "very high for your age" to normal. Not good to hear this from a doctor when you are 37.

Right now I have 3 options. 1 – Declare bankrupt (not good for banks and government when I owe on paper around \$190,000 now) someone still really does pay for bankruptcy sooner or later don't they, although it wouldn't be me on this occasion.

2 – keep fighting and fighting like I have for the past 5 years – but then have a bank like NAB decide to wind me up anyway as I have no real way of getting out of debt if current scenarios continue.

3 – well, I am not one for thinking another "potential world" is better than this one so I would probably rather just keep ignoring the NAB 20 times a week, for the time being anyway.

The NSW government has to allow us to protect our property. We are even doing this 100% out of our own pocket when in reality the government really should be paying – shouldn't they....

Desperate people either don't give up – or they do desperate things. It's just human nature. When you put 100 odd peoples backs against a wall – literally or metaphorically speaking – they can have almost any reaction. We in the Meridian resort and surrounding properties are lined up against a wall in a firing squad – the Ocean is the gun and the government has the decision to make whether to provide the bullets or not. Am I dramatising??? Don't think so - this is exactly how it is.

I for one am not going to let someone or something shoot me dead in cold blood.

Desperate things can occur many ways including legally. One way would be to re-focus our 100+ strong efforts into a massive charge against the government. This may be time consuming and expensive, some of us will fall but it will be a race against time on whether the ocean or the people loading the gun get us first.

Either way as desperate people you take that chance don't you? Wouldn't you? Do you expect us to die a slow miserable death? Don't think so.

We lose meters and meters, day by day by bloody day. Millions and Millions of value of land already – let alone how much it will be worth when it eventually wipes us all out without being able to protect it. I'd imagine with our neighbours included a law suit value around \$50 Million + at today's values.

Do you really want this? Just imagine if the government knocked back ours and 100 more other protection submissions along the coastline – and we win the lawsuit?? Well times that \$50M payout by 100 then.

Do the right thing and let us protect our properties. Your home is the one thing you defend with your life. It is your life. Thousands and thousands of years property defence has occurred around the world – don't think you can change history and human nature - don't think we are just going to be happy about being swept out to sea.

Regards,

Scott Douglas

[REDACTED], Meridian Resort, Lewis st, OLD BAR  
[REDACTED]

P.S – please call. Would love for you to spend a day in my shoes. Then you will know what most of us are going through and why we won't ever go away.



Submission 18 – Gai Truran

From: Gui Truran [REDACTED]  
Sent: Thursday, 28 February 2013 10:52 PM  
To: Gibbs Jane; EHPP UCWR Branch Mailbox  
Subject: Old Bar Beach Erosion

Dear Jane,

Re: 32 Lewis St Old Bar.

We are the owners of apartments [REDACTED] and [REDACTED] Lewis St Old Bar, we have had other properties in Old Bar and the surrounding area and have been holidaying and adding to the wealth of Taree , Wingham and Old Bar Areas since the seventies. We had the confidence to purchase these apartments in 2003 for investments to our retirement/super, we were confident in purchasing these apartments after being told by the developer that "the council have made the builder increase the set back from the high water mark a further 30 meters towards Lewis St". Before buying we visited Taree Council and made inquiries about this extra set back and were shown Council documents showing beach front and dune movements studies dating back to the early 1960's and felt comfortable in investing in the Meridian Resort after been shown these documents by a council staff member who is now a senior council member, we have the copy's of these documents in storage and the name of the council officer.

I watch with alarm the lack of disinterest from Council at the loss of the two beach houses on the south side of the Meridian which had been there since the 1950's I believe, and the perception of the greater collective of the Old Bar residence that Taree Council and yourselves have a wait and see or a agenda that might not be in the best interest of the Old Bar Beach residence.

We would like to enquire of the panel the following:-

- Why you and Taree Council have not wanted to allow us to save our properties over the last five years and at every attempt we have been hamstrung in our efforts.
- Yes it is in our interest to stop the beach erosion but it directly affects the income and tourism not only to Old Bar but to the wider area as well.
- We have not requested any funding or financial contribution from either the Council or yourselves to cover the expense of building a sea wall and saving our properties up to now.
- We believe that a simple solution has been found and would be a simple case in study for other problem areas up and down the coast.
- Most Councils in other states have taken care to repair sea damage caused to the foreshore.
- We have undertaken all the various studies and sought the best people in their field to find the best solution to the problem
- We have, together with other home owners have placed our superannuation into these properties in order to one day retire there.
- It is most interesting that many of the residence along the beach front (and the township) believe that the information released/leaked and the news paper articles were done to divide the townships opinion, but we feel after talking to business owners that this is galvanizing opinion that something should be done

and soon, also it appears to have generated support for the thought that there is an agenda that is not in the best interest of the township of Old Bar (rightly or wrongly).

- We have waited over Five years and watch the value of our property fall by 50% and feel that you and Taree Council have not conscience, we feel that if a council member or their family was in the same position you and the council would be using the press and every other available tool to expedite the matter, and would not be forced to see your investment/superannuation disappearing.

Yours Faithfully

G.A. & C.A. Truran.

Truse P/L

Amended submission:

From: Gui Truran [REDACTED]  
Sent: Thursday, 28 February 2013 10:52 PM  
To: 'jane.gibbs@environment.nsw.gov.au'; 'coastal.panel@environment.nsw.gov.au'  
Subject: Old Bar Beach Erosion

Dear Jane,

Re: 32 Lewis St Old Bar. DOC13/5162

We are the owners of apartments [REDACTED] and [REDACTED] Lewis St Old Bar, we have had other properties in Old Bar and the surrounding area and have been holidaying and adding to the wealth of Taree , Wingham and Old Bar Areas since the seventies. We had the confidence to purchase these apartments in 2003 for investments to our retirement/super, we were confident in purchasing these apartments after being told by the developer that "the council have made the builder increase the set back from the high water mark a further 30 meters towards Lewis St". Before buying we visited Taree Council and made inquires about this extra set back and were shown Council documents showing beach front and dune movements studies dating back to the early 1960's and felt comfortable in investing in the Meridian Resort after been show these documents by a council staff member who is now a senior council member, we have the copy's of these documents in storage and the name of the council officer.

I watch with alarm the lack of disinterest from Council at the loss of the two beach houses on the south side of the Meridian which had been there since the 1950's I believe, and the perception of the greater collective of the Old Bar residence that Taree Council and yourselves have a wait and see or a agenda that might not bein the best interest of the Old Bar Beach residence.

We to would like to enquire of the panel the following:-

- Why you and Taree Council have not wanted to allow us to save our properties over the last five years and at every attempt we have been ham strung in our efforts.

- Yes it is in our interest to stop the beach erosion beach but it directly affects the income and tourism not only to Old Bar but to the wider area as well.
- We have not requested any funding or financial contribution from either the Council or yourselves to cover the expense of building a sea wall and saving our properties up to now.
- We believe that a simple solution has been found and would be a simple case in study for other problem areas up and down the coast.
- Most Councils in other states have taken care to repair sea damage caused to the foreshore.
- We have undertaken all the various studies and sought the best people in their field to find the best solution to the problem
- We have, together with other home owners have placed our superannuation into these properties in order to one day retire there.
- It is most interesting that many of the residence along the beach front (and the township) believe that the information released/leaked and the news paper articles were done to divide the townships opinion, but we feel after talking to business owners that this is galvanizing opinion that something should be done and soon, also it appears to have generated support for the thought that there is an agenda that is not in the best interest of the township of Old Bar (rightly or wrongly).
- We have waited over Five years and watch the value of our property fall by 50% and feel that you and Taree Council have not conscience, we feel that if a council member or their family was in the same position you and the council would be using the press and every other available tool to expedite the matter, and would not be forced to see your investment/superannuation disappearing.

Yours Faithfully

G.A. & C.A. Truran.

Truse P/L

Submission 19 - Kevin Gallen

-----Original Message-----

From: Kevin Gallen [mailto:kevin.gallen@gecongroup.com]

Sent: Friday, 1 March 2013 12:25 PM

To: EHPP UCWR Branch Mailbox

Subject: Development Application CP 12-001

Hi - please find attached letter please in favour of Development plan for CP-12-1001 being Sea Wall Development at Old Bar NSW. Address for wall is on the seaward side of properties 24 to 40 Lewis Street Old Bar

Thank you

Kevin Gallen

[REDACTED]

[REDACTED]

24-2-2013.  
[REDACTED]  
Dear Coastal Panel & NSW Government.  
I am writing in regards to the development application CP-12-001 for the Erosion Protection Works at Old Bar for the seaward side of properties located between 24 to 40 Lewis Street Old Bar.  
I have spoken to my family about the application & because it affects them personally & financially we are IN FAVOUR of the DA.  
We originally purchased this as a investment for my wife & her three children from a previous marriage plus our three children we have had together.  
Over the years we have seen our land deteriorate as well as our investment. We have tried many times to sell but because of the deterioration of our

land no one wishes to take a big risk.  
We have spent many happy moments  
walking along the beach. We would  
love for other families to enjoy the  
same by either purchasing or renting.  
Did I write this by company GEON  
frating. has gone into liquidation (Kings)  
and it may well be we either sell and  
live at Old Bar. Or if the application  
was approved we may be able to stay  
in Sydney by selling Old Bar if it  
can't get work.  
The application would also probably  
make other owners/investors happy knowing  
that their property may not end up in  
the ocean.  
The only other thing my family & I  
can start to do is to look at the  
application is disappointed in to ask  
compensation from the authorities  
that approved the building of our property  
some 12 years ago.  
The article in the Morning Times  
states about Mr. V. C. Mosman etc.  
This reason hasn't seen the argument

birds from invaders & home owners  
along the seaward side of Lewis Street  
Old Bar watching their properties  
deteriorate around them.

Thank you for your time

The Graham Family  
Meridian Unit Owners

Submission 20 – Robert Thomas

**From:** Bob Thomas [REDACTED]  
**Sent:** Friday, 1 March 2013 12:26 PM  
**To:** EHPP UCWR Branch Mailbox  
**Subject:** Support for DA Erosion Protection Works - Old Bar CP 12-001

Sir/ Madam

As an owner of a unit at the Meridian Seaside Resort, I fully support the following DA.

It is important for the Coastal Panel to support the investments Council has made and property owners have made in the local area. It is disappointing that Federal, State and Local agencies have delayed action for so long, have obstructed us from taking action earlier, then shifting responsibility for action to local land owners rather than take responsibility for the amenity of the area on behalf of their various constituents.

Name: Robert THOMAS  
Address: [REDACTED]  
Name of DA: Erosion Protection Works - Old Bar  
Application Number: CP 12-001  
I fully support the application.  
Political donations in last 2 years: nil

--  
Bob Thomas  
[REDACTED]

--  
[REDACTED]

Submission 21 – Andrew McEachern

**From:** Andrew [REDACTED]  
**Sent:** Friday, 1 March 2013 3:40 PM  
**To:** EHPP UCWR Branch Mailbox  
**Subject:** Development Application CP 12-001

EROSION PROTECTION WORKS, OLD BAR  
DA CP 12-001

As a small business owner in Old Bar, I fully support the construction of a sand filled geotextile container seawall in front of the affected properties in Lewis Street, Old Bar.

I make special reference to The Meridian Resort which attracts many tourists to Old Bar, and has a direct impact on the economy of this small town.

It must be remembered that permission was granted for these landholders to build in Lewis Street, and to deny them the right to protect their properties against a phenomenon that removes, then replaces the sand over time would be immoral (and I suspect illegal).

That this form of defensive approach works has been proved time and time around the world over many centuries.

I have witnessed the installation of a rock retaining wall at Warilla (Wollongong) in the late sixties - where waves broke against the wall each high tide. Now the rocks are covered with sand and a beautiful beach is there for all to see and use. There must be many such examples of this successful approach around Australia alone – the majority of which would have been constructed without the excessive reporting demanded by government departments today.

This is a simple and effective approach to the problem and most importantly at no cost to the taxpayer.

These landholders have a right to protect their properties and I fully support their right to do so.

Andrew McEachern  
[REDACTED]

Submission 22 – Robyn Chrystal

**From:** Robyn Chrystal [REDACTED]  
**Sent:** Friday, 1 March 2013 4:10 PM  
**To:** EHPP UCWR Branch Mailbox  
**Subject:** DA: CP12-001

To Whom It May Concern,

I am writing this email regarding the Development Application CP 12-001 - Erosion Protection Works, Old Bar submitted by Owner's Corporation for Strata Plan 61034 (Meridian Resort).

I fully support this application.

I am currently employed by Meridian Resort Beachside.

Being a mother of two young children who visit Old Bar beach regularly I feel there is a safety issue surrounding the continual erosion to the sand dunes.

I believe that the construction of a seawall would benefit to the Taree/ Old Bar community including: encouraging tourists to the area, a safer beach for young children, saving local beachfront properties and access stairs to the beach, to name a few.

Thank you for taking the time to read this.

I am looking forward to a positive outcome for this Development Application.

Yours Sincerely,

Robyn Chrystal.  
[REDACTED]



Submission 23 – [REDACTED] (asked not to have name published)

Covering email:

**From:** [REDACTED]  
**Sent:** Friday, 1 March 2013 4:50 PM  
**To:** EHPP UCWR Branch Mailbox  
**Subject:** Your reference: letter sent DOC/13/5162 ( 15th Feb 2013 )  
**Importance:** High

Chair NSW Coastal Panel

Dear Ms Gibbs,

Your reference: letter sent DOC/13/5162 ( 15<sup>th</sup> Feb 2013 )

I am [REDACTED] {name withheld by request}  
Of: [REDACTED]

Name of application:

Development Application erosion protection works, Old Bar  
Number:

Amended CP 12-001

I have a investment unit [REDACTED] at The Meridian Old Bar Beach. I am very keen to have the amended plans for the sand filled geo-textile seawall go forward.

Recent storm and weather events have shown how much damage and erosion has been done to the beach at Old Bar, as has been the case in many other areas along the eastern coast of the mid north coast. Many home owners have lost a lot of land and the value of properties have dropped significantly. It is only fair to all owners that protection works be approved as soon as possible.

I therefore wish to **support the application**. Please allow this application to be approved so i can save my investment and my future superannuation for myself and my family.

Yours Sincerely

[REDACTED]  
{name withheld by request}



NSW Coastal Panel

Doc 1317000

Our reference: D0013/5102  
Contact: Jana Gibbs, (02) 4904 2587

15 February 2013

Dear Sir or Madam

**RE: READVERTISED DEVELOPMENT APPLICATION – EROSION PROTECTION WORKS,  
OLD BAR**

The New South Wales Coastal Panel has received a development application (DA) from the Owner's Corporation for Strata Plan 61034 (Meridian Resort) for the construction of a sand-filled geotextile container seawall in front of seven adjacent properties at Old Bar. This development application was previously on exhibition from 17 July 2012 to 7 August 2012.

In response to a request for clarification and additional information from the NSW Coastal Panel, the proponent for the development has provided information that amends the footprint of the proposed erosion protection works. The development application is being re-advertised to ensure a further opportunity to seek views of the community.

The proposed development is located on the seaward side of properties located between 24 to 40 Lewis Streets, Old Bar, as shown on the attached figure.

This letter is to advise you that development application CP 12-001 lodged with the NSW Coastal Panel under *State Environmental Planning Policy (Infrastructure) 2007* has been amended.

The NSW Coastal Panel is established through the *Coastal Protection Act 1970* and has a role to consider development applications for certain types of development on the open coast or in the entrance of an estuary under certain circumstances. Secretariat services for the Panel are provided by the NSW Office of Environment and Heritage.

Documentation provided as part of the development application can be viewed at <http://www.environment.nsw.gov.au/coasts/coastalpanel.htm> or inspected at three locations:

- Greater Taree City Council Administration Centre, 2 Pulteney Street Taree;
- Old Bar library, Old Bar Road, Old Bar; and
- Office of Environment and Heritage, Level 14, 69-61 Goulburn Street Sydney.

PO Box A290 Sydney South NSW 1232  
69-61 Goulburn St Sydney NSW 2000  
Tel: (02) 8996 6000 Fax: (02) 9995 6390  
TTY: (02) 9211 4723  
ABN 30 641 387 271  
[www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)

Page 2

The Coastal Panel invites you to comment on this development application. Submissions will be accepted by the Panel up until the close of business on 1 March 2013 and should include:

- your name and address
- the name of the application and the application number
- a statement on whether you support or object to the project.

If you require an extension of time to prepare your submission, please advise the Panel secretariat before the submission closing date.

Submissions should be:

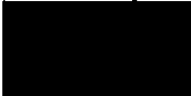
- emailed to [coastal.panel@environment.nsw.gov.au](mailto:coastal.panel@environment.nsw.gov.au), or
- faxed to 02 9995 5030, or
- posted to Chair, NSW Coastal Panel, c/- Office of Environment and Heritage, PO Box A290, Sydney South NSW 1232.

Everyone lodging a submission is required to declare reportable all political donations (including donations of \$1000 or more) made in the previous two years. Further details are available at <http://www.planning.nsw.gov.au/donations>, including a disclosure form.

Please note that it is Coastal Panel policy to make a copy of submissions publicly available, including on the Coastal Panel's webpage. If you do not want your name to be made available, please clearly state this in your submission.

If you require further information or clarification about the development application, please call Jane Gibbs of the Office of Environment and Heritage on (02) 4904 2687 or email [jane.gibbs@environment.nsw.gov.au](mailto:jane.gibbs@environment.nsw.gov.au).

Yours sincerely



DEREK RUTHERFORD  
Deputy Chair  
NSW Coastal Panel

Encl.

I The Under signed Rendol SHEEN  
Unit 3/39-41 OLD BAR RD OLD BAR  
TOTALY AGREE WITH THIS PROPOSAL



28/2/2013

Submission 25 – Marie and Marcel Boudan

Covering email:

From: Admin Airview [REDACTED]

Sent: Wednesday, 27 February 2013 2:27 PM

To: EHPP UCWR Branch Mailbox

Subject: Old Bar DOC 13/5162

Importance: High

Please find the attached email

Thanks

Marie Boudan

Letter:

**TO: NSW COASTAL PANEL                      EMAIL:**  
coastal.panel@environment.nsw.gov.au

**ATTENTION: Jane Gibbs**

**SUBJECT: EROSION PROTECTION WORKS – OLD BAR NSW**

**YOUR REFERENCE: DOC 13/5162**

**RE: MERIDIAN RESORT- 32 LEWIS STREET, OLD BAR**

As half owners of Unit [REDACTED] at the Meridian Resort, we would like to see the DA from the Owner's Corporation for Strata Plan# 61034 go ahead.

We are very small investors who have planned for our future retirement and for the last 8 years, we have seen our small investment dwindle.

If, the sea wall does not go ahead we would find ourselves in a very difficult situation as we won't be able to sell the property and we will have to reimburse the Bank Loan.

At our age where we are looking to retire, we find ourselves in a very unwelcomed predicament.

Looking forward for the sea wall approval.

Thank you for your time.

Marie & Marcel Boudan

## Submission 26 -- Tom Thompson

RECEIVED 27 FEB 2013

21st FEBRUARY 2013

SUBMISSION FOR COASTAL EROSION WORKS OLD BAR  
APPLICATION NO. CP12-001

Mr. T Thompson

Clerke Street, Old Bar 2430

It is essential that measures are taken to protect both beaches and threatened properties.

LAYOUT INITIAL WORKS [amended DA]

Notes No. 9 States: On construction wall to extend 15m landward of the toe of the scarp. Is that correct?

Since the 2010 survey used in this DA 3 metres of frontal dune was lost. Has this loss been calculated in the engineer's design? If more dune is lost before construction, is the idea to just extend the backfill of sand? So overall measurement is not critical?

Will the beach that is to be reinstated over the structure on completion of works, be a continuing requirement of the DA?

8.2. SEPP 71

COASTAL PROTECTION

[b]existing public access to and ALONG the coastal foreshore for pedestrian and disabled, and where possible access to and along the coastal foreshore for pedestrians and disabled should be improved"

coastal for pedestrians and disabled should be improved." If the wall extends between 1m -3m of the eastern boundary it will be close, or in the sea [see attached 11] on most tides, so replenishing the sand on the wall will certainly be a help to public access.

Designated Road [shown in all plans]

WE understand that the development is on private land. Because it adjoins a designated road the eroded land still remains private. The point of law in the designated road definition is therefore critical to this situation. If the designated road has been claimed by the ocean, is it still classified as a road? [Venice springs to mind, might be fun] Do we have a precedent?

AS stated it is very important that measures are taken to protect both the beach and threatened properties. We thank the members of the Coastal Panel for caring enough to be involved in this process. We just hope that we will not have to ask you to perform a feat of biblical proportions so the beach still can be accessed by the public.

Regards,

Tom Thompson

Clerke Street,

Old Bar 2430 NSW



Submission 27 – Elaine Pearce

**From:** E.Pearce [REDACTED]  
**Sent:** Friday, 22 February 2013 2:07 PM  
**To:** EHPP UCWR Branch Mailbox  
**Subject:** Fw: Development Application No. CP 12-001

Covering email:

**To the NSW Coastal Panel**

**Re: Development Application number:** CP 12-001

**Location:** Old Bar

**Applicant:** Owners Corporation of Strata Plan 61034 (Meridian Resort)

**Description of development:** development application for the construction of a sand-filled geotextile container seawall to protect five adjacent properties at Old Bar

**THIS DEVELOPMENT APPLICATION HAS MY SUPPORT as per attached document**

Elaine Pearce,  
[REDACTED]  
[REDACTED]

Letter:

**ELAINE M. PEARCE**  
[REDACTED]

February 22, 2013

**To the NSW Coastal Panel**

**Re: Development Application number:** CP 12-001

**Location:** Old Bar

**Applicant:** Owners Corporation of Strata Plan 61034 (Meridian Resort)

**Description of development:** development application for the construction of a sand-filled geotextile container seawall to protect five adjacent properties at Old Bar

I have received your communication dated February 15, 2013, re. the above development application.

**THIS DEVELOPMENT APPLICATION HAS MY SUPPORT BECAUSE**

- These properties Nos. 24 –40 Lewis Street, were built with total approval of Greater Taree City Council within the boundaries of beach erosion set down by State Government allowing for 100 year erosion.
- Any owner should be allowed the right to protect his/her property which was erected with approval of all legislative bodies.
- The work is being done on land owned by the applicants.
- The applicants are not looking for funding from any government body.

- Plans for the proposed protection have been designed by extremely capable and well referenced consultants, International Coastal Management, experts in the field.
- All points queried by the Coastal Panel are adequately addressed in the letter from the abovementioned consultants
  - We are seeking approval of ALL works that are within the property boundaries of the owners which have provided owners consent (as shown in revised drawing OB-EPW-005 rev A). This includes:
    - Initial works as shown in drawings OB-EPW-001 to -003, including (if necessary) the temporary works as shown in drawing OB-EPW-004.
    - In future, if approvals for adjacent properties not obtained - returns on 24 and 40 Lewis Street as shown in drawing OB-EPW-005 (blue line) & -006
    - In future, if approvals for adjacent properties are obtained - extension of wall along the proposed alignment as shown in OB-EPW-005 (Red line) to the southern boundary of 40 Lewis St & to the northern boundary of 24 Lewis St.
    - This approval will NOT include any works to the south of 40 Lewis St or to the north of 24 Lewis St. It is hoped, however, that inclusion of the proposed alignment in the approved drawing set will result in an accepted alignment on which future applications may be based and provide more coherent approach to erosion protection locally.
  - I note that the applicant (Meridian Resort) has acted on your advice and contacted the sales agent for 42 Lewis Street. He advised that the owner of this property was aware of the application but did not wish to be involved. As such, the approval cannot effectively be extended at this time.
  - 16th January 2013

I own Units ■ and ■ at the Meridian which I purchased after full searches by my very thorough solicitor, who confirmed they were built with full council approval and set back to allow for 100 years erosion.

If this work is not carried out I will suffer considerable financial loss as this investment was my superannuation money and I considered it a very safe investment.

Yours sincerely,

Elaine Pearce



Submission 28 – Adam Stevenson

**From:** Adam Stevenson [REDACTED]  
**Sent:** Tuesday, 26 February 2013 11:56 AM  
**To:** EHPP UCWR Branch Mailbox  
**Subject:** Sea Wall Old Bar

Good Morning,

This is an email concerning the sea wall proposition at Old Bar. I am sure through many studies presented that you are aware of the impact it has had on our town for the past several years. We really need an outcome that will keep our area thriving. We have noticed a lot of negative feedback from potential buyers looking to relocate to our area purely because of erosion concerns, this is detrimental to our lively hoods and is not in the best interests of our town. It is hard enough to get council to fix our roads and provide any funding at whatsoever to keep our town maintained nicely. And to add to that we now have to battle with council and now Federal Government (from what I understand) to save our homes and beach!!! I am confident if you personally, whoever you are reading this email, were faced with the same fate you would be able to understand the desperation we have of trying to save our beaches, homes and town.

Surely something that is to be paid for by local residents shouldn't be so hard to get approved? One resident has already lost two homes, how many more do we need to loose before you ALLOW us to take action. This is a basic right to protect your home and we feel we are being holding back from accomplishing this.

I fully support the sea wall and cannot see any reason why it shouldn't be passed.

Regards,

**Adam Stevenson**  
Principal / Licensee-In-Charge

**LJ Hooker** Old Bar Beach



[REDACTED]

[REDACTED]



Submission 29 – David and Helen Holder

From: helen Holder [REDACTED]  
Sent: Monday, 25 February 2013 9:07 PM  
To: EHPP UCWR Branch Mailbox  
Subject: Sea Wall at Old Bar - Development Application CP 12 - 001

Dear Sir/Madam

We write this email in support of the above application.

Our unit was purchased several years ago with a view to assist us financially on our retirement. Instead, it seems, that along with other unit holders and neighbours it will prove to be a great financial burden.

Urgent action is required in building this sea wall to protect our properties, which were purchased in good faith.

If approval is not forthcoming, we will seriously consider taking legal action as the Council approved the building application about 12 years ago. This approval gave us all some comfort that our property would be protected from any sea damage.

The worry over this matter has caused us much distress and has meant that we have deferred our retirement plans. We trust some common sense and sense of fair play for the owners of affected properties will prevail.

Yours sincerely

David and Helen Holder

Owners of Unit [REDACTED] at Meridian Resort (Lewis Street Old Bar)

Supplementary email:

From: helen Holder [REDACTED]  
Sent: Monday, 25 February 2013 9:15 PM  
To: EHPP UCWR Branch Mailbox  
Subject: Fwd: Sea Wall at Old Bar - Development Application CP 12 - 001

Sorry our address is: [REDACTED]

David and Helen Holder

Begin forwarded message:

From: helen Holder [REDACTED] >  
Date: 25 February 2013 21:06:43 AEDT  
To: "[coastal.panel@environment.nsw.gov.au](mailto:coastal.panel@environment.nsw.gov.au)"  
<[coastal.panel@environment.nsw.gov.au](mailto:coastal.panel@environment.nsw.gov.au)>  
Subject: Sea Wall at Old Bar - Development Application CP 12 - 001

Dear Sir/Madam

We write this email in support of the above application.

Our unit was purchased several years ago with a view to assist us financially on our retirement. Instead, it seems, that along with other unit holders and neighbours it will prove to be a great financial burden.

Urgent action is required in building this sea wall to protect our properties, which were purchased in good faith.

If approval is not forthcoming, we will seriously consider taking legal action as the Council approved the building application about 12 years ago. This approval gave us all some comfort that our property would be protected from any sea damage.

The worry over this matter has caused us much distress and has meant that we have deferred our retirement plans. We trust some common sense and sense of fair play for the owners of affected properties will prevail.

Yours sincerely

David and Helen Holder

Owners of Unit ■ at Meridian Resort (Lewis Street Old Bar)

Submission 30 – M & J Arens

M. & J. Arens.  


The Chair,  
NSW Coastal Panel,  
c/- Office of Environment & Heritage  
P.O. Box A290,  
South Sydney, NSW 1232.

Re- Your reference CP12-001  
Development Application 24-40 Lewis Street Old Bar  
Erosion Protection Works.

Dear sir/Madam,

We refer to the re- advertisement in the Manning RiverTimes dated 8th inst .for the exhibition of the proposed works.

Attached is our previous correspondence in respect to this matter.

Regardless of the amendments made to the application our previous concerns remain the same and therefore unless those concerns can be fully disproved we are of the opinion that such a proposal should be rejected.

Yours faithfully

  
M.F. Arens

J.M. Arens,

M & J. Arens  
[Redacted]

The Deputy Chair,  
NSW Coastal Panel,  
C/- Office of Environment & Heritage,  
P.O. Box A290,  
Sydney South, NSW 1232

Re - your Reference DOC12/29528  
Development Application- Erosion Protection Works Old Bar

Dear Sir,

We refer to the above development application and agree urgent works are required to alleviate the extremely severe coastal erosion that is occurring at old Bar.

It is our opinion, that the proposed seawall will create and exacerbate the erosion concerning the areas at both ends of proposed development.

This conclusion is confirmed by sections of the following reports.

1. Worley Parsons Report for Greater Taree City Council dated 14th May 2010.  
"4.3 Revetment. Whilst revetments perform well in arresting the continued recession of the foreshore and storm erosion, they often exacerbate erosion of the area immediately seaward of the structure and have end effects (i.e. increased erosion at the transition between the hard structure and erodible foreshore"
2. Coastal Erosion Assessment at the Meridian Resort by Dr. Ian Goodwin  
"Whilst seawalls provide protection of the landwards infrastructure they cause significant loss of beach amenity and significant 'endwall' effects occur. Exacerbated erosion occurs at the end of the walls to the reflected wave and current energy

Enclosed are copies of the above quoted pertinent statements.

We as long term residents and property owners are therefore of the opinion that any works undertaken should be that which includes the entire area suffering from and threatened by erosion.

Yours faithfully,

[Redacted]  
M.F. Arens & J.M. Arens

Submission 31 – Kim and Geof Morgan

-----Original Message-----

From: tiltsafe [REDACTED]

Sent: Thursday, 28 February 2013 3:26 PM

To: EHPP UCWR Branch Mailbox

Subject: Old bar sea wall Geof and Kim Morgan [REDACTED] Lewis st old bar

Hello. My name is Kim Morgan my husband and two children live and own property in Lewis st, we have resided here for nearly 9 years. When we first purchased our land we had no knowledge of the seriousness of the beach erosion here in old bar. Our property was initially valued at \$750000 in a matter of a few years our property value was reduced significantly and as each year has passed along with more erosion our property has reduced even further. Our family believes that a sea wall would be of benefit not only to the erosion problem but also for tourism and old bars reputation because we would be seen to be doing something at the present moment people only know old bar as the place where houses fall into the ocean which I believe is very sad when old bar has so much more going for it. We ask those in authority to please consider not only the residents that have been affected by this erosion but also to consider the rest of the community in old bar and the future of old bar beach.

Thankyou for your time. Kind regards Kim and Geof Morgan of [REDACTED] Lewis st old bar.

Sent from my iPhone

## Submission 32 – Ian and Jennifer Lewis & Pierre and Genevieve Boudan

Jenny Lewis

To: coastal.pene@environment.nsw.gov.au  
Subject: Erosion Protection Works - Old Bar New South Wales

New South Wales Coastal Panel  
Your Reference : DOC 13/S162

**FXED**  
21/2/13.

Attention : Jane Gibbs  
Re: Meridian Resort, 32 Lewis Street, Old Bar

Both my wife and I are owners of [REDACTED], and half owners of [REDACTED] at the Meridian Resort, 32 Lewis Street, Old Bar.  
We are advised that since 2005, approximately 36 lineal metres of beach front has been eroded from the resort frontage.

The Dune scarp, if left as it is, can be very dangerous in regards to public safety, with many families with young children in this area. The dune scarp can be a very dangerous area to play near, and it may be only a matter of time before a land slip buries and kills somebody. Children and adults take no notice of signs, particularly when you see people walking on the beach at high tide, and scramble to the dune to escape the water.

Units 5 and 8, years ago, were valued at \$600,000.00 (six hundred thousand dollars), now the latest valuation is \$250,000.00 (two hundred and fifty thousand dollars). As these units form the majority of our retirement fund, we need protection for our assets.

All we owners of units at the resort are wanting to do is privately fund the sea wall on our private land, not only safety for beach users, but also for our own assets.

Please make a decision in the affirmative for the sea wall construction.

Please note that this email should be taken as THREE votes for the approval process.

[REDACTED] : Ian and Jennifer Lewis  
[REDACTED] : Pierre and Genevieve Boudan

[REDACTED] : Ian and Jennifer Lewis

Owners : The I & J Company, T/F The Lewis Superannuation Fund

Signed: Ian Lewis [REDACTED] Jennifer Lewis [REDACTED]

Pierre Boudan [REDACTED] Genevieve Boudan [REDACTED]

**Submission 33 – Department of Primary Industries (Fisheries)**





## Department of Primary Industries

Our ref: OUT13/4196

Derek Rutherford  
Deputy Chair  
NSW Coastal Panel  
PO Box A290  
SYDNEY SOUTH NSW 1232

Dear Sir,

**Re: Erosion protection Works, Meridian Resort, Old Bar**

Thank you for your letter dated 15 February 2013 requesting comment from NSW Department of Primary Industries (Fisheries) on the above proposal.

NSW DPI is responsible for ensuring that fish stocks are conserved and that there is no net loss of key fish habitats upon which they depend. To achieve this, NSW DPI ensures that developments comply with the requirements of the *Fisheries Management Act 1994* (namely the aquatic habitat protection and threatened species provisions in Parts 7 and 7A of the Act, respectively), and the associated *Policy and Guidelines for Aquatic habitat Management and Fish Conservation (1999)*. In addition, NSW DPI is responsible for ensuring the sustainable management of commercial and recreational fishing in NSW.

NSW DPI has reviewed the documents provided for this proposal in light of these provisions and has no objections.

As the proposal is being authorised by the NSW Coastal Panel, which is a relevant public authority, no permits are required for works under s.199 of the Fisheries Management Act.

If the location or design of this proposal changes NSW DPI will need to re-assess this proposal prior to approval. Note that conditions may be amended or the modified proposal rejected.

**General terms of approval**

- A Construction Environmental Management Plan (CEMP) detailing provisions relating to the items listed in this section below, is to be prepared **and a copy maintained on site at all times**. The CEMP should consist of simple statements and diagrams of how each of the factors will be managed on site to achieve the stated aim.
  - a. Site delineation and marking of "no go" areas (with the aim of keeping the impacted area to a minimum),
  - b. Sediment and erosion control plan (with the aim of achieving an outcome of "no visible turbid plumes reaching the waterway",
  - c. careful design and use of access works to keep the impacted area to a minimum,
  - d. Material storage and stockpiling (with the aim of keeping the impacted area to a minimum),

Fisheries NSW  
Port Stephens Fisheries Institute  
Locked Bag 1, NELSON BAY NSW 2315  
Tel: 02 4982 1232 Fax: 02 4982 1304  
ABN 72 189 919 072 [www.industry.nsw.gov.au](http://www.industry.nsw.gov.au)

- e. Site restoration and clean up (with the aim of ensuring that the impacted area recovers as soon as possible),
- f. Site rehabilitation and revegetation (with the aim of ensuring that there are no long term impacts after works are completed).

All works undertaken are to be consistent with this statement.

- Machinery is not to enter, or work from the waterway unless in accordance with works approved.  
*Reason – To ensure minimal risk of water pollution from oil or petroleum products and to minimise disturbance to the streambed substrate.*
- Prior to use at the site and / or entry into the waterway, machinery is to be appropriately cleaned, degreased and serviced. Spill kits are to be available on site at all times during works.  
*Reason – To reduce the threat of an unintended pollution incident impacting upon the aquatic environment.*

If you require any further information please contact me on (02) 4916 3931.

Scott Carter  
Senior Conservation Manager, Aquatic Habitat Protection Unit

1 March 2013