

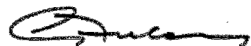
DA CP 12-001

**PROPOSED SEAWALL
LEWIS STREET, OLD BAR
TAREE LOCAL GOVERNMENT AREA**

**ASSESSMENT REPORT & RECOMMENDATION
PREPARED FOR THE NSW COASTAL PANEL**

MARCH 2013

This report has been prepared by City Plan Strategy & Development with support from the NSW Coastal Panel.

Job No/ Document No	Description of Issue	Prepared By/ Date	Reviewed by Project Manager/Director	Approved by Project Manager/Director
N-12035 Rev 0	Final	G. Fielding 02/04/13	G. Fielding 02/04/13	
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Note: This document is preliminary unless it is approved by a Project Manager or Director of City Plan Services				

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Coastal Panel No.	12-001
DA No.	DA CP 12-001
Proposal	Development application for the construction of a sand-filled geotextile container seawall to protect seven adjoining properties at Old Bar
Properties	Nos. 24-40 Lewis Street, Old Bar, Taree LGA
Applicant	Owners Corporation of Strata Plan 61034 (Meridian Resort)
Report By	Garry Fielding, City Plan Strategy & Development

EXECUTIVE SUMMARY

Proposed Development

The Development Application (DA) proposes a sand-filled geotextile container erosion protection seawall along the foreshore at Old Bar, within the Greater Taree local government area (LGA). The proposed seawall is intended to protect 7 adjoining properties which have been severely affected by ongoing beach erosion. The **original DA** submitted in July 2012 was amended in January 2013 to incorporate proposed changes to the seawall (amended plans attached at **Appendix 1**). It is the **amended DA** that is principally the subject of this Assessment Report.

Referral to Coastal Panel

Pursuant to section 129A(2) of *State Environmental Planning Policy (Infrastructure) 2007* (the Infrastructure SEPP) the proposal is referred to the NSW Coastal Panel for determination pursuant to Part 2A of the *Coastal Protection Act 1979*, as no coastal zone management plan applies to the site.

Permissibility

The subject site is zoned E2 Environmental Conservation pursuant to the *Greater Taree Local Environmental Plan 2010*. Development of 'coastal protection works' (including seawalls) is prohibited in this zone. However, development for the purposes of a 'seawall or beach nourishment' is permissible with consent pursuant to Clause 129A(1) of the Infrastructure SEPP. Additional key provisions under this enabling clause are as follows:

- (2) *If a coastal zone management plan does not apply to the land on which any such development is to be carried out, the Coastal Panel has the function of determining a development application for development to which this clause applies.*

(3) *Before determining a development application for development to which this clause applies, the consent authority must take the following matters into consideration:*

- (a) *the provisions of any coastal zone management plan applying to the land,*
- (b) *the matters set out in clause 8 of State Environmental Planning Policy No 71—Coastal Protection,*
- (c) *any guidelines for assessing and managing the impacts of coastal protection works that are issued by the Director-General for the purposes of this clause and published in the Gazette.*

No adopted coastal zone management plan applies to the site. Accordingly, the NSW Coastal Panel is the consent authority for this development. It is noted that no gazetted guidelines for assessing and managing the impacts of coastal protection works apply to the site.

Significantly, in addition to the prescribed matters for consideration under Section 79C of the *Environmental Planning & Assessment Act 1979* (EP&A Act), the Coastal Panel in its role as consent authority is required to consider the provisions of Section 55M of the *Coastal Protection Act 1979*. In this regard Section 55M(1) provides that consent must not be granted to development for coastal protection works unless the consent authority is satisfied that the works will not unreasonably limit public access to or use of a beach, nor pose a threat to public safety.

All required owners' consents have been provided to support the lodgement of the **amended DA**.

Consultation

In accordance with the provisions of the Greater Taree Development Control Plan, the **original DA** was publicly exhibited from 17 July to 7 August 2012. In response, 13 submissions were received. The **amended DA** was exhibited from 8 to 22 February 2013. In response, 32 submissions were received.

Key Issues

The main issues identified in the assessment and/or raised in the submissions are as follows:

- Impact of development on adjacent properties and surrounding area - 'end effects';
- Loss of beach amenity;
- Loss of beach access;

- Effects on dune vegetation (including littoral rainforest) from increased erosion;
- Aboriginal heritage assessment/due diligence (known nearby sites);
- Long term restoration/remediation (if planned retreat occurs in future);
- Staging/construction management, including worker safety, Crown Land access, source of sand;
- Ongoing management/maintenance and lifespan, including Crown Land access, cost, logistics;
- Groundwater - impacts of excavation;
- Stormwater management; and
- Adequacy of Seawall Management Plan.

Conclusion

The DA for the proposed seawall is the direct result of the stress and hardship endured by the owners of the subject site as a result of the significant beach recession their properties have suffered over a number of years. Their response in proposing a seawall at their own cost is able to be pursued as a permissible development under Clause 129A(1) of *State Environmental Planning Policy (Infrastructure) 2007*. As the consent authority the Coastal Panel must be satisfied that the proposed seawall will not, over its life (estimated to be 25 years), **unreasonably** limit public access to or the use of Old Bar Beach. This issue is quite vexed in this instance, given the private ownership existing over the affected portion of beach. Currently, as a result of the recession of the beach, pedestrian access along the beach is largely restricted to low tide events. The NSW Office of Environment & Heritage (OEH) considers this will be accentuated over time as a result of the proposed seawall. Having regard to the restricted nature of pedestrian beach access existing now and the private ownership of the affected area of beach, it may be difficult to refuse consent to the proposed seawall on this ground, alone. However, in respect of the likely threat to public safety posed by the seawall as a result of the “end effects” on adjoining properties cited by OEH and the University of NSW Water Research Laboratory (WRL), it would be inappropriate for the Coastal Panel to conclude that the proposed seawall will not pose a threat to public safety. Accordingly, having regard to Section 55M of the *Coastal Protection Act*, the proposal should not be granted development consent in its current form.

It would be possible to remedy this situation through a comprehensive approach to coastal recession along the full extent of Old Bar Beach, as suggested by the Greater Taree City Council in its March 2013 submission, but this will require the State

Government, the Council and property owners to work together in addressing the issue and jointly providing resources to implement an appropriate solution. To this end the establishment of a Working Group with responsibility to examine a comprehensive approach to coastal recession along the full extent of Old Bar Beach, including public access to the beach and public safety, is considered the most appropriate response. In this regard Greater Taree City Council should be requested to convene the Working Group comprising Council representatives, Old Bar Beach property owners affected by beach recession, and the OEH.

Recommendation

Consideration of the amended Development Application be deferred by the Coastal Panel to enable the following actions to be pursued:

- 1. The establishment of a Working Group to examine a comprehensive approach to coastal recession along the full extent of Old Bar Beach, including public access to the beach and public safety pursuant to Section 55M(1)(a) of the Coastal Protection Act 1979. Greater Taree City Council be requested to convene the Working Group comprising Council representatives, Old Bar Beach property owners affected by beach recession, and the NSW Office of Environment & Heritage;**
- 2. Pursuant to Section 55M(1)(b) of the Coastal Protection Act 1979, the Working Group consider appropriate arrangements for the restoration of the beach, or land adjacent to the beach, if any increased erosion of the beach or adjacent land is likely to be caused by the proposed seawall. In this regard the Working Group is to consider the appropriate means to secure adequate funding for the carrying out of any restoration and maintenance having regard to Section 55M(2) of the Coastal Protection Act; and**

A report on the Working Group's findings and recommendations be presented to the Coastal Panel no later than 31 July 2013, after which the Coastal Panel determine the amended Development Application.

1 BACKGROUND

The events relevant to this application are listed below:

- **Original DA** accepted on 16 July 2012;
- **Original DA** exhibited from 17 July to 7 August 2012;
- Submissions received in response to exhibition of **original DA**;
- Referral to State agencies and Greater Taree City Council on 19 July 2012;
- Request for further information made by Office of Environment & Heritage (OEH) on 27 August 2012 (refer **Appendix 2**);
- Response to OEH's request for further information from International Coastal Management (ICM) received 24 October 2012 (refer **Appendix 3**);
- Request for clarification of extent of proposed works made by OEH on 14 December 2012 (refer **Appendix 4**);
- Response to OEH letter of 14 December from ICM received 16 January 2013 (refer **Appendix 5**);
- **Amended DA** submitted on 16 January 2013;
- **Amended DA** exhibited from 8 to 22 February 2013;
- Submissions received in response to exhibition of **amended DA** (refer **Appendix 6**);
- Peer review undertaken by University of New South Wales Water Research Laboratory (WRL) on 7 August 2012 & 28 February 2013 (refer **Appendix 7**);
- Response from Greater Taree City Council received 4 March 2013 (refer **Appendix 8**);
- Response from OEH received 11 March 2013 (refer **Appendix 9**).

2 SITE AND LOCALITY DESCRIPTION

The subject site is located along the foreshore of Old Bar, within the Greater Taree local government area (LGA). It lies between Farquhar Inlet, the Urana Bombora and Racecourse Creek, in the north, and Wallabi Point in the south. The site the subject of the DA is located completely within private properties, as listed below:

Address	Title Reference	Existing Structures
24 Lewis Street	1/524933	House
26 Lewis Street	1/617961	House
32 Lewis Street	SP61034	Resort
34 Lewis Street	B/381295	Sheds
36 Lewis Street	C/381295	House
38 Lewis Street	SP76533	House
40 Lewis Street	DP1028979	Vacant

Old Bar Beach is highly eroded and is characterized by a scarp some 3 - 4m in height. The Old Bar frontage between Wallabi Point and Farquhar Inlet has been in a continuous state of erosion since the 1940s. The rate of recession has increased in recent years, particularly between 2000 and 2006, which may have some relationship to the closure of Farquhar Inlet during that period.

At present, the scarp is approximately 25m within the seaward property boundaries of the land the subject of the DA. Larger storms, particularly those combined with high tides and surge, have the capacity to result in significant movement of the scarp landward. During smaller storm events, or those associated with lower water levels, the wave energy can reach the scarp resulting in a lowering of the beach in front of the scarp (in excess of 1m at times) without resulting in scarp collapse.

The area between Wallabi Point and Farquhar Inlet is not part of a single beach system. An incomplete beach compartment has been formed between Urana Bombora (and associated reef), which acts as a 'headland', and another reef feature just to the north of Wallabi Point. This beach compartment influences wave, hydrodynamics and subsequent sediment transport processes at Old Bar Beach.

According to the Statement of Environmental Effects (SEE) accompanying the DA, northerly sediment transport at Old Bar Beach occurs during ambient conditions and southerly transport occurs during critical storm conditions. Net sediment transport rates (driven by the predominant south-east conditions) are expected to be reasonably low given the northerly transport during ambient conditions but potentially highly variable in response to actual storm events. It is noted that there is a general lack of sand supply to Old Bar Beach.

The maximum tidal range at Old Bar Beach is 2m. According to the SEE, the maximum wave runup that would be expected at the proposed seawall structure is 6.2m AHD. The un-eroded portions of the private properties within the subject site are generally at a level of 6-7m AHD.

The Meridian Resort portion of the subject site contains a layer of geotextile fabric (installed by the Resort) which currently covers the face of the scarp as a temporary protection measure. However, while this reduces the potential for wind erosion, it provides very limited benefit during the larger storm events discussed above and has been damaged over recent time.

Given the eroded state of the foreshore, there are no developing dunes or dunal plants on the subject site. Vegetation in this area is predominantly located in residential backyards, comprising primarily of lawn and garden shrubs rather than sensitive native vegetation. At the time of lodgement of the DA the subject site contained only one major tree, a Norfolk Island Pine, located very close to the scarp at the northern return. Recent erosion has seriously threatened this tree and its survival is now very doubtful.

For the Meridian Resort, an existing wooden staircase provides access to the beach. An existing designated public beach access point is located to the north of the subject site. The access point comprises an unpaved path over a dune, and is unsuitable for disability access. Public access along the beach is difficult during higher tides and larger swells. There are no designated vehicle access points within close proximity to the subject site.

The site is zoned **E2 Environmental Conservation** pursuant to the *Greater Taree City Council Local Environmental Plan 2010* (GTLEP).

Figure 1, below, depicts the subject site.



Figure 1: Aerial photograph of the subject site

3 PROJECT DESCRIPTION

The **amended DA** seeks consent for construction of a sand-filled geotextile container seawall to provide effective erosion protection. According to the SEE this work is generally consistent with the recommendations of the Coastal Management Study prepared by Worley Parsons (2010). The wall is designed to protect the properties which are the most vulnerable to ongoing erosion of the foreshore (the inner 5 properties within the subject site), with more limited protection provided by the angled returns to the 2 outermost properties. The seawall is to be aligned essentially parallel to the natural foreshore alignment.

The proposed seawall put forward in the **original DA** (July 2012) contained the following features:

- Crest level: 6.2m AHD;
- Toe depth: 0m AHD, with flexible toe allowing for erosion to -1m AHD;
- Wall slope: 1V:1.5H;
- Container size: 2.5m³ (1 layer up to crest level); and
- Geotextile type 1209RP material used to fabricate the containers.

It was proposed that the construction methodology would be at the discretion of the contractor, but was expected to be as follows:

- Create sand stockpile;
- Create correct profile (excavation and/or backfilling as required);
- Place geotextile underlayer;
- Hydraulically fill geotextile containers with sand using excavator;
- Place containers using excavator;
- Once completed, reinstate material over structure; and
- Revegetate behind structure.

Since the structure would be funded by multiple individuals under the one DA, it was anticipated that the works would be constructed in stages. The following staged construction was anticipated:

- Stage 1: Works within Nos. 24 - 32 Lewis St. Temporary return at southern boundary of Meridian Resort, likely to be constructed shortly after consent granted;

- Stage 2: Works within Nos. 34 & 36 Lewis St. Temporary return at southern boundary of No. 36 Lewis St, possibly concurrent with Stage 1 or shortly thereafter, potentially by different contractors; and
- Stage 3: Works within Nos. 38 & 40 Lewis Street.

Access to the beach was proposed from the subject properties directly over the seawall itself, provided that the wall was adequately maintained. For the Meridian Resort, the timber stairwell access point was proposed to be reinstated following construction of the seawall.

The total estimated time for the project in full (not including staging delays) was estimated to be approximately 10 weeks. Works would be tide-dependent, subject to the eroded nature of the beach at the time of construction works.

Following public exhibition of the **original DA** during July/August 2012, the NSW Coastal Panel requested the proponent respond to the following issues:

- *Quantification of 'end effects' to the north and south of the proposed structure when a design erosion volume of 220m³/m is adopted;*
- *How will 'end effects' be addressed and managed in the short and long term (i.e. if erosion impacts are increased);*
- *If 'end effects' are experienced, how would public safety be managed (e.g. from any increased risk to the walls' structural integrity as a result of flanking);*
- *Justification for the proposed design in terms of its adequacy and expected design life and consideration of alternative designs that would improve structural integrity such as a double layer wall with three layers at the toe to a depth of -1m AHD;*
- *Justification for the proposed rock toe placement (if required), including consideration of beach amenity, maintenance of public access and public safety impacts;*
- *Justification for the seawall alignment, including consideration of the issues outlined in OEH's submission, particularly with regard to public access issues;*
- *The potential for impacts on dune vegetation from increased erosion resulting from the seawall and how this is to be managed, especially the State Environmental Planning Policy No 26 – Littoral Rainforest area to the north of the site;*
- *Land ownership and consent for the development application from the owners of 38 and 40 Lewis St;*
- *Additional information on staging and construction management. Issues to be addressed should include a contingency plan if end effects are evident prior to the completion of all stages of the proposed structure, worker safety management (e.g. access to the beach in heavy vehicles), a risk assessment of the integrity and effectiveness of the wall should*

only the first stage/s be constructed for an extended period of time, confirmation of Crown Land access arrangements, and information about the temporary sand stockpiles (e.g. location, maintenance of public beach access, protection from wave/ tide erosion);

- *Ongoing management and maintenance of the structure for its design life, understood to be 25 years. Ideally, this would include the preparation of a Seawall Management Plan as recommended within the Draft Guidelines for Assessing the Impact of Seawalls prepared by the former Department of Environment, Climate Change & Water. Issues to be addressed include arrangements for ongoing Crown Land access; maintenance cost arrangements/ commitments for the life of the seawall (including cost distribution arrangements between landholders) and whether this includes the payment of a bond, and further details of maintenance actions (e.g. commitments for the timely maintenance of damaged bags, inspections after storm events etc.). Please refer to and consider Clause 129A(1) of State Environmental Planning Policy (Infrastructure) 2007 and Section 55M of the Coastal Protection Act 1979 which provide important heads of consideration that must be addressed with regard to this proposal;*
- *Long term plans for the decommissioning of the wall and remediation of the site (should this be deemed necessary);*
- *Any impacts of the excavation on groundwater;*
- *Any stormwater management impacts; and*
- *Confirmation of the source of sand including how issues such as variable grain size and composition would be managed.*

The response to these issues from the proponent's consultant, ICM, is contained at **Appendix 3** and resulted in lodgment of the **amended DA**. The **amended DA** (refer **Appendix 1**) was submitted in January 2013 and contains the following features:

- Crest level: 6.2m AHD;
- Toe depth: -1m AHD, with flexible toe allowing for erosion to -2m AHD;
- Wall slope: 1V:1.5H;
- Container size: 2.5m³ (double layer up to 3m AHD and then 1 layer up to crest level unless double layer required);
- Geotextile type 1209RP material used to fabricate the containers; and
- No staging is proposed.

Figure 2, below, illustrates the proposed amended development.



Figure 2: Proposed development (amended DA)

4 CONSULTATION

In accordance with the Greater Taree Development Control Plan, the **original DA** was publicly exhibited from Tuesday 17 July 2012 to Tuesday 7 August 2012. In response 13 submissions were received. The **amended DA** was exhibited from Friday 8 February 2013 to Friday 22 February 2013. In response, 32 submissions were received, with 30 generally supporting the amended proposal and 2 generally objecting. Copies of all submissions to the **amended DA** are contained at **Appendix 6**.

The matters raised in these submissions are summarised as follows:

- Appropriate action against the ongoing erosion has been delayed for too long;
- The ongoing erosion has already resulted in the loss of 2 properties by one resident;
- Due to the threat presented by ongoing erosion, the value of investment properties (many of which have been set up for retirement funds), businesses and residential properties continues to decline;
- Residents and property owners continue to experience financial and emotional pressure from the declining value of property and the threat of ongoing erosion;

- Loss of tourist income to the community of Old Bar continues to directly impact on the local economy (owners and employees of Meridian Resort, other business owners, etc);
- The proposal is necessary to prevent further loss of property;
- The proposal will improve the safety of the beach;
- The proposed development will be privately funded, and will take place within private property;
- Property owners should be permitted to protect their private property, particularly considering that development on the properties was constructed with approval from Greater Taree City Council;
- The stability and design of the proposal is inadequate and hence the proposal will detrimentally impact on public safety;
- The proposed development will detrimentally impact on adjacent properties/surrounding areas- any works undertaken should include the entire area.

5 REFERRALS

5.1 NSW Department of Primary Industries (Fisheries)

The **original DA** was referred to the NSW DPI on 20 July 2012 for concurrence in relation to the *Fisheries Management Act 1994* (namely the aquatic habitat protection and threatened species provisions in Parts 7 and 8A of the Act, respectively) and the associated *Policy and Guidelines for Aquatic Habitat Management and Fish Conservation (1999)*. In a letter dated 30 July 2012 the DPI responded, raising no objection to the proposal, as the site is an active oceanic beach with minimal fish habitat.

The **amended DA** was referred to the DPI on 15 February 2013 which responded (in a letter dated 1 March 2013) with no objection to the proposal, subject to several general terms of approval (refer **Appendix 10**).

5.2 Greater Taree City Council

The **original DA** was referred to Greater Taree City Council. In a letter dated 2 August 2012, Council responded in general support of the proposal for social reasons, particularly having regard to the reassurance the proposal would provide the Old Bar

community in respect of coastal erosion. The Council provided the following recommendations:

- Any conditional approval for the coastal erosion protection works should include a requirement for access arrangements to be put in place prior to the commencement of works;
- The undertaking of a traffic report accompanied by a dilapidation survey of the road transport route to ensure the minimisation of impact on the amenity of dwellings along the route and the protection of this Council asset; and
- Any conditional approval must include requirements for the periodic monitoring of the performance of the erosion protection seawall, in conjunction with conditions requiring the removal or modification of the wall in the event of unexpected and unacceptable impacts.

The **amended DA** was also referred to the Council. The Council responded in a letter dated 4 March 2013 (refer **Appendix 8**), citing the following matters requiring consideration regarding the amended proposal:

- DA contains no strategy to access the beachfront to undertake long-term maintenance of the seawall. Council therefore recommends that any conditional approval for the proposed works include a requirement for access arrangements to be put in place prior to commencement;
- DA makes no reference to the likely route or road pavement impacts of truck movements involved in the transport of sand to the subject site. Council therefore recommends a traffic report accompanied by a dilapidation survey of the road transport route to ensure the minimisation of impact on the amenity of dwellings along the route and the protection of Council's road assets;
- Council requires periodic monitoring of the performance of the erosion protection seawall, and conditions requiring the removal or modification of the wall in the event of unexpected and unacceptable impacts.

The Council advised that it supports the landowners' initiative to protect their properties from coastal recession but is concerned over the end effects of the proposed seawall on adjoining properties to the north and south. In the event that consent is not granted to the **amended DA** the Council requests that advice be provided on the nature of an acceptable proposal and the measures landowners may take to protect their properties. In this respect the Council submits that *"a better outcome would be to address the full extent of coastal recession to Old Bar Beach, from Racecourse Creek to south of Mid*

Coast Waters Sewage Treatment Facility". However, in making this suggestion the Council acknowledges that *"most landowners, including Council, do not have the financial capacity to provide any contribution to a solution"*. It suggests that, in matters of coastal recession affecting NSW and Australian coastal communities, the State and Commonwealth governments should be approached to provide direction and funding for protection works.

5.3 NSW Office of Environment & Heritage (OEH)

The response from OEH dated 11 March 2013 in respect of the **amended DA** is contained at **Appendix 9**. OEH advised that the amendments to the proposed seawall do not adequately address the concerns it raised in response to the **original DA** and, indeed, submits that *"some of the proposed changes further heighten those concerns"*. Of particular concern is the extent of the proposed works; the proposed arrangement of returns; the management of end effects and other off-site impacts; and the design characteristics (namely the seawall alignment and Seawall Management Plan). The following is a summary of each concern raised by OEH:

The extent of proposed works

The exact extent of proposed works remains unclear due to contradictory information provided in the ICM letter (16 January 2013) and Drawing OB-EPW-004 which shows a return on No. 34 Lewis Street.

Returns

The highly reflective nature of the slope and wall alignment is deemed to exacerbate end effects to an extent greater than previously estimated in the draft guidelines. Contrary to assertions made in the ICM letter (16 January 2013) the maximum end effect is likely to be realised very close to the return. Moreover, the likely extent of end effects to properties to the north is not shown and it is rigorously asserted that the length of the return on No. 34 Lewis Street could not be built adequately without demolishing two structures present at the seaward side of that property.

The management of end effects and other off-site impacts

There was major concern expressed regarding the insufficient estimation of the extent of end effects for the north end of the proposed seawall with the recommendation that the "effective length" of the wall for estimation should be at mean sea level and not 4m AHD. Discussion of the management of end effects has failed to recognise that Old Bar Beach is receding; is likely to continue to do

so into the future; and that approval of the application will commit landholders to a (most likely costly) protection strategy into the future.

The proponents have acknowledged that the ongoing recession of Old Bar Beach coupled with the progressive extension of the seawall will likely result in there not being any useable beach in front of the seawall at any state of the tide. With this in mind they have asserted that the implementation of a wider beach management strategy (including possible beach nourishment and submerged reefs) will be a necessary undertaking in the future. However, a wider beach management strategy has been found to be impractical and unaffordable according to WorleyParsons (prompting the Greater Taree City Council policy of planned retreat) and ineffective in dealing with the loss of beach access and amenity, which will become progressively worse over time.

Design characteristics

Relying on the WRL assessment of the proposed seawall, OEH notes that the proposal moves the footprint of the seawall further seaward, exacerbating access and constructability issues. In addition, it seems likely that supplementary toe protection will be required (rock), with negative consequences for beach amenity and safety. More particular comments regarding the seawall alignment and the Seawall Management Plan are as follows:

- The proposed alignment of the seawall is inconsistent in that the southern extension does not follow the property but takes a more landward alignment.
- The draft Management Plan is scant on detail, failing to provide adequate information regarding resources and timeframes to conduct maintenance.

OEH further highlights the ill-conceived plan for individual landholders taking responsibility for the maintenance of portions of the seawall and recommends a more centralised arrangement with costs shared on a pro-rata basis.

6 Statutory Considerations

6.1 Coastal Protection Act 1979

Section 55M(1) of the *Coastal Protection Act 1979* (CP Act) provides that, before granting consent under the *Environmental Planning and Assessment Act 1979* (EP&A Act) to development for the purpose of coastal protection works, the consent authority must be satisfied that:

(a) the works will not over the life of the works:

(i) unreasonably limit or be likely to unreasonably limit public access to or the use of a beach or headland, or

(ii) pose or be likely to pose a threat to public safety, and

(b) satisfactory arrangements have been made (by conditions imposed on the consent) for the following for the life of the works:

(i) the restoration of a beach, or land adjacent to the beach, if any increased erosion of the beach or adjacent land is caused by the presence of the works,

(ii) the maintenance of the works.

Accordingly, as the consent authority in respect of the **amended DA** for the subject land, the NSW Coastal Panel must be satisfied that, during the life of the proposed seawall, the seawall will not unreasonably limit public access to the beach. In this regard, OEH has concluded that pedestrian access along the beach in front of the proposed seawall would only be possible at low tide and in low wave conditions. Furthermore, OEH has advised that “with the anticipated lowering of the sand level in front of the structure and ongoing recession of the beach, it would be expected that such access would soon not be possible at any state of the tide”. Accordingly, on the basis of OEH’s advice, the proposed seawall is unable to satisfy Section 55M (1)(a)(i) of the CP Act. However, the beach area forward of the proposed seawall is in private ownership, being within the ownership of each of the private landholdings the subject the DA. Under these circumstances it is therefore a matter of contention whether the proposed seawall will “unreasonably limit public access to or the use of a beach” when the beach area forward of the wall is in private ownership.

Concerning threat to public safety, OEH considers that the impact of the proposed seawall on adjacent, unprotected land is likely to progressively increase over time. OEH believes that these end effects have not been adequately addressed in the DA. This view is supported by the University of NSW’s Water Research Laboratory (WRL) which was commissioned by OEH to undertake a peer review of the DA documents. This review concluded in part that “no seawall end effects are considered by ICM to the north of the proposed structure” (refer to WRL’s correspondence at **Appendix 7**). Accordingly, it would not be appropriate for the Coastal Panel to conclude that the proposed seawall would satisfy the provisions of Section 55M(1)(a)(ii) of the CP Act as it cannot be satisfied that the end effects of the proposed wall will be unlikely “to pose a threat to public safety”.

Section 55M(2) of the CP Act provides that:

The arrangements referred to in subsection (1)(b) are to secure adequate funding for the carrying out of any such restoration and maintenance, including by either or both of the following:

(a) by legally binding obligations (including by way of financial assurance or bond) of all or any of the following:

(i) the owner or owners from time to time of the land protected by the works,

(ii) if the coastal protection works are constructed by or on behalf of landowners or by landowners jointly with a council or public authority—the council or public authority,

(b) by payment to the relevant council of an annual charge for coastal protection services (within the meaning of the Local Government Act 1993).

Pursuant to Section 55M(3), “the funding obligations referred to in subsection (2)(a) are to include the percentage share of the total funding of each landowner, council or public authority concerned. OEH in its response to the **amended DA** considers that the accompanying Seawall Management Plan is “scant on detail and does not provide information on the resources and timeframes required to conduct maintenance activities”. Furthermore, the Management Plan does not offer sufficient detail to enable the framing of any conditions of consent sufficient to satisfy Section 55M(1)(b) and subsection (2)(a) of the CP Act.

6.2 Section 79C Matters for Consideration under Environmental Planning & Assessment Act 1979

6.2.1 SECTION 79C(A)(I): THE PROVISIONS OF ANY ENVIRONMENTAL PLANNING INSTRUMENT

Greater Taree City Council LEP 2010

The site is zoned E2 Environmental Conservation pursuant to the GTLEP. Development for the purpose of ‘coastal protection works’ is prohibited under the LEP. However, ‘coastal protection works’ are permissible with consent, pursuant to Clause 129A of the Infrastructure SEPP. The provisions of the SEPP prevail over the LEP.

State Environmental Planning Policy (Infrastructure) 2007

Clause 129A(2) of the SEPP requires that, if a coastal zone management plan does not apply to the land on which development for the purposes of a seawall is to be carried out, the NSW Coastal Panel has the function of determining a DA for development to which this clause applies. A coastal zone management plan does not apply to the subject land and therefore the proposal has been referred to the Coastal Panel for determination pursuant to Part 2A of the CP Act.

In determining the DA, the Coastal Panel must take the following matters into consideration under Clause 129A(3) of the Infrastructure SEPP

(a) *(not applicable)*

(b) *the matters set out in clause 8 of State Environmental Planning Policy No 71—Coastal Protection,*

(c) *any guidelines for assessing and managing the impacts of coastal protection works that are issued by the Director-General for the purposes of this clause and published in the Gazette.*

Note. *Section 55M of the Coastal Protection Act 1979 sets out preconditions to the granting of development consent relating to coastal protection works.*

The matters for consideration set out under Clause 8 of SEPP 71 are considered in **Table 1**, below.

No guidelines have been issued pursuant to Clause 129A(3)(c).

Section 129A also notes that Section 55M of the CP Act sets out **preconditions** to the granting of development consent relating to coastal protection works. The matters for consideration in Section 55M are considered below.

State Environmental Planning Policy No 71—Coastal Protection

The relevant matters for consideration under Clause 8 are outlined and addressed in **Table 1**, below.

Table 1: Clause 8 – Matters for consideration

Development Standard	Requirement	Comments
Clause 8 – Matters for consideration	The matters for consideration are the following:	
	<ul style="list-style-type: none"> the aims of this Policy, most relevantly to this DA: <ul style="list-style-type: none"> protect & improve existing public access to and along coastal foreshores to the extent this is compatible with the natural attributes of the coastal foreshore, and ensure the visual amenity of the coast is protected, and protect & preserve 	Addressed below

Development Standard	Requirement	Comments
	beach environments and beach amenity	
	<ul style="list-style-type: none"> existing public access and opportunities for new public access; 	Based on OEH's comments the proposed seawall will reduce public access to the beach, although it is noted that the existing public access along the subject portion of beach is over privately owned land
	<ul style="list-style-type: none"> the suitability of development given its type, location and design and its relationship with the surrounding area; 	In principle the concept of the proposed seawall is acceptable but siting and design, together with its end effects, are not satisfactory
	<ul style="list-style-type: none"> impact of the proposed development on the amenity of the coastal foreshore; 	The impact is unsatisfactory owing to the resultant reduction in pedestrian access to the beach and the assessed end effects of the proposed seawall
	<ul style="list-style-type: none"> how the visual amenity and scenic qualities of the coast can be protected; 	Visual and scenic impacts on the coast are unresolved
	<ul style="list-style-type: none"> the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards; 	Old Bar Beach coastal processes addressed through WorleyParsons' study but coastal impacts on proposed seawall unresolved in the details submitted with the DA
	<ul style="list-style-type: none"> measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals; 	Not addressed in SEE
	<ul style="list-style-type: none"> likely impacts of development on the water quality of coastal waterbodies; and 	Equipment is to be clean and well maintained at all times during construction. Oil Spill Management Plan to be implemented if necessary and Oil Spill kit kept on site for duration of works.
	<ul style="list-style-type: none"> conservation and preservation of items of heritage, archaeological or historic significance. 	Not addressed in SEE

State Environmental Planning Policy 26 - Littoral Rainforest

There are pockets of coastal rainforest present in a number of areas along the Greater Taree coast. These pockets may be affected by increased erosion. The potential for the proposed seawall to impact on coastal rainforest to the north has not been addressed in the SEE.

6.2.2 SECTION 79C(A)(II): THE PROVISIONS OF ANY DRAFT ENVIRONMENTAL PLANNING INSTRUMENT

No draft environmental planning instruments apply to the proposed development.

6.2.3 SECTION 79C(A)(III): ANY DEVELOPMENT CONTROL PLANS

Greater Taree Development Control Plan 2010

Table 2, below, provides an assessment of the proposal's compliance with the requirements in Part D of Development Control Plan 2010. These are the only provisions of the DCP of relevance to assessment of the DA.

Table 2: Development Control Plan Assessment

Development Control	Requirement	Comment
D1 – Coastline management	<p>Where a "Coastal Zone Management Plan" is not yet in place, or does not specifically provide requirements and controls for development, any proposed development on an allotment that is affected by the identified Coastal Zone Hazard Area is to be accompanied by an assessment of the impact and suitability of such development within a risk assessment framework, addressing the following issues, where appropriate:</p> <ul style="list-style-type: none"> a) Sea level rise / climate change; b) Coastal recession; c) Erosion; d) Flooding; e) Landslip; f) Acid sulfate soils; g) Disposal of stormwater; h) Capability of sewerage system. 	<p>Subject site identified as a 'Coastal Hazard Area'.</p> <p>Impact and suitability of proposed development assessed in:</p> <ul style="list-style-type: none"> • Statement of Environmental Effects (ICM, 2012) • <i>Hazard Definition Study</i> (HDS) and the <i>Coastline Management Study</i> (CMS) prepared by Worley Parsons (2010) <p>However, based on the assessment of the amended DA by OEH and WRL, the proposal does not address coastal erosion "end effects" posed by the proposed seawall.</p>

6.2.4 SECTION 79C(A)(IIIA): ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO OR ANY DRAFT PLANNING AGREEMENT THAT THE DEVELOPER HAS OFFERED TO ENTER INTO

No such agreement has been proposed as part of this application.

6.2.5 SECTION 79C(A)(IV): ANY MATTERS PRESCRIBED BY THE REGULATIONS

Relevant to the determination of this DA, Clause 92 of the *Environmental Planning & Assessment Regulation 2000* (the Regulation) prescribes the provisions of the NSW Coastal Policy as matters to be considered by the consent authority when determining a DA within the coastal zone. In this respect the overriding vision of the Policy is the ecological sustainability of the NSW Coast. The Policy's nine goals give effect to this vision, viz:

- *Protecting, rehabilitating and improving the natural environment of the coastal zone.*
- *Recognising and accommodating the natural processes of the coastal zone.*
- *Protecting and enhancing the aesthetic qualities of the coastal zone.*
- *Protecting and conserving the cultural heritage of the coastal zone.*
- *Providing for ecologically sustainable development and use of resources.*
- *Providing for ecologically sustainable human settlement in the coastal zone.*
- *Providing for appropriate public access and use.*
- *Providing information to enable effective management of the coastal zone.*
- *Providing for integrated planning and management of the coastal zone.*

As discussed in Section 6.1 of this report OEH, in its assessment of the **amended DA**, considers that the impact of the proposed seawall on adjacent, unprotected land is likely to progressively increase over time. OEH believes that these end effects have not been adequately addressed in the DA. This view is supported by WRL. It would therefore be inappropriate for the Coastal Panel to conclude that the amended DA is consistent with the Coastal Policy's goal of "*protecting, rehabilitating and improving the natural environment of the coastal zone*".

OEH has concluded that pedestrian access along the beach in front of the proposed seawall would only be possible at low tide and in low wave conditions, noting that "*with the anticipated lowering of the sand level in front of the structure and ongoing recession of the beach, it would be expected that such access would soon not be possible at any state of the tide*". However, the beach area forward of the proposed seawall is in private ownership. Therefore in these circumstances it is not clear whether the proposed seawall, in reducing public access along the beach as concluded by OEH, is contrary to the Policy's goal of "*providing for appropriate **public** access and use*" (emphasis added).

6.2.6 SECTION 79C(A)(V): ANY COASTAL ZONE MANAGEMENT PLAN (WITHIN THE MEANING OF THE COASTAL PROTECTION ACT 1979)

No coastal zone management plan applies to the subject site.

6.2.7 SECTION 79C(B): THE LIKELY IMPACTS OF THE DEVELOPMENT

The SEE accompanying the DA advises that the *Draft Guideline for Assessing the Impacts of Seawalls*, prepared by WRL on behalf of DECC&W (2011), and the *Technical Advice to Support Guidelines for Assessing and Managing the Impacts of Long Term Coastal Protection Works*, prepared by Carley *et al* (2010), were considered in the preparation of the DA. The guidelines outline the following potential physical impacts of seawalls:

- altered erosion and accretion seaward of the wall;
- altered erosion and accretion along the shore from the wall;
- altered recession (a net long-term landward movement of the shoreline caused by a net loss in sediment) and progradation (a net long-term seaward movement of the shoreline caused by a net gain in sediment) along the shore from the wall;
- the propensity for the seawall to form rips;
- changes to wave run-up; and
- reduced erosion landward of the seawall.

The potential physical impacts of the proposed development on coastal processes are addressed in the SEE and supplementary information provided by the proponent, summarised as follows. These impacts should be considered by the Coastal Panel in the context of the comments on the **amended DA** provided by WRL (**Appendix 7**) and OEH (**Appendix 9**):

- **Altered erosion and accretion seaward of the wall**

Upon construction, approximately half the structure will be buried with the exposed section of the structure above RL +3.5m AHD, well above HAT. As such, the structure will have no impact during typical conditions and tides; any impact the structure might have on coastal processes will be effectively limited to major storm events. During such events, where erosion would presently result in collapse and landward movement of the scarp, landward movement would effectively be prevented and some increased deepening adjacent to the wall would be expected.

Over time, it is expected that the profile will deepen adjacent to the wall and the beach will progressively narrow. The impact of the wall on coastal processes could be expected to increase as the wall becomes more exposed to wave attack, resulting in reflection from the wall during a wider range of conditions.

To reduce the potential for increased erosion as a result of the proposed works, the proposed design incorporates the following design aspects:

- *Seawall is sloped at 1V:1.5H as “flatter sloped structures generally reflect less energy” (DECC&W Guidelines)*
- *Seawall is constructed using sand-filled geotextile containers as “seawalls constructed from concrete and rocks will normally have more erosion impacts than those made from more flexible materials such as sand-filled geotextile containers” (DECC&W Guidelines)*
- **Altered erosion and accretion downdrift**

Without protection, storm-induced and long term erosion on the adjacent coastline is expected to continue which will result in flanking of the structure and the need for the returns to be extended. This “passive” erosion should not be confused with the “active” erosion potentially caused by the presence of the wall itself.

To reduce the potential for “active” erosion as a result of the proposed works, the proposed design incorporates the following design aspects:

- *Returns are angled (rather than returning landward along the property boundary) to reduce end effects and provide a smooth transition between the structure and the natural shoreline; and*
- *Design includes the capacity to extend the returns to the 100 year hazard line if and when this is required in order to accommodate future erosion (either as a result of natural levels of erosion or end effects).*

Accordingly, erosion which affects development is only likely to occur in the much longer term when it is expected that consideration will need to be given to impacts of natural rates of long-term erosion in any case.

Net sediment transport at Old Bar is expected to be fairly low. It is possible that the proposed works may experience minimal end effects, although it is unknown if the lack of impacts will be as a direct result of the incorporation of angled returns or other contributing factors.

- **Altered recession and progradation downdrift**

DECC&W draft guidelines indicate that longshore transport modelling is “not needed” for structures which are located above +4m MSL. The base of the existing scarp is at approximately 3.5m AHD (although somewhat variable in response to erosion events and subsequent recovery). As such, it is marginally within the zone for which longshore transport modelling is recommended. Carley et al (2010) recommended the numerical model GENESIS or equivalent to undertake this assessment (when required).

Given the complexities of the site, it is expected that there may be difficulties developing a GENESIS model which reflects these complexities with sufficient accuracy to provide a realistic assessment of shoreline development and the expected groyne effect. Given that the proposed works are only marginally within the area where numerical modelling is recommended and given the expected complexities with developing reliable predictions using the recommended models, longshore numerical modelling has not been undertaken at this stage.

Longshore numerical modelling can be undertaken if required, however the potential level of certainty achievable will need to be duly considered.

- **Impacts on downdrift properties (to the south)**

The property potentially most affected in the short term (40 Lewis Street) has development located further landward than the adjacent properties and outside the area of potential impact. The owner is a party to the application. Any risk is effectively eliminated by the ability of the owner to extend the return as required by future erosion.

The property potentially most affected in the longer term (i.e. 42 Lewis Street) is presently undeveloped. It would be expected that development of this unprotected property would be difficult given that the entire property lies seaward of the 100 year erosion hazard line. Extension of the wall along the proposed alignment (or an alternate proposed and approved alignment) could be considered to effectively mitigate the risk to this property owner.

On the larger property further to the south, it is understood that approved (but as yet unconstructed) future development is effectively limited to areas substantially landward of the area which could potentially be affected by end effects. Erosion which affects development is only likely to occur in the much longer term when it is expected that consideration will need to be given to impacts of natural rates of long-term erosion in any case.

- **Altered erosion and accretion updrift**

As net sediment transport and sediment transport during storm events is to the south, it is expected that there will be limited potential for negative impacts on the properties to the north as a result of end effects. During periods of extended calm weather when gross sediment transport is to the north, the wall is presently far enough up the profile, and the sediment transport during ambient conditions is much lower, such that there is limited potential for end effects during these conditions.

- **Altered recession and progradation updrift**

As the dominant sediment transport is to the south, any impact on areas north of the wall would be expected to be accretionary. Given the higher gross transport in each direction, this could introduce some variability in the effects depending on prevailing conditions (i.e. there may be some erosion observed during periods of prolonged ambient conditions).

- **Impact on updrift properties (to the north)**

Any remaining risk to the property immediately to the north (24 Lewis St) is effectively eliminated by the ability of the owner, an applicant for this proposal, to extend the return as required by future erosion.

The properties and residences further north are progressively further landward, and as such are less vulnerable to erosion. This section of coastline has also stabilised substantially since construction of the Racecourse Creek Training Wall in 1993, and the subsequent development of an extensive area of vegetated foredune since 2005. The establishment of dunal vegetation will assist in the growth of protective dunes in front of these properties and further increases the width of vegetated buffer providing additional protection to these properties. When protection of these properties becomes necessary as a result of long-term erosion of this area, extension of the wall along the property boundary will provide a suitable alignment that is consistent with the proposed works.

To the north of these properties, the southern end of Pacific Parade is presently protected by a very narrow vegetated buffer. Further north, the road becomes protected by a second foredune on the seaward side of Racecourse Creek. However, ongoing erosion could result in the progressive breaching of this dune and the remainder of the road could become equally vulnerable to erosion in the short to medium term. As such, serious consideration may need to be given to protection of this road, which is the only means of access to approximately 20

private residences on Pacific Parade. The proposed works will be able to easily link with a protective seawall constructed along the seaward side of Pacific Parade, as per the proposed alignment in the CMP.

- **Changes to propensity for the seawall to form rips**

This will be fairly limited initially, but may become more of a factor as erosion results in changes to the shoreline. This is expected to be mitigated by the incorporation of angled returns which will soften discontinuities in the shoreline.

- **Changes to wave run-up**

The proposed works are very similar in slope to the existing scarp and it is expected that changes to wave run-up will be minimal. However, in the event of minor overtopping there should be minimal impact on the structural integrity of the proposed works given the level of the crest and the required depth of erosion behind the structure before the top unit is compromised.

- **Reduced erosion landward of the seawall**

The proposed works will effectively eliminate the present erosion threat to the properties being protected. It is intended to undertake the works in a planned manner, rather than as emergency protection works, to provide a more unified approach to coastal management in this location.

- **Potential impacts on Racecourse Creek**

Given the location of the Racecourse Creek Training Wall to the north of the structure and the dominant sediment transport to the south, it is not expected that the proposed works would have any significant impact on Racecourse Creek.

- **Potential impacts on Farquhar Inlet**

Considering that the area between Wallabi Point and Farquhar Inlet is not part of a single beach, and that the net sediment transport is to the south, it is not expected that the proposed works would have any significant impact on Farquhar Inlet.

Works are to be progressively backfilled to ensure that open excavations do not concentrate flows stockpiled material to be placed with due consideration to tidal movement to limit loss of sediment.

The works have been designed to withstand a 100 year ARI event, to protect the properties from the hazards identified in the Hazard Definition Study (Worley Parsons, 2010).

Progressive narrowing of the beach can be expected due to long term erosion, however it is noted that the beach already experiences some narrowing as a result of storm events during which the scarp is not substantially compromised.

Other impacts of relevance to the determination of the **amended DA** concern the following:

- **Aboriginal heritage impact**

The **amended DA** lacks Aboriginal heritage assessment, although it is noted that the *Atlas of Aboriginal Places* does not identify Aboriginal objects near the subject site. Nevertheless, this matter needs to be appropriately addressed should the application proceed.

- **Water quality impact**

The works will primarily be restricted to the top of the beach above MHWS (Mean High Water Spring), with access to the site potentially limited during higher tides or large wave conditions. As such, potential impacts on water quality are expected to be low. The deeper seawall toe now proposed in the **amended DA** will be placed below the groundwater table. However, the proponent submits that groundwater levels will be quickly reinstated after placement of the lower levels of the seawall.

- **Noise impact**

The construction phase has the potential to generate a significant level of noise from the use of machinery for excavation works. In this respect there are dwellings in close proximity to the proposed works. The proponent submits that construction works are to be generally limited to 6am to 6pm daily. Due consideration is to be given wherever possible to minimising noise impacts on nearby residents. The proponent submits that any complaints will be investigated as required.

- **Waste impact**

The construction phase of the proposed development has the potential to generate a significant quantity of waste from earthworks.. Waste is to be temporarily stored on site, either at the designated access point or at the top of the scarp. The contractor is responsible for ensuring that all waste is disposed of at suitable onshore facilities. Visual monitoring is to be undertaken daily by representatives of the proponent.

- **Air quality impact**

During construction, the proponent submits that air emissions from plant and equipment are to be monitored visually to ensure air quality is acceptable throughout the works.

Exhausts are to be within the specification of the equipment and all required maintenance is to be undertaken.

- **Vegetation impact**

Construction will result in the following impacts on the site:

- Clearing of dead tree litter from the foreshore to allow construction access, to minimise potential damage to the containers during storms and to enhance safe access to the foreshore by the public;
- Clearing for the northern return; and
- Clearing for the southern return.

According to the SEE, approximately 180m² of grasses and garden shrubs will be removed for construction of the returns.

Given the eroded state of the foreshore, there are no developing dunes or dunal plants which would be impacted. Except for one tree (an already undermined Norfolk Island pine), vegetation on the site primarily comprises grasses and garden plants. The proposed works will not directly impact any threatened plant species. Nor will it result in the direct removal of any vegetation that forms part of an existing wildlife corridor.

Backfilled areas are to be suitably revegetated to stabilise against wind erosion as well as to offset any impact on vegetation as a result of the excavation at the returns.

Considering the eroded state of the foreshore, the lack of native vegetation, and the proposed revegetation works, the proponent submits that the proposal will not substantially impact on vegetation in the area.

- **Access impact**

The proponent submits that public access along the beach is presently difficult and unsafe at times, particularly during higher tides and larger swells when wave sets result in inundation of the narrow beach unexpectedly. As erosion continues (with ongoing deepening of the profile seaward of the scarp and the risk of scarp collapse), these circumstances are expected to occur more frequently.

The 'soft' construction materials comprising the proposed seawall allows for some level of access over the structure during periods when there is little beach available.

The proponent considers that the proposed works will improve access and safety of the subject site for the public using the foreshore by stabilizing the scarp and providing improved access during periods when there is no high tide beach available.

- **Visual impact**

The proposed works will not result in loss of views from a public place. The proponent submits that the proposed sand-coloured seawall will blend with the natural dune and provide a visual impact comparable to the existing scarp. The deeper sections of the structure will be buried to reinstate the original beach profile.

The proponent considers that the proposal will not substantially change the visual character of the area, given the selection of sand coloured construction materials and the restoration of the original beach profile.

- **Construction impact**

A concept environment management plan has been developed which the proponent submits will minimise potential for any impacts during construction. The proponent submits that a site-specific management plan consistent with this plan and any development consent requirements will be implemented throughout the construction phase.

The **amended DA** details indicate that, contrary to the **original DA** proposal, the seawall is now to be constructed as a single project and not constructed in stages. Sand for the proposed seawall is to be imported but the DA does not identify the source of the sand material. Also, the DA doesn't identify a road transport route for the seawall material. In this respect the Council in its submission at **Appendix 8** calls for a traffic report accompanied by a dilapidation report to ensure impacts on residential amenity are minimised and Council's road assets protected.

- **Maintenance**

Ongoing management and maintenance of the proposed seawall was a matter formally raised by OEH with the proponent in August 2012. In response the proponent submitted a Seawall Management Plan as part of the amended DA. However, this Plan is scant in detail and, as advised by OEH (refer **Appendix 9**):

(the Seawall Management Plan) does not provide information on the resources and timeframes required to conduct maintenance activities. The proposal that individual landholders be responsible for maintenance of that section of the wall fronting their properties is considered unworkable as lack of maintenance in one area could compromise the integrity of the seawall. A preferred arrangement would be maintenance arranged centrally and costs shared on a pro-rata basis.

- **Social and economic impacts**

The SEE does not address the social and economic impacts of the proposed development. However, it is evident from the public submissions received in response to the public exhibition of the DA that the extent of coastal erosion at Old Bar Beach is creating economic and social impacts on the local community and that these impacts will continue unless a satisfactory solution to the issue is able to be identified and implemented.

6.2.8 SECTION 79C(C): THE SUITABILITY OF THE SITE FOR DEVELOPMENT

The proposed seawall is permissible with development consent, having regard to the various environmental planning instruments applying to the site. However, there are unresolved issues that deem the site unsuitable for the proposed seawall in its current form. Of principal concern are the end effects of the proposed seawall. In this respect, OEH considers that the impact of the proposed seawall on adjacent, unprotected land is likely to progressively increase over time and believes that these end effects have not been adequately addressed in the DA. This view is supported by WRL which was commissioned by OEH to undertake a peer review of the DA documents.

While the prospect of these end effects are not properly addressed and remedied, it must be concluded that the subject site on its own is not suitable for the proposed development. However, if these end effects are able to be remedied in an amended scheme that also properly addresses issues such as ongoing maintenance, protection of reasonable public beach access, and construction management, then the site could be deemed to be suitable for the proposed development.

6.2.9 SECTION 79C(D): ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS

During the public exhibition period for the **original DA** (17 July to 7 August 2012) the Coastal Panel received 13 submissions. The issues raised are summarised as follows:

- The proposed development will detrimentally impact on adjacent properties/ surrounding areas;
- The structure will result in loss of amenity in the area;
- The wall will only protect half of 40 Lewis Street;
- The proposal sets a potential precedent in coastal protection in the context of rising sea levels and the subsequent increased erosion risk;
- The proposed development will lead to loss of beach access;

- Little consideration has been given to the ongoing maintenance of the structure as well as the negative impacts of accessing Crown Land on an ongoing basis to undertake these works;
- No details have been provided on the particular source of sand that will be supplied to the site for the proposed works. It is assumed that this additional sand will be used to fill geotextile containers as well as be temporarily stockpiled and used to backfill excavation on Crown land. This is of particular concern as sand that is of a different composition and grain size to that of the site can alter local sediment transport processes and is generally not recommended;
- No consideration has been given to possible detrimental impacts on the water table when Crown land is excavated to install the toe of the geotextile seawall;
- No detail of how excavation to install toe of geotextile seawall will address water table inflow e.g. bundwall/bunding especially if excavation to a depth greater than -1m AHD is required for seawall stability;
- The lack of Aboriginal Heritage assessment and Due Diligence procedures as indicated within the SEE, considering known sites in close proximity;
- Storm water management has not been addressed for either the construction phase or for the life of the structure;
- Public Safety during the construction phase does not appear to have been addressed within the documents provided;
- Applicant must obtain a tenure or approval to occupy Crown lands from the Department prior to commencing any activities on Crown land including the proposed construction footprint of the northern return indicated as being located on Crown Public Road. Approval would also be required for activities such as storage, construction and future maintenance;
- Consideration has not been given to the long term restoration or remediation of the site.

During the exhibition period for the **amended DA**, the Coastal Panel received 32 submissions. The matters raised in the submissions are summarised in Section 4 of this report.

6.2.10 SECTION 79C(E): THE PUBLIC INTEREST

Having regard to the various statutory matters for consideration in the determination of this DA, various public interest issues have arisen. These principally concern the

provisions of the CP Act. Specifically, Section 55M(1) provides in determining a DA for coastal protection works, the consent authority must be satisfied that:

(a) the works will not over the life of the works:

(i) unreasonably limit or be likely to unreasonably limit public access to or the use of a beach or headland, or

(ii) pose or be likely to pose a threat to public safety, and

(b) satisfactory arrangements have been made (by conditions imposed on the consent) for the following for the life of the works:

(i) the restoration of a beach, or land adjacent to the beach, if any increased erosion of the beach or adjacent land is caused by the presence of the works,

(ii) the maintenance of the works.

As outlined above, the Coastal Panel must be satisfied that the proposed seawall will not, over its life (estimated to be 25 years), **unreasonably** limit public access to or the use of Old Bar Beach. This issue is quite vexed in this instance, given the private ownership existing over the affected portion of the beach. Currently, as a result of the recession of the beach, pedestrian access along the beach is largely restricted to low tide events. OEH considers this will be accentuated over time as a result of the proposed seawall. Against this, the landowners affected by the beach recession are understandably concerned over the hardship they are enduring. As a result and, at their own cost, they wish to take action to address the problem. Having regard to the restricted nature of pedestrian beach access existing now and the private ownership of the affected area of beach, it would be difficult to refuse consent to the proposed seawall on this ground, alone. However, in respect of the likely threat to public safety posed by the seawall as a result of the end effects cited by OEH and WRL, then the public interest would not be well served by the granting of consent to the proposal in its current form.

It would be possible to remedy this situation through a comprehensive approach to coastal recession along the full extent of Old Bar Beach, as suggested by the Council in its March 2013 submission, but this will require the State Government, the Council and property owners to work together in addressing the issue and jointly providing resources to implement an appropriate solution. It is only in this way that the public interest in the context of the Coastal Protection Act will be properly served.

7 CONCLUSION

The DA for the proposed seawall is the direct result of the stress and hardship endured by the owners of the subject site as a result of the significant beach recession their properties have suffered over a number of years. Their response in proposing a seawall at their own cost is able to be pursued as a permissible development under Clause 129A(1) of *State Environmental Planning Policy (Infrastructure) 2007*. As the consent authority the Coastal Panel must be satisfied that the proposed seawall will not, over its life (estimated to be 25 years), **unreasonably** limit public access to or the use of Old Bar Beach. This issue is quite vexed in this instance, given the private ownership existing over the affected portion of beach. Currently, as a result of the recession of the beach, pedestrian access along the beach is largely restricted to low tide events. The NSW Office of Environment & Heritage (OEH) considers this will be accentuated over time as a result of the proposed seawall. Having regard to the restricted nature of pedestrian beach access existing now and the private ownership of the affected area of beach, it may be difficult to refuse consent to the proposed seawall on this ground, alone. However, in respect of the likely threat to public safety posed by the seawall as a result of the end effects cited by OEH and the University of NSW Water Research Laboratory (WRL), then it would be inappropriate for the Coastal Panel to conclude that the proposed seawall will not pose a threat to public safety. Accordingly, having regard to Section 55M of the CP Act, the proposal should not be granted development consent in its current form.

It would be possible to remedy this situation through a comprehensive approach to coastal recession along the full extent of Old Bar Beach, as suggested by the Greater Taree City Council in its March 2013 submission, but this will require the State Government, the Council and property owners to work together in addressing the issue and jointly providing resources to implement an appropriate solution. To this end the establishment of a Working Group convened by Greater Taree City Council and comprising Council representatives, Old Bar Beach property owners affected by beach recession, and the NSW Office of Environment & Heritage, with responsibility to examine a comprehensive approach to coastal recession along the full extent of Old Bar Beach, including public access to the beach and public safety, is considered the most appropriate response.

8 RECOMMENDATION

Consideration of the amended Development Application be deferred by the Coastal Panel to enable the following actions to be pursued:

1. The establishment of a Working Group to examine a comprehensive approach to coastal recession along the full extent of Old Bar Beach, including public access to the beach and public safety pursuant to Section 55M(1)(a) of the *Coastal Protection Act 1979*. Greater Taree City Council be requested to convene the Working Group comprising Council representatives, Old Bar Beach property owners affected by beach recession, and the NSW Office of Environment & Heritage;
2. Pursuant to Section 55M(1)(b) of the *Coastal Protection Act 1979*, the Working Group consider appropriate arrangements for the restoration of the beach, or land adjacent to the beach, if any increased erosion of the beach or adjacent land is likely to be caused by the proposed seawall. In this regard the Working Group is to consider the appropriate means to secure adequate funding for the carrying out of any restoration and maintenance having regard to Section 55M(2) of the *Coastal Protection Act*; and
3. A report on the Working Group's findings and recommendations be presented to the Coastal Panel no later than 31 July 2013, after which the Coastal Panel determine the amended Development Application.