

COLLINGWOOD BEACH PRESERVATION GROUP DUNE VEGETATION MANAGEMENT PLAN OPTION STUDY



COLLINGWOOD BEACH PRESERVATION GROUP

The Collingwood Beach Preservation Group (CBPG) was established to ensure that Collingwood Beach is preserved and enhanced through the application of sound scientific principles to ecologically sustainable development. Ecologically sustainable development includes taking into consideration, in an integrated way, the wider social, economic and environmental implications of decisions and actions without compromising the ability of future generations to meet their own needs. The CBPG is a sub-committee of the Vincentia Residents and Ratepayers Association (VRRRA). The VRRRA is the local Community Consultative Body (CCB).

THE LOCATION

The rock-bordered mouth of Moona Moona Creek marks the northern boundary of a 3 km wide, L-shaped, northeast-facing bay, bordered in the south by Plantation Point and containing three beaches in between. Collingwood Beach occupies the western shore of the bay and curves south of Moona Moona Creek mouth for 2.2 km to a rocky eastward inflection in the shore.

The beach faces due east towards the entrance to Jervis Bay and receives low refracted swell averaging less than 0.5 m, which usually maintains a moderately steep cusped reflective beach. The beach is part of a 300 m wide regressive barrier backed by a swamp drained by Moona Moona Creek.

A road and narrow reserve backs the northern end of the beach, with a large park adjacent to the creek mouth. The remainder is backed by a low foredune then narrow, continuous foreshore reserve, which includes a walkway, then beachfront houses and the main Elizabeth Drive.

BACKGROUND

From time to time Collingwood Beach experiences storm surges and consequentially wave run-up that affects the beach. The foreshore dune provides the only protection for waterfront properties against wave run-up impact. Over the years Shoalhaven City Council (SCC) has been managing the planting and maintenance of vegetation on the foreshore dune.

Most recently SCC established a Reference Group consisting of nine community members. The Reference Group is chaired by a SCC Councillor. The stated objective of the group is to develop a set of recommendations to help guide the restoration and future management of the Collingwood Beach dune vegetation system. The Reference Group includes two members from the CBPG and two members from the VRRRA.

SCC called tenders from the consulting industry to develop a Dune Vegetation Management Plan (DVMP) on behalf of SCC. The Consultant's Brief stated the DVMP would aim to deliver the objectives determined by the Reference Group and endorsed by SCC. The successful tenderer was NGH Environmental (NGH).

REFERENCE GROUP

Initially NGH produced several Scenarios for the DVMP referencing (among other things) the principles established by the Reference Group. The Reference Group reviewed and commented on the Options including stated advantages and disadvantages. In light of the comments received from the Reference Group some of the proposed Options such as planting of gum trees along the dunes were deleted and other Options were consolidated. However, only selected aspects of the commentary were addressed. Some eminently sensible recommendations such as removing the statement that Banksias were essential to prevent salt attack on adjacent residences and infrastructure were rejected.

SCC and NGH finalised the Scenarios into three Options without involving the Reference Group. Whilst it is acknowledged that the Reference Group was always told that it would only have an opportunity to provide comments it is the view of the CBPG Executive that such an approach (even to the casual observer) fails to pass the basic requirements for consultation.

The Reference Group should have been afforded an opportunity to be involved in the process of finalising the three Options that were developed for community consultation. Requests for a meeting with NGH to review and discuss the final Options were rejected by SCC. After providing its initial feedback the Reference Group had to enter into a question and answer communication protocol with SCC.

It is the view of the CBPG Executive that by effectively marginalising the Reference Group from ongoing development the SCC in essence precluded the Reference Group from achieving the stated objective of developing recommendations to help guide the restoration and future management of the Collingwood Beach dune vegetation system.

The final Options put to the community stem from collaboration between SCC and NGH. The final Options do not include the Option proposed by the CBPG and VRRRA members of the Reference Group. Accordingly, the Option preferred by the community that these members represent was not put to the wider community for consideration.

COMMUNITY CONSULTATION

The Community Engagement Strategy (Strategy) produced by NGH made reference to best practice community consultation. However out of four possible levels of consultation documented in the referenced IAP2 Public Participation Spectrum the highest level proposed by NGH was 'collaborate' which ranks third on the best practice scale.

It is relevant to note that the NSW Government *A Guide for Engaging Communities in Environmental Planning and Decision Making* (Guideline) which mirrors IAP2 includes the higher consultation levels of 'involve' and 'empower'. The approach taken in the NGH Strategy is not best practice and restricts the level of participation of stakeholders due to the narrowing of consultation categories.

The approach documented in the NGH Strategy is to treat all community members as equal stakeholders to be 'consulted'. Only the Reference Group and other Government Agencies are identified as being afforded a higher level of involvement, namely 'collaboration'. On this point alone it is reasonable to state that community consultation has not met expectations.

Waterfront owners who are perceived to be the ones creating the damage to the dune vegetation have not been considered as primary stakeholders. Whilst the CBPG and VRRRA have two members each on the Reference Group those members have not been afforded an opportunity to discuss the concerns they had with regard to the final Options in an open forum. Further, there are waterfront owners who are not members of the CBPG and as such these individuals have not been consulted at all.

It is relevant to note that waterfront owners received mail advice of the public Kiosk run by SCC and NGH to explain the final Options only one week prior to the Kiosk. It is not known why such short notice was given as the timeline was known for many weeks however it in effect made it very difficult for people who do not reside in the area to attend the Kiosk.

In summary, community consultation has been ineffective. As such the stated outcome of community consultation will be flawed as the appropriate level of consultation has not taken place and buy in from all key community stakeholders has not been sought.

FINAL OPTIONS

The three final Options put to the community by the SCC and NGH are documented on the SCC website and are summarised as follows:

Option 1: Banksias maintained at different densities in different areas with low, medium and tall shrubs in between.

Option 2: Lift the canopy of existing and naturally regenerating Banksias and remove tall shrubs.

Option 3: Restrict the height of naturally occurring Banksia trees and tall shrubs to 1.5m - 2.0m but maintain low shrubs 1.0m to 3.0m.

ADVANTAGES AND DISADVANTAGES

Each of the Option posters produced by SCC and NGH documents advantages and disadvantages associated with the Option. The advantages and disadvantages are incomplete and in some instances are not factual. The Fact Sheets produced by SCC and NGH also have similar flaws.

The stated advantages and disadvantages in the Option posters have been reviewed and the review has been documented in separate spreadsheets for each Option together with additional advantages and disadvantages that have not been listed in the Option posters. The spreadsheets are included at Attachment A Option Review.

In general the Option posters are not true representations of the expected final outcome. The diagrammatic representation shown in the Year 20 Elevation view does not represent the actual vista when the density of trees and shrubs that are shown in the aerial view (bottom of poster) is taken into consideration. Further, the 'caveat' in the posters (bottom left hand corner) states that the documented scenario is an approximation of what can be achieved and that the graphics are indicative. A clear unambiguous representation needed to be produced so that the community would have had a clear understanding of what it was being asked to endorse.

It is clear from the Option 3 poster that SCC and NGH are attempting to discourage people from voting for that Option. Pictures of badly trimmed Banksia hedges have been included in the poster whereas there are many examples of neat hedges along the beach front (see photos below).

Further the Option 3 poster has confusing wording and lacks clarity. The poster states that 'Tall' shrubs are to be limited between 1.5m – 2.0m whereas 'Low' shrubs are to be limited between 1.0m – 3.0m. The situation is further confused in that the plant description in the poster does not point to the location of each type of plant that the description relates to (ground cover, low shrub, tall shrub or Banksia). In addition the poster only refers to naturally occurring Banksia and as such it is not clear whether the proposal extends to planted Banksia. Accordingly, it is impossible to determine the proposed mix of vegetation.



Hedge at 2A Albion Street Vincentia



Hedge from Option 3 Poster

CONSIDERATION OF RELATED MATTERS

Historical Evidence

It is undisputed that Collingwood Beach is an accreting beach. Accretion is a process of sand accumulating on the visible portion of a beach or foreshore. Over the years Collingwood Beach has gone through a cycle of submersion during rough weather then accretion during calmer periods.

From time to time Collingwood Beach experiences storm surges and consequentially wave run-up that affects the beach. Collingwood Beach survived up to the 1970s without human intervention relying purely on nature to replenish depleted sand volumes.

In May and June 1974 strong storms severely eroded Collingwood Beach, damaging foredune vegetation. These storms were followed by a less severe storm in July 1975.

Following the storms sand began to accumulate on Collingwood Beach and commenced to drift inland causing problems for waterfront residents as there was little vegetation left to arrest the landward drift of wind borne sand.

A restoration plan was prepared by the Soil Conservation Service. The plan was adopted by SCC in May 1978 and completed by September of that year. The frontal dune was reshaped and the area planted with marram grass and sand spinifex. The Collingwood Beach Progress Association assumed responsibility for maintenance of the project.

The two photos below have been taken from the article written by P.T. Davies from the Soil Conservation Service of NSW. The article was published in the Journal of the Soil Conservation Service of NSW, 1 January 1982. P.T. Davies was the Nowra District Soil Conservationist at the time the restoration works were undertaken. The photo on the right shows the return of natural dune formation on the northern section of the beach some 14 months after restoration.



Northern Section Collingwood Beach
6 Months After Restoration



Northern Section Collingwood Beach
14 Months After Restoration

The two photos below have also been taken from the same article. The photo on the right shows considerable sand accretion on the southern section of the beach some 14 months after restoration as evidenced by buried fence posts.



Southern Section Collingwood Beach
6 Months After Restoration



Southern Section Collingwood Beach
14 Months After Restoration

The CBPG has continued to monitor the changes to Collingwood Beach. The edge of the dune vegetation is now 8m further seaward of what was the Mean High Water Mark on the original sub division papers in 1952. The dunes have withstood the May 2015 and August 2015 (1 in 20 year event) storms with little damage. Due to the effectiveness of the foredunes and the continuous rebuilding of the foredunes by wind borne sand the areas in which the Banksias have been planted were not even affected.

Previous Commitments

Even though the sand dunes reformed successfully after initial intervention in 1978 1,500 tree seedlings were planted some twelve months after the initial sowing followed by another 1,000 tree seedlings a further twelve months later.

The seedlings that matured into trees were vandalised at some locations. Around 1993 Collingwood Beach Dunecare Group, Vincentia Residents and Ratepayers Association Inc. and the Department of Conservation and Land Management Nowra (now part of the NSW Office of Environment and Heritage) undertook another round of planting.

An information bulletin titled 'Are You Aware of the Importance of Sand Dunes?' was prepared and circulated to residents. The bulletin was issued to gain public support for the dune restoration programme. The bulletin expressly stated in part:

'The shrubs now being planted on the dunes and adjoining areas are low growing varieties which will not obstruct people's views.'

It is not known who directed that this commitment to the community of low growth shrubs be abandoned. The trees planted along the coastal walkway were high growth Banksias that over the years have grown to block residents' views diminishing the value of their properties.

Further, the Collingwood Beach Bushcare Plan sent to ratepayers in 2007 states that replanting will be undertaken with the consent of the adjacent land owners however land owners have never been consulted.

At the request of the CBPG Integrity Real Estate at Huskisson undertook a reconciliation of property sales between January 2013 to November 2015 for waterfront properties (45 to 354 Elizabeth Drive Vincentia) and properties that do not have views due to substantial vegetation between the properties and the beach (420 to 468 Elizabeth Drive Vincentia). The reconciliation showed that there was a 45% reduction in the median sale price for the properties that had vegetation blocking views.

The Banksias have been vandalised at some locations to regain views and despite its best efforts SCC has not been able to stop the vandalism. SCC vandalism signs along the coastal walkway stand as monuments to the failure of the SCC tree planting dune management policy. The dune vegetation in some areas looks like a wasteland.

Lessons Learnt

SCC has not learnt any lessons from past failures. All three Options proposed for the DVMP obstruct views and two of the Options include planting trees at selected locations. In light of past history it is not known why planting trees has even been considered.

Benchmarking

Redland City Council in Queensland cut down four eucalyptus trees on the Orchard Beach foreshore at Redland Bay because they were blocking the water views of residents in nearby streets. The council reviewed its vegetation management policy after complaints from Orchard Beach residents.

Council's Chief Executive said the trees were removed after being *'found to be unsuitable for the area, as they would have grown to permanently and unnecessarily impact nearby resident views'*. The Chief Executive further stated that *'The revised policy aims to strike a balance between protecting the environment and allowing the public to access and enjoy it'* and *'Council's approach is to work with affected residents and the community to provide a balanced response to vegetation, views, access to foreshore and amenity that does not unnecessarily inhibit or remove residents' views or amenity'*.

Wollongong City Council (WCC) has adopted the Dune Management Strategy developed for it by consultant GHD. It has been recommended that in a number of areas dune restoration works carried out 30 years ago be reversed where dune profiles were found to be creating management issues. At Woonona Beach the frontal dune vegetation was completely removed.

If SCC intends to stop vandalism of dune vegetation it is going to have to work with the community and be flexible in how it approaches dune vegetation management. Previous policies stretching back to the first planting of trees in 1978 have been abject failures.

Draft Coastal Zone Management Plan

Consultant Royal Haskoning DHV (Haskoning) was engaged by SCC to produce the Shoalhaven 'Authorised Locations' Coastal Erosion Remediation Options Report for Collingwood Beach. The Haskoning Report endorses the Action Plan included in the Draft Coastal Zone Management Plan for Collingwood Beach produced by Umwelt (Australia) Pty Ltd (Umwelt), another consultant engaged by SCC.

The Action Plan states in part:

'Select and maintain coastal vegetation to protect coastal views, stabilise the dune surface, provide habitat for small birds and other species and provide shade at key locations for coastal pathway users'.

'Dune heights can be enhanced by beach scraping and dune management measures'.

'After major storms scrape sand from the lower beach face of Collingwood Beach to reinforce the toe of the eroded dune scarp'.

The proposal is limited to maintaining coastal views and stabilisation of the **dune surface**. If it was deemed necessary to plant a row of trees along the coastal walkway to stabilise the dunes then this would have been included in the Action Plan. The Action Plan has no such requirement.

It is relevant to note that the Action Plan also states:

'Collingwood Beach is an example of a foreshore reserve where dune surface stability/erosion buffer and recreational/visual amenity are key functions in the coastal landscape, with biodiversity a less important value'.

SCC and NGH have ignored the assessment by the technical experts documented in the Action Plan and included in two Options personal preferences for planting trees. It is understood that SCC and NGH personnel producing the Option posters do not have technical qualifications related to coastal engineering.

A member of the CBPG Executive engaged in an exchange of correspondence with an Associate from the consultant Umwelt in 2007 after the initial community consultation was held on 14 November 2007. The Associate advised that:

*'A diverse array of groundcover and shrub species is critical – to maintain ground cover, to trap sand and to provide a visual buffer. Tree species are not essential for these functions, but could add diversity. I would not want to see all the vegetation a uniform height, but neither do I think that dense stands of tall shrubs or small trees extending along the dune crest (such as *Banksia integrifolia*) are the best species for a narrow dune crest in an urban area'.*

The Umwelt proposal is eminently sensible so it is not known why SCC is reinventing the whole process and putting forward ideas that only appeal to SCC and NGH personnel.

Legislative Decisions

It is of significance to note that the Land and Environment Court recognises residents' rights to views. There is ample case law in this matter under the *Trees (Disputes Between Neighbours) Act 2006* to sustain a principle that SCC trim or remove rows of trees that obstruct views. For example, in *Johns v Breur* [2012] NSWLEC it was found that a hedge of cypress trees ranging in height from 6 metres to 11 metres blocking a view at Bellevue Hill in Sydney had to be removed as the trees could not be pruned. The decision was based on the principle that water views are critical to a property's amenity and value.

Councils are however not bound by the *Trees (Disputes Between Neighbours) Act 2006* and therefore continue to exercise personal preference rather than relying on the principles set out by the Land and Environment Court.

Another relevant Land and Environment Court decision that establishes the principle for maintaining views is *Tenacity Consulting v Warringah* [2004] NSWLEC. Although related to building developments the underlying principle is that where there is an alternative that affords views then that alternative needs to be given preference.

SCC needs to follow the principles of law set out by the court rather than follow the preference of SCC senior environmental managers.

Role of Banksia Trees

The Option posters make a number of statements in relation to the function and importance of Banksia trees.

Reduction of salt load

It is alleged that Banksias will reduce the likelihood of degradation to residences and infrastructure by decreasing the amount of wind borne salt. This statement shows a lack of understanding of wind behaviour and a lack of knowledge of building codes.

For example, the Australian Standard for Concrete Structures nominates specific design requirements for structures within 1km of the coast. It follows that the technical experts have determined that salt attack is possible beyond the immediate vicinity of the ocean irrespective of what barriers are put in place. It is also relevant to note that the SCC Development Control Plan requires materials for residences in coastal areas to be selected on the basis of ability to resist salt attack.

In any event where properties have been designed against salt attack to meet building codes there is no need for Banksias even if it could be demonstrated that they were effective in reducing salt load. A member of the CBPG Executive built a compliant house on the waterfront 27 years ago and to this day has not had to replace any building materials.

Capture of wind borne sand

It is alleged that Banksias will capture wind borne sand and build up the dunes. This statement demonstrates a lack of understanding as to how wind borne sand is transported. The Tasmanian Department of Primary Industries, Parks, Water and Environment Coastal Works Manual states that low-growing plants, such as grasses, are more effective at stabilising sand than trees or shrubs as 90% of wind-borne sand is transported in the 0.5m closest to the ground.

At Collingwood Beach there is no discernible difference between areas where Banksias have flourished and areas where Banksias have failed to grow or have been removed. This provides objective evidence that the Banksias have not acted as a mechanism to capture wind borne sand and build up the dunes. Further, in areas where there are no Banksias there is no evidence of wind borne sand on the coastal walkway.

P.T. Davies and N.A. Kesby in a follow up article to their paper in the Journal of the Soil Conservation Service stated in relation to the 1986 storm that:

*In August 1986 the beach experienced further storm action. Wind gusts up to 63 knots were recorded and a constant wind of 40 knots prevailed over a three day period. These winds produced considerable sand drift from the beach berm prior to any wave erosion. By 1986 the vegetation along the dune crest was well established and this resulted in a lowering of the wind velocity and **most of the drift sand was dropped in front of the dune paddocks.** During the latter period of the storm, the seas, whipped up by strong winds began to attack the beach. Because of the massive build up of sand along the beach since 1978 only a part of the incipient dune was affected by the wave action.*

This finding by two highly experienced and qualified technical experts confirms through scientific investigation what is evident through simple observation today.

Tree roots

It is alleged that Banksia tree roots will bind sand more effectively than shrubs. The key factor to consider however is the impact of wave action. The Queensland Environmental Protection Authority and the Beach Protection Authority state in their Coastal Technical Series 2 that the roots of plants and trees have virtually no capacity to reduce the loss of sand from the beach caused by wave attack.

It is further stated that the role of dune vegetation is restricted to building the frontal dunes and preventing sand loss from the beach system by wind erosion. As noted previously Banksias are ineffective at preventing erosion.

The adjacent photos taken at Collingwood Beach near Moona Moona Creek in November 2015 clearly demonstrate that tree roots do not provide any additional protection to dunes from erosion. It is also relevant to note that the root formation is not extensive.



Collingwood Beach
Near Moona Moona Creek

Pruning

It is alleged that pruning Banksias will expose them to disease. This statement demonstrates a lack of understanding of flora propagation and an apparent failure to undertake a due diligence site inspection.

At an on-site meeting held 22 July 2009 between a member of the CBPG Executive and SCC representatives to discuss the management of Banksias the SCC Bushcare Co-ordinator Alasdair Stratton confirmed that Banksias were suitable for pruning.

SCC has planted a number of tree varieties in public areas which have been maintained as hedges. The following photos of hedges at Vincentia and Culburra are typical of the hedges that can be found in the Shoalhaven area.



Vincentia



Culburra

The hedge at Vincentia was planted by SCC 14 years ago and has been trimmed annually. There is clear evidence that the trunks of Banksias included in the hedge have continued to thicken and the Banksias grow profusely in the spring and summer months. There is also anecdotal evidence that the roots have continued to grow even though the Banksias have been continually trimmed.

Height

The Banksias are shown in the Option posters as achieving a 10m to 15m height. Reference to publications such as the Australian National Herbarium show that Banksias can reach 25m in height. An additional 10m of height will exacerbate identified problems, for example hazards posed by falling branches.

Coastal Walkway

In 2000 SCC installed a coastal walkway along Collingwood Beach. A Statement of Environmental Effects (SEE) was prepared for SCC by Maunsell McIntyre Pty Ltd. The SEE states that the location of the walkway targets tourists, the disabled and wheelchair users (among others). The SEE also states that the walkway is expected to develop into a scenic path where people can view Jervis Bay to its greatest advantage.

The SEE further states that it is not expected that the walkway will be threatened by coastal hazards. Accordingly, even if it could be demonstrated that Banksias provide increased stability to the dunes they are not required. It is noted in the SEE that up to 20 trees will need to be removed. As such the construction of the walkway sets a precedent for the removal of vegetation including Banksias.

REFERENCED SCIENTIFIC RESEARCH

At the public Kiosk run by SCC and NGH on 6 and 7 November 2015 members of the CBPG Executive were advised that reliance has been placed on the paper *Coastal Sand Dunes and Dune Vegetation: Restoration, Erosion, and Storm Protection* by Jacob M. Sigren, Jen Figlus and Anna R. Armitage December 2014 to support the contention that tree roots are essential to maintain the stability of the dunes against wave action.

However, a review of the paper shows that no such conclusion has been reached. The paper states that substantial knowledge gaps exist with regards to efficient vegetation restoration techniques and vegetation's role in dune resilience. It also states that there is virtually no scientific knowledge on the impact of plants on a dune's protective capabilities.

Further, there is no specific mention of any additional benefit to be gained from planting trees so that their roots can provide more substantive binding of dune sand. The additional benefit of deep tree roots against wave action has not been established. Even if a benefit could be established the extent of the benefit would need to be viewed in the context of whether it would actually make any difference in a severe storm event.

Advice from the Queensland Environmental Protection Authority and the Beach Protection Authority in their Coastal Technical Series 2 is that the roots of plants and trees have virtually no capacity to reduce the loss of sand from the beach caused by wave attack.

Since the 1974 and 1975 storm events the foredunes have managed to effectively protect residences and infrastructure from wave action. The natural accretion of Collingwood Beach has progressively replenished the sand between storm events.

When there is another 100 year event the same remediation measures implemented in 1978 will need to be implemented again, namely beach scraping and beach nourishment. There is no reason why trees need to be planted along the coastal walkway in the off chance that they may provide some additional protection once in 100 years. This supposed benefit needs to be weighed against the loss of views for residents and tourists.

NATIVE VEGETATION ACT 2003

SCC has received draft advice from the South East Local Land Services (SE LLE) dated 30 June 2014 in relation to its rights to remove or prune vegetation. The SE LLE is the consent authority under the *Native Vegetation Act 2003* (Act) as it applies to the Collingwood Beach dunes.

The SE LLE advice confirmed that in certain circumstances clearing does not require permission under the Act. The SE LLE advice stated that permitted clearing includes clearing of non-protected regrowth. SE LLE advice also reiterated the provisions of the Act that states regrowth is any vegetation that has grown since 1 January 1990. Separately SE LLE advice also reiterated another provision of the Act namely that **clearing does not include pruning or lopping**.

Banksias are a native vegetation. There is no evidence that Banksias were common at Collingwood Beach when subdivision for waterfront properties occurred in the early 1950s (see photo). It appears that Banksias were initially extensively planted in conjunction with the 1978 beach restoration. As such there has been no 'clearing' (as defined under the Act) of Banksias from the dunes.



Collingwood Beach circa 1950

The Banksias that may have generated from planted Banksias cannot be considered as regrowth from remnant native vegetation as there has been no clearing undertaken in the first place.

In that regard it is relevant to note that the definition of 'remnant' is 'a part or quantity that is left after the greater part has been used, removed or destroyed'. It follows that the Banksias are not covered by the Act. Further, Banksias cannot be considered as regrowth since nearly all were planted after 1 January 1990 which is stated as the cut-off date in the Act.

The Act draws a distinction between 'regrowth' and 'protected regrowth'. Protected regrowth must be identified as such in a property vegetation plan or through other means stated in the Act such as an environmental planning instrument.

The Collingwood Beach Bushcare Action Plan (BAP) was adopted by SCC in 2007 but is currently on hold pending the finalisation of the DVMP. The BAP is not a property vegetation plan within the meaning of the Act as it does not list the vegetation planted on the dunes and certainly does not make reference to Banksia being a protected regrowth.

Further, the Act states that before native vegetation is identified as protected regrowth in a property vegetation plan, the Minister is to have regard to the social and economic implications of the preservation of the vegetation. There has been no approach to the Minister in relation to Banksias planted on the dunes.

Discussion of the various provisions of the Act is in any event irrelevant as the area under consideration falls within the definition of land excluded from the operation of the Act. This was confirmed in the SEE undertaken for the coastal walkway by Maunsell McIntyre Pty Ltd. Whilst the SEE was conducted with respect to the exclusion provisions of the *Native Vegetation Act 1997* those exclusion provisions have not been changed in the *Native Vegetation Act 2003*.

The SEE concluded that the area was excluded from the Act because it was classified as a 'village'. Schedule 1 Part 3 Urban Areas of the 2003 Act (14) includes the same provision and makes reference to land within a zone designated as 'village' being excluded from the Act. It follows that there is no legal obstacle under the Act to remove the Banksias.

It follows that the claim made by SCC and NGH to members of the CBPG Executive at the Kiosk that Banksias are a protected regrowth which cannot be removed for legal reasons has no substance. Further, the SCC and NGH advice is in contradiction with what SCC and NGH have proposed for Option 2 which is the removal of tall shrubs, which are defined in Option 1 as being 6m to 8m in height.

The photos below show the vista enjoyed by residents and tourists prior to the planting of Banksias. Although it is a moot point it is relevant to note that the photos were taken after 1 January 1990 confirming that Banksias were planted after the cut-off date in the Act.



68 Elizabeth Drive
Vincentia 1992



1A Susan Street
Vincentia 2001

The adjacent photo from outside 1A Susan Street Vincentia taken in April 2015 provides a clear demonstration as to how Banksias grow into thickets that block views.

Based on the SEE for the coastal walkway SCC could extend the pruning proposal in Option 3 to include the removal and replacement of Banksias with low growth shrubs.

It is also relevant to note that the SCC Foreshore Reserves Policy stated at the time and still states:

'Where Council is required to revegetate foreshore lands in response to erosion or other identified environmental threat, it shall revegetate with a mix of tall and low growing plants with a view to preservation of amenity for residents'.

SCC failed to comply with its own policy allowing the planting of a row Banksias along the coastal walkway that it knew or ought to have known would grow into thickets blocking views. When deciding on a suitable DVMP SCC needs to be conscious of the stated policy.



1A Susan Street
Vincentia April 2015

All the Options include a dense planting of at least 3m shrubs that will eventually grow into a continuous thicket blocking views of residents and tourists. An Option needs to be selected where the height of all vegetation is limited to 1.3m so that the iconic views of Jervis Bay can be enjoyed.

COMMUNITY EXPECTATIONS

At the time of preparing the Option Study report the outcome of the Option survey being conducted by SCC was not known. However, two other surveys have been undertaken in the past that provide a good indication of community expectations.

In April 2015 Macquarie University undertook a Social Analysis survey. In response to a question maintaining resident's views 68% of respondents agreed that residents of waterfront properties were entitled to the views that were present when they bought their property. In addition, 76% of respondents agreed that residents have not had an input into the planning process.

In an online poll conducted by the South Coast Register newspaper in October 2015 63% of respondents voted for the dunes to be cleared and planted with grasses and low growing shrubs to preserve the views of Jervis Bay.

In summary, there is overwhelming support in the community for residents to maintain views from their properties and for views of Jervis Bay to be preserved for the community.

RECOMMENDED OPTION

Consideration for a recommended Option has been undertaken by the CBPG Executive together with the CBPG and VRRR Reference Group members. None of the Options as presented to the community for review are acceptable.

Option 1 and Option 2 are merely an extension of a failed policy of planting trees that in reality serve no purpose in relation to dune stability. Option 3 whilst having some merit with regard to balancing views and dune stability will require extensive and expensive maintenance stemming from periodic pruning.

The most cost effective option is one which maximizes views with limited ongoing maintenance costs. It is therefore recommended that Banksias and tall shrubs be progressively removed and replaced with low growth shrubs.

This alternative will provide the perfect balance between maintaining views and dune stability as well as catering for the needs of children and wheelchair users whilst at the same time honouring the commitment made to residents that views will not be blocked.

In addition, it will support the SCC promotion of the iconic views of Jervis Bay as this photo from the Delivery Program & Operational Plan demonstrates.



Option 3 is endorsed subject to:

- the height reduction of all current trees and shrubs to 1.3 metres as soon as possible;
- the removal of dead trees together with associated vandalism signs as soon as possible;
- the progressive removal of trees and shrubs over time that require pruning to maintain the 1.3 metre height limit and replacement with a mixture of shrubs that have varying mature heights between 1.0 metre and 1.3 metres so as to ensure future maintenance is minimised and views are maximised;
- the ongoing culling of seedlings from trees and shrubs that will exceed the 1.3m height limit;
- consultation with waterfront owners on new shrubs to be planted in front of their properties with a primary focus on maximising views; and

- due consideration being given to the allocation of areas where vegetation is limited to a maximum height of 1 metre to enable children and wheelchair pathway users the opportunity to enjoy the vistas of the bay.



John Stuchbery
Chair Collingwood Beach Preservation Group
23 November 2015

ATTACHMENT A - OPTION REVIEW

Option 1: Banksias maintained at different densities (0%, 30%, 70% and 100%) in different areas with low, medium and tall shrubs in between

Item No.	Stated Disadvantages	Fact Check	Reference	Conclusion
1	Higher likelihood of erosion and damage from storm surge in areas with 0% trees.	Trees do not provide additional resistance against erosion. The adjacent photo from Moona Moona Creek Vincentia demonstrates this fact emphatically.	Queensland Environmental Protection Authority and the Beach Protection Authority Coastal Technical Series 2 	Incorrect statement
2	Higher likelihood of degradation to residences and infrastructure from higher salt load, erosion or sand ingress in areas with 0% trees.	Building codes require use of materials that can resist salt attack and specific design against salt attack within 1km of a coast. There is no need for Banksias even if it could be demonstrated that they were effective in reducing salt load. There is no evidence of additional erosion or sand ingress in areas where Banksias are not planted. Low-growing plants, such as grasses, are more effective at stabilising sand than trees or shrubs as 90% of wind-borne sand is transported in the 0.5m closest to the ground.	Building Code of Australia AS 3600 Concrete Structures Code SCC Development Control Plan Chapter G6 Tasmanian Department of Primary Industries, Parks, Water and Environment Coastal Works Manual	Incorrect statement
3	Labour intensive to maintain areas with specific density parameters.	Intensive maintenance will be required to ensure that the 1m – 3m mix of low shrubs and 6m - 8m mix of tall shrubs is fair and equitable along the walkway.	N/A	Correct statement
4	Potential impacts to vegetation from disturbance as a result of ongoing seeding removal.	The Banksia trees release seeds on maturity late in summer. There is no need for a bushfire event. Accordingly ongoing maintenance will be required to remove new seedlings.	N/A	Correct statement

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Item No.	Omitted Disadvantages	Fact Check	Reference	Conclusion
5	Vandalism to areas of vegetation that have greater than 0% trees and tall shrubs.	Residents who have high density tree and / or tall shrub planting in front of their properties will feel victimised and may resort to vandalism based on historical evidence.	Poisoned dune vegetation along coastal walkway.	
6	Views minimised in most areas.	<p>The diagrammatic representation in the poster does not represent the actual vista. Banksias will blanket out the view down to ground level as no crown lifting or tree thinning is proposed. This is demonstrated in the adjacent photo opposite 90 and 92 Elizabeth Drive Vincentia.</p> <p>Also, the diagrammatic elevation representation in the poster does not represent the actual vista when viewed from an aerial perspective. Tall and low shrubs provide a continuous obstruction to views from the coastal walkway.</p>		
7	Loss of property values and financial income on a selective basis.	Residents who lose views will have the value of their property decreased by around 45% and will have reduced rental income during holiday periods. It is most likely that the number of residents losing their views will increase as single storey dwellings will have views obstructed by low shrub heights of 3m. Residents who have a drop in property values will feel victimised and may resort to vandalism based on historical evidence.	<p>Property value assessment from Integrity Real Estate Huskisson.</p> <p>Poisoned dune vegetation along coastal walkway.</p>	
8	Potential increased risk to public safety from trees / branches falling in high wind events.	<p>There will be a definite hazard of falling trees and branches that will pose risk of injury or death to the public using the coastal walkway. This photo shows a large fallen branch outside 108 Elizabeth Drive that fell abruptly narrowly missing a member of the CBPG Executive on 22 November 2013.</p> <p>The diagrammatic representation on the Option information sheet shows Banksia trees at height of 10m to 15m. Banksias can grow in excess of 25m. There would be an increased risk to public safety from trees this size.</p>	 <p>Australian National Herbarium</p>	
9	Damage to services and infrastructure from intrusive tree roots.	Tree roots will grow towards any water source and damage infrastructure such as sewer pipes. This photo shows the tree root retrieved from a 2m deep sewer at 1A Susan Street Vincentia.		

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Item No.	Stated Advantages	Fact Check	Reference	Conclusion
10	Very good dune protection for areas with 70-100% Banksia tree density.	Trees do not provide additional resistance against erosion. The adjacent photo from Moona Moona Creek Vincentia demonstrates this fact emphatically.	Queensland Environmental Protection Authority and the Beach Protection Authority Coastal Technical Series 2 	Incorrect statement
11	Views maximised in some areas.	Residents who have high density tree planting in front of their properties will feel victimised and may resort to vandalism based on historical evidence.	Poisoned dune vegetation along coastal walkway.	Advantage overstated
12	Good fauna habitat values are retained in many areas (30-10% Banksia tree density).	Tree fauna habitat is not an essential requirement for an urban dune. There are ample habitats close by to the beach and in coastal areas that are not populated.	Haskoning Report Umwelt Action Plan	Advantage overstated
	Omitted Advantages	Fact Check	Reference	Conclusion
13	None identified.	N/A	N/A	

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Option 2: Lift the canopy of existing and naturally regenerating Banksias and remove tall shrubs

Item No.	Stated Disadvantages	Fact Check	Reference	Conclusion
1	Time: the Banksias need to obtain a certain height before pruning can commence. Views may be obstructed during this time.	The delay in achieving this outcome will be seen as a do nothing Option as it will take years for the Banksias to grow sufficiently. In the interim it is likely that vandalism will continue as residents distrust SCC based on past performance.	N/A	Disadvantage understated
2	Labour intensive management, requires ongoing pruning and removal of tall shrubs.	There will be a substantial investment required in maintenance activities.	N/A	Correct statement
3	Risks to long term survival of Banksias (e.g. risk of disease from pruning, instability due to modified, top heavy tree structure).	Although it is envisaged that pruning will not affect the Banksias instability may arise due to a top heavy tree structure.	N/A	Disadvantage overstated
4	Potential increased risk to public safety from trees / branches falling in high wind events.	There will be a definite hazard of falling trees and branches that will pose risk of injury or death to the public using the coastal walkway. This photo shows a large fallen branch outside 108 Elizabeth Drive that fell abruptly narrowly missing a member of the CBPG Executive on 22 November 2013. The diagrammatic representation on the Option information sheet shows Banksia trees at height of 10m to 15m. Banksias can grow in excess of 25m. There would be an increased risk to public safety from trees this size.	 Australian National Herbarium	Correct statement
	Omitted Disadvantages	Fact Check	Reference	Conclusion
5	Regenerating Banksias will continually be blocking views over extensive areas for a number of years as they mature.	The Banksia trees release seeds on maturity late in summer. There is no need for a bushfire event. There will be significant propagation of Banksias.	N/A	
6	Vandalism to areas of vegetation that have 3m high shrubs.	Single storey residences will have views obstructed by low shrub heights of 3m. Affected residents may resort to vandalism based on historical evidence.	Poisoned dune vegetation along coastal walkway.	

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Item No.	Omitted Disadvantages	Fact Check	Reference	Conclusion
7	Views minimised in most areas.	The diagrammatic elevation representation in the poster does not represent the actual vista when viewed from an aerial perspective. Low shrubs provide a continuous obstruction to views from the coastal walkway.	N/A	
8	Loss of property values and rental income on a selective basis.	Residents who lose views will have the value of their property decreased by around 45% and will have reduced rental income during holiday periods. It is most likely that the number of residents losing their views will increase as single storey dwellings will have views obstructed by low shrub heights of 3m. Residents who have a drop in property values will feel victimised and may resort to vandalism based on historical evidence.	Property value assessment from Integrity Real Estate Huskisson. Poisoned dune vegetation along coastal walkway.	
9	Damage to services and infrastructure from intrusive tree roots.	Tree roots will grow towards any water source and damage infrastructure such as sewer pipes. This photo shows the tree root retrieved from a 2m deep sewer at 1A Susan Street Vincentia.		
10	Labour intensive to maintain areas with specific density parameters.	The Banksia trees release seeds on maturity late in summer. There is no need for a bushfire event. Accordingly ongoing maintenance will be required to remove new seedlings. Further, maintenance will be required to ensure that the 1m – 3m mix of shrubs is fair and equitable along the walkway.	N/A	
	Stated Advantages	Fact Check	Reference	Conclusion
11	Very good dune protection at moderate to high Banksia tree density.	Trees do not provide additional resistance against erosion. The adjacent photo from Moona Moona Creek Vincentia demonstrates this fact emphatically.	Queensland Environmental Protection Authority and the Beach Protection Authority Coastal Technical Series 2 	Incorrect statement

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Item No.	Stated Advantages	Fact Check	Reference	Conclusion
12	Low level views maximised in most areas.	Single storey residences will have views obstructed by low shrub heights of 3m. Affected residents may resort to vandalism based on historical evidence.	Poisoned dune vegetation along coastal walkway.	Advantage overstated
13	Good fauna habitat values where canopy connectivity is retained.	There is no evidence that fauna requiring canopy connectivity to exist has a habitat at Collingwood Beach. In any event fauna prefer a bushland setting and would not be attracted to a single row of trees in the middle of an urban setting.	N/A	Advantage overstated
	Omitted Advantages	Fact Check	Reference	Conclusion
14	None identified.	N/A	N/A	

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Option 3: Restrict the height of naturally occurring Banksia trees and tall shrubs to 1.5m - 2.0m but maintain low shrubs 1.0m to 3.0m.

Item No.	Stated Disadvantage	Fact Check	Reference	Conclusion
1	Labour intensive management, requires ongoing pruning of dense thickets.	The maintenance effort could be reduced if SCC trained and empowered residents to maintain thickets in front of their properties.	N/A	Disadvantage overstated
2	Risk to long term survival of the Banksias (e.g. risk of disease from pruning).	Banksias are a suitable plant for hedges as confirmed by the SCC Bushcare Co-ordinator.		Incorrect statement
3	Potential increased risk to public safety from sharp branches.	Properly maintained hedges do not have sharp edges. The adjacent photo is from a hedge on the public footpath adjacent to 2A Albion Street Vincentia.		Incorrect statement
4	Possibility of degradation to residences and infrastructure from higher salt load.	Building codes require use of materials that can resist salt attack and specific design against salt attack within 1km of a coast. There is no need for tall Banksias even if it could be demonstrated that they were effective in reducing salt load.	Building Code of Australia AS 3600 Concrete Structures Code SCC Development Control Plan Chapter G6	Incorrect statement
5	Loss of amenity: 'unnatural' appearance of vegetation.	Properly maintained hedges have a natural appearance. The adjacent photo is from a hedge on the public footpath adjacent to 2A Albion Street Vincentia.		Incorrect statement
6	Low vegetation less able to keep sand volumes seaward.	There is no evidence of additional erosion or sand ingress in areas where Banksias are not planted. Low-growing plants, such as grasses, are more effective at stabilising sand than trees or shrubs as 90% of wind-borne sand is transported in the 0.5m closest to the ground.	Tasmanian Department of Primary Industries, Parks, Water and Environment Coastal Works Manual	Incorrect statement

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Item No.	Omitted Disadvantage	Fact Check	Reference	Conclusion
7	Vandalism to areas of vegetation that have 3m high shrubs.	Single storey residences will have views obstructed by low shrub heights of 3m. Affected residents may resort to vandalism based on historical evidence.	Poisoned dune vegetation along coastal walkway.	Correct statement
	Omitted Disadvantage	Fact Check	Reference	Conclusion
8	Views minimised in most areas.	The diagrammatic elevation representation in the poster does not represent the actual vista when viewed from an aerial perspective. Low shrubs provide a continuous obstruction to views from the coastal walkway.	N/A	
9	Loss of property values and rental income on a selective basis.	Residents who lose views will have the value of their property decreased by around 45% and will have reduced rental income during holiday periods. It is most likely that the number of residents losing their views will increase as single storey dwellings will have views obstructed by low shrub heights of 3m. Residents who have a drop in property values will feel victimised and may resort to vandalism based on historical evidence.	Property value assessment from Integrity Real Estate Huskisson. Poisoned dune vegetation along coastal walkway.	
	Stated Advantage	Fact Check	Reference	Conclusion
10	Reasonable dune stability although roots would not be as deep as for higher growing trees.	Trees do not provide additional resistance against erosion. The adjacent photo from Moona Moona Creek Vincentia demonstrates this fact emphatically.	Queensland Environmental Protection Authority and the Beach Protection Authority Coastal Technical Series 2 	Advantage understated
11	Provides high level views.	A person seated on the verandah of a two storey house might be able to see over a 3m shrub but most likely will only have views of the distant horizon.	N/A	Advantage overstated

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Item No.	Stated Advantage	Fact Check	Reference	Conclusion
12	Provides dense connecting habitat for small birds.	A connecting habitat for small birds is not an essential requirement for an urban dune. There are ample habitats close by to the beach and in coastal areas that are not populated.	Haskoning Report Umwelt Action Plan	Advantage overstated
	Omitted Advantage	Fact Check	Reference	Conclusion
13	Eliminate hazard of falling branches and trees.	There is a definite hazard of falling trees and branches that will be eliminated by the removal of trees. This photo shows a large fallen branch outside 108 Elizabeth Drive that fell abruptly narrowly missing a member of the CBPG Executive on 22 November 2013.		